Where the twain meet again New results of the Dutch-Russian project on regional development 1780 – 1917

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Pim Kooij and Richard Paping (eds.)

Nederlands Agronomisch Historisch Instituut Groningen/Wageningen 2004

Historia Agriculturae 34

Published by / uitgegeven door

Nederlands Agronomisch Historisch Instituut

Oude Kijk in 't Jatstraat 26, 9712 EK Groningen Hollandseweg 1, 6706 KN Wageningen

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Research for this publication has been made possible by a grant from the Netherlands Organization for Scientific Research NWO

ISBN 90-367-2016-8

Omslagontwerp en vormgevingsadviezen: Edward Houting BNO Productie: Aicha el Makoui / NAHI Wageningen Druk: Grafisch Centrum RUG

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Prologue

Pim Kooij and Richard Paping

In 1998, the volume Where the twain meet. Dutch and Russian regional demographic development in a comparative perspective was published.¹ It contained the first results of the joint Dutch-Russian project 'Integral History at the regional level', which was financially supported by The Netherlands Organisation for Scientific Research NWO. In the epilogue to this volume, Vitaly Afiani told something about how the project started. The aim of the project was to investigate regional development based on methodology and computer models developed by research groups at the universities of Groningen and Utrecht.² Cohort analysis – tracking cohorts of people born in the same year - is an important aspect of this research. By constructing cohorts with intervals of 20 years - 1810, 1830, 1850, 1870 - the demographic behaviour of successive generations can be measured. A second research method was the structure analysis - the construction of complete surveys of the population - of individual towns and villages for the same benchmark years as the cohort analysis. For the Netherlands they are based on the Population Registers, for Russia mainly on the Revisor's books and some censuses.

Where did east and west meet? Of course, this happened at the annual conferences which were organised alternately in the Netherlands and Russia.³ But there are also clear similarities when we take a look at the initial results. Cohort analysis indicated that there was clear convergence. In some Russian regions the age at first marriage, which was initially very low, started to rise. In Dutch regions the opposite happened. In two selected villages in the Yaroslavl area, the women in the 1810 cohort married at the age of 20.6. In the 1870 cohort the age at marriage had risen to 22.9. The rise for the men was even higher, from 21.0 to 25.6.⁴ In seven selected villages in the Groningen clay area, the age of first marriage for women in the 1810 cohort was 26.9, and in the 1870 cohort 25.3, while the age for men fell from 28.9

¹ P. Kooij (ed.), Where the twain meet. Dutch and Russian regional demographic development in a comparative perspective 1800-1917 (Groningen/Wageningen 1998).

² P. Kooij, 'Introduction. The Integral History project', in Kooij (ed.), Where the twain meet, 1-7.

³ These took place in Moscow 12-20 September 1997, Groningen 20-27 June 1998, St Petersburg 3-10 May 1999, Wageningen and Groningen 21-27 November 2000, and St Petersburg 23-28 October 2001.

⁴ Calculated from tables 2 and 3 in S. Golubeva, 'Age and patterns of marriage of Russian farmers in the Upper-Volga region', in Kooij (ed.), *Where the twain meet*, 169-174.

to 26.4.⁵ There was also convergence in the composition of the families and households in both countries. In 1850, 59% of the families in the Groningen village of Hoogkerk were already nuclear. A much smaller percentage was expected in Russia, but in the Yaroslavl villages, however, nuclear families were also in the majority (53%).⁶

The results mentioned above were preliminary, based on only a few cohort analyses. Moreover, some Russian sources proved to be very unreliable. In the nineteenth century, unlike in the Netherlands, Russia had no civil population registration. Registration was done by the church, but unfortunately not every birth (or baptism), marriage, or burial was written down.⁷ In the second stage of our joint research, which started in 1997, we therefore tried to strengthen our conclusions by additional research. Moreover, new sources and methods were used to answer the same questions. New regions were studied to check whether the same patterns could be discovered there. And, very importantly, efforts were made to extend the scope of our joint research from just demography to other societal domains. This new book contains examples of all these aspects.

Chapter 1, by Irina Shustrova and Elena Sinitsyna, contains cohort analyses for two parishes in the Yaroslavl region, paying special attention to the causes of death and the age at which people died. Some cohorts could be followed nearly completely, others contain many people whose destinies are unknown. The previous conclusions concerning the rise in the age at first marriage in the second half of the nineteenth century in the Yaroslavl region were confirmed by these two new cohort analyses.

Chapter 2 contains an analysis of the database which was created for one of the two Dutch regions involved: the North Brabant sand area. Gerard Trienekens of the University of Utrecht, who was the project leader for that area, analyses the results of structure analysis and cohort analysis for ten villages and for the city of Den Bosch. He investigates the information on the sizes and kinds of households related to the social and occupational structure and the family life cycle, also at the level of individual municipalities. It was again confirmed that the nuclear family was already dominant in the first half of the nineteenth century; extended families lost even more ground in the second half of the nineteenth century.

⁵ P. Kooij, 'Dutch and Russian regions compared. Some results of cohort analysis', in Kooij (ed.), *Where the twain meet*, 223-228, Table 2.

⁶ Kooij, 'Dutch and Russian regions compared', Table 6. This outcome was based on structure analysis (see below).

⁷ Y. Mizis and V. Orlova, 'Sources and methodology for cohort analysis. The case of Malye Pupki, Tambov region', in Kooij (ed.), Where the twain meet, 125-130; A. Danilov and N. Obnorskaja, 'Sources for research on demographic behaviour in the Yaroslavl region in the nineteenth century', in Kooij (ed.), Where the twain meet, 131-134.

In our first book, the cohort analysis in the Tambov area was limited to only one village, Malye Pupki. In chapter 3 of this book, by Marina Akolzina and others, four villages are added. Moreover, this chapter contains demographic data referring to the whole population from other sources, such as the birth rate, the marriage rate, the death rate and the age at marriage. In general the age at marriage shows a slight fall, which is not completely in accordance with the results of cohort analysis, suggesting more stability. The differences, however, are not very large. The cohort analysis makes clear that some occupational groups – especially factory workers – did show a rise in the age at marriage during the second half of the nineteenth century. Tambov peasants – in contrast with the Yaroslavl rural population – continued to marry very young.

This chapter shows that some demographic questions can be solved by cohort analysis, but that other questions need other methodology and information on a wider range of persons. To fix the age of marriage for a municipality, for instance, the best source is the register of marriages. However, in order to analyse how the age of marriage was related to social status, occupational status, and the specific situation of a family, this information has to be linked on a personal level, which is possible in cohort analysis. The next three chapters clearly show the advantages and disadvantages of the different approaches.

In chapter 4, Irina Cherniakova from Petrozavodsk tests Hajnal's thesis on marriage behaviour against the Eastern and Western European marriage patterns. She has chosen to study the Karelians, who are new in our project. They live on the border between east and west in the Olonets region near Finland, but there are also some Karelian villages in Tver' region in the interior of Russia. To fix the marriage pattern in the different villages, the percentage of married and unmarried males and females as well as the difference in ages between husbands and wives are investigated using structure analysis. In Central Russia, the marriage patterns of Karelians remained traditional with very young brides and grooms, while in White Sea Karelian villages a more modern western-like marriage pattern developed as early as around the end of the eighteenth century, with higher ages at marriages and a rising number of celibates.

In chapter 5, Serguei Kachtchenko and Svetlana Smirnova – from the new participating research group from St Petersburg – investigate the reliability of the data on the average age at marriage presented in our joint publications. They state correctly that results obtained with cohort analysis are only representative for the individual cohorts, and that in order to obtain more general observations other material is needed, for instance that used in chapter 4 for Russia. They conclude from using marriage registers that the age at

marriage in the Olonets region remained quite stable during the nineteenth century, with at first a slight fall and then a small rise.

In chapter 6, Geurt Collenteur and Richard Paping use large data sets originating from cohort analysis and family reconstruction to fix reliable ages at first marriage for several social groups in the Groningen clay area in comparison with some other Dutch regions and also with Russian figures. Since the research method and the results are compared with all relevant observations within the project, a synthesis on this topic has been reached. In the Tambov region and in parts of the Yaroslavl region the low age at marriage was explained by general traditional factors. On the other hand, in the Netherlands the age at marriage depended mainly on individual economic and social factors, leaving room for a wide spread in marriage ages of both males and females, resulting on average in late marriages. The Olonets region and some parts of the Yaroslavl region took a middle position according to the spread in marriage ages, with somewhat higher ages at marriage than elsewhere in Russia and slightly more room for taking individual decisions.

In chapter 7, Geurt Collenteur makes a very interesting turn from the macro to the micro level, and back. He compares the main demographic variables of the province of Groningen – the death rate and the birth rate – with these variables in other parts of the Netherlands in the second half of the nineteenth century. From this can be derived that the Groningen region was leading the demographic transition in the Netherlands. Next, he tries to fix which locational, occupational, or cultural factors could be responsible for this pattern. A cluster analysis in which the Groningen clay area is compared with the Groningen peat area, with the help of a model in which the number and kind of variables is constantly changing, is put forward as the way towards a solution. As well as several typical clay municipalities and peat municipalities with their own demographic regime, there were also many municipalities with less specific demographic characteristics.

Thus chapter 7 firmly relates demographic factors to other societal variables. This sets the tone for the rest of the book. In chapter 8, Pim Kooij presents a matrix model in which the demographic domain is related to the economic, politic, and cultural domains. In this approach the essence of integral history at a regional level becomes very clear because all factors prove to be firmly interrelated.

In chapter 9, by Vladimir Dyatchkov and Valery Kanitschev, the same analysis is performed in a very thorough way for Tambov. Ecology is added as a variable in this model, while extra attention is paid to society and the effects of war.⁸ The authors also concentrate on demographic aspects while

⁸ In the Dutch model, society is considered as the background and frame for the model, while all characteristics are formulated in a social dimension.

taking into account the differences between rural and urban developments, suggesting that in the countryside in the nineteenth century, age at marriage was very close to the biological minimum.

In the last part of the book, some of the societal aspects mentioned in the chapters 8 and 9 are elaborated, partly to draw attention to them as aspects worth studying, and partly as examples of demographic elements placed in a societal context. Chapter 10, by Maarten Duijvendak, concentrates on elites in North Brabant and Groningen. In this context he gives a specific extension to the reconstruction of social structures, which was also a theme in the first book.⁹ Social network analysis is used to discover the nodes and lines in the elite network. In both regions in the course of the nineteenth century, personal networks changed from monocentric into more polycentric ones.

Chapter 11 by Valery Kanitschev and others brings us back to the family, but now this demographic category is placed in the context of social structure. This chapter makes it clear that the observations on nuclear and extended families reported at the beginning of this prologue need some specification. At the end of the nineteenth century, urban families were mainly nuclear and were about the same size as those in Western Europe. In the countryside the pattern is less clear. There was also a rise in nuclear families, but the average size of families remained at least two persons larger than in Western Europe.

Piet van Cruijningen combines families and elites in chapter 12, where he focuses on the demographic strategies of the big farmers in the south-western part of the province of Zeeland. In the eighteenth century they married relatively early. There was no problem about endowing all the children with a farm because of the economic prosperity in that period. In the nineteenth century, however, the economic situation had become much more difficult and as a result the children of big farmers married much later.

Family strategies are also the subject of chapter 13, by Richard Paping. In this case, however, another variable takes centre stage: the family life cycle, which is a combination of demographic and economic elements. An analysis of very detailed farm accounts carried out in the Groningen village of Nieuw Scheemda revealed that in the families of farm labourers, when they reached the age that they could earn an income the oldest children were sent elsewhere to do so as live-in servants, because it was difficult to find work the whole year round. At the end of the nineteenth century, when the real wages of married farm labourers rose, they began to keep their children at home. In

⁹ See V. Kanitschev, 'The demographic, occupational and social structure of the Tambov and Yaroslavl populations at the end of the nineteenth and the beginning of the twentieth century', in Kooij (ed.), Where the twain meet, 87-95; P. Kooij, 'The economic and social structure of the city of Groningen in the nineteenth century', in Kooij (ed.), Where the twain meet, 111-125.

that period waged work for married women became more and more restricted in time because of a decrease in acceptation.

When compared with the first book, some aspects, especially demographic ones, have now become clearer. This has been effectuated by the inclusion of more regions, such as the Olonets region. The incorporation of other societal domains in the analysis, however, has initially raised more questions than could be solved. At any rate, this volume has once again shown that in the nineteenth century, Eastern and Western Europe were not completely different worlds. The major challenge remains to shed more light on the resemblances.

Demographic behaviour in the Yaroslavl loamy area. The results of cohort analysis for two typical rural parishes

Irina Shustrova and Elena Sinitsyna

Introduction

This paper focuses on the peculiarities of demographic behaviour in two typical rural parishes in the Central Russian province of Yaroslavl in the nineteenth century. The research has been conducted within the framework of a joint Dutch-Russian project on regional societal development, which started in 1992 and is based on the method of cohort analysis.¹ The research material is related to the history of two conventional groups of small villages in the Yaroslavl loamy area. Both have similar soil conditions and are situated in neighbouring districts. The first was the parish with the dominant village Sandyrevo in the Roman-Boris-Gleb'sky district (uezd) which incorporated 15 settlements. The landed classes were dominant in eight of these while the State Economic Department owned the other seven. The second one, Archangelsky *pogost* on the Kast River, was a typical rural settlement – a church with a cemetery, rectory and adjacent buildings. It was situated in Danilovsky volost and had control over 30 small villages with peasant serfs accounting for 85% of the population. All the inhabitants belonged to the same religious faith, the Russian Orthodox Church.

The Danilovsky district had the smallest territory of the 10 districts in the Yaroslavl province, occupying 1,632 sq. *versta* (an outdated Russian unit equivalent to 1.6 sq. km). Part of the soil was not suitable for cultivation because of loam and only strips (16.7%) were arable (8,538 sq. *desiatina*, – an outdated Russian unit equivalent to 2.7 acres); another part of the land (45,786 *desiatina*) was covered with forests and boscages. Local landowners and peasants cultivated grain (rye and oats), but only for themselves and their

¹ P. Kooij (ed.), Where the twain meet. Dutch and Russian regional demographic development in a comparative perspective 1800-1917 (Groningen/Wageningen 1998).

families. The flax industry and market gardening were also developed. People did not breed cattle and there was no dairy production.

In 1858 the population numbered 69,671 (31,119 males – 44.7% and 38,552 females – 55.3%),² and in the last decade of the nineteenth century it had grown to 73,350 (32,244 males – 44% and 41,106 females – 56%).³ The population density was 34 per sq. *versta* and on average there was only 3.83 *desiatina* of arable and hay producing land per head, which was 1.5 times less than in the rest of Yaroslavl, where there was about 5-6 *desiatina* per head.⁴

The Roman-Boris-Gleb'sky district where the Sandyrevsky parish was situated had a territory of 2,263 sq. *versta* with loamy soil, partly containing silt.⁵ Forty percent of the land was occupied by forests (generally not of timber quality) and boscages. The population numbered 87,058,⁶ giving a population density of 39 inhabitants per sq. *versta* in 1850.⁷ According to nineteenth-century local statistical surveys, there was 5.94 *desiatina* of arable and hay producing land per male, but according to the Sandyrevsky *volost* (cantonal court in Russia) the family share (*zemel'ny nadel*) was less than this and usually amounted to only 4.5 *desiatina*.⁸

The special statistical committee of 1887 found that husbandry in the Roman-Boris-Gleb'sky district did not provide sufficiently for the local population because of the lack of suitable land. This committee noted the following proportions: arable land 28%, hay and grassland 21%, forest 39%, 'other useful' land 3.5%, and 'unqualified' land 8.5%. In such a situation, seasonal work in handicrafts and trade which required people to leave home was an accepted phenomenon.⁹ Cattle breeding was a famous business in this area. The 'romanovsky' (from the Roman-Boris-Gleb'sky district) breeds of cattle, sheep, and horses were well known in pre-revolution Russia.¹⁰

There are sufficient primary sources to allow the formation of cohorts. With regard to the Archangelsky parish, only the church registers for 1853–1854 are missing and there are also some lacunas in the wedding and

² Памятная книжка Ярославской губернии за (1862) 72.

³ К.Д. Головщиков, Город Данилов и его уезд (Yaroslavl 1890).

⁴ Памятная книжка Ярославской, 72.

⁵ К.Д. Головщиков, Ярославская губерния. Историко-этнографический очерк (Yaroslavl 1888) 7.

⁶ М. Гуревич, Историко-статистическое описание Ярославской губернии (Yaroslavl 1922).

⁷Головщиков, *Ярославская губерния*, 7.

⁸ Обзор Ярославской губернии. Вып. 2. Отхожие промыслы крестьян Ярославской губернии (Yaroslavl 1896) 137.

⁹ Главные данные поземельной статистики по обследованию (1887) 50.

¹⁰ К.Д. Головщиков Город Романов-Борисоглебск (Yaroslavl 1889).

death notices for 1871–1872.¹¹ Fortunately this situation can be remedied by using the data provided by confessional books,¹² as well as the primary lists of the first Russian census of 1897.¹³ The clerical statistic materials for Sandy-revsky for the period from 1802 to 1918 lacks the registers of 1812, 1814–1817, 1895–96, and 1898–1899. Information from confessional books is also inserted here.¹⁴ Information for 1811, 1816, 1834, 1850 and 1858 from tax lists (*revizskie skazki*)¹⁵ and the census lists of 1897¹⁶ have also been used.

Population and occupation

During the nineteenth century, the population of the Archangelsky parish consolidated at about 2,000 people: 1,808 inhabitants (1,007 female – 55.7% and 801 male – 44.3%) in 1821,¹⁷ 2,169 (1,142 female – 52.7% and 1,027 male – 47.3%) in 1836¹⁸ and 1,910 (1,046 female – 54.8% and 864 male – 45.2%) in 1860.¹⁹ For the period during the 1860s, the legal status of Archangelsky peasants showed the following division: 85% (761 male and 865 female) belonged to landowners and 15% (103 male and 181 female) to the State Economic Department.²⁰ The whole range of the social structure of the Archangelsky parish is given in Table 1.

Sandyrevsky numbered 1,386 inhabitants (779 female - 56% and 607 male - 44%) in 1842 and 1,242 (737 female - 59% and 505 male - 41%) in 1859. Table 2 shows the social structure of this parish.

¹¹ Archangelsky church registers in the State Archive of Yaroslavl Region (SAYR): Φ. 230. On. 1. Д. 4205, 4588, 5044, 5679, 5956, 5657, 6609, 7020, 7422, 8192, 8924, 8923, 9744, 10055,10058, 10513, 10788, 14220, 14466; On. 2. Д. 52, 54, 55, 156, 990, 1301; On. 11. Д. 2658, 2637, 2659, 2661, 2669, 2673, 2677, 2681, 2693, 2696, 2699, 2706, 2797, 2799; Φ. 937. On. 1. Д. 175, 195, 214, 215, 219, 220, 221, 223-227; Φ. 1118. On. 1. Д. 4289, 4308, 4311, 4313.

¹² For more information about the specific nature of the composition of the Russian Orthodox Church confessional book see A. Danilov and N. Obnorskaja, 'Sources for research on demographic behaviour in the Yareslavl region in the nineteenth century', in: Kooij, (ed.), *Where the twain meet*, 131-135. Archangelsky confessional books in the State Archive of Yaroslavl Region, SAYR: Φ. 230. Oπ. 1. Д. 3911, 3912, 4695, 5507, 5761, 6031, 7927, 8290, 8639, 9026, 10201, 10644, 11828, 12086, 12637, 13280, 13585; Oπ. 2. Д. 212; Oπ. 3. Д. 417, 568, 734, 735, 1107; Φ. 940. Oπ. 1. Д. 21.

¹³ Archangelsky parish primary lists of the first Russian census of 1897 in SAYR: Ф. 642. Оп. 3. Д. 714-723.

¹⁴ Sandyrevsky church registers and confessional books in SAYR: Ф. 235. Оп. 1. Д. 1, 4, 7, 22, 34, 41; Ф. 230. Оп. 1. Д. 45, 7032; Оп. 3. Д. 2054, 2469, 3137, 3364; Оп. 4. Д. 397, 630, 801; Оп. 11. Д. 3094, 3100, 3107 a, 3109, 3111, 3113, 3118, 3126, 3131, 3135, 3226; Ф. 1118. Оп. 1. Д. 4275; Ф. 940. Оп. 1. Д. 35.

¹⁵ The tax lists of Sandyrevsky parish settlements in the SAYR: Ф. 100. Оп. 8. Д. 2603, 2426.

¹⁶ Sandyrevsky parish primary lists of the first Russian census of 1897 in the SAYR: Φ. 642. On. 3. Д. 729, 731, 735, 736, 737.

¹⁷ SAYR, Ф. 230. Оп. 1. Д. 7927.

¹⁸ SAYR, Ф. 230. Оп. 1. Д. 12983. Л. 261-293 об.

¹⁹ SAYR, Ф. 230. Оп. 4. Д. 725.

²⁰ SAYR, Ф. 230. Оп. 4. Д. 725

Table 1 Social structure of Archangelsky parish (%)

Status	1821	1836
peasants	85.56	79.02
house serfs	7.27	12.86
military (including retired soldiers)	6.01	3.96
clergy	1.16	1.81
tradesmen	-	0.97
'middle class'	-	1.38

Table 2 Social structure of Sandyrevsky parish (%)

Status	1842	1859
peasants	91.34	90.66
house serfs	4.47	4.03
military (including retired soldiers)	1.52	2.74
clergy	1.66	1.45
tradesmen	-	0.72
'middle class'	0.58	-
gentry	0.43	0.40

As has been observed, husbandry was not economic for the Danilovsky and Roman-Boris-Gleb'sky districts and therefore cottage industries developed there. Small handicraft workshops with 3–5 labourers were common at the beginning of the nineteenth century.²¹ Later on the number of trade and manufacturing shops increased, requiring more labour and generating more profits.²² Making carts, springless carriages, sledges and wood sledges,²³ processing coal²⁴ and handling wool (production of felt boots and mittens)²⁵ were all activities taking place in the Archangelsky parish.²⁶

Advanced cattle breeding was an established trade in Sandyrevo and adjacent parts of the Roman-Boris-Gleb'sky district.²⁷ According to a legend, breeding of special so-called '*romanovsky*' sheep was a consequence of Emperor Peter the Great's idea of cross-breeding local sheep with Silesian stock. The new breed, popular because of the mildness of the wool, gave rise to a clothing industry making coats with the fur inside; '*romanovsky*' sheepskin coats had a reputation all over Russia.²⁸ '*Romanovsky*' cattle were also famous for being oversized, heavy and producing rich milk, and 500–800 cows were

²¹ Памятная книжка (Ярославской) 74.

²² М.С. Кропотов, Крестьянство Ярославской губернии и его податные силы.

²³ In the village of Morugino.

²⁴ In the villages of Grigorkovo, Pasynkovo, Okulovo and Markovo.

²⁵ In the villages of Pasynkovo and Noven'koe.

²⁶ Список селений с кустарями. Даниловский уезд (Yaroslavl 1858) 45.

²⁷ П.А. Критский, *Наш край. Ярославская губерния – опыт родиноведения* (Yaroslavl 1907) 95, 287.

²⁸ Ярославский губернский статистический комитет. Труды. Вып. 8: Сведения о кустарных промыслах по Ярославской губернии, собранные через волостные правления в 1874–1875 годах (Yaroslavl 1866) 17.

sent to both capitals (Moscow and Petersburg) every year.²⁹ As Table 3 shows, nineteenth-century statistics reveal that there were also some other cottage industries in the Sandyrevsky area.³⁰

Table 3 Cottage industry in Sandyrevsky parish in 1875

	settlement	number of cottagers	annual income (roubles per person)	place of business
furriery and currying	Sandyrevo	2	100	Vyatskoe, Davydkovo
felting	Kurmanovo	4	50	to order
carting	Yasino	1	25	on site
flax spinning	Duboviki	2	15	on site
blacksmith and metal work	Zubarevo	2	50	on site

In the nineteenth century, a large majority of the population of Yaroslavl province, in common with the populations in other provinces in Central Russia, were actively engaged in seasonal work in handicrafts or trade, for which they sometimes had to leave home, but few of these people left agriculture altogether. For instance, they participated in crafts or trades, worked in inns or acted as servants (lackeying). If they were going to work in a location (village, town, city or capital) situated more that 50 *versta* from their domicile they were obliged to obtain a special permit (passport). Often the difference between carrying out local cottage work or moving to find seasonal work did not depend on the specialisation of the labourer but on how remote his (or her) home was.

Significant numbers of the men from the Archangelsky parish left their households to earn income elsewhere. At the end of the nineteenth century, local peasants were granted 848 passports (707 to males – 83% and 141 to females – 17%) for terms of three months, six months or one year. Regularly living in St. Petersburg was particularly common for the male peasants from the Yaroslavl area. The areas most commonly visited for seasonal work by people from the Roman-Boris-Gleb'sky district had the pattern shown in Table 4.³¹

²⁹ Ярославский край в «Энциклопедическом словаре» Брокгауза и Эфрона (Yaroslavl 1996) 76.

³⁰ Ярославский губернский статистический, 17.

³¹ Статистическое бюро Ярославского земства. Отхожие промыслы и торговля Романов-Борисоглебского уезда (Yaroslavl 1907).

Table 4 Distribution of the labour migration from the Roman-Boris-Gleb'sky district (n=15,133)

Place of destination	male	female
Roman-Boris-Gleb'sky district and	4.14%	2.97%
surroundings		
Yaroslavl and province of Yaroslavl	18.58%	26.62%
Petersburg and province of St Petersburg	63.75%	56.48%
Moscow and province of Moscow	13.53%	13.94%
Total	(80.61%)	(19.39%)

Going to St Petersburg for work away from home seemed to have been the most profitable choice for people from the Sandyrevsky area. Peasants and labourers worked there as stove-makers, sawyers and carriage-makers. Large numbers of seasonal workers from the Sandyrevsky parish worked in the market or served as valets or lackeys. Generally speaking, the social and economic development of the Archangelsky and Sandyrevsky parishes was typical for the province of Yaroslavl during the nineteenth century.³²

The data showing the status of cohort members at the ages of 20, 30 and 40 (Tables 5-10) records 45 - 68% of deaths at the age of 20 and a growing number of 'unknown' individuals. Twenty to thirty percent of the people of adult age in the cohorts for 1850 and later studied for the Archangelsky parish are 'lost'. The percentage of cohort members documented in the sources who left their domiciles for different reasons (see Table 11) is low, about 10%. A similar situation concerning migration of members of the cohort can be seen for the Sandyrevsky parish, where 12.5% of the inhabitants relocated (Tables 6, 8, 10 and 12).

The terms 'unknown' and 'lost' are used for cohort members who possibly migrated between the ages of 10 and 30, and were not listed as having died in church registers. In many cases such a cohort member who was recorded in the registers and other lists was a young, sexually mature woman or a young man of military age. In the cases of the women, the story often continued later with the women reappearing on the pages of the registers after a few years of absence, as mothers of newborn babies. This meant that they had married and moved to the husband's residence, very often a neighbouring district or parish. There was an old tradition of visiting the wife's parents on parish holidays and ethnographic accounts of village life often mention the traditional practice where a young wife, when she was expecting her first child, came back home and lived there temporarily until the birth. This is why children, especially the firstborn, were born in their mother's native parish.

³² Ярославский губернский статистический, 17.

Table 5 The situation of cohort members (born 1810-1870) in the Archangelsky parish at the age of 20

	1810		1830		1850		1870	
Died	61	(51%)	59	(49%)	74	(62%)	66	(55%)
Migrated	8	(7%)	12	(10%)	10	(8%)	11	(9%)
Stayed	40	(33%)	45	(38%)	10	(8%)	6	(5%)
Unknown	11	(9%)	4	(3%)	26	(22%)	37	(31%)

Table 6 The situation of cohort members (born 1810-1870) in the Sandyrevsky parish at the age of 20

-	1810		1830		1850		1870	
Died	54	(45%)	58	(48%)	67	(56%)	82	(68%)
Migrated	12	(10%)	15	(13%)	5	(4%)	6	(5%)
Stayed	5	(4%)	19	(16%)	13	(11%)	9	(8%)
Unknown	49	(41%)	28	(23%)	35	(29%)	23	(19%)

Table 7 The situation of cohort members (born 1810-1870) in the Archangelsky parish at the age of 30

	1810		1830		1850		1870	
Died	67	(56%)	64	(53%)	76	(63%)	68	(57%)
Migrated	9	(8%)	12	(10%)	10	(8%)	11	(9%)
Stayed	33	(28%)	40	(33%)	8	(7%)	4	(3%)
Unknown	11	(9%)	4	(3%)	26	(22%)	37	(31%)

Table 8 The situation of cohort members (born 1810-1870) in the Sandyrevsky parish at the age of 30

	1810		1830		1850		1870	
Died	56	(47%)	63	(53%)	68	(57%)	84	(70%)
Migrated	12	(10%)	15	(13%)	5	(4%)	6	(5%)
Stayed	3	(3%)	14	(12%)	12	(10%)	7	(6%)
Unknown	49	(41%)	28	(23%)	35	(29%)	23	(19%)

Table 9 The situation of cohort members (born 1810-1870) in the Archangelsky parish at the age of 40

	0 1							
	1810		1830		1850		1870	
Died	71	(59%)	68	(57%)	78	(65%)	71	(59%)
Migrated	10	(8%)	12	(10%)	10	(8%)	11	(9%)
Stayed	28	(23%)	36	(30%)	6	(5%)	1	(1%)
Unknown	11	(9%)	4	(3%)	26	(22%)	37	(31%)

Table 10 The situation of cohort members (born 1810-1870) in the Sandyrevsky parish at the age of 40

	1810		1830		1850		1870	
Died	58	(48%)	67	(56%)	71	(59%)	87	(73%)
Migrated	12	(10%)	15	(13%)	5	(4%)	6	(5%)
Stayed	1	(1%)	10	(8%)	9	(8%)	4	(3%)
Unknown	49	(41%)	28	(23%)	35	(29%)	23	(19%)

Table 11 Reasons for migration of cohort members (born 1810-1870) in the Archangelsky parish

	1810	1830	1850	1870
Marriage (female)	6	2	9	1
Marriage (male)	1	4	-	4
Military service	2	6	-	1
Work	-	-	1	5
Unknown	1	-	-	-

Table 12 Reasons for migration of cohort members (born 1810-1870) in the Sandyrevsky parish

	1810	1830	1850	1870
Marriage (female)	8	12	_	1
Marriage (male)	-	-	-	-
Military service	4	3	-	-
Work	-	-	4	5
Will of landowner	-	-	1	-

Childbirth and infant mortality

It is known that in 1900 the rates of infant mortality in pre-revolution Russia were the highest among the European countries.³³ Infant and childhood mortality remained consistently high during the nineteenth century with the death rate for children up to the age of three being particularly high. The cohort data concerning the Yaroslavl loamy area provides information which is in agreement with this. It is a well-known fact that children are particularly susceptible to environmental influences and to various infections during the first year of life. In addition, family life and living conditions play an important part. Thus, the infant death rate is significant in relation to the characteristics of the population in general and a measure of the level of modernity of society. The birth cohort observations made since 1810 at intervals of 20 years clearly demonstrate these fundamental points. According to the cohort data, infant mortality fluctuated

³³ N. Frieden, 'Child care: Medical reform in a traditional culture', in: D.L. Ransel (ed.), *The family in Imperial Russia* (Urbana/Chicago/London 1978) 160.

between 42% and 52% in the Archangelsky parish and between 40% and 57% in the Sandyrevsky area. Such a situation was typical for Central Russia in the late nineteenth century. Childhood mortality was also very high in the province of Moscow, where 51.6% of children died before the age of five, in the province of Tula where the figure was 52.4% and in the province of Nizhniy Novgorod where it was 53.8%.³⁴

Age	1810		1830		185	1850		1870	
	Female	Male	Female	Male	Female	Male	Female	Male	
0-1	12	8	18	22	26	21	17	38	
	19%	14%	38%	30%	41%	37%	39%	50%	
1-5	14	16	5	4	8	7	3	3	
	23%	28%	11%	5%	13%	12%	7%	4%	
0-5	26	24	23	26	34	28	20	41	
	42%	41%	49%	36%	54%	49%	45%	54%	
Ν	62	58	47	73	63	57	44	76	

Table 13 Infant mortality in Archangelsky parish (number of cases and percentage)

Table 14 Infant mortality in Sandyrevsky parish (number of cases and percentage)

Age	18	810 1830		60	185	50	1870	
	Female	Male	Female	Male	Female	Male	Female	Male
0-1	12	13	19	21	17	14	27	27
	26%	18%	33%	34%	33%	21%	48%	42%
1-5	11	12	4	3	13	12	6	8
	23%	16%	7%	5%	25%	18%	11%	13%
0-5	23	25	23	24	30	26	33	35
	49%	34%	40%	39%	58%	38%	59%	55%
Ν	47	73	58	62	52	68	56	64

The clergy, not doctors or professional nurses, recorded the deaths in the registers together with what they regarded as the most important cause of death so that the descriptions of the diseases do not usually contain medical terminology but instead many demotic colloquial terms. The sources reveal that the local children were liable to suffer from several serious illnesses, including smallpox, gastroenteritis, scarlet fever, measles, colds, pneumonia, rickets and convulsions at the time of birth.

Children between the ages of 2-10 were often affected by scarlet fever and measles. Scarlet fever occurred in epidemics and affected the greatest number of children at the same time. According to the obituary notices in the registers, outbreaks of scarlet fever occurred in the Sandyrevsky parish in 1863, 1882 and 1892.³⁵ At the end of the nineteenth century, scarlet fever

³⁴ А.Г. Рашин, Население России за 100 лет: 1811–1896 гг (Moscow 1956) 198.

³⁵ SAYR: Ф. 1118. Оп. 1. Д. 4275; Ф. 230. Оп. 11. Д. 3131, 3126.

was considered the most serious childhood disease and it was only at the beginning of the next century that a serum to combat it was discovered. However, there was no chance of applying medication or vaccinating ill babies because there was no cottage hospital in the Sandyrevo area and surroundings.³⁶

Another dangerous childhood illness was smallpox.³⁷ This was often the reason behind a high infant death rate, for instance 33% of children died from this in the Sandyrevo parish in 1823, 36% in 1838, 40% in 1847–48, 24% in 1852 and 31% in 1873. After 1873 there is no mention of a smallpox epidemic in the sources studied.³⁸ The mortality rate caused by smallpox among the cohorts was low: 5% for the cohort of 1830, 10% for the cohort of 1850, and 7% for the cohort of 1870 (Table 22). In the Archangelsky parish, smallpox was the cause of death of 47 people (39%) of the cohort formed for 1810 (Table 21).

The registers also mention *rodimets*, a demotic colloquial term from the Russian for 'bear children,' which means an attack accompanied by convulsions of the child or the pregnant woman about the time of birth,³⁹ and kolot'e, a demotic colloquial term from the Russian for 'shaking with fever, beating,' which has the same diagnostic meaning as 'rodimets',⁴⁰ as causes of infant mortality. In Russian medicine in the pre-revolution period, 'rodimets', 'rodimchik' or 'koto'e' were qualified as a severe form of rickets brought about by calcium deficiency in the infant organism.⁴¹ Rickets was usually caused by wrong or poor food, bottle-feeding, lack of light and warmth and inherited defects. According to medical statistics from the beginning of the twentieth century, 80 of the 100 children who were sent to hospital at that particular time suffered from rickets.⁴² Common first symptoms of the illness were throat spasms, body convulsions, gasping, unconsciousness and turning blue and such attacks usually ended in a fatality. It is noteworthy that *rodimets* as a cause of death increased markedly. The cohort analysis shows that rickets mortality for Archangelsky and Sandyrevsky parishes was 4% for the cohort of 1810, 4% for that of 1830, 3% for 1850 but 40% for that of 1870.

Another cause of infant mortality was death by misadventure, most commonly for children under two years of age. During the summer months many women left their infants at home in order to work in the fields and nursed them only early in the morning and late at night. Children were

³⁶ Народная энциклопедия научных и прикладных знаний Медицина Т. 5. М (1910) 310.

³⁷ Народная энциклопедия научных, 245.

³⁸ SAYR: Ф. 230. Оп. 1. Д. 7032; Ф. 1118. Оп. 1. Д. 4275.

³⁹ С.И. Ожегов, Словарь русского языка, 680.

⁴⁰ Словарь русского языка, 286.

⁴¹ Справочный энциклопедический словарь/Под ред. А. Старчевского Т. 3. Спб. (1854).

⁴² Народная энциклопедия научных, 355.

therefore left to their own devices and accidents occurred frequently, usually playing with fire or careless river bathing.

	1810	1830	1850	1870
1	8	4	1	2
2	4	5	2	2
3	3	4	2	4
4	5	1	-	1
5	2	6	2	7
6	3	5	-	2
7	3	4	2	6
8	4	2	2	6
9	2	6	1	1
10	2	3	1	2
11	2	1	2	1
12	-	2	-	-
13	1	1	2	-
14	-	-	-	1
15	-	1	1	-
Ν	39	45	18	35
Average	5	6	7	6

Table 15 Number of children in Archangelsky parish

The Russian feeding practice was also a cause of death. Mothers who had to be absent to work in the fields or out of season jobs away from home placed their infants on solid food very soon after they were born. The special method of providing food for the infant ('*soska*') was to place a piece of cloth filled with grain or other food (usually bread) partially chewed by the mother in the baby's mouth. The solid food introduced gastrointestinal pathogens and led to diarrhoea ('*ponos*') and rapid dehydration frequently ending in death. David Ransel, an American historian of nineteenth-century Russian demography, claimed this feeding practice was the cause of 50% of the loss of life among Russian children.⁴³

Birth rate, infant mortality and sexual maturity are all interrelated and dependent on the local traditions and the current economic situation. In general, peasant women who had been married at the age of 20 and had not been widowed before the end of their fertile period could bear children for 20-22 years. The first child was generally born after 2-2.5 years of marriage, and a woman could give birth to 8-10 children during her reproductive life. Cohort data from the Archangelsky parish is in approximate agreement with this theoretical outline. There were 6-7 children per family with a maximum

⁴³ D. Ransel, 'Infant care cultures in the Russian Empire', in: B.E. Clements, B.A. Engel and C.D. Worobec (eds.), *Russia's women* (Berkeley 1991) 114-123.

of 12 (in the cohort of 1870 there was one woman who gave birth to 12 children during 23 years of marriage). The figure is lower (3-4 children per family) for Sandyrevo. The birth of twins is recorded frequently in the registers and such an event was not considered as something extraordinary. Triplets were found very rarely (cohort 1870, Archangelsky parish).

	1810	1830	1850
1	6	6	4
2	2	5	3
3	7	8	5
4	3	6	3
5	6	5	-
6	3	2	1
7	2	-	-
8	1	3	-
9	1	1	-
10	1	-	-
11-15	-	1	-
N	32	37	16
Average	4	4	2-3

Table 16 Number of children in Sandyrevsky parish⁴⁴

The birth rate was not consciously manipulated in most cases since effective methods of contraception and termination of pregnancy did not reach the countryside before the early twentieth century. At the same time, the fact that the men left the villages to seek work elsewhere in the summer months or for longer periods and being widowed early will have affected the number of children born in marriage. High rates of childhood mortality and the large number of stillborn children could have reduced the length of the interval between births.

		0 11		
Interval in months	1810	1830	1850	1870
marriage – child 1	24.6	25.3	26.1	19.7
child 1 – child 2	27.5	23.8	24.3	21.5
child 2 – child 3	28.6	26.4	29.6	21.7
child 3- child 4	29.4	28.5	29.8	20.9
child 4 – child 5	35.7	39.8	40.7	25.7
For N see Table 15.				

Table 17 Intervals between births in Archangelsky parish (months)

⁴⁴ The data on the 1870 cohort members' status concerning the children were omitted because of the high death rate and migration (by the age of thirty 70% had died and 24% had migrated or were not listed as having died in the church registers).

Interval in months 1810 1830 1850 27.3 marriage - child 1 26.7 20.6 child 1 – child 2 25.5 24.9 27.4 child 2 - child 3 25.6 27.5 28.6child 3 - child 4 27.6 29.3 26.6 child 4 -child 5 36.4 37.9 38.9

Table 18 Intervals between births in Sandyrevsky parish (months)

For N see Table 16.

Age and patterns of marriage

The observation of family patterns in the Archangelsky and Sandyrevsky parishes allows the dynamics of marital ages for benchmark years to be *traced*.

Age	1810			1830		1850		1870	
e	Female	Male	Female	Male	Female	Male	Female	Male	
15	-	1	-	-	-	-	-	-	
16	3	5	-	3	-	-	-	-	
17	3	1	_	7	-	2	-	1	
18	2	4	1	8	-	2	-	1	
19	2	5	4	4	2	3	1	1	
20	1	1	4	2	-	6	1	4	
21-23	-	4	2	4	2	6	2	10	
24-26	2	-	-	-	1	-	4	4	
27-30	1	-	2	1	-	-	1	2	
31-35	-	-	-	-	-	-	-	1	
36-40	1	-	1	1	-	-	-	-	
41-50	-	-	-	-	-	-	1	-	
N	15	21	14	30	5	19	10	24	
Average	20.5	18	22	20.5	21	20	25	22.5	

Table 19 Age at first marriage in Archangelsky parish, cohorts born 1810-1870

During the nineteenth century the average age of spouses varied in the different provinces of the Russian empire, with early marriages being typical for regions with economies based on agriculture. In the province of Yaroslavl, where the rural population was engaged in seasonal work and handicrafts away from home, the majority of young women married between 18 and 22 years of age, and young men between 19 and 21 years of age. An appreciable difference in the ages of spouses, with the husband being much older than the wife, was observed only in cases of second marriages, usually with widows. Divorces were extremely rare; they were not mentioned at all in the registers used for this research.

It can be concluded that most people in the parishes under observation preferred to find a marriage partner within the district or province of Yaroslavl. Marriages between the members of the same parish were very rare.

Age	18	10	18	30	1850		1870	
	Female	Male	Female	Male	Female	Male	Female	Male
16	4	3	4	3	-	-	-	-
17	5	5	2	-	-	-	-	-
18	3	6	2	7	3	2	-	-
19	3	4	3	5	2	4	1	1
20	2	1	4	6	2	-	1	-
21-23	2	1	2	1	1	1	1	-
24-26	2	-	1	2	-	-	-	3
27-30	-	-	1	-	-	-	-	-
31-50	-	-	-	-	-	-	-	-
Ν	21	20	19	24	8	7	3	4
Average	19	18	19	19	19	19	20	23.5

Table 20 Age at first marriage in Sandyrevsky parish, cohorts born 1810-1870

Mortality: age and causes of death

The high rate of childhood mortality among cohort members of the Archangelsky and Sandyrevsky parishes (40-57%, see Tables 13 and 14) and particularly the number of migrated and 'unknown' villagers (13-40% in Archangelsky and 24-51% in Sandyrevsky) resulted in a lack of information about older cohort members. The consolidated material concerning the ages of death is deduced on the basis of cohort analysis.

The causes of death are divided into categories in order to allow a thorough analysis to be made (Tables 24-25). The clergy who filled out the church registration books clearly did not have a great deal of knowledge about health and causes of death, since between 11% and 43% of the obituary notices concerning the cohort members were recorded as 'unknown illnesses' (Tables 24-25). This makes drawing conclusions very uncertain. Moreover, the so-called 'senile diseases' are also very difficult to interpret. These causes of death were always recorded as 'old age' and comprised 3-11% of the causes of death of the cohort members, but sometimes this reason was also given for the death of a person who had only just turned fifty.

It is not possible to suggest that there was a drop in the number of cases of tuberculosis in the late imperial period since the high level of childhood mortality (especially for Sandyrevo in the 1870s) reduced the number of co-hort members while the number of 'unknown' and migrated people increased.

Another fatal infectious disease in this period was fever. Very often there was an epidemic in the winter and at the beginning of spring, usually in March and April. According to cohort data fever was the cause of death of about 2-4% of adults in Sandyrevo and rather fewer, 1-3%, in Archangelsky. Cholera, which was notorious in Russia with epidemics in 1823, 1829, 1831, 1848, 1866, 1892–95 and 1904–07, by chance did not affect the Sandy-

revsky or Archangelsky areas. Only isolated cases for both parishes can be found (maximum 3%). Illnesses among teenagers were also low and accidents among the elderly were an exception.

Table 21 Age at death in Archangelsky parish, cohorts born 1810-1870 (number of observations and percentage)

Age	18	10	18	30	18	50	18	70
-	Female	Male	Female	Male	Female	Male	Female	Male
Less than 1	12	8	18	22	26	21	17	38
year	19%	14%	38%	30%	41%	37%	39%	50%
1-5	14	16	5	4	8	7	3	3
	23%	28%	11%	5%	13%	12%	7%	4%
6-10	3	1	2	3	-	5	-	2
	5%	2%	4%	4%		9%		3%
11-20	3	4	2	3	3	4	1	2
	5%	7%	4%	4%	5%	7%	2%	3%
21-30	2	4	1	4	-	2	2	-
	3%	7%	2%	5%		4%	5%	
31-40	3	1	2	2	-	2	2	1
	5%	2%	4%	3%		4%	5%	1%
41-50	1	3	-	2	2	2	-	1
	2%	5%		3%	3%	4%		1%
51-60	1	5	2	7	-	-	-	-
	2%	9%	4%	10%				
61-70	4	2	4	15	1	1	-	-
	6%	3%	9%	21%	2%	2%		
71-80	7	2	2	3	-	-	-	-
	11%	3%	4%	4%				
81-90	1	1		1	-	-	-	-
	2%	2%	-	1%				
91-100	1	-	-	-	-	-	-	-
	2%							
Ν	52	47	38	66	40	44	25	47
	84%	81%	81%	90%	63%	77%	57%	62%
Unknown ⁴⁵	10	11	9	7	23	13	19	29
	16%	19%	19%	10%	37%	23%	43%	38%

 $^{^{\}rm 45}$ Unknown: migrated between the ages of 10 and 30 or were not listed as having died in the church registers.

Age	18	10	18	30	18	50	18	70
	Female	Male	Female	Male	Female	Male	Female	Male
Less than 1	12	13	19	21	17	14	27	27
year	26%	18%	33%	34%	33%	21%	48%	42%
1-5	11	12	4	3	13	12	6	8
	23%	16%	7%	5%	25%	18%	11%	13%
6-10	2	2	3	4	1	6	-	6
	4%	3%	5%	6%	2%	9%		9%
11-20	1	1	3	1	1	3	1	7
	2%	1%	5%	2%	2%	4%	2%	11%
21-30	1	1	2	3	-	1	1	1
	2%	1%	3%	5%		1%	2%	2%
31-40	1	1	1	3	-	3	1	2
	2%	1%	2%	5%		4%	2%	3%
41-50	-	1	-	1	-	4	2	2
		1%		2%		6%	4%	3%
51-60	-	-	3	-	-	3	-	-
			5%			4%		
61-70	-	-	1	2	1	1	-	-
			2%	3%	2%	1%		
71-80	-	-	1	2	-	-	-	-
			2%	3%				
81-90	-	-	-	-	-	-	-	-
91-100	-	-	-	-	-	-	-	-
Ν	28	31	37	40	33	47	38	53
	60%	42%	64%	65%	63%	69%	68%	83%
Unknown ⁴⁶	19	42	21	22	19	21	18	11
	40%	58%	36%	35%	37%	31%	32%	17%

Table 22 Age at death in Sandyrevsky parish, cohorts born 1810-1870 (number of observations and percentage)

Table 23 Percentage of cohort members suffering from tuberculosis								
	1810	1830	1850	1870				
Archangelsky	9	8	2	2				
Sandvrevsky	7	8	3	1				

 $^{^{\}rm 46}$ Unknown: migrated between the ages of 10 and 30 or were not listed as having died in the church registers.

	1	810	1	1830		850	1870	
	Ν	%	Ν	%	Ν	%	Ν	%
Unknown illness	19	16%	48	40%	52	43%	13	11%
Convulsions of	-	-	1	1%	-	-	34	28%
child about time of								
birth (' <i>rodimets</i> ',								
'kolot'e')								
Childbirth	1	1%	2	2%	-	-	2	2%
Smallpox	47	39%	10	8%	1	1%	-	-
Tuberculosis	11	9%	9	8%	2	2%	2	2%
Old age	11	9%	10	8%	-	-	-	
Diarrhoea	-	-	-	-	10	8%	2	2%
Dropsy	2	2%	10	8%	1	1%	-	-
Whooping cough	-	-	-	-	-	-	6	5%
Cold	2	2%	5	4%	5	4%	6	5%
Cholera	-	-	-	-	1	1%	4	3%
Fever	-	-	4	3%	2	2%	1	1%
Suffocation	4	3%	2	2%	-	-	1	1%
Appendicitis	1	1%	-	-	-	-	-	
Gastric ulcer	-	-	1	1%	-	-	1	1%
'Hurt of legs'	-	_	1	1%	1	1%	_	
Accident	-	-	-	-	1	1%	-	
Swelling	-	-	-	-	4	3%	-	
Seizure	-	-	-	-	1	1%	-	
Inflammation of	-	-	-	-	1	1%	-	
brain tissue								
Undercooling	-	-	-	-	1	1%	-	
Paralysis	-	-	1	1%	-	-	-	-
Epilepsy	1	1%	-	-	1	1%	-	-
N	99	83%	104	87%	84	70%	72	60%
Unknown	21	17%	16	13%	36	30%	48	40%

Table 24 Causes of death in Archangelsky parish, cohorts born 1810-1870 (number of observations and percentage)

	1810		18	830	1	850	1870	
	N	%	Ν	%	Ν	%	Ν	%
Unknown illness	19	16%	20	17%	34	28%	-	-
Convulsions of child	10	8%	9	7%	6	5%	63	53%
about time of birth								
('rodimets', 'kolot'e')								
Smallpox	-	-	6	5%	12	10%	8	7%
Diarrhoea ('ponos')	2	2%	2	2%	-	-	10	8%
Cold and lung fever	1	1%	7	6%	5	4%	3	3%
Tuberculosis	8	7%	9	7%	3	3%	1	1%
Fever	2	2%	5	4%	6	5%	2	2%
Dropsy	2	2%	6	5%	1	1%	-	-
Old age	6	5%	7	6%	4	3%	-	
Suffocation	5	4%	1	1%	-	-	-	
Scarlet fever	-	-	-	-	4	3%	2	2%
Cholera	-	-	1	1%	2	2%	-	-
Measles	2	2%	-	-	-	-	-	-
Drowned	-	-	1	1%	1	1%	-	-
Catarrh of fauces	-	-	-	-	1	1%	1	1%
Alcohol intoxication	-	-	1	1%	-	-	-	-
Atrophy of muscles	1	1%	1	1%	_	-	-	-
('sukhotka')								
Stone	-	-	1	1%	-	-	-	-
Vomit	-	-	-	-	-	-	1	1%
Breast cancer	-	-	-	-	1	1%	-	-
Paralysis	1	1%	-	-	-	-	-	-
N	59	49%	77	64%	80	67%	91	76
Unknown	61	51%	43	36%	40	33%	29	24%

Table 25 Causes of death in Sandyrevsky parish, cohorts born 1810-1870 (number of observations and percentage)

Conclusion

The method of cohort analysis, in combination with a thorough analysis of the primary sources obtained from the state and from church institutions (presupposing that these are correct and representative) provides historians with a range of facts and events which took place in the real life of individuals who belonged to the same generation and lived in the same area under similar natural, economic and cultural conditions. The range of similar parameters chosen for analysis makes it possible to carry out a responsible comparison in the sphere of demographic behaviour reflecting the social and economic trends which took place in different regions of pre-revolution Russia.

25

Characteristics of households in the eastern part of North Brabant, 1810-1920

Gerard Trienekens

Data

The Integral History Project in the Netherlands, which was begun in 1987, was a joint project of the Universities of Groningen and Utrecht. Utrecht carried out the research in the sand area in the southern province of North Brabant, with 's-Hertogenbosch as the main city. In this area 95% or more of the inhabitants were Roman Catholic. Collection of data for ten sample municipalities was carried out by local volunteers. Cohort analysis and analysis of municipal records was carried out within each structure analysis based on the Population Registers.¹ The volunteers were supervised by University assistants who provided them with the necessary instructions concerning the use of the relevant archives and computer programs. Altogether, more than 150 volunteers were involved for one day a week over a two-year period. Most of the data collected has now been processed or transformed into several thousand pages of statistics. These are registered as 'PIGU, Results of cohort (structure) analyses' and, consequently, the source material will be referred to as such below the tables. This large quantity of data is currently being converted into readable history.

As the material is worked with, its value begins to become apparent. At the level of the local municipality, the analyses carried out were seldom completed as far as was originally intended. Often, part of an analysis is missing due to a lack of the basic data in the archives, or because the volunteers did not have the time to finish it all. The perseverance and the power of endurance of most groups was high, but the task they accepted was bigger than had been anticipated either by themselves or the research team, who had too little insight into the amount of time it would take to accomplish the intended analyses. On the other hand, enough material has been collected for a book to be written about the history of households in eastern North Brabant in the nineteenth and the beginning of the twentieth

¹ See P. Kooij, 'Introduction. The Integral History project', in: P. Kooij (ed.), Where the twain meet. Dutch and Russian regional development perspective 1800-1917 (Groningen/Wageningen) 2-3.

centuries. However, the historian writing that book must always remain aware of the way in which this data was obtained.

Households

The best way of converting the data into written history seemed to be to write a book about households and families. The size and composition of the households and families becomes apparent from the structure analyses for the benchmark years. It is also possible to supplement this picture by using data from the cohort analyses, which provides some extra information about the kind of households people had to live in during the course of their lives and, in some cases, also about differences related to their financial situation. All the data collected in the cohort analyses concerning births, marriage, childbearing, death and migration are required to give a demographic explanation of the size and composition of the households. This is illustrated in figure 1. Naturally, other general data referring to these points can also be of use but this does not help in distinguishing the social classes.

Figure 1 Demographic factors (1 to 9) and their backgrounds determining the size and composition of the households

		Demographic factor*	Backgrounds
		1. number of singles	- economy
		2. marriage participation	- housing
		3. (marriage) fertility	- religion
	Size of the	4. infant mortality	– culture
	nucleus	5. mortality (general)	- biological fecundity
		6. children leaving home	- birth control techniques
SIZE of the			- general hygienic and
HOUSE			medical stituation
	Number of	Presence of:	 social structures
	live-in	7. relatives	- politics
		8. servants	
		9. boarders	

* divorce was negligible

Some of the demographic factors in the figure are interdependent and most of them are influenced by the same backgrounds. These backgrounds can turn this kind of history into Integral History but it is very difficult to relate the demographic factors to their backgrounds significantly. Hopefully this may be achieved by using the other data collected in sample municipalities, such as those concerning economics and community policies on public health. The focus here will exclusively be on the average size and composition of the households, seen as units of communal life of nuclear families, servants, relatives and boarders. Methodologically two kinds of sizes and compositions must be worked with, those from the structure analyses and those from the cohort analyses.

Note that the average sizes given by the cohort analyses are always greater than those from the structure analyses because the cohort members were nearly always born in an existing family and lived there for many years. Singles are absent or rare for the benchmark years for which their households were analyzed. The number of households with only one or two people has a large influence on the average size in the structure analyses. Questions to be answered include what kind (small or large, nuclear or extended) of households were people in North Brabant living in? Did the means of subsistence influence the situation? Were there differences between the municipalities and for what reasons? How did the situations develop during the course of a person's life? This paper will not include a more extensive discussion of these themes.

Average size of households

The simple survey of the average size of households, as shown in Table 1, could make a researcher very depressed. It seems that there was very little development during a century of family history. The average size of the households in all the municipalities is always about 4.75. Peter Laslett found exactly the same result for England for the period 1574-1821!² In the context of the Netherlands, this is an average value when compared with the figures found for other regions researched.³ Only in 1869 were there rather more municipalities with household sizes of less than 4.5. Moreover, further analysis shows that a considerable part of the difference in size results simply from the number of singles. The absence of change makes the history very static and uninteresting. Fortunately there are some changes at the local level, as in 's-Hertogenbosch, Aarle-Rixtel and Wanroij, and there is also the possibility that although the size remained nearly the same the composition of the households may have changed.

There is a large difference between the impression the average size gives us and the actual size of the households people were living in. Table 2 shows that at any particular moment in Bladel, two thirds or more of the people lived in households larger than the average size and, in this respect, Bladel is fairly representative for the rest of the sample municipalities. More than 30% of the people lived in a household of seven or more persons. In a West

² P. Laslett, 'Mean household size in England since the sixteenth century', in: P. Laslett and R. Wall (eds.), *Household and family in past time* (Cambridge 1972) 139. See also P. Laslett, 'Size and structure of the household in England over three centuries', *Population studies*, 23 (1969) 199-223.

³ Compare A. van der Woude, 'De omvang en samenstelling van de huishoudingen in Nederland in het verleden', *A.A.G. Bijdragen* 15 (1970) 202-241 and J.A.Verduin, 'Het gezin in demografisch perspectief', in: G.A. Kooy (ed.), *Gezinsgeschiedenis. Vier eeuwen gezin in Nederland* (Assen/Maastricht 1985) 77-84.

European context, households of seven and more are usually termed 'big', so that the term 'big' will also be applied to such households here. At the same time it must be realized that in a Russian context, seven or more would be nothing out of the ordinary.⁴

	<4.5		Between 4.5 and	5.0 and >		
1811			Bladel	4.8	Den Bosch	5.3
			Oirschot	4.6		
			Schijndel	4.5		
			Veghel	4.5		
1829			Bladel	4.5	Berlicum	5.4
			Oirschot	4.8	Deurne	5.0
			Schijndel	4.5		
1849			Deurne	4.9	Aarle-Rix.	5.1
			Oirschot	4.6	Berlicum	5.3
			Schijndel	4.8	Bladel	5.2
			Veghel	4.5		
			Den Bosch	4.5		
1869	Oirschot	4.3	Aarle-Rix.	4.7	Gestel	5.0
	Veghel	4.1	Berlicum	4.9		
	Wanroij	4.2	Bladel	4.8		
	Den Bosch	4.1	Deurne	4.8		
			Schijndel	4.8		
1889	Den Bosch	4.4	Aarle-Rix.	4.6	Schijndel	5.2
			Berlicum	4.8	Wanroij	5.0
			Bladel	4.8		
			Gestel	4.5		
			Veghel	4.6		
1909	Aarle-Rix.	4.4	Berlicum	4.9	Schijndel	5.0
			Bladel	4.9	Wanroij	5.0
			Gestel	4.9		
			Oirschot	4.7		
			Veghel	4.6		

Table 1 Average size of households (excl. institutions) in the sample municipalities in benchmark years

Source: PIGU, Results of the structure analyses.

Table 1 also provides an overview of the municipalities and years in which structure analyses of the population registers were made. A total of 44 intersections of a community population took place.

The percentage of cohort members living in a big household (7 and >) gives a more accurate impression of the households people lived in than the

⁴ Compare T. Trokhina, 'A typology of the Russian peasant family of the Upper Volga Region', in: Kooij (ed.), *Where the twain meet*, 181 ff.

average size does. In addition, this indicator magnifies the variation in average size by a factor of between 5 and 9 rather than by a constant value.

Table 2 The distribution of households (hh) and members of households among sizeclasses as percentages of the total number of households and members of households and the average size in Bladel, 1829/1869/1909

	1829		1	1869	1909		
Size	hh	members	hh	members	hh	members	
1	3.5	0.8	6.0	1.2	3.9	0.8	
2	18.5	8.3	10.3	4.2	13.0	5.3	
3 and 4	31.5	24.9	29.3	21.8	34.9	25.1	
5 and 6	29.2	35.1	31.8	35.8	24.1	27.4	
7-9	15.8	27.2	20.5	32.5	18.6	29.3	
10-14	1.5	3.8	2.1	4.5	5.5	12.1	
7 and >	17.3	31.0	22.6	37.0	24.1	41.4	
n =	260	1,181	283	1,368	307	1,502	
Average size		4.5		4.8		4.9	

Source: PIGU, Results of the structure analyses.

Households and the life cycle

Historiography of the household has already introduced the idea that people lived in various types and sizes of households at different points in their life cycle.⁵ In the cohort analyses this variation was followed methodically by tracing the situation of the cohort members at the ages of 0, 10, 20, 40, 60 and 80. Table 3 shows that at the age of ten a majority of all the cohort members lived in a big household. On average households and families were always at their largest around that age. The values calculated are minimums, because some of the servants registered in the separate 'Servants Registers' of 1869 and later could not be individually linked to certain households in the general Population Registers. There was a second high chance of living in a big household around the age of forty, but because some cohort members did not found a family, the average size is lower. However, at the ages of 0 and 20 households were, on average, only slightly smaller. The idea that living in a big household only occurred at particular times in the life cycle must be rejected. It is only possible to say that the chances of living in a big household for a shorter or longer period was very high and was at its highest around the age of ten.

⁵ E. Kloek mentions L.K. Berkner as the historian who first drew attention to the life cycle (1972). See *Gezinshistorici over vrouwen* (Amsterdam 1981) 25-26.

cohort:	181	11	182	29	18	849	18	869	18	89 1811/1889		
	%	n*	%	n*	%	n*	%	n*	%	n*	%	n*
0 year	39.0	208	41.7	84	46.3	837	33.1	493	51.9	535	43.8	2,157
10 year	56.8	104	62.8	94	54.9	590	52.7	321	69.8	378	58.9	1,487
20 year	53.4	237	46.0	148	47.8	439	36.6	341	45.4	304	45.6	1,469
40 year	36.0	189	33.3	66	38.3	337	33.8	169	49.7	241	39.5	1,002
60 year	25.2	130	12.6	16	19.8	172	29.6	54		**	22.8	327
80 year	23.5	17		3	19.2	26		**		**	19.6	46
0/80 year	41.9	885	45.3	411	45.4	2,401	38.1	1,378	54.9	1,458	45.6	6,533

Table 3 Minimum percentages of cohort members in all sample municipalities living in a household of seven and more persons at six calculated ages

***** n = the total number of households of cohort members traced for the relevant age. ***** n odata because of the inaccessibility of the public registers. Source: PIGU, Results of the cohort analyses.

Households and social classification

Some commonly used classification systems are available for dividing the population into subsistence classes.⁶ For the sake of comparability it is necessary to apply a standard method, but the value of any classification method is determined by the answers it provides for the essential questions. Here the main question to be answered is whether the means of subsistence influenced the size and composition of the households. In the region studied the subsistence structure was rather complex. For most of the sample, farming communities were the dominant structure. The farms were usually small and based on a system of mixed farming with butter, rye, veal and later also pork and eggs as the most important goods marketed. The size of the farms was generally less than 10 hectares and farmers owned between 1 and 8 dairy cows.⁷ It is clear that the majority of them were not at all well off, but also that there were large differences in income. Nevertheless, farmers will all be grouped in one class.

A large number of working-class craftsmen such as weavers, spinners and spinsters, shoemakers, clog makers and cigar makers worked for the local market or were active in the proto-industry. In the second half of the nineteenth century most of the weavers and other labourers became absorbed by various types of urban industry. In the literature it is assumed that there is a big difference between the households of each group. Households in protoindustrial production would have been bigger because of the need for labour in the family economy. In addition most members of the first category had a cottage with some land and some animals with a goat being the most important. They had a double subsistence base the financial income from industrial activity and the supply of natural products from activities in and around the cottage.

The group of day-labourers who only worked in agriculture around harvest time and otherwise were employed in the public sector (roads, canals, cleaning ditches, earthworks, etc.) and building also belonged to the group of cottagers. Regular farm workers were usually the sons and daughters of farmers. They were seldom married, were waiting for their own plot and lived as part of the farmer's family. Most craftsmen such as carpenters, bricklayers/contractors, blacksmiths, tanners, blue-dyers and bakers had their own businesses, just as shopkeepers and publicans did. Tailors were often illiterate and as much proletarian as the men working in the proto-industry. Many of the tradesmen did not have much more than a dog-cart to transport their wares. Some visited the farmers on the fields with no more than a gin-

⁶ See note 8.

⁷ Compare M. Duijvendak and G. Trienekens, 'Towards a comparison between the regions in Groningen and North Brabant', in: Kooij (ed.), *Where the twain meet*, 60-64.

bottle and a glass to sell a drink. It will be clear that it is very difficult to choose occupational categories which fit all these situations and the changes that took place over time.

In order to solve the classification problem, the 'sector classification' introduced in the Netherlands during the census of 1889 and a home-made classification, more suited to the needs of this research and the existing subsistence structure of the region, will be used.8 The first system of classification, generally used by historians and other scientists, distinguishes between people working in the six classes of industry, agriculture, commercial services, casual labourers and day-labourers, social services and pensioners.9 The categories used for the second classification can be found in Table 4. This classification is based on the recorded professions that have been brought together in groups according to their position in the capital and labour market. This position was to a large extent responsible for the kind of work and the income of the families and is, therefore, related to their production and consumption. In order to prepare these categories and apply them to the known professions, the information gathered by those carrying out the census and what has been learnt in the research has had to be used. The 1889 census distinguished four positions in the six above-mentioned classes. These were A, B, C, and D. The men or women who were owners of a business belonged to class A, the paid heads of a business or institution to B, the paid employees with some responsibility for the course of the process such as foremen, overseers, controllers, clerks, and schoolmasters to C, and all ordinary labourers and servants to D.

The classification system of the Project Integral History in Utrecht (PIGU) distinguishes independent entrepreneurs who used their own capital and labour and possibly also relied on borrowed capital and hired labour as the first group. Besides manufacturers, this list also includes all craftsmen and shopkeepers who needed some substantial capital for doing their job. Farmers are grouped separately as class 2 because of their special way of life and their large number. Pensioners and all people living on one's private means are also included in the first group.

⁸ See F. Bergman and M. Prak, 's-Hertogenbosch (Bois-le-Duc) as a regional capital in the nineteenth century', in: Kooij (ed.), *Where the twain meet*, 98. In the first instance this classification system does not take account of the differences in social positions. If the positions A-D in the separated classes, as used in the census, are taken into account the number of possible categories will be too large for a working classification system. A more socially orientated system, the classification of Giele and Van Oenen, is also often used. See, for example, F. van Poppel, *Trouven in Nederland* (Wageningen 1992) 138-140. The problem with the last classification is that there is too little differentiation in some of the classes, in the same way that the method used here is not able to distinguish between rich and poor farmers. All more or less proletarian professionals such as weavers, spinners and clog-makers, for example, would belong to the middle classes.

⁹ Uitkomsten der Beroepstelling in het Koninkrijk der Nederlanden op den één en dertigsten december 1889, part 14, ('s-Gravenhage 1894) Bijlage, 1-15.

Those whose incomes were based on typical human capital such as special talents, intellectual ability or higher education, (doctors, solicitors, mayors, artists, etc.) are placed in class 3. All professionals with a C-position are grouped together in the next class. The labour force is divided into a more urban/industrial part and a rural part. Urban casual labourers, such as carriers and barrowmen and industrial workers, are included in the first group. In principle, their source of income was either their own labour or poor relief. They can be termed normal wage-earners. The day-labourers and agricultural labourers, who usually possessed a cottage and therefore had a double basis for their income, are included in the second group.

All possible self-employed working-class tradesmen and women both in industry and commerce, such as the proto-industrial weavers, spinners, bleachers, knitters, slaughterers, basket-makers, hawkers (street-traders), cheap-jacks, fishermen, carters, liquor-traders and others are classified together in the class of AD professionals. They all possessed some small form of capital such as a loom or a spinning wheel or some other tools, a pony and cart or a dogcart, a small stock and so on. It is not known who amongst them had more substantial capital, such as more than two looms or two horses and carts, but the tax registers show that most of them did not. Those from the countryside in this category could also be included with the cottagers. People without a profession or whose profession is unknown are placed in group 8.

This paper will only use the results of the PIGU classification system. The most significant differences between the subsistence classes are found for the cohort members when they were 0 years old. The largest households are found then among the independent entrepreneurs and farmers. The few households of groups 3 and 4 (not shown in Table 4) are larger than the average size but still smaller than those of groups 1 and 2. The households in which the AD professionals and normal wage earners were born were in between the average size and that of the rural day-labourers, who were born into the smallest sized households. There seems to be a connection between being born in a big household and the fact that the economic base of the household consisted of a certain amount of capital goods. Contrary to expectations, the size of the households of the AD professionals was similar to that of the labourers living in an urban situation, but the households of the day-labourers at the time of the birth of their children were much smaller until 1889. The situation in this respect did not change fundamentally as the cohort members became older. This leads to the conclusion that the difference between rural (proto-industry) and urban (industry) labour was less important for the extension of the young households than exactly what kind of occupation the labourers had in the countryside. A great deal more research on demographic factors is needed to explain this.

Class**	1			2		5		6		7		8	Total
	%	n*	%	n*	%	n*	%	n*	%	n*	n*	%	n
1811													
0 year	70.6	17	36.8	128		5	36.7	30	11.8	17	11	39.0	20
10 year		2	72.6	62		0	30.0	20	29.4	17	12	56.8	10
20 year	94.1	17	54.5	123	62.0	29	38.9	36		12	20	53.2	23
40 year	43.8	16	47.1	87		12	19.6	34	13.0	23	17	36.0	18
60 year		12	35.5	48		1	18.1	22	4.5	22	24	25.4	13
80 year		0		6		0		5		0	6	23.5	1
0/80 year	64.1	64	58.0	454	53.1	47	29.9	147	17.6	91	82	41.9	88
1829													
0 year		5	53.3	45		0		13	13.3	15	4	41.7	8
10 year		10	73.6	53		1		12	29.4	17	1	62.8	9
20 year	53.3	15	61.1	72	26.6	15	43.8	16	20.0	25	5	46.0	14
40 year		4	32.2	28		4	35.7	14	14.3	14	2	33.3	6
60 year		2		3		0		5		4		12.6	1
80 year		0		1		0		2		0	0		
0/80 year	63.9	36	57.4	202	35.0	20	35.5	62	19.2	73	18	45.3	41
1849													
0 year	51.9	81	56.8	396	33.4	15	39.6	169	21.2	136	44	46.3	83
10 year	74.6	63	59.2	267	58.8	17	52.2	117	29.9	77	49	54.9	59
20 year	46.7	45	58.5	188	40.7	27	43.8	96	27.2	33	50	47.8	43
40 year	37.5	48	45.2	135	34.5	29	31.5	73	39.1	23	29	38.3	3
60 year	15.3	26	32.0	72	27.3	22	0.0	19		0	27	19.8	17
80 year		2	28.6	14		4		1		0	5	19.2	2
0/80 year	49.9	265	54.2	1,072	37.7	114	40.6	475	25.4	271	204	45.4	2,40

Table 4 Minimum percentages of cohort members living in a household of seven or more people, at six calculated ages, ordered according to the PIGU subsistence classes for the head of the household

1869													
0 year	39.9	56	40.8	159	27.3	22	38.5	109	17.3	121	26	33.1	493
10 year	65.9	44	58.9	107	35.3	17	44.2	68	54.1	61	24	52.7	321
20 year	60.0	50	35.7	98	21.0	38	35.3	85	40.7	32	38	36.9	341
40 year	36.6	41	26.0	23	33.3	24	37.1	54		6	21	33.8	169
60 year		8		6	35.7	14	41.1	17		0	8	29.6	54
0/60 year	47.3	199	43.5	393	28.7	115	38.7	333	32.1	221	117	38.1	1,378
1889													
0 year	68.4	57	61.4	228	36.2	47	37.4	139	53.1	49	15	51.9	535
10 year	68.9	45	69.7	167	70.6	51	67.0	88		8	19	69.8	378
20 year	38.9	36	41.9	124	59.1	44	47.7	65		8	27	45.4	304
40 year	58.3	24	53.1	96	60.5	38	39.6	53		3	27	49.7	241
0/40 year	61.1	162	58.7	615	56.7	180	47.5	345	55.8	68	88	54.9	1,458
1811/1889													
0 year	53.3	216	52.4	956	34.8	89	38.3	460	23.7	334	102	43.8	2,157
10 year	71.4	164	64.4	656	60.5	86	53.2	305	40.5	180	96	58.9	1,487
20 year	54.6	163	50.9	605	43.8	153	41.6	298	32.8	110	140	45.6	1,469
40 year	42.8	133	45.6	369	44.8	107	33.3	228	27.5	69	96	39.5	1,002
60 year	20.9	48	32.5	129	29.7	182	17.4	63	3.2	31	64	22.8	372
80 year		2	23.8	21	15.0	22		8		0	9	19.6	46
0/80 year	53.6	726	52.9	2,736	44.1	476	40.4	1,362	28.7	724	509	45.6	6,533

 \star n= the total number of households of cohort members traced per class at the relevant age.

****** PIGU subsistence classification: 1 = independent entrepreneurs, 2 = farmers, 3 = particular ability, 4 = 'C profession', 5 = normal or urban wage-earners, 6 = 'AD profession', 7 = day-labourers, 8 = without profession, unknown and rest. N.B. The small numbers in classes 3 and 4 are included with class 8. The percentages where n = < 14 and of 'class 8' where these are of no significance are omitted. Source: Results of the cohort analyses.

Once the cohort members reached ten years of age, the differences between the classes were relatively much smaller. In general, there was a tendency towards equalization with the big households not growing as fast as those that had been smaller at 0 years. There were clearly more big households, 71.4% over the century, among entrepreneurs with ten-year-old children. But on average 40.5% of this age group of the rural day-labourers also lived in a household of seven or more. This group experienced the most strikingly increasing percentages during the nineteenth century. The households the cohort members of 1869 were born into enlarged by 212% in 1879. Those of the cohort born in 1889 were the same size as was normal for entrepreneurs and farmers. After this the group no longer formed part of the community.

The size of the households of normal wage earners and AD professionals of the cohort of 1889 increased considerably between their birth and the age of ten, by 95 and 79% respectively. By the end of the nineteenth century the class differences at age ten had disappeared completely. At that time there was a significant growth in the Dutch population. The cause of this was not simply the decreasing death rate, in North Brabant combined with a still increasing birth rate. Some groups had relatively more benefit from the new hygienic and economic circumstances than others. Apart from the purely demographic transition there was also a social transition with the beginning of a move towards more equality between the rich and the poor.

Households and individual municipalities

The differences between households in the separate municipalities are greater than might be expected for such a homogeneous region (see Table 5). It must be noted here that the percentages in the table are averages of three (or two) cohorts. It appears that the cohort members in Oirschot lived in the largest households with a total of 64.4% of the three cohorts being born in a big household. This percentage was particularly high, namely 81.2% for the 1889 cohort.

The results in Table 5 are clearly influenced by the manner of application of cohort analysis in the separate sample municipalities. Table 6 contains an overview of the analyses of the households of the cohort members for the six chosen ages that were made by the volunteers in their municipalities. This table clearly shows that several analyses for the cohort ages chosen are either missing or incomplete. For example, if the cohort age of 10 years is not involved in the calculations for a particular community this will result in a reduction in the size of the households calculated and also influence the overall average. Those municipalities where a cohort born in 1869 was taken will also show a reduction because the households were relatively small in

	0 y	vear	10 y	ear	20	year	40	year	60 y	year	80 ye	ar	0/80) year
	%	n*	%	n*	%	n*	%	n*	%	n*	%	n*	%	n*
Oir.	64.4	191	64.6	192	50.6	174	48.5	136	22.7	22		2	56.6	717
Ber.	44.3	226	62.2	180	50.0	98	47.5	40	33.3	18		0	51.0	562
Bla.	41.8	342	63.0	154	55.1	196	46.7	137	20.8	53		7	47.8	889
Aar.	54.3	234	65.6	151	44.1	127	28.4	130	22.9	70	12.5	16	46.4	728
Deu.	45.7	317	63.7	146	43.0	170	43.8	128	20.8	53	29.4	17	46.1	831
Ges.	54.0	37	54.1	122	46.5	116	31.1	103	32.3	31		0	44.5	409
Sch.	36.1	244	52.4	187	43.9	148		0		0		0	43.4	579
Goi.	40.0	90	64.7	82	41.3	143	35.6	115	29.6	54		0	42.3	484
Veg.	37.4	227	54.2	142	36.4	110	35.0	123	8.7	46		3	38.3	651
D.B.	24.5	53	59.1	22	40.7	59	45.5	55	25.0	24		1	37.9	214
Wan.	33.2	196	39.4	109	41.5	128	37.1	35		1		0	37.0	469

Table 5 Minimum percentage of cohort members living in a household of seven or more people for the cohorts from 1811 to 1889, in the separate sample municipalities for different ages

n = the number of households of cohort members traced at the relevant calculated age.

Oir. = Oirschot, Ber. = Berlicum, Bla. = Bladel, Aar. = Aarle-Rixtel, Deu. = Deurne, Ges. = Gestel, Sch. = Schijndel, Goi. = Goirle, Veg. = Veghel, D.B. = Den Bosch (= 's-Hertogenbosch), Wan. = Wanroij. Source: PIGU, Results of the cohort analyses.

that year (see Table 1). It is therefore necessary to be circumspect when drawing conclusions, but even so the differences are still significant.

Table 6 Overview of the calculated ages per cohort and per sample municipality

cohort	1811	1829	1849	1869	1889
Aar.	(20)40,60,80		0,10,20,40,60,80		0,10,20,40
Ber.	10,20,40,60		0,10,20,40	0,10,20	
Bla.	0,20,40,60,80		0,10,20,40,60,80		0,10,20,40
D.B.	(20,40,60,80)		(0,10,20,40,60,80)	(0, 20, 40)	
Deu.	0,20,40,60,80		0,10,20,40,60,80		0,10,20,40
Ges.			10,20,40,60	0,10,20,40	
Goi.				20,40,60	0,10,20,40
Oir.	(0)10,20,40,60,80		0,10,20,40		0,10,20,40
Sch.		0,10,20	0,10,20	0,10,20	
Veg.		(0,10,20,40	0,10,20,40,60	0,10,20,40	
		60,80)			
Wan.		20,40	0,10(20),(60)	0,10,20	

(): very incomplete

Aar. = Aarle-Rixtel, Ber. = Berlicum, Bla. = Bladel, D.B. = Den Bosch, Deu. = Deurne, Ges. = Gestel, Goi. = Goirle, Oir. = Oirschot, Sch. = Schijndel, Veg. = Veghel, Wan. = Wanroij.

The differences are largest at the age of 0. It is not surprising that 's-Hertogenbosch, the only real city, had the smallest households. The value corresponds with the average size shown in Table 1, except for the fact that the households were very big in 1811, probably a result of the way in which the administration was carried out. There is no ready explanation for the differences between the other municipalities. The tendency towards equalization at age ten and above also existed at the local level.

It is likely that the differences were caused by the economic subsistence structure of the municipalities during the nineteenth and the beginning of the twentieth centuries. The occupational structures are known from more than one source. The occupations of the heads of the households the cohort members lived in are used here (see Table 7).

There seems to be some relationship between subsistence classification and household size. For instance, the size of the households in municipalities such as Gestel and Goirle diminished when modern industrialization took place and the agrarian sector became much smaller. It is indeed clear that in these two places most of the groups of (textile) labourers are still classified as AD professionals. Where there was reagrarization – the phenomenon that some communities became much more dependent on agriculture than they had been before as a result of the concentration of industry – as happened in Oirschot and Wanroij, the size of the households grew. There were quite

large groups of day-labourers living in Schijndel, Veghel and Wanroij and the size of households at 0 years were rather small in these villages. But the same is not true for Berlicum, where a quarter of the heads of the households belonged to this class. In 1869, the group of farmers in all the municipalities studied was relatively small (28.5%), because of the presence of the town and two textile villages in the analysis.

Tabele 7 Subsistence base of the heads of the households of cohort members as a percentage of the total households traced per cohort and per sample municipality (all cohorts combined)

Cohort	1811	1829	1849	1869	1889	1811/'89
1. ind. entrepreneurs	7.2	8.8	11.0	14.4	11.1	11.1
2. farmers	51.3	49.1	44.6	28.5	42.2	41.9
3. particular ability	0.8	0.5	1.0	1.3	0.7	0.9
4. 'C profession	1.8	1.2	2.5	2.0	2.9	2.3
5. norm. wage-earners	5.3	4.9	4.7	8.3	12.3	7.3
6. 'AD profession'	16.6	15.1	19.8	24.2	23.7	20.8
7. day-labourers	10.3	17.8	11.3	16.0	4.7	11.1
8. without/unknown/rest	6.7	2.7	5.0	5.2	2.4	4.5
n =	885	411	2,401	1,378	1,458	6,533

Class*	1	2	5	6	7	8**	n=
Aarle-Rixtel	10.6	45.9	5.9	24.5	6.0	7.1	728
Berlicum	8.9	51.6	1.1	10.0	24.4	4.1	562
Bladel	9.7	56.9	5.1	14.1	5.7	8.5	889
Den Bosch	30.4	0.0	19.6	24.3	6.5	19.2	214
Deurne	6.1	50.8	13.1	16.0	7.2	6.7	831
Gestel	17.4	13.0	9.8	37.9	9.5	12.5	409
Goirle	15.7	11.8	15.5	45.5	1.4	10.1	484
Oirschot	11.3	41.7	5.0	23.3	10.3	8.4	717
Schijndel	6.2	51.6	1.6	14.0	20.4	6.2	579
Veghel	15.4	39.6	3.4	18.4	14.6	8.6	651
Wanroij	7.0	46.5	10.4	16.0	18.1	1.9	469
Total	11.1	41.9	7.3	20.8	11.1	7.8	6,533

* see the upper part of this table.

****** including class 3 and 4.

n= the total number of households of cohort members traced.

Source: PIGU, Results of cohort analyses.

Table 4 shows that the percentage of cohort members for 1869 living in a big household was also lowest. However, there only can be a small correlation since the farmers also lived in small households and the overall average size of the households in 1869 (see Table 1) was relatively low. Oirschot had the highest percentage of members living in a big household in the cohort of 1889. It is notable here that 66.7% of the farmers lived in big households whereas the figures for the normal wage earners, the AD professionals and the day-labourers, were 76.6, 76.1 and 77.5% respectively. The conclusion from all such observations must be that the subsistence structure alone is not sufficient to explain all the differences. Other as yet unknown factors, such as changing local attitudes, must have been playing a role as well.

Composition of the households

The term extended families usually causes people to think of large families. However, the concept can also be used for households consisting of more than two generations.¹⁰ Extended in this study simply means a composite household formed by the living-in of relatives, servants or boarders. It is the opposite of a nuclear family (including singles) consisting of just one or two generations. The composite average household does not necessarily need to be larger than a nuclear family, but generally it will be. The question as to what kind of family, nuclear or extended, the cohort members lived in could therefore be changed to what kind of family, 'nuclear or composite'?

Although households in the eastern part of North Brabant were of a normal size by Western European and Dutch standards, before the middle of the nineteenth century living in a nuclear family was not the most common situation. In 1829 for example, 47.6% of the households had a composite character (see Table 8) but a majority, 56.3%, of the inhabitants of the five sample municipalities lived in such households.

After 1849 the composite household lost importance to the extent that in 1889 only 34.2% of households, accommodating 39.2% of the people, were of this type.

In a municipality like Wanroij, where reagrarization took place, the development towards a more nuclear structure was also different with 60.5% of the inhabitants still living in a composite household in 1889.

Until 1849, a quarter of the households included servants. They represented the most common form of living-in, although relatives became more important in the second half of the nineteenth century and exceeded the percentage of servants in 1889. In 1909, only 14.3% of the households still had live-in servants (see Table 8). The percentage of households with boarders also diminished although a small revival of the phenomenon can be seen.

Many of the households had live-in members of more than one kind. The percentage decreased from 14.9% in 1829 to 4.1% in 1909. The composite households had a rather high percentage of more than one kind of living-in member.

¹⁰ Compare Trokhina, 'A typology', 175; see also P. Laslett, 'Introduction: the history of the family', in: Laslett and Wall (eds.), *Household and family in past time*, 31.

	181	1811*		9	184	9	1869 1889		1909			
	А	В	А	В	А	В	А	В	А	В	А	В
relatives	19.5	9.1	34.7	16.5	37.4	15.9	47.8	17.3	52.5	18.0	44.7	12.2
servants	54.7	25.5	62.8	29.9	57.2	24.4	59.7	21.7	50.2	17.2	52.3	14.3
boarders	25.2	11.8	20.3	9.7	18.3	7.8	6.2	2.3	11.1	3.8	14.6	4.0
unknown	12.1	5.6	13.6	6.5	13.9	5.9	4.5	1.6	4.3	1.5	3.3	0.9
comp. hh.	100	46.7	100	47.6	100	42.6	100	36.3	100	34.2	100	27.4
plural**	11.5	5.4	31.4	14.9	26.9	11.5	18.2	6.6	18.1	6.2	14.9	4.1
Ν	1,216	2,606	1,215	2,550	2,243	5,268	2,265	6,244	1,233	3,604	669	2,445

Table 8 Categories of living-in (relatives, servants, boarders, relationship unknown and plural) as percentages of the total number of composite households (= A) and as percentages of all households (= B), 1811/1909

 * the dividing lines between the households are not clear in the registers of 1811.
 ** calculated by subtraction of the number of households with living-in members from the sum of households with relatives, servants, boarders and relationship unknown.

Source: PIGU, Results of the structure analyses.

	heads	members	nucleus	relatives	servants	boarders*	total I	total II	n * ★
1811									
0 year	1.96	3.13	5.09	0.40	0.67	0.07	1.14	6.23	208
10 year	1.83	3.95	5.78	0.23	0.63	0.13	0.99	6.77	104
20 year	1.71	3.77	5.48	0.41	0.91	0.15	1.47	6.95	237
40 year	1.67	2.87	4.54	0.57	0.62	0.14	1.33	5.87	189
60 year	1.60	2.58	4.18	0.36	0.14	0.08	0.58	4.77	130
80 year	1.29	1.35	2.65	0.88	0.35	1.12	2.35	5.00	17
0/80 year	1.75	3.23	4.98	0.42	0.63	0.14	1.19	6.17	885
correction					0.64		1.20	6.18	
1829									
0 year	1.86	2.94	4.80	0.69	0.68	0.18	1.55	6.35	84
10 year	1.78	4.14	5.91	0.36	0.73	0.40	1.50	7.41	94
20 year	1.72	3.66	5.39	0.14	0.49	0.20	0.82	6.21	148
40 year	1.79	2.74	4.53	0.36	0.42	0.13	0.91	5.44	66
60 year	1.50	2.50	4.00	0.19		0.19	0.38	4.38	16
80 year	1.33	0.67	2.00	0.00		0.00	0.00	2.00	3
0/80 year	1.76	3.41	5.17	0.34	0.55	0.23	1.12	6.29	411
correction					0.57		1.14	6.31	
1849									
0 year	1.92	3.28	5.20	0.53	0.64	0.15	1.31	6.51	837
10 year	1.81	4.56	6.37	0.37	0.20	0.05	0.61	6.98	590
20 year	1.67	3.98	5.65	0.49	0.17	0.06	0.71	6.36	439
40 year	1.74	3.43	5.17	0.53	0.21	0.11	0.85	6.02	337
60 year	1.66	2.50	4.16	0.28	0.12	0.02	0.42	4.58	172
80 year	1.42	2.12	3.54	0.88	0.12	0.04	1.04	4.58	26
0/80 year	1.80	3.68	5.47	0.47	0.34	0.09	0.90	6.37	2,401
correction					0.38		0.94	6.41	, -

Table 9 Minimum average numbers of family members, living-in members and the size of the households at the calculated ages of the members of the cohorts 1811/1889, with a correction for missing servants

	heads	members	nucleus	relatives	servants	boarders*	total 1	total II	n * ★
1869									
0 year	1.91	2.90	4.81	0.65	0.14	0.15	0.94	5.74	493
10 year	1.83	4.50	6.33	0.33	0.17	0.02	0.53	6.86	321
20 year	1.65	3.74	5.40	0.20	0.20	0.07	0.47	5.87	341
40 year	1.80	3.70	5.50	0.18		0.01	0.19	5.69	169
60 year	1.80	3.19	4.98	0.09		0.00	0.09	5.07	54
0/60 year	1.81	3.59	5.40	0.38	0.14	0.07	0.60	6.00	1,378
correction					0.25		0.70	6.11	
1889									
0 year	1.94	4.11	6.05	0.55	0.18	0.03	0.76	6.81	535
10 year	1.86	5.30	7.16	0.47	0.12	0.03	0.62	7.78	378
20 year	1.72	4.40	6.13	0.27	0.16	0.03	0.46	6.59	304
40 year	1.83	4.31	6.15	0.54	0.08	0.02	0.63	6.78	241
0/40 year	1.86	4.51	6.37	0.47	0.14	0.03	0.64	7.01	1,458
correction					0.19		0.69	7.06	
1811/1889									
0 year	1.92	3.37	5.29	0.56	0.41	0.11	1.08	6.37	2,157
10 year	1.83	4.66	6.49	0.38	0.24	0.06	0.68	7.17	1,487
20 year	1.69	3.95	5.64	0.33	0.33	0.08	0.74	6.38	1,469
40 year	1.76	3.54	5.30	0.47	0.23	0.08	0.78	6.08	1,002
60 year	1.65	2.63	4.28	0.28	0.10	0.05	0.43	4.71	372
80 year	1.37	1.74	3.11	0.83	0.20	0.44	1.46	4.57	46
0/80 year	1.80	3.77	5.57	0.44	0.31	0.09	0.83	6.40	6,533
correction					0.36		0.89	6.46	

* boarders includes relationship with the head of the family unknown.
** n = the total number of households of cohort members traced at the relative calculated age. Source: PIGU, Results of the cohort analyses.

Table 9 provides a clear idea of the type of households the cohort members lived in. The composite character of a large proportion of the households was not dominant. The living-in percentage was 18.4 for the members of the 1811 cohort and no more than 9.8% for those of 1889. There were, on average, 1.2 and 0.7 people respectively living-in in these households, and slightly more than two in the households which had people living-in for both of these cohorts. This last figure remained steady but the total number of these households decreased. The percentages used in Table 9 for the living-in of servants and boarders have been corrected by means of a rather complicated calculation which will be justified elsewhere. Living in a nuclear or a composite family had little connection with the life cycle although there was some age-connected influence. Most of the living-in took place at the beginning and at the end of a cohort member's life (0 and 80 years). At the age of eighty the majority of these people were clearly living-in boarders or relatives.

Three-generation households were not really rare but are not of great statistical importance. The nuclear family appears to have been dominant also before the middle of the nineteenth century although some living-in of relatives or servants was normal. Parents or married children with their offspring could also have been counted as living-in relatives, depending on how the registration was made. After 1850, living-in decreased even further. The important consequence of the change to a more nuclear character of the households was that their size became increasingly dependent only on the size of the nuclear family. For the average size of households to remain at 4.75, as was the case in the region studied, the size of the family had to grow. How and why that happened will be discussed elsewhere.

A comparison of cohort analysis and other methods of demographic microanalysis used in studying the Tambov region, 1800-1917

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Introduction

Participation of Tambov historians in some international projects on micro-demography has made it necessary to compare the various methods of historical-demographic analysis using specific Russian demographic sources. This paper discusses the comparative possibilities of each of these approved methods and will also deal with the results of their application in a study of several separate parishes.

The first studies used two groups of structure-oriented databases. The first of these includes databases with information on the dynamics of the main vital statistics of selected parishioners of separate parishes and their relatives through their life span, that is birth cohorts. The second group deals with allparish data containing annual impersonal statistics on the number of births, weddings and funerals of all the inhabitants of separate parishes. The studies showed that these two methods are both suitable for micro-demographic analysis although, nevertheless, some limitations inherent in their structure were revealed. It was, therefore, decided to create databases encompassing the full data of the registers of the separate parishes.

These source-oriented databases proved to be very useful in supplementing and specifying the results of the cohort method and the impersonal statistical demographic method. The study evoked doubts on the correctness of some data in the parish registers and stimulated taking new sources into account, in particular medical reports which were regularly used from the 1890s. Such sources are quite reliable as they were prepared by professional doctors and covered tens of thousands of people over a time span of twenty years.

It should be mentioned that it is hard to compare cohort analysis with yearly all-parish analysis due to the different scale of the information. Cohort analysis deals with 480 cohort members and with several hundreds of their relatives (up to 2,000 people in total) while the parishes witnessed tens of thousands of people through the century. The cohort members taken together with their relatives, therefore, formed no more than 20% of the parishioners. From a sociological viewpoint, however, a sample of this size can be regarded as representative. It should also be noted that the cohort members were quite representative for the years taken and almost always comprised more than 50% of the children born in the particular year.

Twenty year intervals between cohorts are generally acceptable. This corresponds with the traditional Russian period between different generations before they started an active life. Russian peasants generally married and had their first babies around the age of 20 so that in this way the family is treated as the dominant organizational form of their economic, social and everyday life activities. A comparison of the demographic happenings of different generations of cohort members allows social change and its impact on the vital statistics of peasant individuals from 1800 to 1917 to be demonstrated. However, there were differences in the life chances of those born in different years. The 1831 cohort from Malye Pupki, for instance, was born in a year with much higher mortality (including infant mortality) and a lower birth rate. This could perhaps explain the great difference in survivals to the age of 5 compared with the members of other cohorts born in a more favourable year.

The initial parish selected was the village of Malye Pupki in the Kozlov *uezd* or sub-region, a forest steppe centre of the region, inhabited by state peasants. To make the research more representative, several settlements with a different social class status in various parts of the Tambov region were included. These were the village of Bailovka (Morshansk uezd, in a forested area in the north-east of the region, inhabited by serfs), the village of Kalugino (Kirsanov uezd, on the steppe in the south of the region, inhabited by serfs and state peasants), the village of Pokrovo-Prigorodnoe (close to the city of Tambov, inhabited by state peasants who were listed as householders of the regional centre (odnodvortsy) up to the 1850s and as Tambov city church parishioners up to the 1900s), the village of Rasskazovo (Tambov uezd, in a forest steppe area, on the border of the region and the only trade and industrial village in the region with a differentiated social structure since the first half of the nineteenth century, inhabited by imperial peasants of the Tzar family, state peasants, serfs, and significant numbers of meschane, merchants, and nobles engaged in business) and the town of Morshansk (in the north of the region, a trade and, later, an industrial centre near the river Tsna).

	Full	Medium	Low
Bailovka 1810	26	19	56
Bailovka 1830	43	35	22
Bailovka 1850	53	33	11
Bailovka 1870	29	17	54
Kalugino 1810	20	6	74
Kalugino 1830	21	7	72
Kalugino 1851	39	14	47
Kalugino 1871	28	67	5
Malye Pupki 1811	44	20	35
Malye Pupki 1831	41	42	17
Malye Pupki 1851	57	23	20
Malye Pupki 1871	44	17	39
Morshansk 1810	27	21	52
Morshansk 1830	43	13	44
Rasskazovo 1810	55	41	4
Rasskazovo 1830	59	33	8

Table 1 Completeness of data on birth cohort members in Bailovka, Kalugino, Malye Pupki, Morshansk and Rasskazovo, 1810-1871 (%)

The sources for cohort analysis (parish registers plus census registers and confession lists) appear to be sufficient for a micro-demographic study. Data on the lives of the cohort members which can be regarded as full or medium complete was collected for 11 of the 16 cohorts.¹ The main problem with the sources was not the poor quality of Russian primary statistics but the difficulties of finding a way through the complex of complementary sources for some villages. At an initial stage of the study, a great deal of attention was paid to selecting parishes with as complete a set of parish registers as possible and less to the presence of other sources necessary for cohort analysis. The recently completed study of the Rasskazovo cohorts made by Ella Morozova showed that a good availability of the three source types makes a proper checking of the cohort database possible, with the result that the complete lives of cohort members can be largely traced. This was managed for over 90% of the cohort members. Further perspectives for cohort analysis necessitate a thorough search for villages with a complete set of different sources and a very careful editing of the database used for analysing the cohorts and for quantification.

A comparative analysis of the five villages showed that the four added villages displayed the same demographic processes as took place in Malye Pupki.² This comparison also clarified the specific results of cohort analysis

¹ Only the 1810 and 1830 cohorts are available for Morshansk and Rasskazovo .

² V. Dyatchkov, V. Kanitschev, Y. Mizis, V. Orlova, L. Protasov and S. Protasov, 'Cohort analysis of Malye Pupki's population: Some preliminary results', in P. Kooij (ed.), *Where the twain meet. Dutch and*

obtained from the various sources. For example, a problem of the loss of some 1810 and 1830 cohort members due to the absence or change of family names for serfs and for the Tzar family peasants emerged. For the 1850 cohort from Prokovo-Prigorodnoe, some girls disappeared who might have been married in Tambov or in other villages close to the town. Parish registers of 20-30 churches were checked to detect such refugees whereas a search for brides from pure rural cohorts only needs a survey of 2-3 parish registers of the neighbouring villages. All-parish databases were also formed for the same 5 villages of Malye Pupki, Bailovka, Kalugino, Prokovo-Prigorodnoe, Rasskazovo and the town of Morshansk.

Birth rates

Cohort analysis does not pretend to study such an index as the birth rate, so an all-parish statistical analysis supplements the method in this way. The possibilities for studying the Russian pre-Revolutionary birth rates are limited because censuses were comparatively rare (sometimes the interval between them was more than 20 years) and were quite incomplete (census registers dealt only with tax population and household censuses usually listed those who lived in a settlement at the moment of the census). For this reason years with the most reliable and full census data were selected.

The figures for 1816 and 1833 are approximations as the data from the parish and census registers are incomplete and inaccurate for calculating the birth rate precisely. But even such low estimates for Malye Pupki, Rasskazovo and the whole Tambov Region for 1816 reflect high birth rates in traditional villages. As rates from 20 to 40 are taken as high, birth rates of over 40 can be regarded as extremely high. Such rates are shown in almost every case for the parishes studied. The very low 1816 figure for Bailovka was due to a bad year for births and the poor registration in this remote village (even the better years of 1815 and 1817 gave birth rates as low as 20). A radical improvement in the method of registration in the 1830s immediately showed extremely high birth rates in Bailovka. In the whole Tambov region, birth rates fluctuated between 48 to 54 during the period from the 1830s to 1911.

The annual variations in the birth rate do not make it easy to see any developments, but it is clear that the birth rate was always high or extremely high. The birth rates in the Tambov Region are higher than those cited by B. Mironov for rural Russia in his major book on social history and also higher than the birth rates cited by V. Nossevitch for the Orthodox

Russian regional demographic development in a comparative perspective 1800-1917 (Groningen/Wageningen 1998) 141-153; Y. Mizis and V. Orlova, 'Sources and methodology for cohort analysis. The case of Malye Pupki, Tambov region', in: Kooij (ed.), Where the twain meet, 125-130.

Byelorussians of the Minsk region close to Hajnal's well-known line dividing a Western European and an Eastern European marriage pattern.³ These higher Tambov rates were due to an extraordinarily large proportion of people (peasants) engaged in agriculture. In the northern (Yaroslavl), northwest (Olonets), and western (Minsk) region people began increasingly to turn away from agriculture. The Tambov Region was not unique, however. Micro-demographic studies of the Kursk Region, which was also a largely black-earth agricultural community and was situated 300-400 km west of Tambov, also showed that the birth rate had remained extremely high for a very long period.⁴

Table 2 Birth rates in the Tambov Region and in different settlements, 1816-1917

	М.	Bailovka	Kalugino	Rass-	PPrigorod*	Morshansk	Tamb.
	Pupki			kazovo			Reg.
1816	c. 35	с. 8	No data	c.35	No village	No data	37.0
1833	c. 50	c. 55	No data	54	No village	No data	49.9
1858	51	61	61	64	50	49	51.2-53.0
1862	59	27	57	58	45	49	50.8
1884	52**	59	49	60	64	53***	50.5
1911	56	53	38	No data	60	No data	47.7
1917	25	18	15	No data	c.30	No data	34.4

Notes: * Data on Prokovo-Prigorodnoe are estimates as the exact number of parishioners of the Pokrov Cathedral in Tambov is not known.

****** Data relates to 1889.

*** Data relates to 1897.

Source: GATO, Ф. 1049. Оп. 5. Тамбовский уезд; Ф. 12. Оп. 1. Ревизские сказки Тамбовского уезда. Ф. 181. Оп. 1. Д. 1396. Лл. 7-22 об; Сборник статистических сведений по Тамбовской губернии. Т. 12, Тамбовский уезд (Tambov 1886) 142-185; М.К. Акользина, Изменение социальной структуры населения среднего русского уездного города в первой половине XIX в. (по материалам Моршанска Тамбовской губернии). Дисс. ... канд.ист.наук (Tambov 2002); Р.Б. Кончаков, Демографическое поведение крестьянства Тамбовской губернии в XIX начале XX в. Новые методы исследования. Дисс. ... канд.ист.наук (Tambov 2001) 66; Неопубликованным данные М.Н. Милехина по с. Покрово-Пригородное. Обзор Тамбовской губернии за 1878-1910 гг (Tambov 1879-1912).

³ Б.Н. Миронов, Социальная история России периода империи (XVIII-начало XX в.) Т.1, СПб. (1999); В.Л. Носевич, Демографические показатели белорусского крестьянства во второй половине XVIII - первой половине XIX в. // Компьютер и историческая демография (Барнаул 2000).
⁴ А.Н. Быканов, Воспроизводство сельского населения Курской губернии в конце XVIII – начале XX вв. Дисс. ... канд. ист. Наук (Kursk 2001).

It was not until the First World War that Tambov rural birth rates dropped under 40, though they still remained rather high for a modern society. As soon as peasant war recruits started to come back home in 1917 the birth rate again sprang up to a pre-war level, and although it decreased gradually it still remained extremely high until the Second World War.

The maximum possible birth rate calculated from E. Cole's coefficients for rural European Russia was 76 per 1,000 in 1896-1897, which is in accordance with Mironov's findings.⁵ The average orthodox female birth rate in European Russia was as high as 51 in 1900-1904 and 46 in 1910. So, as Mironov states, the deviation from the biological maximum at the turn of the century was approximately 30%.

The reasons for that deviation become clearer if the medical statistics, namely the annual reports of the maternity and gynaecology departments of Tambov Region Zemstvo Hospital (TRZH) and the reports of separate delivery rooms, dispensaries and assistant doctor's posts in the region are studied. Priests registered (baptised) infants who survived to the day of registration. Miscarriages, stillborn and apparently dead babies and infants who had died before being baptised were not listed in parish registers, while such babies were registered in delivery rooms or by a doctor or midwife when he or she delivered a child at home. The TRZH delivery reports of 1895-1913 show that stillborn babies and miscarriages were as high as 20-35% of the children born alive. P. Bogdanov, who worked as a Zemstvo doctor in the village of Saltykovo, near Kalugino, in 1884-1886 interrogated 1,059 peasant women who confessed that 18.4% of their pregnancies ended with abortions and 11.3% of babies were stillborn. Bogdanov was 'fully convinced that the real numbers of miscarriages and stillborn babies to peasant women were much higher' and estimated this as high as 40% in total. Out of the 76 children born in the Kozlov sub-regional delivery room in 1904, 14 were stillborn (7 of 12 twins) and 9 did not survive the first 1-3 days, and of the 719 children delivered by doctors in the Tambov sub-region in 1899, 176 were stillborn, miscarriages and apparently dead while in 1907, 179 of 1,057 deliveries were only abortions, etc.⁶

An extra indication of a larger share of unregistered parish deliveries is that not one of the female cohort members had more than 12 childbirths while

⁵ Миронов, Социальная история России, 186

⁶ P. Bogdanov, 'On statistics and casualties of gynaecologic illnesses for Kirsanov Uezd peasant women', *Medical Review*, N7 (1889).

delivery rooms reports invariably record that *c*. 2% of all women at birth were delivering for between the 13th and 21st time. This, and other similar data, help to calculate that every 100 baptised peasant babies conceal 33-40 unregistered pregnancies which had lasted for at least 7 months, not to speak of a substantial number of miscarriages in the first half of the pregnancy. Taking these corrections into account it can be stated that birth rates in Tambov parishes were close to the bio-maximum in many of the years studied.

Birth rates for Morshansk form a separate case. That sub-regional centre turned into a trade and industrial centre in the first half of the nineteenth century. It is impossible to calculate precise birth rates for the first decades as the peasants of neighbouring villages with unknown population figures also used to baptise their children in the town churches. Table 2 shows high birth rates in Morshansk up to the 1860s. This was possibly a relic of traditional demographic behaviour of the first and second generation of peasant immigrants, combined with the impact of the peasants living in the agrarian suburbs of Morshansk.

In the 1850s-1860s Morshansk suffered a sharp decline in the grain trade which affected the majority of its citizens who were traders, officials and river port workers. The economic crisis had immediate demographic consequences with the birth rate for 1864 dropping to 21 and then as low as 10 in 1866 and it was still only 15 in 1868. The probable reasons for such extremely low birth rates were male outmigration in search of a livelihood, a decline of marital fertility and possibly also the use of contraception.

	Bailovka	Malye Pupki
January	10.2	9.0
February	7.2	8.2
March	8.1	7.9
April	6.1	6.0
May	6.2	6.5
June	8.1	8.9
July	10.1	9.5
August	10.4	9.2
September	10.3	9.0
October	10.2	11.4
November	8.4	8.4
December	4.7	6.0

Table 3 Monthly birth distribution, Bailovka and Malye Pupki, all-parish data (%)

The monthly distribution of c.20,000 births registered in two traditional villages which are presented in Table 3 show an obvious dependence on the usual factors of a traditional society (physiology, economics and partly the

church). Births peaked from mid-summer till winter since this was the best period for nursing mothers (a new harvest with food stores for several months). In Malye Pupki, the religious (church) factor was more important because its parish was of the Epiphany so that marriages were mostly arranged on this local feast on 6-7 January (Julian calendar) and this had a noticeable effect on the number of births in October. Bailovka did not have such a concentration of marriages resulting in a peak of births. There were also periods with a drop in the numbers of births with notably low figures for December. Many contemporary historians have viewed the drop in December as the result of a simple but false premise which can be quoted as: 'sexual intercourse = conception = natural time and safe pregnancy = birth = adequate registration'. They explained the low figures for births in December as being the result of the rigid observance by the peasants of religious bans on sexual life during the seven weeks of Lent and drew principal conclusions on the advanced piety of a remarkable proportion of the Russians. However, a more thorough and precise study of the Bailovka and Malye Pupki parish databases revealed that between Lent and the number of births 9 months later there was a more complex relationship rather than a direct causal one.

For the period 1812-1912, Bailovka's parish registers contain almost 500 birth (or better baptismal) registrations made on the first day of each month while other days of the month had on average some 200 entries each. Malye Pupki had 945 and 380 entries respectively. A sharp fall in the number of cases is clear for the last days of each month. The first day of January was an obvious winner as far as the registration of births was concerned with the last days of December as the major losers. No doubt some peasants who conceived during Lent (March was almost always wholly within the 49 days of Lent) understood that registering a birth in December was revealing a 'sin', so they consciously and with the agreement of the priest delayed registration of the birth until January. Peasant superstitions in general concerning fears of christening a newborn at the very end of a year are also a convincing explanation of such a postponement. Even now, a baby actually born in the last days of December is often given his 'official', registered birthday in the first days of January. This gaining of a calendar year means a delay of army recruitment for males and a younger age for females.

Computer micro-analysis helped to clarify the impact of Lent on December and also on November (in those years where an early Lent covered part of February) and on January births (late Easter with Lent covering a large part of April). *Paschalias* (Easter) for the nineteenth and the early twentieth centuries were taken into account to make 9-month (280 days of pregnancy) reverse projections for those conceived in Lent. The formula was (P - 49) + 280 up to P + 280 [P: date of Easter, 49: duration of

Lent, 280: period of pregnancy]. The same calculations were made for two 49-day segments before Lent and after Easter to compare conception dynamics as reflected in the church registrations. The result was that the number of births registered in the projection Lent + 280 was 33-37% less than in adjacent 49-day segments.

It was also investigated how this combination changed in particular years. This showed that in Bailovka in 40% of the years and in Malye Pupki in 27% of the years scattered throughout the period more children were conceived during Lent than in at least one of the adjacent segments and in 15-30% of the years there was a minimum of births in the period (Easter and 49 days after) + 280 days. Thus, there was no obligatory interdiction on Lent conceptions and as it is not possible to imagine peasants being true believers in one year and not in another it is difficult to see a direct impact of the religious factor.

It should also be mentioned that seasonal birth rates were dependent upon the seasonal marriage pattern. Peasant marital activities were part of the natural economic cycles that governed their lives. Annual rural marriage dynamics formed an almost ideal curve with a steep rise in the late autumn (October peak) and in winter, afterwards sliding down to a minimum in August. There were no weddings in March and December because of church bans on marriages during Lent and the Christmas fast so that the curve has two zero points. The impossibility of marrying in the period of the 40-day Christmas fast (15 November till 24 December) was an obvious hindrance for peasants which resulted in a fall in births in September. As soon as the church registration was abolished by Soviet rule in rural Russia the December gap was filled up with marriages resulting in a peak of births 9 months later. From 1917 until the 1960s September displayed birth peaks in the different villages in our study (Pakhotny Ugol, Podlesnoe - formerly Malye Pupki - Sosnovka, Orzhevka, and the 2nd Left Lamki). March was quite another matter, with most of the peasants by then having consumed their food stores and struggling for new supplies. That situation left almost no place for marriages and sexual activities so that Lent's bans suited the peasant year life cycle almost painlessly.

During the century there were 169 weddings in Bailovka within the 49 days before Lent, none were arranged during Lent and 118 marriages occurred in the 7 weeks afterwards. Malye Pupki's registers showed 2,251 weddings in January, 414 in February, 15 in March, 204 in April and 131 in May. A lot of pre-Lent weddings is a well-known fact, but that peak did not result in the same rise in births 9 months afterwards. There were less marriages after Easter but the subsequent number of births was almost the same as the results of pre-Lent conceptions. So the productivity of after-

Easter marriages was relatively high due to better peasant health and potency after breaking their fast. A small number of December births can also be predicted by another physiological factor interwoven with religious rules. Medical sources point to young couples who gave birth to the greatest share of newborns - up to 40% by the turn of the century. A church ban on marrying in March inevitably led to a drop in the number of first-born babies in December. But if the number of couples who married 9 months before is subtracted from the number of births a precise and impressive year curve of birth registrations for those who were conceived and born but not as firstborns is obtained. Data on the monthly distribution of births and marriages for the Tambov sub-region in 1871-1881 shows that Lent, as well as the other long fasts, never acted as delays in conceiving a future labourer and an extra mouth to be fed for peasant families, except for young couples. Lent conceptions for already married couples completed a not very steep downward curve showing a drop in fertility from December to March with a new start to a natural rise in April (Julian calendar).

Table 4 Conceptions and child-births in all and already married couples, Tambov subregion, 1871-1881

Month of birth	Month of marriage	Registered births	Marriages	Difference births-
registration	(conception)	(N)	(N)	marriages
January	April	14,169	1,124	13,045
February	May	12,433	847	11,586
March	June	11,677	373	11,304
April	July	11,086	423	10,663
May	August	12,691	159	12,532
June	September	14,082	1,131	12,951
July	October	15,270	11,517	3,753
August	November	13,757	6,011	7,746
September	December	12,278	0	12,278
October	January	14,700	4,444	10,256
November	February	11,502	1,720	9,782
December	March	8,210	0	8,210
Total		151,855	27,749	124,106
		(100%)	(18.3%)	

Natural and labour conditions acted as the basic regulators of peasant sexual activities and fertility. There are different ways of demonstrating this. As mentioned above the long term pattern of peasant marriages corresponded to the cyclical crop pattern in its rises and falls. It even seems that the number of peasant marriages and births depended partly on a coming (future) harvest while a completed summer harvest of any year – good or poor – seemed to

have noticeably less affect on autumn and winter marriages and the success of conceptions.

To make our observations more precise we compared data on the crops in the year of birth and in the previous year with data on conceptions and births according to the three 49-day segments of Lent, and before and after this. Good years for the crops were also years with higher birth rates and population increases. Productive years had fewer conceptions in the period January-May since most conceptions then occurred in a higher band of marriages and conceptions in the period September-December of the previous year (even though this could have been a bad time for the crops). It seems as if there was some peasant presentiment of a productive year which determined when to conceive, so that the baby would be born at the best time to rear an infant. This pattern closely followed the curve for the crop of winter rye, the Russian dominant cereal forming 75-85% of the crops.

A village or a region experiencing maximal fertility each month does not necessarily have equal cohorts of fertile females. It is not possible to become pregnant again in the course of one's pregnancy. Forty percent of the peasant pregnancies studied ended in miscarriages and abortions, which were especially frequent for pregnancies of 2-4 months during the hard working period in harvest time, when young peasant women had to toil like workhorses thus influencing later conceptions around December. Some 5 to 15% of the babies were stillborn or weak and died unchristened. According to V. Dyatchkov's calculations, the number of conceptions was 1.8 times higher than the number of babies christened. If all the fertile peasant women and their offspring were absolutely healthy the birth curve would have formed an ideal smooth curve corresponding to an equally smooth curve of marriages unaffected by official church bans on marriages at the longest fasts. The pattern of marriage - conception - birth in 9 months - new conception in 2-3 month after delivery - new birth was demonstrated by only a few healthy females whose number of births, according to delivery room reports, ran from 18 to 22.

There is one more argument against the premise of the Russian true believers adhering to continence in Lent and which does support the idea of the dominance of natural, economic and bio-medical factors. This is the existence of a pre-Revolutionary birth pattern in towns (cities) and trade and industrial villages. It is difficult to gather all-parish statistics for such big settlements so it is only possible to make some observations on cohort, medical and biographical data.

As Table 5 shows, as early as the first half of the nineteenth century Morshansk and Rasskazovo no longer had a fall in births in December. Tambov city obstetric polyclinic data on births in 1900-1913 formed a typical urban profile with birth decline in summer (autumn conceptions) and winter rise (spring-summer conceptions) unaffected by church registration problems. The key factors in that curve were quite different from the rural ones. Occupations, rhythms, seasonal prevalence, life conditions made it possible to conceive in February and March without problems.

Table 5 Monthly birth distribution, 1810 and 1830 cohort members, Rasskazovo and Morshansk

	Rasska	azovo	Morsh	nansk
	absolute	%	absolute	%
January	79	9.2	18	7.5
February	72	8.3	21	8.8
March	68	7.9	29	12.1
April	48	5.6	12	5.0
May	53	6.1	25	10.4
June	79	9.2	11	4.6
July	90	10.4	15	6.2
August	56	6.5	27	11.2
September	75	8.7	18	7.5
October	86	9.9	25	10.4
November	79	9.2	18	7.5
December	78	9.0	21	8.8
Total	863	100.0	240	100.0

Note: Rasskazovo data includes cohort members and their relatives; Morshansk is for cohort members only.

Rasskazovo and Morshansk cohort data reveal an apparently intermediate phase of seasonal birth rates between a rural pattern and an urban one. Here, as in traditional villages, the annual birth cycle had summer-autumn peaks (July or August, October or November) and an April minimum. However, some deviations from the traditional pattern had already taken place, as is shown by non-traditional minima in July (Morshansk) and August (Rasskazovo). An unusual March peak in Morshansk requires further study. This may have been due to conceptions occurring during the period preceding the fast of St. Peter when town dwellers, unlike rural people, were not busy with agriculture, especially as 20% of the marriages in the parish were arranged in May.

Methods of microanalysis, such as cohort analysis, also allow the female fertility index, the number of children, and the birth intervals within – particular families to be calculated. The first results were represented in a paper on the cohorts from Malye Pupki at a Groningen conference in 1994.⁷

⁷ Dyatchkov et. al., 'Cohort analysis of Malye Pupky's population', Tables 14-17.

	18	11	18	31	18	51	18	71
	Ν	%	Ν	%	Ν	%	Ν	%
0 children or unknown	0	0	1	2	0	0	7	16
1-3 children	29	55	15	29	17	35	12	27
4-6 children	10	19	22	42	24	50	8	18
7-9 children	9	17	14	27	3	6	14	30
10 and more children	5	9	0	0	4	8	4	9
Number of families	53		52		48		45	
Average number of children	5.0		4.7		4.6		5.3	

Table 6a Number of children born in families of cohort members, Malye Pupki

Table 6b Number	of children	horn in	families o	of cohort	memhers	Bailovka
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	1810		1830		1850		1870	
	Ν	%	Ν	%	Ν	%	Ν	%
0 children or unknown	0	0	0	0	0	0	0	0
1-3 children	2	50	7	58	3	50	3	50
4-6 children	1	25	4	33	2	33	3	50
7-9 children	1	25	1	8	0	0	0	0
10 and more children	0	0	0	0	1	17	0	0
Number of families	4		12		6		6	
Average number of children	4.7		4.7		4.6		5.3	

Table 6c Number of children born in families of cohort members, Rasskazovo

	1810		1830	
	Ν	%	Ν	%
0 children or unknown	2	3	5	11
1 child	8	13	9	19
2-5 children	23	38	12	26
6-9 children	21	34	16	34
10 and more children	7	12	5	11
Number of families		61		47
Average number of children	-	5.2		4.9

Table 6d Number of children born in families of cohort members, Morshansk

	1810		1830	
	Ν	%	Ν	%
0 children	0	0	0	0
1 child	10	33	12	52
2-5 children	12	40	8	38
6-9 children	8	27	3	10
10 and more children	0	0	0	0
Number of families		30		23
Average number of children		3.4	2	2.1

As Mironov states for the period 1800-1917, healthy Russian peasant women who were married through their complete fertile period had 8-10 births on average, and there were a total of 6-8 births for each woman including unmarried women, widows and wives of soldiers.8 The data for the 1831, 1851 and 1871 cohorts from Malye Pupki correspond to that norm. Bailovka clearly had families with fewer children, seemingly supporting Mironov's idea of serfs as 'pioneers of birth control'. However, difficulties in finding data for particular people in the cohorts from Bailovka and especially for data on female fertility suggest that information on some children is lacking and also suggests poor female health. The average number of children in Rasskazovo families was less than the all-Russian figures. Classification shows that in 1830 there were fewer cohort families with 6-9 children than with 2-5 children, but the situation in 1810, however, was reversed. In Morshansk, the cohort from 1810 already had small families, and the number of children even dropped to very modern figures. The share of families with two children or more dropped in the two cohorts from 67% to 48%, with no more than 8 births as maximum. Here one can assume some form of birth control practised by people living in the town who were not engaged in extensive agriculture.

Table 7 Number of children in families of cohort members, Rasskazovo (peasant categories)

· · ·	1810			1830		
	Serfs	State peasants	Factory worker	Serfs	State peasants	Factory worker
0 or unknown	2	-	-	5	-	-
1	7	1	-	6	2	1
2 - 5	19	2	2	8	2	2
6 – 9	15	6	-	12	1	3
10 and more	4	3	-	3	1	1
Average per family	4.9	6.6	3.5	4.4	5.2	6.6

The wives of state peasants were more fertile as they had better living conditions in comparison with the serfs who toiled not only on their own ground but also had to do work for the landlord (in Rasskazovo that implied work at patrimonial factories). A rise in the number of children born to the 1830 cohort of factory workers in Rasskazovo might have been due to their emancipation in 1852, when some of them became meschane and improved their welfare standards. The drop in the number of state peasants in the 1830 cohort occurred because two husbands were recruited to the army in the first

⁸ Миронов, Социальная история России.

three years after their marriages, while in the 1810 cohort two husbands left their wives for the army only after 8-12 years of family life. Nevertheless, striving for more children was common to peasants in all categories so that families of 6 to 9 children dominated each group.

Rasskazovo data on female cohort members has been found to be sufficient to compare the intervals between births with the data on Malye Pupki which was presented in the last book of articles.⁹

Interval in years	18	10	18	330
	Ν	%	Ν	%
Up to 1	3	6	13	32
1-2	14	26	12	29
2-3	21	39	8	20
More than 3	16	30	8	20
Total	54		41	

Table 8 Interval between marriage and first birth, 1810 and 1830 cohorts, Rasskazovo

As was the case in Malye Pupki, peasant couples in Rasskazovo usually had their first christened baby during the first or second year of marriage, taking into account that the results for the cohort of 1810 are not completely reliable. The (birth)registers for 1828, which was the first year after marriage for several of the cohort members of 1810 and also a year with a lot of marriages where the brides were 18 years old, are missing. This means that the reported 39% of first children born in the third year of marriage for the 1810 cohort were actually often second children.

 Table 9 Interval between marriage and first birth in Bailovka (cohorts 1810-1870)

Interval in years	%
Up to 1	15
1-2	17
More than 2	68

The all-parish data for Bailovka which is presented in Table 9 is more representative, covering some 20% of the first marriages (190 cases). However, it shows a period between marriage and the birth of the first child that is generally even longer, with the first child being born after more than two years of marriage in more than two-thirds of the cases.

⁹ Dyatchkov et al., 'Cohort analysis of Malye Pupky's population', 149.

The average interval between two children in the 1810 and 1830 cohorts was 2.1 and 3.3 years respectively in Bailovka, 3 and 3.3 years in Malye Pupki and around 3 years and a little more than 2 years in Rasskazovo, so that the picture in the three villages was similar. There were no noticeable changes in the cohorts of Bailovka and Malye Pupki during the second half of the nineteenth century but the 1830 cohort in Rasskazovo showed a reduction in all intervals compared to 1810. The average inter-birth interval also decreased in Morshansk from 2.6 years for 1810 to 1.8 years for 1830. Bearing in mind that the average number of children was 2 for the 1830 cohort, it can be suggested that some form of birth control was started with couples aiming to have two children as soon as possible and then no more. This cannot be said for the Rasskazovo cohort of 1830 as the number of children here remained high.

Table 10a Average birth intervals in months, female cohort members, Bailovka

Interval	1810	1830	1850	1870
1st-2nd child	24.0	48.4	49.8	39.3
2nd-3rd child	48.3	37.1	41.3	38.5
3rd-4th child	20.0	43.0	36.5	32.5
4th-5th child	10.0	32.0	23.0	20.0

<u>Table 10b Average l</u>	pirth intervals in mo	onths, female co	ohort members, I	Malye Pupki
Interval	1811	1831	1851	1871
1st-2nd child	38.4	40.0	25.2	35.0
2nd-3rd child	38.4	34.5	34.0	29.5
3rd_4th child	29.8	36.9	38.6	31.4
4th-5th child	35.6	45.7	40.7	30.4

Table 10c Average birth intervals in months, female cohort members, Rasskazovo

Interval	1810	1830
1st-2nd child	34.1	25.7
2nd-3rd child	33.4	29.8
3rd-4th child	34.9	32.9
4th-5th child	35.5	32.1

When considering the question of whether or not birth control was practised it is important to investigate the female fertility period. The female cohort members from Malye Pupki delivered their last babies in their twenties (17%), their thirties (27%) but mainly in their forties (56%). Although only 10% of the women recorded in the registers exploited the whole of their natural fertility period, a majority of them were fertile for a long time. Bailovka showed a different pattern with 29% of the female cohort members having exhausted their reproductive period before the age of 30, 65% before the age 39 and 6% (only 1 woman) was healthy enough to give birth to a baby after the age of 40 and used her complete fertile period. Bailovka differed considerably from Malye Pupki in this because of the much larger proportion of females whose fertility came to an end in their thirties. Long fertile periods with large (up to 4-6 years) birth intervals does not suggest rational birth control, but numerous unhappy pregnancies for peasant women willing (or passively submitting) to have as many children as they could. It is possible that serfs in Bailovka had to work longer and harder, which undermined the health of the females to a greater extent thus making them less able to have children at a later age.

Table 11a Age at the birth of the last child, 1810 and 1830 Rasskazovo female cohort members

Age	182	10	1830		
	Absolute	%	Absolute	%	
20-25	8	14	10	24	
26-30	11	19	7	17	
31-35	12	21	6	15	
36-40	18	32	10	24	
Over 40	8	14	8	20	
Total	57	100	41	100	

Table 11b Age at the birth of the last child, 1810 and 1830 Morshansk female cohort members

	18	10	1830		
Age	Absolute	%	Absolute	%	
20-29	5	21	5	45	
30-39	10	42	5	45	
40-49	9	38	1	9	
Total	24	100	11	100	

The Rasskazovo 1810 female cohort members who had not been widowed within the first ten years of their married life gave birth to their last babies at the average age of 36.3 years while for the 1830 cohort this was 38.6 years. For both cohorts the last children were born when the mothers were aged 44-46. Forty-six percent of the females of the 1810 cohort and 44% of that from the 1830 cohort delivered their last babies between the ages of 36 and 46. Although the women in Rasskazovo had shorter fertile lives than those in Malye Pupki, there is no reason to talk of birth control because quite a lot of the mothers still gave birth to children when older than 40. It is better to assume that the females in Rasskazovo, who as serfs were exploited as textile workers, had their health undermined sooner than Malye Pupki's state peasants.

The age at which the last child was born was traditionally high for the cohort of 1810 in Morshansk and closer to Malye Pupki's figures than to those of Rasskazovo. But the females born in 1830 behaved quite differently. Keeping in mind that the numbers are rather small, 90% of them ceased to have children ten years and more before the biological limit. In four cases we can suppose that there was some form of modern birth control as the two children were born when their mothers were under 30, but only one case displayed ideal planning with the two babies being born when the mother was aged 21 and 23. In other cases, the interval between the first and second child was as high as 4 to 6 years which would suggest poor health of the mother. Poor or weakened health and not rational birth control often determined the number of children. This shows up in the large intervals between babies where the couple clearly wished to have as many babies and for as long as they could. Thus, the Morshansk 1810 cohort included cases where the mother was 28 and 37 and 27 and 45 when giving birth to the first and second child respectively. The 1830 cohort included a mother with the first baby at age 23 and the second at 37, and also two women who gave birth to four children each, with the last child being born at the age of 36 and 44 respectively after intervals of 9 and 14 years.

Fertility rates were tied to the characteristics of labour, the food intake and the health of the potential mothers. It is possible to correct some conventional demographic indices through comparative study of parish and medical sources. As became apparent from the medical data mentioned above, parish registers missed a significant number of the births. The number of pregnancies and also the birth intervals were affected by miscarriages in the first 2 to 5 months of a pregnancy. The annual percentage of such patients in the TRZH gynaecology department was between 10% and 30%. Taking this into consideration, real marriage-birth and inter-birth intervals could be a factor of two lower. However, even when such a correction factor is taken into account many women clearly had large birth intervals. Most probably this was due to the state of health of those females and the hard living conditions which caused a lot of stillborn babies. Regular malnutrition and starvation as the result of poverty, causing hunger amenorrhea, combined with hard labour and syphilis (since the 1880s) are important explanations for these failing pregnancies. The observations of Dr V. Nikolsky for the Tambov sub-region in 1871-1881 helped to suggest that the average menopause age was as low as 41.2.

The age distribution of the reproductive period of the cohort members can be compared with the gynaecological statistics. The records of 418 TRZH patients who became pregnant and delivered babies between 1895 and 1904, but who afterwards became sterile because of disease, show that 29% of these women delivered their last baby before the age of 27, 35% between the ages of 27 and 36 and 36% after the age of 36. There were fewer cohort members in the first and second age groups because women who had only had miscarriages and babies who died unregistered are not included and for the reason that young sick (sterile) peasant females were more inclined to visit a hospital than older ones who had already fulfilled their reproductive plans. Only severe, often fatal, illness could induce this last group to see a doctor.

Marriage

Both types of analysis complement each other when studying peasant marriage customs. The all-parish statistical method gives a full picture of all marriages registered in a parish, making it possible to calculate marriage rates.

Mironov's calculations of the marriage rate of the Russian peasant population in the period 1800-1917 show substantial fluctuations in different years, but in the long term there seems to have been a tendency for a decline from 9.7 marriages per thousand inhabitants in the eighteenth century and 10.1 in the 1860s to only 8.4 in the 1910s.¹⁰ Table 12 also shows fluctuations with relatively low rates for the first half of the nineteenth century and high marriage rates by the 1860s which declined in the following half century in the traditional villages. As Mironov states, marriage rates in agrarian settlements were related to the amount of arable land per head so that overpopulation and decrease of land allocations made marriage rates in agrarian regions decline. It is interesting to see how in 1917, when there was mass desertion and disintegration of the army, there was an enormous wave of marriages as a kind of compensation for marriages postponed during the First World War. In suburban Prokovo-Prigorodnoe, marriage rates were initially low and close to those of the city, but even here 1917 witnessed a surge of marriages to show that peasant traditions were still alive in a substantial part of the population.

The marriage rate in Rasskazovo tended to stabilize by the 1850s with a value somewhere between that of urban and rural rates. According to Mironov's observations, the marriage rates in the industrial regions, where income was much less dependent on the size of the land allocations, never dropped below 9.0% even in the 1900s. The 9.4‰ shown by Rasskazovo in 1884 supports the view that marriage rates there were dependent on agricul-

¹⁰ Миронов, Социальная история России.

Parishes Tambov Region Bailovka Kalugino M.Pupki P.-Prigorod.* Rasskazovo Morshansk 1816 No data No data с. 7 No village 7.4 No data No data 1834 с.8 No data c. 8.5 No village 6.1 c. 13** 9.5-10.8 14.5 9.4 9-10 1859 13.7 c. 7.5 11.9 5.1 1862 No data 13.7 14.7 с. 9 12.1 9.6 10.1 13.5*** 9.4 10.2**** 1886 13.6 11.3 с. 8 9.2 1911 8.0 No data 8.8 No data No data No data 7.1 3.4 1917 8.3 9.2 13.9 c. 12 No data No data

Table 12 Marriage rates in Tambov Region parishes (%)

Notes: * Data on Prokovo-Prigorodnoe are estimates as the exact number of Prokovo-Prigorodnoe's inhabitants who were parishioners of the Pokrov (Holy Shroud) church in Tambov is not known.

****** Data relates to 1828.

******* Data relates to 1889.

**** Data relates to 1897.

Sources: GATO, Ф. 1049. Оп. 5. Тамбовский уезд; Ф. 12. Оп. 1. Ревизские сказки Тамбовского уезда. Ф. 181. Оп. 1. Д. 1396. Лл. 7-22 об; Сборник статистических сведений по Тамбовской губернии. Т.12, Тамбовский уезд (Tambov 1886) 142-185; Акользина, Изменение социальной структуры; Кончаков, Демографическое поведение крестьянства. Unpublished data on Pokrovo-Prigorodnoe in M. Milekhin's collection: Обзор Тамбовской губернии за 1878-1910 гг (Tambov 1879-1912); А.Е. Андриевский, Статистическое описание Тамбовской епархии (Tambov 1911).

tural income. It is clear that the process involved many marriages of newcomers showing that the village gradually opened up and became economically more attractive to foreigners, mostly traditional peasants. Marriage rates in Morshansk in the 1860s were still 9.6‰. Mironov gives 10.6‰ for Russian towns in the period 1801-1860. However, such average indices hide the individual and complex processes going on in separate towns. Up to the 1830s Morshansk had relatively high marriage rates, close to the rural ones of the 1850s, such as 14‰ in 1825. By 1840 these had fallen to 8‰ and in 1854 and 1855 they were only 5 and 6‰ respectively. In the early 1860s the rates rose again to 9.7‰ in 1861 and 9.6‰ in 1863, though in 1864-1868 marriage rates in Morshansk dwindled to 2-4‰ reflecting the town crisis when large numbers of males migrated away in search of a living. However, at the end of the nineteenth century, marriage rates rose again due to a sharp rise in immigration of young peasants who brought with them traditional rural marriage behaviour.

The all-parish statistical method is, however, not completely reliable for studying such a basic index as the age at marriage. Marriages were only recorded in parish registers from the 1840s and the age noted for the bride and groom relied on their own statements. A cohort database with dates of births and marriages of cohort members allows the age at marriage to be calculated precisely and also makes it possible to calculate the ages at marriages for periods long before the 1840s. The census registers of 1816 and 1834 allow the ages at marriage of cohort member couples from a given village to be found. Personified data on female cohort members help to search for such brides in other, mostly neighbouring, parishes. A complete source-oriented database with full information on dates of births and marriages of all parishioners offers much greater possibilities of calculating the age at marriage precisely. Using cohort analysis there is a precise age at marriage for the cohort member but not necessarily for his or her spouse.

Difference in years	Males	Females
More than 4 years older	4	2
3-4 years older	2	0
1-3 years older	6	5
The same	24	17
1-3 years younger	2	2
More than 3 years younger	1	0
Total	39	26

Table 13 Differences between age at marriage as stated in marriage registers and the real age, Bailovka 1810-1918

Considerable differences between the ages at marriage as reported in the marriage registers and the actual age were found in more than one third of the cases. The results of the first calculations given in Table 13 show that this mainly involved overstating the age at marriage, both of the brides and the grooms.

Table 14 Average age at marriage, all-parish data for Malye Pupki (N=4,242) and Bailovka (N=1,086)

	Males	Females
Malye Pupki	19	20
Bailovka	20	18.5

Table 15	Average ag	e at marriage	of cohort	momhore
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_	1810-1811		1830-1831		1850-1851		1870-1871	
	Male	Fem.	Male	Fem.	Male	Fem.	Male	Fem.
Malye Pupki	18.5	20.8	18.6	19.8	18.3	18.7	19.7	20.0
Kalugino	19.8	20.3	20.0	19.0	19.3	17.7	20.5	19.1
Rasskazovo	19.6	17.6	20.7	20.0	No data			
Morshansk	19.6	18.7	20.5	19.5	No data			

N.B.: The number of cases for Rasskazovo are 29, 27, 24 and 18 respectively and for Morshansk 10, 15, 12 and 12 respectively.

Both an all-parish analysis as well as a cohort analysis shows the predominance of low ages at marriage for peasants with grooms most of the time being older than their brides. However, in the town of Morshansk and in the trade and industrial village of Rasskazovo, a rise of age at marriage is noticeable and this requires more information to be studied properly. The village data shows a lowering of the age at marriage, especially for girls. This can possibly be explained by the peasants' urge to have more children for the sake of socio-economic aims combined with the presence of a relatively large number of potential brides. A deficit of men, combined with local overpopulation, might have stimulated the young women to hunt for husbands.

Naturally, deviations in the average age at marriage should be taken into account, showing that there were some differences in the individual age at marriage, but in general these deviations were small supporting the view that violations of the early marriage tradition were rare. These deviations had little in common with the standard deviations for non-agricultural peasants in the Olonets and Yaroslavl region and were not in any way of the same magnitude as standard deviations in the age at marriage for Western Europe. This method, therefore, also points to a traditionally low age at first marriage in the pure agrarian villages being studied.

Table 16 Average age at marriage and the standard deviation, Malye Pupki and Bailovka, 1840-1917

		Malye	Pupki			Baile	ovka	
	Fem.	St.dev.	Male	St.dev.	Fem.	St.dev.	Male	St.dev.
1840-1849	20.4	2.3	19.3	1.8	19.4	2.0	20.5	3.4
1850-1859	20.2	2.4	19.9	2.9	18.8	2.0	20.6	4.1
1860-1869	19.3	2.3	19.7	3.9	17.7	2.8	21.3	6.2
1870-1879	19.1	3.0	19.3	2.8	17.4	1.5	20.2	3.7
1880-1889	18.8	1.7	19.4	2.5	17.8	2.6	19.0	2.7
1890-1899	19.4	1.9	19.5	2.5	19.1	3.2	19.3	2.3
1900-1909	18.8	1.9	19.7	2.9	18.7	2.2	19.4	3.0
1910-1917	18.8	1.9	19.6	3.0	18.7	2.1	19.4	1.8

Table 17 Average age at first marriage for 1810 and 1830 Rasskazovo cohort members

		1810			1830	
	Serfs	State peasants	Factory workers	Serfs	State peasants	Factory workers
Male	19.5	18.8	-	21.5	19.0	21.0
Female	17.9	18.0	19.0	19.9	18.2	23.0

The age at marriage of serfs and factory workers rose in the two decades between 1810 and 1830 (Table 17). A possible explanation may be that they were prepared to work longer in factories before marrying in order to earn sufficient money for a future family life or for a dowry. That rise also points to the weaker ties of serfs and factory workers with the land allocations in contrast to state peasants who were pushed into early marriages by socioeconomic rules and the socio-economic situation. Some indirect data on the villages in the parish of Rasskazovo which was inhabited by state peasants points to a deficit of potential grooms and brides due to the close family relationships in these small settlements. Therefore, state peasants tried to marry earlier, when there was still some marital choice.

Table 18 Average age at first marriage for 1810 and 1830 Morshansk cohort members

		1810			1830	
	Merchant	Meschane	Peasants	Merchant	Meschane	Peasants
Male	19.7	19.5	19.4	20.8	24.7	20.4
Female	17.7	17.5	18.8	16.0	20.8	20.6

Early marriages predominated in each Morshansk social-juridical group for the cohort of 1810. The 1830 cohort shows a substantial rise in the age at marriage. Only the daughters of Morshansk merchants lowered their average marriage age. This general rise was probably a result of the economic crisis in the 1830s-1860s. The marriage habits of the people in the towns was therefore noticeably different from those of the inhabitants of the villages. Later on, the age at which merchants and meschanes married was determined by the desire to be successful first and then to choose a rich bride. The Morshansk peasants consisted of various status classes including local inhabitants, the Tzar peasants who were a majority up to 1779, the year in which Morshansk acquired the status of a town, the manor servants of landlords, the officials and the serfs who were employed on seasonal work. All of these groups experienced a break with agriculture which led to the end of early marriages.

Age	Bailov	vka %	Malye Pupki %				
	Female	Male	Female	Male			
Under 20	75.2	63.3	56.7	69.5			
20-25	23.5	30.3	42.1	26.4			
25-30	0.7	4.1	0.9	2.9			
Over 30	0.6	2.3	0.3	1.3			

Table 19 Age groups at first marriage, all-parish data, the 1840s-1910s

In general, Table 19 shows a traditional marriage pattern for Bailovka and Malye Pupki in the nineteenth century. However, it is clear that the percentage of females entering into early marriages in the two villages differed substantially. The usual explanation given for later female marriages, with the bride being older than 20, are deformities and other handicaps or a low economic status of the family. But such explanations cannot have applied to the whole parish of Malye Pupki for the whole of the century. Bearing in mind that brides in Malye Pupki were often older than their grooms, that periodic fluctuations of the age at marriage occurred and that the percentage of older brides rose as a whole, it may be supposed that this old village, situated in a region with a high density of settlements and population and with an exhausted and narrow marriage market, experienced a surplus of women who had had to start hunting for husbands in the 1850s-1870s. Population growth and the general overpopulation of the nineteenth century confirmed such peasant marriage tactics as a stable tradition. First marriages of people over 25 were rare, for males such old grooms were usually retired soldiers.

Cohort analysis was used to trace the dynamics of age at marriage for different generations of parishioners. In Malye Pupki, males preferred to marry under the age of 20 and young brides also predominated in the 1830, 1850 and 1870 cohorts but their percentage was always less than that of the grooms. In Malye Pupki and Kalugino, as in other villages presumably, the percentages of young brides and grooms rose steadily from the first to the third cohort and then remained steady which corresponds with the all-parish data. In the 1880s-1890s, the period in which the 1870-71 cohort would have married, some of the peasant youth married later than the traditional marriage age limit of 25. The marriage patterns in Rasskazovo and Morshansk differed greatly with an early transition in the first half of the nineteenth century to relatively late marriages for almost half of the males and some of the females.

0		0		00	1 5				
		18	810	18.	30	18	50	1870	
	Sex	< 20	> 20	< 20	> 20	< 20	> 20	< 20	> 20
Malye Pupki	М	57	43	83	17	96	4	75	25
	F	30	70	56	44	74	26	71	29
Kalugino	М	50	50	50	50	67	33	56	44
	F	43	57	50	50	100	0	63	37
Rasskazovo	М	79	21	58	42		No	o data	
	F	85	15	72	28				
Morshansk	М	70	30	42	58		No	o data	
	F	100	0	82	18				

Table 20 Age at first marriage divided in age groups for cohort members (%)

Table 21a First marriage of social-juridical and age groups, the cohort of Rasskazovo 1810

		Se	rfs		e l	State p	easants		Factory workers				
	Ma	Male Female				le	Fem	ale	Male Fema			ale	
Age	Abs.	%	Abs.	%	Abs.	%	Abs.	%	Abs.	%	Abs.	%	
Under 20	17	77	20	87	6	86	1	50	-	-	2	100	
21-25	4	18	3	13	1	14	1	50	-	-	-	0	
Over 25	1	5	-	0	-	0	-	0	-	-	-	0	
Total	22	100	23	100	7	100	2	100	-	-	2	100	

Table 21b First marriage of social-juridical and age groups, the cohort of Rasskazovo 1830

		Sei	rfs			State p	easants		Factory workers			
	Ma	le	Fem	ale	Ma	le	Fem	ale	Ma	le	Fem	ale
Age	Abs.	%	Abs.	%	Abs.	%	Abs.	%	Abs.	%	Abs.	%
Under 20	10	59	7	64	2	100	5	100	2	40	1	50
21-25	6	35	4	36	-	0	-	0	3	60	1	50
Over 25	1	6	-	0	-	0	-	0	-	0	-	0
Total	17	100	11	100	2	100	5	100	5	100	2	100

The low absolute numbers in Table 21 only allows the tendency to later marriages of the 1830 cohort from Rasskazovo to be pointed out. Later marriages were especially common among serfs and factory workers, while the state peasant couples became younger. In the 1830 cohort there was not

even one marriage with a bride or a groom older than 20 coming from the Rasskazovo outskirts to support the idea that early peasant marriages were due to a narrow marriage market. The majority of marriages in both cohorts were between people under the age of 20, in particular the girls, though the age difference among the serfs was not large and even decreased. Grooms over 25 years old remained a rare phenomenon.

Table 22a First marriage of social-juridical and age groups, the cohort of Morshansk 1810

		Merc	hants			Mesc	hane		Peasants				
	Ma	Male Female			Ma	le	Fem	ale	Ma	le	Female		
Age	Abs.	%	Abs.	%	Abs.	%	Abs.	%.	Abs.	%	Abs.	%	
Under 20	2	67	6	100	1	50	6	100	4	80	3	100	
21-25	1	33	0	0	1	50	0	0	1	20	0	0	
Total	3	100	6	100	2	100	6	100	5	100	3	100	

Table 22b First marriage of social-juridical and age groups, the cohort of Morshansk 1830

		Merc	hants			Mesc	hane		Peasants				
	Ma	le	Fem	Female		le	Female		Male		Female		
Age	Abs.	%	Abs.	%	Abs.	%	Abs.	%	Abs.	%	Abs.	%	
Under 20	2	50	1	100	1	33	5	83	2	40	3	60	
21-25	2	50	0	0	1	33	0	0	3	60	1	20	
26-30	0	0	0	0	1	33	0	0	0	0	1	20	
Over 30	0	0	0	0	0	0	1	17	0	0	0	0	
Total	4	100	1	100	3	100	6	100	5	100	5	100	

The 1810 cohort members of the town of Morshansk practised early marriages irrespective of their status with 70% of the males and all the females married before the age of 20. The 1830 cohort clearly shows the impact of social status, in particular in the marriage behaviour of the females. Two out of three of the meschane and peasant men, half of the sons of merchants, 40% of peasant women and 17% of the meschane daughters married after they became 20 years old and marriages of people older than 25 began to appear. The merchants seem to have been the most conservative, while the meschane and the peasants were equally rapid in changing to a new pattern of marriage.

Table 23 shows that throughout all the periods studied men of both parishes preferred to find their brides from their own village or from those villages nearby with the same traditions. The second half of the period under investigation revealed a few marriages with women from towns, most of whom, however, had left Bailovka and Malye Pupki as outmigrants some years before.

SettlementBailovka %Malye Pupki %Native parish8665Other villages1334Towns11

Table 23 The origin of brides (marital migration), all-parish data, 1810-1918

Table 24 The pre-marriage location of cohort members brides, Malye Pupki (M.P.), Bailovka (B.), Kalugino (K.)

						Coho	rts					
Loca-		1811 %			1831 %			1851 %		1	871 %	
tion	M.P	В.	К.	M.P.	В.	К.	M.P.	В.	К.	M.P.	В.	К.
Native parish	58	100	100	62	100	100	70	75	100	94	40	100
Other villages	42	0	0	36	0	0	30	25	0	6	60	0
Towns	0	0	0	2	0	0	0	0	0	0	0	0

Table 25 Places of origin of mothers and brides of cohort members, Rasskazovo cohorts 1810 and 1830

		1810				1830					
	Bri	des	Mot	thers	Bri	Brides		thers			
Location	Ν	%	Ν	%	Ν	%	Ν	%			
Rasskazovo	28	42	93	78	30	59	76	63			
Rasskazovo parish	34	52	21	18	14	27	35	29			
Neighbouring villages	3	5	4	3	2	4	4	3			
Rest of Tambow region	-	0	2	2	5	10	3	3			
Other regions	1	2	-	0	-	0	2	2			
Total	66	100	120	100	51	100	120	100			

In general, peasant marital behaviour was traditional with partners from local places being preferred. The enormous Rasskazovo parish was large enough to allow a bride to be chosen locally who was not even distantly related to the man. In contrast with behaviour in the traditional villages, some of the young men in Rasskazovo found brides in other Tambov sub-regions and also in the towns of the neighbouring Ryazan region, a choice presumably related to traditional trade ties.

It is interesting to outline the social space that marriages had. Cohort and all-parish analyses of Malye Pupki both show complete correspondence of a spouse's social status with the norms of the traditional society. In all cohorts and throughout the parish almost 100% of the marriage partners were of the same social status. State peasants married state peasants, soldiers or their daughters, including brides from the soldier class, who were originally state peasants. Only one case was found in the cohorts where a state peasant man married a girl from the Kozlov meschane.

Grooms							0	n	
Brides	State peasants	Manor serfs	Serfs	Soldier class	Clergy	Econ. Peasants	Meschan	Unknown	Total
State peasants	3						1	1	5
Manor serfs		4	1				2		7
Serfs			301	5				2	308
Soldiers	2	1	1						4
Clergy					2				2
Econ. peasants						1		2	3
Student					1				1
Meschane			1						1
Total	5	5	304	5	3	1	3	5	331

Table 26a The social status of marriage partners in Bailovka, 1810-1861

Table 26b The social status of marriage partners in Bailovka, 1862-1918

Grooms	Former serfs	Former manor serfs	State peasants	Soldiers	Clergy	Meschane	Inmates of an orphanage	Officer's daughter	Unknown	tal
Brides	Foi	Foi ma	Sta	Sol	G	Me	Inn orp	Of dau	Un	Total
Former serfs	318	3	4	9	6	2	2		11	355
Former manor serfs	1	2								3
State peasants	2	4		1	2					9
Soldiers	19	1		3	1					24
Meschane	6									6
Merchants					2					2
Nobleman								1		1
Total	346	10	4	13	11	2	2	1	11	400

The all-parish data included only 9 brides who were not peasants or from the soldier class. These were 6 daughters of meschane, 1 daughter of a merchant, 1 daughter of a priest and 1 daughter of the gentry. It is also important to point out the absence of brides belonging to the serfs. Only 10 of the 2,665 men in the all-parish data violated the rule of not marrying serf girls. The rarity of such misalliances reflected the traditionally more privileged position of the state peasants and their arrogant attitude to the serfs, who in fact toiled on the land under very similar conditions to the state peasants. It must, however, also be taken into account that the neighbouring villages were mostly inhabited by state peasants, so that there was only a very narrow social circle from which to choose partners which made stepping out of the usual marriage pattern quite rare in Malye Pupki. A similar but even more rigid

pattern is seen in Bailovka, as shown by the source-oriented database with allparish data for this village.

The peasants in Bailovka showed a traditional choice of marriage partners, with the serfs before 1861 and emancipated serfs afterwards choosing a spouse from the same social class. After the Reform of 1861 they only risked a slight widening of their marriage circle.

The cohort members from Rasskazovo belonged mostly to various subdivisions of serfs and their marriage circle was determined by the master to whom they belonged. State peasants had more freedom of choice. The 1810 cohort showed seven inter-class marriages (8%) and there were ten such marriages (15%) in the 1830 cohort. Morshansk showed 20% for both years while in the four cohorts from Malye Pupki only one contained one case of an inter-class marriage. In this respect, therefore, Rasskazovo's position can be regarded as an intermediate, or perhaps more accurately, a transitional one.

Table 27 The social status of the partners of 1810 and 1830 cohort members in Morshansk

				1810)				1830							
Grooms	Merc	Merchants Meschane		Pea	Peasants T		Total Merchar		hants	Meschane		Peas	ants	Total		
Brides	N.	%	N.	%	N.	%	N.	%	N.	%	N.	%	N.	%	N.	%
Merchants	10	91	0	0	1	9	11	100	3	60	2	40	0	0	5	100
Meshane	0	0	13	87	2	13	15	100	0	0	5	100	0	0	5	100
Peasants	0	0	5	38	8	62	13	100	0	0	1	20	4	80	5	100

During the first decades of the nineteenth century Morshansk witnessed some social isolationism in marriage behaviour, although parish registers also reflected the aspirations of some peasants from suburban settlements to marry brides from meschane families. Marriages of merchants were also not entirely within their own class with some marriages with people from the meschane or the peasants of the Tzar family (*udelnyie*).

Death rates

The benchmark years initially taken for forming the cohorts reveal an important shortcoming of cohort analysis for the study of Russian peasant mortality, since those years could have been, and indeed were found to be, unusual years for the cohort members and for their infants with large differences between what can be regarded as normal death rates and those in critical years. For this reason the death rates for the cohort members had to be compared with those for the population of the whole parish.

The very low rate for 1816 is due to the incomplete registration of infant deaths. State peasant villages, such as Malye Pupki and Prokovo-Prigorodnoe and the trade and industrial village of Rasskazovo had far fewer fluctuations in the death rate than the fully serf village of Bailovka and the partly serf village of Kalugino. The figures differ a little from the average all-Russian death rates for the peasantry (calculated by Mironov as 39% for the mid-1850s). This difference can be explained by better living conditions and organized medical services in the state and trade and industrial villages by the 1850s. All the parishes tended to show lower death rates by the turn of the century. Mironov's opinion that such a decrease combined with extremely high birth rates would have had a negative impact on the peasantry by creating overpopulation is probably correct.¹¹

Death rates for Morshansk in the middle of the nineteenth century were very high and comparable to other Russian towns. Mironov regards the critical state of the environment in the pre-industrial towns (overpopulation of dwellings, poor sanitation, epidemics, etc.) as the reason for these high urban death rates. Morshansk, in common with the villages, also experienced sharp fluctuations in the death rate -22% in 1861, 44‰ in 1863, 25‰ in 1864 and 15‰ in both 1866 and 1868. Local circumstances, probably a sharp decline in the birth rates and thus of the number of infant deaths which formed the majority of deaths at that time, reduced death rates to very low values in the 1860s. It is clear that death rates based on specific and not necessarily typical years have to be checked against parish data for the same years.

Villagers of the same age as the cohort members have been chosen on purpose. Broadly speaking, the data relates to the generations born in 1811-1830, 1831-1850, 1851-1870 and 1871-1890, in each case extended by 5 years to 1835, 1855, 1875 and 1895 to avoid the problems produced by taking fixed cohort years (e.g. three of the four cohort years show very high death rates, especially 1830-1831 and 1871 which were years of devastating cholera epidemics).

The tables show once again how incomplete church registration was up to the mid-1830s. Indirect data was used to find more information about dead infants and children. Parish registers are helpful for tracing the history of the parents, showing the births of other children, second marriages, when they acted as godfathers or witnesses at marriages and providing data on deaths.

¹¹ Миронов,, Социальная история России, 191-192.

	Bailovka	Kalugino	M. Pupki	P. Prigorod*	Rasskazovo	Morshansk	Tambov Region
1816	c.15	No data	c. 20	No village	11	No data	15 (1817: 16.1)
1834	c.25	No data	c.35	No data	34	No data	<i>c</i> .30 (1837: 29.8; 1838: 32.2)
1858	39	45	26	39	38	44	34.2(1859: 33.2)
1862	60	59	20	29	38	44	39 (1863: 34.8)
1886	46	24	30***	35	33	42***	32
1911	25	No data	34	No data	No data	No data	29
1917	18	10	No data	с. 20	No data	No data	26.5

Table 28 Death rates in separate settlements of the Tambov Region, 1800-1917 (‰)

Notes: * Figures for Prokovo-Prigorodnoe are estimates as the exact number of parishioners of the Pokrov Cathedral in Tambov is not known.

****** Data relates to 1889.

******* Data relates to 1897.

Source: see Table 12.

Table 29 Infant and child mortality (%) in Malye Pupki (MP) and Bailovka (B)

_		Cohort members								All parishioners by year of birth								
	1810-11 1830-31 1850-51 1870-71				0-71	1811-35 18			1831-55		1851-75		1-95					
	MP	В	MP	В	MP	В	MP	В	MP	В	MP	В	MP	В	MP	В		
0-1	4	0	4	10	22	0	14	21	4	23	16	33	21	31	19	48		
1-5	12	0	12	60	15	68	10	57	28	24	29	22	19	22	23	12		

Naturally, these facts are not direct evidence for the death of a particular child in the same village. Parents could have been away from the parish for some time and a baby, whose details are being searched for, could have died or survived somewhere outside the parish. Youths could have been recruited for the army and not returned back home so that they were not recorded in the parish again and girls could have married in other parishes. In such cases, the fact that the parents of the cohort members are recorded as present does not prove that their children's deaths were not noted in the registers. A search for the parents of cohort members concentrating on girls under 17 (marital age) and on youths under 21 (age of recruitment) is more reliable.

The missing information on cohort members can be minimised by using census data. A comparison of the two types of Russian registrations has been done before by I. Troitskaya. However, there were two faults in her investigation, the first being that she only studied death rates and began first with the censuses and then moved to the registers, which is not the correct approach because of the obvious incompleteness of the censuses with respect to deaths, and secondly, she used only very limited material for just a few years. It has been assumed that the missing young cohort members (cohorts of 1810-11, 1830-31, 1850-51) were most probably already dead when their parents were listed in the censuses closest to a cohort year as living in the parishes under investigation, e.g. the censuses of 1816, 1834, 1850-51 and 1858. Naturally, children of 4 to 8 years old could not migrate out of a parish independently. In the first two cohorts from Malve Pupki there were as many as 14 missing and probably dead in each cohort, which represents a loss of 12% of the information due to incomplete registration. The first three cohorts from Bailovka gave similar results but this value is regarded as being too low due to the obvious incompleteness of the data on the cohorts from Bailovka caused by the absence or the changing of family names of serfs up to the 1850s. This makes it clear that in order to reconstruct the history of a family, a thorough study of the parish and census registers is needed.

The cohort analysis of Rasskazovo supports these ideas concerning the possibilities of obtaining more information on mortality. A thorough and detailed study of the parish registers, census registers and confession lists revealed 29 possibly dead in the 1810 cohort (24%) and 18 in the 1830 cohort (15%).

If the possibly dead infants are also taken into account, it is possible to state that all the cohorts from Malye Pupki experienced more or less the same infant death rates of between 14 and 22% and, most importantly, this corresponds with the death rates of their generation according to the all-parish data which gave figures of between 16 and 21%. A maximum difference of 5% occurred between the 1871 cohort and its all-parish contemporaries.

The data on child mortality (those dying between the ages of 1 and 5) for three of the four cohorts from Malye Pupki differ substantially by percentages as high as 13 to 18%. This must be due to incomplete registration of the children in the generation of 1811-1835 who actually died, thus distorting the figures for the 1811 cohort. In the period 1812-1817, the parish only noted an average of 17 children dying each year while in the period 1818-1835 there were 33 deaths in that same age group each year. A difference in death rates between the 1831 cohort data and the all-parish data is hard to explain by under-registration. It is possible that the first five years in the lives of the cohort members produced atypical death rates for the children. In the period 1832-1836 the child mortality in the parish was only 26 children a year, 7 less than in the previous decade and 19 children less than in the period 1837-1855. The difference for the 1871 cohort must be regarded as a coincidence as the parish contemporaries of the cohort showed steady death rates of 36 children a year in 1872-1876, and 40 in the whole period 1872-1895.

Astounding differences between cohort data and all-parish data are shown by Bailovka, even when the 12% of possibly dead is added to the first three cohorts. The under-registration of infant deaths caused an abnormally high percentage of child deaths. At the same time the all-parish death statistics are comparable with those of Malye Pupki. Such a difference has probably been caused by the small cohort numbers and the choice of the cohort year for Bailovka. It is difficult to choose cohort years beforehand and the singularity of a cohort may only display itself at the start of the cohort analysis. Sometimes the people selected for a cohort appear to have an atypical lifestyle for their generation. Nevertheless, a comparison of the data for Malye Pupki with that for other parishes, except for the non-typical Bailovka, showed quite similar results, suggesting that the cohort analysis was reliable.

The 1810 and 1830 cohort data for Kalugino, Rasskazovo and Morshansk also revealed a serious under-registration of infant deaths, showing only a maximum infant death rate of 7% (with the exception of Morshansk in 1830 when the improved registration in towns and the availability of family names for all town dwellers made the search for people who had died easier). The child death rates of 10 to 14% for Kalugino and Rasskazovo are close to those of Malye Pupki. The exception is the 1830 cohort from Rasskazovo which was severely hit by the scarlet fever epidemic of 1831. The infant and child death rates for the 1850-51 cohort from Pokrovo-Prigorodnoe are very similar to those of Kalugino and Malye Pupki.

Table 30 Infant and child death rates of cohort members from other Tambov parishes (%)

Cohort years	18	10	18	30	18	50	187	70	
	Age at	death	Age at	death	Age at	death	Age at	t death	
	0-1	1-5	0-1	1-5	0-1	1-5	0-1	1-5	
Kalugino	4	10	6	13	28	8	14	10	
Rasskazovo	0	14	5	5 24		No	data*		
ProkPrigorodnoe		No v	rillage		32 7		No	lata	
Morshansk	7	5	19	2		No	data		

Note: * No data means the absence of a completed cohort analysis for a given settlement

		Coł	norts		All parishioners
Age	1811	1831	1851	1871	1811-1916
0-1	9	10	38	32	25
1-5	29	37	26	15	30
6-10	4	6	2	0	5
11-20	9	6	2	0	4
21-30	4	8	3	4	5
31-40	2	19	0	0	5
41-50	11	2	6	6	5
51-60	11	0	10	c. 15*	6
Over 60	21	12	13	c. 30*	15

Table 31 Distribution of the age at death in Malye Pupki (% of the number of deaths)

Note: * The precise percentages of those in the 1871 cohort who died at age over 50 are not given as cohort members were only traced up to 1917. Therefore the percentages shown in the previous cohorts have been taken as a guide, assuming 15% as a maximum for the 1871 cohort and the remaining 30% for the age group over 60.

Both research methods (cohort analysis and all-parish data) show that the pattern for Tambov is a typically Russian one. Once again infant death under-registration was present in the first decades of the nineteenth century and can be calculated at 15%. The age at death for both sexes has been studied in greater depth for Rasskazovo (Table 32) and for the two Morshansk cohorts (Table 33).

Rasskazovo also showed serious under-registration of infant deaths of between 15 and 20% of the total number of deaths of all ages up to the 1830s. Only one out of every seven to fifteen dead infants was actually registered whereas the deaths of children from 1 to 5 years were already properly registered as early as the 1790s. Throughout the whole period, infant and child deaths (0-5 years) made up c. 55% of the total number of deaths, which corresponds with the rates found for Malye Pupki. Death rates in other age

groups in Rasskazovo also correspond in general to the data for Malye Pupki but in this trade and industrial village there were some differences between the sexes. The list of causes of death in Rasskazovo for the age group from 6 to 10 includes the usual infections and accidents but also such causes as 'killed by a machine'. Death rates for the working age groups rose for males by the 1840s and for females by the 1860s. Preliminary research (the precise calculations are in progress) shows that in years when there were no epidemics of tuberculosis, working males usually died from 'scalding in a dye bath' or from 'being killed by the pulley while wool washing'. Tuberculosis was quite common for wool industry labourers and demonstrates one of the impacts of industrialization. The commonest causes of death for female labourers were also tuberculosis and 'asphyxia'. By the 1860s new causes of death, uncommon for the Russian villages, appeared such as 'frozen in a street after the consumption of too much alcohol' or simply 'delirium tremens'. The modern village did not have as much social control so that it was possible to drink oneself to death without the neighbours being blamed, or to strip a drunkard on the road in summer or winter. Such cases also reflected the emergence of sufficient leisure time to allow drinking for people not employed in agriculture.

Even the data for the first cohort from Morshansk differs from that for the villages. Infant and child mortality in Morshansk was more than 20% lower, but the death rates in the 6-10 age group were noticeably higher. Perhaps there was a longer period of natural selection in the town. The 1810 cohort also showed a higher death rate in the age groups 31 and 50 with the causes of death being listed as natural. The small absolute figures do not allow the conclusion to be drawn that these were cases of relatively early urban ageing. The 1830 cohort figures suggest high infant mortality rates, although in absolute terms 23 cases is not very high in comparison with rural cohorts where as many as 30 infants died when the correct registrations are considered. Because Morshansk had stable family names for the fathers by the 1830s the registration of its dead was made more accurately. A very high share of infant deaths for the cohort members who lived all their lives in the town was influenced by outmigration and out of town deaths in crisis times. Such a situation yields a great deal of evidence on child mortality, but only a few adult deaths have been found. This has allowed evidence for the deaths of 20 children and 24 adults for the 1810 cohort from Morshansk and 30 and 9 respectively for the 1830 cohort to be found.

Seasonal mortality showed the same pattern as could be expected in a traditional society (food shortages by late spring, a lack of parental attention to the feeding of babies at labour peaks etc.). Monthly death rates fluctuated substantially from 6% to 15%. The seasonal death peaks are obvious in July-

Age		0-1	1-5	6-10	11-20	21-30	31-40	41-50	51-60	61-70	Over 70
1793-1799	m	1.4	30.2	6.1	7.6	7.6	3.3	8.5	14.6	9.0	11.8
	f	6.0	30.2	1.5	7.6	5.5	6.5	9.6	12.6	15.1	5.5
1800-1806	m	1.2	29.8	8.8	3.5	7.9	6.0	5.5	9.2	11.8	16.5
	f	0.8	33.6	5.7	5.2	6.2	5.7	7.2	13.7	9.5	11.5
1807-1813	m	4.8	23.3	4.4	7.8	7.2	6.1	8.1	9.4	10.0	17.9
	f	2.9	23.6	4.9	5.7	5.6	9.8	9.6	9.3	12.7	16.0
1814-1820	m	6.3	37.3	6.3	7.6	4.8	3.5	7.0	7.0	7.6	12.7
	f	3.0	33.0	5.6	7.1	8.2	6.7	7.9	10.1	9.0	9.5
1821-1827	m	11.5	30.2	3.0	7.8	8.0	5.6	5.6	8.0	8.0	12.1
	f	8.3	27.0	5.0	3.0	5.0	8.0	8.3	11.8	12.3	11.6
1828-1834	m	26.8	29.1	4.0	3.9	4.0	3.4	5.0	6.0	7.6	10.6
	f	21.9	28.7	3.6	3.5	3.7	5.3	4.6	8.9	10.1	9.7
1835-1841	m	29.7	32.1	4.6	4.2	4.0	3.6	3.3	3.9	5.9	8.8
	f	29.5	31.4	3.6	3.5	3.2	4.5	4.1	5.1	7.1	8.2
1842-1848	m	30.3	24.3	4.1	4.9	5.6	5.4	5.6	4.4	7.6	7.8
	f	25.8	23.7	3.9	5.5	7.0	6.9	5.9	7.5	7.6	6.3
1849-1855	m	41.3	24.7	2.9	2.4	4.1	3.0	4.1	6.1	5.5	6.0
	f	36.6	26.7	3.0	3.7	4.5	4.2	3.2	5.2	7.2	5.8
1856-1861	m	36.1	30.8	6.2	2.9	3.4	3.9	3.2	4.1	4.7	4.8
	f	30.1	30.3	4.5	3.8	5.6	4.4	3.7	5.0	6.6	6.0
1862-1869	m	36.4	25.9	2.7	3.9	3.7	3.8	5.1	5.0	7.1	6.6
	f	36.0	24.8	2.3	3.3	5.4	6.0	4.0	4.7	6.9	6.9
1791-1872		27.3	27.9	4.2	4.1	4.9	5.0	5.1	6.2	7.4	7.8

Table 32 Age at death of males and females in the parish of Rasskazovo, 1791-1872 (%)

	181	0	183	0
Age	Abs.	%	Abs.	%
0-1	8	18	23	59
1-5	6	14	2	5
6-10	6	14	1	3
11-20	0	0	4	10
21-30	2	5	1	3
31-40	5	11	1	3
41-50	5	11	0	0
51-60	3	7	2	5
61-70	4	9	4	10
71-80	3	7	1	3
81-90	1	2	0	0
91-100	1	2	0	0
Total	44	100	39	100

Table 33 Age at death of the 1810 and 1830 cohort from Morshansk

August and also in January. The general trend is a decline in mortality in autumn when people had good food stores at their disposal. Death rates also dropped in December to increase again in January but this may have been due to the method of registration and the priests' annual accounts. A parish register had to be handed over to the eparchy at the very beginning of a year so priests wrote their last notes a few days before 31 December and listed the unregistered acts of those last days in a new book as belonging in January.

Table 34a Seasonal mortality in Bailovka and Malye Pupki, all-parish data, 1810-1918 (%)

	i	Malye Pupki			Bailovka	
	Female	Male	Total	Female	Male	Total
January	9.2	9.8	9.5	10.8	8.7	9.7
February	7.7	8.3	8.0	6.9	6.4	6.6
March	9.2	9.6	9.4	6.4	8.9	7.7
April	8.1	7.9	8.0	6.5	6.6	6.5
May	7.0	6.6	6.8	5.3	6.2	5.8
June	8.2	8.4	8.3	5.9	5.4	5.6
July	10.5	10.5	10.5	12.4	13.3	12.9
August	10.9	10.8	10.8	14.9	15.4	15.1
September	7.4	7.6	7.5	8.8	7.1	7.9
October	7.6	7.5	7.6	8.3	7.7	8.0
November	7.0	6.6	6.8	7.5	8.0	7.8
December	7.3	6.7	7.0	6.4	6.3	6.4
Total	100.0	100.0	100.0	100.0	100.0	100.0

January	Ras \$l<u>≷</u>a≇ ovo	Monshansk
February	6.7	11.3
March	9.1	9.5
April	7.1	7.7
May	6.9	5.0
June	6.3	12.7
July	10.7	10.4
August	10.2	7.7
September	8.0	1.8
October	6.7	8.6
November	7.4	7.7
December	8.5	6.3
Total	100.0	100.0

Table 34b Seasonal mortality in Rasskazovo and Morshansk (aggregated data for the 1810 and 1830 cohort members and their close relatives)(%)

Causes of death were noted after statements of relatives of the deceased, often illiterate peasants, so the diagnosis was not very precise. Notes on causes of death only start to become more reliable after 1870 when future priests were taught medical principles at the theological seminaries. The pattern of the causes of death is clear with intestinal diseases being the most important followed by 'weakness' and smallpox (especially in Bailovka) as important causes in the first 5 years. Infections and fever were much less frequently stated for the group aged 5 to 15. The causes of death for adults were more diverse with only a very small percentage of intestinal diseases. A great many infections were often listed as fever, tuberculosis (or consumption) or malaria (also a fever). The column headed 'other' includes notes such as 'of old age' (c. 33% of the deaths of adults) and 'disease of the head', 'sudden' etc. The pattern of causes of death in Bailovka and Malye Pupki (Table 36) was therefore traditional and the result of very low standards of sanitation, the absence of the necessary health care for children, overcrowded dwellings and the absence of nursing of infants during summer labour peaks. Older children suffered from infections which gave them little chance of survival in the absence of a medical service. More and more adults died of tuberculosis and asthma. Epidemics appear to have only made large impacts in some specific years. There were two critical years in Malye Pupki and Srednie Pupki, 1843 (malaria for adults and scarlet fever for children) and 1857 (measles and diarrhoea).

				18		1830						
Cause	Cohort	memb.	Par	rents	Chi	ldren	Cohort	memb.	Pai	ents	Ch	ldren
Cause	Ν	%	Ν	%	Ν	%	Ν	%	Ν	%	Ν	%
Intestinal	7	16	1	3	16	67	21	54	1	2	8	47
Infections	10	23	-	0	4	17	4	10	3	5	6	35
Tuberculosis	s 4	9	-	0	1	4	3	8	7	12	1	6
Cholera	2	5	-	0	-	0	-	0	1	2	-	0
Stroke	5	12	6	17	-	0	-	0	10	18	-	0
Deliveries	3	7	3	9	-	0	1	3	5	9	-	0
Chill	5	12	3	9	1	4	3	8	2	4	2	12
Asphyxia	-	0	11	31	-	0	3	8	9	16	-	0
Dropsy	-	0	3	9	-	0	-	0	5	9	-	0
Fever	1	2	1	3	-	0	-	0	2	4	-	0
Paralysis	-	0	-	0	1	4	1	3	-	0	-	0
Cordial	-	0	-	0	-	0	-	0	1	2	-	0
Old age	6	14	7	20	1	4%	3	8	11	19	-	0%
Total	43	100	35	100	24	100	39	100	57	100	17	100

Table 35 Causes of death of the 1810 and 1830 cohort members, their parents and children in Morshansk

In the first half of the nineteenth century the principle causes of death in the town of Morshansk differed little from those in the rural area (Table 35). Intestinal diseases and infections, chills, tuberculosis, asthma and 'old age' were listed as the most important causes. Because the priests had greater medical knowledge the 1830 cohort had fewer notes on 'old age'. A special 'urban' cause of death for the females was complications during deliveries. However, it is unlikely that the pregnant women in Morshansk were weaker than their rural contemporaries, nor that the use of traditional midwives instead of doctors could be the reason for this. Most likely deaths at deliveries were too common and natural in the villages for them to be given special attention in the registers and in any case the small number of cases in the cohort analysis leaves room for some incidental deviations. The Morshansk cohorts listed only two non-traditional death causes: 'delirium tremens' and 'weighing down with earth'.

The Morshansk registers show frequent male deaths caused by accidents during loading at the river port (hit by tubs, drowning etc.) but Morshansk did not record any deaths of industrial origin unlike Rasskazovo.

One specific and valuable aspect of cohort analysis is the opportunity for tracing the development of the individual life of the cohort members. Relatively reliable results are now available for Malye Pupki, Morshansk and Rasskazov (Table 37 and 38).

Table 36 Causes of death in Malye Pupki and Bailovka, all-parish data, 1810-1918 (%)

Age group	,	Gastro-	Infections	Scarlet	Tubercu-	Fever	Smallpox	Cholera	Weakness	Dropsy	Asphyxia Chil	1 Other
		intestinal		fever	losis							
Under 1	Malye Pupki	64	4	2			3		7			21
	Bailovka	80					8					12
1-5	Malye Pupki	30	11	11		5						43
	Bailovka	67	4	2		9	15					3
5-15	Malye Pupki	9	9	6	4	9	4					59
	Bailovka	12	16	4		30	13				6	20
Over 15	Malye Pupki	2	9		17	4		2		5	5	55
	Bailovka	4	17		4	10		3		5	5 3	48

Table 37 The location of cohort members at the ages of 20, 30 and 40, Malye Pupki (totals: N=120)

	1811			1831			1851			1871		
	Age 20	Age 30	Age 40	Age 20	Age 30	Age 40	Age 20	Age 30	Age40	Age 20	Age 30	Age 40
Living in the village	31	28	19	30	31	18	48	30	22	34	21	16
Migrated	5	5	5	18	12	10	8	8	8	11	3	6
Died*	43	44	50	48	51	54	39	48	52	26	23	24
Unknown	41	43	46	24	26	38	25	34	38	49	53	54

Note: * For the 1810 and 1830 cohorts 'possibly dead infants' were also taken into account.

Table 38a The location of cohort members at the ages of 20, 30 and 40, Morshansk (totals: N=120)

		1810		1830			
	Age 20	Age 30	Age 40	Age 20	Age 30	Age 40	
Living in town	23	21	16	9	8	7	
Migrated	3	3	3	11	11	11	
Died	20	22	27	30	31	32	
Unknown	74	74	74	70	70	70	

Table 38b The location of cohort members at the ages of 20, 40 and 60, Rasskazovo (totals: N=120)

	_	1810		1830			
	Age 20	Age 40	Age 60	Age 20	Age 40	Age 60	
Living in the village	57	45	21	41	31	17	
Migrated	0	2	2	0	3	3	
Died*	53	62	78	63	70	84	
Unknown	10	11	19	16	16	16	

Note: * For 1810 and 1830 cohorts 'possibly dead infants' were taken into account.

It is of importance that the population of all three settlements underwent considerable change even though the village cohort members generally preferred to live and die in their birthplace, with those from Rasskazovo appearing to be the most devoted to their home village. This was apparent from the more complete data and may have been a result of the wider potential marital area of the non-agrarian parish. Outmigration was minimal with army recruitment being the reason in four or five cases. In contrast to this, an obvious and latent impact of social-economic migration processes can be seen in Morshansk and to a lesser extent in Malye Pupki. This is especially clear for the 1830 cohort from Morshansk which lost eleven of its members by the age of 20, with only one being recruited by the army. The reason was almost certainly the economic crisis which forced people to leave in search of a better livelihood elsewhere. Both town cohorts contained a lot of unknowns by the age of 20 which might be due to the departure of the parents of cohort members who were not listed officially. It is certain that the parents of three 1810 cohort members and of ten 1830 cohort members were not local people. They probably had their babies baptised while they were temporarily in Morshansk for business reasons. The migrations of the cohort members from Malye Pupki were also not just caused by recruitment since retired soldiers actually came back home but were instead mainly outmigration to the East for purely agrarian reasons. In Tables 37 and 38 the column headed unknown is not very specific and includes non-registered migrants with their dead infants and possibly some girls who married in other parishes. Some of these brides

have been detected in the parish registers of the nearest villages but their marriage area was wider than this and not all of the registers have survived. Such cases were even more common in Morshansk where people were often baptised in one of the town parishes while getting married in another. Because Rasskazovo was just one parish with more than 10 thousand people by the 1850s it formed a single very large marriage market, with everything being noted in only one register, which makes the tracing of cohort members easier.

The patterns shown in the town and villages were quite traditional with almost all people being married by the age of 30. All cohorts showed a large number of early marriages, mostly under the age of 20. Widowers and widows were quite rare even after the age of 40. Morshansk again showed the outmigration of married 1830 cohort members during the times of crisis in the 1850s.

Table 39a The family status of cohort members at the ages of 20, 30 and 40, Morshansk (totals)

		1810			1830	
Status/cohorts	Age 20	Age 30	Age 40	Age 20	Age 30	Age 40
Single	11	1	-	13	2	1
Married	22	20	16	14	6	6
Widow(widower)	-	2	7	3	-	-
ND D 1 1	1	. •	1 1 1			

NB: Departed and unknown are not included.

Table 39b The family status of cohort members at the ages of 20, 30 and 60, Rasskazovo (totals)

		1810			1830	
Status/cohorts	Age 20	Age 40	Age 60	Age 20	Age 40	Age 60
Single	11	1	-	13	2	-
Married	46	44	14	27	28	13
Widow(widower)	-	2	7	1	4	4
NID D 1 1	1		1 1 1			

NB: Departed and unknown are not included.

Comparative data on social mobility in a trade and industrial village and a town help to underline the absolutely traditional estate structure of Malye Pupki, which was inhabited only by state peasants and retired soldiers who had returned to agriculture. Although Rasskazovo was a village by the 1850s it witnessed such unusual class groups as serf factory workers and peasants (serfs) released to work in a factory and their numbers in the second cohort increased. By 1850, factory workers constituted as much as 18% of the cohort members living in the village while their share of the first two cohorts was 10%. By 1870, ten years after the emancipation, the cohort of 1830 had a noticeable percentage of meschane forming almost 25% of the cohort members who lived in Rasskazovo. These meschane were registered in Tambov even though they lived in Rasskazovo, so most likely they were former peasants who had previously been engaged in trade.

Table 40a The social status of cohort members at the ages of 20, 30 and 40, Malye Pupki (totals)

		1811			1831	
Status/cohorts	Age 20	Age 30	Age 40	Age 20	Age 30	Age 40
Single	11	1	-	13	2	-
Married	46	44	14	27	28	13
Widow(widower)	-	2	7	1	4	4
		1851			1871	
Status/cohorts	Age 20	Age 30	Age 40	Age 20	Age 30	Age 40
Single	65	53	43	47	27	32
Married	0	0	0	2	10	0
Widow(widower)	0	0	0	0	1*	0

NB: Departed and unknown are not included

Note: * One female cohort member married a former serf.

Table 40b The social status of cohort members at the ages of 20, 30 and 40, Morshansk (totals)

Status/cohorts	1810			1830			
	Age 20	Age 30	Age 40	Age 20	Age 30	Age 40	
Meschane	15	18	21	18	18	24	
Merchants	10	10	9	7	5	5	
Peasants	14	10	3	14	9	6	
Soldiers	0	0	0	1	1	1	
Officials	0	0	0	1	2	1	

NB: Departed and unknown are not included.

Table 40c The social status of cohort members at the ages of 20, 40 and 60, Rasskazovo (totals)

Status/cohorts		1810		1830			
	Age 20	Age 40	Age 60	Age 20	Age 40	Age 60	
State peasants	9	7	2	5	3	2	
Serfs	46	34	17	28	20	12	
Soldiers	0	4	2	0	3	0	
Factory workers	1	2	0	7	0	0	
Liberated peasants	1	0	0	0	0	0	
Meschane	0	0	0	0	8	4	

NB: Departed and unknown are not included.

The town classes of merchants and meschane dominated Morshansk from the first cohort onwards, while a few officials appeared in the second cohort of 1830, but even so, the town of Morshansk which had formerly been a village was to a large extent still populated by peasants. On the whole, the social status of the Morshansk cohort members was stable during the first half of the nineteenth century with only the share of the meschane growing at the expense of some downgraded merchants and upgraded peasants.

Conclusions

Different methods of micro-analysis at a personal level make it possible to study real demographic processes. They reveal the traditional demographic behaviour of a purely agrarian peasantry which dominated a typical agrarian region, depending mostly on natural and physiological factors with minor roles for socioeconomic conditions and with the church rules and rites modified to suit the natural demographic processes. Nevertheless, the Rasskazovo and Morshansk non-agrarian cases show the first steps towards a modern demographic pattern during the first half of the nineteenth century. The various study methods all have value when used separately but give the best results when used in combination. The statistical, all-parish anonymous analysis gives us a comparatively complete, but less detailed and less lively picture, of Russian rural demographic behaviour. Cohort analysis is, in general, suitable as a first approach in non-specialist studies in demography when demographic aspects act as parts of a wide integral micro-historical study, usually concerning the history of separate settlements, parishes or of small social groups. In combination with all-parish analysis, cohort analysis is suitable for tracing particular and unique demographic events.

The source-oriented and personified all-parish database for Bailovka provides sufficient particular and unique facts to make it possible to enter into another important field of integral history, moving from the study of individuals to that of family history. An opportunity is provided to make selections as required, to trace demographic dynamics at personal or all-parish levels and to trace inner-parish personal relations. The most complicated problem here is to connect up the different personal information which is scattered over various primary sources. A special problem is the spelling of names, aggravated by an absence of stable family names and the use of nicknames in the first decades of the nineteenth century. In order to solve this problem, a computer search system able to discern different spellings of the same names, to trace patronyms which turned into family names and correct mistakes was developed. The expert systems methods used by British demographers (e.g. Soundex codes) were adopted with a precise identification by Soundex regarded as acceptable when it was higher than 50%. There is, however, still the problem of code making which is dependent on the participation of the expert. Another method is to discern the position of letters in the spelling of a name. Identification alone, however, is not sufficient. Some natural limitations, such as the fact that the date of a death cannot precede a date of birth and that a death must appear within 100 years after a birth, must also be taken into account. An effective system of links was obtained by using all the methods but it is impossible to make this process fully automatic. Therefore, a combination of computer and manual recognition techniques was used, in the same way as was done by K. Schurer, for interpreting the difficult cases.

A study of medical sources showed that the parish registers were not fully reliable, making it difficult to draw true conclusions on the birth rates and the infant death rates, on the number of conceptions and on the birth intervals and thus on the family strategies and tactics of the peasants. It is unwise to use the registers without taking into account some coefficients. The registered number of births and prenatal deaths, for instance, should be increased by a factor of at least 1.3 to 1.4. Because the church never registered prenatal deaths, abortions and miscarriages, these figures should be increased further by a third to obtain real figures for conceptions and pregnancies, resulting in a factor 1.8 times higher than the number of registered births. Birth intervals should be reduced by a factor of 1.4 and actual infant death rates can be estimated to have been some 10% higher than those recorded.

The final conclusion is that modern methods of microanalysis are suitable for tracking fundamental Russian demographic processes from the late eighteenth century till the early twentieth centuries and make it possible to overcome some of the defects and shortages of the primary sources.

Marriage behaviour in pre-industrial Karelian rural parishes

Irina Chernyakova

Marriage traditions in north-west Russia and Karelia in historiography

It used to be thought that the peculiarities of the demographic behaviour of Russian peasants in the eighteenth and nineteenth centuries had been thoroughly analysed and adequately explained. This is especially the case for the phenomenon of the large family. Modern society has been experiencing an evident crisis of the family throughout the last century and, as a consequence, thousands of books and articles have been devoted to the traditional family, first in America and later in Europe. In 1972, the leader of the Cambridge Group for the History of Population and Social Structure, Peter Laslett, counted twelve thousand separate studies on this subject which had been published between 1900 and 1964.¹

When discussing the viability of the current family model, scholars have also often paid attention to the patriarchal family (*patriarhal'naya sem'ya*), a widespread phenomenon purported to have been the preferred family form in pre-industrial Russia. They usually repeated one of the statements of the well-known nineteenth-century German traveller and political economist August von Haxthausen: 'Nowhere is a large family a greater blessing than among the Russian peasants ...', where a 'large family' represented 'the peasant's greatest wealth'.² This view was accepted as quite reasonable for Russian provinces in the nineteenth century, because 'sons always meant additional shares of land for the head of the family'.³ At the same time, a large family and also the practice of different generations living together 'under a common roof' was seen as a burden in Western Europe. In the opinion of the eminent Russian historian Yury Bessmertnyi, from the Early Modern period, and in some European countries from as early as the Late Middle

¹ P. Laslett, 'Introduction: the history of the family', in: P. Laslett and R. Wall (eds.), *Household and family in past time* (Cambridge 1972) 1-2.

² P. Czap, 'A large family: the peasant's greatest wealth: Serf households in Mishino, Russia, 1814-1858', in: R. Wall, J. Robin and P. Laslett (eds.), *Family forms in historic Europe* (Cambridge 1983) 105-150.

³ Quoted by Peter Czap.

Ages, such a situation had only been relevant for marginal groups in society.⁴ The question of the relationship between individual freedom and social necessity was the principle stimulus of the discussions of the pre-industrial Russian family model.

It must be emphasised here that early ethnographers did not make use of any statistics and, therefore, did not adequately represent the frequency of occurrence of the large family (*bol'shaya sem'ya*) or of the extended family (*rasshirennaya sem'ya*). Until recently these terms were almost exclusively reserved by scholars for families that comprised several generations of related couples with children living together in the same household. As a rule the household was under the uncontested authority of the oldest man, the head of the family (*glava semeistva*), or patriarch. According to contemporary observations made by Maxim Kovalevsky, such a community could include up to 40 or even 50 members in some cases.⁵

Foreign researchers usually compiled data concerning traditional family behaviour in pre-industrial Russia from the travel notes of a few individuals, such as August von Haxthausen and the Frenchman Frederic Le Play. The former visited the central regions of Russia in the 1840s while the latter travelled through the environs of Orenburg in the beginning of the 1850s. The well-known researchers Petr Efimenko and his wife Aleksandra Efimenko also attracted the interest of western investigators of Russian family structure. They researched the Archangel area in northern Russia and the Ukraine in southern Russia during the last decades of the nineteenth century.⁶ It is understandable that all these travellers, who were both researchers and writers, felt truly amazed about the Russian peasant families they described. The best known descriptions of the traditional family in Karelia in pre-industrial times are by Petr Chelishchev and Karl Bergshtresser.⁷ These authors inform us about the widespread occurrence of the large family among the Karelians at the end of the eighteenth century. The most interesting information concerning traditional family structures is found in the diary of Vera Kharuzina, who studied in France and Germany and was professor of 'Higher Female Studies' in Moscow. She collected her impressions while travelling with her brother, the anthropologist Nikolai Kharuzin, in the Pudozh area, the south-

⁴ Ю.Л. Бессмертный, Жизнь и смерть в средние века: Очерки демографической исто-рии Франции (Moscow 1991) 210.

⁵ M. Kovalevsky, Modern Russia and Ancient Laws of Russia (London 1891) 53.

⁶ А.Я. Ефименко, Исследования народной жизни: Обычное право. Вып. 1 (Moscow 1884); А.Я. Ефименко, История украинского народа (St Petersburg 1906); П.С. Ефименко, Семья архангельского крестьянина // Судебный журнал (1873) No. 4; П.С. Ефименко, Материалы для изучения экономического положения крестьян Харьковской губернии (Moscow 1884).

⁷ П.И. Челищев, Путешествие по Северу России в 1791 году отставного секунд-майора П. Челищева (St Petersburg 1886); К.Ф Бергштрессер. Опыт описания Олонецкой губернии (St Petersburg 1839).

ern part of present-day Karelia, which was settled mainly by Russians, and in that part of White Sea Karelia which was settled by Lapps.⁸ Their material is probably still the most valuable source for anyone who is interested in what the real life of peasants in Karelia and neighbouring areas was like in former times.

Should not the established view of the native peasants' families in the nineteenth century as created by famous travellers, writers, ethnographers and anthropologists be looked at from a different point of view? Is it not likely that all those people who went to rural areas, whether for only a relatively short period or for much longer, all followed the same practical route in search of good food and a well-organised day-to-day life and most likely stayed in households of the more well-to-do families? It is not, therefore, simply by chance that the relationships in those kind of families, which normally had a large number of members, were described as the most typical ones in their books, although they never really claimed that these families were typical of all families in the region. The fact that the households where they stayed were prosperous and accommodated numerous people does not mean that there were no other types of families around. Nevertheless, demographers and historians continue to be fixated on the accounts provided by these nineteenth-century travellers.

In 1982, the Austrian demographers Michael Mitterauer and Alexander Kagan published an informative article based on data from the third Soul Revision (1762-1763), of the Yaroslavl region.⁹ They found only one case of a boy of fifteen who was already married. Nevertheless, the authors found it absolutely acceptable to declare that, for economic reasons, it was quite common for 'boys to be married very early to grown-up women' in the Russian provinces. They wrote this in the wake of Von Haxthausen, who in turn had repeated some conclusions by Wichelhaus, who was the only real witness and claimed to have seen 'strong women of 24 years carrying in their arms their six year-old little husbands' while he was travelling in Russia.¹⁰ However, the data from the sources analysed by the Austrian historians shows that a marriage pattern with large age differences between the partners cannot be considered typical for Russia. Nevertheless, they had no doubt that marriages between young boys and adult women were common among Russian peasants during the nineteenth century.¹¹ The only other evidence for this

⁸ В.Н. Харузина, *На Севере: Путевые впечатления* (Моscow 1889); Н.Н. Харузин, *Русские лопари* (Moscow 1890); Из материалов, собранных среди крестьян Пудожского уезда Олонецкой губернии // Этнографическое обозрение (Moscow 1890).

⁹ M. Mitteraurer and A. Kagan, 'Russian and Central European family structures: a comparative view', *Journal of Family History*, 7 (1982) 103-131.

¹⁰ Quoted by Mitteraurer and Kagan, 'Russian and Central European family structures'.

¹¹ Ibid., 118.

model of Russian peasant family behaviour is found in Mark Kosven's description of a scandalous affair concerning a father-in-law living in concubinage with his daughter-in-law.¹²

The literature on Karelian peasant family behaviour consists mainly of ethnographical material and of descriptions written by travellers, local clergymen or provincial clerks who lived there in the nineteenth century. However, the aim of these local writers describing ordinary peasant family life was not a thorough analysis of the available documentary sources of a mass nature. The classical studies devoted to the traditional culture of the Karelians and containing a special review of the development of family relations since the fifteenth century carried out by the academician Roza Nikolskaya (Taroeva) in 1965 and 1983 are based exclusively on interviews with elderly people.¹³ She concluded that the extended family appeared to have been replaced by the nuclear family (*malaya sem'ya*) around the end of the nineteenth century, when peasants began to be involved in capitalist productive relationships. However, these conclusions cannot be regarded as convincing since they are only based on a few wills and some commercial documents from the seventeenth century.¹⁴

Evgeny Klementiev and Victor Birin have recently¹⁵ placed research about the modern Karelian family on a new footing, but the incorrect findings regarding pre-industrial families, based on the idea that it was easier for an extended family of 25 to 40 members to survive the prevailing economic conditions, still remain in general use. These ideas have not been corrected by historians, although interviews showed that the nuclear family consisting of parents and unmarried children was more common. More than half a century ago, the eminent academic researcher Alexander Linevsky also concluded that in earlier times the only type of peasant family organization must have been the large traditional kinship network consisting of several generations,¹⁶ based on the fact that at the beginning of the twentieth century extended families were common for well-to-do peasants, and did not take into account the large number of sources which showed other patterns.

Foreign researchers interested in traditional demographic behaviour, a topic widely discussed in the West since the Second World War, were not able to study the historical reality of the Russian regions. The provincial ar-

¹² М. Косвен, Семейная община и патронимия (Moscow 1963) 75.

¹³ Р.Ф. Тароева, *Материальная культура карел* (Moscow/St Petersburg 1965).

¹⁴ Р.Ф. Тароева, Карелы. In the book (after В кн.), *Народы Европейской части СССР*. Т. 2. (Moscow 1964); Никольская (Тароева) Р.Ф. Семья и семейный быт. В кн.: Карелы Карельской АССР (Petrozavodsk 1983).

¹⁵ А.П. Новицкая and В.Н. Бирин, Карелы. В кн.: Семейный быт народов СССР. Под ред. Т.А. Жданко (Moscow 1990); Е.И. Клементьев, Карелы (Petrozavodsk 1991); В.Н. Бирин, Брак и семья сельского населения Карельской АССР в 1950-1970 гг. (Petrozavodsk 1992).

¹⁶ А.М. Линевский, Очерки по истории древней Карелии (Petrozavodsk 1940).

chives were closed to foreigners during the Soviet period, while all the statistical documents, for example the state level third Soul Revision (revizskie skazki), the annual Church Reports (metricheskie knigi) and the Confessional Lists (ispovednye vedomosti) were stored there. Only the Englishman Peter Czap, who published two articles in 1978 and 1983 devoted to the feudal peasants of the Ryazan region, was successful in obtaining access to original demographic documentary sources.¹⁷ He analysed the demographic situation on an estate called Mishino, which belonged to Prince Gagarin. According to this demographer, important regional peculiarities in family behaviour are evident even in a small country like Belgium, for example. In Russia these local features still await discovery and analysis in detail. There are sufficient sources for such investigations and only after the publication of a significant number of studies will it be possible to reconstruct the structure and typology of national demographic behaviour for the whole of Russia. The aim here is to reconstruct a reliable picture of the traditional Karelian peasant family system by analysing mass documentary sources on a micro-regional level.

As far as possible the methods and terminology of the influential Cambridge Group for the History of Population and Social Structure will be followed, as has been done, for example, by Finnish scholars.¹⁸ This makes it possible to draw comparisons with their conclusions on the pre-industrial traditional family in some neighbouring territories.

The main aim of this research is to answer the question whether the marriage and family behaviour of the Karelian peasantry more closely resembled the Central Russian or the European model. In a famous study, John Hajnal pointed to the line from St Petersburg to Trieste as dividing two different demographic worlds.¹⁹ The Karelians live at the end of this line near St Petersburg but which side of it do they actually live on? The research aims to answer the following questions. What was the traditional age at marriage in Karelia in earlier times? What was the age difference between husband and wife and did extreme differences appear frequently? The answers to these questions will make it possible to determine whether the marriage behaviour of Karelian peasants did actually resemble the common Russian traditions.

¹⁷ P. Czap, 'Marriage and the peasant joint family in the era of serfdom', in: D.L. Ransel (ed.), *The family in Imperial Russia*: (Urbana/Chicago/London 1978); Czap, 'A large family', 105–150.

¹⁸ B. Moring, 'Land, labor, and love: Household arrangements in nineteenth century eastern Finland: cultural heritage or socio-economic structure?', *The History of the Family. An International Quarterly*, 4 (1999) 159–184; K. Siren, *Suuresta suvusta pieneen perheeseen: Itasuomalainen perhe 1700-luvulla* (Helsinki 1999); E. Waris, *Yksissa leivissa. Ruokolahtelainen perhelaitos ja yhteisollinen toiminta 1750-1850* (Helsinki 1999); M. Polla, *Vienankarjalainen Perhelaitos 1600-1900* (Helsinki 2001).

¹⁹ J. Hajnal, 'European marriage patterns in perspective', in: D.V. Glass and D.E.C. Eversley (eds.), *Population in history. Essays in historical demography* (London 1965) 101-143.

The reliability of Soul Revisions and Confessional Lists

Analysis of new information shows that the widely accepted idea in local historiography of absolute adherence by Karelian peasants before the era of industrialization to the large patriarchal family is extremely speculative. Knowledge on the structural composition of peasant households comes from investigations made by native historiographers of the Census Books (Perepisnye Knigi) from the last decades of the seventeenth and the first decades of the eighteenth centuries.²⁰ Earlier sources are the Census Books of 1646/47 and the Scribe Books (Pistcovye Knigi) of 1628-31, which contain demographic information about the local Karelian peasant communities. Data concerning the territories of the parishes (pogost) Shuya and Shunga, which are located on the western and eastern shores of the northern part of Lake Onega, allow interesting observations to be made. The numbers of farmsteads which were lived in by one, two or three generations were in nearly the same proportions at the end of the 1620s as they were in the middle of the 1640s. The number of households consisting of the head of the house with his sons or with his brothers was respectively 70% and 63%. Households with the same people, but where at least one of them had their own sons or nephews present, were evidently less numerous (27% both times). The third variant where the head of household lived together with his son(s) and grandson(s) was very rare, less than half a % at the end of 1620s and about one % in the middle of the seventeenth century. However, it must be remembered that in both sources, the Scribe Books of 1628-31 and the Census Books of 1646/47, only the names of adult men older than 15 years were put on the lists, so that not too much can be concluded from these observations.²¹

The Census Books of 1678 contain more detailed data on customary family formation among Karelian peasants in the seventeenth century (see Table 1).²² Nevertheless, it has to be concluded that the information in these sources is not sufficient to provide exact answers to all the questions raised about the demographic behaviour of the local peasants. Fortunately, later documents of a mass character, such as Confessional Lists (*Ispovednye Vedomo*-

²⁰ Я.Е.К. Водарский, вопросу о средней численности крестьянской семьи и населенности двора в России в XVI-XVII вв. В кн.: Вопросы истории хозяйства и населения России XVII в.: очерки по исторической географии XVII в. (Moscow 1974) 117-119; Е.Н. Бакланова, Крестьянский двор и община на Русском Севере: конец XVII- начало XVIII в. (Moscow 1976); О.Б. Кох, Крестьянский двор и крестьянская семья на Русском Севере в конце XVII-XVIII в.: Автореферат диссертации... кандидата исторических наук (Ленинград 1987).

²¹ И.А. Чернякова, Население Заонежских погостов в XVI-XVII вв.: по писцовым и переписным книгам. В кн.: Вопросы истории Европейского Севера: Межвузовский сборник статей. (Petrozavodsk 1988) 115-133.

²² More detailed results of the research and the conclusions can be found in И.А. Чернякова, *Карелия на переломе эпох: Очерки социальной и аграрной истории XVII века* (Petrozavodsk 1998) 110-125.

sti, CL) and Soul Revisions (*Revizskie Skazki*, SR), make it possible to study the traditional family structures of Karelian farmers in much more detail.

Table 1 Composition of peasant families in the Olonets Region in 1678

Type of family	Number of fa		
	Absolute	%	
Direct Relationship			
Married couples and singles	251	16.9	
Married couples and their unmarried sons	679	45.8	
Married couples, their married sons and grandsons:			
with one son and grandsons	40	2.7	
with two sons and grandsons	9	0.6	
with three and more sons and grandsons	1	0.1	
with one son, grandsons and younger sons	57	3.8	
with two sons, grandsons and younger sons	13	0.9	
Widows:			
Widows with unmarried sons	17	1.1	
Widows with grandsons	1	0.1	
Total	1,068	72.0	
Lateral Relationship			
Unmarried brothers:			
own (including under aged)	104	7.0	
cousins	6	0.4	
Married brothers:			
two (or three) brothers with their sons	44	3.0	
with own sons and younger brothers	114	7.7	
with sons and grandsons	2	0.1	
Families with nephews:			
married couples with sons and nephews	54	3.6	
married couples with sons, grandsons and nephews	6	0.4	
widows with sons and nephews	3	0.2	
brothers with sons, younger brothers and nephews	27	1.8	
with son-in-law and nephews	2	0.1	
Families with son-in-law:			
with son-in-law and younger sons	29	2.0	
with son-in-law, grandsons and younger sons	16	1.1	
widows with son-in-law	1	0.1	
brothers with their own sons and son-in-law	1	0.1	
Total	409	27.6	
Others:			
Families with brother-in-law	6	0.4	
Total	1,483	100.0	

Source: State Archive of Ancient Documents (Rossiisky Gosudarstvennyi Arkhiv Drevnikh Actov, RGADA), collection 1209, volume 1137, part 1.

NB: The data is for the parishes of Shunga and Megra, located to the south and to the north of Lake Onega, which showed some significant differences concerning social and agrarian development. Research concentrates on the CL as these provide information about the preferred variants in the structure of households in Karelia.²³

These documents, which were prepared by parish priests who listed their parishioners when they appeared for confession and communion, are considered to be the most representative sources listing most fully the names of the people in each family. It should be noted that it was not significant whether the person concerned actually attended or not because, as a rule, the priests and deacons recorded the names not only of those who were present but also of those who were absent. The CL are regarded as providing a complete registration of the population which was counted as belonging to a particular parish at a given moment.

Nevertheless, these sources do not fully meet the requirements and expectations of the family historian. The most important flaw in the sources is the fact that priests, as a rule, entered names in this list according to their relationship with local families or even to a local peasant clan, without noting whether they were living in the same or in different households. Thus, the general picture relates not to households but to relatives living in a certain village. However, the questions in historiography concentrate on the household as the dwelling place of each particular family. Only when it is certain that the families mentioned in the source lived together in one household is it possible to identify the presence and/or predominance of particular family types.

Apart from this the information itself causes some confusion by replacing one person by another within a family. For instance, when entering the name of a peasant's wife in the list the priest did not note whether she was a second wife, or perhaps even a third one. Because of this, the researcher is often faced with strange combinations of ages of the people said to be living in the same household. For example, the household of a 55-year-old head of the family contains his 35-year-old wife and their 20-year-old son. The source suggests that he was their common son and this would mean that his mother was 15 years old when he was born. Since second marriages were not at all rare, this kind of situation is met with quite often in the sources. Not considering this kind of information critically could inevitably lead to drawing the erroneous conclusion that extremely early marriages of young girls were common in Karelian villages.

The only possible way of overcoming the limitations of the sources is to take a micro-historical approach, combining this with the data from the Revisions which were carried out regularly by the government in order to assess the population at a particular time. As a rule the SR listed households showing their position in the whole list of households, according to the tradition

²³ Polla, Vienankarjalainen perhelaitos.

used in the nineteenth century in the Petrozavodsk, Povenets and Olonets *uezd*. The number of a particular household in the revision being undertaken was shown but also its number in the previous one. The accurate attention paid by the maker of the SR to the information in the previous revision creates a unique situation which allows a check of all doubtful cases of the type described above to be made. While listing the names of persons living in the household at the time of the revision the maker also always mentioned what had happened to those who had left the household for whatever reason during the period since the previous revision. This means that there is a high chance of finding the name of the peasant's previous wife and even the reason for her no longer being present.

The SR can be considered to be the ideal sources not only for the investigation of the structure, size and composition of families, but also for identifying traditions concerning the choice of marriage partners. This is because the maker of the SR was obliged to indicate with comments the fact of the appearance of a woman in another family, that of her husband. At the end of the eighteenth century (Revisions III, IV and V), information can be found showing from which village and even from which family the bride came. Unfortunately, in the nineteenth century it was considered enough just to indicate the fact of the marriage itself. Possibilities for research are also limited by the fact that before 1764 females were not counted at all, the government only being interested in men since they were the tax payers.

A comparative analysis of the information about the people living in the Yalguba parish was carried out for the CL of 1794 and the SR of 1795. The time lag between the preparation of these two documents is not long enough for significant changes in the listed households to have taken place. If something had happened in between, such as a birth, marriage, change of residence or a death, the SR with its fixed form allows these changes to be followed. In most of the cases where information about inhabitants of a particular household does not match and this is not explained by remarks made by the person providing the information, it is clear that the reason for this is simply that he or she was left out.

Before drawing a conclusion on the general level of usefulness of the information to be found in these sources, it is important to determine which of the village lists for Emeliyanovskaya, Karpovskaya, Anhimovskaya and Kullievskaya provide the most complete registration of the peasants and their families in the middle of the 1790s. There are two sources to be considered. These are the lists of people prepared for the fifth revision by the *staraosta*, a local authority responsible for gathering the tax data for all community members, and secondly, the lists of names of the same people ordered by household and prepared by the priest while conducting the confession procedure. The first thing to be noticed is that in only two of the four villages, Karpovskaya and Kullievskaya the number of households is the same in both sources. The same 4 households were listed for the first village and the same 8 households for the second one in both 1794 and 1795. In the two other villages, Emeliyanovskaya and Eremeevskaya, the CL listed considerably fewer households, 15 and 11 respectively, than the SR prepared a few months later which showed 26 and 14 respectively. General figures of the population are also not always identical. In three out of the four villages the SR shows approximately 10% more people then the CL (Table 2).

The question arises what causes this considerable difference in the basic characteristics of the same group of villagers in these quite similar sources. In order to answer this question a further analysis of the peasant families was carried out. This led to the conclusion that 14 households with 20 people from Emeliyanovskaya and 11 from Eremeevskaya were included in the SR who were not mentioned at all in the CL. However, this fact only partly explains the mismatches discovered at the level of the overall figures.

Table 2 Population of Yalguba district according to the Confessional List of 1794 and the Soul Revision of 1795

		CL (1794)		SR (1795)			
	Men	Women	Total	Men	Women	Total	
Emeliyanovskaya	50	51	101	57	65	122	
Karpovskaya	24	16	40	19	14	33	
Eremeevskaya	39	41	80	37	45	82	
Kullievskaya	29	19	48	33	29	62	
Total	142	127	269	146	153	299	

Source: National Archive of the Republic of Karelia (*Natsional'nyi Arkhiv Respubliki Kareliya*, NARK), collection 25, catalogue 21, volume 25/74; collection 4, catalogue 18, volume 10/67.

A considerable number of people not recorded in the CL appeared several months later in the SR. Among them were, for example, eight new daughters-in-law and sixteen children between the ages of 1 to 5 years. Some of these had only just been born or were too young to be at the confession and were therefore not included in the list by the priest. However, there are a number of situations which are very difficult to explain. For example, Fevronjya, an 18-year-old girl who was the eldest daughter of Matvej Vasiljev and his wife Sofiya Rodionova, is not recorded as forming part of their household in the village of Emeliyanovskaya, and a whole new family, that of their younger brother, the 33-year-old Ksenofont with his wife and 9-yearold son, appeared in the household of Averkij, Anton and Vasilij Leont'ev in the village of Kullievskaya. There are also mysteries about the people who disappeared. They are listed in the CL but, unlike those who were left out for a variety of known reasons and recorded, for instance, as 'died', 'got married', 'left to go to Petrozavodsk merchants', their absence is not explained at all in the SR. Among those who were not recorded in the various households were several children (10 between the ages of 2 and 13), widows (2 women who were rather old and 2 who were middle aged with children), and even 4 complete families consisting of husband, wife and children, a total of 34 persons.

Although not great in number the mismatches on personal level of the names of household owners their wives and children deserve special attention, being characteristic for these sources. This problem concerns the names of females particularly. For instance, 6-year-old Anna instead of 8-year-old Tatjyana is found in the household of Stepan Harlamov in the village of Emeliyanovskaya, and 3-year-old Fedosiya instead of 4-year-old Agafiya in the household of Matvej Vasiljev. Stefanida Ivanova, 21 years old, is mentioned as the daughter-in-law and wife of the eldest brother's son in the household of Stefan, Philip and Andrei Minin in the village of Emeliyanov-skaya, but 20-year-old Domna Dmitrieva appears in the SR instead of her. Katerina Parfent'eva, 38 years old, is found in the SR in the household of Yakov and Larion Silin instead of Yakov's wife Irina Penteleeva, 39 years old, who is recorded in the CL for the village of Eremevskaya.

These examples cover most of the cases of absolute mismatch. As a rule, people listed in both documents can usually be identified, even if different versions of names and otchestva are used, for example, Stefan and Stepan, Matfei and Matvei, Isidor and Sidor, Ieremiya and Eremei, Porfirii and Perfil, Glikeriya and Lukerya. The identification can be completed even in less obvious situations, such as in the case of the sons of Konon Saveliev from the village of Eremeevskaya, whom the SR named Epifan and Merkulii while the CL calls them Stefan and Merkirii. Other examples are the head of one of the households in the village of Kullievskaya, who became Nikolai Lukin, after first being called Vikula Lukin, and the widowed daughter-in-law Stefanida, who lived in the village of Emeliyanovskaya in the household of her fatherin-law Fedor Prokhorov after her husband Kipriyans had died, and was named after her father either as Markova or Maksimova. In these and similar cases the fact that information about the ages of the people in question given by both sources corresponds greatly assists positive identification. In general, however, information on ages causes the most confusion when comparing the CL with the SR. This is illustrated by the figures presented below which reflect all age mismatches discovered during the analysis of our sources.

Completely reliable information about age can be found for only around 15% (35 people) of all the 231 people, men, women and children identified.

Each of them became one year older in the period between the listing in Ispovednaya Vedomost' in 1794 and recording in the SR in 1795. The age of about 18% (41 persons) did not change, and this can also be considered reliable because at the end of the eighteenth century neither the CL nor the SR recorded ages more precisely than the number of full years. Information where mismatches are no more than 2 years can also be considered as relatively reliable because it must not be forgotten that the age recorded in those times relied entirely on the claim made by the person concerned. This gives another 33% of people for whom the information on ages as recorded in the CL and the SR is more or less similar. There are mismatches of one kind or another in 27 of the 38 families listed in both the CL and the SR.

The SR has the following advantages in comparison with the CL. First of all, the SR more fully reflects all the people living in the villages because some people were absent from the confession for a variety of reasons, including being too young to attend. Secondly, this source indicates the reasons why those mentioned in the previous revision are now absent, which allows the relative structure of the families living in the households to be reconstructed more adequately and fully and its development to be understood. Thirdly, the age information is more reliable.

However, care has to be taken not to regard the information given in the SR as being complete and historians rightly view the data in the two first revisions with some quite justified distrust. When these revisions were carried out, up to 50% of the population at that time was not clearly recorded. This information can, though, be restored by using a micro-historical approach. The data from revisions carried out much later on must also be carefully checked using parallel sources. Often only very detailed analysis of the names allows lacunas to be identified and it is necessary to search for data missing from the SR in order to make comparisons over time fully possible.

The SR were placed in archives along strictly departmental lines as was usual for keeping records in Russia. Since the Novgorod times, Karelia has been characterised by patchy ownership of the land by the state, the Tsar family, aristocrats from Novgorod and Moscow (*boyare*) and the Russian Church, including the local and Novgorodian monasteries, supplemented by a group of peasants who were not subject to state taxation (*obel'nye*) and peasant landowners (*votchinniki*). These last two groups appeared after the first repression by the Russian Tsar dynasty at the end of the sixteenth and the beginning of the seventeenth centuries. This diversity sometimes creates serious difficulties for the researcher because the person preparing the SR listed people living in a particular territory (*volost'*) or even a village without ever indicating that a number of its inhabitants were left out to be counted under another department. The local approach chosen for the study of the traditional peasant family in Karelia using mass information from both the SR and the CL and with the possibility of checking this with data from the registers of births provides the opportunity of studying demographic behaviour almost on a personal level. The method adopted involves taking into consideration information about several geographically distant parishes. The research conducted reveals much greater differences in the traditions of marriages and formation of families followed by the inhabitants of Karelian villages in the eighteenth and the nineteenth centuries than is generally accepted in the historiography concerning Russian marriage behaviour and the typical peasant family pattern.

Traditions in marriage behaviour in parish communities in Karelia

As many researchers have pointed out, the need to find a wife for each son and in this way obtain an additional pair of working hands in the house-hold was the main principle which determined the marriage pattern in pre-industrial Russia. Obtaining an extra unit of labour for the burdensome peasant economy was accepted as the main reason for marrying. A stimulus was also that, as soon as the new couple married a peasant homestead could demand a larger share of the ploughed land which was in common use by the local community (*obshchina*).²⁴ In Western historiography this is usually emphasised as the reason for 15-year-old boys often marrying 18-year-old girls.²⁵

This appears to be one of the most important factors in explaining the matrimonial pattern that was clearly preferred among the Russian peasantry and has been considered as non-European in accordance with the classic study of John Hajnal, who showed how extremely high the age at marriage normally was in Central and Western Europe. The well-known line he suggested between Leningrad (St Petersburg) and Trieste showing the division between quite different traditions of marriage behaviour leaves the question unanswered as to which model was relevant in the Karelian rural parishes. Another and possibly the main aspect of the non-European way of creating families is that wives were often older than their husbands. Peter Czap showed that this was the case for between 33 and 46% of the marriages on the estate of Mishino which was located in the Central Industrial Region of Russia.²⁶

After reviewing data from a large number of earlier publications, the Estonian researcher Hel'dur Palli showed that during the eighteenth and nine-

²⁴ R. Smith, Peasant farming in Muscovy (New York 1977) 82; Б.Н. Миронов, Социальная история России периода империи (XVIII — начало XX в.): Генезис личности, демократической семьи, гражданского общества и правового государства. Т. 1. (St Petersburg 1999) 161-162.

²⁵ Czap, 'A large family', 106.

²⁶ Czap, 'Marriage and the peasant joint family', 114.

teenth centuries the preferred age at marriage in Western European countries was not before 27 for men and not before 25 for women.²⁷ Peter Laslett showed that in Western Europe during the last 250 years, cases where the average girl married at an age less than 20 were very rare.²⁸ According to Bessmertnyi some municipalities in France already imposed minimum ages at marriage as early as in the last three decades of the sixteenth century. For example, in 1573 the magistrate of the French city of Amiens forbade men, particularly if poor, from marrying before the age of 24-25 and women before the age of 17-18.²⁹ Different historians showed that the typical age of a groom in the European rural areas was 27-28, while a bride was usually not younger than 25-26.³⁰

The European matrimonial model was also characterised by a small age gap between husband and wife.³¹ The third important characteristic of the Western European model of marriage behaviour is that many people did not marry at all with the figure reaching as high as 10% in the period of the Late Middle Ages.³² In some local communities in Western Europe the share of celibates rose to over 20% during the nineteenth century.³³

According to native Russian historiography, marriage formed some kind of personal duty to society for Russians, particularly those living in the rural areas in the period from the eighteenth to the beginning of the twentieth centuries. Unmarried men who were old enough to marry were regarded with suspicion by the people in the circle around them and were given special nicknames which were generally quite offensive.³⁴ Family historians in Russia showed that it was not only the relatives of the boy who encouraged their sons to marry as early as possible. The parents of girls also did not want to spend too much time trying to find the best husband, since they were afraid that their daughter might become pregnant before marriage if she did not marry early. The chance that a young woman would lose her honour and bring shame on her family was considered greater the longer she remained unmarried.³⁵ Because the community was firmly attached to Christian values

²⁷ H. Palli, 'Nekotorye harakteristiki razvitiya sem'I v stranah Zapadnoi Evropy XVII-XIX vekov (po materialam zarubezhnyh issledovanii)' in: A.G. Vishnevsky and I.S. Kon (eds.), *Brachnost', rozhdaemost', sem'ya za tri veka* (Moscow 1979) 170-173.

²⁸ P. Laslett, Family life and illicit love in earlier generations (Cambridge 1977) 26-29.

²⁹ Ю.Л. Бессмертный, Жизнь и смерть в средние века: Очерки демографической истрии Франции (Moscow 1991) 210.

³⁰ M. Anderson, Approaches to the history of the Western family, 1500-1914 (London 1980) 18.

³¹ Hajnal, 'European marriage patterns'.

³² Бессмертный, Жизнь и смерть в средние века, 211.

³³ Anderson, Approaches to the history of the Western family, 18.

³⁴ Миронов, Социальная история России, 161.

³⁵ Б.Н. Миронов, Традиционное демографическое поведение крестьян в XIX – начале XX вв (Moscow 1977) 90.

and ethics, families of girls who had illegitimate children fell victim to public scorn.

Figure 1 Map of north-west Russia showing the area investigated



The minimum age for marriage was set very low by the Orthodox Church. In accordance with the special regulations of 1774 the minimum age for

women was set at 13 and for men at 15.³⁶ These age limits had been even lower before. According to the 'Sobornoe Ulozhenie' of 1649, even a 12-year-old girl could marry.³⁷ These low ages seem to be associated with the ancient church rules of the Russian Church authorities which originated from the Greek Orthodox Church. However, in 1830 the official minimum age for bride and groom was raised significantly by the Russian emperor to 16 and 18 respectively.³⁸

The well-known Russian social historian Boris Mironov is convinced that the age at which girls in Russia married at the beginning of the eighteenth century was 12-14 and for boys 13-15.³⁹ In his opinion, everything seems to suggest that the tradition of marrying at such a very young age had already existed for a long time. Nevertheless, according to his data, the law declared by the State authorities and supported by the Orthodox Church influenced marriage behaviour a great deal, resulting in a significant rise in the average age at first marriage for girls from 15-16 to 18-20 and for boys from 16-18 to $20-21.^{40}$

The age at marriage in large parts of Russia was also influenced by age boundaries set by the noble estate owners for their private estate population. The landlord (pomeshchik) could change these boundaries if the specific economic situation on his landed property warranted this. For example, in a local instruction issued by the landowner, Prince (knyaz) Scherbatov, in 1758 and addressed to all inhabitants of his estate in the province of Yaroslavl, girls were obliged to marry by their eighteenth birthday and boys by their twentieth year.⁴¹ Other examples show that seigneurial interference in the marriage process could very often be much more powerful and dramatic. Czap wrote about an order made by Prince Gagarin, addressed to his estate Mishino in December 1817, announcing the opening of a cloth mill on one of his other estates, Petrovskaya, which needed young female workers to be selected from unmarried girls aged 15 years and older.⁴² Parents were given the option of arranging marriages for their daughters before arrival in Mishino of an agent of the prince or risk losing their girls to a far away part of their landowner's estate. According to the next register dated February 1818, several girls aged 16, 17 and 18 did indeed get married after the issue of the order. Interestingly, the overseer emphasised particularly that a number of girls

³⁶ Л.А. Гурвич, Экономическое положение русской деревни (Moscow 1896) 60; D. Atkinson, 'Society and the sexes in the Russian past', in: D. Atkinson, A. Dallin and G. Warshofsky Lapidus (eds.), *Women in Russia* (Hassocks 1978) 30.

³⁷ Миронов, Социальная история России, 167.

³⁸ А.М. Анфимов, Крестьянское хозяйство Европейской России: 1881-1904 (Moscow 1980) 24-27.

³⁹ Миронов, Социальная история России, 163.

⁴⁰ Миронов, Социальная история России, 167.

⁴¹ В. Александров, Сельская община в России (XVII - начало XIX в.) (Moscow 1976) 304.

⁴² Czap, 'A large family', 120.

were unsuitable for marriage because of physical handicaps and, moreover, making it clear how pressing the lord's will was, several girls of 15 and 16 years old were labelled as immature (*malorosla*) to explain why they were not able to get married immediately. Such instructions were regularly given to their managers (*prikazchik*) by the landowners and so are widely present in archive collections. These kind of documents always contain special regulations in the sphere of marriage in accordance with Mironov's conclusions. It was everyday practice for landlords to recommend their peasants to marry as early as possible.⁴³

It has to be mentioned in this respect that only one of our Karelian parishes, namely the estate Pyatnitckoe located in the province of Tver', was subject to the will of a landlord, the retired lieutenant-general Ivan Chertkov, and after 1849 his nephew staff-captain Alexander Chertkov. Two other parishes, Rebola and Yalguba, were inhabited by peasants who were not ruled by any private person in the eighteenth and nineteenth centuries. These areas were located on the so-called black lands (*chernososhnye zemli*) which were state owned and mainly situated in north-west Russia.

The usual age at marriage of Karelian peasants

The specific marriage pattern is one of the important factors influencing household size and household composition and reflects the way in which people view family life. Although it would appear that the dynamics of marriage among Russian peasants is fully understood, the data obtained for Rebola, Yalguba and Pyatnitckoe make it clear that in Karelian parishes the pattern of marriage was quite different from the model previously presented in historiography.

The East European marriage pattern in the rural parts of Yaroslavl seems to have been less pronounced than in the Ryasan area, as shown by comparing the data published by Mitteraurer and Kagan⁴⁴ with that reported by Czap. The marriage behaviour in this last village is an illustration of what was common among people living under the strict control of landlords at the end of the eighteenth century in central Russian provinces.

Table 3 compares the percentages of people married in different age groups in the rural populations of Mishino (data obtained by Czap), of Yaroslavl (data obtained by Mitteraurer and Kagan) and of Pyatnitckoe (data from the archives). Clearly, the marriage pattern found in Pyatnitckoe is somewhere in between that of the other two. The group of the youngest men shows the biggest differences. In Mishino a majority of the men were married before their twentieth birthday (55%) while in Yaroslavl this group

⁴³ Миронов, Социальная история России, 167-168.

⁴⁴ Mitteraurer and Kagan, 'Russian and Central European family structures', 118.

was much smaller (13%) and approximately one fifth (22%) of the young men in the age category 15-19 were already married in Pyatnitckoe. It is also clear that in each of these areas almost all the people were married by their thirtieth birthday.

Table 3 Percentages of married people by age groups in different Russian villages around 1800

	Men (%)			Women (%)			
	15-19	20-24	25-29	15-19	20-24	25-29	
Mishino 1814	54.7	94.7	96.4	34.4	90.3	97.6	
Pyatnitckoe 1782	22.2	66.0	90.0	40.2	81.7	97.5	
Yaroslavl 1762	13.0	52.4	77.3	25.8	65.2	95.9	

Source: Czap, 'A large family', 119; State Archive of Tver' region (*Gosu-darstvennyi Arhiv Tver'skoi Oblasti*, GATO), collection 312, catalogue 6, volume 117; Mitteraurer and Kagan, 'Russian and central European family structures', 118.

Table 4 compares the percentages of people married before the age of 30 in Rebola (Povenetc region), Yalguba (Petrozavodsk region) and Pyatnitckoe (Tver' region), all for the same year, 1782. Different models of marriage behaviour can be seen for the same age group in these Karelian parishes, which are situated a long way from each other.

	Men (%)			Women (%)			
	15-19	20-24	25-29	15-19	20-24	25-29	
Rebola	12.3	27.6	40.9	38.7	44.9	65.1	
	n=65	n=76	n=66	n=75	n=49	n=43	
Yalguba	6.5	50.0	60.0	22.6	73.5	92.5	
	n=31	n=42	n=35	n=31	n=34	n=40	
Pyatnitckoe	22.2	66.0	90.0	40.2	81.7	97.5	
	n=99	n=94	n=79	n=87	n=104	n=80	

Table 4 Percentages of married people by age groups in Karelian villages in 1782

Source: NARK, collection 4, catalogue 18, volume 9/58; volume 2/5; volume 2/10; GATO, collection 312, catalogue 6, volume 117. NB: n is the total number in the specific age group.

Pyatnitckoe was under the private control of a landlord so it is understandable why its marriage pattern reflects a different model of behaviour compared with that of the parishes of Rebola and Yalguba. This was related to the private wishes of the landowner of the estate of Pyatnitckoe, who could make regulations or at least could make his expectations regarding marriage very clear to the people living on his land, and because the people were heavily dependent on their landlord for their economic existence these wishes would have been very important to them. The local parish priest also usually supported these kinds of orders about how the people were to manage their everyday lives. It must be emphasised that the youngest husbands recorded in the Revision of 1782 were three boys aged 15, three boys aged 16 and five boys aged 17. Only one girl aged 16 and ten aged 17 were found recorded as wives. All other persons in the youngest group of married people (22 men and 35 women) were already at least 18 years old.

While a fifth of the boys and almost every second girl between the ages of 15 and 19 living in the villages around the parish centre, *selo*, of Pyatnitckoe were already married, this was true for only about one tenth of the boys in Rebola and little more than one in twenty of the boys in this age range in Yalguba and for only a fifth of the girls there. A possible reason for this was the influence of the educated section of society, which was much stronger in the surroundings of Petrozavodsk, the capital of the Olonets province. Several administrative state institutions, schools and a hospital with a staff of professional medical workers who regularly contributed to the pages of the local newspaper '*Olonetckie Gubernskie Vedomosti*' were situated in Petrozavodsk. Gradually knowledge about the disadvantages of early marriages not only for the couple but also for their children spread through the peasant population, reflecting the influence of changes in the law and the ideas of enlightenment prevalent in society.

A very important factor affecting the marriage behaviour in two of the parishes discussed was the common practice of the men to regularly leave their native villages for a long time in search of additional earnings elsewhere in order to maintain their families. This explains why a significant percentage of the age group 25 to 29, particularly of the men (40% in Yalguba and 59% in Rebola) were still not married. Almost no unmarried women in this age group were found in Yalguba but they were quite common in Rebola with about 35% of the women aged between 25 and 29 still single. A possible explanation of this is that a lot of people were resettled by special order of the local authorities to villages near Petrozavodsk, one of which was Yalguba which was quite close to the provincial capital. These retired soldiers or factory workers had quite often never had their own families and were eager to look for a spouse when starting their new private lives. In contrast, in the parish of Rebola, which at the end of the eighteenth century was located a long way away from any centre of industry, the marriage pattern clearly demonstrates that a significant proportion of the local population was not ready to marry until after the age of thirty. Men were actively involved in trade and were very often not at home during the hunting season and sometimes even for longer periods. Because migration was limited, except for the traders who visited far away markets in Russia and Finland and sometimes

brought home wives from elsewhere, it was not easy for local women to find a husband.

The data reported for Mishino may be accepted as typical for Greater Russia whereas the marriage pattern in the Karelian parish of Pyatnitckoe, which was located in the Tver' region, one of the Central Russian Provinces, with the inhabitants living under the private control of Captain Chertkov, is clearly different for the youngest men. In the age group 15-19, more than one in five of the men (23%) was already married in Mishino, but only one in nine (12%) in Pyatnitckoe. On the other hand, it was more common for the girls aged between 15 and 19 to be married already in Pyatnickoe compared to Mishino. In other respects these two places did not differ by very much with almost every man and woman in the age group 25 to 29 being married in both Pyatnitckoe and Mishino, and a large number of people already being married between the ages of 20 and 24. However, the marriage patterns in Rebola and Yalguba in Karelia in north-west Russia are very different from these two villages which had more or less typical Russian conditions. As is shown in Table 5, in Rebola in 1850 no young man was married before his twentieth birthday, and it was also very rare (0.9%) for women to be married as young as that.

Table 5 Percentages of married people by age groups in Rebola, Yalguba, Pyatnickoe and Mishino in 1850

	Men (%)			Women (%)			
	15-19	20-24	25-29	15-19	20-24	25-29	
Rebola	0.0	7.4	31.5	0.9	32.6	55.7	
	n=108	n=108	n=89	n=108	n=92	n=79	
Yalguba	6.3	37.0	65.2	12.3	61.5	86.8	
	n=63	n=46	n=46	n=65	n=52	n=53	
Pyatnitckoe	11.7	83.5	88.1	31.0	69.0	85.5	
	n=103	n=67	n=59	n=84	n=71	n=83	
Mishino	22.6	82.5	98.1	23.6	87.1	94.1	

Source: NARK, collection 4, catalogue 18, volume 70/696; volume 61/566; GATO, collection 312, catalogue 6, volume 683; Czap, 'A large family', 119. NB: n is the total number in the specific age group, which is not known for Mishino.

In Rebola age at marriage had evidently risen during the fifty years before 1850. Table 5 shows that the number of people already married at age 25 was quite insignificant, particularly for the men with about 93% of them still unmarried at that age and even in the age group 25-29 a lot of people were still unmarried (69% of men and 44% of women). In the Yalguba parish, situated on the shore of Lake Onega, many people were also still unmarried between the ages of 20 and 24 (63% of the men and 35% of the women). It was not

uncommon for men to celebrate their thirtieth birthdays still single, and even as many as one in ten of the women were forced to remain a spinster (*staraya deva*) for quite a long time.

It must be concluded that in the parish communities investigated less than half of the women were married by the age of 21. This is a relatively high marriage age in comparison with most areas in Imperial Russia between the end of the eighteenth and the middle of the nineteenth centuries.

Age differences within marriages

Rebola shows the most interesting situation with regard to the common age difference between husband and wife. The Karelian peasants here lived very close to the Finnish border and had several relations across that border. Traders used to stay for quite long periods in the Russian capital of St Petersburg, or in different towns mainly in western Finland or in Sweden. Because of this they would have been likely to adopt a model of marriage behaviour more similar to that common in Western Europe. The Soul Revision list for Rebola in 1782 registered 296 households and that of 1850 registered 271 households. We have estimated 164 farmsteads and 236 conjugal family units in 1782 and 211 farmsteads and 317 conjugal family units in 1850.

Table 6 Age differences within married couples in the parish of Rebola in 1782 and 1850

Age difference	1782	1850	1782	1850
	(%)	(%)	(number)	(number)
Man more than 20 years older	3.0	1.9	7	6
Man 16-20 years older	3.4	2.5	8	8
Man 11-15 years older	5.5	11.7	13	37
Man 8-10 years older	6.4	12.9	15	41
Man 4-7 years older	20.3	22.4	48	71
Man 1-3 years older	21.2	17.7	50	56
Equal ages	10.6	6.3	25	20
Woman 1-3 years older	17.8	14.8	42	47
Woman 4-7 years older	6.8	5.4	16	17
Woman 8-10 years older	2.1	2.5	5	8
Woman 11-15 years older	1.7	1.6	4	5
Woman 16-20 years older	0.8	0.3	2	1
Woman more than 20 years older	0.4	0.0	1	0
Total	100.0	100.0	236	317

Source: NARK, collection 4, catalogue 18, volume 9/58, volume 70/696.

Historiography normally states that 'A unique feature of the Russian peasant marriage pattern... is the small age difference between spouses'.⁴⁵ However, the data presented in Table 6 is not in accordance with that conclusion. This brings us again to the question as to which model of marriage pattern the northern Karelian peasants belonged. It should be noted first of all that some of the husbands and wives in Rebola had the same age, 11% of all the couples at the end of the eighteenth century and about 6% in the middle of the nineteenth century. Table 6 shows that in 1782 the wife was older than her husband in 70 (30%) of the 236 conjugal units and in 141 (59%) she was younger. A small difference of between 1 to 3 years was found in only 82 cases (35%). Almost the same can be said for 1850 with a small difference between the wife's and husband's age in 33% of the cases. For the majority of couples the difference was more than 3 years and for a significant number of the marriages this difference can be termed large, from 8 to more than 20 years.

Panozero as an example of the local model of marriage behaviour and changes to this in White Sea Karelia

Analysis of the sources clearly shows that different models of marriage behaviour were in existence among Karelian peasants. Some of these differences can be explained by using the traditional arguments put forward by earlier scholars. Because the observations are to a certain extent theoretical, it was decided to show in depth how these models of marriage behaviour developed over a longer period of time in a rural society. The central settlement of Panozero that consisted of two villages, Pogost (*Pogoskaya*) and Mandera (*Manderskaya*), was chosen for this study. Western influences coming from Finland were less prominent in Panozero than, for example, in nearby Rebola. At the same time, the inhabitants of Panozero took part in trade and other market activities in the north of Russia although their main occupation was still agriculture.

It is not possible to study marriage behaviour in White Sea Karelia before the middle of the eighteenth century. It was not until the 1760s that the Russian government paid any attention to the female part of the population, when officials were first asked to also record the ages of women. This means that the third population census – the first had taken place in the 1720s and the second in the 1740s – provides the oldest data on the average age at marriage.

The percentages of married men and women in the different years show that local marriage traditions changed radically throughout the period under study. Between the 1760s and the 1850s the more active males and also the

⁴⁵ Czap, 'A large family', 119.

traditionally more passive females changed their marriage behaviour considerably.

Table 7 Percentages of married men and women aged between 15 and 29 in Panozero, 1764-1858

		Men			Women			
	15 - 19	20 - 24	25 - 29	15 - 19	20 - 24	25 - 29		
1764	11.8	25.0	75.0	16.7	30.8	60.0		
1782	16.7	40.0	66.7	27.3	26.3	66.7		
1795	0.0	18.2	50.0	4.5	50.0	66.7		
1834	0.0	23.1	66.7	8.3	50.0	60.0		
1858	0.0	7.7	25.0	0.0	12.5	61.5		

Source: RGADA, collection 350, catalogue 2, volume 2407; State Archive of Archangel Province (*Gosudarstvennyi Archiv Arkhangelskoi Oblasti*, GAAO), collection 51, catalogue 11, chapter 2, volume 2710; chapter 8, volume 12868; chapter 23, volume 412.

It is clear that the intention of marrying before the age of 20 gradually disappeared. By the end of the eighteenth century almost none of the men aged between 15 and 19 were married whereas in the 1760s and 1780s more than 10% of this age group had been. The same process took place with the women, though slightly later. About one in six of the women aged between 15 and 19 living in Panozero in 1764 were already married. This had increased to as much as a quarter of this age group in 1782. However, only 13 years later in 1795, being married before the age of 20 had already become quite exceptional and in the middle of the nineteenth century there were no such cases at all.

The data for the age group 20-24 also shows that the age at marriage increased during the period under study. Both men and women in this age range were considered by local public opinion to be mature enough to marry and between one in three and one in four of the women aged 20 to 24 was married in 1764 and 1782. At the very end of the eighteenth century and around 1834 as many as 50% of these women already had a husband. However, in the middle of the nineteenth century, the share of married women in that age group dropped drastically to one in eight. At that time the percentage of married men aged 20 to 24 was even less at 8%, whereas earlier it had been considerably higher ranging from 18% in 1795 to as much as 40% in 1782.

The proportion of married men and women among the oldest group analysed (25-29) also shows the same trend with the percentage of men in Panozero in the age group 25-29 who already had to support a family decreasing from 75% to 25% between 1764 and 1858. In contrast, the percentage of married women in that age group remained stable and surprisingly rather low. It is therefore clear that a large number of women (between 33 and 40%) were still not married during the second half of their twenties, an age which can be considered critical from the point of view of physiology and the ability to reproduce. The question arises whether this means that the majority of these women never enjoyed the pleasures of becoming a wife and mother. The clear answer to this question is no.

The analysis of the sources from the Soul Revisions (SR) shows that the marriage of a mature person was not unusual in Panozero. More than 40 unmarried women aged between 20 and 51 and 15 bachelors aged between 20 and 36 were mentioned in the list of 1782. The data from Table 8 suggests that by 1782 the majority of women living in Panozero who celebrated their twentieth, twenty-fifth or even thirty-fifth birthday while unmarried still had a good chance of marrying later on. The fate of those singles during the following 13 years can be traced by comparing the SR of 1782 with those of 1795 (Table 9).

Table 8 The number of unmarried men and women aged 20 years or older in Panozero in 1782

	Women	Men
20 - 24	14	5
25 - 29	13	7
30 - 34	1	2
35 - 39	6	1
40 - 44	3	0
45 - 49	1	0
50 >	3	0
Total	41	15

Source: GAAO, collection 51, catalogue 11, chapter 2, volume 2710.

It is therefore clear that at the end of the eighteenth century even single women in Panozero who were much older than 20 had a good chance of getting married. Only four girls among the twenty-seven aged between 20 and 27 were forced to stay single, approaching the status of 'old maid', while 19 women (or 70%) had successfully founded a family. Another three women died at the ages of 29, 30 and 31 respectively.

As has already been stated, even unmarried women over the age of 30 sometimes still had the opportunity of finding a husband. Three local examples can be given, first Fevronia, aged 32, from the village of Mandera and second daughter of Dimitry Kuzmin who was already dead by that time (two other grown-up daughters of Kuzmin are mentioned in the documents Domna aged 37 and Marya aged 26), second Matrena, aged 35, a sister of

Alexy Merculiev, the head of an extended family consisting of 9 persons, and third the orphan Varvara, 3 years older than Matrena, who had to bring up her little sister after the death of their parents. Public opinion considered these three women to be spinsters but they were all visited by relatives of their prospective husbands with the aim of arranging a marriage and in each case the marriage took place and the couples successfully raised children.

Table 9 The fate of unmarried women from different age groups in Panozero between1782 and 1795

Age in 1782			Personal events		
	'died'	'went nobody	'got married'	'left as old maid'	Total
		knows where'	-		
20 - 27	3	1	19	4	27
33 - 39	2	1	3	1	7
41 - 47	1	0	0	3	4
50 - 51	1	0	0	2	3
Total	7	2	22	10	41

Source: GAAO, collection 51, catalogue 11, chapter 2, volume 2710.

Demographic and socioeconomic characteristics of Panozero

The data suggests that there was a shortage of men in Panozero around the middle of the nineteenth century. Table 10 shows that the percentage of young women remained nearly constant at about 25% of the total female population in Panozero but that the percentage of young men recorded by the revision officials fluctuated a great deal, sometimes increasing (from 20% in the 1760s to more than 33% in the 1790s), then decreasing again (to 27% in the 1830s) and falling to only 16% by the end of the 1850s. Over the whole period between 1795 and 1858 the percentage of young men decreased drastically (by more than half). An important question is what social circumstances caused this development.

It is reasonable to relate this phenomenon to labour activities. Although there is not much statistical material at a local level there is sufficient evidence available to state that men from Panozero actively participated in fishing and hunting at sea (*rybnye i zverinye promysly*) which was common on the White Sea coast. They also organized special labour companies, so-called *arteli*, for squirrel and deer hunting and they were engaged in the seasonal work of cutting and floating timber. Some also went away to serve as coachmen at the Finnish fairs in Kajani, Kuopio and Torneo as well as at the main fair in the Olonets region which was held regularly in Shunga three times a year. These are all reasons why most of the active men were regularly away from Panozero for quite long periods.

Table 10 The percentage of people aged between 15 and 29 in the population of Panozero, 1764-1858

		Men			Women			Total		
	total	15-29 years		total	15-29) years	total 15-29 year		years	
		Abs.	%		Abs.	%		Abs.	%	
1764	161	33	20.5	172	41	23.8	333	74	22.2	
1782	154	43	27.9	231	57	24.7	385	100	26.0	
1795	121	42	34.7	149	42	28.2	270	84	31.1	
1834	151	41	27.2	154	38	24.7	305	79	25.9	
1858	174	27	15.5	184	42	23.1	358	69	19.4	

Source: RGADA, collection 350, catalogue 2, volume 2407; GAAO, collection 51, catalogue 11, chapter 2, volume 2710; chapter 8, volume 12868; chapter 23, volume 412.

Statistics published by Golubtsov for the beginning of the twentieth century help in determining the significance of the different non-agricultural activities of the local peasants.⁴⁶ The number of people involved as well as the amount of income resulting differed a great deal throughout Karelia. The geographical position, how far the area was situated from the White Sea coast, was a significant factor. Historians have traditionally pointed out the significance of hunting at sea and fishing nearby the Murmansk and Norwegian White Sea coasts. Data from the beginning of the twentieth century for Panozero can, however, give a more precise picture. As shown in Figure 2, agriculture was the main livelihood in Panozero (41% of the total income). A great deal of the income also came from the cutting and transport of timber (10%). Men of Panozero also used to work in sawmills and as coachmen. They went fishing and hunting to sell the catch and some of them cut and sold firewood or went to the coast at Murmansk to earn money.

Several historians emphasize that trade was one of the most popular occupational activities among the White Sea Karelian population. One of them, Olenev, wrote: 'you could hardly meet a man here who wouldn't try to sell small goods at least once in his life as a pedlar'.⁴⁷ This statement also holds good for Panozero where at the beginning of the twentieth century about one fifth of the total income was earned by trading small goods (*korobeinichestvo*) in the neighbouring Finnish provinces.

Chubinsky, an authority on the history of rural life in Karelia, stated: 'from the middle of August almost all the young men left for Finland. They visited Finnish settlements and villages to trade goods for money. They called

⁴⁶ Н.А. Голубцов, Кемский уезд. В кн.: Памятная книжка Архангельской губернии на 1912 год / Издание Архангельского губернского статистического комитета (Archangelsk 1913) 125.

⁴⁷ Оленев, По Карелии. В кн.: Ежемесячное приложение к журналу "Нива" за 1902 год.

themselves merchants (*kuptsy*)...⁴⁸ As secretary of the Statistics Committee of the Archangelsk province (*gubernia*), he collected data for the Kem region in the middle of the nineteenth century from all available sources, including interviews with some peasants and priests. His statistical data can be used as indirect evidence for the fact that the decrease in the number of young men in Panozero was the result of a high level of activity in the field of commerce and crafts by the local peasants. According to a table published by Chubinsky, the inhabitants of Panozero had more money left over (67 roubles and 11 kopecks) even after paying the taxes regularly imposed by the government,⁴⁹ despite the appalling poverty of the Karelians.

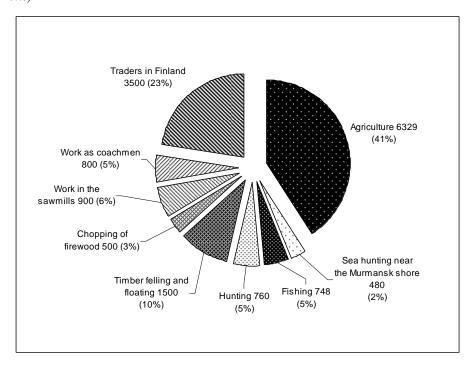


Figure 2 Sources of income in Panozero at the beginning of the 20^{th} century (in roubles)

As a sum of money, 67 roubles is not much (particularly when it is taken into account that this amount relates to an average household), but the fact that Panozero peasants had twice or even three times as much as the inhabitants of

⁴⁸ П. Чубинский, Статистическо-этнографический очерк Корелы; Труды Архангельского Статистического Комитета за 1865 год. Т. 2. (Archangelsk 1866) 90.

 $^{^{49}}$ Nikolaj Kamkin wrote that Karelian peasants had to pay 5 roubles 25 kopecks for each person or about 19 roubles for each family.

Uhta (33 roubles), Jushkozero (30 roubles), Voknavolok (21 roubles) or even the people from Maslozero who worked in the profitable⁵⁰ blacksmith's trade (58 roubles), shows that the inhabitants of Panozero were greatly interested in earning extra money to supplement their income obtained from rather poor agriculture.

	8 2			1 1		/	1			
	_	Male			Female			Total		
	Total	Childı	en < 15	Total	Childı	en < 15	Total	Childre	en < 15	
		Abs.	%		Abs.	%		Abs.	%	
1764	161	72	44.7	172	55	32.0	333	127	38.1	
1782	154	51	33.1	231	78	33.8	385	129	33.5	
1795	121	25	20.7	149	32	21.5	270	57	21.1	
1834	151	60	39.7	154	49	31.8	305	109	35.7	
1858	174	66	37.9	184	62	33.7	358	128	35.8	
1900	159	49	30.8	204	63	30.9	36351	112	30.9	
1910	186	61	32.8	230	70	30.4	41652	131	31.5	

Table 11 Percentage of children in the population of Panozero, 1764-1900

Source: RGADA, collection 350, catalogue 2, volume 2407; GAAO, collection 51, catalogue 11, chapter 2, volume 2710; chapter 23, volume 412; collection 29, catalogue 29, volume 605; volume 615.

The absence of men for many weeks or even months would significantly have influenced the reproduction figures in Panozero. A first requirement is to check that there was no demographic disaster taking place within this local community of two villages. An adequate indicator of pre-industrial demographic development is the proportion of children in a population which would normally be between one third and a half. According to the standards of that time girls and boys were to be considered as grown up and workers (*rabotniki*) after they were 15 years old while books written in the seventeenth century referred to girls and boys older than 14 as ready to work (*v rabotu pospeli*). Inhabitants of farmsteads who were younger than 14 were therefore considered to be children (*nedorosli*). Table 11 shows that the proportion of children in Panozero remained stable throughout the period under investiga-

⁵⁰ There were 8 forges in Maslozero at the beginning of the 1860s, each yielding at least 300 roubles of pure income per year. Maslozero blacksmiths were considered to be the main suppliers of guns, axes, scythes and sickles in White Sea Karelia. Maslozero craftsmen sold these essential goods in the whole of the Olonets region.

⁵¹ In fact Panazero actually had more inhabitants in 1900. The SR only provides data on the peasants so information from twentieth century sources was combined with this. Some other categories of the population also lived in Panozero, such as clergy (*prichetniki*) and their families and military personnel (*voennye*) stationed in frontier territories in order to protect them. This special group consisted of 32 men and 33 women in Panozero so that at the beginning of the twentieth century Panozero had a total population of about 441.

⁵² There is no data on the military in the church registers from 1910. The total Panozero population, including the clergy and the members of their families, can be estimated at 422.

tion, so the reproduction process can be characterized as positive and in balance with the traditional way of life.

The variations in the percentages of boys (from 30% to 45%) and girls (from 30% to 38%) can be considered as normal for the demographic behaviour of pre-industrial societies in Russia.⁵³ Only the figures for 1795 are unusual. In that year children (both girls and boys) formed only 20% of the Panozero population. It should be taken into account that the total population of Panozero in 1795 was only 270, which was 30% less than the maximum of 385 thirteen years earlier in 1782 and was the lowest figure for the whole period being studied. The total population had increased to 416 in 1910, which was 35% more than in the critical year 1795.

Marriage behaviour at the beginning of the twentieth century

After analyzing the documentary sources the conclusion can be drawn that nothing extraordinary happened in the sphere of demographic development except small decreases in the population, which took place at the turn of the centuries. It is also clear that the age at marriage increased throughout the period from the 1760s to the middle of the nineteenth century. The data on the beginning of the twentieth century will now be analyzed. Although there are no Soul Revision lists and the last inspection was organized in Russia in 1858, the Confessional Lists prepared by the clergy can be used and these can easily be combined with the data from the previous centuries. Unfortunately, this source has not always been preserved completely, but the unique opportunity of analyzing the lists of inhabitants in 1900 and 1910, where the family status and the age was indicated in every case, exists for Panozero. The lists of names was prepared by the local priest Vasily Petohov, who diligently and regularly filled in the forms sent from the consistory and did not forget to note his parishioners' presence or absence at Confession and the Eucharist.⁵⁴

These sources show that at the beginning of the twentieth century, just as in the nineteenth century, men in Panozero preferred to marry after they were at least 20 years old. Table 12 shows that there were no men younger than 20 married in Panozero during the first two decades of the twentieth century.

The situation around 1900-1910, however, resembles that of 1834 more than that of 1858. This is mainly caused by fluctuations in the age at marriage. As Table 12 shows, in the twentieth century some girls married before they were 20, although this occurred less often than in their great grand-

⁵³ Demographers concluded that the percentage of children younger than 15 in pre-industrial societies could change and on average was about 40%. This conclusion was drawn for the situation in Russia in the second half of the nineteenth century. See *Bocnpouseodсmeo населения в СССР* (Moscow 1983) 261.
⁵⁴ Thanks to T. Hamunen, Professor at Joensuu University (Finland), who kindly allowed me to use the

documents copied by him in the GAAO.

mothers' time in the eighteenth century. Probably the situation in 1858, when there were no such young wives, was an exception for Panozero. It is also clear that many more people (both men and women) married when they were aged between 25 and 29 (see Table 7 for a comparison). In 1900, no less than 82% of the men in this age group already had their own families while 10 years later 80% of the women of that age were already married.

It must be borne in mind that the SR and CL are mass sources and therefore can only provide the data of the local society as a whole. This is the reason why another group of sources, the Church Registers (ChR) were also investigated. This material contains information on the individual lives of members of the local community. The analysis of the ChR helps to verify the conclusions given above about the marriage age in Panozero.

Table 12 The percentage of married men and women aged 25-29 in Panozero, 1900-1910

	Men			Women		
	15 - 19	20 - 24	25 - 29	15 - 19	20 - 24	25 - 29
1900	0.0	40.0	81.8	5.5	50.0	73.3
1910	0.0	23.1	73.3	4.3	22.2	80.0

Source: GAAO, collection 29, catalogue 29, volume 605; volume 615.

The priests were obliged to fill in their regular registers (ChR) with the details of their parishioners' weddings, births and deaths, making it possible to reconstruct the real age of brides and grooms. Although the clergy were only obliged to point out 'rank, occupation, name, the second name, surname, faith and where the person lived', as a rule they also found it necessary to note when the bride and groom were going to marry. The diligence of the priests is understandable because it was forbidden to marry people who had not been divorced. If one of the partners was not marrying for the first time, it was necessary to examine the circumstances in which the previous marriage ended. They were asked especially to specify those who wanted to marry for the fourth time, because the Orthodox church authorities considered three marriages to be enough for one person. Usually the age of the bride and groom was also recorded as the clergy had to prevent boys younger than 18 and girls younger than 16,⁵⁵ as well as people older than 80, from marrying.

According to these records, 29 weddings were celebrated in the period 1873-1877 in the main parish church of St. Iliya in Panozero. More than half of the brides and grooms (19 couples) were from Panozero itself. The major-

⁵⁵ There was an exception for priests who had parishes in Southern Russia as stated in a special church order: 'in the Zakavkazsky region boys could marry when they were 15 and girls when they were 13 years old'. See М. Ливанов (ed.), Свод Законов Российской Империи. Т. Х. Ч. 1. Ст. 3; Устав духовных консисторий (1874) 30.

ity of the partners (11 out of 19 couples) also came from Panozero. Only 6 brides came from other villages – 3 from Sopasalma, 1 from Pebozero and 1 from Ushkovo, which were all part of the nearby Jushkozero parish and Maslozero district and 1 from Nikonova Varaka, a part of Muezero parish situated slightly further away. Two men came from Maslozero – Dimitry, son of Grigory Dimitriev, and Pavel, son of Prokopy Gavrilov – to marry girls from Panozero and to continue to live there.

More evidence for the increased age at marriage is that in the period 1873-1877 only 2 (out of 19) couples were younger than 19. These were Feodor, son of Jacob Dementiev, 18 years old, who married Vassa, daughter of Karp Karbasnikov, aged 19, and Anton, son of Maxim Popov, 19 years old, who married Marina, daughter of Sisoj Bogdanov from the village of Sopasalma, also aged 19. There were three other brides who were only 19, two of them were 3 years and the other 7 years younger than their husbands. Timophey, son of Terentij Nikiforov, aged 22, married an 18-year-old girl, Domnika, daughter of Gavrila Kulliev from the village of Pebozero, in the nearby Maslozero district. All the other brides and grooms were between 20 and 29 according to the records (ChR).

In Panozero, just as elsewhere in Karelia, weddings were traditionally celebrated in the winter. The Finnish scholar Hamunen, who investigated wedding ceremonies in the Suojarvi region, pointed out that throughout the period from 1802 to 1918 local peasants preferred to marry in January and February, while by the end of the nineteenth century, following the example of their Finnish western neighbours, they also started to organize weddings in the autumn, from September to November. Research carried out by Turpeinen shows that the most popular 'wedding month' in the nineteenth century in Lutheran Finland was December.⁵⁶ According to the ChR that have been analysed, Panozero peasants evidently preferred to organize the weddings of their children in January (10) and February (5). Only 4 couples celebrated their marriages in summer, at the end of June or during July.

As in the whole of Russia wedding dates in Panozero depended to a very large extent on the Church calendar. According to the Orthodox Church Order, priests could not hold wedding ceremonies during fasting. They had to abide by the Christmas Fast (14 November to 6 January), the Easter Fast, the Fast of St. Peter (from the first Sunday after Holy Trinity Day to 29 June) and the Fast of the Assumption of Our Lady (from 1-15 August). It was also forbidden to marry on Tuesdays, Thursdays and Sundays or on the eve of the

⁵⁶ T. Hamunen, 'Paha pahan kera, pahatta vie pahempi': Rajakarjalaiset avioliitot erilaisten kontaktien kuvaajana 1802-1918', in: *Ihmisia, Ilmioita ja Rakenteita Historian Virrassa* (Joensuu 2001) 230.

Great Orthodox holidays, including the days of the coronation and inauguration of the Russian emperor.⁵⁷

One of the main characteristics of the model of marriage behaviour in a society is the age difference between the partners (Table 13). The percentage of traditional families where the wife was younger than the husband clearly decreased in Panozero from 82% in 1782 to 57% in 1910, while the percentage of the couples where the husband and wife were of the same age increased (from 8% in 1782 to 14% in 1910). The number of marriages in which the husband was younger than his wife also increased. Such families were rather rare (only 10%) in the last quarter of the eighteenth century. However, in the middle of the nineteenth century, 23% of wives were older than their husbands and this increased to 30% by 1910.

Table 13 Age differences between husband and wife in Panozero families, 1858-1910

	Age	Age differences in marriages								
	Wife older than	Wife younger	Wife and husband	marriages						
	husband	than husband	of same age							
1782	7 (10%)	60 (82%)	6 (8%)	73 (100%)						
1858	15 (23%)	44 (69%)	5 (7%)	64 (100%)						
1910	22 (30%)	42 (57%)	10 (14%)	74 (100%)						
C	CAAO 11	F1 1	11 1 . 0 1	0710 1						

Source: GAAO, collection 51, catalogue 11, chapter 2, volume 2710; chapter 23, volume 412; collection 29, catalogue 29, volume 615.

It is important to determine the exact age differences between husbands and wives, because a situation where the woman was only one to three years older than the man cannot be considered as very critical from both biological (the ability to give birth) and social (the participation of the daughter-in-law in decisions concerning family problems) points of view. The data shown in Table 14 allows the conclusion to be drawn that the share of marriages in which the wife was older than the husband not only clearly increased (it doubled throughout the period from the middle of the eighteenth to the beginning of the twentieth centuries), but also that there were considerable changes in the characteristics of such marriages.

The age differences are graded as insignificant (from 1 to 3 years), essential (from 4 to 7 years), significant (from 8 to 10 years), great (from 11 to 15 years), enormous (16 years and more) and extraordinary (20 years and more). There were traditionally more families in which the wife was the younger partner than those where the husband was younger. It is clear that such marriages were the norm in the second half of the eighteenth century (63% in 1764 and 82% in 1782). Marriage behaviour did not seem to change radically throughout this period. At the end of the eighteenth century the age differ-

⁵⁷ М. Ливанов (ed.), Устав духовных консисторий (1874) 31-32.

ence in the majority of the families was insignificant (63% in 1782 and 53% in 1795) but there were also a lot of situations where the wife was essentially (from 4 to 7 years) younger (30% in 1782 to 43% in 1858) and significantly (from 8 to 10 years) younger than her husband (14% in 1764 to 17% in 1910). Marriages where the wife was 11-15 years younger than her husband were recorded throughout the period under study, but in the second half of the nineteenth century they appear more frequently with 11% in 1858 and 10% in 1900.

Difference in Year age in years 1764 1782 1795 1834 1858 1900 1910 A) Wife younger than her husband 19 1 - 3 38 14 15 19 15 20 35% 63% 53% 45% 34% 37% 45% 4 - 7 19 18 18 13 10 17 16 42% 30% 34% 32% 43% 33% 38% 8 - 10 6 2 1 4 5 7 7 14% 3% 3% 13% 11% 13% 17% 11 - 15 2 1 3 2 5 5 5% 2% 8% 6% 11% 10% 16 and more 1 1 2 1 2% 3% 3% 5% 20 and more 2 2 5% 5% Total 43 60 38 31 42 44 52 100% 100% 100% 100% 100% 100% 100% B) Wife older than her husband 11 1 - 3 9 5 5 8 7 6 50% 82% 71% 71% 50%46% 38% 2 9 4 - 7 2 1 7 6 6 44% 9% 29% 40% 38% 42% 29% 8 - 10 1 3 1 _ _ _ 2% 18% 4% 11 - 15 1 1 1 _ _ 6% 6% 4% 16 and more 20 and more 1 _ 1 9% 2%7 7 22 Total 11 16 15 16 100% 100% 100%100% 100% 100%100%

Table 14 Differences in age in Panozero married couples, 1764-1910

Source: RGADA, collection 350, catalogue 2, volume 2407; GAAO, collection 51, catalogue 11, chapter 2, volume 2710; chapter 8, volume 12868; chapter 23, volume 412; collection 29, catalogue 29, volume 605; volume 615. NB: There were also marriages where the partners were of the same age.

Marriages in which the wife was older than her husband were rather rare in Panozero in the eighteenth century and the age difference was usually not significant (82% in 1764, 71% in 1782 and 1795). Only four wives were 4 years older than their husbands (two in 1782 and two in 1795) and three wives were 7 years older than their husbands (one in each of the years 1764, 1782 and 1795). In the nineteenth century, the percentage of marriages with an older wife clearly increased, with almost 50% of the wives being between 4 and 8 years older (in 1834 and 1858) than their husbands. In this period almost half of the marriages had essential (from 4 to 7 years) or significant (from 8 to 10 years) age differences and this remained the case at the beginning of the twentieth century (9 out of 16 in 1900 and 10 out of 22 in 1910).

The data from the Confessional Lists allows the conclusions derived from the Soul Revision books and Church Registers to be checked. From 1873 to 1877, 12 out of the 19 brides were younger than the grooms (in 2 cases one year younger, 3 cases two years younger, 2 cases three years younger and 5 cases from four to nine years younger), two marriages were between partners of the same age and 4⁵⁸ out of the 19 wives were older than their husbands (in 3 cases one year older and in 1 case four years older).

Together all these sources reveal both that there was a tendency for the age at marriage to increase and that the model of marriage behaviour model in Panozero in the period 1750-1910 changed a great deal. The share of marriages in which the wives were much younger than their husbands gradually decreased, suggesting that a different model of marriage behaviour took over. The traditional model, in which young girls were considered old enough to get married, was a result of the high infant mortality rate and the practice of having as many children as possible in order to be sure that at least some of them would survive into maturity and be able to support their parents.

Conclusions

The investigation concentrated on the territories of three parishes situated in different regions of Karelia. These were Yalguba in the southern part of the Olonets Karelia region, Rebola in the western part of the White Sea Karelia region and Pyatnitckoe in the north-eastern part of the Tver' Karelia region. During the sixteenth and seventeenth centuries these areas were populated by different groups of Karelians, who had been forced to leave their native land in the neighbourhood of Lake Ladoga in search of new places to live. Many different Karelian dialects are still used locally. Most of the people who settled in the White Sea and in the Tver' regions of Karelia spoke the so-called 'standard Karelian language' (*Sobstvenno karel'skoe narechie*) as shown in the plan published by Petr Zaikov. The people living in the Re-

 $^{^{\}rm 58}$ NB: In one case the age of the bride was not recorded in the ChR.

bola area, in the northern part of the modern Republic of Karelia and the people who reached Pyatnitckoe in the Tver' Region during the Great Migration of the sixteenth and seventeenth centuries, spoke languages which belonged to the same southern group of dialects of the Karelian language (*Rebol'sky and Vesiegonsky dialects*), while people living on the shore of Lake Onego in Yalguba parish used to be called *lyudiki*, and spoke a different group of Karelian dialects (*Ludikovskoe narechie*), which were strongly influenced by standard Russian.

The precise area of the investigations will be described more clearly before any conclusions are drawn. There were 11 villages in Yalguba parish with 950 inhabitants at the beginning of the 1780s. Six decades later, in the middle of the nineteenth century, the population had grown to 1,315 people, an increase of 38 percent. There were 31 villages in Rebola parish where the population did not grow as much during the 60-year period investigated, an increase of 15 percent from 1,158 to 1,337 respectively. There were 22 villages in Pyatnitckoe parish with a population of 1,937 in the 1780s which fell to 1860 by the middle of the nineteenth century, a decrease of about 4 percent. In the last quarter of the eighteenth century there was a total population of 4,045 living within the borders of these three parishes. Six decades later the population had increased by 500 people to 4,512. It should also be emphasised that these villages appear to be representative for the regions not only in the sense of quantity, but also in the sense of quality.

These three sites represent quite different natural and social conditions for the people who lived there, and because they were located far from each other allow various conclusions to be drawn. First of all it should be mentioned that the sources show that the models of marriage behaviour in these three Karelian parishes were clearly different.

The data of 1782 show that one in every five young men (22 percent) between the ages of 15 and 19 who lived on the estate of landowner Captain Chertkov Pyatnitckoe in the Tver' region was already married. The peasants in Rebola and Panozero parishes used to organise the marriages of their sons in more or less the same way, and between 12 and 17 percent of these young men were already married. The local peasants of these two parishes in White Sea Karelia followed the Pyatnitckoe marriage practice more closely than that of Yalguba. They did this even though as state peasants or *chernososhnue (gosu-darstvennye krestyane)* they were never subjected to the powerful will of a private landowner. It should also be mentioned that the native historiography used to relate the everyday behaviour in such local communities closely and exclusively linked it to the regulations made by the landowner. The number of married girls in the age group 15-19 was clearly higher with about 39 percent in Rebola and 27 percent in Panozero already being married.

In Yalguba, at the beginning of the 1780s, only 7 percent of the male peasants in this age group were already married. This can possibly be explained by the location of Yalguba parish which was very near to Petrozavodsk. This city was undergoing a revival during the last decades of the eighteenth century due to the foundation of a new plant to make weapons which was called *Alexandrovsky Zavod*. The Russian-Turkish War (1768–1774) stimulated Empress Catherine the Great to develop the industry in Karelia. The navy was short of cannons and a new foundry for this purpose was already under construction in the spring of 1773. Local authorities needed the labour of local peasants and tried hard to involve them in the work for the plants.

This clearly corresponds with the situation shown by the data for other age groups. The percentage of unmarried men in the age groups 20 to 24 and 25 and 29 was also high, about 50 and 40 percent respectively. At the same time almost all the women approaching the age of 30 were married. This may be explained by the quite short distance between Petrozavodsk and Yal-guba which allowed the men to be at home in their native villages sufficiently often to start a family. It must be noted, though, that the share of women still unmarried in the age group 25-29 was clearly higher in Yalguba, 7.5 percent, than in Pyatnitckoe, 2.5 percent.

A very different model of marriage behaviour was found in the White Sea Karelian parishes under observation. Unmarried men evidently predominated in the age group 20-24 in Panozero and in Rebola during the last quarter of the eighteenth century (60-70 percent). In Rebola, which was located closer to Finland, more than half of the men, 59 percent, in the age range 25-29 were still unmarried. Women also clearly behaved differently in this respect compared with those in the southern parish of Yalguba. In Rebola, 55 percent and in Panozero, 74 percent in the age group 20-24 were still unmarried. Even in the oldest group, one out of three women, 33-35 percent, was still unmarried.

The marriage behaviour registered six decades later in the documentary sources allows the following conclusion to be drawn. It appears that the differences mentioned above reflected not just a tendency but evidently a pattern of behaviour which was accepted by the majority of the people in the local communities under observation.

Very little change was discovered in either the Tver' region or in Yalguba parish, but in White Sea Karelia a completely new pattern of marriage behaviour and the age at which to start a family began to appear. During the period between the 1780s and the 1850s, not only the most active male part of the population but also the females changed their marriage behaviour radically. None of the men married any more as young as 19 and this same change took place among the women, although rather more slowly.

This development can be explained by describing some of the particular livelihoods of the local people which forced them to spend time outside their households for weeks at a time or even a whole season. Karelian pedlars (*korobeiniki*) had been wandering to Finland for centuries, but the opening of the border after 1809 increased the number of pedlars significantly with most of them coming from White Sea Karelia. Although the authorities did not approve of the pedlars and even prohibited this activity at times, nothing could stop this old traditional trade. During the Crimean War (1853-1856), the value of the goods the Karelian pedlars delivered to the Grand Duchy was approximately half of the official Russian exports to Finland. In 1872, more than 1,200 pedlars from White Sea Karelia and about 300 pedlars from the Olonets region had an official permit to trade in Finland, but according to some estimates the real number of pedlars was probably two or three times this.

The border between the Grand Duchy and Russia was open so that goods and people could pass quite freely with only a passport being needed after paying the customs dues. Trade began to flourish in White Sea Karelia particularly. Because Russia had its own supply of sawn timber, planks and stocks of wood from northern Karelia were mostly exported to western markets. Well-known and quite valuable was the so-called Karelian butter which was at first only exported to St Petersburg, but the building of railways to Finnish Karelia and the first Finnish ice-breaker in the 1890s opened up the western markets for a year-round trade for this product also.

It is not difficult to imagine how different contacts started to become regular between Finnish Karelia and White Sea Karelia, and also between White Sea Karelia and St Petersburg, the Russian capital which had about half a million inhabitants as early as the beginning of the nineteenth century. Large amounts of foodstuffs and firewood were needed for servicing this enormous city and this meant a great deal for the small population of Karelia so that the production of meat, milk and butter became an important source of livelihood. Grain, however, was brought to the city from southern Russia. Chopping firewood and transporting goods also became important sources of income. Emigration to St Petersburg became very common with the city offering possibilities of work in factories or as craftsmen for the men and as maids for the women. All these influences began to change the behaviour of the Karelian people in all sorts of areas. The data clearly shows this for their marriage behaviour.

This study initially concentrated on the period from the 1780s to the 1850s. However, in order to have a longer term view, documentary sources

containing data from the end of the seventeenth century concerning the situation in two additional territories populated by Karelians were also used. Both parishes were located near Lake Onego, Shun'ga to the north and Megra to the south. Data covering the period from the second half of the eighteenth to the beginning of the twentieth centuries was then studied for the parish of Panozero in White Sea Karelia.

It can clearly be concluded that the most accepted family form among peasants by the last third of the seventeenth century was based on the direct line through the generations, grandfather – father – grandson (72%). The malaya semya, a conjugal unit with unmarried sons, was evidently the commonest form of family but at the same time there was a considerable share of nerazdelennaya semya or extended families (36%). There were also families where married brothers lived together. In this kind of family the brothers did not just continue to occupy the same household after their father's death. Normally, these bratskaya semya were made up of brothers who had lost the former head of the household before the sons had been able to establish their own families. As a rule, an extended peasant family consisted of the oldest brother, usually married, who was the head of the household and was forced to continue to live with his unmarried, often very young brothers. Certain demographic developments, influenced significantly by the organization of the local population into regiments of pashennye soldaty, literally 'ploughed soldiers', may have been the cause of this. The local population was obliged to defend the nearest border with Sweden, which, after the Treaty of Stolbovo in 1617, ran quite close to Olonets, a newly founded fortress (1649) and capital of the region. Unfortunately, at round about the same time, state officials also started to conscript Karelians into the regular army to participate in the war between Russia and Poland (1654-1667). A large number of local peasants were killed, while others returned wounded or exhausted, dying soon afterwards and not being able to see their sons grow up. It can be concluded that complicated family structures, with fathers living with their married sons, who in turn already had their own sons, were quite rare in Karelia in the last part of the seventeenth century. The preferred type of family here was the malaya semya, literally the small family.

The second set of additional observations allows knowledge of the development of the demographic and social behaviour in a single peasant community, that of Panozero, to be extended over a longer period from the middle of the eighteenth up to the beginning of the twentieth centuries. The aim was to see if the preferred model of marriage behaviour found for the end of the eighteenth to the middle of the nineteenth centuries had continued to exist over the longer time period. As was mentioned earlier, a very important feature of marriage behaviour in a local community is the difference in ages between husband and wife and the number of years in which the husband was either older or younger than his wife. The results of the analysis are clear. The percentage of couples in which the wife was traditionally younger than her husband decreased gradually from 1782 to 1910 (from 82% to 57% respectively), but at the same time the number of marriages in which the woman and the man were the same age increased from 8% to 14%. The sources show more and more cases where the woman was older than her husband. While these kinds of marriages were quite rare, only one out of every ten marriages in the last quarter of the eighteenth century, in 1910 the woman was older than her husband in 30% of cases. Clearly the situation, which might be called traditional and was closely related to the commonly accepted Russian model of marriage behaviour in pre-industrial times, changed within the local peasant community. People living in Panozero increasingly preferred not to follow the practice which required women to be married as early as possible and to give birth to the maximum number of children. This practice was 'regulated' predominantly by the very high death rate among the youngest children. At least one of the children was expected to survive to have a household of its own so that it could take care of the parents in their old age.

One of the aims of this research was to answer the question as to which model of marriage and family behaviour the Karelian peasantry resembles the most - the Western European model or the non-European one - in accordance with Hajnal's idea of dividing Eastern Europe into two parts by a virtual line. It has become clear that answering questions about the traditional marriage age and age differences between husbands and wives in Karelia in earlier times is not sufficient to completely solve the problem. Even though these questions have been approached using totally new perspectives, it is still not possible to rule out that the marriage behaviour of Karelian peasants actually resembled the common Russian traditions most closely.

The present stage of the investigation has shown that certain cycles of marriage behaviour traditions were quite usual for local communities. This became particularly evident when the longer time perspective was considered. It might be concluded that not only external factors, which are widely mentioned and accepted in native historiography, but also internal factors such as self-regulation, particular traditions, and to some extent the common memory of generations, have more or less equally influenced the marriage behaviour of the local Karelian communities. However, this is still more or less a hypothesis which has to be investigated more precisely and with a wider historical background.

Conjugality in the Olonets province in the nineteenth and early twentieth centuries. Some inferences drawn from information taken from the registers of births, deaths and marriages

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The region

In the nineteenth century, the Olonets province was one of the northern provinces of Russia covering approximately 130 thousand sq. km not counting rivers and lakes.¹ At that time it was the fourth largest province in European Russia after the provinces of Archangel, Vologda and Perm. The Olonets province was located in the north of the Russian empire between 60°21' and 65°16' N and 29°42' and 41°57' E. Its latitude corresponds with that of Norway and Sweden. The Olonets province adjoined the provinces of Archangel, Vologda, Novgorod and St Petersburg and the Great Principality of Finland.

Southern areas of this province had formed part of the Old Russian State since as early as the ninth to eleventh centuries. The town of Olonets, one of the colonization outposts on the northern boundary of the state, was first mentioned in the year 1137. The Olonets territories were owned by Great Novgorod until the 1570s. The interests of the Novgorod Republic, and later those of the Moscow state, had clashed in the province with those of Sweden. These territories passed from hand to hand until early in the eighteenth century when, as one of the consequences of Peter the Great having won the Northern War, they were made part of the Russian empire. It was Peter I who began to construct the northern Russian shipbuilding yards, ironworks and mines. The comparatively short period of industrial development in this province was a result of his innovations. The economy of the Olonets province was later greatly influenced by the new Russian capital of St Petersburg.

The administrative and territorial status of the area was changed more than once until the early nineteenth century, when Emperor Alexander I ordered

¹ Register of the Olonets province for 1913 (Petrozavodsk 1913) 2.

the restoration of the rights of the Olonets province. It then had 7 *uezds* (districts) and the city of Petrozavodsk was declared its capital.

The population of the province was about 207,000 according to the governor.² Just before the First World War this had risen to about 450,000.³ However, despite the significant growth in population, the Olonets province had the lowest but one population density in European Russia for the whole of the nineteenth century with 2 to 3 people per sq. km. The population density in the Tambov and Yaroslavl provinces, which are also included in this study, was ten times greater. The majority of the population of the province were Russians, around 70%, but in some *uezds*, for instance in Olonets and Petrozavodsk *uezds*, there were many Karelians, Finns and Vepsians and about 1% other nationalities.

About 98% of the inhabitants of the province were Orthodox Christians. By the end of the nineteenth century 297 church parishes and 15 monasteries, nunneries and *pustyns* (Orthodox monasteries with particularly rigid rules) had been founded on the territory of the province. The northern Russian territories have always been a refuge for dissenters (*raskolniks*).

The territory was predominantly hilly and overgrown with forests. Soils were rather poor for growing crops. Some grain was grown but the harvest was not sufficient to feed the population except in the Kargopol *uezd*, which was the only district in the province to produce enough grain to feed its inhabitants throughout the year until the next harvest. Approximately 1/7 of the area of the province was covered by rivers, lakes and small islands. Travel and transport was generally by water with only two main roads being fit for traffic. One of these went to Petrozavodsk and the other from Lodeinoye Pole to Petrozavodsk. The railway from Vologda to Archangel was not constructed until late in the nineteenth century.

The climate was generally cold and humid with very cold winters which lasted six and a half months. December was the time for hard frosts, and blizzards alternating with periods of thaw were quite common. In winter inhabitants of the province could often admire the Northern lights. Spring came in April but often the snow did not melt until the middle of May. Frosts occurring as late as June or July were a danger to crops. The warmest time was between mid June and July. Autumn lasted for at least two months and was accompanied by frequent fog, drizzle, wind and snow.⁴

As has been mentioned above, farming in this province was not well developed but abundant forests and rich sources of minerals afforded good prospects for the development of some branches of the economy, for instance,

² RGIA. F. 1281 Op. 4. D.90: Reports of the Olonets governor for the years 1804-1810: 30.

³ RGIA. F. 1284 Op. 194. D.12: Reports of the Olonets governor for 1913: 2.

⁴ K. Petrov, Brief description of the Olonets province (Petrozavodsk 1881) 10.

forestry and mining. In the late nineteenth century there were about 400 industrial enterprises in the province employing approximately 3,000 workers. Most of these were government owned and founded as long ago as the eighteenth century, such as the Alexandrovsky steel works in Petrozavodsk and ironworks in Petrozavodsk and Povenets *uezds*. The province exported wood, furs, fish and building materials (granite, marble, limestone).

Early in the twentieth century about 12,000 people worked in cottage industries.⁵ Many people left their homes and went to work elsewhere, most often to St Petersburg, and some were employed in servicing the system of canals (*Mariinskaya* system).

There were 7 *uezd* towns and about 5,000 settlements or villages in the province. Villages were predominantly very small, no greater than 10 home-steads.⁶ The urban population amounted to about 7% of the total population with the largest town being Petrozavodsk which had a population of 14,860 in 1912. Some of the *uezd* towns were very small with populations of 1,000-2,000 (Povenets, Pudozh, Kargopol).

In the late 1890s there were 30 doctors, 9 hospitals and 4 emergency clinics in the area.⁷ Education in the province was given in two secondary schools, two seminaries and 566 primary schools, including parish church schools, with a total of 20,446 pupils.⁸

The Olonets province was a backward, sparsely populated, outlying territory of the empire, with a low level of social and economic development and on the edge of the political and cultural life of the nation. Very few significant events occurred in the province during the nineteenth century, with the exception of the liberal reforms of 1860-70 which brought considerable changes to the social status of peasants, the conditions of military service, the local self-management system and legal procedures.

The demography (marriage)

Documents recording the population statistics (registers of births, deaths and marriages, church registers and others) kept in the National Archives of the Republic of Karelia (NARK), the State Archives of the Vologda region, the Central State Historic Archives of St Petersburg and the State Archives of the Archangel region have been used for this study.

The study of factors affecting demography in the Olonets province carried out within the framework of this project commenced far later than similar

⁵ Proceedings of local committees concerning the needs of the agricultural industry in the Olonets province (St Petersburg 1903) 106.

⁶ Military statistical survey of the St Peterburg military district. Drawn up at the headquarters of Guard troops and St Petersburg military district (St Petersburg 1884) 84.

⁷ RGIA. F. 1263. Op. 2. D. 5392. St. 743: 258v-259.

⁸ RGIA. F. 1263. Op. 2. D. 5392. St. 743: 262.

studies undertaken by other participants in the project. Therefore, comparable results and calculated values of factors similar to those already published in the collection of papers *Where the twain meet*. *Dutch and Russian regional demographic development in a comparative perspective 1880-1917* are only just available. The cohort method, the procedure which is clearest and gives the best results when investigating natural population movements, was originally chosen as the method for studying demographic processes in the province. Birth cohorts were formed and analysed for the year 1810 and 20-year periods from then on.

Unfortunately, cohort analysis is a very labour-intensive and costly research strategy and it is impossible to apply this to the entire collection of documents. It is quite evident that when forming birth cohorts, researchers take an artificial sample from the entire set of data. It is also possible that searching the cohorts for information about marriages might bring no satisfactory results. It is difficult for Russian historians to know to what extent the information kept in the Netherlands is correct and comprehensive, but experience with Russian documents has shown that it is possible that a large amount of data could be missing.

The work of Dutch historians⁹ showed that in four cohorts for the city of Groningen the number of men who were married in the same town was 28 to 30 in each cohort, whereas the corresponding number of women was 36 to 43, and in the rural areas, where 5 - 6 settlements were considered with a total population included in the cohorts of about 600 – 700 people in each cohort, the number of men who were married in the same rural area was 91 – 167, whereas the corresponding number of women was 143 – 209.

In carrying out cohort analysis, not only is an artificial sample taken but account must be taken of the fact that natural sampling has also taken place since only a certain amount of the data has been preserved. Therefore, indicators obtained by cohort analysis can better be termed estimates of indicators for the entire universal set and it is necessary to calculate the sampling error inherent in the method and determine confidence intervals, as is usual in statistical work. This will provide an answer to the question of how far the tendencies found by the researchers are actually random.

Applying this concept to Russian registers of births, deaths and marriages turned out to be difficult and very labour-intensive because it was practically impossible to find a complete set of nineteenth-century registers preserved for any one parish. For instance, E.G. Tverdyukova of St Petersburg University found that it was not possible in the Novgorod region because the registers of

⁹ P. Kooij and A. Mennens-van Zeijst, 'Demographic behaviour in the Groningen clay area. The results of cohort analysis', in: P. Kooij (ed.), *Where the twain meet. Dutch and Russian regional demographic development in a comparative perspective 1880-1917* (Groningen/Wageningen 1998) 189-201, 190.

births, deaths and marriages, which had survived wars and occupation by the Germans, were destroyed after the last war. The same is true for the Pskov province. The Olonets province has fared somewhat better in this respect than other provinces in northern Russia. Historians taking part in this project who set out to find parish documents preserved in the Yaroslavl and Tambov provinces met with the same problems.¹⁰ For this research they selected the parish of Malye Pupki in the Tambov province and two parishes in the Yaroslavl province - Velikoye and Vyatskoye.

This paper deals only with matters related to conjugality in rural parishes. Information obtained by Russian historians concerning the average age at marriage is shown in the work referred to.¹¹

There is hardly any pattern detectable in the information for the Tambov parish. The average age of men at marriage increased steadily at first, then decreased and then increased again, while the age at which women married decreased for three generations but then increased for the cohort of 1870-1871.¹² There does appear to be a tendency to increase in the two Yaroslavl parishes but the number of people who married, as found by the researchers, was surprisingly small, with only 20 people marrying in 8 cohorts and in one case the number was as low as 6.¹³

When using the available Russian data, inferences about the amount of information actually preserved must be drawn. It is necessary to use the mathematical and statistical procedures appropriate for dealing with small samples to calculate the sampling error. Unfortunately, this part of the work is not yet finished.

Table 1 Age at first mariage in Tuksinsky parish (Olonets province), cohorts 1810-1870

Men				Women				
Cohort	Average age	Ν	Standard declines	Standard error	Average age	Ν	Standard declines	Standard error
1810	27.75	12	6.54	1.89	21.55	11	4.50	1.35
1830	26.88	16	4.70	1.18	20.35	17	2.94	0.71
1850	25.39	18	3.24	0.76	21.78	9	4.94	1.65
1870	25.20	20	4.63	1.03	21.40	15	2.82	0.72

¹⁰ Y. Mizis and V. Orlova, 'Sources and methodology for cohort analysis. The case of Malye Pupki, Tambov region', and A. Danilov and N. Obnorskaya, 'Sources for research on demographic behaviour in the Yaroslavl region in the nineteenth century', both in: Kooij (ed.), Where the twain meet.

¹¹ P. Kooij, 'Dutch and Russian regions compared. Some results of cohort analysis', in: Kooij (ed.), Where the twain meet, 224-225. ¹² V. Dyatchkov, V. Kanitschev, Y. Mizis, V. Orlova, L. Protasov and S. Protasov, 'Cohort analysis of

Malye Pupky's population: some preliminary results', in: Kooij (ed.), Where the twain meet, 146.

¹³ S. Golubeva, 'Age and patterns of marriage of Russian farmers in the Upper-Volga region', in: Kooij (ed.), Where the twain meet, 170-171.

Calculation of the sampling error for the Tuksinsky parish in the Olonets province can be given as an example (Tables 1 and 2). The small sample method must also be used for the Tuksinsky parish, although in contrast to the Tambov parish it was possible to discern some tendency to decrease in the age of men at marriage. However, it is not possible to say anything definite about the age of women at marriage.

Table 2 Age at first marriage in Tuksinsky parish (Olonets province): confidence intervals, cohorts 1810-1870

	Men		Women	
Cohort	Probability 68%	Probability 95%	Probability 68%	Probability 95%
1810	(25.86-29.64)	(23.60-31.90)	(20.20 - 22.90)	(18.53-24.57)
1830	(25.70-28.05)	(24.37-29.38)	(19.64-21.06)	(18.84-21.86)
1850	(24.63-26.15)	(23.77 - 27.00)	(20.13 - 23.43)	(17.98 - 25.58)
1870	(24.17-26.23)	(23.03-27.37)	(20.68-22.12)	(19.84-22.96)

When information from values of sampling errors and confidence intervals is analysed the results show that the confidence intervals at the 68% and 95% reliability levels overlap so that there is no certainty that conclusions drawn will be reliable. For instance, for men from the cohort of the year 1810 the confidence interval at the 68% reliability level is (25.9 - 29.6) and for the cohort of the year 1870 it is (24.2 - 26.3). These intervals intersect and it would be incorrect to say that the general mean for the year 1810 is greater than the general mean for the year 1870. The results are much worse for other cohorts and higher reliability levels.

Results

It is hoped that the above discussion will have clarified the situation in the Tambov and Yaroslavl parishes. Conclusions based on 1 or 2 cohorts of 120 people are certainly unfounded. When having to deal with small samples researchers occasionally obtain results which have no rational explanation. The number of cohorts must be several times greater than this if reliable conclusions are to be drawn, but unfortunately this is not possible, either because there is no data or because, as in this case, the work would be too labour-intensive. Therefore the method used for the research has to be changed.

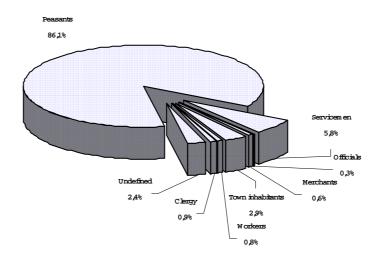
When studying conjugality in the Tuksinsky parish, another method of forming birth cohorts allowed the number of cases studied to be significantly increased. The registers of births, deaths and marriages not only gave the dates on which the marriages took place but also the ages of the brides and bridegrooms. This allowed the year of birth of the people marrying to be calculated with only a few possible errors and these married people could then be grouped according to the results. For instance, a group of men born between 1806 and 1815 and who married, as recorded in the registers of births, deaths and marriages, can be singled out. The ten-year interval between 1806 and 1815 was taken in order to have a sufficiently large number of observations. The average age at marriage for this group could then be calculated. Similar indicators were obtained for other groups in subsequent ten-year periods. The results for the Tuksinsky parish are shown in Table 3.

When Tables 3 and 4 are studied it is clear that the slight tendency towards a decrease in the age at which men married as seen in Table 1 for cohorts from the years 1810, 1830, 1850 and 1870 is still visible in the cohorts from the years 1806–1815, 1826–1835, 1846–1855 and 1866–1875. However, sampling errors in Table 3 are essentially less, because of the greater number of observations, and the conclusions are much more reliable.

Table 3 Age at first marriage of men in Tuksinsky parish (Olonets province), born 1806-1875

Years of birth	Average age	Standard error	Ν
1806-1815	27.50	0.71	68
1816-1825	26.36	0.41	133
1826-1835	25.97	0.43	133
1836-1845	26.29	0.47	138
1846-1855	25.95	0.38	130
1856-1865	25.32	0.35	126
1866-1875	25.42	0.30	123

Figure 1 The social structure of rural parishes in the Olonets district (according to parish register data, 1793-1905)



Most of the population of the region investigated were peasants with only a minority of other categories of inhabitants (Figure 1).

Therefore, it would be reasonable to carry out most of the research on the state-owned villages, although not even the population of these villages was totally uniform. There were middle-class people such as merchants, priests, and military among the village inhabitants. Some categories of the population must be investigated separately as their demographic characteristics could significantly influence general indicators and distort the pattern obtained for state-owned peasants.

Perhaps the most significant group of those mentioned above was the military. This group included both soldiers in active service and retired men who had served their term in the army. Two periods will be considered, firstly 1843 to 1873, that is before the military reform of 1874 which implemented general conscription, and 1874 to 1905, the post-reform period.

Table 4 Age at marriage of 'military bridegrooms' in Tuksinsky parish (Olonets province), married 1843-1905

1843-1873 35.33	3 2.87 6	
1874-1905 27.28	B 0.37 64	

In the first period the average age of the military bridegroom was 35.33 years. After the year 1874 this decreased to 27.28 years (detailed information is given in Table 4). These figures are clearly for a specific group of men who show specific conjugal behaviour.

Calculations have also been made for people specified in the registers of births, deaths and marriages as peasants and information for these people is shown in Table 5. It would appear that the data collected in this way is actually representative of the process of a decrease in the bridegroom's age during the whole of the nineteenth century in the Tuksinsky parish under study. It would, of course, be unreasonable to draw final conclusions on the basis of information from just one parish.

Table 5 Age at first marriage of male state-owned peasants in Tuksinsky parish (Olonets province), born 1806-1875

Years of birth	Average age	Standard error	Ν
1806-1815	26.69	0.91	47
1816-1825	26.17	0.40	109
1826-1835	25.54	0.41	113
1836-1845	25.57	0.46	122
1846-1855	25.56	0.42	111
1856-1865	24.98	0.40	100
1866-1875	25.08	0.36	93

Information has now been collected about the age of men at marriage in four rural parishes – Kotkozersky, Loyansky, Megregsky and Tuksinsky – in the Olonets province during the whole of the nineteenth century. It is clear that combining the information for these four parishes greatly increases the number of observations. The combined information on the age of bridegrooms – state-owned peasants born between 1806 and 1815 and in subsequent decades – is shown in Table 6.

Table 6 Age at marriage of male state-owned peasants in 4 rural parishes in Olonets province, born 1806-1875

Years of birth	Average age	Standard error	Ν
1806-1815	26.55	0.39	233
1816-1825	26.00	0.22	403
1826-1835	25.48	0.25	362
1836-1845	24.38	0.14	449
1846-1855	24.93	0.21	416
1856-1865	24.62	0.19	384
1866-1875	24.66	0.17	383

The data confirms the general tendency, already mentioned above, of a decrease in the average age of men at marriage but it also reveals a new, just discernible pattern that the minimum age of bridegrooms occurred not at the end of the century but in the cohort of 1836–1845, and that after that there was a slight increase in the age at marriage or at least a stabilization. This tendency can be traced with certainty in two parishes – Megregsky and Loyansky. The data are shown in Tables 7 and 8.

Table 7 Age at marriage of male state-owned peasants in Megregsky parish (Olonets province), born 1806-1875

Years of birth	Average age	Standard error	Ν
1806-1815	28.21	1.57	31
1816-1825	26.67	0.59	48
1826-1835	26.41	0.48	58
1836-1845	24.42	0.38	62
1846-1855	24.62	0.64	43
1856-1865	26.21	0.68	52
1866-1875	26.51	0.52	52

It is possible that this trend was caused by the peasant reforms of the 1860s, which led to the abolishment of the system of serfdom. The generation of men born in the period 1836–1845 appeared on the marriage market on the eve of the reform and in the first few years after this took place in 1866 in the state-owned villages. Peasants in the midst of the new post-reform circumstances (the generation of 1846–1855) had other things to consider than get-

ting married early so that there was a general increase in the average age of men at marriage; later on this average age stabilized or decreased. This situation is clearly seen in the Kotkozersky parish (Table 9).

Table 8 Age at marriage of male state-owned peasants in Loyansky parish (Olonets province), born 1806-1875

Years of birth	Average age	Standard error	Ν
1806-1815	28.14	0.80	25
1816-1825	24.88	0.38	80
1826-1835	23.81	0.42	52
1836-1845	22.96	0.32	93
1846-1855	23.56	0.31	95
1856-1865	23.38	0.28	80
1866-1875	24.26	0.34	79

Table 9 Age at marriage of male state-owned peasants in Kotkozersky parish (Olonets province), born 1806-1875

Years of birth	Average age	Standard error	Ν
1816-1825	26.37	0.38	163
1826-1835	25.69	0.50	137
1836-1845	24.24	0.29	172
1846-1855	25.36	0.35	167
1856-1865	24.49	0.29	152
1866-1875	24.02	0.24	159

Table 10 Age at marriage of female state-owned peasants in Tuksinsky parish (Olonets province), born 1806-1875

Years of birth	Average age	Standard error	Ν
1806-1815	22.56	0.76	49
1816-1825	22.33	0.32	98
1826-1835	21.90	0.31	127
1836-1845	22.32	0.40	114
1846-1855	23.20	0.46	118
1856-1865	22.69	0.37	128
1866-1875	23.80	0.31	124

What can be said about the age of the brides? It can be seen from table 10 that there were no significant tendencies to change in the brides' age in the Tuksinsky parish. The age first decreased down to a minimum in the years 1826–1835, then increased, then decreased once more and the process was then repeated. No patterns were discerned for brides in the Megregsky, Loyansky and Kotkozersky parishes (Tables 11, 12 and 13), not even when the data for all the parishes was combined (Tables 14 and 15).

Table 11 Age at marriage of female state-owned peasants in Megregsky parish (Olonets province), born 1806-1875

Years of birth	Average age	Standard error	Ν
1806-1815	23.26	0.91	33
1816-1825	23.26	0.59	41
1826-1835	24.81	0.55	70
1836-1845	22.53	0.41	56
1846-1855	22.96	0.45	54
1856-1865	22.90	0.47	55
1866-1875	23.84	0.39	65

Table 12 Age at marriage of female state-owned peasants in Loyansky parish (Olonets province), born 1806-1875

Years of birth	Average age	Standard error	Ν
1806-1815	24.81	1.16	13
1816-1825	22.61	0.32	71
1826-1835	21.73	0.35	79
1836-1845	22.13	0.38	98
1846-1855	20.98	0.33	98
1856-1865	20.58	0.27	122
1866-1875	20.86	0.27	103

Table 13 Age at marriage of female state-owned peasants in Kotkozersky parish (Olonets province), born 1806-1875

Years of birth	Average age	Standard error	Ν
1806-1815	22.26	0.37	130
1816-1825	23.73	0.32	167
1826-1835	23.78	0.35	185
1836-1845	22.49	0.32	181
1846-1855	22.49	0.27	210
1856-1865	22.39	0.22	220
1866-1875	21.53	0.20	215

Table 14 Age at marriage of female state-owned peasants (born 1806-1875) in 4 rural parishes in the Olonets

Years of birth	Average age	Standard error	Ν
1806-1815	22.62	0.31	225
1816-1825	23.10	0.19	377
1826-1835	23.07	0.20	451
1836-1845	22.38	0.19	459
1846-1855	22.41	0.19	480
1856-1865	22.10	0.15	525
1866-1875	22.00	0.14	507

Table 15 Comparison of the age at marriage of female state-owned peasants (born 1806-1875) in 4 rural parishes in the Olonets province

Years of birth	Megregsky parish	Tuksinsky parish	Loyansky parish	Kotkozersky parish	4 Rural parishes
	1				
1806-1815	23.26	22.56	24.81	22.26	22.62
1816-1825	23.26	22.33	22.61	23.73	23.10
1826-1835	24.81	21.90	21.73	23.78	23.07
1836-1845	22.53	22.32	22.13	22.49	22.38
1846-1855	22.96	23.20	20.98	22.49	22.41
1856-1865	22.90	22.69	20.58	22.39	22.10
1866-1875	23.84	23.80	20.86	21.53	22.00

Other methods of analysing the age at which people married were also used. The average age of brides and bridegrooms from various social groups who married for the first time in the period 1897–1905 was considered. This period was chosen because the relevant information is available for 11 parishes (Tables 16 and 17). The average age of peasant bridegrooms from a group of 1,162 men who married during this period was 25.0 years and of peasant brides from a group of 1,300 women 21.7 years.

Table 16 Age at first marriage of men in the Olonets province, married 1897-1905

11 Rural parishes of the Province of Olonets						
Inhabitants categories and districts	Average age	Standard error	Ν			
All inhabitants	25.51	0.11	1,492			
Servicemen	27.55	0.22	221			
Peasants	24.97	0.13	1,162			
Town inhabitants	28.79	1.22	31			
Peasants in separate parishes						
Loyansky	23.58	0.35	78			
Megregsky	26.58	0.64	61			
Tuksinsky	25.03	0.35	101			
Vedlozersky	25.02	0.39	138			
Verhovsky	25.73	0.61	77			
Vidlitsky	24.46	0.32	140			
Kotkozersky	24.28	0.22	164			
Obzhansky	24.03	0.52	49			
Sambatuksky	25.34	0.51	77			
Tulomozersky	24.43	0.39	153			
Urgilsky	26.54	0.98	35			

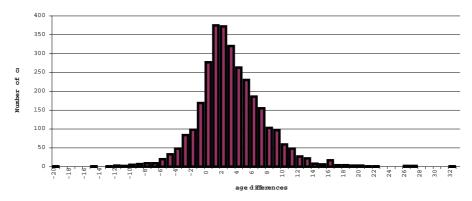
It must be noted here that the age at marriage differed significantly for bridegrooms from the various social groups. Middle-class men and military men were much older than peasants when they married, 27.5 and 28.8 years respectively, compared with the average age of peasant bridegrooms of 25 years. In the same period girls from families of retired military men married somewhat earlier than peasant girls, 20.8 and 21.7 years respectively, but no reliable conclusion concerning the average age of middle-class brides can be drawn here because the number of observations, only 17, is too small.

Parishes	Average age	Standard error	Ν
All 11 rural parishes	21.83	0.09	1,459
Loyansky	20.88	0.24	103
Megregsky	22.87	0.43	67
Tuksinsky	22.40	0.34	120
Vedlozersky	22.14	0.36	168
Verhovsky	21.82	0.31	95
Vidlitsky	21.65	0.23	181
Kotkozersky	21.40	0.20	214
Obzhansky	21.45	0.33	62
Sambatuksky	21.97	0.32	93
Tulomozersky	20.82	0.22	182
Urgilsky	22.98	0.40	44

Table 17 Age at first marriage of women in the Olonets province, married 1897-1900

It should be noted that in different parishes which had much in common with each other in their social structure and in the level of social and economic development the average age at which peasants married differed significantly, sometimes by two or three years. This confirms the view that it would be highly unreasonable to draw general conclusions based on the data from an individual parish.

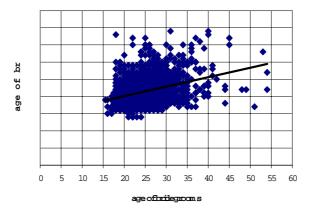
Figure 2 Distribution of age differences between brides and bridegrooms (peasants, first married 1793-1905)



It is of great interest to analyse the age difference between brides and bridegrooms. Figure 3 shows the ages of peasants who married for the first time in the period 1807–1905. The bridegroom's ages are shown on the X axis and

the bride's ages on the Y axis. The conclusion can be drawn from the graph that there is practically no correlation between the ages mentioned above (linear correlation coefficient is 0.36, determination coefficient is 13%). The relationship is plotted (regression equation) as a bold slanting line on the graph. If the coordinate angle 1-3 is bisected the set of points located above it corresponds to couples where the bride was older than the bridegroom, there were 13.4% of such cases, in 9.3% of the marriages the bride and the bridegroom was older than the bride. On average, bridegrooms were 3.35 years older than brides. The distribution of the age difference is shown in figure 3.

Figure 3 Age of bridegrooms and brides (first marriages only), 1807-1905



Reliability

In this way sufficiently reliable data of the age at marriage in the Olonets province in the late nineteenth and early twentieth centuries were obtained. This data shows that peasants married comparatively late during the whole of the nineteenth century, but there is some evidence that there was a tendency for the age of men at marriage to decrease. To a certain extent changes in the men's age at marriage were caused by the economic situation becoming more favourable after the reforms of the 1860s and 1870s, in particular those which abolished serfdom and introduced conscription.

The demographer is usually more interested in the average age of brides but here it is very difficult to discern any pattern. Presumably the sparse population, the small number of parishioners in parishes and the large distances between them made the potential market of brides for local bridegrooms very limited. While the bridegroom was in a position to determine the time of marriage best suited for him, related to having completed military service or attaining a certain economic independence, he was often forced to marry any available bride, no matter how old she was.

Problems with the reliability of the information contained in the registers of births, deaths and marriages were discussed at the conference in Tampere. It was pointed out that at present the maximum progress possible has been achieved in the field of the search for sources, their formalization and the development of computer databases. At the same time, it is necessary to apply more accurate mathematical and statistical methods of analysis to compensate for missing information and to determine sampling errors. The critical factor in research is the detailed analysis of documents using the scientific methods available to determine how reliable these are. If this stage of the research is omitted there is little sense in performing calculations.

Age at first marriage in eighteenth and nineteenthcentury Russia and the Netherlands: tradition or economic and social circumstances?

Geurt Collenteur and Richard Paping

Introduction¹

Hajnal's ideas on the difference between marriage patterns in Western and Eastern Europe have been very influential in historical demographic research.² According to John Hajnal, marriage patterns in Europe can be divided into two distinct groups to be found to the east and west respectively of an imaginary dividing line between St Petersburg and Trieste (Italy). To the West relatively high ages at marriage³ for both brides and grooms resulted in the vast majority of people living in nuclear families as a result of such marriages.⁴ Not only was the nuclear family the preferred household structure but the large differences in age between the generations made three-generation households an infrequent phenomenon. By the time the children were ready to establish their own families the parents were usually already dead. In general, three-generation households occurred only during a short span of the family lifecycle.

In the East the situation was supposed to have been rather different with low ages at marriage for both men and women. As a result the differences in age between parents and children were relatively low and this facilitated extended families with three, or even more, generations living together in one household. The newlywed couples usually lived under the supervision of

¹ An earlier version was presented at the Conference on Demographic History in Tambov, 20-25 May 2002.

² J. Hajnal, 'European marriage patterns in perspective', in: D.V. Glass and D.E.C. Eversley (eds.), *Population in history. Essays in historical demography* (London 1965); J. Hajnal, 'Two kinds of pre-industrial household formation', in: R. Wall (ed.), *Family forms in historic Europe* (Cambridge 1983) 65-104.

³ Age or average age at marriage refers to first marriages only.

⁴ The average age for men was over 25 years and for women 24 years, F. Hendrickx, 'Een onzichtbare grens? Hajnals' huwelijks patroon in Taiwan en Nederland', *Tijdschrift voor Sociale Geschiedenis*, 27 (2001) 309-321. Originally, in: 'Two kinds of pre-industrial', Hajnal stated ages of 26 for men and 21-23 for women as the dividing lines between the two systems.

their parents or even their grandparents.⁵ This also resulted in more couples of the same generation living together in one household, a situation rarely encountered in the West. According to Hajnal and others, households in the East frequently showed a much more complex family structure as compared with those in the West.⁶ Because of this, age at marriage determined large parts of the social structure at the micro level of the family and/or household in a society, making the study of age at marriage of central importance in understanding daily life in the past. In particular, it is crucial to study and assess the determinants of age at marriage.

Some claim that the age at marriage mainly depends on cultural norms or, more exactly, traditions in a society.⁷ By 'traditions' is meant those social and cultural rules for the behaviour of people in a community which are forced upon the members of that community with great vigour by that same community. Because of this it is very difficult for the individual members to deviate from the majority, the penalty being social exclusion. If tradition really determines this aspect of the marriage pattern one should expect only very small differences in the age at marriage within a society. This will also be true in a temporal sense: only modest variations in the age at marriage can occur in response to changing circumstances. An adaptation to changes in social, economic or personal circumstances in fact *first* requires a change in tradition. Traditions, however, are extremely rigid and, at best, change slowly. Both arguments seem to indicate a very homogeneous age at marriage. If only traditions were of importance one can, in principle, also expect that there would be no huge differences in ages at marriage between socioeconomic groups in a specific society, unless the traditions were partly socially bound. Differences in average age at marriage between regions, or even neighbouring communities, have to be explained completely by differ

⁵ Compare B.A. Engel, Between the fields and the city. Women, work, and family in Russia, 1861-1914 (Cambridge 1994) 10-13, 17-19.

⁶ P. Laslett, 'Introduction: the history of the family', in: P. Laslett and R. Wall (eds.), Household and family in past time (Cambridge 1972) esp. 60-62; P. Laslett, Family life and illicit love in earlier generations (Cambridge 1977) 12-30; E.A. Hammel, 'The zadruga as process', in: Laslett and Wall (eds.), Household and family; M. Mitterauer (ed.), 'The family in Eastern Europe', special issue of Journal of Family History, 7 (1982) 1-131; D.L. Ransel (ed.), 'The family in Imperial Russia (Urbana 1978); P. Czap, 'The perennial multiple family household, Mishino, Russia 1782-1858', Journal of Family History, 7 (1982) 5-26; P. Czap, 'Age family: the peasant's greatest wealth: serf households in Mishino, Russia, 1814-1858', in: Wall (ed.), Family forms in historic Europe, 105-151, esp. 144-146; C.D. Worobec, Peasant Russia. Family and community in the postemancipation period (Princeton 1991) 107-117; I. Devos and L. Kennedy (eds.), Marriage and rural economy; Western Europe since 1400 (Turnhout 1999) several articles; T. Trokhina, 'A typology of the Russian peasant family of the Upper Volga region', in: P. Kooij (ed.), Where the twain meet. Dutch and Russian regional development in a comparative perspective 1800-1917 (Groningen/Wageningen 1998) 175-184; V. Kanitschev, R. Kontchakov, Y. Mizis and E. Morozova, 'The development of the family structure in the Tambov region, 1800-1917', chapter 11 in this volume.

⁷ T. Engelen, 'Labour strategies of families: A critical assessment of an appealing concept', *International Review of Social History*, 47 (2002) 453-464, esp. 457-458.

ences in tradition. If differences in traditions are small, again only small differences in the average age at marriage can be expected. Of course, tradition cannot be the sole explanation for a specific average age at marriage, while tradition itself must have come into being at some time. The origin of a tradition presumably lies in social and economic circumstances in the past.

On the other hand, it is possible to put forward an argument that the age at marriage is mainly related directly to social and especially economic circumstances, which can differ between societies, but also between individuals. Evidently, changes over time would then be expected because of economic and social developments.⁸ By implication, the age at marriage will adapt much faster when determined by socioeconomic factors than when determined mainly by tradition. If this is the case people are able to use age at marriage to direct their own life. The chosen age at marriage will be an instrument in the life strategy of individuals or in a family strategy.⁹ All the decisions on a micro level together will determine the average age at marriage at a macro level.

Some factors likely to be influential cannot be fitted easily into an approach recognizing only strictly traditional or strictly socioeconomic determinants of the age at marriage. Irina Chernyakova points to the role of general juridical rules, the church and its ecclesiastical rulings and the landlord in shaping the age at marriage.¹⁰ A minimum age at marriage was often stated, but in most cases such a minimum was either too low to have any practical influence on the age at marriage or could easily be circumvented. Most of the worldly rulings followed existing practice and in this way confirmed the existing marriage pattern, rather than the other way around. The role of the church is also vague. Marrying young may have been stimulated to avoid pre-marital sexual intercourse, on the other hand celibacy and saving may have been promoted thus creating reasons for postponing marriage. In specific cases landlords could have had an interest in low ages at marriage to promote population growth, that is to increase the size of the potential labour force. However, if complete obedience to the landlord was lacking, his pressure has to be seen only as a socioeconomic factor. As will be discussed later, landlords in Russia could use a system of land allocation for their serf families

⁸ For example, R.M. Smith, 'Relative prices, forms of agrarian labour and female marriage patterns in England, 1350-1800', in: Devos and Kennedy (eds.), *Marriage and rural economy*, 19-48, esp. 20, 26-30, 38-39; F. van Poppel and J. Nelissen, 'Economic opportunities and age at marriage: an analysis of 19th-century micro data for the Netherlands', in: Devos and Kennedy (eds.), *Marriage and nural economy*, 152-178; C. Lundh, 'Marriage and economic change in the 18th and 19th century', in: Devos and Kennedy (eds.), *Marriage and nural economy*, 217-241, esp. 228-234.

⁹ See for instance T. Engelen, J. Kok, and R. Paping (eds.), 'Family strategies in the low countries. Four case studies', *The History of the Family. An International Quarterly*, 9 (2004).

¹⁰ Chernyakova, 'Marriage behaviour'. See also S. Golubeva, 'Age and patterns of marriage of Russian farmers in the Upper Volga Region, in: Kooij (ed.), *Where the twain meet*, 169–174, esp. 170.

which set a premium on early marriages. On the other hand landlords (in the case of estate serfs) or the government (in the case of soldiers and civil servants) could also prohibit specific groups from marrying.¹¹

This chapter aims to explore the determinants of ages at marriage in the Netherlands (especially Groningen) and Russia (especially the Yaroslavl, Tambov and Olonets region). The evidence presented here cannot be completely conclusive as it is based on work which is still in progress. An exhaustive survey of the existing literature has still not been carried out and was not the primary object. It was also not always possible to assess the spread in ages at marriage within a particular society as indicated by the standard deviation because of lack of data. The data that has been used is mostly derived from the Russian-Dutch co-operation on Integral History.¹² The general data for different regions in Russia and the Netherlands will be considered first. Next, a closer look at developments through time will be taken. Section four deals with the differences between social groups and finally, data on differences in ages at marriage within communities will be considered.

Differences between regions

As Table 1 shows, there were large differences in the average age at marriage between several areas of both Russia and the Netherlands. It is striking that low average age at marriage for men was found only in the Yaroslavl and Tambov regions. The data for both the Olonets region (Karelia) and the Netherlands are more in line with each other. With an average age at marriage of around 25, the Olonets region seems to be positioned on Hajnal's

¹¹ See for instance M. Akolzina, V. Dyatchkov, V. Kanitschev, R. Kontchakov, Y. Mizis, and E. Morozova, 'A comparison of cohort and other methods of demographic microanalysis used in studying the Tambov region, 1800-1917', chapter 3 in this volume; S.G. Kachtchenko and S.S. Smirnova, 'Conjugality in the Olonets province in the nineteenth and early twentieth centuries. Some inferences drawn from information taken from the registers of births, deaths and marriages', chapter 5 in this volume.

¹² Data on the Olonets region from Kachtchenko and Smirnova, 'Conjugality in the Olonets province' and work in progress of the St Petersburg science group of S. Kachtchenko; for the Tambov region (Malye Pupki, Kalugino, Rasskazovo and Morshansk) from V. Dyatchkov, V. Kanitschev, Y. Mizis, V. Orlova, L. Protasov and S. Protasov, 'Cohort analysis of Malye Pupki's population: some preliminary results', in: Kooij (ed.), Where the twain meet, 141-153; Akolzina et al., 'A comparison'; for the Yaroslavl region (Velikoye and Vyatskoye) from Golubeva, 'Age and patterns of marriage', 170-171; for the Yaroslavl region (Archangelsky and Sandyrevski) from I. Shustrova and E.V. Sinitsyna, 'Demographic behaviour in the Yaroslavl loamy area: The results of cohort analysis for two typical rural parishes', chapter 1 in this volume; for the City of Groningen from P. Kooij and A. Mennens-van Zeijst, 'Demographic behaviour in the Groningen clay area. The results of cohort analysis', in: Kooij (ed.), Where the twain meet, 189-201; for Roman Catholics in the Groningen countryside from R.F.J. Paping, 'Papisten in de Ommelanden 1730-1810; Een onderzoek naar enige aspecten van de sociaal-economische geschiedenis van de Ommelanden, aan de hand van de katholieke gemeenschap aldaar (Unpublished doctoral thesis, History Groningen 1988); for the Groningen clay area from the Groningen Integral History Project; for Duiven from A.J. Schuurman, 'De bevolking van Duiven 1665-1795. Een historisch-demografische studie', in: A.A.G. Bijdragen, 22 (Wageningen 1979) 138-189, esp. 163; for Maasland from D.J. Noordam, Leven in Maasland; een hoogontwikkelde plattelandssamenleving in de achttiende en het begin van de negentiende eeuw (Hilversum 1986) 231.

dividing line between East and West, with the men conforming more to a western marriage pattern. There seems to be a different division for the women, however. With few exceptions all Russian data considered in this chapter show the same results.¹³ The average age at marriage for women in the Netherlands is clearly different, being considerably higher. Surprisingly, the average age at marriage for women in the Olonets region, unlike that of the men, fitted more into the eastern European marriage pattern.

Large differences can be seen even within regions. This is most clear for Vyatskoye in the Yaroslavl region, where the age at marriage resembles that found for the Olonets parishes. However, within the Olonets region, the parishes of Megregsky and Loyansky also differed a great deal. In the first parish both men and women married on average two years later than in the second one. According to Christine Worobec, differences in the average age at marriage in Russia at the end of the nineteenth century have to be mainly ascribed to the economic structure of a region, with purely agricultural provinces showing lower ages at marriages than the more industrialized and urban provinces: 'Urban dwellers out of necessity postponed marriages until they could accumulate sufficient capital to establish new households and support families'.¹⁴

Significant differences are also evident in the small area of the Netherlands. In Duiven, (Gelderland) both men and women married two-and-a-half years later than in Maasland (South-Holland).¹⁵ This conclusion is affirmed by data from Frans van Poppel, who reported even larger differences. In the rural areas in South Holland, the average age at marriage for men hovered around 27.5 in the nineteenth century.¹⁶ However, in the Kempen area of North Brabant the average age was well above 30 in the same period. Men in the Bommelerwaard (Gelderland) married on average at the age of 30 while the average age at marriage in the province of Zeeland was only 26.¹⁷ The average age at marriage in South Holland for women was 25.5, about 1 year older than in Zeeland, while in the Kempen women married on average when they were slightly over 28 and in the Bommelerwaard at 27.

¹³ Worobec, *Peasant Russia*, 125, presents contemporary statistical data on the Central Russian provinces in the period 1882-1886 The lowest average age at marriage for men was found in Tambov, Penza and Riazan with 22.2 to 22.4, the highest surprisingly in Yaroslavl and Moscow with 25.8 to 26.0. The lowest age at marriage for women was in Tambov, Voronezh, Tula and Riazan with 18.7 to 19.0, while the women married latest in Moscow (22.7) and Yaroslavl (23.4). In general, the data for this study shows smaller age differences between groom and bride than these statistical figures.

¹⁴ Worobec, Peasant Russia, 125-127.

¹⁵ Schuurman, 'De bevolking', 163; Noordam, Leven in Maasland, 231.

¹⁶ F. van Poppel, Trouwen in Nederland. Een historisch-demografische studie van de 19e eeuw en vroeg 20e eeuw (Wageningen 1992) 140-144.

¹⁷ For Zeeland see also O.W. Hoogerhuis, Baren op Beveland. Vruchtbaarheid en zuigelingensterfte in Goes en omliggende dorpen gedurende de 19e eeuw (Wageningen 2003) 160-162.

	Period	N men	Average age of men	N women	Average age
** 1.1 . 1 . * * 1 1	1010 1050	0.6		07	of women
Velikoye parish - Yaroslavl	1810-1870	86	21.8	97	20.6
region (all peasants)	(birth)				
Vyatskoye parish - Yaroslavl	1810-1870	52	24.3	36	23.7
region (all peasants)	(birth)				
Sandyrevsky parish -	1810-1870	55	19.1	51	19.2
Yaroslavl region (all peasants)	(birth)				
Archangelsky - Yaroslavl	1810-1870	94	20.1	44	22.4
region (all peasants)	(birth)				
Malye Pupki - Tambov	1811-1871	105	18.9	78	19.6
region (all peasants)	(birth)				
Tukshinsky parish - Olonets	1806-1875	851	26.5		
(all peasants)	(birth)				
Tukshinsky parish - Olonets	1810-1870	66	26.1	52	21.2
(all peasants)	(birth)				
4 Olonets parishes (all peas-	1793-1905	3,491	25.0	4,142	22.4
ants)	(marriage)				
Tukshinsky parish - Olonets	1806-1875	695	25.6	758	22.7
(state peasants)	(birth)				
Megregsky parish - Olonets	1806-1875	346	26.0	374	23.4
(state peasants)	(birth)				
Kotkozersky parish - Olonets	1815-1875	950	25.0	1,178	22.7
(state peasants)	(birth)				
Loyansky parish - Olonets	1806-1875	504	24.0	584	21.5
(state peasants)	(birth)				
4 Olonets parishes	1806-1875	2,630	25.1	3,024	22.5
(state peasants)	(birth)				
City of Groningen	1810-1870	133	27.5	158	27.2
(all inhabitants)	(birth)				
Groningen clay area	1731-1790	562	29.6	691	26.1
(Roman Catholics only)	(birth)				
Groningen clay area	1811-1872	896	28.5	1056	26.6
(all inhabitants)	(birth)				
Maasland (South Holland)	1740-1799	559	27.7	618	25.1
(all inhabitants)	(birth)				
Duiven (Gelderland)	1711-1790	143	30.2	174	27.8
(all inhabitants)	(marriage)				

Table 1 Average age at marriage in different places in Russia and in the Netherlands, 1731-1905

Sources: see note 12.

Ages at marriage in Groningen occupied a middle position for both men and women by Dutch standards. The small difference between men and women in the city of Groningen as shown in Table 1 is interesting. This is possibly related to the presence of a lot of women serving as live-in servants in the city. After a long period of working, some of these female servants managed to marry relatively young men. They were attractive as partners for these younger men, because during their service they were able to save a considerable amount of money. However, it has to be pointed out that most of these city maidservants came from elsewhere, while the data in Table 1 relates to city-born women (and men) only. It seems that the presence of these foreign women created a female surplus and thus influenced the marriage chances of the native-born women.

Very low ages at marriage can be found in nineteenth-century Bailovka, Kalugino and Petrovskoe in the Tambov region with women marrying on average at the age of 18 or 19 and men on average around 20 years old.¹⁸ As an explanation for those low ages at marriage in Tambov villages, Akolzina et al. states that the peasants in these areas urgently needed to have more children for socioeconomic reasons; the socioeconomic rules (the system of land allotments) and the socioeconomic situation pushed the peasants into early marriages.¹⁹ The argument that large families were economically attractive for Russian peasants is often cited in the literature on Russian historical demography.²⁰ That the need for extra labour causes early marriages is, however, not very convincing because early marriages did not create net additional labour in the short term. One of the households (most often that of the groom) gained a labourer, while the other household (usually that of the bride) lost one.

However, it could be argued that easy access to common fields explains the very early marriages of Russian peasants, as the common lands were reallocated according to the number of male members and/or couples within the household.²¹ This is sufficient reason for delving a little deeper into the system of land allocation in Russian villages. Several land repartition systems seem to have been in use, at least after the Emancipation of 1861, which mostly seem to have older roots. Worobec states that arable communal land was normally divided in line with the labour strength of each household, which was measured by the number of *tiagla* (married couples between the ages of 18 and 60). To assign the land to the most productive households was attractive for the village community, because after the Emancipation the whole community had to pay the taxes and dues. However, the number of male members in each household or even the total size of the household was

¹⁸ Akolzina et al., 'A comparison'; S.L. Hoch, Setfdom and social control in Russia. Petrovskoe, a village in Tambov (Chicago/London 1986) 76-77.

¹⁹ Akolzina et al., 'A comparison'.

²⁰ Chernyakova, 'Marriage behaviour'.

²¹ See Czap, 'A large family', 105-106; S. Yesikov, 'The characteristics of the Tambov Region in the nineteenth century', in: Kooij (ed.), *Where the twain meet*, 7-15 esp. 13; Worobec, *Peasant Russia*, 43; V. Dyatchkov and V. Kanitschev, 'Tambov regional development in the context of integral history (1800-1917)', chapter 9 in this volume.

sometimes the decisive factor in the redistribution.²² On the other hand, Barbara Alpern Engel states that women could not claim a land allotment and households only received extra communal land if a son was born and not at the birth of a daughter.²³ It is clear that land allotment systems differed significantly in different areas of Russia.

Steven Hoch gives a very detailed description of the land distribution system for serfs in Petrovskoe in the Tambov region in the first half of the nineteenth century, which he claims to be relevant for large parts of Greater Russia. Husband and wife were seen as a work team (*tiagla*) that was entitled to a certain plot of ploughed land to be redistributed every year, after 1825 every two years, in return for taxes and for services performed for the land-lord.²⁴ Such a male-female work team was seen as best fitting the daily agricultural work. Nevertheless, some single or widowed men also had the same rights if they were able to fulfil the necessary labour obligations, while widows received a 'widow's allotment'. On the other hand, as Hoch states: 'Single and widowed women were never part of a work team, and rarely did men carry a full *tiaglo* alone'.²⁵ The vast majority of the married men in the age group 15-19 received a full *tiaglo*, while the unmarried young men generally received half a *tiaglo* or even none at all.

Naturally, this rigid way of dividing the land and of creating working couples stimulated early marriages of both men and women. Hoch put it in the following way: 'When a young couple married it immediately formed a new *tiaglo* or work team, further increasing the productive capacity of the estate. The earlier serfs married, the sooner this economic benefit to the estate would be realized'.²⁶ In this system early marriages were not only beneficial for the landlord, but also for the individual households, the presence of unmarried women in particular in a household increased the labour/land ratio resulting in lower labour productivity. Upon marriage the household in which the couple settled down (usually that of the groom's family) received at least half a tiaglo of land almost immediately, while the other household (usually that of the bride's family) lost some of its labour force without losing land. A marriage therefore meant an attractive fall in the labour/land ratio and also in the short term in the consumer/land ratio. A common advice to young men was: 'Get married at 18 in order to settle a *tiaglo*'.²⁷ Normally the young men also had to pay a substantial bride price (or kladka) to her parental

²² Worobec, Peasant Russia, 22-25.

²³ Engel, Between the fields, 8.

²⁴ Hoch, Serfdom, 16, 23-28, 91-92, 107.

²⁵ Hoch, Serfdom, 92.

²⁶ Hoch, Serfdom, 93-95.

²⁷ Quoted by Hoch, Serfdom, 95.

household.²⁸ According to Hoch this redistribution of wealth was a compensation for the loss of labour of the full-grown daughter: 'Economic motives were clearly in the minds of the Petrovskoe serfs when they arranged marriages'.

Landlords exploited these economic motives to stimulate early marriages and increase their serf working force. In the first half of the nineteenth century each *tiaglo* in Petrovskoe in the Tambov region maintained on average 4.6 to 5.5 persons.²⁹ The risk of having too few land allotments for the size of the household, and thus an unfavourable consumer/land ratio, was lower in extended families consisting of more couples with better *tiaglos*. For this reason the division of households was resisted by the landlord and his representative in Petrovskoe.

The land distribution system will have promoted early marriages only if the repartitioning of the land took place regularly. This took place only once every 2 years in the serf village of Petrovskoe after 1825, whereas Worobec suggests that in post-emancipation Russia the redistribution took place 'every few years', and elsewhere she writes about 'periodic intervals of anywhere from three to twenty-five or more years'.³⁰ Some 40% of all the communes in European Russia did not repartition their land allotments in the decade after the Emancipation of 1861. Strong forces within the community from (formerly) larger but reduced households successfully opposed reallocations which would only have resulted in them losing some of the arable land at their disposal. Of course, longer periods without redistribution also made investments in the land more attractive to the peasants concerned. As well as complete repartition of land, partial repartition, reflecting the annual changes in household composition, was also practised in some of the Russian villages.

The provisional conclusion from the literature seems to be that in most areas in Russia the land allotment system was not flexible enough to make fast adjustments to household changes caused by (early) marriages. In some areas the land adjustment system, as in the Petrovskoe case, may well have made this possible. However, if the repartitioning took place less regularly it is not very rational to marry as young as possible and then have as many children as possible, because 6 or even 12 years is a very long period for a young couple to wait for land.

Also, it must be clearly pointed out that the increase in arable land per household did not necessarily result in any rise in the welfare of that household, if the number of members was increasing just as fast. There was a large risk that the amount of land would lag behind the size of the family, because

²⁸ Hoch, Serfdom, 95-105.

²⁹ Hoch, Serfdom, 41-43, 87-89.

³⁰ Worobec, Peasant Russia, 21, 25-27.

compensation in land was often received only years later. In such cases where the amount of land was kept constant the short-term result for the household was to be confronted with the Law of Diminishing Returns for Labour.

The argument that land redistribution promoted early marriages also does not seem to take into account the fact that, according to the same law, repartitioning land while the population is growing results in diminishing returns for the community as a whole.³¹ On top of that, frequent reallocation of land is a severe obstacle to an increase in agricultural productivity because it hampers investment in the fertility of the land. If, on the individual or family level, marrying young and having many children is not completely unattractive (although the character of the economic attractiveness remains doubtful in a lot of cases) it is still clear that it is very unfavourable for the community as a whole, decreasing the available amount of land per inhabitant. In this way it can be seen as the dismal result of Game Theory, each individual pursuing his own goal with unhappy results for the whole (including all the individuals).

As it is difficult to find strong socioeconomic benefits of very early marriages in the nineteenth century, it cannot be ruled out that in the special case of the Tambov region tradition played an important role in determining the age at marriage. A possible reason for the preference for very low ages at marriage in parts of the Tambov region can be found in the past. In the seventeenth century this region was still very thinly populated, the soil, however, was very fertile (the so-called 'black earth'). Hence, it might have been attractive to marry young. There were no economic reasons for postponing marriage while there was enough fertile soil available and there were no reasons for restricting the number of children. In these special circumstances marrying as young as possible could easily have become a tradition supported by the landlord, who could also reap some benefit from the rising number of serfs, if they were able to produce an extra surplus. The population in the Tambov region increased rapidly in the following century.³² By the nineteenth century the region can be characterised as being overpopulated with many people living near subsistence level. The tradition of marrying young became a burden, which, in some Malthusian way, was held in check by high mortality rates. However, the tradition of marrying young did not change and the system of regularly redistributing land according to the number of persons in a household reinforced this tradition.

On the other hand, Worobec tries to give a more rational explanation for the early marriages: 'Equal partible inheritance, the apportionment of full communal land allotments to married men alone, the incorporation of new

³¹ Compare Yesikov, 'The characteristics', 8-10.

³² Yesikov, 'The characteristics', 8; Akolzina et al., 'A comparison'.

conjugal units into existing patriarchal extended family households, and supplementary incomes from domestic industries encouraged men and women to wed early'.³³ However, most of these arguments only show that there were not many drawbacks to early marriage. Perhaps the land division argument already discussed provides an explanation, but loses much of its force if land division did not take place regularly. Although there could have been an economic explanation at one time, early marriages in these Russian villages seem more related with traditions, as illustrated by the following popular sayings quoted by Worobec: 'The earlier the marriage, the more profit for the house', and 'If you rise early you will do more, if you marry young you will have help sooner', which totally overlooks the economic burden of young children and a large family and the problem of the scarcity of land.

One important reason for postponing marriage in the Netherlands, as in other parts of Western Europe, was that it was economically attractive for unmarried men and women to work on an annual basis as live-in servants on farms, for artisans or in bourgeois households.³⁴ Saving was usually of major importance when newlyweds set up households of their own. A marriage was generally only undertaken when this was economically feasible. Because sexual intercourse was postponed, forced marriages were not uncommon, in particular in the lower strata of society. However, in the Netherlands, even people who were forced to marry because the bride was pregnant were generally not extremely young.³⁵

A system with financially relatively attractive jobs as live-in servants (free food and lodging, no risk of unemployment, some salary) for unmarried young adult people did not really develop in the Russian countryside, making it necessary for juveniles to stay in the parental household until they married if they did not migrate to the large cities. Several (traditional) social events existed in the Russian peasant villages where these unmarried sons and daughters could meet each other and where early marriages were stimulated. Although premarital sexual intercourse was highly disapproved of and great value was put on the virginity of daughters, it seems that unmarried Russian juveniles were actually quite sexually active, at least at the end of the nineteenth century. This can be concluded from the percentages of illegitimate children born in the provinces in 1897, which ranged from 0.5% of all the children born in Voronezh and 0.8% in Tambov to 2.8% in Yaroslavl and

³³ Worobec, Peasant Russia, 126.

³⁴ Hajnal, 'Two kinds of pre-industrial'; G.A. Collenteur and R.F.J. Paping, 'De arbeidsmarkt voor inwonend boerenpersoneel in het Groningse kleigebied 1830-1920', *NEHA-Jaarboek voor Economische, Bedrijfs- en Techniekgeschiedenis*, 60 (1997) 96-137.

³⁵ J. Kok, Langs verboden wegen. De achtergronden van buitenechtelijke geboorten in Noord-Holland 1812-1914 (Hilversum 1991) 49-50; T.L.M. Engelen and M.M. Meyer, 'Gedwongen huwelijken op het Nederlandse platteland, 1812-1862', in: A.A.G. Bijdragen, 22 (Wageningen 1979) 190-220, esp. 202-203.

even 4.8% in Pskov.³⁶ Although there is no data on forced marriages available, these figures suggest that premarital sexual relations were not uncommon in the Russian villages during the very short period between maturity and marriage. Free sexual behaviour by the youth, which contrasted quite sharply with the official sexual morals claimed by the village community, may have stimulated parents to insist on early marriage, thus reducing the chances of the shame of illegitimate children. An interesting question in this respect is why it seems to have been easier for Western European than for Russian young adults to refrain from reproductive sex during a long period of sexual maturity.

Another possible explanation for marrying relatively young in Russia was that mortality rates were higher than in the Netherlands. This could mean that at marriage the parents were already dead, although the partners were only 20 to 25 years old. However, this cannot be the explanation for an average age at marriage of around 18 years leading to extended families, which was the case most of the time in the Tambov and Yaroslavl regions.³⁷ The very low ages in the Tambov region suggest instead that parents were trying to keep a hold on their descendants by organizing their marriages when they were still in a subordinate position and were not able to escape their parents' will. In this way, the very hierarchical mode of organizing family life in the broadest sense was duplicated through the generations. Because there were few possibilities of earning and saving money as an unmarried person there was no reason to postpone marriage, especially when it was easier after marriage to get access to the common fields of the village thanks to the system of redistribution of common lands according to the number of *tiaglo* as discussed earlier.

In eighteenth and nineteenth-century Russia, paternal power, practices of dividing common land, high mortality rates, the absence of a wage and money economy and traditions from the past all helped to keep the average age at marriage low for both men and women. These factors operated differently from place to place and from region to region, with the Karelian parts of Russia more or less forming a transition area between Eastern and Western Europe. This last statement is in line with the frontier in marriage patterns, which according to Hajnal ran between Trieste and St Petersburg.

³⁶ Worobec, *Peasant Russia*, 126-150. Worobec suggests that a quite strict sexual behaviour on the part of unmarried people in the villages was enforced by the community, but this does not correspond with the relatively high numbers of illegitimate children for a society with low ages at marriage and a nearly universal incidence of marriage.

³⁷ Trokhina, 'A typology of the Russian peasant family'; Kanitschev et al., 'The development of the family structure'.

Differences over time

Differences over time are studied using the data for the Groningen and Olonets areas only. Although data for the Tambov region is available, it is incomplete because no information on the numbers involved is given.³⁸ These figures show that average ages at marriage in Tambov were not constant. In the period 1840-1917 men in Malye Pupki always married between the ages of 19 and 20 but the age at marriage of women fell from 20.4 in the period 1840-1849 to around 19.0 after 1880. There were some changes for both men and women in Bailovka in the same period. The average age at marriage for men fell from nearly 21 in the period 1840-1869 to less than 19.5 after 1880 while for women the average age at marriage fluctuated from 19 (1840-1859) to about 17.5 (1860-1889) and back to 19 again (1890-1917).³⁹

The Olonets area shows only a slight variation in the age of marriage for men (Table 2). In the nineteenth century the average age of grooms only varied between 24.2 and 25.6. A slow increase until the middle of the century was followed by an equally slow decline until the beginning of the twentieth century. The same pattern can be observed for women, but it is far less distinct. The differences between the lowest and highest (average) age at marriage was less than 1 year (21.9 in 1891-1905 compared with 22.8 in 1831-1850). The age at marriage for men at the end of the century was somewhat higher than at the beginning whereas that for women was somewhat lower. As a result the average age difference between male and female marriage partners decreased.

Strikingly enough, the overall pattern of the average age at marriage for both men and women in the Netherlands is virtually the same. According to Van Poppel, the average age for men declined slowly from about 29 around 1825/1830 to about 27.5 at the turn of the century. The fall in the average age at marriage for women is somewhat more marked with a decline from 27.5 around 1825/1830 to 25.7 by 1900. He also observed a slow rise in the age at marriage for both men and women in the decades before 1825/1830.⁴⁰ His findings are corroborated by the Groningen data given in Table 2.

In the Groningen clay area the average age at marriage of men fell considerably from well above 30 around the third quarter of the eighteenth century to about 28 for men marrying in the last quarter of the nineteenth century. The picture is less clear for women. The birth cohort of 1761-1790 married on average at the lowest age. At the start of the nineteenth century

³⁸ Akolzina et al., 'A comparison'.

³⁹ As the number of cases for the Tambov data is unknown, it is not clear if changes over time in these parishes are significant.

⁴⁰ Van Poppel, Trouwen in Nederland, 22-26; also Hoogerhuis, Baren op Beveland, 159-160.

the average age at marriage rose, while in the second half of the nineteenth century women again started to marry younger.

Table 2 Changes in average age at marriage over time in the Olonets region 1793-1905 (marriage dates) and the Groningen clay area 1731-1870 (birth dates)

	Period	N men	average age	N women	average age of
			of men		women
4 rural parishes Olonets	1793-1810	251	24.2	308	22.4
region	(marriage)				
4 rural parishes Olonets	1811-1830	399	24.7	423	22.3
region	(marriage)				
4 rural parishes Olonets	1831-1850	585	25.6	638	22.8
region	(marriage)				
4 rural parishes Olonets	1851-1870	850	25.1	927	22.5
region	(marriage)				
4 rural parishes Olonets	1871-1890	777	24.9	1,016	22.3
region	(marriage)				
4 rural parishes Olonets	1891-1905	629	24.9	830	21.9
region	(marriage)				
Groningen clay area -	1731-1760	242	30.7	320	26.8
Roman Catholics	(birth)				
Groningen clay area -	1761-1790	320	28.8	389	25.6
Roman Catholics	(birth)				
Groningen clay area	1811/6-1830/4	459	29.0	542	27.1
	(birth)				
Groningen clay area	1850/4-1870/2	437	28.0	514	26.1
	(birth)				

Sources: see note 12.

In general the similarities in the patterns in age at marriage tend to obscure the variations in a certain region. It is, however, important to assess the magnitude of those variations in order to determine the likelihood of traditional or socioeconomic explanations for the age at marriage. It is clear that the average age at marriage was not constant in any of the regions in the Netherlands or in Russia. There were some changes in the course of time everywhere. However, the changes were never very significant and the differences between regions did not really disappear because of these changes. The small magnitude of the changes may indicate that traditional factors were of importance, but it may also suggest that the social and economic circumstances for the people making marriage decisions did not change dramatically over time in the second half of the eighteenth and in the nineteenth century.

Differences between socioeconomic groups

If socioeconomic factors are an important factor determining when to marry, one would expect certain differences in the average age at marriage between different socioeconomic groups in a specific society. Also, the average age at marriage will develop differently between such groups through the centuries because economic changes have diverging effects on different groups.⁴¹ Unfortunately, however, there is not much evidence available for making comparisons between socioeconomic groups within a specific village.

According to Van Poppel, the average age at marriage for men in the Netherlands was highest for the upper middle class, most of whom did not marry until over the age of 30, somewhat later than the intellectuals, the lower middle class and the farmers who married on average between the ages of 27 and 28.⁴² Rural labourers married on average when between 26 and 28 years old. The lowest age at marriage was observed amongst the urban unskilled and semi-skilled labourers (including self-employed artisans) at about 26 years old. In general, women marrying casual, unskilled or skilled labourers were on average the oldest (26-28). Women marrying farmers or rich or lower middle class men were slightly younger (25-27) and women marrying farm labourers were relatively young (23-26).

There is not much data available on differences in marriage behaviour between the social classes in Russia. However, data for 11 rural parishes in the province of Olonets in the period 1897-1905 indicates that male peasants, the vast majority of the population, married younger than the rest of the population (25.0 compared with 27.7). In addition, variation in the age at marriage seems to have been largest amongst the peasants (with a standard deviation of 4.4 compared with 3.7 for the total population). The explanation may be found in the fact that soldiers formed a large part of the rest of the population and there were severe legal restrictions preventing them from marrying young.⁴³ These hindrances were even larger before 1861/1874, that is before the abolition of serfdom and the military reform in Russia.

⁴¹ For example, Evergem (Belgium) 1806-1847: I. Devos, 'Marriage and economic conditions since 1700: the Belgian Case', in: Devos and Kennedy (eds.), *Marriage and rural economy*, 101-132, esp. 107. See also Van Poppel and Nelissen, 'Economic opportunities', 165-175; F.M.M. Hendrickx, 'Marriage in Twente: nuptiality, proto-industrialisation and religion in two Dutch villages', in: Devos and Kennedy (eds.), *Marriage and rural economy*, 179-202, esp. 189-196; S. Sogner, 'Marriage and the early modern state: the Norwegian case', in: Devos and Kennedy (eds.), *Marriage and rural economy*, 203-216, esp. 210.

⁴² Van Poppel, Trouwen in Nederland, 50-59. Because exact data is missing in his study, only approximations are given. High marriage ages of farmers are also reported for nineteenth century Utrecht and Beveland (Zeeland) by M. Kalmijn, 'Bruid, bruidegom en bruiloft' in: K. Mandemakers and O. Boonstra (eds.), De levensloop van de Utrechtse bevolking in de 19e eeuw (Assen 1995) 86-102, esp. 96; Hoogerhuis, Baren op Beveland, 163-166.

⁴³ For instance see Kachtchenko and Smirnova, 'Conjugality in the Olonets province'.

Table 3 Differences	in average age	es at marriage	between se	everal socioecon	iomic groups in
the Groningen clay	area 1731-18	870 (birth dat	es)		

	period	N men	average age	N women	average age
			of men		of women
Roman Catholics - Groningen	1731-1790	218	29.6	274	26.9
clay area 'poor'	(birth)				
Roman Catholics - Groningen	1731-1790	135	29.7	180	26.0
clay area 'middle'	(birth)				
Roman Catholics - Groningen	1731-1790	209	29.5	237	25.3
clay area 'rich'	(birth)				
Groningen clay area 'labourers'	1830-1872	238	26.7	303	26.0
	(birth)				
Groningen clay area 'middle	1830-1872	267	28.9	267	27.0
class'	(birth)				
Groningen clay area 'farmers'	1830-1872	104	30.1	116	27.1
	(birth)				
Groningen clay area 'other	1830-1872	96	28.9	151	26.3
occupations'	(birth)				

Sources: see note 12.

It is quite easy to distinguish between different socioeconomic groups for the Groningen countryside.⁴⁴ The distinction, however, is not completely the same for those born in the period 1731-1790 as for those born in the period 1830-1872.⁴⁵ In the eighteenth century, differences in the age at marriage for men from different social groups were only small. In the nineteenth century, however, labourers – mainly farm labourers – married significantly younger than farmers (a gap of 3.5 years!) with the middle classes and the other occupations maintaining a middle position. In the nineteenth century, the necessity for (farm) labourers to postpone marriage had lessened, because there was no need to save large amounts or to wait for the parents to die to profit from any inheritance. The rising social division in the Groningen countryside between 1770 and 1820, partly caused by increasing land prices,⁴⁶ made it nearly impossible for young people descended from farm labourers to buy even a small farm. However, for the male farmers, postponement of marriage remained an attractive strategy if they wanted to obtain a farm.

⁴⁴ Large farmers, and for instance rich merchants from the middle classes and other occupations like medical doctors, form the group labelled here as 'rich'; the 'middle' group consists mainly of families from the middle class and smaller farmers; all other occupations, such as labourers, a small part of the middle class such as employees or self-employed in industry and economic services are labelled 'poor'.

⁴⁵ For the period 1830-1871 only information on occupations is used for classification. However, for the period 1731-1790 this information is combined with data concerning property.

⁴⁶ R.F.J. Paping, Voor een handvol stuivers. Werken, verdienen en besteden: de levensstandaard van boeren, arbeiders en middenstanders op de Groninger klei, 1770-1860 (Groningen 1995) 186–189, 204–205, 215–216.

Postponing marriage had been normal for all social groups in the eighteenth century, when farm labourers still had to wait for a regular position on a farm and men from the middle classes had to wait for the moment they could start their own business, which was not easy for young men at that time. It seems that in the nineteenth century earning an independent income was easier as many married men could find work as casual labourers, while farmers tended to hire an increasingly larger part of the required labour for only short periods. Hence, men could earn more at a younger age as nonresident casual labourers, without it being necessary to become a live-in farm hand.

The situation for women was rather strange. The situation in the eighteenth century can be summarised easily - the poorer she was the later the woman married. Postponement of marriage was a normal practice in the labouring classes, while rich farmers could afford to marry relatively younger women. As a result farmers' families were much larger than those of labourers. With the increasing opportunity for becoming a casual labourer, the average age at marriage for women in this social group fell somewhat, while it rose in the social groups of the farmers and the middle class. The age differences between the marriage partners decreased considerably in these last two groups. It seems that the role of women in the accumulation of starting capital increased. Hence, for men in the middle classes or for a farmer it seems to have become more attractive than before to marry older women who had had more chance of having inherited or saved a large sum of money. Where in the eighteenth century it was much more important to secure a position, in the nineteenth century the role of money, in particular the amount available when starting a family, increased because of the rising values of farms, shops and houses.

Differences within communities

Because the original data is not available, it was not possible to calculate the standard deviations for the average age at marriage in each instance. However, in a few cases some information is available. The basic hypothesis is that the higher the spread in age at marriage, the less probable it is that traditional factors played a major role in the decision to marry at a certain age. Reasoning along these lines, it is clear from Table 4 that tradition was very unimportant in the Groningen clay area. There was a large spread in average age, making it both possible for men and women to marry around 20, or to wait till after the age of 30. Society did not force young people to marry at or around a specific age. There seems to have been a large amount of freedom in choosing when to marry in nineteenth-century Groningen. The spread in age at marriage in the Olonets region was somewhat lower. However, in this part of Russia a rigid social-cultural law forcing people to marry at or around a certain age does not seem to have existed either. There was still room for making own decisions based on specific social, economic and personal circumstances. This freedom was, however, considerably less than in the Groningen clay area.

Table 4 Spread in the age at marriage (standard deviation) in the Groningen clay area and Olonets region

	Period	Ν	average	Standard	N wo-	average	Standard
		men	age of	deviation	men	age of	deviation
			men	men		women	women
Olonets region	1806-1835	998	25.9	4.9	1,053	23.0	4.1
(state peasants)	(birth)						
Olonets region	1836-1855	865	24.6	3.6	939	22.4	4.1
(state peasants)	(birth)						
Olonets region	1856-1875	767	24.6	3.5	1,032	22.1	3.3
(state peasants)	(birth)						
Olonets region	1897-1905	1,492	25.5	4.3	1,459	21.8	3.4
(11 parishes)	(marriage)						
Archangelsky	1810-1870	94	20.1	3,7	44	22.4	6.1
(Yaroslavl region)	(birth)						
Sandyrevsky parish	1810-1870	55	19.1	2.4	51	19.2	2.7
(Yaroslavl region)	(birth)						
Groningen	1830-1834	268	28.8	5.3	321	27.2	6.0
clay area	(birth)						
Groningen	1850-1854	254	28.4	5.4	287	26.4	5.3
clay area	(birth)						
Groningen	1870-1872	183	27.4	5.7	227	25.7	5.3
clay area	(birth)						

Sources: see note 12.

The data for the two Yaroslavl parishes is interesting. Sandyrevsky had a very low average age at marriage for both men and women, combined with a low spread in marriage ages, suggesting a relatively traditional marriage pattern as a result of strong social pressure within the community. However, the situation in Archangelsky was completely different. Marriage ages were higher, but more importantly the spread in ages was also much larger, pointing to some room for own choices. This was especially so for women in Archangelsky where the standard deviation for the age at marriage was as high as in the Netherlands. However, it must be taken into account that the numbers involved are only small. The differences in age at marriage between the two Yaroslavl villages can be attributed to socioeconomic differences. Sandyrevsky was a rather uniform peasant society with a minor cottage industry, while in Archangelsky people seem to have had more alternative non-agricultural sources of income.⁴⁷

As has already been stated, it is tempting to conclude that a very traditional marriage pattern existed in parts of the Tambov region, with men and women marrying as young as possible, preferably between the ages of 16 and 20, just as was the case in Sandyrevsky in the Yaroslavl region. This is most clearly the case in Malye Pupki, though it can also be seen in Bailovka in the period 1840-1917. The standard deviations for women were around two years, sometimes even less, though with peaks up to three years.⁴⁸ The picture is less clear for men. In Malye Pupki, standard deviations were mainly around three years or less. In Bailovka, in half of the period it was less than three years, though in the period 1840-1879 it ranged up to four and above. The data from the cohort analysis confirms the hypothesis that tradition played a major role in determining the age at marriage. This data indicates that it was very unusual to marry after the age of 25 in Malye Pupki. Of the 105 men who married, 77% were under the age of 20 and only 3% were over the age of 25. Only 62% of the brides were under the age of 20 but no women married above the age of 25 (n=78).⁴⁹ The decision to marry had to be taken and implemented within a very short period. Actually getting married seems to have been more important than who to marry. Only a few people took the risk of postponing marriage, which suggests strong social pressure on marrying young.⁵⁰ Early marriages may possibly have been stimulated by land allocation practices by landlords and later village communities, sometimes allocating a full share of the common arable land to newlywed couples. Further research on the way the land was redistributed and how frequently this took place in specific villages in relation to the marriage pattern appears to be necessary. However, it is clear that individual social, economic and personal circumstances played only a minor role in determining the age at marriage in the Tambov parishes.

Conclusions

The data presented allows some brief conclusions to be made. The age at marriage in the Netherlands was determined mainly by social, economic and personal factors. The choice of the moment for marriage could be part of a life strategy of individuals and/or families. Different circumstances in different regions had serious effects on the average age at marriage of both men and women. Although the average age at marriage varied only slightly with time, it is clear that there were significant differences between several social groups

⁴⁷ Shustrova and Sinitsyna, 'Demographic behaviour'.

⁴⁸ Akolzina et al., 'A comparison'.

⁴⁹ Dyatchkov et al., 'Cohort analysis of Malye Pupki's population', 146-147.

⁵⁰ Compare Hoch, Serfdom, 77.

which were determined by socioeconomic factors. The large spread in the ages at marriage in the Netherlands indicates that there was no rigid tradition on when to marry. Men and women could just as well marry quite young around the age of 20, or wait till their thirties to give their consent.

The situation is less clear cut in Russia. The marriage pattern in the Olonets region more or less resembles that of the Netherlands, although men and women married some years earlier and there is less spread in ages. However, the spread in ages at marriage is not so small that one could think of a rigid tradition forcing people to marry around a specific age. There is also some indication of differences between social groups, but as the majority of the population is part of the large group of peasants, it is not easy to derive clear conclusions in this respect. Differences within the Yaroslavl region are large, which also points to socioeconomic factors and not only tradition playing a decisive role in determining the average age at marriage.

The Tambov region more or less stands apart. A very rigid marriage pattern with men and women all marrying before or just around the age of 20 was found in at least some of the villages. The spread in age at marriage is very low compared with other regions studied. This points to very restricted possibilities for deciding when to marry. Hence, economic and social factors seem to have been less important than elsewhere, even though there were some changes over time. The argument that marrying young was not at all a rational strategy, and certainly not if the land was not redistributed annually, has been put forward. The hypothesis for the explanation for the low ages at marriage and also for the measures taken by the landlords to stimulate these early marriages is that it stems from the past. Land was widely available in the seventeenth century so there was no reason to postpone marriage. The Law of Diminishing Returns for Labour did not yet apply as it did in the nineteenth century.

Hajnal's ideas concerning the different marriage patterns in the West and the East are largely confirmed by the findings. Low ages at marriage seem to correlate with a strong influence of tradition and measures from above (landlords), whereas high ages at marriage seem to correspond with social, economic and personal determinants of age at marriage. The regional variation in marriage patterns and the explanations for the differences observed suggest a slightly different dividing line than the one proposed by Hajnal. The data studied here suggest that the northern parts of Russia, as represented by the Olonets and partly also by the Yaroslavl regions, belong to a more western type marriage pattern where economic, social and personal circumstances played a major role in determining the average age at marriage for men and women. A marriage pattern largely shaped by tradition and with little room for personal choices is observed in the Tambov region and in some villages in the Yaroslavl region, and was possibly also of importance in many other parts of the Russian countryside.

Consistency in matters of life and death? Discriminating demographic patterns in Groningen, 1850-1920

Geurt Collenteur

Introduction

Describing the province of Groningen in the nineteenth century as peripheral may be justified in a geographical sense, but otherwise it is a misnomer. Groningen, situated in the extreme north-east of the Netherlands, did participate to some extent in the increasing economic importance of industrial production and trade by the end of the century. The eastern part of the province – the peat districts – temporarily became an area of important industrial development in the Netherlands and, at that time, the city itself was an important centre of trade and distribution.¹ These developments, however, were based primarily on the local supply of agrarian products. The continued agricultural orientation elsewhere in the province did more to shape its later image as a peripheral area economically.²

Agriculture had for a long time been the main source of welfare in the clay soil area and continued to be so well into the twentieth century.³ Industrial developments took place in the late nineteenth and early twentieth centuries, particularly in the south-east peat districts, but failed to turn the province into one of the more industrialized regions of the Netherlands. The average income in the province increased less significantly than the average national income so that this coastal province is considered by some people

¹ P. Kooij, 'Het Noorden en de Nederlandse economie: trekpaard of wingewest?', in: K. van Berkel, H. Boels and W.R.H. Koops (eds.), *Nederland en het Noorden* (Assen/Maastricht 1991)151-169; H.J. Keuning, *De Groninger Veenkoloniën: een sociaal-geografische studie* (Amsterdam 1933) 189-260; J.F. Voerman, *Verstedelijking en migratie in het Oost-Groningse veengebied 1800-1940* (Assen/Maastricht 2001) 95-159.

² H.J. Keuning, Mozaïek der functies: proeve van een regionale landbeschrijving van Nederland op historisch- en economisch-geografische grondslag (Den Haag 1955) 163-166.

³ P.R. Priester, De economische ontwikkeling van de landbouw in Groningen, 1800-1910. Een kwanitatieve en kwalitatieve analyse (Wageningen 1991); R.F.J. Paping, Voor een handvol stuivers. Werken, verdienen en besteden: de levensstandaard van boeren, arbeiders en middenstanders op de Groninger klei, 1770-1860 (Groningen 1995).

nowadays to be a colony of the more dynamic western parts of the Netherlands and also to have been this in the past⁴

But was Groningen really such a static and traditional society or is this impression only formed by comparing this province with western and southern regions in the Netherlands? These regions experienced massive changes, either because industrialization was concentrated there, as was the case in the western provinces, or because the region finally became strongly integrated in the national economy. Groningen, however, had already formed part of the coastal and national economy for centuries.⁵ It had acquired its relative importance by providing agricultural products to others – this specialization. In other words, opportunities for significant changes were few, if any. This does not mean that the province did not participate in many of the fundamental changes that turned the nineteenth century into an age of transition.

Provincial, regional and municipal demographic patterns will be considered here to determine whether Groningen shared the demographic transition that radically changed population growth and composition.⁶ This paper has its roots in the Integral History Project and therefore focuses particularly on the Groningen countryside.⁷ This scale offers the opportunity of employing more complex statistical methods to reconstruct and analyse demographic developments. The ultimate aim of this exercise is to identify regionally concentrated demographic patterns, that could be analysed in terms of local economic and social factors.

Demographic developments in the province of Groningen will be compared with those in other provinces in order to place the demographic development in its proper perspective. As the province of Groningen has varying soil conditions the developments in the clay and peat districts in Groningen will be considered separately. Subsequently, to determine whether social and economic differences (based on differences in soil conditions) could provide explanations for different demographic patterns in the province of Groningen, the approach will be reversed. Individual municipalities will be clustered independently of the existing soil condition into several groups with

⁴ See, for example, H.J. ter Bogt and H. Copinga, *Van agrarisch gewest naar moderne regio* (Groningen 1987); Kooij, 'Het Noorden', 153; M. Duijvendak, 'De provincie Groningen in de twintigste eeuw: een inleiding', *Gronings Historisch Jaarboek*, 7 (2000) 6.

⁵ For example, J. de Vries and A. van der Woude, Nederland 1500-1815. De eerste ronde van moderne economische groei (Amsterdam 1995) 58-60, 243, 245, 274-275, 815; Paping, Voor een handvol stuivers, 35-42.
⁶ See, for example, E.W. Hofstee, Korte demografische geschiedenis van Nederland van 1800 tot heden (Haarlem 1981) 142, Graph 1; J. Garssen and C. Harmsen, 'De toegenomen dynamiek van huishoudens', in: R. van der Bie and P. Dehning, Nationaal goed. Feiten en cijfers over onze samenleving (ca.) 1800-1999 (Voorburg 1999) 219-231.

⁷ See P. Kooij (ed.), Dorp naast een stad. Hoogkerk 1770-1914 (Assen 1993); P. Kooij (ed.), Where the twain meet. Dutch and Russian regional development in a comparative perspective 1800-1917 (Wageningen/Groningen 1998).

similar demographic behaviour, in search of geographically determined processes.

Groningen in a national demographic perspective

The demographic transition that took place in most European countries started rather later and lasted longer in the Netherlands.⁸ Aggregated data for births and deaths shows 1875 to be the year in which this prolonged development began. In countries like England and France, the transition was by then already nearing its final phase. It is not until nearly a century later, thus extremely late, that the transition in the Netherlands can be considered as completed. More importantly, the delay in completion can be attributed to a slow and hesitant decline in the birth rate, in particular among Roman Catholics and orthodox Calvinists, which caused the comparatively large increase in population experienced in the Netherlands during this period.⁹

Moving from a national to a provincial perspective offers the opportunity of studying the initial shift from high birth and death rates to lower and decreasing rates in more detail. A provincial breakdown of the data will give a more realistic idea of what actually took place in the second half of the nineteenth century (Tables 1 and 2). This also allows the demographic developments that took place in the province of Groningen around the turn of the century to be placed in perspective.

The first point to note is that the figures on death and birth rates presented here do not necessarily accurately reflect the demographic transition as depicted earlier. The notion that 1875 was the turning point in the demographic behaviour is based primarily on the number of births and deaths each year. The rates in Tables 1 and 2 are presented here as 10-year averages so that in many cases the most remarkable changes appear to have taken place in a later decade than was perhaps expected.

Throughout Europe the demographic transition normally started with a *sustained* decrease in death rates and this was also the case in the Netherlands.¹⁰ Although the data per decade may hide relevant swings in the provincial death rates, it seems fair to suggest that in most provinces the downturn in the death rate occurred in the 1870s or later (Table 1). The two northern agricultural provinces of Groningen and Friesland and the western provinces of North and South Holland and Zeeland began the transition first,

⁸ Hofstee, Korte demografische geschiedenis, 142; Garssen and Harmsen, 'De toegenomen dynamiek'; E.A. Wrigley and R.S. Schofield, The population history of England (London 1981); M. Anderson (ed.), British population history from the Black Death to the present day (Cambridge 1996); J. Vallin, La population française (Paris 1994).

⁹ T. Engelen and J.H.A. Hillebrand, 'De daling van de vruchtbaarheid in de negentiende en twintigste eeuw. Een historiografisch overzicht met bijzondere aandacht voor Nederland', *Bijdragen en Mededelingen betreffende de Geschiedenis der Nederlanden*, 105 (1990) 354-367.

¹⁰ For instance, M. Anderson, Population change in North-Western Europe, 1750-1850 (Basingstoke 1988).

i.e. decreasing birth rates occurred first in the clay zones of the Netherlands. It is tempting to suggest this is a common characteristic, but a comparison of the initial levels of death rates reveals a distinct split within these coastal provinces. The northern provinces started from a relatively low level of mortality, whereas the western provinces were the most unhealthy places to live in. Particularly instructive is the case of Zeeland, like Groningen and Friesland an agricultural province, but with an even higher level of mortality than the urban and industrializing provinces of Holland. Whatever their starting level, by the turn of the century all had reached a roughly comparable, substantially lower, level of mortality. Friesland and Groningen still stood out, also in comparison with the inland provinces that had a low initial death rate.

Table 1 Death rates in Dutch provinces, 1850 - 1900 (‰)

	1850-59	1860-69	1870-79	1880-89	1890-99
Groningen	24.34	24.16	23.84	19.38	17.46
Friesland	23.45	23.34	21.79	21.11	17.04
Drente	23.06	24.16	22.50	23.64	20.22
Overijssel	25.14	26.13	25.17	25.85	20.99
Gelderland	22.85	24.55	23.59	23.55	20.03
Utrecht	28.39	29.24	28.56	27.27	21.31
N. Holland	31.34	28.48	27.00	26.63	19.26
S. Holland	32.60	32.05	31.07	28.16	20.84
Zeeland	33.40	30.02	26.82	23.61	19.07
N. Brabant	23.78	24.81	25.83	26.95	22.97
S. Limburg	23.42	23.88	23.88	23.88	20.85
Netherlands	25.99	27.05	26.23	25.44	20.14

Source: Calculated from C.A. Oomens, *De loop der bevolking van Nederland in de negentiende eeuw*: CBS Statistische Onderzoekingen M35 (The Hague 1989).

According to conventional demographic wisdom, areas with a lasting relatively low death rate, such as Groningen and Friesland, also tend to have lower birth rates. As is sometimes the case with conventional wisdom, this is not quite true for either province (Table 2). Initially, neither had remarkably low or high birth rates compared to, on the one hand, the western provinces with high rates, and, on the other hand, the southern provinces of North Brabant and Limburg which had low levels of fertility.

Without exception, the Dutch provinces witnessed increasing birth rates during the third quarter of the nineteenth century. The increase varied from six per thousand for the period 1850 to 1880 in North Brabant, to one per thousand in the case of North Holland. Most other provinces, including Groningen, saw an increase ranging from 2 to 3‰ in this 30-year period. The rise in birth rates continued in the next decade, except in the modern agricultural provinces of Groningen, Friesland and Zeeland. The agrarian depression of the 1880s and early 1890s seems to be a logical explanation for the cause of this downturn. By the end of the century, all provinces showed decreasing birth rates. The national average of just above 40‰ in the 1880s fell to a considerably lower level while provincial rates converged. The Groningen contribution was remarkably modest; the provincial birth rate had its sharpest drop a decade earlier. Just as in the case of provincial death rates, the two most northern provinces had the lowest birth rates and in addition, Groningen experienced its significant decrease in both rates a decade earlier than the other provinces.

Table 2 Birth rates in Dutch provinces, 1850-1900 (%)

	1850-59	1860-69	1870-79	1880-89	1890-99
Groningen	34.19	35.47	37.15	33.78	32.22
Friesland	33.73	35.09	36.24	35.05	29.69
Drente	32.94	35.31	35.65	37.48	35.44
Overijssel	33.29	34.70	35.24	37.67	34.40
Gelderland	32.85	34.65	34.47	37.18	33.07
Utrecht	36.35	38.07	38.79	42.03	35.89
N. Holland	38.05	38.22	39.07	42.36	33,61
S. Holland	41.47	42.82	43.46	45.38	36.79
Zeeland	41.11	43.57	42.75	40.42	35.20
N. Brabant	29.20	32.20	35.20	37.97	34.25
S. Limburg	31.00	32.65	34.12	35.92	32.92
Netherlands	35.44	37.06	38.05	40.02	34.18

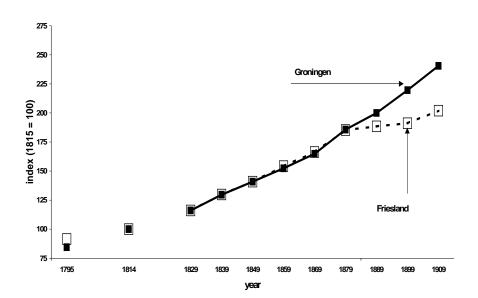
Source: see Table 1.

The demographic transition in the Netherlands, when viewed at a provincial level, was far from evenly distributed over the country. Historians and demographers usually explain this lack of a national pattern by pointing to the distinctly different developments in the southern parts of the country compared with those in the western provinces.¹¹ This seems justified in terms of their respective contributions to the national aggregate. The early phase in the northern provinces deserves more attention, however, when trying to understand the process of transition itself. In many respects these agricultural

¹¹ Hofstee, *Korte demografische geschiedenis*; A.M. van der Woude, 'De demografische ontwikkeling van de Noordelijke Nederlanden 1500-1800', in: D.P. Blok et al. (eds.), *Algemene Geschiedenis der Nederlanden* 5 (Haarlem 1980); O.W.A. Boonstra and A.M. van der Woude, 'Demographic transition in the Netherlands. A statistical analysis of regional differences in the level and development of the birth rate and of fertility', *A.A.G. Bijdragen* 24 (1984) 1-57.

provinces were ahead of developments by at least a decade. This is remarkable, because the northern area does not stand out for its economic or cultural dynamics.

Figure 1 Population growth in Groningen and Friesland, 1795-1910



The patterns of demographic change in Groningen and Friesland show clear parallels in both the level and the evolution of their birth and death rates in the nineteenth century. Seemingly, these areas had a demographic pattern of their own, identified by a kind of immunity to sharp swings in birth and death rates that occurred in most of the other provinces after 1850. Initially, birth rates did rise somewhat, but not to the extent that they did in the western provinces. The subsequent downward movement came at least a full decade earlier. Death rates also decreased, but the drop was modest in comparison with the national trend. Even so, by the turn of the century these provinces had the lowest rates in the Netherlands.

In fact, these areas showed clear agricultural, that is traditional, demographic behavior. The absence of an important non-agricultural economic sector restrained the increase in birth rates shortly after 1850, an increase normally associated with growing numbers of (industrial) labourers.¹² The

¹² For example, R. Lesthaeghe and C. Wilson, 'Modes of production, secularization, and the pace of fertility decline in western Europe, 1870-1930', in: A.J. Coale and S.C. Watkins (eds.), *The decline of fertility*

stability of the demographic pattern is emphasized when measured in terms of the resulting population growth (Figure 1).¹³ Both provinces experienced exactly the same population growth rate during most of the nineteenth century, but there was a significant difference from the 1880s onwards when the growth rate in Friesland fell to almost zero for two decades.

The agriculturally dominated economy in the northern area set strict limits on the number of people that could be supported. Birth rates could be used to accommodate population size to economic circumstances given the prevailing mortality rates. In the long term this can be an effective way of avoiding Malthusian dangers but in the short term, the efficiency of a marriage pattern dedicated to limiting the number of children is restricted. Outmigration was a more reliable answer, also for Groningen and Friesland, where the relatively small fluctuations in birth and death rates were compensated by changing migration rates.¹⁴

In the short term a sharp and sudden deterioration in economic circumstances, such as the depression which hit the capitalistic agricultural areas in the 1880s and early 1890s, cannot be balanced by an immediate drop in the number of children born. Economic hardships, therefore, result in increasing death rates and growing outmigration; both options result in adapting population size to the economic possibilities. Groningen and Friesland differed strongly in their reaction to the agrarian depression, resulting in a different growth pattern which lasted well into the next century. Birth and death rates in Groningen continued to fall substantially, whereas in Friesland in the 1880s the decline was not nearly as significant. At the same time, migration from both provinces increased, but here the Frisians outperformed Groningen. People already left Friesland in larger numbers before 1880, but in the 1880s and 1890s the rate was twice that for Groningen. Clearly, Friesland had more difficulty in mitigating the adverse effects of the agrarian depression. An increase in population size was not feasible under the depressed economic circumstances and large numbers of people had to leave the province to try their luck elsewhere. Although the economic consequences of the depression were the same for agriculture in Groningen, the province was able to support an uninterrupted growth in its population.

in Europe (Princeton 1986) 261-292; J.C. Brown and T.W. Guinnane, 'Fertility transitions in a rural, Catholic population: Bavaria, 1880-1910', *Population Studies*, 56 (2002) 35-49.

¹³ C.A. Oomens, De loop der bevolking van Nederland in de negentiende eeuw: CBS Statistische Onderzoekingen M35 (The Hague 1989) 46-49; Uitkomsten der negentiende tienjaarlijksche volkstelling, gehouden op den een en dertigsten december 1909 (The Hague 1911).

¹⁴ Oomens, *De loop*, 35; R. Paping, 'Groei en stagnatie. De bevolkingsontwikkeling in Groningen', *Gronings Historisch Jaarboek*, 7 (2000) 44-47; H. de Vries, *Landbouw en bevolking tijdens de agrarische depressie in Friesland (1878-1895)* (Wageningen 1971); A. Galema, *Frisians to America, 1880-1914: with the baggage of the fatherland* (Groningen 1996).

Dividing up the province

There is an obvious explanation for the ability of Groningen to maintain population growth during and after the agrarian depression. The province was less economically homogenous then Friesland and more comparable to a province such as Utrecht, with its many different economic zones. Large-scale, capitalistic agriculture dominated the sedate clay area in Groningen in contrast to the more lively peat districts where the industrial and service sectors were growing rapidly.¹⁵ Figure 2 shows the geographical division of municipalities in the province of Groningen into those in either the clay or the peat area.

Although this contrast plays down the role of the agricultural sector in the peat districts, it is fair to say that these districts offered more economic opportunities for starters on the labour market. These better economic prospects, together with the different economic structure, probably helped to reduce the provincial outmigration in the 1880s and 1890s. Firstly, the agrarian depression affected economic conditions in two opposing ways. Farmers in the peat districts were naturally also hit by declining agricultural prices, but this was (at least partially) offset by the resulting decline in cost-of-living for labourers and others who were not dependent on the agricultural sector. Secondly, the increasing importance of non-agricultural economic activities offered alternative opportunities for those who could no longer earn their income in agriculture. The same is true for those whose income was affected by the decline in spending power of the large farmers.

As well as offering possibilities for those who, under other circumstances, would have had recourse to migration, the existence of a large non-agrarian sector might have influenced overall birth and death rates. Economic growth in the peat districts was far less restricted by the availability of fertile land and the relatively slow increase in productivity in agriculture. Potentially, the peat districts offered possibilities for increasing numbers of industrial and service labourers, whereas in the clay area the possibilities for more labour declined, rather than increased. This might have resulted in a less strict marital pattern and higher fertility in the peat area, thus pushing up the birth rate. Death rates, on the other hand, were likely to be less influenced in the peat districts due to the absence of large urbanized areas, with their adverse effects on death rates.

¹⁵ Paping, Voor een handvol stuivers, passim; Keuning, De Groninger Veenkoloniën; P. Kooij, 'De eerste urbanisatie en industrialisatiefase in de Groninger veenkoloniën', in: H. Voogd et al., Van het verleden naar de toekomst (Groningen 1990) 109-134.



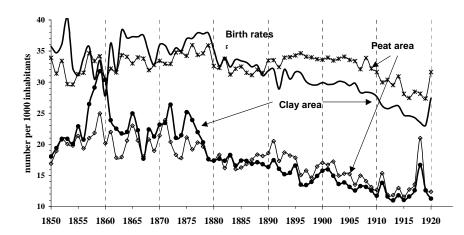
Figure 2 Groningen municipalities divided in to those on clay or peat

In order to disentangle different and possibly opposing demographic trends and to obtain a clearer view of demographic developments in the clay and peat areas the province of Groningen will be divided into many smaller areas. In the first instance, the consideration of different variables on an aggregate level will shed some light on demographic patterns in the clay and peat districts. After that an attempt will be made to validate the findings by building clusters of municipalities with the same demographic pattern. This clustering procedure is a way of testing the significance of results found at the aggregate level.¹⁶

¹⁶ Clustering here means the application of a statistical technique designed to bring together in distinct, but more or less (demographically) homogeneous groups all municipalities that make up the province of Groningen (excluding the city of Groningen and the town of Haren). See also Appendix A.

Dividing birth and death rates along the lines of clay and peat suggests that a reversal of the demographic position took place between 1880 and 1890 (Figure 3).¹⁷ Before that period, the clay area had consistently higher rates than the peat districts, but after 1890 the peat districts clearly showed a higher birth rate and a somewhat higher death rate. Close inspection reveals a pattern in the clay area which strongly resembles a classic demographic transition. Starting in the 1870s, the decrease in the death rate was somewhat greater than that of the birth rate, thus increasing the population pressure precisely at the time that the agrarian depression hit this area. On the other hand, changes were much more gradual in the peat districts, making it difficult to describe them in terms of a transition. Fluctuations became smaller, but the overall picture is one of a slowly decreasing death rate, combined with a stable birth rate. Consequently, population growth in the peat area outperformed that of the clay districts, in particular after 1880.

Figure 3 Birth and death rates in the clay and peat districts of Groningen, 1850-1920



The number of inhabitants in the peat area surpassed that of the clay area shortly after the turn of the century because of a slow down in the population growth in the clay area. As natural growth in the clay area tended to increase rather than decline, the slow down in population growth must be attributed to an enormous increase in outmigration which reached the same level as outmigration from Friesland. From the 1850s, the clay area experienced higher net outmigration than either the peat districts or the province as a

¹⁷ Calculated from *Statistiek van den loop der bevolking van Nederland* over 1880-1900 (The Hague 1881-1901).

whole.¹⁸ Shortly before 1880, the number of people leaving the area and heading for the city, the newly industrializing peat municipalities or places further away or across the ocean, rose to an exceptionally high 1 per cent or more per year. This massive rate of departure lasted for more than the next 30 years and brought population growth in this agricultural area down to something less than an annual 0.5 per cent.

Although this growth rate was slightly higher than that for Friesland, it is safe to assume that the Groningen clay area and Friesland shared a common demographic pattern. Falling death rates forced down birth rates and when this was insufficient to balance the population in the short term within the limits of agricultural growth, increased emigration was the only solution.

The role of outmigration in adjusting population size to economic swings in an agricultural environment, however, is limited to short-term adjustments. In the long run, birth rates must and will adapt, thus minimizing the role of outmigration. Changes in birth rates reflect changes in marital fertility - the number of children born to 1,000 married women per year (MFR) - or by nuptuality, that is the number of women aged 15 and over being married (NUP). Marital fertility depends on a number of factors, including age at marriage and the use of contraceptives. Data on both marital fertility and nuptuality is available for the census years 1879, 1889 and 1909 for almost all the municipalities in the province of Groningen. Hans Hillebrand, who published the data, calculated a 5-year average for the number of births based on these census years.¹⁹ He used census data to derive the number of married women as well as to determine the level of nuptuality. It should be emphasised here that both marital fertility and nuptuality mirror economic conditions and changes to a large degree. These demographic characteristics can, therefore, be used as indicators of economic circumstances.

The number of children born per 1,000 married women each year decreased in the years between 1880 and 1910. The clay and peat districts again showed clearly different patterns in this respect (Table 3). Marriages in the clay area in 1880 were, on average, more fertile than those in the peat region, but a decade later there was almost no difference. It is tempting to suggest that this rapid decrease in marital fertility was caused by the agrarian depression, but other data indicates that this decrease had started at least a

¹⁸ R.F.J. Paping, 'Gezinnen en cohorten: arbeidsstrategieën in een marktgeriche agrarische economie: de Groningse kleigebieden 1830-1920', in: J. Kok et al., *Levensloop en levenslot. Arbeidsstrategieën van gezinnen in de negentiende en twintigste eeuw* (Groningen/Wageningen 1999) 17-88, esp. 29-31.

¹⁹ J.H.A. Hillebrand, Van motivatie tot acceptatie. Een onderzoek naar de daling van de vruchtbaarheid in de provincies Utrecht en Groningen, 1879-1960 (The Hague 1991) Appendices B1 and B2.

decade before 1880.²⁰ No doubt, however, fertility in the clay area between 1880 and 1890 was also affected by the depressed economic circumstances.

Table 3 The Marital Fertility Rate (MFR) in the Groningen countryside, 1879-1909

		MFR 1879	MFR 1889	MFR 1909
Clay area	Mean	202	184	146
N=36	St. deviation	17.4	18.8	20.8
	Minimum	170	142	118
	Maximum	253	226	182
Peat area	Mean	189	186	171
N=19	St. deviation	9.0	14.8	29.8
	Minimum	177	152	91
	Maximum	210	205	225
Province	Mean	198	185	154
N=55	St. deviation	16.3	17.4	25.2
	Minimum	170	142	91
	Maximum	253	226	225

Source: Hillebrand, Van motivatie, Appendices B1 and B2.

The marital fertility rate in the clay region continued to decrease at much the same pace between 1890 and 1909. At the same time, a very slow decrease started in the peat area. The dispersion figures shown in Table 3, however, indicate a far from homogeneous marital fertility rate throughout the regions. The figures indicate that the pattern remained fairly consistent in the peat region only until 1890. When the number of children per marriage decreased in the following decades the variation among the municipalities increased here also. A logical explanation is that the process occurred at different times. This not only means that parts of the clay area were clearly ahead, but it also implies that in a part of the peat area the transition was most rapid after 1890.

Increasing numbers of women marrying, a characteristic of the demographic changes that took place in the nineteenth and twentieth centuries, tends to offset the effects of lower marital fertility. If more women in their productive years have fewer children, the relative weights of MFR and NUP determine whether birth rates will decrease or not. Both marital fertility and birth rates fell in Groningen and that might have improved the chances of marrying. In this respect, it is striking to see nuptuality decline during the 1880s in both regions (Table 4). If a case was needed to show the strong relationship between economy and demography in an agricultural setting, this

²⁰ Birth rates fell after 1870; the percentage of married women in the age groups 25-29 and 40-44 increased from 1869 onwards. Hofstee, *Korte demografische geschiedenis*, 122-123, 128-129.

is it! Young people not only deferred marriage, but also did not marry at all, at least until the late 1890s. As in the case of marital fertility, however, the pattern was not consistent throughout the province, as is clearly shown by the dispersion figures.

		NUP 1879	NUP 1889	NUP 1909
Clay area	Mean	531	517	550
N=36	St. deviation	30.5	35.0	30.0
	Minimum	458	436	512
	Maximum	587	612	628
Peat area	Mean	536	525	570
N=19	St. deviation	30.5	35.5	30.0
	Minimum	495	462	507
	Maximum	594	578	613
Province	Mean	533	521	560
N=55	St. deviation	30.5	35.5	31.8
	Minimum	458	436	507
	Maximum	594	612	628

Table 4 The Nuptuality Rate (NUP) in the Groningen countryside, 1879-1909

Source: see Table 3.

Table 5 Development of the death rate in the Groningen countryside, 1879-1909

		Death rate 1879	Death rate 1889	Death rate 1909
Clay area	Mean	18.7	16.9	12.9
N=36	St. deviation	1.6	1.3	1.6
	Minimum	14.8	13.9	9.7
	Maximum	21.7	20.7	16.6
Peat area	Mean	18.4	18.5	13.9
N=19	St. deviation	1.2	1.3	0.9
	Minimum	13.6	16.0	11.5
	Maximum	20.1	21.1	15.8
Province	Mean	18.6	17.6	13.4
N=55	St. deviation	1.5	1.5	1.4
	Minimum	13.6	13.9	9.7
	Maximum	21.7	21.1	16.6

Source: see Table 3.

Unlike marital fertility and the birth rate, nuptuality developed along more or less the same lines in both the clay and the peat regions after 1890 when more and more women could benefit from marriage. This explains why the substantial fall in marital fertility resulted in a less significant decrease in birth rates for the province.

Death rates showed a more consistent pattern in the years between 1880 and 1910. The reversal in the relative positions in the 1880s, noted earlier in Figure 3, is reflected in Table 5 and the differences between the clay and peat districts are relatively small. Nonetheless, a wide variation in death rates, although only for a small number of municipalities and with no clear-cut pattern for either region, is seen when the ranges are compared.

When the demographic patterns for the clay and peat areas are considered independently, the main impression given by Tables 3 to 5 is one of tendencies rather than certainties. It seems that the clay area had more traditional characteristics to begin with, but from about 1870 onwards, it evolved rapidly along the lines of a demographic transition into a demographically modern area. The peat region, in contrast, was more modern to begin with. Levels of, and fluctuations in, the birth and death rates prior to the 1880s resembled those found for the clay area – and for other provinces – after that date. There was no distinct demographic transition, at least until well into the twentieth century. But this rather neat picture loses credibility when confronted with the data at the municipal level. Although the differences set out above are statistically significant overall, the variance within the two groups gives reason for concern.

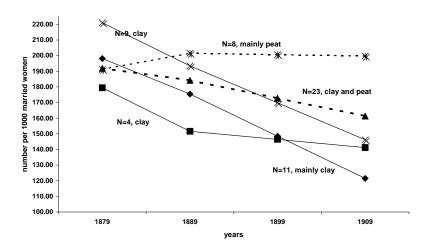
Reconstructing the province

It must be emphasized that the greater part of what has been said above only holds if the existence of clear-cut demographic patterns, strongly related to (local) economic, social and cultural circumstances, is a priori expected. Differences within these areas become manifest when these districts, regarded as homogeneous in an economic, social and cultural sense, are split up into municipalities. Ultimately, both the peat and the clay areas can be divided into their separate municipalities, each with a slightly different demographic pattern. After a certain stage, however, it is more useful to invert the question and look for groups of municipalities sharing common characteristics that set them apart from other groups. The more difficult question concerns the boundaries between groups: which groups of municipalities balance internal cohesion with external discrimination?

Statistical approaches, such as clustering, can help to identify the right groups of municipalities. In this case, what is needed are groups of municipalities that have shared demographic characteristics and developments. If the number of clusters remains relatively small, it might be possible to identify areas with a common pattern or set of circumstances that determined the pattern. The clustering model applied here takes into account the initial levels and subsequent developments of marital fertility, death rate and nuptuality (see Appendix A for a short explanation) but does not take into account changes in levels of outmigration for the municipalities. Migration emphasizes the tensions between population size and economic opportunities. As the clustering procedure is a way of determining patterns rather than their consequences, this is an important reason for leaving out migration.

The resulting clusters differ in both timing and the pace at which levels of marital fertility, death rates and nuptuality decreased, thus creating a representation of elements of a demographic transition. For the sake of brevity, results for marital fertility and death rates only are summarized here. Differences in nuptuality did exist, but all clusters to a large extent showed the same development of decreasing nuptuality, followed by a sizeable increase in the number of married women. A tendency for the clay area to have a smaller number of women ever getting married is perhaps revealed.

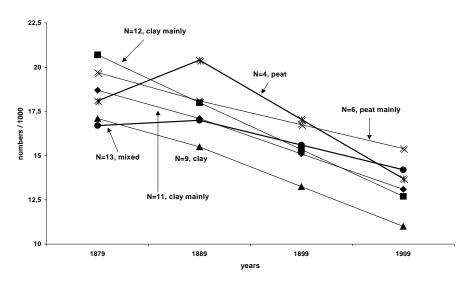
Figure 4 Clustering of Groningen municipalities based on developments in marital fertility



To begin with, marital fertility was found to have decreased overall, but clustering into five groups revealed the presence of 8 municipalities where marital fertility initially increased and then remained constant at a high level (Figure 4). These cases were concentrated in the south-eastern and southwestern peat districts of the province. The majority of the municipalities were found in another cluster, characterised by a slow but continuous decrease in marital fertility. Although these municipalities were from all areas of the province, there was a concentration in the east and south-east region. None of the peat districts showed a fast and considerable drop in marital fertility and

such a development could be found in the clay districts only. In the 1880s, these communities showed the same rate of decrease in marital fertility, albeit at three different levels. The initial levels increased from west to east suggesting a difference in timing of this downward movement. This is corroborated by developments after 1880, when the decrease in marital fertility diminished in four western municipalities with the lowest initial level. Thus substantial decrease in marital fertility occurred mainly in the clay area and probably started as early as around 1860 in the western municipalities, thereafter spreading to the east.

Figure 5 Clustering of Groningen municipalities based on developments in death rates



Death rates present a rather difficult picture to elucidate in terms of geographical diffusion and the pattern followed (see Figure 5).²¹ All the clusters eventually showed tangibly lower death rates just before the outbreak of World War 1. The absence of convergence over the period and the rise in death rates in the 1880s in a significant number of villages is noteworthy. Higher mortality was found in both clay and peat districts, but the latter suffered from a more general and much more pronounced rise in death rates. After 1890 death rates there began to fall, thus partially bridging the gap between rates in the clay areas and those in the peat areas. Low and rapidly decreasing death rates were shown in the northern clay areas in particular and from here decreasing death rates spread southwards.

 $^{^{\}rm 21}$ See Table 6 for the data used.

The pattern of decrease in marital fertility pointed towards diffusion from west to east as opposed to the diffusion of declining death rates from north to south. By the 1910s the peat areas, located in the south, south-west and south-east, were least affected by changing demographic circumstances. In this respect, the clustering procedure confirms the earlier findings of consistently different patterns for the clay and peat areas. More importantly, it helps to explain the variation within these two patterns by suggesting that differences in timing played a part. Helpful as this may seem, it is also a drawback. Given the directions of diffusion it is very likely that the overall clustering model will return fairly fragmented and indistinct clusters. The clash of diffusion directions could well result in the ruination of the model.

To determine whether local social, economic and cultural circumstances might indeed explain regional variation in demographic behaviour the three main demographic variables were used together in a multidimensional clustering procedure. The final clustering process stopped at four clusters in accordance with the decision rules set out in Appendix A. These clusters represent distinct demographic patterns, divided along the lines of both level of and change in marital fertility, death rates and nuptuality. At this point it should be remembered that the clustering procedure is not intended to create an explanation of demographic patterns.

There are two opposing clusters within the province of Groningen (Table 6), both showing regional concentration, one in the clay soil area and the other in the peat and sand districts (see Figure 2). Hence, it is safe to conclude that they represent different social and economic circumstances. The first cluster is located in the clay area only with all municipalities being adjacent and concentrated in the northern part of this area.²² Around 1880 there were relatively few married women in this more modern agricultural area. Although the likelihood of marriage increased towards the beginning of World War I, the number of married women remained low when compared with other regions in the province. Initially, those who married gave birth to a relatively high number of children. Family size on average must have been larger than elsewhere, given the moderate and decreasing death rate. Death rates decreased sharply towards the end of the century, resulting in very low death rates indeed. Family size did not, however, increase because of a substantial fall in marital fertility. In practice family size decreased, resulting in relatively small, mainly nuclear, families.

It is difficult to be precise without relating this pattern to data on local economic and social structures, but it seems that modern agricultural circumstances were largely responsible for the developments. Capitalist farmers

²² Cluster 1 comprises the municipalities of Kloosterburen, Eenrum, Baflo, Bedum, Kantens, Usquert and Uithuizermeeden.

dominated the area and provided labour opportunities for a good many other people.²³ Their income benefited the region either directly by hiring or indirectly by using services of local craftsmen. In the second half of the nine-teenth century they increasingly used labour-saving equipment and thus provided income for fewer labourers. Because of increasing difficulty in providing a farm for more than one child, there were good reasons to restrict the size of their families. The labourers, faced with declining employment, may have reacted in much the same way. The rapidly decreasing death rate testifies to the success of this policy. Thus marital fertility and nuptuality, reinforced by outmigration during the agrarian depression of the 1880s, restricted population growth in this area.

Table 6 Municipalities clustered by level and development of marital fertility rate(MFR), death rate and nuptuality (NUP), 1879 - 1909

Area	Year	MFR	Death rate ‰	NUP	Ν
Cluster 1	1879	216	17.6	512	7
Clay area only	1889	188	15.5	491	
	1899	163	13.2	510	
	1909	139	10.8	530	
Cluster 2	1879	201	18.6	552	20
	1889	186	16.9	540	
	1899	166	15.0	557	
	1909	147	13.0	574	
Cluster 3	1879	196	18.1	546	14
Peat area only	1889	189	18.9	538	
	1899	186	16.7	561	
	1909	183	14.5	584	
Cluster 4	1879	187	19.3	504	13
	1889	177	17.4	484	
	1899	162	15.4	507	
	1909	147	13.3	530	

Source: Hillebrand, *motivatie*; CBS, *Volkstellingen*; Oomens, *De loop*; Departement Binnenlandse Zaken, *Statistiek*.

The opposite cluster (Table 6, cluster 3) shows clearly what demographic pattern must be held responsible for the continuing population growth in the peat area after 1880.²⁴ Nuptuality was nearly 10% higher in 1880 and increased towards the time of the outbreak of World War I. More impor-

²³ Paping, Voor een handvol stuivers; Priester, De economische ontwikkeling.

²⁴ Cluster 3 comprises the municipalities of Grootegast, Oldekerk, Marum, Leek, Muntendam, Meeden, Oude Pekela, Wildervank, Midwolda, Onstwedde, Vlagtwedde, Bellingwolde, Nieuweschans and Beerta.

tantly, the increasing number of women who married showed only a minor decrease in marital fertility; while the figure was just above average around 1880 it was very high for the Groningen province early in the twentieth century. Much the same is true for the local death rates; while they were moderate at the beginning of the period, the municipalities in this cluster were the only ones to show an increase in death rates in the 1880s. Despite the subsequent decrease, mortality was high for Groningen in 1909, although rather low in a national perspective. Hence, the relatively high number of larger families in these municipalities resulted in persistent population growth, only partially balanced by the local death rates.

It is tempting to identify this pattern with the persistence of traditional agricultural behaviour. The municipalities concerned are known neither for their industrial developments nor for their advanced agriculture.²⁵ On the contrary, small-scale and low productive agriculture was the norm. In some districts, peat digging still went on and stretches of uncultivated land were available. This short description will suffice to indicate that both farmer and labourer found it difficult to survive and the death rates corroborate this statement. On the other hand, labourers did not depend on agricultural labour only, peat and canal digging offered alternative sources of income. Early in the second half of the nineteenth century, young people had more opportunities for earning an income and these possibilities increased with the advent of small and large-scale agrarian industries. For those seeking employment as non-agricultural labourers in particular, there was no point in postponing marriage until a stable income position had been achieved. This may account for the higher nuptuality in these municipalities. Once married the tradition of restricting the family size was continued, but there was clearly no need felt to move to lower marital fertility.

Although this contrast between the clay and peat areas may seem to be convincing, the truth is that the majority of the Groningen communities seem to have shared a similar demographic pattern (Table 6, clusters 2 and 4). These municipalities can be found in both the clay and peat areas. Interestingly enough, they may be described as geographically intermediate zones between the clay and peat areas comprised of municipalities in clusters 1 and 3 respectively. They are located between the typical municipalities in the northern clay area and the typical peat municipalities in the west and east of the province of Groningen.²⁶

²⁵ See, for example, F. Post, A.C. van Oorschot and J.J. v.d. Heide, *De geschiedenis van Westerwolde 3: De middelen van bestaan* (Groningen 1993) 27-57, 96-125.

²⁶ Cluster 2 comprises the municipalities of Ulrum, Oldehove, Ezinge, Adorp, Hoogkerk, Noorddijk, Ten Boer, Stedum, 't Zandt, Bierum, Delfzijl, Termunten, Nieuwolda, Finsterwolde, Scheemda, Wedde, Noordbroek, Zuidbroek, Hoogezand and Slochteren. Cluster 4 comprises the municipalities of Grijpskerk,

These intermediate clusters share the same level and development of their respective death rates. They both had relatively high death rates around 1880 which then rapidly decreased to reach the same level shortly before the outbreak of World War I. Marital fertility levels in the 1880s in both clusters resemble the situation in the peat municipalities (cluster 3) but with a different development between 1880 and 1910. The pace of the decrease in marital fertility was more that of the typical clay area (cluster 1), resulting in a level of marital fertility in 1910 which was only slightly higher than in that area.

It is tempting to merge both clusters into one, but the difference in nuptuality between both clusters throughout the period is statistically significant. Although both clusters show a small increase in the number of married women towards 1910, the levels differ by as much as 5% or more. This difference could perhaps be attributed to a division into more agricultural areas on the one hand and more industrialized municipalities on the other. It would be reasonable to expect municipalities in cluster 2 - resembling those from the clay rather than the peat area - to be economically more dependent on modern capitalistic agriculture. By contrast, those in cluster 4 might be expected to depend more on non-agrarian economic activities, combined with small-scale agriculture. To some extent this is actually the case. However, the number of municipalities known to be dependent on modern agriculture, such as Leens, Warffum and Uithuizen, for example, appearing in cluster 4 (resembling the typical peat area) is reason for concern. It is true that they have the same level of nuptuality as municipalities in the clay area, but they also have a lower initial level of marital fertility and a smaller decrease. A relatively high death rate around 1880 also sets them apart from the typical clay area. To be able to pinpoint the reasons for this situation it would be necessary to investigate each municipality separately, which is beyond the scope of this paper.

Concluding remarks

The clustering procedure has resulted in elements of a true demographic transition being seen in different areas of the province. What stands out is a very strong connection between death rates and marital fertility, which moved in parallel and at the same pace in all the clusters. In this respect conventional wisdom about the demographic transition is confirmed once again. More interesting is that differences in economic and social circumstances are very helpful in explaining the observed demographic differences. Although no clear-cut dichotomy between the clay and peat regions resulted from the

Zuidhorn, Leens, Winsum, Warffum, Uithuizen, Middelstum, Loppersum, Appingedam, Sappemeer, Veendam, Nieuwe Pekela and Winschoten.

clustering procedure, the beginnings of such a dichotomy were found in clusters 1 and 3. Here it is safe to point to distinct socioeconomic systems as a plausible explanation.

Demographic patterns changed substantially everywhere in the province in the second half of the nineteenth century, but least so in those municipalities that comprised the typical peat districts in the south west and south east (south-Westerkwartier and Westerwolde). The main development here was a decrease in death rates, albeit a small one when compared with all other municipalities in the province. Economic and social developments here were apparently small and slow. In contrast, developments elsewhere were more pronounced, with those in some of the northern municipalities in the clay area (all situated in Hunsingo or the Hoogeland) being the most impressive. A rapid development of agricultural productivity together with the agrarian crisis of the 1880s may account for the pace of the demographic changes.

Whether or not the demographic patterns of the zones in between the northern clay and the southern peat areas can be attributed to local socioeconomic circumstances remains doubtful. The clustering procedure resulted in two intermediate clusters that cannot be merged into one cluster. Unfortunately, the areas involved in both clusters had different socioeconomic systems, varying from being strongly oriented towards modern agriculture to an important and increasing orientation towards large-scale (agrarian) industries. Specific clay and peat patterns did exist, but were confined to a minority of the municipalities involved.

Appendix A: The clustering model

The ultimate aim was to obtain clusters that showed internal consistency on all demographic variables. In other words, the quest was for a denominator that minimized internal stress without producing mutually penetrating groups for any of the relevant variables. Data on marital fertility, death rates and nuptuality for all 55 municipalities making up the province of Groningen (the city of Groningen and the nearby town of Haren were excluded) were used simultaneously in the model. All data were constructed or reconstructed to represent 5-year averages centred on one census year.

Ward's hierarchical clustering method is an adequate procedure technically, given the nature of the results required. Other procedures produce clusters with either minimal internal or minimal external stress or give prevalence to one variable, while adapting the other(s). Ward's hierarchical clustering is preferred over other forms of clustering because it forms new clusters by dividing previous ones, thus providing a kind of guarantee for the easy reunion of two cognate clusters. A complete series of clustering procedures was performed with the help of SPSS, beginning with individual variables. Such a strategy is required to judge whether full clustering, using all variables, has indeed brought together discriminating individual patterns in one multidimensional cluster.

The final result will ideally display distinct demographic patterns with small internal variance. The latter can be verified statistically, but to decide whether a pattern is indeed distinct includes a strong personal element. This is also true for the number of groups produced, which can range from 2 to 55. Criteria (or rather decision rules) were introduced in order to obtain a manageable number of distinct groups. Neither the clay nor the peat districts showed variability consistent with a single group only, so a minimum of three groups was assumed. The maximum number of clusters was limited to six in the light of the total number of cases. The optimal number of clusters depended on several factors. The process of adding a new cluster was ended when the addition would have resulted in a group of less than four municipalities. The same applied when the statistical distance (stress) of the added cluster was at least 2.5 times that of the previous cluster. Finally, the procedure ended when a new cluster would have increased the geographical dispersion of at least four previous clusters.

Demographic development in the context of integral history

Pim Kooij

Introduction

Historical demography was introduced in regional economic and social history by the French Ecole des Annales.¹ A Malthusian approach was used in most studies concerning the *ancien régime*, stressing the discrepancy between rapid population growth and the much slower growth of production which resulted in subsistence crises. Esther Boserup's theory, in which she pointed out that this gap between population and production can be reduced by innovation and the input of labour, received less support.²

The Malthusian perspective was adopted in the Netherlands by the Wageningen School, a group of historians at Wageningen University who were led first by Professor Bernard Slicher van Bath and later by Professor Ad van der Woude.³ They produced a large number of regional studies, most of which were concerned with the pre-modern period, with the Malthusian perspective as the central theme.

When the industrial period is considered, however, the Malthusian perspective no longer suffices as the central theme, and therefore historians studying this period use regional demographic development in different ways. Demographic development is sometimes used just as an introduction to a regional study without any links to other developments. It does not then form an active variable in the total study and remains a segment on its own. In other cases, demographic development is used as the context in which to place regional developments such as the development of the labour market, labour migration, the formation and size of social groups and demand factors influencing relative prices.

Unfortunately most studies have used the first approach. The Integral History project, however, follows the second one, aiming to link demographic development to as many other societal variables as possible.

¹ See for instance P.Goubert, Beauvais et le Beauvaisis de 1600 à 1730 (Paris 1960).

² E. Boserup, Population and technology (Oxford 1981).

³ See the 42 volumes of A.A.G. Bijdragen.

Demographic development in a regional setting

In order to be able to link demographic development to other societal variables it is necessary first to reconstruct the general characteristics of this demographic development. This has been carried out for the Groningen clay area by Richard Paping for the period 1750-1860 and by Geurt Collenteur for the period 1860-1920.⁴ Knowledge of regional demographic development is an excellent starting point for the reconstruction of regional societal development. In the context of the Integral History project, however, the goals are more ambitious. The ultimate aim is not the reconstruction of the developments in just one regional development in the nineteenth century, differentiated into general and region-specific aspects. Therefore, it is very pleasing that it will be possible to compare the results for the Groningen clay area with those obtained using similar methodology in the Brabant sand area in the Netherlands, and in the Karelian, Olonets, Yaroslavl and Tambov areas in Russia.

In this research the region is considered as a laboratory serving wider aims. The impact of the major societal transitions in the nineteenth century – the economic, demographic, political, cultural and religious transitions – are followed for various regions.⁵

The demographic transition is the best documented thus far. The results of cohort analysis in four regions were compared in the book *Where the twain meet* in order to determine how the age at marriage, the death rate and the birth rate developed. The general characteristics of the demographic transition, as described in the general literature, were found to be true for the Groningen clay area particularly during the second half of the nineteenth century. There was a rise in the age at marriage, longer life expectancy and a fall in the number of children born in individual families, accompanied by a rise in the number of nuclear families.⁶ In these respects the predominantly Roman Catholic province of Brabant lagged somewhat behind. The results for the Russian regions are less clear due to a lack of information. It seems, however, that there was a drop in the birth and death rates there also, as well as a rise in the number of nuclear families and in the age at marriage, so that there was some convergence to the Dutch pattern.⁷

⁴ R. Paping, Voor een handvol stuivers. Werken verdienen en besteden: de levensstandaard van boeren, arbeiders en middenstanders op de Groninger klei, 1770-1860 (Groningen 1995); G. Collenteur, 'Consistency in matters of life and death?', chapter 6 in this volume.

⁵ P. Kooij, 'Introduction. The Integral History project', in: P. Kooij (ed.), Where the twain meet. Dutch and Russian regional development in a comparative perspective 1800-1917 (Groningen/Wageningen 1998) 1-6.
⁶ Kooij, Where the twain meet, chapters 18 and 20.

⁷ P. Kooij, 'Dutch and Russian regions compared. Some results of cohort analysis', in: Kooij (ed.), *Where the twain meet*, 223-228.

Cohort analysis is performed at the level of succeeding generations. This has the advantage that changing demographic patterns are analysed for a group of people who enter the marriage market at about the same time. The use of birth cohorts also provides information about which people did not marry at all. This approach allows new patterns to be discerned more quickly than when the whole population is taken into account, with earlier generations with their different marriage patterns and age distribution masking the changes taking place.

A cohort is, in fact, only representative for itself and for a specific generation, and even when analysing these generations two problems have been encountered which have yet to be solved, apart from the problem of the sources.

The first of these is outmigration. About 30% of the generations studied were lost because they migrated outside the clay area. These people must be followed in order to find out whether they show common demographic characteristics. It is possible that this group, or part of it, was more modern than those who remained behind. It is also possible that these people adapted their demographic behaviour to the pattern which was manifest in the areas to which they migrated modern in the big cities in the west and traditional in the country. It will be necessary to follow these people in order to evaluate the conclusions made for those who remained.⁸ There are indications that people from the clay area who migrated to large cities did not adapt themselves to the modern urban pattern. In the city of Groningen, migrants from the clay area village of Hoogkerk (cohort 1870) raised old-fashioned large families. The 10 women from Hoogkerk who remained in the city of Groningen during their whole fertile period gave birth to a total of 72 children, whereas the average for the cohort born in 1870 in the city was 4.2.

The second problem is immigration. People from outside the clay area moved in to take the places of those who left and it is possible that they had different norms and values concerning demography. These people must, therefore, also be analysed, particularly those belonging to the same generation, to be used as a control group to find out if changes in demographic patterns can be attributed to autochtonal as well as to allochtonous people.

However, despite these uncertainties, enough is known about the demographic transition and demographic development in general in the Groningen clay area to link these developments to the other societal transitions. In fact, all transitions at the level of one village, that of Hoogkerk which is situated a little to the west of the city of Groningen, have been studied. The village

⁸ This research is now being performed by Riemke Westerholt.

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Table T	The outcomes	of the	transitions	in the	2 1ndinidual	domains
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	Economic unification and industrialization	Demographic transition	Political unification and party formation	Enlightenment	Secularization and orthodoxy
Economic domain	Extension of the mar- ket Diversification of the occupational structure Economic growth	Extension of the labour market	Free market Opposition of labour versus capital	Disappearance of the moral economy	Corporatism versus individualism
Demographic domain	Labour migration	Slight fall in birth rate Fall in death rate Drop in age at marriage	Codification of opinions concerning morality	Family planning Education	Differentiation in opinions concerning marriage
Social domain	Growth of social dis- tance Social mobility	Growth in number of nuclear families	Sharpening of social relations	Development of class consciousness	Pluralism
Political domain	Development of eco- nomic infrastructure	Development of social infrastructure	Patriotism Liberalism Socialism	Issuing of rules Spread of civilization from middle to lower classes	Cleavage
Cultural domain	Commercialization	Acceptance of birth control	Formulation of group codes	Disappearance of popular culture	Differentiation in social control
Religious domain	Professionalization and commercialization of religious care	Relative changes in denominations	Separation of church and state	Latitudinarianism	Orthodoxy versus secularization

Source: Kooij (ed.), Dorp naast een stad, 342.

of Hoogkerk industrialized early, partly as an overflow of the city of Groningen, so that the major transitions appeared more clearly and prominently.⁹

Table 1 shows the main ways in which the transitions manifested themselves in the different domains. The effects of the transitions on the different domains of society are shown in the columns, while how the transitions occurring in a specific domain affected the other domains is shown in the rows. The whole matrix gives a complete overview of the main changes in this village. It may be expected that these changes also occurred in the entire region.

The effects of the demographic transition

The column for demographic transition shows the ways in which this transition took place. In the economic domain the demographic transition resulted in an increase of the labour market because the birth rate remained higher than the death rate. However, this increase was not as large as it would have been had the demographic transition not taken place, since the birth surplus would then have been much higher. The increase in the labour market, however, did result in a degree of proletarianization, especially of the lowest income group, that of the agricultural labourers.¹⁰ This was reinforced by the agrarian depression, one of the main outcomes of economic unification, which in its turn was one of the main characteristics of the economic transition.

Research by Paping and Collenteur centres on this aspect but also includes consideration of labour migration. The analysis of migration within the clay area and outmigration to other parts of the country will not just be of interest in tracing differentiation in demographic patterns, as has been pointed out above, because migration is also an important part of the labour market strategies of individuals and families. Cohort analysis is an appropriate tool for relating the complete life cycle of individuals and families to the developments of the labour market. At the present time a great deal is known about the labour market strategies of succeeding generations who stayed in the Groningen clay area or moved to the adjacent peat area, ¹¹ but not enough is yet known about people who moved to other parts of the country. A large number of cohort members migrated to America. During the agrarian depression between 1878 and 1895, migration to the USA was a short-term strategy to escape unemployment and poverty (push), but after 1900 more

⁹ P. Kooij (ed.), Dorp naast een stad. Hoogkerk 1770-1914 (Assen 1993).

¹⁰ Paping, Voor een handvol stuivers.

¹¹ R. Paping, 'Gezinnen en cohorten: arbeidsstrategieën in een marktgerichte agrarische economie: de Groningse kleigebieden 1830-1920', in: J. Kok et al., *Levensloop en levenslot. Arbeidsstrategieën van gezinnen in de negentiende en twintigste eeuw* (Groningen/Wageningen 1999) 17-87.

people emigrated in order to obtain a better future, especially for their children (pull).¹²

Migration to the regional capital, the city of Groningen, has also been subjected to cohort analysis. Comparison of a Groningen birth cohort (1880) and a cohort of young immigrants at the beginning of the twentieth century showed that the better jobs were taken by the people born in Groningen. There was no unemployment at all in that group while the immigrants showed 28.4% unemployment. In fact, at that time Groningen had a dual labour market, where the modern sector with the better paid jobs was dominated by people born locally.¹³

The effects of the demographic transition in the demographic domain have already been mentioned. In the social domain the main result was the growth in the number of nuclear families, which also had effects on the economics of the family life cycle. Since fewer people from the older generations were living with their married children, mothers found it more difficult to combine a job with bringing up their children.

In the political domain, the growth of the population together with the cultural transition, the Enlightenment, caused views on education to change, resulting in the development of a more sophisticated educational system which was characterized by a more or less national curriculum and the obligation for children to attend school until they were twelve years old. In theory this meant that children were not available for the labour market, but in practice this was not always the case, especially in rural areas. Housing was another aspect of the social infrastructure that changed. More nuclear families required more houses and, moreover, the cultural transition brought new ideas about what was regarded as civilized, so that separate rooms were needed for parents, sons and daughters rather than the whole family sleeping together in the same room.

Other elements of the social infrastructure were health care and poor relief. Compulsory vaccination against some contagious diseases was introduced in order to reduce infant and child mortality. This, however, did not have much effect because many parents did not have their children vaccinated, sometimes because of the cost, sometimes from neglect, and sometimes because their orthodox religious denomination disapproved of it. A smallpox epidemic in 1870/1871 still claimed many victims among the members of the 1870 birth cohort and, of course, their relatives. It seems that a rise in average incomes around the turn of the century, which enabled people to strengthen

¹² Paping, 'Gezinnen en cohorten', 74.

¹³ P. Kooij, 'Artisans and the labour market in Dutch provincial capitals around 1900', in: G. Crossick (ed.), *The artisan and the European town 1500-1900* (Aldershot 1997) 239-257.

their resistance to disease, did much more to reduce infant and child mortality.¹⁴

The growth of poor relief can be seen in part as a result of the discrepancy between the growth of the population and the development of the labour market. The Malthusian trap is evident here but in a much less severe form. The organization of poor relief, though, was also dependent on the available funds, which varied from village to village, and on the vision of the organizers, who were partly the municipality and partly the churches.

The most important transition in the cultural domain was the acceptance of birth control, also a result of the Enlightenment, although some orthodox groups, for instance the new reformed church which had split off from the official reformed church in 1834, forbade all forms of birth control. The Roman Catholic church, prominent in Brabant and other areas in the south of the Netherlands, was also against practising any form of birth control. The priests encouraged the population to have as many children as possible in order to increase the Roman Catholic share in the Dutch population. The end result of the religious transition was a slight increase in the total number of religious denominations while secularization particularly affected the official reformed church.

The effects of change in other domains

Table 1 also shows how changes in other domains were related to demographic development. This can be seen in the demographic domain row. Most of these relationships have already been mentioned in the previous section, but this part of the table clearly shows that the demographic transition not only influenced all the domains but also that it was related to the transitions in the other domains. The extension of the labour market caused by the growth of available labour as a result of the increase in the population was accompanied by labour migration which was made possible by the economic transition as characterized by economic unification.

Political transition was characterized by political unification, which also implied uniform legislation for the whole country. It was also in this context that new opinions on morality, for instance on child care, marital faith and prostitution, were incorporated into the legal system.¹⁵ These opinions, in their turn, were partly the results of the cultural transition, the Enlightenment, and partly of the religious transition. This religious transition, characterized by secularization and more liberal opinions on the one hand, and orthodoxy and more fundamental opinions on the other, advanced divergent

¹⁴ P. Kooij, Groningen 1870-1914. Sociale verandering en economische ontwikkeling in een regionaal centrum (Assen/Maastricht 1987) chapter 5.

¹⁵ See V. Sleebe, In termen van fatsoen. Sociale controle in het Groningse kleigebied 1770-1914 (Assen 1994).

opinions concerning marriage and limiting the number of children in the family.

Conclusion

All the cells in the matrix of Table 1 have to be studied within the Integral History project. The developments mentioned in these cells belong partly to the same domain and were partly caused by the same transition. But since all five transitions influenced each other, and since each of the five transitions had effects in all of the six domains, all the cells are interrelated.¹⁶ Together they constitute the essence of a regional history and they create the opportunity to compare regional histories with each other. The comparison of demographic developments is only a first step in that direction, but an important one.

¹⁶ A social transition does not figure in this table. This is because all changes are studied at the level of social groups. The social domain row mentions the main aspects of social change caused by the five transitions.

Tambov regional development in the context of integral history, 1800-1917. Contradictions in the modernization of Russian society on a basis of microhistory

Vladimir Dyatchkov and Valery Kanitschev

Introduction

Research into patterns in the Tambov region in the context of integral history was based on the assumption that Russian towns and villages in 1800-1917 were quite different worlds, with two different economic, demographic, social and cultural systems. Therefore, Table 1 uses both perspectives to display the interaction of the various factors in the rural and urban spheres, but it should be noted that in the period under consideration there were often no sharp borders between them.

There were thousands of landlords and priests living in the countryside at that time. On the one hand they acted as the representatives of the state, as people from the wider urban society, but on the other hand they lived in close contact with the peasants and had often become rustic in their way of life. Their influence on rural life was taken into account without considering any ties the gentry and the clergy may have had to their places of birth.

Equally, thousands of peasants lived in the towns in the Tambov region before the Emancipation and tens of thousands did so afterwards. Some of them assumed an urban way of life, keeping only formal ties with the peasantry, but many more of the urban newcomers continued as representatives of the agrarian society and retained their traditional social behaviour.

The Tambov table on the interrelation of the different domains is somewhat different to the Dutch one. It was thought necessary to include ecological and to a lesser extent military factors. The ecological factor can be regarded as the backlash of nature on man when he tries to change her for his own benefit. The ecological factor became important from the middle of the nineteenth century and was critical in agrarian society by 1900, but it did encourage the organization of modern urban services and amenities.

The military factor is not only connected with the direct impact of war activities but in a broader sense also with the mobilization of those resources

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an army needs whether it is involved in war or whether it is a time of peace. This became increasingly noticeable throughout the period in all aspects of life in the Tambov region. Many thousands of soldiers were recruited from there and large quantities of foodstuffs, horses, alcohol, clothes and other goods were purchased. Russia was engaged in great and devastating wars from the beginning of the twentieth century, so the war factor tended to be crucial. It had an important impact on all spheres of everyday life finally leading to crisis and the collapse of the prevailing system in the course of the first World War.

Contradictions in modernization

The dynamics of changing processes, or their absence, are stressed in the tables. Where necessary, the specific periods of crucial changes in the factors and their interaction are given.

A study of modernization in late imperial Russia has become one of the crucial points of post-Soviet historiography. When evaluating reforms and revolutions most researchers have viewed that process as a part of the history of politics on a macro, all-Russian scale. Not much room is left, therefore, for the study of the modernization of Russian society in the light of social history, and when this was done it was also on a macro scale. Very often, Russian social history has been interpreted on the basis of some concepts which were taken as granted and illustrated with selected facts which sometimes ignored the analysis of primary, fundamental data. The macro approach to understanding broad and general historical laws and trends and contradictions on a national, continental or even global scale cannot be rejected entirely, but the danger of researchers becoming subjective with the inevitable result of very different explanations of the essence of Russian modernization must be pointed out. On the one hand is Boris Mironov who viewed Russian modernization in the light of selected, 'necessary' facts as mostly successful,¹ while on the other Vladimir Buldakov stated that modernization led to a crisis of the traditional empire followed by a reactionary 'land commune's revolution' camouflaged as a 'Red Disturbance', which finally restored not an imperial but the Soviet, 'red' system. Buldakov, who used an abundance of basic facts on everyday life from the various social strata, stated frankly that he selected these facts from the 'right' sources only.²

The aim of this research is to clarify the peculiarities of Russian modernization by the method of micro-history, commencing from a study of the primary data concerning individuals, families, small social groups, separate settlements, and progressing to a meso (regional) and macro scale (national

¹ B. Mironov, The social history of Imperial Russia, 1700-1917 (Boulder 2000).

² V. Buldakov, Булдаков В.И. Красная смума (Moscow 1997).

and wider). Microanalysis is not in opposition to macroanalysis. The intention is simply to apply a bottom-up approach to history in order to contribute to insight from the top down. A study of the primary data has shown that the contradictions of Russian modernization are a result of the very origin of the historical sources. For instance, in the second half of the nineteenth century, the Russian state and the Orthodox church thought that the mass registration of births, deaths and marriages (parish registers) had been achieved. But a thorough study reveals that what was obtained was a high level of completeness in recording the official rites such as christenings, weddings and funerals. However, people who were not christened, common law spouses and those who died and were buried without a funeral service were not recorded in the parish registers at all. A comparative study of the medical statistics proved that stillborn babies and those who died before being christened were therefore buried without a funeral service and almost never registered in the parish registers. From the traditional viewpoint of a peasant, or even a towndweller, there was no need to apply to a church to spend money on a person in such cases. From a civilized priest's standpoint, such facts simply did not exist. This resulted in an under-registration of those unhappy deliveries (including miscarriages in the second half of a pregnancy) by a factor as high as one third of the number of christened newborn babies. Ignorance of these facts which have been obtained from the primary sources has led some macro-historians to paradoxical conclusions, as, for example, Mironov, who regarded serfs as the 'pioneers' of birth control. Primary facts simply show that there were a large number of miscarriages because female serfs laboured the hardest, even in comparison with other peasant groups.

For these reasons an account of the contradictions in the modernization of Russia as reflected in the primary sources is the starting point of this microhistorical study. One of the final results of the study could be to draw up an integral model of the interaction of all the basic historical factors working at a micro scale. The system approach helps to clarify many of the contradictions of Russian modernization found in the everyday social life as seen through individuals, families, small communities and separate settlements. It is hoped that the various databases and experience in using them will allow this task to be carried out successfully.

	Demography	Ecology	Economy	Society	Politics	Culture
	Traditional demographic be-	Lack of con-	Agrarian	Sharpening of the land problem.	Government relies on	Preservation of
	haviour of peasantry with a	venient and	over-	Urge to have more children to get	vast human resources.	traditional cultu
	display of natural cycles. Rise in	fertile lands	population,	extra allotments, parallel to agrarian	Absence of state control	Absence of
	birth and death ratios. Cyclic	parallel to	preservation	overpopulation esp. after the Eman-	of demographic de-	rational birth
~	increases of fertile female share.	population	of the	cipation. Fall in female marriage age	velopment. State and	control. Pre-
Demography	Slight fall of death rate in 1900-	growth since	extensive	to the lowest bio limit before the	landlords limit large	dominance of
gra	14. The first slight signs of	the 1850s.	economics.	1890s. Estate limitations of mar-	family partitions. Growth	bio-being
ou	social control (rise) of female	Overflowing	Narrowing of	riages up to 1861. Regulation of	of state support for	demographic
Dei	marriage age in the 1900s.	of the eco-	labour market	peasant marriages by landlords.	agrarian migration since	behaviour.
	Townspeople turn to a modern	volume of	to absorb	Overpopulation in dwellings, poor	the 1850s. Paradoxical	Rational birth
	demographic pattern.	environment.	extra hands,	sanitation which encouraged epide-	influence of the Zem-	control for
	Modernization of family struc-		cheap hired	mics and high mortality. Demogra-	stvo/medical help in the	some towns-
	ture in all social strata. Rise of		labour.	phic transition in towns for officials	realm of unchangeable	people.
	inner and outmigration.			and businessmen.	demographic behaviour.	

Table 1 Integral pattern of the Tambov regional development, 1800-1917 (a factor noted in the 1st column is a determinant)

	Demography	Ecology	Economy	Society	Politics	Culture
	Growth of	Ecologi-	Soil and other natural re-	Resource ex-	Absence of state ecology politics. State	Absence of civilized eco-
Ŷ	demographic	cal crisis	sources become ex-	haustion, pau-	support for migration, farmsteads, the	logical mentality,
log	pressures on en-	increases	hausted due to rapacious	perization of pea-	dawn of nature protection. The Zemstvo	traditional peasant eco-
Eco	vironment, lack	in agrar-	exploitation, decrease of	sants. Eco-	and town Dumas' efforts to intensify	mentality. Realisation of
щ	of arable land.	ian	land fertility, lack of	adaptation of the	agriculture and to turn to rational ex-	eco-problems by part of
		society.	pasture.	townspeople.	ploitation of natural resources.	society.

	Demography	Ecology	Economy	Society	Politics	Culture
	Weak industri-	Exhaustion and increasing lack of	Predominance of peasant	Breaking role of the	State support of estates.	Reliance on
	alization, narrow	natural resources for agriculture.	natural economy.	commune and	Limited support of	empirical
	labour market.	Three-field system to preserve	Increase in landlord	landlords' landowning.	state peasants. Agrarian	knowledge.
γı	Agrarian over-	fertility. Rational exploitation of	economies marketability	Peasant pauperization	and trade-industrial	Birth of
lomy	population. In-	nature and intensification in part	after 1861 and of well-	and ruin of the	reforms, railway con-	special edu-
Econ	creasing rhythmic	of land-lords' economies from the	to-do peasant economies	majority of landlords	struction. Growing but	cation.
щ	waves of migra-	1860s. Start of utilization of	in the 1910s. Slow	after 1861. Rationali-	belated, the Zemstvo	
	tion. Rejuvena-	organic and town industrial waste.	capitalization and	zation of the smaller	support of peasant	
	tion of labour	Absence of mineral raw materials	industrialization of rural	part of estates. Slow	economies since 1860s.	
	force.	for industry.	and urban worlds.	rise of free enterprise.		

	Demography	Ecology	Economy	Society	Politics	Culture
	Peasant land commune as a stimulus for	Low peasant and	Break in role of	Gradual de-	Stable pro-gentry poli-	Many estates are
	more births and early marriages. Tying	landlord interest in	communal and	struction of	tics. Political weakness	hotbeds of European
	allotment size to the number of males.	rational exploitation	landlord land own-	traditional	of business strata. Re-	urban culture. Slow
	Growing emigration of youth and those	of nature. Growing	ing. Intensification	society.	forms at the expense of	gradual progress and
ity	of working age, males first, females fol-	signs of anthropo-	of part of peasant	Slow pace	peasantry. Army re-	penetration of urban
Society	low (up to the 1880s and since 1900s),	metric degeneration	and landlord	of social	source. Various and	culture (lite-racy,
Š	females first in the 1880s to the 1900s.	(height, weight,	economies. Lack of	stratifica-	hard peasant obliga-	clothes, dwelling,
	Start of age polarization. Break in social	health) parallel with	productivity for	tion.	tions. Contradictory	medical care, com-
	differentiation. Towns-people tend	overpopulation.	peasant social differ-		steps in the process of	munications) in the
	towards a nuclear family.		entiation.		peasant differentiation.	villages speeded up
						in the 1900s.

	Demography	Ecology	Economy	Society	Politics	Culture
	Vague awareness of	Incentives to-	Necessity of perma-	Predominance of	Constant social and political tension.	Social-estate limi-
	necessity of reforms,	wards out-mi-	nent agrarian re-	traditional social	Outbursts in crisis years. Rapid forma-	tations. Spread of
	absence of demo-	gration,	forms, of state and	strata. Peasant anti-	tion of a rural cradle for political activists	modern culture
	graphic politics.	many-field	social support of	state and anti-	parallel to growing overpopulation and	among peasants
ics	Limitations of ex-	system. Em-	landlords and limited	landlord outbursts	agrarian 'question'. Strong traditionalism.	(mainly by the
Politics	tended family parti-	bryos of forest	support for state	up to 1900. Agrarian	Growth of political opposition since the	Zemstvos and town
P	tions. Incentives	protection	peasant economies.	revolution since	1900s. Weak liberalism and socialism.	Dumas since the
	towards migration	since 1830s.	The Zemstvo's	1902. 'Land	Authorities' and self-government efforts	1860s).
	politics.	Eco-politics	support for peasant	commune revo-	to support the Army, high degree of	
		of the town	households since the	lution' since the	militarization of society.	
		Dumas.	1880s.	1910s.		

	Demography	Ecology	Economy	Society	Politics	Culture
	Retaining of tradi-	Poor knowl-	Low progress	Lack of need, means	Limitations of cultural access for peasants. Lack	Sociocultural break
	tional culture. Ab-	edge of mod-	of agricultural	for and ways to	of peasant education for conscious political	of traditional estates
9	sence of rational	ern technolo-	knowledge.	modernize culture.	activity. 'Bookish' opposition of the gentry.	(strata).
ıltur	birth control. Low	gies. A dawn	More demand	Land commune as a	Traditional worship for the army, military-	
Cul	value of human life.	of eco-con-	for educated	guarantee of tradi-	patriotic propaganda. More literate soldiers	
Ŭ	Striving of peasants	science.	people.	tional culture. Gen-	since the 1900s. Rise of antiwar (antimilitary)	
	for hated but attrac-			try as modern cul-	sentiments since 1904. Zemstvo efforts to	
	tive urban patterns.			ture mono-polist.	introduce modern culture since 1860s.	

Comments will now be made on the various parts of the table, taking each domain in turn.

Demography - demography

During the greater part of the nineteenth century, the reproductive behaviour of peasants who lived in patriarchal families seems to have been fully traditional and to have followed the Malthusian pattern. In the 1860s-1880s there was some improvement in health and some decrease in the death rate. Since the death rate for girls decreased relatively more than that for boys, while at the same time there was also a relatively higher birth rate for girls, a serious surplus of fertile females was created. In the 1880s-1890s, 14-17% of rural young women found themselves hopelessly superfluous with no male partners available. That process can be traced easily at any level. The data for those born and who survived in the separate villages shows that every sixth or seventh young women in that period was extra. By 1897, 69,344 (13.65%) of the rural fertile females between the ages of 16-39 in the Tambov Region were extra, having no male counterpart. The figure was 26.05% for village women born in 1870-74 and 13.96% for those born in 1875-80 and 20.44% and 12.08% respectively in the rural and urban female population as a whole.

Females also dominated in the increase in population in the late 1860s-1870s on an all-Russian scale. Peasant families reacted to the risk of their daughters remaining single by lowering the female age at marriage close to the bio-limit. In the 1880s-1890s about 45% of village young women married at the age of 16-17 and about 48% at the age of 18-19 while the average age of menarche was 16.4. This period of a dearth of young men also took away from young widows their chances of marrying for a second time, which up till then had been almost guaranteed. A substantial proportion of young men were younger than their brides, forming a group of noticeably very young grooms despite modernization.

Better health conditions combined with a lowering of the marriage age among peasants resulted in an increase in female fertility, especially in remote villages with almost no migration (from Ig of about 0.270-0.340 by 1861 to 0.340-0.420 by 1911) and a rapid increase in the population. Rhythmic and increasing waves of superfluous villagers, particularly females, with traditional and unchanging reproductive behaviour swept over the small towns with clear social, psychological and political consequences as a result. A transition to a rational reproductive behaviour with a planned family, high age at marriage and birth control was related to the peasants' break with agriculture, traditional work and way of life. This is why signs of modern demographic behaviour appeared in the pure town strata as well as in trade-industrial villages from the 1840s onwards.

7-year phase and average N of marriages/year		Marriage widower- widow	'Pure' first marriages	Marriage widow-1 st marriage groom	Marriage widower-1 st marriage bride	Groom younger than bride	Groom under the age of 18 (16-17)
1836-42	31.0	4.5	85.7	3.6	6.3	13.4 (50.7)	0 (0)
1843-49	36.7	5.4	75.8	1.8	17.0	13.7 (55.0)	0 (0)
1850-56	37.1	7.6	82.2	1.5	8.7	11.9 (50.1)	0 (0)
1857-63	46.1	9.7	77.0	2.4	10.9	8.9 (50.5)	0 (3.2)
1864-70	46.0	8.2	83.2	2.5	7.1	7.3 (37.5)	3.6 (14.1)
1871-77	23.3	5.6	79.0	2.1	13.3	14.3 (40.6)	5.0 (15.7)
1878-84	35.1	7.3	83.8	0.4	8.5	10.2 (46.7*)	1.3 (9.5)
1885-91	44.0	6.3	81.2	1.3	11.2	14.5 (42.7*)	1.8 (12.8)
1892-98	42.6	4.7	89.8	0.9	4.7	15.5 (47.1)	2.7 (4.6**)
1899-1905	44.3	5.1	88.4	0.3	6.1	15.5 (36.0)	4.5 (14.7)
1906-12	53.0	3.8	89.2	0	7.0	12.7 (30.1)	5.1 (12.8)

Table 2 Types of marriages in the village of B. Lipovitsa³ (data for Malye Pupki in brackets) %

* Data on M. Pupki for 2 of this 7 years

** Data on M. Pupki for 3 of this 7 years

Family modernization with a change from an extended family to a nuclear one affected all the social strata in the region. This trend to establish a nuclear family of two adults with children was obvious for the gentry (nobles), the officials and the *meschane* (town class) in the first half of the nineteenth century. The average size of a peasant family household was 8.5 people up to the 1850s with some decrease taking place after the Emancipation. There was a definite turning point in the 1860s-1890s when it became easier to partition families, with a resulting decrease to an average of 6.4 people per household by 1897. It is probable that this reduction was due to some increase of crop yields with only relatively minor increased family labour input during the period when the steppe black soil came into cultivation. But natural land resources in the region were used up by the 1880s, while intensive agriculture was taken up only very slowly so that a further significant reduction in the size of peasant households was impossible. By 1917 their average size was 6.1.

The conjugate family still dominated but with a relatively large number of children, more than 4 on average. There is also, though, clear evidence that the modernization process in the region did not result in a continuous reduction in family size. The data shows that there was regular expansion and contraction.⁴ In the decades just after a new settlement had been formed there

³ B. Lipovitsa is situated 25 km south of Tambov.

⁴ Annual lines of number of births and deaths, marriages, number of households and total population at benchmark years such as 1636, 1676, census years in the 1710s-1850s, 1862, 1886, 1897, 1911, 1916 for dozens of separate rural settlements through the period beginning from the initial settlement in the seventeenth century.

were 4-6 people per household on any estate, but a few decades later an average family numbered 8-11 people and the villages became overpopulated again with total use of all the arable land in the area. When this happened the village, either spontaneously or at the instigation of the landlords, evicted the extra hands and mouths, usually to new land in the south-east of the region. In this way the family/household size in the old settlement was reduced to an average 5-6 people and a new village began its life with 3-4 people per household. However, the possibilities of internal rural migration were exhausted by the 1860s so that the extra peasants generally began to move in the opposite direction with the towns and cities as their destinations.

The average size of a town family was 4.5–5.5 people, depending on the extent of urbanization. The proportion of extended families in the classes of the gentry, the officials and the *meschane* was still decreasing. That process also started in the families of some of the merchants and the migrated peasants, although the tradition of a big family was still very strong among the clergy, merchants and peasants.

The increased reproduction rates in the first half of the nineteenth century caused the region to witness the first signs of agrarian overpopulation and this was aggravated by the demographic explosion which took place after the emancipation. Over 40% of the rural population found themselves super-fluous by the end of the nineteenth century. Out-migrations did not have a very significant effect on reducing the demographic pressure on the village economies. More than 60,000 peasants migrated from the Tambov region in 1816-54. In the next four decades 260,000 villagers left the region, leaving a total population (in 1897) of 2,684,030. Most emigrants moved to the eastern outskirts of the empire where spare land was available. About 100,000 peasants left the region between 1906 and 1914. This number was comparable to the increase in population in just one particular year, for example 1910. The total population was about 3.8 million people by 1914.

Studies of outmigration to the Altay Region on a micro level suggest that there was a long predomination of spontaneous peasant agrarian migration to upgrade their lives but in accordance with their traditional mentality.

Demography - ecology

Higher demographic pressure on the environment first became apparent in the towns, which had remained agrarian settlements until the 1800s. By the 1850s, Tambov had little land available for agriculture but it retained significant plots for vegetable gardens, horticulture and cattle breeding. Huge amounts of organic waste were simply thrown into the river Tsna, causing water pollution and providing perfect conditions for cholera epidemics with the consequent high death rates. During the first half of the nineteenth century, population growth in rural areas resulted in a relative reduction in arable land (from 2.5 to 1.5 hectares per person), meadowland (from 2 to 1 hectares per person) and forests (from 2 to 1 hectares per person). Human pressure on nature doubled and that process speeded up until 1917. Rural population numbers rose sharply throughout the period increasing the demographic pressure on the traditional environment.

Demography - economy

Because of the overpopulation in agrarian regions, the system of primitive mass labour in agriculture was maintained and the introduction of innovations was held back. A surplus of workers in post-reform villages made hired labour very cheap, both in rural areas and the non-agrarian sectors, with the result that the wages of industrial workers in the region were a factor of three lower than the average in Russia in the 1900s. Industrial out-migration was very low; only 15,000 peasants migrated to industrial regions in the period 1850-1900.

Demography - society

The increase in the population put the agrarian society under strain. The data from Malye Pupki shows that the large households had higher incomes and their cohort members also survived longer. The best family combinations were with three or more boys who would function as workers and allotment receivers when adult. A study of the medical reports shows that in families where the mother had better health, but there was still no birth control or rational family planning, large families gained social and economic advantages. The social position of households was quite unstable and depended mainly on changes in the family dimensions (number of male workers especially, with the bigger the family the higher the social status).

The social factor was insignificant for marriages, though the well-to-do families could allow early marriages for their children or have their older women marry advantageously. The most advantageous age for a man to marry was at 17-18 years old, irrespective of his social position.

In the towns, the demographic impact on society became apparent from the first half of the nineteenth century with a rise in the marriage age and birth control among the officials and to some extent among the businessmen, whose activities depended little on family size. A large family was a burden when income was low, as it was for most of the officials, but the depression in the grain market trade in Morshansk in the middle of the nineteenth century caused a reversal of the trend and an increase in the number of big merchant families for the sake of economic survival. In most of the social strata in the towns extensive reproduction was continued up to 1917.

Demography - politics

The Russian state had traditionally considered a large population as beneficial, but even at the end of the nineteenth century the state had vague ideas about the relationship between the position of the peasants and overpopulation. It realized the necessity for reforms but completely failed to introduce any changes in time in overpopulated regions like Tambov, where the demographic transition turned into a catastrophe. For a number of reasons conditions in the Russian agrarian regions became fundamentally unsettled.

The data on individual migrants shows that the mass of peasant migrants did not experience a gradual transition to social modernization and urban behaviour but instead a break with their former rhythm of life accompanied by poor adaptation. This was manifested by an increased crime rate, in the very essence of Russian revolutionism with a predominance of psychosexual complexes in political activists' behaviour and in the increasing numbers of invalids from birth, the insane and drunkards, etc.

Demography - culture

Traditional demographic behaviour fitted in a traditional peasant culture. Peasants had no need for modern urban culture. Church registration was viewed by peasants as formal. Stillborn, apparently dead or weak newborn babies were not registered in the parish registers although they appear in the medical statistics. Such deaths – actual or soon to be expected – were taken for granted as an inevitable evil. Payment for the rites was regarded as a waste of money.

Social-demographic and economic necessities forced peasants to avoid the church bans on marriages under the age of 16. A study of cases of violation of the rules of church registration by Orlova and Ivanilova⁵ clearly showed that priests often made brides older and minors were married without notes being taken by foreign priests whose names were kept secret from the church authorities. There were cases of marriages using false documents particularly in foreign parishes. Another way to get around the age rules were marriages of Orthodox peasants by old believers' rules, because the latter allowed a girl to marry from the age of 12. It is quite clear that these officially registered

⁵ Е.П. Иванилова and В.Д. Орлова Влияние норм брачного права на демографическое поведение крестьян Тамбовской губернии в XIX в.: источники и возможные методы их обработки//Социально-демографическая история России XIX-XX вв. Современные методы исследования (Татbov 1999) 90-100; Е.П. Мареева (Иванилова), Мужчины и женщины при заключении и расторжении брака в XIX в.(по материалам Тамбовской епархии) // От мужских и женских к гендерным исследованиям (Татbov 2001) 38-42.

cases of violation of the marriage laws represented only a tiny fraction of what actually took place but it is impossible to calculate any meaningful figures.

Many religious sects thrived in the Tambov region. There is some information known about the demographic behaviour of the sectarians. The *dukhobors* rejected the orthodox rites of weddings while the *molokans* rejected baptism. Such rejections would have made the sectarians outlaws so it is possible that there was some kind of compromise made with the authorities here. It is very difficult to confirm this idea, because all participants in church rites were registered as orthodox. It is necessary to use church and police sources with lists of sectarians in order to trace them. However, it is not unrealistic to claim that there would have been little difference between the demographic behaviour of the sectarians and that of the orthodox believers, since their religious beliefs were the only difference and they lived otherwise under the same conditions.

Parish registers for the sectarians appeared after the law on tolerance was adopted by the State *Duma* in 1906. Cases in Rasskazovo, Kirsanov and Morshansk are helpful in comparing these registers with the nineteenth century parish registers in order to trace the demographic dynamics of the sectarians before the adoption of the law.

Ecology - demography

By the 1850s, the increase in the population had caused a lack of available sites for rural settlements near rivers, so peasants were forced to cultivate land where manmade water sources were needed and by 1862 20% of the settlements were situated near ponds, wells and ravines containing water. It was difficult to develop a large settlement in such conditions so there was only a further small increase of 100 settlements (6%) by 1917.

Ecology - ecology

In the nineteenth century pressure on the environment caused by the traditional society exceeded the acceptable limits and the early twentieth century was marked by the features of an ecology crisis typical of overpopulated agrarian societies. This manifested itself in practically all settlements with soil exhaustion, the growth of ravines, mass deforestation, dry wind erosion and pollution from urban waste.

Ecology - economy

Because of the fertile soil, the region was still at the forefront of grain production in the 1860s–1870s but soon after this it faced land exhaustion and falling harvests because of extensive over-cultivation. The number of cattle decreased as meadows were turned into ploughed fields. By the 1900s the Tambov region had begun to lag behind the southern and eastern regions where there was an abundance of spare land, and also the western regions where intensive agriculture was developing.

Grain output in the 1910s was almost the same as it had been in 1861-66: 1.15 million tons in 1917 versus 1.05 million tons in 1861-66, while the population had doubled. Peasants tried to compensate shortages of grain with potatoes but this caused further complicated ecological problems as potatoes were mostly grown on sand and gray soil on land which had been cleared from forests.

By the end of the nineteenth century the region found itself among the less developed cattle breeding regions because of a shortage of pasture land and hay. Cattle was of low quality and it was bred primarily for sale. The number of livestock per peasant household had steadily decreased and only a few estates had thoroughbred cattle.

Ecology - society

Mordvinov's report⁶ in the 1870s stated that peasants' incomes had declined due to land and cattle exhaustion. Physicians paid rising attention to increasing degeneration of the peasants. At the same time most urban strata began to support the municipalities in their struggle against pollution of the environment.

Ecology - politics

Land shortages caused state organized migrations, which had started before the Emancipation with the transfer of peasants to state lands in the Volga region. Later, peasants migrated to the South Urals. After the Emancipation peasants of all categories were mainly moved to Siberia.

A microanalysis of the Stolypin reform revealed that there were also attempts made to develop non-fertile and distant lands in the region. Forest exhaustion made the state start forest protection measures, which became noticeable after the 1830s during the state reforms of the peasantry. Kiselev plantations (named after the minister of state property at that time) can still be seen in the region. The *Zemstvos* (since 1864) at once started to help the peasants intensify their agriculture, but the results were poor. The state and the *Zemstvos* had no comprehensive ecological policy and they could not prevent the impending eco-crisis in the agrarian society. The town *Dumas* were the only institutions to start rational protection of the environment early enough at least to improve the ecology of the towns sufficiently to prevent the outbreak of epidemics.

⁶ Отчет сенатора Мордвинова о ревизии Тамбовской губернии// Крестьянское движение в России в 1870-1880 гг. М. (1968) 34.

Ecology - culture

Peasants remained almost totally deaf to the problem of the exhaustion of natural resources and to the need for measures to protect the environment. Even the landlords, despite the efforts of the *Zemstvos* and the scholars, showed no eagerness to adopt more advanced methods in agriculture until after the Emancipation. It was not until the time of the Stolypin reforms, after 1906, that some peasants became interested in methods of protecting the environment.

Economy - demography

There was practically no capitalist labour market, because all peasants had their jobs at their own households. Hire of labour was occasional and unreliable. Employment in organized estates and opportunities for work on sugar beet plantations or in industry were of some help in coping with overpopulation, but tens of thousands of such positions were of little avail when there were hundreds of thousands of superfluous hands. Moreover, the majority were seasonal workers who maintained their places in their own households and in this way perpetuated the overpopulation.

The construction of railways brought new possibilities for seasonal work outside the region, such as mass movements in the autumn and winter to the Donbass mines. But all these men returned home in the spring where they were not only workers but eaters too.

The regional urban economy was not able to absorb the extra rural population. The towns existed primarily as administrative-political and not as economic centres. The censuses of 1890 and 1917 show that the need was mainly for unskilled labour, such as servants, etc. A study of the Tambov social structure, based on the primary sources, showed that only a few hundred peasants found employment in the regional centre as craftsmen, traders or low ranking civil servants⁷.

Economy - ecology

Since the first half of the nineteenth century, the main problem had been a change in the structure of exploitation of the natural resources. According to some accounts – for instance by Arsenyev⁸ the best time for that had been in the late eighteenth century, in 1797, when the area consisted of 40% arable land, 31% forests, and 29% meadows. There was almost the same ratio in the separate settlements.

⁷ Н.В. Стрекалова, Социальная стратификация и социальная мобильность городских средних слоев в 1907-1917 гг (на материалах г. Тамбов. Канд.дисс), (Tambov 2003).

⁸ К.И. Арсеньев, Статистический очерк России. СПб (1848) 399, 402.

In the 1860s-1870s, the region was an all-Russian leader in grain yields with a jump in crop production of between three and eight times. But this whole increase in production was entirely due to extending the areas sown at the expense of newly ploughed virgin soils, cutting down forests and filling up ravines. By 1917 the sowing area had grown another 10%. Intensive - deforestation reduced the forested area from 18% in 1867 to 14%-15% by 1917. Forests were also cut down for building, for making charcoal, resin and tar and for the production of various tools, etc. Contemporaries predicted future industrial shortages and climatic troubles with such a devastating exploitation of the forests. Even the three-field system (no use of fertilizers) was given up in order to generate more income for the liberated toilers in the fields.

From the 1850s dozens of Tambov villages suffered from extreme water pollution due to the use of ponds for watering the cattle and also because the natural flow of the rivers had been interrupted by the construction of weirs. Lack of minerals meant that there was no chance of developing a modern industry and consequently it became even more urgent to increase the number of non-agrarian working places.

A few model estates run by enlightened landlords helped to introduce rational agriculture. Microanalysis revealed the many-field crop rotation system used in them since the middle of the nineteenth century. There were large fields of industrial crops and cattle, sheep and stud farms where machinery was used. An increase in the production of potatoes compensated partly for the drop in grain production and they were also used for consumption. Potato yields increased from 100,000 tons in 1861 to 530,000 tons in 1917. Ecologically, the production of potatoes helped to use the land better and allowed a transition to the many-field system. The peasants also welcomed the potatoes because they implied a formal preservation of the traditional system of agricultural output and consumption. The existing Russian food stocks limits, predicted for the turn of the century, point to some 315 kg of grain and some 210 kg of potatoes per peasant a year. Such a ratio presupposed a yield of 770,000 tons of potatoes by 1917 – 240,000 tons more than the actual yields.

By the turn of the century, the ecological impact on the urban areas became noticeable with the problems of storage and disposal of the waste from horticulture and of manure and remnants of cattle slaughter. Organic waste utilization appeared in some towns at the beginning of the twentieth century. At the same time dirty industries also appeared causing water pollution.

Economy - economy

Overpopulated and lacking natural resources, the rural economy of the Tambov region remained natural and to a large extent only for the own population with weak market ties. An increase in marketability of the products from the estates of the gentry was noticeable after 1861 and in the 1910s the same process appeared in well-to-do peasant households.

Industrialization penetrated only very slowly into Tambov villages up until the 1900s. The household censuses from the end of the nineteenth century show that in almost all villages only a few households were dependent on industry. Most industrialization in rural areas was related to the construction of the railways, which allowed the population to engage in various forms of economic activity. It is known that some Tambov trading peasants even managed to get to London, but the majority of the peasants still had little access to the railways. In 1917, the average distance of a rural settlement from a railway station was 22 km. Taking into account the poor state of the access roads, this was still a long way to cart heavy loads.

Economy – society

The deepening of the rural economic crisis led to shortages of goods for social differentiation, resulting in pauperization of the peasants and inevitable ruin of the gentry. The complex impact of demographic, ecological and economic factors on the situation of the peasants was demonstrated by the famine of 1891-92. A decrease in agricultural production, cyclic crop failure plus ecological problems and primitive agro-technologies made peasant households defenceless in the face of natural disasters. However, the crop failure of 1891-92 was not only the result of natural factors, but, as micro-study has revealed, it was also related to social factors since some landlord estates retained good crops.

Weak urban economic development meant that the towns remained as places for the officials and dependent strata, mainly consisting of the nonservice gentry who lived off the rents from their estates or who were kept by their relatives. Together with numerous servants these non-productive strata made up the majority of the urban population of the Tambov region until the 1900s. The creation of a business middle class was limited by a decrease in the purchasing power of the gentry plus the extremely low purchasing capacity of the hired labourers in the towns. There were, however, some 300 handicraft shops in Tambov in 1900–1918.

Economy - politics

Poor economic conditions in the agrarian regions resulted in the government trying to reform the situation and giving support to the gentry and the peasants. But all those attempts were usually belated and often counterproductive and aggravated the poor economic situation. Microanalysis of peasant household prosperity criteria leads to the conclusion that normal land allotments prevailed up to the middle of the nineteenth century. At the time of the Emancipation the authorities regarded these as too large and made the regrettably famous *otrezki* (reduce land allotment sizes) as a short-sighted way of dealing with the demographic explosion. By the time the Stolypin reforms were introduced, most rural settlements had no land available for reallocation any more.

Economy - culture

The poor economy left little room for the peasants to develop an interest in modern knowledge. Almost no notice was taken of the advances in agricultural technology and empirical traditions prevailed. Even in the towns, the knowledge possessed by businessmen progressed only slowly until the 1900s. Most merchants had enjoyed primary education but the hired labourers were generally illiterate. Since the 1850s, the economies of the towns had been able to create thousands of positions for teachers, doctors and medium level medical specialists, art and culture workers but the rural areas could support only a few hundred people from the *Zemstvos* intelligentsia.

Society - demography

The existence of land communes and high infant mortality stimulated early marriages with as many children as possible. As has already been mentioned, the age at marriage of young women was lowered close to the bio-minimum. Peasants had no essential modern means of regulating the demographic processes. A conscious transition to intensive economics with simultaneous birth control and family planning was, in principle, impossible. Villagers could lead their lives by the rules of extensive low-productive economics only by cutting down consumption and reducing the propagation of extra mouths. The ways in which the extra population was reduced varied from almost total neglect of the health and lives of both infants and adults (God gives – God takes) to abortions and even the killing of infants. Partly because of the randomness of such a demographic strategy, the peasants in over-populated regions tended to migrate to under-populated areas and especially to neighbouring towns, but outmigration was not on a sufficient scale to remedy the situation.

In addition, it can be seen from histories of the families that migrants (to Altay) needed several years of hard labour before they could become established and build a new life after migration and some people re-migrated. About half of the migrants from the Tambov region in 1888-1892 were not able to establish their own households and became farm labourers. Nevertheless, migrations did prove that there was a real prospect of improving their position. In 1917 no more than 10% of the landless Tambov migrants were registered in Altay villages.

Society – ecology

Ecological problems could not be solved by the traditional peasantry. It is true that the peasants realized that there was a limit to the continued waste of natural resources and the preservation of the three-field system gave part of the arable land a chance of recovery. The rural 1917 census data reveal that in that year 1/3 of the arable land in all parts of the Tambov region lay fallow. The peasant land commune rules hampered progress in agriculture. Some model estates helped to rationalize agriculture, but most landlords leased land with no thought of modernization. Nobody paid much attention to the rational and secure exploitation of the land.

Society - economy

The land commune with equalizing redistribution of small peasant allotments was a serious obstacle to many-field crop rotation and other intensive means, which were rational from the point of view of exploitation of the land. The other noticeable barrier to agricultural modernization was poor finances. The Peasant Bank activities in Stolypin's times, which were intended to support out-migrants and farmers in their new places of residence (to buy tools, fertilizers, cattle), were not very effective and proved too indecisive to break ingrained habits.

The general intensification of regional agriculture was also hindered by the reluctance of the majority of the gentry to rationalize their economies. Such landlords earned money mostly by renting out arable land and gave the peasants no stimulus to make high-productive use of this. A few model estates did help to intensify agriculture somewhat by introducing the use of machinery, by growing sugar beet and organizing horse and cattle breeding. Such neighbours proved stimulating to peasants as they could learn and use various modern ways of production.

Up to 1917, idle non-productive social strata in the towns was combined with the broad exploitation of cheap servant labour while the well-to-do town dwellers did not take part in social production or state services. A study of a selection of the well-to-do houses in Tambov revealed that 40% of the families of the rich house-owners did not work at all and 32% of families in the higher and middle strata who rented accommodation were not fully engaged in productive labour or state services either. Each house had on average more than 2 servants. Due to the social instability even the merchants needed a long time before they could form large businesses. The histories of the separate merchant families witnessed frequent transitions from the merchants to the *meschane* and back again. Merchant families of 3-5 generations were far more common in Tambov around the turn of the century than single families of 1-2 generations. Up to 1917 all the urban strata preserved their ties with the land. For the gentry landlords, the most natural thing to do was to invest in valuable real estate and commodity production. For most ordinary town dwellers, their personal plots implied ties with the natural economy and formed a necessary help under the conditions of low wages for hired labourers and for lower officials and small businessmen.

Society - society

Up to the 1860s, status in rural or urban societies had been strictly determined by social class, but from then on the traditional class groups experienced a noticeable breakdown. The study revealed that thousands of peasants and members of the gentry made the transition from rural classes to different social-professional groups. From the end of the nineteenth century the classification as merchant became less significant. Dozens of big businessmen were still listed as *meschane* and peasants. Nevertheless, peasants and *meschane* had little chance of making an official career so long as ruined landlords remained at least middle-ranking officials thanks to their noble origins.

Tambov villages experienced only slow social mobility. Change up to 1861 was hampered by control from the landlords, the state and the commune structure. The breakdown of the land commune after the Emancipation was only shallow and the system vividly demonstrated its durability by resisting the Stolypin reforms during the severest phase of the agrarian revolution. In 1917-1918 many farmsteads and individual economies (*otruba*) were taken back into the commune.

The middle strata dominated in the towns up to 1917. As primary sources (the lists of voters and officials, the address books) show, those layers were mostly composed of owners of small properties.

Society - politics

The regional and sub-regional political elite was dominated by the nobility up to 1917. The representatives of the well-established Russian families played the main roles in the assemblies of the nobles and even those of the *Zemstvos*. The nobility also substantially influenced the town self-government. Seven of the 13 Tambov City *Duma*'s leaders in 1870-1917 were nobles, five were merchants and one belonged to the *meschane*. This social-political situation enabled the nobility to control the reforms at the expense of the other social classes. They even made a reservation of a large amount of money to prevent impoverishment of the landlords. The agrarian region preserved the traditional impact of the various strata on politics, which was used by the authorities to promote the growth of the army, or to support war campaigns.

Society - culture

A great many manorial estates which functioned as centres of high cultural activity can be traced in this period. Other social classes, including that of the merchants and many of the clergymen, remained in the realm of traditional culture. Mass access to modern culture began in the 1860s with peasant and urban support of the efforts of the *Zemstvos* and the *Dumas* to organize secular primary schools.

Politics - demography

It was a historical tragedy in the late nineteenth and early twentieth centuries that neither the Russian government nor society as a whole had any means of coping with or even exercising any minimal influence on demographic and ecological problems. The state did not even raise the question of the necessity for birth control. The migration policies were quite inadequate for a radical solution of the problem of agrarian over-population. The *Zemstvos* tried to solve some demographic problems by stimulating public health care. The feedback was often paradoxical as improvements in health care decreased mortality while peasants gave no signs of decreasing their fecundity and early marriages, instead tending, if anything, to increase in these respects thus speeding up and aggravating overpopulation, rural unrest and further migrations to the towns with the resulting social-political effects.

As a result of this high fecundity infant mortality increased again, and this was even shown in the parish registers. Infant mortality was at its highest where outmigration was low.

Phases/Village	Kermis	Pakh. Ugol	M. Pupki	
	(150 km N of Tambov)	(60 km NE of Tambov)	(50 km NW of Tambov)	
1857-1884	15-21%	24-30%	36-38%	
1899-1912	25-36%	26-53%	39-41%	

Table 3 Average infant mortality as a percentage of registered births

According to data from the Tambov regional *Zemstvos* hospital, the percentage of stillborn babies and abortions (total number of deliveries 20,000) in 1893-1904 fluctuated between 11%-26%. In 1907-1913 that figure had become 21%-36%.

The demographic situation was also influenced by war. Russian society did not experience recruitment in peace times as a great burden. Even after the introduction of general recruitment, in 1874, the army took no more than 2% of the adult males and, besides, frequent holiday periods for the soldiers was common practice. Parish registers contain many birth registrations of 2-3 children within the period of a married soldier's service. Such infants must have been legitimate because village society kept an extremely close watch on the behaviour of soldiers' wives so that an illegitimate birth – in cases where the calculated time of conception did not coincide with the husband's holiday period – would always have been precisely pinpointed and registered as such.

Due to selective recruitment and the relatively small scale of wars against a background of a rocketing population increase, the demographic impact of wars – losses – had been almost negligible, although there was a slight rise during the nineteenth century. These losses were in any case insignificant in comparison with other greater demographic regulators such as infant mortality, epidemics and famines. The Napoleonic wars, including the War of 1812, the Crimean war, the Caucasus and Russian-Turkish wars did not noticeably affect marriage behaviour, fecundity and other basic vital statistics, except for a small contribution to the death rate. The impact of the Russian-Japanese war made more difference but this was still dwarfed by the First Revolution and the impact of crop failures against the background of the mighty demographic explosion of 1903-1913. Only the First World War and subsequent revolutionary events brought about a radical change, totally destroying traditional Russian demographic patterns.

Politics - ecology

There was no state environment protection policy. All that existed were some suggestions made by scholars to organize a few nature reserves. The *Zemstvos* and other public organizations did make more noticeable efforts. From the 1860s the *Zemstvos* organized agronomic and veterinary help, but that work was in an embryonic stage with no substantial results in helping to make agriculture more intensive. From the 1870s the town *Dumas* used strict ecological criteria when planning locations for industry, in constructing the water supply and controlling slaughterhouses, and introduced sanitary controllers.

Politics - economy

When making agrarian reforms, the state declared that its will was to raise landlord and peasant interest in management. But since the landlords received most of their support at the expense of the peasants, they maintained their state of economic leisure and gave little stimulation to the peasantry. The peasants left the land communes during Stolypin's time mostly because of the need for land and not to support the new economic ideas of the state. During this period, the trade-industrial policy inflicted severe tax pressure on businessmen. State orders were distributed to a few enterprises only, those which supplied the army (fullers and distilleries).

The negative economic impact of the military factor was noticeable particularly during times of large wars (1812, 1853-56, 1904-1905, WW1). Army recruitment did not essentially affect peasant economics until the end of the nineteenth century. Labour strains came to the surface during the great wars when mass reserves were mobilized. In 1904-1905, over 20% of the male population of the Tambov region were mobilized for the Russian-Japanese war. It was the first war to influence peasant life on a family level, bringing labour strains to many households. The First World War affected peasant economies on a much greater scale. The 1917 agrarian census recorded that one in three male peasants between the ages of 20 and 40 was recruited to the army.

Politics - society

The state supported the traditional strata of society: the nobles, the officials and the clergy were supported directly and the peasants via land commune preservation. The interests of the new business and non-service intelligentsia strata were reflected in local self-government with an internal struggle against the nobility and the officials. It was not until the turn of the century that there was a kind of compromise between the liberal gentry and the merchants in the town *Dumas*.

A transition to an army based on universal military service in the 1870s-1880s coincided with a modernization process which resulted in the disintegration of the extended patriarchal family. This in turn was accelerated by official permission for family partitions. In 1904-1905 the authorities tried to rely upon help from relatives in former extended families for wives of recruited men, but such attempts failed in the Tambov region. A similar situation occurred on a much larger scale during the first World War, when nuclear families deprived of breadwinners lost any substantial support from the relatives of recruited husbands and fathers.

The state and Zemstvos only had limited means for realizing their plans for supporting the families of recruited reservists and could not assist all the recruits. This meant that peasants had to turn back to the traditional way of surviving. Peasant communes reacted sharply to what they saw as unjust principles of providing help to the families of recruits. In 1904-1905 this mood was the first sign of the coming commune revolution in defending peasant communal interests and sentiments. The First World War resulted in an immediate push towards commune revolution.

Politics - politics

There were constant social-political strains and rising village unrest, which came to the fore in times when the state authorities were weak, especially during years of distant and lost wars such as the Crimean war, the Russian-Japanese war and finally the First World War. Up to the 1910s, peasant unrest was traditionally local or regional (on the scale of a *volost* at maximum), in the form of spontaneous riots triggered by local reasons. In the early 1900s the region experienced the first separate blasts of the permanent agrarian revolution driven by hunger for land and other resources. Rural activities by political parties were minimal. Only a few pro-Social-Revolutionary peasant brotherhoods managed to draw peasants into class pogroms, a few acts of terrorism and expropriations.

There was also a general tradition expressed in state-governed bursts of patriotism when wars broke out. A study of army donations made by traditional social strata revealed their response to government appeals. Nevertheless, people considered compulsory donations and bureaucratic ways of supporting the army as a burden. A study of individual political activities confirmed that signs of political opposition in the region were isolated and originated from outside the region. The so-called 'Tambov Decembrists', Russian populists, who as a rule lived in the capitals and rarely visited their Tambov estates, got no substantial support in the region. The region was the scene of many liberal and revolutionary activists, but they had no mass support. The opposition circles of the intelligentsia were too fragile to act as party organizations, their members had only vague political aspirations and were more attuned to talks than to a decisive struggle. Nevertheless, on an all-Russian scale, a combination of factors - demography, economics, politics, war, culture - made the over-populated rural regions (on micro, meso and macro levels) act as incubators for radical political activists who shaped the events of the Russian revolutions and the Civil War.

Politics - culture

State cultural politics remained social-class oriented throughout the period. The primary sources show that in real life this meant that access to education, to modern medical services, to scholarship, literature and arts and modern culture was primarily for the nobility, less so for the clergy and only in small doses for the peasantry and the townsmen. Thanks to the reforms in the 1830s-1840s, state peasants were provided with state primary schools, hospitals and dispensaries. In the second half of the nineteenth century the state supported parish schools, but there were limitations for the peasants and the *meschane* on entering secondary schools and universities. After the Emancipation, the state offloaded expenditure on culture to the *Zemstvos* and the town *Dumas*. At a micro level the success of self-government in upgrading culture can be seen. The most striking is a growth in the number of primary schools established by the *Zemstvos* and the towns, leading to general primary education. Even the First World War did not have a substantial effect on this sector. There was much less success in rural health care. The *Zemstvos* hospitals and dispensaries, restricted partly by the traditionally limited demand on the part of the peasantry, could only cover some 5%-10% of the rural population by 1914.

Culture - demography

A predomination of traditional values in full swing is shown in the absence of birth control and family planning. Natural factors absorbed into the traditional mentality tend to be seen as the key to peasant demography. On the other hand the primary sources reveal the beginnings of rational demographic behaviour in the more educated social strata.

The relationship between the orthodox church viewed as an element of culture and the parishioners' demographic behaviour could be regarded as 'a marriage of convenience'. From the start the church with its bans, rules and calendar was never a helper but a hindrance or a peculiar marriage regulator in the peasant year cycle.⁹

Culture - ecology

The majority of the landlords paid little attention to agrarian intensification and only realized the consequences of their activities on the ecology after the 1900s. The peasants were only sensitive to the eco-problems at the empirical level. It was only in the narrowest of circles among the agronomists, statisticians, engineers and doctors, less than a hundred people in total, that the beginnings of a civilized eco-conscience began to take place.

Culture - economy

The primary sources show that in the period under study the overwhelming majority of the population in the Tambov region felt no need to engage the assistance of educated people to introduce innovations into the economy. Most landlords almost never asked for veterinary or agronomic help and almost no engineers were engaged by private enterprises.

Culture - society

There was a basic contradiction, at the level of groups and individuals in the cultural domain, between a general rise in education and modern culture

⁹ В.Л. Дьячков, Крестьяне и церковь: взаимная любовь или брак по расчету?// Российское крестьянство на пути от капитализма к социализму, 19-20 вв (Tambov 2003).

penetration versus a preservation of traditional cultural elements in all social strata. Church data reveals that there was some modern cultural impact in the mental secularization of all social groups, including the peasantry, with more integration of the clergy into a modern society.

Culture - politics

A lack of peasant education (illiteracy) restricted their rational political activities so that peasant struggles remained spontaneous and emotional. The traditional culture blocked the penetration of modern European-style political parties. The Socialists-Revolutionaries, who praised commune traditions and agrarian terror, gained some success in the peasant world. Sometimes peasants followed the Nationalists, who exploited primitive village nationalist sentiments. The Social-Democrats and Liberals, like other followers of European-born ideas, had no peasant support.

Anti-state or anti-governmental activities by a small part of the gentry originated not from material hardships but from book knowledge about social justice and the specific Russian intelligentsia's obligation for redeeming their faults in public. Such ideas had no chance of taking root in village culture.

Culture - culture

There was a socio-cultural split in the strata of Russian traditional society, which originated from the times of the *Kievan Rus* and was radically and dramatically widened in the eighteenth century. That split proved an impenetrable obstacle for a modern, urban, state culture to penetrate into the rural world. The bearers of that culture were alien to peasants whose lives were generally run on traditional lines and by the laws of bio-existence.

In contrast with the gentry, where secularization resulted in the transition to a modern culture, peasant secularization was mainly related to a protest against the rich and the official state Church. In the Tambov region, peasant dissidents were usually not non-religious but non-official patriarchal sectarians.

In conclusion

As the explanations show, the matrix in Table 1 reflects very complicated interactions in Tambov society with two dimensions, a rural and an urban. In the course of the nineteenth century, however, slight signs of a beginning convergence can be detected and these were to become very clear in the twentieth century.

Social networks and the elite in North Brabant and Groningen 1780-1910

Maarten Duijvendak

Introduction

In the study of economic and social history, in contrast to their position in society, the elite were the last to be considered. No priority was given to them in the development of this branch of the historical sciences and they were regarded as belonging to traditional political history. Nevertheless, there are now a wide range of studies that do address questions derived from the political, social and economic spheres. In any integral history of a village, town or region, the position and actions of the elite should be considered. One of the interesting topics is what role the elite played as individual actors amidst social movements, structures and transitions.

Reconstructing the elite

A few points must be considered beforehand. The concept of the elite will be discussed as will several approaches to research of the elite. Social scientists have paid attention to the elite since Gaetano Mosca (1858-1941) and Vilfredo Pareto (1848-1923) added the concept of the elite as a category to their discipline. They did so because they felt the need for a category to describe the rich and powerful that was neutral in the Marxist concept of class, a category including the higher positions in society focusing on the political bases of power and which was not necessarily based on economic sources.¹ Pareto gave two definitions of the elite. Firstly, he defined this group in a general way as 'the best in any kind of hierarchy'. In his second definition, which was adapted to fit his sociological studies, he distinguished between a lower stratum and 'a higher stratum, the elite, which is divided into a governing elite and a non-governing elite'.² This concept of the elite is

¹ General but different introductions include E. Carlton, *The few and the many. A typology of elites* (Aldershot 1996). This is the most recent but is not as good as G. Lowell Field and J. Higley, *Elitism* (London 1980); R.D. Putnam, *The comparative study of political elites* (Englewood Cliffs 1976) or T.B. Bottomore, *Elite and Society* (London 1964). For methods and problems see R. Perrucci and H.R. Potter, *Networks of power. Organizational actors at the national, corporate and community levels* (New York 1989) and G. Moyser and M. Wagstaffe (eds.), *Research methods for elite studies* (London 1987).

² V. Pareto, The mind and Society III (London 1935) 1422-1424.

useful but not completely clear. It led to some confusion and ambiguity because 'any kind of hierarchy' is rather general and different hierarchies are not always independent of each other. For instance, the political and economic hierarchies are often mingled or overlapping. Mosca wrote about the 'political class' as easily as he used the words 'ruling elite' which confused matters even more. Mosca and Pareto were rather poor researchers who used random examples without proper scrutiny. Their importance lies in the theoretical debate: Pareto for his definition and a thesis about the 'Circulation of elites' (the notion that the elite change, rise and fall over time) and Mosca for his concern about the composition of the elite in more or less democratic societies. Their writings stand at the beginning of a branch of research and in many areas require further testing against empirical evidence. From the 1960s onwards, the study of the elite attracted a lot of attention and research was carried out at the local level, particularly in the United States.³ Three different research strategies emerged - a positional method, based on the identification of power positions in a community, a reputation method, using questionnaires about people's influence or other indicators of status and influence and a third method which became known as the decision method. This last method tried to analyse the issue strength of power position holders in certain important issues and against each other.

A general opinion emerged about the concept of the elite as being 'those who lead in any social category or social activity' and some central topics evolved.⁴ Applied to nations, regions or communities these are:

- 1. The social composition of the elite. Who form the elite? What kind of resources do their positions depend on (e.g. economic, status, political, violence, formal (state) positions)? Is it a homogenous group?
- 2. How 'open' or 'closed' is this elite? How is the recruitment organized? What are the paths into this elite (educational system, social mobility, social movements, etc)?
- 3. How integrated is this elite? Are there strong social or intellectual ties that bind them together, how do they socialize, do they intermarry, do they have political disagreements, do they compete for resources?
- 4. What does the elite do with its position? What does the governing elite do when it governs? How is power concentrated or controlled in society?

³ Pareto inspired Marie Kolabinska to write La circulation des élites en France: Etude historique depuis la fin du Xie siècle jusqu'à la Grande Révolution (Lausanne 1912). The writings of Mosca inspired C. Wright Mills, The power elite (London 1956) and the following discussion by R. Dahl, Who governs: Democracy and power in an American city (New Haven 1961). A great many other local studies are listed in Moyser and Wagstaffe (eds.), Research methods.

⁴ Important here is the essay by Antony Giddens in P. Stanworth and A. Giddens (eds.), *Elites and power in British society* (London 1974) 1-7.

How is this affected by institutional change? What is the issue strength of elites; what are the results when they make decisions on difficult issues?

For practical research these questions can be divided into sections, each with their own relevant literature lists, theories and hypotheses. Within historical science matters are naturally rather more complicated than with sociological research since the definitions and approaches have to suit ages with other institutional frameworks and other source materials. The more traditional political histories of the Ancient Regime often used a juridical definition of the elite. The elite was equated with the nobility, the aristocrats of society, with the elite being a hereditary group here. This created interesting questions about the social divisions within this group, differences in economic resources, marriage patterns, the integration of newcomers into the nobility (newly appointed nobles in nineteenth-century Netherlands or advances in the Table of Ranks in Russia). Questions arise about the domains or fields in which this elite was active - national, regional, local, politics, culture, economy - and what kind of role they played there. The ideal type of the noble elite member at the time of the Ancient Regime developed from this. His attributes were his noble birth, his landed interests, his education, his travels or 'grand tour', his taste for art, spices and other luxuries and his wide and vast network of equals that could extend over a large region, even over Europe as a whole. Continuation of the House and family honour were the most important values. These nobles were hardly involved in any decisionmaking, leaving this almost entirely to their advisers.

However, this picture of the juridical elite does not match all the elite that were active at the local or regional levels. In some regions these nobles had to compete or co-operate with other people who were not of the same juridical rank. This was the case in most of the Dutch towns in the fifteenth to nineteenth centuries, as well as in numerous other places. Ancient Europe was dotted with towns that were ruled by burghers and other commercial elite. As well as in the Low Countries this was manifest in the Rhineland and some other coastal areas.⁵ There was often not such an enormous social distance between the elite and other members of society in these places. Bourgeois elites had strong social relationships with the social environment that they sprang from. These relationships varied from town to town and period to period and have been researched using the four questions stated above. However, in the seventeenth and eighteenth centuries they formed part of a process that detached them from their fellow citizens and made them

⁵ C. Tilly, Coercion, capital and European states, AD 990-1992 (Cambridge 1990).

more of a closed oligarchy.⁶ This process brought a shift in the social resources they drew on – away from commercial to more landed interests –, brought new issues into the political arena and helped in the end to shape the organization of the city and the state,⁷ and led to the ideal type of a member of the burgher elite. Among his attributes were his commercial interests, his ties within the local society and the tension between civil duty and personal profit – his education, travels and luxury spending had to be 'useful'. 'Useful' as well was his social network, developed from his familial and trade contacts. Family and profit were probably the most important values to him. The dominant political culture was to speak in rhetorical terms of democracy, while decision-making was actually confined within a small circle.

There were cases where the local elite was as far removed from the ideal noble elite as it was from the burgher elite. This situation often existed in rural areas. There were three different types of elites in three different types of power relations in the enormous stretch of land that is Europe. Many villages were the property of or had strong ties with noble families. These families appointed the local authorities, the judge, the priest, the clerk and others. These functionaries were sometimes recruited from the most important local families but often they came from other centres where they had enjoyed some formal education, or at least had spent some time, and they formed a local elite.

It might be fruitful to make a distinction between the local elite composed of locals and the elite in which outsiders were appointed to fill the most respected and powerful positions. In the first case a local political culture with a high degree of participation would have developed, while in the second case input from outside, new ideas, new influences, new political debates, would have been able to penetrate such villages more easily. With regard to the Netherlands, a possible hypothesis is that this difference explains the spread of the more fierce debates and clashes in the 1780s between Patriots and Orangists. Here the ideal type of a member of the village elite emerges. Among them were the most important land-users, who could read and write and who had strong relations in the local society. Decision-making was open and public, but some local dignitaries were very influential and occupied a central position, such as the priest, the mayor or the judge.

In some cases one of the members of the noble family lived nearby. When the village was near to his residence on his estate he could actively participate

⁶ M. Prak, 'Cities, bourgeoisies and states', in: W. Reinhard (ed.), *Power elites and state building* (Oxford 1996) or J. Gabriëls, 'Patrizier und Regenten: Städtische Eliten in den Nördlichen Niederlanden 1500-1850', in: H. Schilling and H. Diederiks (eds.), *Bürgerliche Eliten in den Niederlanden und in Nordwestdeutschland* (Köln 1985).

⁷ H. Diederiks, P. Hohenberg and M. Wagenaar (eds.), *Economic policy in Europe since the late Middle Ages: the visible hand and the fortune of cities* (Leicester 1992).

in the local affairs, as the head of the local power pyramid. This situation approached the noble ideal type but was quite rare, and when it existed it was confined to the lower nobility, the landed elite.⁸

From the 1960s onward, Lawrence Stone and others have made progress in collecting all kinds of data about these people. Starting from the traditional national elites and their political activities, dress and general behaviour, Stone developed a more structuralist approach. He drew up a kind of collective biography, a systematic description of the social, cultural and economic backgrounds of these individuals, the prosopographic method.⁹ But at the same time he warned about the limitations of this kind of collective biography. Some prosopographers concentrated on the elite alone and ignored the social environment, the nameless client masses, the ideologies and ideas at work and even the institutional framework. Stone put the case for more theory and statistics and declared that prosopography was a valuable tool in revealing the social background and ties that bind a group together. When carefully applied to easily defined groups, Stone is positive about the method's usefulness. Prosopography suits a positional approach to the elite common to historical research and its strength lies in revealing the social patterns behind the names of those who governed. It has become a widely accepted method.

Reconstructing the elite in North Brabant and Groningen

It is not enough to point to the local mayors or members of the city council, although they were certainly powerful. The local or regional elite as a whole was not restricted to those people who had functions in the political arena, although they form an interesting part of it. As an alternative, names and other information about people who belonged to potentially relevant groups were collected, such as members of the local councils, judges, clergy, notaries, other professionals, major taxpayers and/or large landowners. Members of committees, clubs, societies and other organizations involved with the allocation of scarce resources or with ideological issues were also included. This last group of people could be termed a social elite. Together, this resulted in a political, an economic and a social elite in the manner described by Weber.¹⁰ The term 'social elite' to describe the combination of these groups is preferred to 'societal elite'.

Together, all these people roughly form an elite because membership of the town council, court, club or committee on agricultural affairs was confined to a rather small section of society, but positions were not equally

⁸ H.M. Scott (ed.), *The European nobilities in the seventeenth and eighteenth centuries* (London 1995) vol. 1: Western Europe; vol. 2: Northern, Central and Eastern Europe.

⁹ L. Stone, 'Prosopography', Historical studies today; Daedalus: journal of the American Academy of Arts and Sciences, 100 (1971) 46-79.

¹⁰ One could think of adding a cultural elite based on what Bourdieu called bearers of cultural capital.

distributed among this group. There is the possibility that a small group occupied the most or the best positions. It can be hypothesized that these positions became spread among more people during the nineteenth and twentieth centuries in the Netherlands. This could have been the result of institutional change (the extension of the electorate), the result of economic development (the rise of a new industrial elite), or the result of a rise in the educational standard. Data about functionaries and taxpayers was analysed to test this hypothesis.

The taxpayers and landowners can easily be tabulated from low to high. They form a hierarchy that can be visualized using a cumulative frequency distribution or a Lorenz curve. It is possible to distinguish between the upper and lower parts of this taxpayers elite in several ways. These people and their positions in this hierarchy have to be compared with people in the political elite. This attention to the economic elite is not just an old Marxist relict because they were important in society for many reasons. They possessed the keys to all kinds of scarce resources and it is possible to analyse their relations with other elite groups. When both groups are compared over a period of time it is possible to see whether they became more apart or more alike. The latter can be seen as the development of a more closed and smaller elite. There are two explanations for this. On the one hand it can be interpreted as the emergence of a more open political setting in which the elite functions. At the same time it was affected by the rise of new people, newcomers among the local rich as a result of the economic boom in these regions. It could be expected that these new names would soon be found among the political elite.

It is rather more difficult to select the most important people from among the social and political elites. With regard to the political elite, it would be possible to devise a kind of nomenclatur but network analysis is probably better. Network analysis has many advantages and some disadvantages.¹¹ One advantage is that a combination of network analysis and prosopography could solve the problems raised by Stone. It solves the problem of boundaries for those members of the elite who are not confined to a juridical category or the membership of one special council or board, e.g. a regional elite in modern times. Secondly, the analysis links the elite to the institutional framework in which it is functioning. It reveals the relations the elite maintains with clients and it considers the social resources they might possess in the regional political arena. Another advantage is the information the network structure provides on the integration of the regional elite. Application of this method in historical

¹¹ Parts of the following sections have been published before: M. Duijvendak and M. Peterzon, 'Relations, friends and relatives. Comparing elite networks on structural properties in the Dutch provinces Groningen and North Brabant, 1830-1910', in: O. Boonstra, B. van Elderen and G. Collenteur (eds.), *Structures and contingencies in computerized historical research. Cahiers voor geschiedenis en informatica* 9 (Hilversum 1995) 84-94.

research is possible, although difficulties related to the reliability and completeness of the historical sources pose restrictions.¹² Besides this, there are problems of comparing data between networks over time. These points will be discussed below.

The basis of social network analysis is the relation that exists between two people who are members of a single unit simultaneously at a given point in time. This analysis is restricted to formal relations with other kinds of relations, such as family or financial ties, being considered afterwards. Network analysis makes it possible to describe the network structure, seen as the coherence and hierarchical order inside the elite, on a uniform scale. In this study the terminology and theoretical concepts of the graph theory will be used. The basics of graph theory have served as the foundations of many concepts in the analysis of social networks.¹³

A network consists of nodes (persons or organizations) and lines (membership or contacts). The basis of network analysis is the relation that exists between two people who are members of a single unit simultaneously at a given point in time, e.g. relations between the county board and a relevant selection of organizations in the region. The density of lines and the number and size of the components and clusters determine the coherence in a network. A hierarchical ranking is based on status and Rush indexes, which compute the centrality of points in the network. Application of this mathematical method in historical research is possible and not entirely new. The reconstruction of social networks of a regional elite results in large data sets. Most modern personal computers can analyse these data sets.¹⁴

In some sociological network studies the analysis is restricted to one network at a given point in time. When change between two networks is investigated, numerical change in the data set is avoided. In effect, these analyses are restricted to the stable nodes in the networks and only the change in their relations is investigated.¹⁵ For a historian this is disappointing. In contrast to this, new nodes (organizations or people) were not omitted from the networks so that the networks grew significantly in size, from 59 to 152 people in North Brabant and from 115 to 159 in Groningen.

¹² M.G.J. Duijvendak and A.J.A. Felling, Longitudinal network-analysis. Prosopography and narrative: The rise of a Roman Catholic elite in a Dutch region [IER Research Memorandum 552] (Groningen 1993) and P.S. Bearman, Relations into rhetorics: Local elite social structure in Norfolk, 1540-1640 (New Brunswick 1993).

¹³ S. Wasserman and K.L.M. Faust, *Social network analysis: Methods and applications* (Cambridge 1994) is an excellent introduction to the techniques. See also the comments by B.H. Erickson, 'Social networks and history', *Historical Methods*, 30 (1997) 149-157. She discusses the concept of social network analysis and provides references to historical research.

¹⁴ The UCINET program is very convenient. This software possesses all the standard techniques for social network analysis. A UCINET version for Windows has recently been published. S.P. Borgatti, M.G. Everett and L.C. Freeman, *UCINET 5.0 Version 1.00* (1999).

¹⁵ J. Galaskiewicz and S. Wassermann, 'Change in a regional corporate network', *American Sociological Review*, 46 (1981) 475-484.

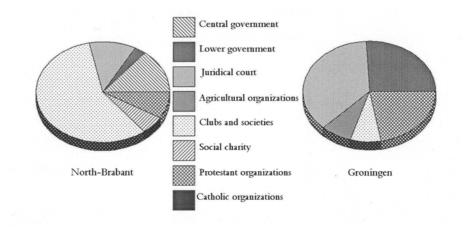
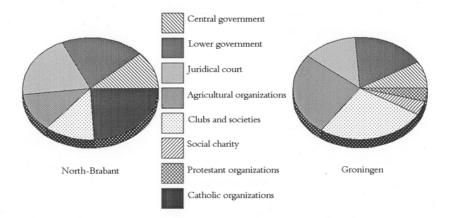


Figure 1 Organizational network 1835. Relations between the country-board and other sectors in North Brabant and Groningen

Figure 2 Organizational network 1910. Relations between the country-board and other sectors in North Brabant and Groningen



Standardization became very important as an effect. Simple indexes were not computed; instead, two different methods of standardization were followed. Problems concerning the organizational network arose because of the absence of many organizations in the first years. An enormous number of social and political organizations were formed in the Netherlands in the last decades of the nineteenth century. Organizational sectors (categories of a certain type of organizations) were defined and the absolute number of relations the organizations had between themselves (outdegree) and the relations between those categorical sectors as the percentage of the total number of relations in this given network were both calculated. These percentages were used to discuss development in the organizational network (Figures 1 and 2).

Another aspect of standardization concerns the question of selecting the network core. This had to be done very carefully when the social homogeneity of these central members of the networks was being investigated. The three measures of centrality, the outdegree, the Hubbell status score and the Rush index, were used to complement each other, each having its own characteristics. The combination of these led to a group of people who could be identified as the network core.

Elite integration is reflected in the network structure.¹⁶ With structure is meant the network density, the number and size of the components and clusters in the network and the pattern of relations between the network nodes (persons or organizations). This is a not a stable 'structure'. Within the institutional framework it is strongly connected with social and political development in the region. Changes in the balance of power in the region have important effects on the network structure. The rise of new and strong social movements in the region or shifts in importance between cities in the region causes visible changes in the network. The individuals involved come into the picture when the network of people is considered. Although the analysis provides a clear view of individual networks it is the combination with traditional prosopography that gives the best results. The position in the elite network was treated as social capital and therefore as a part of their social resources.

Some results from the networks

Both regions are agricultural regions. In North Brabant the textile industry provided important additional income, while in Groningen most industry was related to the agricultural sector. An interesting question, therefore, is whether this economic structure is represented in the elite networks.

During the nineteenth century the number of organizations increased as a consequence of social emancipation, the emergence of specialization among interest groups, the growth of wealth and denominational segregation. In 1835 the network of organizations in Brabant was small while the Groningen network was almost twice as large (see Tables 1 and 2). During the nineteenth century this difference decreased. An important difference between both provinces is seen in the character of their organizational patterns. In 1833/35 personal relations between the county board and central and local government were important but varied between the regions. In 1910 these relations were more equally distributed but remained important. A considerable number of

¹⁶ J. Higley, U. Hoffman-Lange, C. Kadushin and G. Moore, 'Elite integration in stable democracies: a reconsideration', *European Sociological Review*, 7 (1991) 35-53.

organizations were formed along confessional lines. In both provinces agricultural organizations emerged in the second half of the nineteenth century, but earlier in Groningen than in North Brabant. In the latter they were formed on a Roman Catholic basis. This is explained by the fact that the population of North Brabant was at least 95 percent Roman Catholic while in Groningen the Dutch Reformed Protestants were the largest denomination, although this decreased from 80 to 60 percent of the population during this period.

	1833	1875	1895	1910
Number of persons	115	130	159	148
Number of organizations	83	142	181	158
Number of strong components	5	6	8	4
Total number of clusters	6	8	16	10
Number of central clusters	1	1	4	3
Density $\frac{relations \star 100}{p(p-1)}$	19%	13%	11%	14%
Number of persons with direct access				
to 40% of the network	13	2	0	3
Gini-Index Rush	0.72	0.79	0.84	0.74

Table 1 Groningen network characteristics, 1833-1910

Table 2 North Brabant network characteristics, 1835-1910

	1835	1875	1895	1910
Number of persons	59	94	151	152
Number of organizations	55	78	124	139
Number of strong components	7	3	7	2
Total number of clusters	7	12	15	12
Number of central clusters	2	1	3	4
Density $\frac{relations \star 100}{p(p-1)}$	13%	8%	7%	8%
Number of people with direct access				
to 40% of the network	23	5	6	8
Gini-Index Rush	0.65	0.75	0.80	0.83

The information about the organizations has been arranged in fourteen sectors. Sectors have been defined for central, regional and local government, for judicial courts and the different interest groups. There are a changing number of components within the networks. The provincial government is the central organization within the biggest component with smaller components of local governments and local organizations being formed in addition. This structure of components in the four years selected does not show an obvious development. The Roman Catholic clergy played an important role in the province of North Brabant, but this is not fully seen in the network centrality indexes. The Roman Catholic clergy held no formal positions in lay organisations until the turn of the century. This did not change much until 1900, when formal relations between the Catholic clergy and other organizations were established. This component can be seen as a 'counter elite'.

Relations between government and club life and between government and judicial courts remained numerous during the nineteenth century. From the second half of the century onwards agricultural interest groups became important, first in Groningen, causing a functional specialization in parts of the networks. In North Brabant, after 1895, the Catholic electoral organizations achieved a prominent position because of the relations they maintained with central and local government. In 1910 the relations the agricultural interest groups maintained were the most prominent. In North Brabant a new, Roman Catholic farmers' union, the NCB, developed important contacts at the local level and also maintained extensive relations with both the Catholic electorate and the regional government. In Groningen relations between the government, the juridical courts, agricultural interest groups and cultural clubs and societies remained important.

The personal networks in 1833/35 and 1875 can be characterized as monocentric and those in 1895 and 1910 as polycentric. Density and face-toface contacts decreased between 1833/35 and 1875. The Gini index, computed from the Rush index, shows a growing unequal distribution in the networks which can be explained by the development of clusters in the network. In 1833 and 1835, in both Groningen and North Brabant, the networks were monocentric and rather dense. The core members had homogeneous social backgrounds. In both provinces Protestants were overrepresented in the networks. Both in North Brabant and Groningen most network members combined functions in government and the courts, with lawyers and administrators playing important parts in the social and cultural parts of the networks. In addition, all central actors belonged to the financial elite, the largest taxpayers in the regions.

During the nineteenth century these networks extended and in 1895 they were no longer monocentric. Density and accessibility dropped after 1833/35. The network in North Brabant in 1910 had a profoundly polycentric structure and density and accessibility had not dropped any further, compared to 1895. The network core held four clusters. The core cluster consisted of members of the older Catholic elite families from the regional capital, active in Electoral Associations, while members of the NCB farmers' union had a core cluster of their own. The network in Groningen in 1910 was also stable compared to 1895. Density had risen slightly and the number of components decreased. The network core held three clusters. Most prominent were clusters around provincial aldermen and lawyers of the city of Groningen, prominent members

of agricultural organizations and members of local government from the southeastern parts of the province.

Around 1900 the social backgrounds of the members of the network core were no longer homogeneous. However, in both provinces the lawyers, farmers and industrialists prevailed in the network. The different clusters had different social characteristics. Only a few central network members belonged to the group of the largest taxpayers, the financial elite in the area. The share of the nobility in both networks decreased, only a few aristocrats without a university degree could maintain their positions. In Groningen a third of the network still had university degrees, but this was much less common among the aristocrats. In North Brabant less then 20% of the network had university degrees and nobility with university degrees accounted for almost half. Although this difference seems to be explained by the existence of the University of Groningen, there is another important fact: Protestant ministers received their education at University while Roman Catholic priests did not. This, in combination with the number of ministers in all kinds of social organizations and the absence of priests in them, forms the real explanation.

In North Brabant the network of 1910 was more coherent because of the prominent position of the NCB and the Catholic political associations. They dominated the region in political, social and ideological matters and this was reflected in the network structure. In North Brabant the position of the Den Bosch-based regional elite weakened further, challenged by elites from other towns such as Tilburg, Eindhoven and Helmond. The position of the city of Groningen was not threatened. Only Appingedam and some mayors from the south-eastern parts of the provinces could aspire to core positions in the network. The former succeeded through political and juridical relations, the latter with their positions in and relations with the farmers' movement.

Conclusion and outlook

This analysis enabled the ties that bound the elites in the regions to each other and to the state as a whole to be traced. Integration among these elites changed between 1830 and 1910, while their social composition differentiated. The people with central places within these networks were the most powerful in their regions. They dominated not only the county boards but also most organizations. In 1833/35 and 1875 these relations cumulated in one or two, socially uniform, clusters in the network core in both regions, but in 1895 and in 1910 this was no longer the case. In these later years the distinct clusters in the network cores showed a social differentiation. While functional specialization and social emancipation in the central clusters and different organizational sectors became apparent, the networks became more polycentric.

With the rise of this more pluriform regional elite the social resources were less cumulated. In 1875 and earlier the organizational and financial elite were united. After 1875, when the number of organizations rose, organizational resources became more self-reliant and separate from other resources. This was seen in the political arena, where the rise of the electoral associations and political parties made politics based on personal charisma impossible. Network analysis proved helpful in establishing the boundaries of the regional elites and provided a base for prosopography, which was necessary in order to be able to distinguish between different sections of a regional elite. The additional value of network analysis for historical research lies in the information it provides about the structure of relations between members of the considered elite. Here it allowed the study of the changes in the network structure between the selected years and the comparison of two regions to be made on an equal basis. The decline in prominence of some members of the elite in North Brabant, the delicate position of the traditional elite of the regional capital in Groningen and the rise of new groups, particularly agricultural pressure groups, became clearly visible. This caused a 'regionalization' in the network as shown by the polycentric structure.

Network analysis answers the problem of selecting the most prominent members of a social elite. However, it should be used with care and in combination with other methods and questions can be asked about the kind of information these analyses provide. Ideally, these analyses should be combined with other methods and other data, e.g. the hierarchies made up of the economic/financial elite and an analysis of the decision-making process. These results have been presented elsewhere.¹⁷

In future it might be possible to incorporate a more cultural elite, that of the professionals, the teachers, clergy, and the members of some of the clubs and societies as well. If this group is treated separately, their network position can be researched and used to test the hypothesis that the members of this cultural elite were important because they introduced some of the new ideas that accompanied transitions and were the agents of cultural and political change.

¹⁷ Duijvendak and Felling, Longitudinal network-analysis; M.G.J. Duijvendak and M.D. Peterzon, 'Ontwikkeling van Nederlandse elites in de negentiende eeuw. Een vergelijking van netwerken rond het provinciaal bestuur in Groningen en oostelijk Noord-Brabant', Mens en Maatschappij, 70 (1995) 3-22.

The development of the family structure in the Tambov region 1800-1917

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Introduction

Historical demographic studies of the family structure are dealing with one of the most important themes of social modernization – the transition from a traditional extended family to a small nuclear one. Some Western demographers, such as John Hajnal, tend to suggest that there is a relationship between the rise of the nuclear family and the development of a socially advanced Western Europe. He implied, though without stating it in so many words, that societies which preserved extended families for longer periods are somewhat defective.¹ Recently, Boris Mironov has attempted to prove by means of an in-depth study that a 'normal European', though somewhat belated, transition from a traditional to a modern model took place among families in Imperial Russia.²

This paper aims to trace the peculiarities of the modernization of provincial Russian families in the Tambov region, using an objective approach as far as possible and avoiding any ideological presumptions.³ Computer micro-analysis of the census registers and other censuses has been used as the main research method. This has allowed the many processes operating in particular families to be made visible from a bottom-up point of view whereas working with aggregate data often leaves these hidden. The main sources are the data from the 7th to 10th censuses of several villages with differing peasant class structures in the Tambov region combined with data for the typical regional town of Morshansk. Although some data is missing, information on the majority of the families in each settlement and for each census has been found. These hundreds of families provide a good and re-

¹ J. Hajnal, 'European marriage patterns in perspective', in: D.V. Glass and D.E.C. Eversley (eds.), *Population in history. Essays in historical demography* (London 1965).

² B.N. Mironov, *The social history of Imperial Russia 1700-1917*, volume 1 (Boulder 2000).

³ S. Yesikov, 'The characteristics of the Tambov region in the nineteenth century', in: P. Kooij (ed.), Where the twain meet. Dutch and Russian regional development in a comparative perspective 1800-1917 (Groningen/Wageningen 1998) 7-15.

liable selection for a structural analysis of the local population. The sources list all members of each taxable family in a separate settlement, or on a landlord's estate in the case of serfs, with a record of the kind of relationship of the other family members to the family head and also all changes which had occurred (deaths, migrations, army recruitment) since a preceding census. These sources allow such basic indices as the number of family members and the type of family to be calculated, taking into account its status, its landowner or the settlement in which the family lived. The main shortcoming of the census registers as a source is that they formally report one peasant household as an extended big family, while in fact it was divided into several small independent ones.

In pre-reform Russia, the authorities and the landlords tried to prevent family partitions and this ban makes it very difficult to trace real peasant life. Thus, in the first instance, a household and a family had to be regarded as one and the same with supplementary comments being made where possible. There is only one case, that of the single family householders (odnodvortsy) in Rasskazovo, where the families of serfs are explicitly delineated. Because of this, other types of sources, such as the confessional lists, were studied to find data on the real family structure. Data on families in different peasant categories who went to confession in the separate parishes of Rasskazovo in 1811, 1823, 1832 and 1843 and in one parish of Morshansk in 1850 has now been compiled. Because the confessional lists and the census registers were prepared with similar structures and at relatively close dates to each other, a comparison makes it possible to specify the characteristics of the specific families. Various data from the registration records of the late eighteenth and the first half of the nineteenth centuries for the different classes (nobility, officials, meschane) in the Tambov region and in the towns of Tambov, Morshansk and Kirsanov were also used.

There are even more source problems for the study of the family structure during the period 1850-1917. The pre-reform censuses came to an end by the late 1850s and Russia waited until 1897 for the first general census. This appears to have been regarded as somewhat inaccurate because its primary data with information on specific families was destroyed on the instructions of the Central Statistics Committee. The published aggregate data of the 1897 census allow an evaluation to be made of the average sizes of rural and urban households at the levels of an *uezd* (region) and of separate towns. The average sizes of the land commune's households and of the separate farmsteads can be calculated using the *uezd* data from the 1917 agrarian census, which noted the peasant population and the number of households. The primary data for 1850-1917 for families of peasants and other social strata are sporadic and heterogeneous. The household censuses of the 1880s arranged by the Tambov Zemstvo are helpful to some extent. They contain data on the number of consumers in a household mentioning the first and the family name of a household head, making it possible to estimate the average size of the households. Some demographic data can be found in the Zemstvo papers from applications for allowances for wives of the reservists recruited for the Russian-Turkish war of 1877-1878 and for the Russian-Japanese war of 1904-1905, as the volost (a small region or group of neighbouring villages) boards inspected the property status of the soldiers' families. Clergy registers (primary data on parishes and on the families of priests), the lists of merchant families and the lists of service by officials between 1850-1917 were also used. In this way new primary sources have been used to provide evidence for family history and family structure in the period 1850-1917, and the methods of deriving indirect data on the structure of specific rural and urban families have also been improved.

The peasant family in the first half of the nineteenth century

In traditional villages peasants generally preserved big family households. Moreover, Kiselev's reform of the state villages resulted in large house-holds being retained in the censuses with the result that their average size almost doubled. This was shown most clearly in the wholly state-owned village of Malye Pupki and possibly also in the outskirts of Rasskazovo (table 1).

Table 1 The average size of census households in separate villages in the Tambov region, 1816-1858

	1816	1834	1850	1858
Malye Pupki (agricultural village, state peasants)	8.3	11.3	15.0	14.0
Kalugino (agric. village, serfs and state peasants)	8.9	-	10.8	-
Bailovka (agricultural village, serfs)	7.6	7.3	-	7.0
Rasskazovo (trade-indus. village, various peasants)	6.6	7.1	-	6.7
Rasskazovo outskirts (agric. villages, state peasants)	-	12.8	13.5	14.2

Bailovka, which was a village wholly inhabited by serfs, tended to have smaller families, presumably due to the crisis in the serf villages. The values for Kalugino fall in between those of Malye Pupki and Bailovka, probably because there was a mixed peasant population there. From as early as the beginning of the nineteenth century, the peasant families in the trade-industrial village of Rasskazovo were on average notably smaller than the families in wholly agricultural and remote villages. However, it must be kept in mind that it is difficult to relate some of the average indices to specific social classes because Bailovka, Kalugino and Rasskazovo were also inhabited by peasants from other categories who may possibly have had family sizes and structures different from the majority of the peasants.

Table 2 The average size of census households for different estate groups in Bailovka (B) and Kalugino (K), 1811-1858

()	(),								
	18	811	18	816	18	34	18	350	1858
	В.	К.	В.	К.	В.	К.	В.	К.	В.
Serfs	7.3	8.2	8.3	-	7.4	-	6.9	9.2	6.5
Estate serfs	3.6	3.5	3.0	-	3.3	-	6.1	4.8	4.4
State peasants	_	-	-	8.9	-	-	-	-	-

Note: The figures calculated for 1811 are estimates based on the average number of males in the census. The figures have been almost doubled in keeping with the approximate equality of the number of males and females in traditional villages.

The average size of households of state peasants in Kalugino in 1816 was very close to that of Malye Pupki, suggesting that this was the typical family size for that category of peasants. The figures for the serfs in Bailovka prove that it was the serfs who were responsible for the general decrease in family size in this village. In contrast, the figures for Kalugino do not show a similar decrease in the period 1811-1850. In order to clarify these contradicting developments it is necessary to make further comparisons with other settlements. A special trend was revealed by the families of estate serfs, whose family size doubled in Bailovka and also increased in Kalugino. A possible explanation for this could be that restrictions imposed on the marriage of estate serfs by the landlords were far less common by the 1850s.

Table 3 The average size of census households for different classes in Rasskazovo and its outskirts, 1816-1858

	1816	1834	1850	1858
Serfs	7.0	7.2	-	8.0
Single family households	-	12.8	13.1	15.2
Principality (Tsar Family's) peasants	-	-	13.3	17.3
Factory-hand peasants	5.1	-	-	6.3
Estate serfs	4.1	3.9	-	4.8
Serfs of state peasants	-	4.3	-	5.0

A joint study of the census registers and the confessional lists showed that the Rasskazovo state peasants, who made up the majority of the population, preserved rather large families (on average 7-8 family members) through the whole of the first half of the nineteenth century, though their households remained notably smaller than those of the state peasants in the agricultural outskirts of Rasskazovo. The confessional data on the family size of the single family households (6.5 in 1823) and of principality peasants (7.3 in 1843) suggests that the actual families in these classes were only half the size suggested by the lists of the official household censuses.

Table 4 The average size of households according to confessional lists in Rasskazovo and its outskirts, 1811-1843

	1811	1823	1832	1843
Estate serfs	-	3.6	-	-
Single family households	-	6.5	-	-
Serfs	8.3	7.3	7.9	-
Principality peasants	-	-	-	7.3
Total	7.9	6.4	7.0	7.3

The average family size of the serfs in Rasskazovo is close to that of the Bailovka figure. Shortage of land was possibly a common restriction on family size in these settlements since Kalugino, where the available land had not yet been exhausted, also had notably larger families. Similar figures can be found for Kamenka, a neighbouring landlord's village in this steppe area.⁴ Steven Hoch, who studied the village of Petrovskoe which was situated in the same part of the Tambov region, calculated similar family sizes to those found for Kalugino.⁵

During this period, the families of peasants who were working as factory hands were notably smaller with only 5 to 6 members, which suggests that industrialization had some impact on the behaviour of this social group. The Rasskazovo estate serfs and the state peasants' serfs (whose way of life was very similar to that of the estate serfs) had rather small families (averages of 5.7 and 4.4 members for this period). Their family sizes reflect the distortions brought about by the numerous bans imposed by landlords on the marriages of their household servants. There were only 5 children among the 15 single estate serfs listed in the 1816-1858 censuses, the other 10 (comprising 12.3% of all estate serfs' families) were adult single people. Such a high share of single people was unnatural for Russian peasant society and was caused by the bans on marriage imposed by the landlords. In comparison, there were only 1% of unmarried adults in the serf and factory hand peasant groups. In contrast to Kalugino and Bailovka, there was almost no increase in the average family size in Rasskazovo suggesting that the bans on marriages were still of importance there.

The tables contain no data on the smallest population groups, which were not listed in the censuses as such but were included in the census registers for the sake of completeness or could be calculated by the changes from the one census to another. In the 1850s, 47 families of factory hand peasants, comprising on average 5.6 members each by 1858, were emancipated and this was obviously less than the average figures for Rasskazovo. In 1858, some 28

⁴ Н.Н. Ротаhob, Село Каменка и его болость. Особое прибавление к «Сборнику статистических сведений по Тамбовской губернии» (Tambov 1886).

⁵ S.L. Hoch, Serfdom and social control in Russia. Petrovskoe, a village in Tambov (Chicago/London 1986).

families of Rasskazovo factory hand peasants entered the Tambov *meschane* group, although they stayed in their native village. Their average family size was 6.3 by 1858, a figure which was also less than the average due to their transition to trade-industrial activities.

The soldiers' families displayed the biggest variations. According to the census, the families of the soldiers' wives contained only 3-4 people each, while the confessional lists reported only soldiers' wives living alone and soldiers' children. At the same time, the families of retired soldiers grew on average from 5.5 members in 1850 to 9.0 in 1858 thanks to a shortening of the service period and more furloughs.

The value of microanalysis increases if we compare its information with aggregated data on a higher level. Such a comparison helps to make clear what the objects of microanalysis are. It is possible to obtain an understanding of the special characteristics of separate settlements, classes and inner class groups and of separate households and families by relating figures obtained in this way to the total figures for the region and the country, making it easier to display the real diversity of social life than is possible with abstract average numbers.

The Tambov regional data on peasant households in 1862, for instance, showed an average household size of 8.3 people, while the villages of Bailovka, Kalugino and Rasskazovo displayed deviations from this average with figures ranging from 7.5 to 9.5 people. This does not, however, change the general picture of the dominance of big families. At the same time, the numbers differed sharply from the data of the 1858 census. In 1862, Bailovka having had some increase of population, was found to have 20% fewer households than in the preceding census, pushing up the average family size by 2.4 people. The opposite was found in Kalugino with 50% more households in 1862 than there were 12 years before, which reduced the average family size by 3.3 people. Such statistical contradictions can only be explained by different methods of census taking and administrative counting.

Census registers were mainly aimed at fixing and strengthening big and solvent peasant families, which in reality should have been divided into several smaller ones. On the other hand, census registers counted remnants of disintegrated families from the preceding censuses as independent households while they often consisted only of infants or elderly people. It should be kept in mind that the estate serf families listed in the registers as separate households in fact lived on estates.

The administrative lists of settlements probably counted the real households. So, in 1862 fewer households were recorded in Bailovka than the number of families in the last census because in fact many estate serf families had no households. The opposite situation found for Kalugino can be explained by the fact that some state peasant families lived separately but were listed in the census as being part of united big households. This was clearly the case in 1862 in Malye Pupki. The village population was almost the same in the 1858 census lists as in the 1862 lists, while the number of households differed drastically changing from 255 to 863, which cut the average family size down three times to 4.2 people. In all probability many small families were living separately. The 1858 census counted 1,086 small families and a large share of them could have formed independent households. However, the 1862 family size reported for Malye Pupki deviates too much from figures for other villages and the region as a whole to state that such small households were typical for peasant families. It would appear that the census clerks listed households not as joint peasant economies but as separate houses.

The average family sizes in Rasskazovo and the outskirts of Rasskazovo for 1858 and 1862 were, however, almost the same, showing not only the stability of the counting methods but also the quality of the calculations for the different settlements. The all-region data for 1862 also provides information on social class and household size which can be compared with the figures for the villages being studied. On a regional scale, the average size of a serf household appears to have been 0.3 people more than the figure for the average state peasant household. The census registers for the villages studied showed the opposite, suggesting that the officials had deliberately made efforts to exaggerate the state peasant family size in the census registers. The average peasant family size of 8 people in the Tambov region in the 1850s was probably the optimum for a peasant household of that period. Some 4-5 children survived, plus 3-4 adults resulting in a normal number and ratio of consumers to workers. A second reason was that an average family of 8 people needed 4 statistical males to get enough land allotments, since four allotments for a household were regarded as the optimum in the Tambov region. However, reality was more complex and most families were far from the desired optimum size and composition. There were large deviations from the optimal family size and the optimal consumer-worker ratio in these villages, making living standards quite different for different families.

The distribution of family types reflects the common family structure in a certain population. Peter Laslett proposed a classical peasant family typology,⁶ which was later adjusted to Russian data by Steven Hoch.⁷ This latter classification has been used in our research and tables.

⁶ P. Laslett, 'Introduction: the history of the family', in: P. Laslett and R. Wall (eds.), Household and family in past time (Cambridge 1972) 28-32.

⁷ Hoch, Serfdom, 80-81. For comparable data on nearby Voronezh 1887-1896, see also C.D. Worobec, Peasant Russia. Family and community in the post-emancipation period (Princeton 1991) 108-110.

Table 5 Peasant family types in Malye Pupki, 1816-1858, in %

Family type	1816	1834	1850	1858
1.1. Single widowers	1	0.5	2	3
1.2. Singles (family status unknown)	3	3	0	1
2.1. Blood relatives with no families	2	0.5	0.5	0
2.2. Other relatives living together	1	0.5	0.5	1
3.1. Couple	1.5	3	2	2
3.2. Couple with children	24	9	10	8
3.3. Widowers with children	2	0.5	0.5	2
3.4. Widows with children	0.5	0	2	1
3.5. Soldiers' wives with children	0.5	0.5	0	0
4.1. Couples with children and widowed parents	2.5	4	3	3
4.2. Couples with children and nephews/nieces	1	1	1	1
4.3. Couples with children and unmarried brothers/sisters	3	2	4	3
4.4. Combination of the previous types	4	6	2	1
4.5. Unclear relationship	0	2	0	0
5.1. Widows/widowers with married and unmarried children and grandchildren	0	0	0	0
5.2. Couples with married and unmarried children and grandchildren	18	20	16	18
5.3. Couples with married and unmarried children and nephews/nieces	6	4.5	7	4
5.4. Families of brothers/sisters with married and unmarried children	0	0	0.5	2
5.5. Other types of extended families	30	43	49	50
Total	100	100	100	100

The family types in Malye Pupki displayed increasing conservatism resulting in an increasing number of extended families. In 1816, these types (categories 4.1 to 5.5) made up 65% of all families, in 1834 their share had increased to 82%. The percentage remained almost the same in 1850 and 1858. The share of more complicated extended families (category 5.5: Other types of extended families) even increased from 30% in 1816 to 50% in 1858. The enormous percentage of 'Other types of extended families' with distant relatives suggests that there were serfs present in the households of the state peasants. That was prohibited in the Kiselev reforms but serfs were listed as fake relatives to circumvent the law. At the same time, the share of simple nuclear families consisting of couples with children fell from 24% in 1816 to only 8% in 1858.

In contrast to Malye Pupki, the serf village of Bailovka (Table 6) experienced a slight decline in the numbers of the extended types (categories 4.1 to 5.5) with their share falling from 80% in 1816 to a still considerable 70% in 1858. On the other hand, the percentage of couples and couples with children rose from 10% to 22%. There were also comparatively few of the most complex families (category 5.5). In 1850, the family types in Kalugino (Table 7) had a very similar structure to that in Malye Pupki with 84% being extended families and only 14% couples and couples with children.

Table 6 Peasant family types in Bailovka, 1816-1858, in %

Family type	1816	1834	1850-51	1858
1.1. Single widowers	0	2.5	1	0
1.2. Singles (family status unknown)	5	4	0	2
2.1. Blood relatives with no families	0	2.5	0	3
2.2. Other relatives living together	0	0	0	0
3.1. Couple	0	0	1	0
3.2. Couple with children	10	7	22	22
3.3. Widowers with children	0	5	2	3
3.4. Widows with children	2	2.5	5	1
3.5. Soldiers' wives with children	0	0	0	0
4.1. Couple with children and widowed parents	5	5	3	2
4.2. Couple with children and nephews	3	0	1	1
4.3. Couple with children and unmarried	5	1	1	2
brothers/sisters				
4.4. Combination of the previous types	10	2.5	7	3
4.5. Unclear relationship	0	0	0	0
5.1. Widows/widowers with married and	14	21	16	17
unmarried children and grandchildren				
5.2. Couple with married and unmarried children and grandchildren	29	23	22	22
5.3. Couple with married and unmarried children and nephews/nieces	0	6	2	6
5.4. Families of brothers/sisters with married and unmarried children	5	13	3	3
5.5. Other types of extended families	12	5	14	13
Total	100	100	100	100

A more precise view of the relationship between family structure and social class can be obtained if the data for the villages is split up into the different peasant categories. A division between serfs and so-called estate serfs has been made for Bailovka and is shown in Table 8. It is clear that there were a relatively large number of singles among the estate serf families in the beginning of the period, however, the figures for estate serfs gradually approached those of the other peasant categories in later years. This development was due to the fact that the landlords more often gave permission for their estate serfs to marry. The percentage among the estate serfs of couples with children and other live-in relatives also increased. Nevertheless, there were not many estate serfs with families of the fifth type. This was probably due to the absence of agricultural economies of scale which would have required many workers of several generations.

Table 7 Peasant family types in Kalugino, 1816-1850, in %

Family type	1816	1850
1.1. Single widowers/widows	2.5	1
1.2. Singles (family status unknown)	0	0
2.1. Blood relatives with no families	4	0
2.2. Other relatives living together	0	1
3.1. Couple	2.5	3
3.2. Couple with children	12	9
3.3. Widowers with children	0	1
3.4. Widows with children	1	1
3.5. Soldiers' wives with children	0	0
4.1. Couple with children and widowed parents	7	2
4.2. Couple with children and nephews	0	2
4.3. Couple with children and unmarried brothers/sisters	5	0
4.4. Combination of the previous types	1	2
4.5. Unclear relationship	0	1
5.1. Widowers/widows with married and unmarried children and	25	22
grandchildren		
5.2. Couple with married and unmarried children and grandchildren	28	22
5.3. Couple with married and unmarried children and nephews	1	7
5.4. Families of brothers/sisters with married and unmarried children	10	19
5.5. Other types of extended families	1	7
Total	100	100

The typology of serf families differed little from that of the state peasants. The fourth and fifth types of extended families continued to be in the majority with a slight decrease from 70% in 1816 to 60% in 1858. There was a rise in the nuclear family type (category 3), but its share had barely reached 25% by the 1850s. Therefore, it is difficult to state that the peasant families in Bailovka were more modernized than those in Malye Pupki. Some modern characteristics are found among the families of the estate serfs, but this was caused by the fact that they did not live a traditional peasant's life.

There were not very many differences in the family typologies of the several different social groups in Kalugino. Complex (extended) families prevailed both for state peasants and serfs and the figures for the state peasants are almost equal to those for Malye Pupki in 1816. The percentage of the third family type (nuclear families) among the serfs was half that in Bailovka, a settlement where the estate serfs showed a majority of couples with or without children.

It is clear that the extended family (types 4.1 to 5.5) predominated in all peasant classes. The percentage of simple (nuclear) families (types 1.1 to 3.5) was highest for factory hand peasants (a possible impact of the industrial nature of the profession) and was lowest for state peasants due to the policies of the authorities, which were aimed at restricting the partition of households. The position of the extended family was strengthened for all the peasant

classes and the reasons for that, particularly in the case of serfs and factory hand peasants, must be studied further.

1850-1851 1816 1834 1858 Estate Serfs Estate Serfs Estate Estate Serfs Serfs Family type <u>serfs</u> serfs serfs serfs 1.1. Single widowers 17 2 _ _ _ _ _ _ 1.2. Singles (family status 43 32 1 _ _ 4 _ _ unknown) 2.1. Blood relatives with 17 1 2 12.5 2 _ _ _ no families 2.2. Other relatives living 2 _ _ _ together 3.1. Couple 1 _ _ _ _ _ _ 3.2. Couple with children 43 6 8 27 21 37.5 19 _ 3.3. Widowers with chil-_ _ 5 4 4 dren 3.4. Widows with children 2 3 2 12.5 6 _ _ 17 4.1. Couple with children _ 6 4 4 2 12.5 1 and widowed parents 4.2. Couple with children 4 2 1 _ _ _ _ _ and nephews 4.3. Couple with children 14 4 1 2 2 _ _ and unmarried brothers/sisters 4.4. Combination of the 11 3 6 7 12.5 2 _ _ previous types 5.1. Widows/widowers 23 9 17 15 27 12.5 _ _ with married and unmarried children and grand children 5.2. Couple with married 33 17 24 1037 28 and unmarried children and grand-children 5.3. Couple with married 7 2 7 4 and unmarried children and nephews 15 2 9 4 5.4. Families of broth-6 ers/sisters with married and unmarried children 5.5. Other types of ex-13 5 6 5 8 _ tended families Total 100 100 100 100 100 100 100 100

Table 8 Family structure for different social groups in Bailovka, 1816-1858, in %

	1816	1850)
Family type	State peasants	Estate serfs	Serfs
1.1. Single widowers	-	-	2
1.2. Singles (family status unknown)	2.5	-	-
2.1. Blood relatives with no families	5	-	-
2.2. Other relatives living together	-	14	-
3.1. Couple	2.5	7	2
3.2. Couple with children	13	43	7
3.3. Widowers with children	-	7	-
3.4. Widows with children	-	-	1
4.1. Couple with children and widowed parents	8	-	2
4.2. Couple with children and nephews	-	_	1
4.3. Couple with children and unmarried brothers/sisters	5	-	-
	1		2
4.4. Combination of the previous types	1	-	2
4.5. Unclear relationship	-	-	1
5.1. Widowers/widows with married and unmarried children and grandchildren	24	-	23
5.2. Couple with married and unmarried children and grandchildren	28	29	20
5.3. Couple with married and unmarried children and nephews	1	-	8
5.4. Families of brothers/sisters with married and unmarried children	10	-	23
5.5. Other types of extended families	1	-	8
Total	100	100	100

Table 9 Family structure for different social groups in Kalugino, 1816-1850, in %

The Rasskazovo confessional lists do not mention any families consisting of single peasant children, showing that these did not actually exist. This can be explained by the fact that peasants traditionally cared for their orphaned relatives. The 1811 confessional list shows that the extended groups of blood relatives were far more widespread than is suggested by the census data. At confession, the fifth type of families made up 79% of the total while, according to the 1816 census data, they comprised only 55% of households. In contrast, the share of the third type of families was recorded as being 12% and 27% respectively. At the same time, blood relatives were not always recorded as forming a united household in the confessional lists. A comparison of computer selections shows structural coincidence for half of the families recorded in the census and confessional lists. Small differences can be explained by the number of deaths and births in the period between the years of the confession (1811) and the census (1816). The rest of the families were recorded in the confessional lists as being more extended families, particularly in the branches of brothers and sisters, than was recorded in the census data.

	Factor	y-hand	St	ate peasa	nts		Serfs]	Estate sei	fs
	peas	sants		[^]							
Family type	1816	1858	1834	1850	1858	1816	1834	1858	1816	1834	1858
1.1. Single widowers	1	1	2.5	-	-	1	6	-	-	3.5	-
1.2. Singles (family status unknown)	4	2	-	-	-	3	-	5	5	18	16
2.1. Blood relatives with no families	-	-	6	-	-	3	-	-	5	3.5	9.5
2.2. Other relatives living together	2	4	2.5	-	-	2	-	7	-		3
3.1. Couple	2	3	2.5	-	-	2	-	2	9.5	11	3
3.2. Couple with children	11	17	11	14	6	18	-	5	51.5	35.5	34.5
3.3. Widowers with children	31	2	-	-	-	2	-	2	-	-	-
3.4. Widows with children	1	5	2.5	-	-	3	-	-	9.5	7	6
3.5. Soldiers' wives with children	-	-	-	-	-	-	6	-	-	-	-
4.1. Couple with children and widowed parents	6	10	-	5	11	4	19	9	-	7	6
4.2. Couple with children and nephews	-	-	-	3	3	0.5	-	2	9.5	-	-
4.3. Couple with children & single brothers/sisters	6	1	-	-	-	2	-	4	-	-	3
4.4. Combination of the previous types	2	8	-	3	3	5	-	7	5	-	-
5.1. Widows/widowers with married and single children and grandchildren	3	14	14	14	-	8	-	9	-	-	9.5
5.2. Couple with married and single children and grandchildren	6	20	20	24	46	28	37	32	-	11	9.5
5.3. Couple with married and single children and nephews	5	1	6	-	11	3	13	-	-	-	-
5.4. Families of brothers/sisters with married and single children	17	8	26	32	17	11	6	7	5	-	-
5.5. Other types of extended families	3	4	6	5	3	4.5	13	9	-	3.5	-
Total	100	100	100	100	100	100	100	100	100	100	100

Table 10 Family structure for different social groups in Rasskazovo according to census data, 1816-1858, in %

Table 11 Family structure for different social groups in Rasskazovo according to the confessional lists, 1811-1823, in %

		Serfs		Estate	State
				serfs	peasants
Family type	1811	1823	1832	1823	1823
1.1. Single widowers	-	-	-	1	-
1.2. Singles (family status unknown)	-	-	-	1	-
2.1. Single blood relatives (brothers/sisters)	-	-	1	1	-
2.2. Other relatives living together	-	1	-	-	-
3.1. Couple	-	2	1	9	-
3.2. Couple with children	12	13	17	64	50
3.3. Widowers with children	-	-	-	-	-
3.4. Widows with children	-	2	1	18	10
3.5. Soldiers' wives with children	-	-	1	-	-
4.1. Couple with children and widowed parents	5	7	8	-	10
4.2. Couple with children and nephews	-	1	3	-	-
4.3. Couple with children and single	-	2	6	9	-
brothers/sisters.					
4.4. Combination of the previous types	4	7	3	-	-
5.1. Widowers/widows with single and married children and grandchildren	17	12	12	-	-
5.2. Couple with married and single children	35	36	33	_	30
and grandchildren	00	50	55		50
5.3. Couple with married and single children	2	2	1	-	-
and nephews					
5.4. Families of brothers/sisters with married and single children	23	12	12	-	-
5.5. Other types of extended families	1	3	1	-	-
Total	100	100	100	100	100

A comparative study of the evolution of the structure of the families as shown in the census and the confessional lists in the 1810s to 1830s shows that the percentage of the most extended families grew by 15% according to the censuses, while it declined by 18% in the confessional lists. The reverse trend was shown for the nuclear families with their share being reduced by 20% according to the censuses, while growing by 8% in the confessional lists. It appears that a number of big families with complicated blood relationships were reduced at confession with their various branches becoming registered as separate households. The reasons for registering more complex family structures in the census by the 1830s are, however, not clear.

According to the census of 1834 and the confessional lists of 1823, the structures of the families of state peasants differed profoundly, although there are only 10 families named in the confessional lists, which limits the possibility of drawing general conclusions. As in the case of the serfs, the confessional confessional lists of the serfs, the confessional lists of the serfs are confessional lists.

sional lists showed no singles or unmarried people, while the census reported more than 10% of families of these types. The largest share in the confessional lists, 60%, consisted of families of the third type, while in the census lists they only had a share of 16%. On the other hand the confessional lists reported the share of the fourth and fifth types of families at 40%, while in the census lists the share of these kind of families was 68%. So there is some ground for believing that the real families as reported by the confessional lists were smaller than those fixed in the formal census.

It is accepted that the family structure of the estate serfs was unstable because it depended to a large extent on living at a landlord's house and its outbuildings and included people doing service labour such as gardeners, grooms, guards, etc., but the Rasskazovo estate serfs still had their own families. The confessional lists showed the predominance of the nuclear family reflecting the estate serfs' normal human eagerness to establish a family, but there was no need for them to have an extended family structure since they were not involved in agricultural labour.

On the whole, peasant families in the villages studied remained extended throughout the first half of the nineteenth century. The percentage of the most branched families grew in state peasant villages, probably due to better administration and to restrictions on partitioning of households. In the villages owned by the landlords, the feudal arrangements for the estate serf families have to be taken into account and this cannot be taken as signs of modernization.

The presence of higher class families in the villages formed by the nobility and the clergy should also be taken into account. Data is available only for nine Rasskazovo priests' families in the period 1811-1832. Seven of them were simple (nuclear) families. As for the nobility, data is available for 152 estates by the late 1700s in the central and most typical *uezd* in the Tambov region. As usual, landlords lived in nuclear families with an average of 2.4 children. The average family size for the landlords (including relatives living together) was 4.3 people. It can, therefore, be stated that the Tambov nobility had already experienced the transition to a modern kind of family by the early 1800s.

The peasant family in the period 1860-1917

The sources for the period provide most help in studying peasant families at the meso level of the *uezd* and *gubernia* (region). As table 12 shows, there was a gradual reduction in the average size of the peasant household since the Emancipation in 1861 and throughout the period 1860–1900 when family partitions became easier. The largest reduction in family size (some 40 to 50%) occurred in the regions where the oldest settlements (Elatma, Lebedyan, Morshansk) were situated and which also first experienced agrarian overpopulation. A possible reason for this reduction in family size was the exploitation of the best steppe black earth, which allowed almost double the yield of cereals to be produced in the nineteenth century with a smaller family labour force. However, the arable land reserves in the region had been exhausted by the 1880s and there was almost no change to modern intensive agricultural methods, so that no further noticeable reductions in the sizes of peasant families took place. Nevertheless, the 1917 agrarian census data suggests a predominance of the nuclear family. The average regional ratio of consumers to workers was about 2 to 1, or 3 adults and 3 children in an average family. The most likely family structure combinations were families consisting of a couple with 1 adult and 3 small children and families consisting of a couple with 3 small children plus an unmarried younger brother of the head of the family.

Region	1862	1897	1917	1917
			Commoners	Khutor (ind. owners)
Borisoglebsk	8.3	6.5	6.5	6.8
Elatom	9.5	5.8	4.8	4.3
Kirsanov	7.9	6.3	5.0	7.1
Kozlov	8.3	6.6	6.1	3.8
Lebedyan	10.6	6.4	6.1	-
Lipetsk	8.3	6.6	5.9	7.9
Morshansk	8.8	6.3	5.8	6.4
Spassk	7.7	6.3	6.6	-
Tambov	8.5	6.5	5.8	6.9
Temnikov	8.2	6.0	6.2	6.9
Usman	8.4	6.6	6.4	6.7
Shatsk	8.3	6.4	6.4	7.1
Overall average	8.5	6.4	6.1	6.3

Table 12 The average size of peasant families in the Tambov region, 1862-1917

Source: Списки населенных мест Российской империи. V.XLII. (St Petersburg 1866); Первая Всеобщая перепись населения Российской империи 1897 г. V.42. (St Petersburg 1904); Поуездные итоги сельскохозяйственной переписи Тамбовской губернии в 1917 г. (Tambov 1917).

The 1917 agrarian census data allows peasants who stayed in land communes to be distinguished from those who had turned to *khutor* households, running an independent farmstead. The latter group of families was larger in 8 of the 10 *uezd* and in the Tambov region as a whole. An independent farmstead was more interesting for big families who were able to manage the land without the use of machinery. The higher consumers/workers ratio (about 2.2) supports the idea that such farmsteads were populated by young families with large numbers of small children, who had no chance of acquiring large allotments in an overpopulated commune.

Table 13 Average household size in Bailovka, Kalugino and Malye Pupki, 1850-1911

	1850/1858	1880s	1911
Bailovka	7.0	6.0	7.5
Kalugino	10.8	6.7	6.3
Malye Pupki	14.5	8.5	8.3

There is no doubt that the household census papers of the 1860s till 1917 were more accurate than the census registers in registering the exact number of households. Firstly, the *Zemstvos*, which were responsible for the household censuses, had no fiscal aims. Secondly and most importantly, the household censuses were aimed especially at peasant households. These papers show an uneven reduction in family size in specific places, which contrasts with the pattern shown by the region as a whole. The former serf village of Bailovka showed a growth in family size by the 1910s. The former state peasant village of Malye Pupki had experienced an enormous family size reduction by the 1880s, afterwards that process slowed down to leave an average family size noticeably higher than the regional average. Kalugino, with its mixed social class structure, was close to the figures for the region as a whole.

Tambov historians have begun a special family reconstruction study to investigate the causes of the observed trends. The database of 154 Kozlov reservists recruited for the Russian-Japanese war of 1904-1905 may be of some help in this endeavour. The average size of the family from which the recruits came was 5.9, consisting of the 2 marriage partners, 2 children and 2 relatives (parents, brothers and sisters). The number of children might have been higher by 1917 as the average age of a reservist in 1904 was around 30. Only 1 in 5 of the reservists recruited lived with his parents. The average age of these parents was over 60 in 1905, so there was very little likelihood of them surviving another 12 years. On the other hand, two thirds of the recruits had brothers, usually younger ones, who could have formed separate families by 1917. Most of the children of the recruits were young in 1905, with only 17 out of 287 being older than 18 at that time, so that it is unlikely that many of them had become independent householders in 1917. The families of the recruits contained almost no uncles or nephews of the recruits, so that it is possible to state that practically all the adult married males lived separately from their brothers and that there were few collateral-branched families. Assuming that this reasoning is correct, the families of recruits in 1917 consisted of couples with 3-4 children and rarely of parents and unmarried brothers. Regional data on family size at the turn of the century shows

similar results with the average size being 6 people, so that it is possible to suggest that this size was optimal for the Tambov peasantry of this period. This is 2 persons less than in the 1850s, reflecting the trend towards modernization of the family unit to households formed from a couple with children no longer living together with all kinds of collateral branches. Despite this, the average Russian rural or agricultural household remained bigger than the equivalent Western European household in the same period, which had already reduced to an average size of 4-5 people before the nineteenth century.⁸

The urban family in the first half of the nineteenth century

Information on the typical medium-sized town of Morshansk (a *uezd* centre) plus some selected data on Tambov (the regional capital) and the small *uezd* centre of Kirsanov is available for studying the various classes of provincial urban families in Tambov. No analysis has been made of urban families as a generalized idea because such a broad and abstract concept has little relationship with reality and would have been a contradiction of the essence of micro-history studies, which are aimed at investigating the real past.

Table 14 Average family size according to census data for different social groups in Morshansk, 1816-1850

	18	16	1833				18	350		
	Meso	chane	Merc	chants	Estat	e serfs	Merc	chants	Meso	chane
Size	Abs.	%	Abs.	%	Abs.	%	Abs.	%	Abs.	%
1	33	10	9	4	25	50	18	9	67	33
2-5	199	59	66	29	24	48	43	22	98	49
6-10	92	27	76	34	1	2	65	33	34	17
11-15	13	4	36	16	0	0	37	19	1	0
16-20	1	0	20	9	0	0	14	7	1	0
21-26	0	0	10	4	0	0	10	5	0	0
More than 26	0	0	8	4	0	0	8	4	0	0
Total	338	100	225	100	50	100	195	100	201	100

Source: Tambov Regional State Archive (GATO) fund 12, register 1, file 681, 1102, 1374, 1757, 1759.

The Morshansk *meschane* showed the biggest changes in average family size, moving towards the smallest size families. Merchant families remained large and their family structure was comparatively stable. For reasons which have already been explained, the estate serfs had practically only small families of up to five people and half of them were reported in the census as living alone.

⁸ Laslett, 'Introduction', 60-61.

The average merchant family size, as recorded in the census, increased from 9.7 in 1833 to 10.4 in 1850 while the figures for the *meschane* fell from 4.8 in 1816 to 3.4 in 1850.

Table 15 Family structure for different social groups in Morshansk according to census data, 1816-1850, in %

	Merc	hants	Me	Estate serfs	
Family type	1833	1850	1816	1850	1833
1.1. Single widowers	1	5.5	2	7	4
1.2. Singles (family status unknown)	3	4	7	26	61
2.1. Single blood relatives	1	-	2	5	11
2.2. Other relatives, living together	-	2.5	0.5	2	-
2.3. Persons with no blood relations	-	-	0.5	-	-
3.1. Couple	4	2.5	8.5	11	7
3.2. Couple with children	28	20	38	25	13
3.3. Widowers with children	1	2	2	2	4
3.4. Widows with children	1	2	5	4	-
3.5. Soldiers' wives with children	-	-	0.5	-	-
4.1. Couple with children and widowed parents	6	2	7	3	-
4.2. Couple with children and nephews	-	-	0.5	-	-
4.3. Couple with children and single brothers/sisters	1	0.5	0.5	1	-
4.4. Combination of previous types	6	5	9	7	-
5.1. Widows/widowers with single and married children and grandchildren	6	4	3	1	-
5.2. Couple with single and married children and grandchildren	19	21	8.5	2	-
5.3. Couple with single and married children and nephews	1	-	0.5	-	-
5.4. Families of brothers/sisters with single and married children	7	11	4	2	-
5.5. Other types of extended families	15	18	1	2	-
Total	100	100	100	100	100
C CATO (140 ··· 4	C1 (01	1100	4074 4		2

Source: GATO, fund 12, register 1, file 681, 1102, 1374, 1757, 1759.

Type five (complex extended families) was the most popular family type among the Morshansk merchants in 1833 with 48% of all families, then came type three (nuclear families) with 34%, while singles, types one and two, were not very usual with 4% and 1% respectively. The percentage of complex extended families (type five) grew to 54% by the 1850s while the percentage of nuclear families decreased to 26.5%. The percentage of singles (type one), however, increased notably to 9.5%. Such trends can be explained by the need for merchants to consolidate in the face of business difficulties and was also supported by the immigration of peasants with their village tradition of extended families.

Nuclear families (type three) were favourite among the *meschane* with 54% in 1816 and 43% in 1850. Extended and complex families, types four and five, were less common with 33% in 1816 and 19% in 1850. These decreases were the result of a large increase in the share of singles, types one and two, from 12% to 40% within 33 years. Possible reasons for this change include a general increase in the age at marriage for those in the trade-industrial social classes and a considerable worsening of the economic conditions which made it more difficult to enter into marriage. As usual, single people dominated among the estate serfs (65%), families of types three comprised 24% while there were no extended families at all. Nevertheless, the town estate serfs differed from their village counterparts.

What data can be derived from the confessional lists? In total, 3,276 persons of all classes went to confession in Morshansk in 1850. Of these 1,106 (34%) lived in nuclear families, type three, and there was exactly the same percentage of extended families, type five, with 1,104 persons. Slightly fewer than this, 965 people (29%), lived in a family of type four, and only 77 people, 2%, were singles of type 1, and even fewer, just 24, were singles living together (type two).

Most representatives of the honorary citizens class (67%), of the merchants (53%) and of the tsar family peasants (50%) lived in complex extended families, type five. The confessional data shows the same percentage of families of type five for the merchants as was obtained from the census data. A high percentage of type five families for the honorary citizens was due to the fact that that class was formed from the families of the richest merchants whose fortunes originated from their co-operation as a clan. The figures for the tsar family peasants are noticeably higher than those shown by the confessional data concerning the Rasskazovo state peasants, while they are lower than those from the census data on Malye Pupki and Rasskazovo. According to the confessional lists, nuclear families were common among the families of non-commissioned officers (100%), the families of officers (87%), the nobility (62%), the emancipated serfs (59%), the clergy (60%) and the meschane (35%). The confessional data for the *meschane* is comparable with that obtained from the censuses and allows the same conclusion to be drawn - the nuclear family prevailed. The predomination of nuclear families for the other town classes can be explained by the nature of their professions which did not require the co-operation of relatives. The families of type one were predominant among the soldier's wives (5%) and the estate serfs (33%). The behaviour of these town families was as much restricted by feudal social conditions as those in the villages.

Data on 37 meschane and 14 merchant families has been selected for the city of Tambov in the first half of the nineteenth century. The meschane fami-

lies consisted on average of 4.5 people, which is close to the Morshansk figure. The families of merchants numbered 5.0 people, which means that the families of merchants in Tambov seem to have been much smaller than those in Morshansk. The reasons for this are not clear. It is possible that this class behaved in a more modern way in the older regional centre than it did in a smaller-sized town like Morshansk. Tambov did not experience such strong business swings as was the case in Morshansk during this period, where it became economically favourable to cling on to a family/clan co-operation strategy.

The service lists of 152 officials from Tambov, Morshansk and Kirsanov for 1850 show that there had been a completed transition by this class to the nuclear family structure with an average of 2.2 people, but these lists also show the abnormal family position of the state officials. A total of 65 men were single and that was, of course, not only due to modernization of the family structure. An equally important reason was the existence of the feudal system, with state bans on marriage for officials who had not reached a certain rank.

The data does not, therefore, support the common idea of a total predomination of nuclear families in Russian towns in the first half of the nineteenth century. The evolution of the family structure was much more complex than this, being influenced by particular situations and the social structure prevailing in a specific place.

The urban family in the second half of the nineteenth century

The First General Census of 1897 also includes data on urban family sizes.⁹ Three categories of households are distinguished: 1) singles households, 2) households with relatives but no hired workers or lodgers, and 3) households of hired workers. The first two can be seen as real families, while the third category represents hostels for workers employed by one master or one enterprise or for those who had formed a cartel (an association for joint work).

In the majority of the towns, families with relatives formed more than 80% of the total number of households and consisted on average of 4-5 people, which fits the standards of modern society. Only Shatsk, Lebedyan and Usman, which had a high proportion of people engaged in agriculture, showed average family sizes which were closer to the norms of a traditional society. In most towns the share of families composed of unmarried people was between 8 and 11%. Most of these households consisted of 2 singles while others were households with just one person, both being a clear sign of

⁹ For the results for the city of Tambov also see V. Kanitschev, 'The demographic, occupational and social structure of the Tambov and Yaroslavl populations at the end of the nineteenth and the beginning of the twentieth century', in: Kooij (ed.), *Where the twain meet*, 87-94.

the crisis in traditional marital behaviour which was aimed at maximum conjugation. The shares of singles in the village population was never more than 1%.

Towns	Households with relatives	Singles household	Households of hired workers
Tambov	4.2	1.7	16.2
Borisoglebsk	4.3	1.6	15.8
Elatma	4.4	1.8	11.5
Kadom	4.8	1.7	5.5
Kirsanov	4.3	2.1	9.1
Kozlov	4.3	2.0	13.0
Lebedyan	5.2	1.8	9.4
Lipetsk	4.8	1.8	9.4
Morshansk	4.4	1.7	5.9
Spassk	4.6	1.6	4.0
Temnikov	4.5	1.9	7.6
Usman	5.2	1.8	11.5
Shatsk	5.6	1.7	8.7

Table 16 Average urban household size in Tambov Region, 1897

The percentage of households consisting of hired workers was only 1 to 2% but because these accommodated a large number of people they had a disproportionate influence on the average urban household size, resulting in a figure for Tambov, Kirsanov and Kozlov which was 2 people more than in the average normal household. This illustrates once more the danger of using average figures which can give a false impression of the actual situation.

Family lists of the Tambov merchants for the period 1890-1910 (Table 17) are used as primary sources for the second half of the nineteenth century. The data on 114 families results in an average size of 5 people, which is larger than that for the average urban family.

The simple nuclear family was clearly predominant with almost two thirds of all families being of this type. The share of types four and five was small whereas the share of singles was relatively large. This was due to the prolonged bachelor status of young merchants who delayed marriage until they had achieved steady business success. Deducting the singles allows an average family size of 5.7 people to be calculated, i.e. each couple had on average around four children. Thus, although many of the merchants had turned to a simple family structure, they continued to have comparatively large households by modern standards due to the tradition of having (a lot of) children.

The families of the clergy for the same period show similar results. The data on 22 families of priests from Tambov, Morshansk and Kirsanov for the period 1892-1903 showed an average size of 5.2 people. Most of these were families consisting of a couple and 3 to 4 children.

Table 17 Family structure of merchants in Tambov, 1890-1910, in %

Family type	1890/1910
1.1. Single widowers	12
2.1. Single blood relatives	1
2.2. Other relatives, living together	1
3.1. Couple	8
3.2. Couple with children	54
3.3. Widowers with children	5
3.4. Widows with children	6
4.3. Couple with children and single brothers/sisters	1
5.1. Widows/widowers with single and married children and grandchildren	2
5.2. Couple with single or married children and grandchildren	9
5.4. Families of brothers/sisters with single or married children	2
Total	100

The family pattern of the officials (54 families in the same towns in the period 1880-1890) proved to be very different with the average family size being 2.8 persons. A quarter of the officials were bachelors and each couple had on average only one child. There were no adult children living in the families of the officials. This seemingly modern family structure was in fact the result of the feudal bans and rules mentioned earlier.

In conclusion, it is clear that the urban family in the Tambov region experienced a profound modernization in its size and structure in the period 1850-1917. This modernization had a different impact on the various social strata depending on both the power of traditions and on the social-economic status.

Demographic behaviour of landowning farmers in eighteenth-century Zeeland

Piet van Cruyningen

Introduction

Social relations in the south-western province of Zeeland in the seventeenth century are comparable to those in the English countryside of the same period. The system was that of landlord - capitalist tenant farmer - wage labourer. Most of the fertile marine clay land was owned by urban capitalists who leased it to commercial farmers. They exploited their holdings with the help of large numbers of wage labourers, most of whom had no land of their own. The vast majority of farms were arable, growing wheat, barley and rape for the urban markets in Holland and Zeeland. During the period 1690-1750, when agriculture was hit by a severe economic crisis, an important change took place. Urban landowners began to sell their land because decreasing rents and rising taxes had made landownership no longer profitable. Most of the land that they sold was purchased by tenant farmers working relatively large areas.¹ In spite of falling grain prices, these farmers succeeded in making profits because they had lower costs per hectare than farmers working smaller areas of land and they produced a larger surplus to sell on the market. In particular, when cereal prices rose because of bad harvests, these farmers were able to make large profits which were then invested in the purchase of more land.

This development was especially pronounced in west Zeeland-Flanders, the most south-westerly part of Zeeland. In 1665, farmers owned less than 10% of the agricultural land there but by around 1800 this had increased to some 45%. Only a minority of the farmers had succeeded in purchasing land, but those who did bought a great deal. In 1750, the 25 wealthiest farmers together owned more than 1,400 ha.² These farmers became a rich and powerful rural elite, but the basis of their wealth, the ownership of land, also caused problems. According to the law of inheritance, all children had to

¹ P.R. Priester, Geschiedenis van de Zeeuwse landbouw circa 1600-1910 (Wageningen 1998) 142-150.

² P.J. van Cruyningen, Behoudend maar buigzaam. Boeren in West-Zeeuws-Vlaanderen 1650-1850 (Wageningen 2000) 104, 113-116, 250.

receive an equal part of the estate when the farmer died. In order to comply with this all the possessions had to be divided up among the children with the result that the holding would need be split up, leading eventually to social degradation of the family. As a result it would become increasingly difficult for children and grandchildren to preserve the success and status of their ancestors.

The history of the 25 wealthiest landowning farmers and their descendants in west Zeeland-Flanders during the period from about 1750 to 1850 has been studied to find out how they dealt with this problem. They had several options, some of which were of a demographic nature, such as restricting the number of children through celibacy, late marriage or birth control, or contracting only endogamous marriages, that is exclusively marrying partners from the same social group. This paper discusses how the ownership of land influenced these aspects of demographic behaviour in this group of farmers.

Celibacy and age at marriage

The West European marriage pattern was widespread in the Netherlands. People married only when they were certain that they had sufficient income or property to sustain a family. This meant that a substantial number of people never married and those that did marry did so at a relatively late age. Because children were almost only conceived within marriage, the level of celibacy and the high age at first marriage resulted in a low number of children. This marriage pattern would appear to be very well suited to landowning farmers who wished to prevent the breaking up of their estates by limiting the number of children. Research has shown that the rate of celibacy and the mean age at marriage of landowning farmers in the northeastern province of Drenthe were considerably higher than those of other social groups in the same area.³

Farmers in west Zeeland-Flanders, however, behaved differently. Celibacy was very uncommon among this group with only 1% of women and 3% of men still single at the age of 50, and many of those who remained single were physically or mentally handicapped.⁴ Mean age at marriage was low, as is shown in Table 1. During the eighteenth century men married at the age of 26-27 years and women at 22-23 years. Elsewhere in the Netherlands the mean age at marriage of farmers was much higher. For instance, in the South Holland village of Maasland, farmers were nearly 30 when they married and their wives were 26 years old.⁵

³ J.A. Verduin, Bestaanswijze en huwelijks- en voortplantingspatroon in het negentiende-eeuwse Drentse zandgebied (Assen 1972) 105.

⁴ Van Cruyningen, Behoudend maar buigzaam, 264.

⁵ D.J. Noordam, Leven in Maasland. Een hoogontwikkelde plattelandsamenleving in de achttiende en het begin van de negentiende eeuw (Hilversum 1986) 112-113.

The low level of celibacy and relatively low age at marriage, however, do not mean that west Zeeland-Flanders farmers did not conform to the West European marriage pattern. During the eighteenth century their wealth made it easy for them to purchase or to rent a farm, so there was no need for them to postpone marriage for a long time. Table 1 also shows that between 1820 and 1850 those who married did so at about the same relatively high age as the farmers from Maasland. The reasons for this change will be discussed at the end of this paper.

	Ν	len	Wor	nen
	Ν	Age	Ν	Age
1730-1759	37	26.9	47	22.9
1760-1789	80	25.6	90	22.1
1790-1819	94	27.1	130	23.1
1820-1849	111	29.5	127	26.6

Table 1 Mean age at first marriage per 30-year period, 1730-1849

Source: Van Cruyningen, Behoudend maar buigzaam, 265.

No evidence has been found that any form of birth control was practised. In combination with the small number of people remaining unmarried and the low age at marriage, particularly of women, this resulted in a high number of children. On average, west Zeeland-Flanders farmers had eight children, four of whom reached maturity.⁶ This implies that each time an estate had to be divided, the family possessions were divided into four portions, leading to rapid social decline. This decline could be slowed down by endogamous marriages, with partners exclusively from the same group of wealthy farmers.

Partner choice

There were groups of landowning farmers who tried to maintain their economic status by only marrying partners from within their own group. An example of this is the Scholten group from Winterswijk in the east of the Netherlands. These very rich farmers, who owned vast estates, exclusively married partners from other Scholten families.⁷ To see whether west Zee-land-Flanders farmers show the same behaviour, the occupations of 216 fathers-in-law of farmers' children were extracted from the 1748 census and 1750 tax records.⁸ The records showed that most of these farmers' children indeed contracted endogamous marriages, with 88% of the sons and 85% of the daughters marrying children of other wealthy farmers. A minority married

⁶ Van Cruyningen, Behoudend maar buigzaam, 267.

⁷ G. Wildenbeest, *De Winterswijkse scholten: opkomst, bloei en neergang. Een antropologische studie naar het fatum* van een agrarische elite (Amsterdam 1983) 156, 162.

⁸ Van Cruyningen, Behoudend maar buigzaam, 270.

partners from lower (artisans, shopkeepers) or upper middle class (merchants, brewers, solicitors, doctors) families.

Although they did not exclusively marry partners from within their own group, the vast majority of their husbands and wives belonged to the same wealthy social stratum. Even the fathers-in-law who belonged to the 'lower' middle class often proved to be quite wealthy; a 'humble' carpenter owned at least 24 ha of land and a bargeman even owned 70 ha.⁹ So partner choice was a way of slowing down the process of social degradation for these farmers. Wealthy partners brought in enough capital to compensate for at least part of the loss caused by dividing the inheritance. However, this could only slow down the process of social degradation, not stop it entirely.

The fact that in the long run the descendants of landowning west Zeeland-Flanders farmers were not able to maintain themselves at the same social level is shown by Table 2, which shows the occupations of farmers' sons from three 30-year birth cohorts. This table shows that landowning farmers' families suffered a slow social decline. Farmers' sons from the last cohort often became shopkeepers, artisans or even labourers. The same development can be discerned for the husbands of the daughters of farmers. Whereas 80% from the first cohort were farmers, this was the case for only 59% of those from the last cohort. The decline was not spectacular, more than 60% of the men and women from the last cohort managed to maintain themselves at the same social level. However, this decline was a slow continuous process that could not be stopped. One of the causes was the system of partible inheritance combined with the relatively high number of children, which eroded the family capital.

	Ν	Farmer	Uppermiddle	Lowermiddle class	Labourer
		%	class %	%	%
1730-1759	40	97	3	-	-
1760-1789	78	82	12	6	-
1790-1819	119	64	4	24	8

Table 2 Occupations of farmers' sons from three 30-year birth cohorts, 1730-1819

Source: Van Cruyningen, Behoudend maar buigzaam, 279.

Inheritance and the economic situation

Both the social decline and the rise in the age at marriage that took place in the first half of the nineteenth century can be explained by the interaction between the inheritance system and the economic situation. As already stated, in west Zeeland-Flanders there was a system of partible inheritance, which meant that each child had a right to an equal part of the inheritance of his or

⁹ Van Cruyningen, Behoudend maar buigzaam, 271.

her parents. Farmers in this region, however, practised a special variation of this system. They distinguished between landed property and agricultural holdings. The inheritance as a whole was divided into equal parts, but the holding was bequeathed to only one of the children. If the assessed value of the holding was more than the share of the inheritance this child was entitled to, he or she had to compensate the other children, paying his siblings a sum based upon the market value of the land. If he could not pay this sum immediately, it was converted into a loan over which the inheritor had to pay interest to the other children.¹⁰ Often this meant that one child inherited the farm buildings and all or most of the land, while the other children received money and moveable goods or a claim on the sibling who had inherited the holding.

This inheritance system differed fundamentally from the way landowning farmers in the east of the Netherlands handled the division of their inheritances. In the east one child - usually a son - received all the land, while his siblings were simply excluded from inheritance.¹¹ It is clear that these siblings, who inherited almost nothing, must have had difficulties in finding partners and founding their own families. In west Zeeland-Flanders, however, all children received a sum of money at least and were thus able to start up their own farms or find some other occupation. This explains why members of farmers' families in the east remained single or married very late, while in west Zeeland-Flanders they almost always married and usually at a comparatively early age. It was not landownership as such that influenced demographic behaviour but the way ownership of land was transferred to the next generation. In west Zeeland-Flanders, all the children received an equal share financially and thus all had an equal chance of founding a family. In the east of the Netherlands, all children but one were excluded from the inheritance and thus were often forced to remain celibate.

During the eighteenth century this system functioned well. Because of the favourable economic conditions in the second half of the century, landowning farmers' families were even able to increase their possessions. The wealthiest ones owned several farms and were able to bequeath a holding to each of their children. In the first half of the nineteenth century, however, they were confronted with serious problems. In the first place, rich merchants and industrialists from Belgium began buying land in west Zeeland-Flanders which pushed up the price of land. At the same time, the interest rate rose from an average of 3.8% in 1780-99 to 4.7% in 1820-39, while cereal prices dropped.¹² Because land prices and interest rates rose, those children who in-

¹⁰ Van Cruyningen, Behoudend maar buigzaam, 287.

¹¹ H. de Haan, In the shadow of the tree. Kinship, property and inheritance among farm families (Amsterdam 1994) 224, 227.

¹² Van Cruyningen, Behoudend maar buigzaam, 111-112, 300.

herited land had to pay larger sums of compensation and interest to their siblings, while at the same time the profitability of their farms decreased because of the lower cereal prices. It became more and more difficult for them to fulfil their financial obligations. In the period from about 1800 to 1835, landowning farmers had difficulty in maintaining themselves and some even had to sell their land and descend the social ladder. They became shopkeepers or wage labourers, and after 1840 many of them emigrated to the United States.

These changes not only caused social degradation of some of the farmers' families, they also caused a change in demographic behaviour. During the eighteenth century land had been easy to purchase, but in the nineteenth century it became scarce and expensive. People had to postpone marriage until they were able to purchase a farm, so the mean age at marriage rose to the level common elsewhere in Western Europe. Economic adversity forced these farmers to change their demographic behaviour.

Conclusion

The aim of this paper was to determine whether a relationship existed between the ownership of land and demographic behaviour. It was to be expected that landowning farmers would try to prevent the splitting up of their estates by adapting their demographic behaviour in two ways: limiting the number of children and a high level of celibacy. At first sight, it appears as if landownership did not influence the demographic behaviour of the west Zeeland-Flanders farmers. Only a tiny minority of landowning farmers' children remained celibate. Nor did landowning farmers attempt to limit the number of children by marrying late; in fact they married relatively early and had many children. The economic situation, however, did influence their behaviour. The adverse economic circumstances in the first half of the nineteenth century forced them to adapt their behaviour and marry later. Thus it might be concluded that the economic situation rather than landownership was the more important variable in influencing demographic behaviour.

However, a comparison of demographic behaviour and the inheritance systems prevalent in west Zeeland-Flanders and in the east of the Netherlands shows that landownership did, indirectly, influence demographic behaviour through the way in which ownership was transferred at a farmer's death. In the east, all children but one were excluded from inheritance and therefore married late or not at all. In west Zeeland-Flanders, although the family holding was kept intact, each child received an equal financial share at least and was able to set up his or her own household. In favourable economic circumstances this meant that farmers' children married relatively early, and since they practised no form of birth control had many children. There were no reasons for limiting the number of children because land was easy to purchase, compensation sums were relatively low and cereal farming was profitable.

When the economic circumstances became less favourable, the inheritance system influenced demographic behaviour in a different way. The system had been designed to preserve the unity of the agricultural holding while at the same time guaranteeing each child an equal part in the inheritance. A consequence of this system was that the successor often had to pay compensation to his siblings. In the first half of the nineteenth century, rising land prices caused the compensation sums to increase, while falling cereal prices made farming less profitable. Thus it was a combination of the economic situation and the inheritance system that caused financial problems and forced farmers to change their demographic behaviour. Since this inheritance system had been introduced in order to regulate the division of landed property in both a just and efficient manner, it is true to say that landownership did influence the demographic behaviour of farmers, although only indirectly.

Family strategies, wage labour and the family life cycle in the Groningen countryside, c. 1850-1910

Richard Paping

Introduction

The second half of the nineteenth century was a period of rapid economic and social change in the Netherlands. In this respect the Groningen countryside was no exception. On the one hand the production per capita began to rise structurally, which resulted in a steady increase in real wages, in economic wellbeing and eventually in a fall in the death rate.¹ On the other hand bourgeois ideas about the role of married men and women, and also to some extent of adolescent children, began to penetrate all parts of society. Lower class political and social movements became important.² Partly as a reaction, the different religious denominations began increasingly to organise their members from both the lower and middle classes in strictly segmented pillars, with their own schools, clubs and societies. All these more or less interrelated developments make the second half of the nineteenth century an extremely interesting period to study.

This chapter concentrates on agricultural labourer families and the ways they tried to earn a living using the labour of the different family members in this dynamic period. The data mainly relates to Nieuw-Scheemda, a small village in the eastern part of the Groningen clay area. The different family strategies labourers developed were strongly influenced by the phase in the family life cycle in which they lived. In the first instance, the increase in the number of mouths to feed after marriage created problems which lasted until children

¹ R.F.J. Paping and G.A. Collenteur, 'The economic development of the clay area of Groningen 1770-1910: Income and socio-economic groups', in: P. Kooij (ed.), *Where the twain meet. Dutch and Russian regional demographic development in a comparative perspective 1800-1917* (Groningen/Wageningen 1998) 43; R.F.J. Paping, 'Groei of stagnatie. De bevolkingsontwikkeling van Groningen', *Gronings Historisch Jaarboek*, 7 (2000) 44-48; G.A. Collenteur and R.F.J. Paping, 'De arbeidsmarkt voor inwonend boerenpersoneel in het Groningse kleigebied 1830-1920', *NEHA-Jaarboek voor economische, bedrijfs- en techniekgeschiedenis*, 60 (1997) 119-120.

² G. Bruintjes, Socialisme in Groningen 1881-1894 (Amsterdam 1981); V.C. Sleebe, In termen van fatsoen. Sociale controle in het Groninges kleigebied 1770-1914 (Groningen 1994).

started to leave the parental home. After some years of marriage the rising age of children also shaped economic chances for the family by augmenting the possibilities of the children going out to work and also of the mother who needed less time to care for the children than before. However, the economic and social developments sketched in the introduction also played a major role in determining the strategies of labourer families, changing their goals and their possibilities.

Recently the term strategy has become quite popular in scientific socialhistoric research. Choices made by people and even social developments are explained by referring to strategic behaviour. Nonetheless, family strategy is a rather problematic and complicated concept in empirical research. Two problems will be touched on briefly.³

Firstly, the term strategy is not easy to operationalise in historical research. This becomes clear if *the conscious use of means to reach a certain goal* is used as a definition of strategy. However, historical databanks normally only provide insight into the behaviour of people, their actual actions, but not into the considerations they had for acting in that way. So, in most instances something is known only about the means used to fulfil the strategy but nothing is known about the exact purposes the people had in mind. Because of this, the relation between means and goals is not known either. In other words, it is relatively easy to reconstruct what happened but very difficult to find out why it happened in each case. A great deal can be discovered about the outcomes of decision-making processes, but it is difficult to reconstruct the underlying conscious strategies of the people.

Secondly, the problems become even greater if the notion of strategy is connected to the entity of the family. Family strategy means that there is not one decision-maker, but that there is some kind of joint whole-family strategy. How such a joint strategy comes into being is not easy to imagine. A weighting between the different interests of the different members of the family has to take place. It will be clear that not all members of the same family have the same goals, although the family acts as a single unit most of the time.

These two theoretical notions suggest that in the practice of historical research the actual reconstruction of family strategies will be very difficult, and it

³ See also T. Engelen, J. Kok, A. Knotter and R. Paping, 'Labour strategies of families: an introduction', and T. Engelen, J. Kok and R. Paping, 'The family strategy concept. An evaluation of our empirical case studies', both in *The History of the Family. An International Quarterly*, 9 (2004); R. Paping, 'Gezinnen en cohorten: arbeidsstrategieën in een marktgerichte agrarische economie: de Groningse kleigebieden 1830-1920', in: J. Kok et al., *Levensloop en levenslot. Arbeidsstrategieën van gezinnen in de negentiende en twintigste eeuw* (Groningen/Wageningen 1999) 17-19; P.P. Viazzo and K.A. Lynch, 'Anthropology, family history and the concept of strategy', *International Review of Social History*, 47 (2002) 423-452; J. Kok, 'The challenge of strategy: A comment', *International Review of Social History*, 47 (2002) 465-485.

is only possible to make hypotheses about these strategies. However, it seems a safe proposition that most human behaviour will have been purposeful, aiming at certain goals. For this reason it is not possible to do without the concept of (family) strategy, if human behaviour is to be explained, although it has to be accepted that it is difficult to get a complete and clear picture of these strategies.

The municipality of Scheemda (province of Groningen)

Nieuw-Scheemda is one of five villages in the municipality of Scheemda, situated in the eastern part of the Groningen clay area. The working class, or more accurately the labourers, were the single largest occupational group in the Groningen clay area (Table 1). Their share in the population rose in the second half of the nineteenth century. Most of the labourers were active in agriculture. By the end of the nineteenth century, however, some employment arose in large agriculture-related factories as a result of the hesitant industrialisation of the Netherlands. Around 1900 two large strawboard factories were established in the village of Midwolda, very near to Nieuw-Scheemda, and these employed 155 people, mainly unskilled labourers, in 1911.

Table 1 Estimated occupational structure of heads of households in the Groningen clay area, 1850-1910 (percentages)

	farmers	labourers	'middle class'
1850	17%	41%	42%
1870	18%	45%	37%
1890	15%	48%	37%
1910	13%	53%	34%

Note: Labourers also comprises unskilled and skilled labourers in services and industry. 'Middle class' comprises all other occupations, including civil servants and preachers. Heads of households without occupation were not taken into account.

Source: R.F.J. Paping and G.A. Collenteur, 'The economic development of the clay soil area of Groningen 1770-1910: income and socio-economic groups', in: Kooij (ed.), *Where the twain meet*, 39.

In 1850 the municipality of Scheemda numbered 3,733 inhabitants, rising to 6,215 in 1910.⁴ During the whole period far more people left than settled in the municipality. In the period 1900-1910 the total net loss due to departure was as high as 14% of the population. In most parts of the Groningen clay area this outmigration was stimulated by the agricultural depression which started around

⁴ CD-ROM, CBS and NIWI, Publicaties Volkstellingen 1795-1971.

1877 with falling prices of cereals and accompanying rising unemployment. However, in the municipality of Scheemda leaving was already a much older phenomenon, dating from the eighteen-fifties. Nevertheless, despite the migration losses, the population of Scheemda grew, as is clear from Table 2. The high and rising natural population growth in the period 1870-1910 signifies that Scheemda had entered the first phase of the demographic transition with a steady or even rising number of births combined with steeply falling death rates.⁵

Table 2 Average annual population development of the municipality of Scheemda, 1850-1910 (numbers per 1000 inhabitants)

	annual migration	natural population	real population
	surplus	growth	growth
1850-1860	-3	+12	+9
1860-1870	-8	+13	+5
1870-1880	-7	+16	+9
1880-1890	-6	+17	+11
1890-1900	-7	+19	+12
1900-1910	-14	+19	+5

Sources: Groninger Archieven, Provincieverslagen Groningen; CD-ROM, CBS and NIWI, *Publicaties Volkstellingen 1795-1971*.

In the agricultural census of 1862 Scheemda numbered around 842 families, among them 389 families of agricultural labourers (46%) and 118 families of farmers (14%).⁶ On average, every farmer employed three to four labourer families. Around 1910 there were still 118 farmers but the number of labourer's families had risen to at least 463, but probably to considerably more.⁷ The village of Nieuw-Scheemda had more or less the same occupational pattern as the municipality of Scheemda as a whole, although it is possible that the percentage of labourers and farmers combined was a little higher.

Farm labourers and agricultural wage work in Groningen

As has already been mentioned, the group of unskilled labourers comprised mainly farm labourers.⁸ Although farm work formed their most important

⁵ Paping, 'Groei of stagnatie'.

⁶ Bijdragen tot de kennis van den tegenwoordigen staat der provincie Groningen vijfde deel: Landbouw-statistiek, 2 parts (Groningen 1870).

⁷ Uitkomsten der telling in zake het grondgebruik en den veestapel gehouden 20 mei - 20 juni 1910 ('s-Gravenhage 1912).

⁸ For agricultural wage work see also P.R. Priester and H. De Raad. 'De iezeren kette van d'armoude'. Aspecten van de sociaal-economische geschiedenis van Beerta, 1800-1870 (Groningen 1982); P.R. Priester, 'Agrarische produktie en werkgelegenheid in een Groninger gemeente: Beerta 1800-1870', Tijdschrift voor Sociale Geschiedenis, 11 (1985) 51-86; P.R. Priester, De economische ontwikkeling van de landbouw in Groningen, 1800-1910. Een kwalitatieve en

activity, labourers sometimes also did other physical work, for example digging canals, dikes and roads. While the head of the family depended on wage for his income, the other members of the family had only limited possibilities of earning an income or of performing economic labour within the household. Most of the labourer families in the Groningen clay area had only very small plots of land at their disposal, mainly for growing potatoes and vegetables. The area around Scheemda was in that respect somewhat exceptional because most of the labourers also cultivated relatively large plots of land on their own account. In 1862, 55% of all the families in the municipality of Scheemda owned one or more cows, 52% had some poultry, 63% fattened one or more pigs, and as many as 68% bred sheep.9 The percentages are high enough to suggest that some of the labourers must also have owned some livestock. Therefore it is not surprising that in 1910 nearly three hundred labourers in Scheemda cultivated more than one quarter of a hectare. This was made possible by the short working days in the Oldambt region of which Nieuw-Scheemda was a part.¹⁰ When it was not harvest time, the working day of the labourers on the farm ended at around one or two o'clock in the afternoon and afterwards the labourers worked in their own gardens and fields. So labourers in Scheemda combined their wage income with the home production of food, part of which, for example some potatoes and also some of the bacon from a fattened pig, could even be sold. In a sense farm labourers in Scheemda resembled cottagers. However, wage income remained their most important source of income. They needed money to pay house and land rents and also to buy bread, flour, peat, soap, tobacco and other grocery products.

Because the pieces of land and the wage income of the male family head were not sufficient to allow a reasonable standard of living, other members of the labourer families also had to go out to work for wages. The unskilled nature of the work of the labourers resulted in quite low wages for the family heads. The profession of labourer offered almost no perspectives for the future and occupational mobility was a quite rare phenomenon. It could be said that anybody who was once a labourer had a high chance of remaining a labourer all his life. Most of the labourers were also children of labourers (Table 3). During the second half of the nineteenth century it seems that the labouring class in the Groningen clay area became even more closed. The percentage of labourers

kwantitatieve analyse (Wageningen 1991) 135-206; R.F.J. Paping, Voor een handvol stuivers. Werken, verdienen en besteden: de levensstandaard van boeren, arbeiders en middenstanders op de Groninger klei, 1770-1860 (Groningen 1995) 99-117.

⁹ Bijdragen tot de kennis: Landbouw-statistiek.

¹⁰ O.S. Knottnerus, 'Het Land Kanaän aan de Noordzee: een vergeten hoofdstuk', in: J.H.N. Elerie and P.C.M. Hoppenbrouwers (eds.), *Het Oldambt, deel 2. Nieuwe visies op geschiedenis en actuele problemen* (Groningen 1991) 48-52.

with parents from other occupational groups fell significantly.

Table 3 Social origin of unskilled labourers (cohort members born 1830, 1850 and 1870 in the Groningen clay area)

	born 1830	born 1850	born 1870
Unskilled labourers	64 %	73 %	78 %
Farmers	8 %	3 %	4 %
Middle class	23 %	15 %	15 %
Other occupations and none	6 %	9 %	4 %
Total N	226	188	130

Source: Cohort analysis Integral History project Groningen. Occupations of parents as stated by the birth of the cohort member, and occupations of the cohort members after marriage (males and females).

Around 1850, the labour strategies were presumably still mainly aimed at generating enough income to survive in the short term and in the future. However, other motives could also have already been of importance for labour market choices made by labourers in this period, for example the preservation of a social network (a reason not to migrate to unknown places). Another motive could have been the creation of pleasant domestic circumstances by keeping the children at home. The rise in real wages after 1860 seems to have made such new goals more and more attainable.¹¹

For most children staying at home it was only possible to find paid work during the summer half of the year, when the demand for labour on the farms was very high (see also later on). Even for the family heads it was difficult to find work the whole year through. Taking this into account the Groningen labourers can be split into three groups.¹² Group 1 consisted of regular workers who had concluded a fixed contract with a farmer, and who were assured of work the whole year through (regular labourers). Group 2 consisted of so-called 'semi-regular' labourers, who just as group 1 always worked for the same farmer, but who were dismissed for part of the year. This was especially the case in winter when there was not so much to do on the farms. The third group comprised casual labourers who continuously changed employer, working for several different farmers and also for other kinds of employers in the same year. They were heavily hit by winter unemployment. Casual labourers also participated in the seasonal labour-migration movement. Some of them went to Friesland to harvest the hay or to the Dutch peat districts to dig peat, and also to

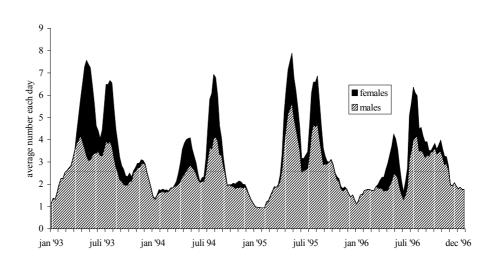
¹¹ Collenteur and Paping, 'De arbeidsmarkt voor inwonend boerenpersoneel', 127-131.

¹² R.F.J. Paping, 'Vaste en losse arbeiders en de werkloosheid op de Groninger klei, 1760-1820' NEHA-Jaarboek voor economische, bedrijfs- en techniekgeschiedenis, 57 (1994) 126-127, 151-153.

Germany to do all kinds of unskilled labour (particularly in the period between 1895 and 1914).¹³

As is clear from Figure 1, winter unemployment was a very serious problem in agriculture. In the summer half year, Farmer Dallinga hired around twice as many male labourers as during the winter. Seen in this light it is not strange that many casual labourers searched for supplementary job opportunities outside agriculture. The working class families which are studied here are mainly those of regular and semi-regular labourers (groups 1 and 2) who always worked for the same farmer. For female labourers the situation was even more severe than for casual labourers, because in winter Farmer Dallinga did not need the labour of any external female workers at all. This meant that female labourers could only find agricultural wage work between April and October. They mainly weeded and helped at harvest time.

Figure 1 Male and female labourers working on the Dallinga farm in Nieuw-Scheemda, 1893-1896¹⁴



In addition to these wage workers living outside the farm, farmers also employed farm servants who lived inside their household.¹⁵ These farm hands and

¹³ Groninger Archieven, Provinciaal Archief, Gemeenteverslagen Scheemda.

¹⁴ Groninger Archieven, familiearchief Dallinga, inv. no. 4: farm accounts.

¹⁵ Collenteur and Paping, 'De arbeidsmarkt voor inwonend boerenpersoneel'.

maids were young unmarried boys and girls, mainly sons and daughters of labourers, who were usually contracted for one year, from May to May. This contract could be lengthened by another year if both parties agreed to this. While the servants were still relatively young, their parents negotiated the contracts. After some years (probably around the age of 18) it seems that the servants became more or less autonomous, taking the decisions themselves. This arrangement with live-in farm servants was attractive for both farmer and labourer. The farmer had young servants at his disposal six or even seven days a week, who were familiar with the horses, cows and the rest of the farm, while the maids could also do some of the housekeeping. The labourers saved on the costs of food, and their children could already earn money at the age of 13–14. At least until around the age of 17 or 18 their wages were handed over to the parents.¹⁶ Children living at home could also earn money, but as has been noted it was difficult for them to find work the whole year through, and the parents then had to pay for their food expenses instead of the farmers.

The life cycle of the family

Fortunately, four farmer accounts concerning hired labour in the village of Nieuw-Scheemda have survived.¹⁷ These accounts are in general very rare because they were normally thrown away after some years.¹⁸ Two of the accounts, Dallinga and Barlagen, are very detailed. The account of Van Cingel registers only a few annual contracts and the last one, from Knottnerus, reports the annual earnings of each worker on the farm. Although the number of labourers in the accounts is limited, the information given is very detailed. The Dallinga and Barlagen accounts in particular provide very precise information about some of the families of mainly regular labourers. Over a long period, the farmer noted which of the family members worked and on which days. This means that it is possible to relate the wage-earning of specific family members to the family life cycle.

The nuclear family was the dominant household structure in Groningen, and this was also the case for the Nieuw-Scheemda labourers. Nevertheless,

¹⁶ In farm accounts, interference by the parents is stated explicitly only for the younger servants, and payments to parents are mentioned only for them. For example, Farmer Glas of Loppersum, Wage book servants 1880-1913 (owned by the Glas family of Huizinge).

¹⁷ Groninger Archieven, familiearchief Dallinga, inv. no. 4; Groninger Archieven, Familiearchief Barlagen and De Groot, inv. no. 12-13; Wage book Barlagen 1869-1881 (owned by the Westers family of Warffum); Servants book Van Cingel 1869-1935 (owned by the Van Cingel family of Haren); Loonboek Knottnerus (owned by O.S. Knottnerus of Zuidbroek, copy owned by the Nederlands Agronomisch-Historisch Instituut).

¹⁸ For an English case see: J. Burnette, 'Labourers at the Oakes: Changes in the demand for female daylaborers at a farm near Sheffield during the Agricultural Revolution', *Journal of Economic History*, 59 (1999) 41-67.

quite a lot of the families were extended for a few years, but if the circumstances are investigated this was mainly for forced reasons such as a daughter giving birth to illegitimate children and living temporarily in the house of the grandparents until the daughter married, or a son making a girl pregnant at the age of 19 and being forced to marry immediately without having a house of his own. Afterwards the young family left the parental household as soon as possible. There was also a daughter who was widowed very young and returned to her parents with two little children.

Table 4 Forced first marriages of cohort members (unskilled labourers) born around 1830, 1850 and 1870 in the Groningen clay area (percentages)

1830	1850	1870
11%	13%	10%
41%	42%	50%
48%	46%	40%
205	174	121
	11% 41% 48%	11% 13% 41% 42% 48% 46%

Source: Cohort analysis Integral History project Groningen.

As Table 4 shows, forced marriages were very common for labourers in the Groningen clay area. In this sense bourgeois ideas on family life do not seem to have made much impact on this occupational group in the second half of the nineteenth century. The practice of letting the female partner become pregnant before marrying even seems to have increased. Forced marriages of course also signified that new couples were suddenly confronted with the problem of starting a household of their own. For the first months these problems were often solved by staying in one of the parental households or returning to these households. Because the bride as well as the bridegroom were often working as live-in servants on annual contracts, it was financially beneficial to remain so for as long as possible. Sometimes the husband even kept working as a live-in farm hand for a short period after marriages and birth of the first child. Although this practice of forced marriage would seem to have created much uncertainty it was not completely irrational. Married women could earn less money (and emoluments) as day labourers than unmarried women as live-in maids. So it was attractive to keep on working as a farm maid for as long as possible and postpone marriage until this event was nearly inevitable.

The practice of forced marriages presumably also stimulated young marriages. It is remarkable that the age at marriage of female labourers was at first (cohort born 1830) higher than that for other occupational groups.¹⁹

¹⁹ Compared with P. Kooij and A. Mennens-van Zeijst, 'Demographic behaviour in the Groningen clay area. The results of cohort analysis', in: Kooij (ed.), *Where the twain meet*, 190.

During the second half of the nineteenth century, however, the marriage age of female labourers fell swiftly, so that later on female labourers married relatively young. During the whole period, male labourers were relatively young when marrying compared with other groups in the Groningen clay area. However, their average age at marriage also fell slightly more during the second half of the nineteenth century.

Table 5 Average age at marriage of cohort members born 1830, 1850 and 1870 in the Groningen clay area who became labourers after marriage

	males	Ν	females	Ν
1830	27.7	98	27.6	128
1850	26.6	82	24.9	103
1870	24.9	58	24.5	71

Source: Collenteur and Paping, 'De arbeidsmarkt voor inwonend boerenpersoneel', 115.

A theoretical family life cycle can be sketched for working class families.²⁰ We must remember that most of the couples started a household of their own as soon as possible after the wedding and stayed independent during the whole period of their marriage. In the first years of marriage the labourer families were still quite small with no children, or only one young child, and this can be seen as the first phase of the family life cycle. The number of children increased in the following years and particularly between 5 and 15-20 years of marriage, many young children incapable of earning much money themselves were living in the household (the second phase of the family life cycle).

However, after about 15 years most of the children became capable of working and in most of the families no new children were born anymore. In this third period of the family life cycle, which lasted until 25-30 years after marriage, the number of non-working children fell steadily, while the number of children working increased. However, it has already been remarked that many of these children left the parental household to become live-in farm servants so that in this period the size of many labourer families began to decrease. This fall in size took place quite early for the families with few children, and much later for large families such as the Snitjers. In the fourth phase in the family life cycle, after 25-30 years of marriage, the two old parents, if still alive, remained alone or sometimes with only one or two children in the household.

²⁰ A. Knotter, 'Gezinsarmoede-gezinsarbeid: De invloed van de gezinscyclus op de inkomsten van gezinnen van losse (haven)arbeiders in Amsterdam in de eerste helft van deze eeuw', in: Kok et al., *Levensloop en levenslot,* 209-210.

Figure 2 Average household size and duration of marriage for several labourers in Nieuw-Scheemda in the second half of the nineteenth century

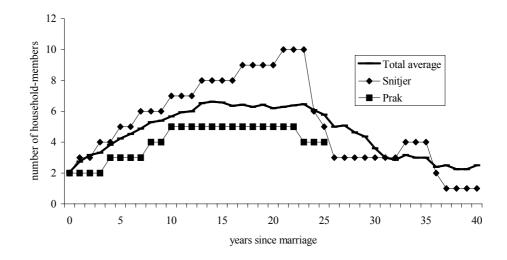
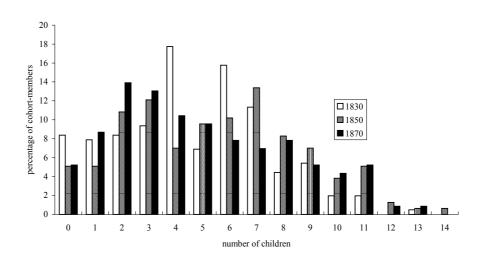


Figure 3 Number of children of married cohort members (labourers born 1830, 1850 and 1870)



It is clear that the family life cycle is just a model and that the differences between the families could be enormous. One important reason is the large difference in the number of children labourer couples produced, as shown in Figure 3. Having two or three children was just as normal as having six or seven children. During the second half of the nineteenth century the number of very large, but also of quite small families (two or three children) increased so that the differences within the group of labourer families also increased. Of the labourers marrying around 1855-1860 (cohort members born in 1830) some 40% had four to six children, while for the labourers marrying around 1875-1880 and 1895-1900 this was the case for only 25%.

	labourer households	farmer households
Married men	0.9	0.9
Married women	0.9	0.8
Children younger than 15	2.0	1.4
Sons older than 15	0.2	0.5
Daughters older than 15	0.2	0.4
Male servants younger than 15	0.0	0.3
Female servants younger than 15	0.0	0.3
Male servants older than 15	-	1.1
Female servants older than 15	_	1.0
Total household size	4.2	6.8
Total relatives in household	4.2	4.1
Number of families	389	118

Table 6 Average household composition and household size in Scheemda in 1862

Source: Bijdragen tot de kennis: Landbouw-statistiek.

The departure of at least some of the children aged 15 years and older becomes clear if we compare the composition of farmer and labourer families in the agricultural statistics of 1862 (Table 6). In the farmer households more sons and daughters older than fifteen were present, the number of children younger than fifteen, however, was much less. Some of the labourer children of 15 years and older had become farm hands or farm maids and many children younger than 14 years had also become farm servants. Every farm housed on average more than two and a half servants and because of this labourer households numbered fewer children over the age of 15.

Wage work and the life cycle of the family

From Table 6 it is clear that labourer families in general had the strategy of sending their children to work as servants living in the households of other families, especially farmers. The reason for this would have been related to the family life cycle. Letting the children become servants elsewhere was a way of

letting them generate income and of lowering the costs of consumption within the labourer households.

In this first phase of the family life cycle it was relatively easy for married women to perform wage work since they only had a few children to take care of. However, in this first period it was less necessary for women to work as the small family could relatively easily survive on the wages of the father. Economically, the first phase was in general a favourable period.

After some years the household started to grow further and further as more and more children were born and the need for money and food to maintain the family increased rapidly. However, for the mothers it became much more difficult to do wage work because they had to take care of the children. When the oldest labourer children became 9 years old they were sometimes not allowed to go to school in summer anymore as they had to keep an eye on their little brothers and sisters while mother was with father at work on the farm. In this way it was possible for married women to combine farm work during summer with having a large number of young children.

The third phase started when the oldest children reached the age at which they could earn income. For the labourer family it was very attractive to let them earn as much as possible for in this way the family could escape from the difficult second phase when the parents were troubled with too many dependent children. Leaving home to become a servant meant at least a reduction in costs for the labourer family, not to mention the wage they could give to the parents. For most of the children, by the time they reached the age of 14 the family was in a very difficult period. For the older children in the larger families the parents at that time still had to take care of numerous younger brothers and sisters, while for the last children in the labourer family it was also necessary to earn as much money as possible because the earning capacities of the parents had begun to fall. The family was entering the dangerous phase four of the family life cycle. Work in agriculture was very strenuous and many labourers were not capable of working after the age of 50 to 60. The period between 20 and 25 years after marriage was in general quite favourable for the labourer families, but this was only the case if the family succeeded in finding well-paid jobs for the children.

Some specific labourer families will be discussed in the next section to see how much income was earned during the family life cycle. One problem is that it is not known how much money was brought home by the children who worked elsewhere. For the Snitjer family, phase three, with many children capable of working, can clearly be seen (Table 7). Eighteen to twenty years after marriage, the income earned by people in the household was very high.

	birth	1877	1878	1879	1886	1887	1888	1889	1890	1891
Klaas S.	*1834	310.71	287.19	251.59	252.26	265.05	250.40	232.51	68.91	12.10
Trijntje O.	*1836	36.20	23.20	29.63	27.84	40.66	37.46	19.43	4.55	-
Geessien S.	* 1859	28.25	52.73	63.97	left					
Hindrik S.	* 1861	196.40	224.05	215.00	left					
Koert S.	* 1864	12.81	13.57	f. h.	left					
Harm S.	* 1866	-	0.90	6.80	f. h.	61.41	married			
Frouwke S.	* 1869	-	_	-	10.70	-	19.85	1.20	-	8.43
Aaltje S.	* 1871	-	-	-	16.50	35.50	maid	maid	maid	16.88
Fenje S.	* 1875	deceased	1884							
Luppo S.	* 1878	deceased	1878							
Poor relief										46.00
Total		584.37	601.64	566.99	307.30	402.62	307.71	253.14	73.46	83.41
Years after marriage		(18)	(19)	(20)	(27)	(28)	(29)	(30)	(31)	(32)
Number of children		7	7	6	2	3	1	1	1	2

Table 7 The earnings in Dutch guilders of the Snitjer family, 1877-1879, 1885-1891, (regular) labourers for farmer Dallinga in Nieuw-Scheemda

Source: Groninger Archieven, familiearchief Dallinga, inv. no. 4; f.h. means farm hand.

This was mainly due to the son, Hindrik Snitjer, who left the household for the city of Groningen in 1885. Some 25-30 years after marriage the family income was already much lower, but in this period the costs were also low because only a few children were still living at home. In 1889, father Klaas Snitjer's wage was first lowered, but by the next year, at the early age of 55, Klaas had become totally incapable of working. Afterwards Klaas Snitjer and his wife received poor relief each week, totalling 104 guilders a year. The Snitjer family had clearly arrived in the very unfavourable phase four of the family life cycle, no longer being capable of earning enough money for a living.

Years after	Total	Lodewijk	Grietje	Thomas	Maria	Hendrikje	
marriage	narriage income		*1851	* 1879	*1881	*1883	
1878 (3)	304.27	90%	10%				
1879 (4)	288.48	90%	10%				
1880 (5)	331.25	85%	15%				
1881 (6)	315.08	84%	16%				
1882 (7)	318.60	87%	13%				
1883 (8)	287.57	87%	13%				
1884 (9)	317.61	77%	23%				
1885 (10)	301.01	75%	25%				
1886 (11)	283.37	85%	15%				
1887 (12)	277.72	86%	14%				
1888 (13)	260.98	86%	13%	1%			
1889 (14)	282.45	87%	12%	1%			
1890 (15)	325.48	83%	16%	1%			
1891 (16)	330.72	85%	14%	1%			
1892 (17)	332.39	83%	10%	7%			
1893 (18)	350.67	76%	10%	13%	1%	0%	
1894 (19)	396.17	66%	8%	21%	4%		
1895 (20)	454.10	56%	8%	29%	7%		
1896 (21)	385.01	65%	10%	16%	10%		
1897 (22)	326.38	76%	12%	farm hand	13%		
1898 (23)	328.66	76%	7%	elsewhere	17%		

Table 8 Income composition of the household of the Prak family, regular labourer for farmer Barlagen in Nieuw-Scheemda

Source: Groninger Archieven, Familiearchief Barlagen and De Groot, inv. no. 12-13; Wage book Barlagen 1869-1881.

The family life cycle is also clearly present in the wage-earning development of the Prak family (Table 8). From a few years after the beginning of the marriage until fifteen years after, the amount of money earned did not change much, although the number of children rose from zero to three. The father earned some 85-90% of the family income, while mother Grietje Kramer only worked

in the summer and had a share of 10-15% of the family income. Strangely enough, it was exactly in the period that there were three very young children at home, 1884-1885, that the mother worked substantially longer in order to compensate for the declining income of her husband. When the son Thomas began to work regularly while still staying at home there was a steep rise in the family income. After Thomas had left to become a farm hand else-where this role was taken over by his sister, Maria Prak. Extraordinary was the presence at home of Hindriktje Prak, who never did any farm work. Although the population register records no special occupation for Hindriktje, it is pro-bable that she had a different way of contributing to the family income. Possibly the Prak family tried to protect the youngest daughter from a not very promising future in agriculture, which would correspond with the findings that children in the Groningen countryside who did not become a live-in servant had a greater chance of upward social mobility.²¹

In the short term it was economically attractive for labourer families to ensure that their young children earned money as fast as possible. This was especially the case if the family was in the second phase of the family life cycle.

Table 9 Annual days work for wage of labourer sons and daughters still living at home with their parents, Nieuw-Scheemda 1870-1900

Sons:											
Age	9	10	11	12	13	14	15	16	17		
Hendrik S.	?	?	?	?	?	?	292	293	294		
Koert S.	?	?	?	?	23	31	31 (farm hand at age 14)				
Harm S.	0	0	3	20	?	?	? (farm hand later)				
Koert G.	0	0	10	110	88	(farm hand at age 13)					
Harm G.	3	1	0	44	29	52	144	36	(f.h.	at age 16)	
Thomas P.	9	8	15	5	57	89	149	143	110	(f.h. at 17)	
Stinus B.	?	?	?	0	0	49	61	118	102		
Daughters:											
Age:	9	10	11	12	13	14	15	16	17		
Trientje A.	0	1	0	0	51	(maio	1 at 13)				
Engeltje A.	0	0	3	0	57	(maic	1 at 13)				
Aaltje S.	?	?	?	?	?	39	86	(maid a	it 16)		
Maria P.	0	0	0	9	29	36	50	59	64		

Source: Groninger Archieven, familiearchief Dallinga, inv. no. 4; Groninger Archieven, Familiearchief Barlagen and De Groot, inv. no. 12-13; Loonboek Barlagen 1869-1881; f.h. means farm hand.

²¹ R. Paping, 'Family strategies concerning migration and occupations of children in a market-oriented agricultural economy', *The History of the Family. An International Quarterly*, 9 (2004) Tables 6 and 7.

Table 9 shows how many days each year some of the children worked on the farm for daily wages. With the exception of Hindrik Snitjer, it was impossible for children of labourers living with their parents to find full-time work. This was even more difficult for girls than for boys. At a maximum they could find 60 to 90 days of paid labour per year so it was very attractive for the families of labourers to let the girls become a maid as soon as possible. The problems seem to have been a little less for boys. However, neither Thomas Prak nor Stinus Bos managed to find paid labour for more than half of the year, although they were already 16 or 17 years old.

It is also clear from Table 9 that the number of paid working days of children younger than 12 years on the farm was negligible. Boys and girls of 13 or 14 worked only some 2 to 3 months each year, although there were exceptions like the sons in the Greven family, Koert and Harm, who were both relatively active when they were only 12 or 13 years old. The reasons for this are not clear. For the parents, the wages of their only two sons would not seem to have been crucial, because of the small family size and the very active mother. Perhaps this family regarded wage work as very important for children.

Most of the children did indeed become live-in farm servants, some when they were only 13 years old; others stayed at home until they were 16 and a minority always stayed at home. At the end of the nineteenth century the number of farm servants fell steeply because of the proliferation of this practice.²² Because the standard of living of labourer families had increased quite a lot - a result of rising real wages - labourer families became more inclined to keep their children at home. This must have been socially attractive with family life remaining intact in this way, not being affected by absent children. Also, the children probably had more freedom in their parental home than in the houses of the farmers, where they had to make very long working days, and sometimes also had to work on Sundays. Possibly the most important reason for this development, however, is that the future prospects of labourer children staying at home were better than for those who became live-in servants.²³ Significantly more children of labourers who stayed at home managed in the long run to escape from the dismal life of an unskilled farm labourer. Families around 1900 must have been aware of the success of the children who did not become livein servants, because this phenomenon can already be seen quite significantly around 1850. Around 1900 the strategy of keeping children at home can in this way be seen as an investment in their future and in the quality of life.²⁴

²² Collenteur en Paping, 'De arbeidsmarkt voor inwonend boerenpersoneed'.

²³ Paping, 'Gezinnen en cohorten', 68-70.

²⁴ T. Engelen, 'Labour strategies of families: A critical assessment of an appealing concept', International Review of

However, in the short term it meant that costs rose, because of expenditure on food, and perhaps also wage income decreased because the children could not easily find work the whole year round.

The difficult period in the second phase of the family life cycle forced most of the labourer families to let their children become live-in servants as soon as possible. The more favourable third phase was easier to reach when the older children were consuming elsewhere and were working the whole year round. Another question concerning this family life cycle is whether it influenced the decision of the female marriage partner to work, and particularly whether it influenced the number of working days since nearly all the wives of labourers worked at least a few days each year for wages. Ad Knotter has suggested that the wives of labourers only worked if their husbands did not earn enough.²⁵ However, if the children were old enough they replaced their mother as wage earners. This has to mean that the number of working days of mothers should be closely related to the phases in the family life cycle.

Information is available on the number of days the wife worked for wages for some fifteen regular labourer families in Nieuw-Scheemda in the period 1870-1902. For some families the information stretches over a long period. This information will be analysed considering each year as a separate piece of information. The annual number of days worked by married women (WORKWOMAN) is explained with the help of regression analysis. First, the children born of this woman and still alive are split into three groups – 0-8 years (CHILDY), 9-13 years (CHILDM), 14 and older (CHILDO). The number of years (MARDUR) since the date of marriage is also used as an explanatory variable (Marriage duration). Because it is possible that there were general changes in the number of days the woman worked during the period under research the variable YEAR has been used, which ranges from 0 for 1870 to 32 for 1902. In total there were 89 observations suitable for this analysis ($R^2 =$ 0.22):

WORKWOMAN = 81.08 + 0.46.MARDUR + 2.96.CHILDY - 5.12.CHILDM t-value (0.81) (1.25) (-1.41)

- 5.93.CHILDO - 1.43.YEAR t-value (2.24*) (-4.36*) * significant at a 5% level

Social History, 47 (2002) 459-460, suggests that to send out children as servants does not necessarily imply a rational and conscious choice but also could be a tradition. However, he does not take into account that some of the children, even of the poor labourers, were already kept at home around 1850, which clearly points to the ability to choose.

²⁵ Knotter, 'Gezinsarmoede-gezinsarbeid'.

The result is perhaps a little disappointing because only 22% of the differences are explained by the regression equation. The most important explanatory variable is not the family life cycle but the specific year. Wives of labourers decreased their number of working days significantly during the period 1870-1902. The explanation must be partly sought in the rising real wages of their husbands and also partly in the development that paid labour of married women with children became socially less acceptable. However, the number of children older than 14 years also had a significant influence. In accordance with Knotter's findings it appears that the earnings of these older children partly replaced the earnings of their mothers. As the children became older the income of the wives of the labourers became less necessary. The presence of children between the ages of 9 and 13, who could take care of the younger children and in this way make it easier for their mothers to work, did not promote working by the women. On the contrary, it even seems that these children also earned enough to allow their mother to stop working, although this influence was not statistically significant.

The family life cycle was modelled in a second regression equation with the help of a dummy variable ($R^2 = 0.17$). This showed that it was only in the third phase that the wives of labourers significantly decreased their number of working days, which is in accordance with the earlier result that older children partly replaced their mother in earning income. The mothers already reduced their number of working days in the second phase because of the large number of children to take care of, but this influence was very insignificant. In the dummy, PHASE1, families with up to two children younger than 14 years, and fewer children older than 14 years than younger than 14 years. PHASE3 comprises families with more or just as many children over the age of 14 years as under.

WORKWOMAN = 85.10 - 3.95.PHASE2 - 17.86.PHASE3 - 1.25.YEAR t-value (0.57) (2.32*) (3.76*) * significant at a 5% level.

The equation which models the three phases results in only 17% explained deviations, which is less than the equation with the number of children, leaving 83% unexplained deviations. It is clear that other factors next to the family life cycle were of importance when married female labourers made decisions on whether to go to work or not. It is possible that social opinions and the ambi

tion level of the family also played an important role.

Conclusions

Just as elsewhere, labourer families in Nieuw-Scheemda in Groningen in the second half of the nineteenth century went through a family life cycle. Because of the growing number of young children who did not earn any money, the economic position of the labourer family became more difficult after some 5 years of marriage. After some 15 or 20 years the situation became better when older children began to contribute to the family income. The number of household members began to decrease during this period, because most children left home to go work and live on farms between the ages of 13 to 16. However, children began to do farm work as early as age 12-13, although not very regularly, earning only small amounts of money. Children living at home were confronted with high seasonal unemployment. Only as a live-in servant they could be sure of finding work the whole year round. Working as a live-in servant was economically attractive because the farmer paid for the daily food, and the wages were generally higher than could be earned by irregular farm labour when the children staved at home. However, by the end of the nineteenth century farm labourers increasingly kept their children at home, even when the children reached the age of 16. Although unattractive in the short term this strategy was preferred, presumably because staying at home was better for the future of the children and also more pleasant.

Female farm labourers only worked during the summer half year. The farmers were not in need of much labour in the winter and female labourers were dismissed during this period. Some wives of labourers worked more and others worked less. The family life cycle caused some problems if women wanted to work. If there were young children someone had to take care of them. However, especially in the period when there were many young children, the extra money earned by the mother was needed the most. From the number of days female labourers worked it is clear that they chose to work when the children were young. Their number of working days declined somewhat when the children began to grow older, but never stopped altogether, so it may be presumed that females worked partly because it was necessary. However even when it was not absolutely necessary female labourers remained working for some days in order to supplement their husband's income.

During the period 1870-1902 the number of days worked by married female labourers fell. The probable reasons are that female labour became less accepted and the labourer families could afford the mother working less, because the real wages of the males were increasing fast during this period. The decreasing number of days worked by female labourers in Nieuw-Scheemda is in agreement with the emergence of the normal pattern of family labour in the Netherlands during the twentieth century until 1975: the man worked and earned the money while the wife stayed at home and took care of the children and the household.

Epilogue

Some results from the study of culture of the Russian provinces and prospects for future research in the context of integral history

Vitaly Afiani

The first all-Russian conference on the complex problems of the 'Culture of the Russian Provinces in the eighteenth to twentieth centuries' took place in Moscow in April 1991. The first seminar of the 'Dutch-Russian Integral History' programme then being set up was conducted by Professor P. Kooij in Moscow in October of the same year. This was not a coincidence. Russian historians V. Kozlov, S. Mironenko and V. Afiani had met P. Kooij a year before in the Dutch city of Groningen at the centennial celebration of the Dutch Association of Archivists. There they had become acquainted with the Dutch project 'Integral Regional History' and decided to apply the methods of this project to Russian regional history.

That was more than ten years ago and it is now time to evaluate some of the recent results and take a look into the future. The programme 'Culture of the Russian Provinces in the eighteenth to twentieth centuries' originated from a seminar held at the Cultural Institute of the Russian Ministry of Culture which was organized by Professor S.O. Schmidt, A. Sundiev and V. Afiani. As a result of this, the Archeographical Commission of the USSR Academy together with the Cultural Institute and Moscow University started to organize seminars for those scholars interested in the history of Russian culture and the Russian provinces. At one of these seminars, the acquaintance of historians Dr I. Schustrova from Yaroslavl and Professor Y. Mizis from Tambov was made. Their research groups joined the Integral History Project and both researchers visited the Netherlands in 1992 to attend a second seminar there.

As time has passed, some of the original participants in the Dutch-Russian Integral History Project have left while others have joined. V. Afiani has remained involved, but unfortunately, due to other work, he cannot participate as much as he would like and some of his tasks have been taken over by S.G. Kachtchenko of St Petersburg. The two projects mentioned here were not able to be combined. Annual conferences on the Culture of the Russian Provinces Project have been held in Moscow, Elec and Penza. In total, more than 350 people attended one or more of these conferences, among them researchers from over 35 cities in Russia and scholars from Freiburg and Paris. The aims formulated at the first conference, which was opened by the academician D.S. Lihachev, may be summarized as follows:

Research into the mechanisms of the formation and functioning of the culture of provinces (regions), definition of the local features, tracing of the interaction between the culture of regions and their capitals and determining the influence of provincial cultures on the general culture of the country.

It was necessary to work in association with historians from various specialist areas in order to avoid the negative effects of the branch method, which was very common in the Soviet period.

Originally, the conferences were planned along the lines of different cultural centres: city, village, estates, and monasteries. The second conference was, therefore, devoted to small Russian cities. Around this time, however, some fragmentation took place with separate societies being created for the study of small cities and estates, for instance. As a result of this, subsequent general conferences were arranged to discuss particular problems, such as 'the realities of culture' and 'culture and local history'.

From the start, historical theory formed a major theme at the conferences. Concepts such as culture, civilization, provincial culture, regional culture and Russian culture were discussed by S.O. Schmidt, V. Afiani, I. Belenkij, L. Kochman, L. Sizintceva, L. Troitskij, D. Chevarov, E. Chulepova and others. The problem of westernization was also discussed by many contributors, while others attempted to distinguish between universal and specific, temporal, or spatial characteristics of the culture of the Russian Provinces.

Many contributions to the conferences were also devoted to the history of the Russian country town, especially its role and place in culture, while villages received less attention. A few papers were devoted to the culture of monasteries (Y. Mizis, P. Roschevskaij). Other areas to receive attention were social-cultural groups, the provincial 'intelligentsia' (arts, scientific, technical), clergymen, statesmen, education and schools, museums, libraries, printing houses and theatres. Some very interesting studies concerned the cultural potential of provincial Russia (V. Ermakova, L. Kochman). The conclusion was drawn on more than one occasion that more precise definitions were needed for the terms culture and civilization. It was also proposed that in the context of quantitative comparisons between Russia and European countries, it was necessary to consider regions which had been colonized by European states.

The necessity for the use of quantitative methods was put forward at the first conference. Requests were made later on for research of the kind undertaken in the programme of Dutch-Russian Integral History, but unfortunately there was not much response and this type of research has been somewhat neglected. There were some contributions, however, which could be related to themes in the Dutch-Russian project. For instance, the research carried out by the young scholar S. Mozorov, who studied the influence of urban and village culture on demographic processes in Russian regions (from the end of the nineteenth century until 1914). This continues the work described in the books written by S. Novoselsky, V. Paevsky, M. Ptucha and others, who were primarily interested in average parameters and did not pay attention to regional differences.

Mozorov made comparisons of demographic development in cities and in the countryside. One of his conclusions was that in around 1900, men in a village lived 3-4 years longer than men in a city. There was a negative correlation between the degree of urbanization and life expectancy. In the cities tuberculosis was one of the major causes of death of people between the ages of 20 and 40. Many children died of contagious diseases such as scarlet fever or measles, as well as diseases of the digestive organs. Heart disease, cancer, and what was labelled as decrepitude were the dominant causes of death among older people.

There was a traditional type of reproduction with high birth rates and high mortality rates in Russia at this time. High birth rates and large families were not confined to the peasantry. Leo Tolstoy had 13 children, the famous surgeon Pirogov was the thirteenth child in the family of a Moscow official, and the famous chemist Mendeleyev was the seventeenth child in his family.

The birth rate in the villages, though, was higher than elsewhere and there were also regional differences. The birth rate was less than 30‰ in the three Baltic states in 1896/1900 while in the European part of Russia the average birth rate at that time was 45‰ and in Poland it was 38.5‰. By the First World War, however, the relatively low birth rate of less than 30‰ had reached the line St Petersburg – Kovenskaja. There was a simultaneous rise in the average life expectancy from 26.3 years for men and 29.1 for women in 1897/98 to 31.9 for men and 34.0 for women in 1911/14.

The reduction in the birth rate and the increase in life expectancy were related to the gradual disappearance of the traditional way of life, the influence of new attitudes, the influx of urban cultures, changes in religious opinions and a different position of the church in society. At the present time, an enormous amount of theoretical and empirical material has been collected within the framework of the programme 'Culture of the Russian Provinces,' sufficient to warrant the preparation of a collective monograph. This does not imply, however, that all the problems which have been put forward will be discussed and solved but rather that this monograph will point out the directions for further research. The centres for regional research, which developed almost independently in the past years and have gathered a great deal of valuable material, are also important in this context.

When the two projects – 'Culture of the Russian Provinces' and 'Dutch-Russian Integral History' – started it was thought that they could be pulled together. But, as has already been mentioned, quantitative research within the framework of the 'Culture of the Russian Provinces' programme did not develop sufficiently. On the other hand, the Dutch-Russian Integral History has concentrated mainly on historical demographic research and has, so far, paid almost no attention to social, political, cultural and religious influences. The Dutch-Russian project could benefit in the future from the material collected by the 'Culture of the Russian Provinces' programme to investigate these neglected domains.

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