

The Ural Population Project. Demography and Culture From Microdata in a European-Asian Border Region

By Elena Glavatskaya, Julia Borovik and Gunnar Thorvaldsen

To cite this article: Glavatskaya, E., Borovik, J., & Thorvaldsen, G. (2022). The Ural Population Project. Demography and Culture From Microdata in a European-Asian Border Region. *Historical Life Course Studies*, 12, 151–172. <https://doi.org/10.51964/hlcs12320>

HISTORICAL LIFE COURSE STUDIES

Content, Design and Structure of Major Databases with
Historical Longitudinal Population Data

VOLUME 12, SPECIAL ISSUE 5,
2020

GUEST EDITORS

George Alter
Kees Mandemakers
Hélène Vézina



MISSION STATEMENT

HISTORICAL LIFE COURSE STUDIES

Historical Life Course Studies is the electronic journal of the *European Historical Population Samples Network* (EHPS-Net). The journal is the primary publishing outlet for research involved in the conversion of existing European and non-European large historical demographic databases into a common format, the Intermediate Data Structure, and for studies based on these databases. The journal publishes both methodological and substantive research articles.

Methodological Articles

This section includes methodological articles that describe all forms of data handling involving large historical databases, including extensive descriptions of new or existing databases, syntax, algorithms and extraction programs. Authors are encouraged to share their syntaxes, applications and other forms of software presented in their article, if pertinent, on the EHPS-Net website.

Research articles

This section includes substantive articles reporting the results of comparative longitudinal studies that are demographic and historical in nature, and that are based on micro-data from large historical databases.

Historical Life Course Studies is a no-fee double-blind, peer-reviewed open-access journal supported by the European Science Foundation (ESF, <http://www.esf.org>), the Scientific Research Network of Historical Demography (FWO Flanders, <http://www.historicaldemography.be>) and the International Institute of Social History Amsterdam (IISH, <http://socialhistory.org/>). Manuscripts are reviewed by the editors, members of the editorial and scientific boards, and by external reviewers. All journal content is freely available on the internet at hlcs.nl.

Co-Editors-In-Chief:

Paul Puschmann (Radboud University) & Luciana Quaranta (Lund University)
hislives@kuleuven.be

The European Science Foundation (ESF) provides a platform for its Member Organisations to advance science and explore new directions for research at the European level. Established in 1974 as an independent non-governmental organisation, the ESF currently serves 78 Member Organisations across 30 countries. EHPS-Net is an ESF Research Networking Programme.



The European Historical Population Samples Network (EHPS-net) brings together scholars to create a common format for databases containing non-aggregated information on persons, families and households. The aim is to form an integrated and joint interface between many European and non-European databases to stimulate comparative research on the micro-level.
Visit: <http://www.ehps-net.eu>.



HISTORICAL LIFE COURSE STUDIES
VOLUME 12 (2022), published 07-07-2022

The Ural Population Project

Demography and Culture From Microdata in a European-Asian Border Region

Elena Glavatskaya

Ural Federal University

Julia Borovik

Ural Federal University

Gunnar Thorvaldsen

UiT The Arctic University of Norway

ABSTRACT

The Ural Population Project (URAPP) is built from individual level data transcriptions of 19th- to early 20th-century parish records and mid-19th-century census-like tax revisions manuscripts. This article discusses the source material, the contents, the history of creation and the strategy of the URAPP database and the outcome of the main research topics so far, including historical demography, Jewish studies, indigenous studies and studies of religious minorities in the Urals and Siberia. Our studies of the ethno-religious cultural landscape of the Urals and northwestern Siberia as well as participation in population history projects was more vital backgrounds than the traditional focus on aggregates. The over 65,000 vital events transcribed from parish records of Russian Orthodox Churches and minority religions in and around Ekaterinburg have been the basis for studies of mortality, nuptiality, religion and other characteristics. We found that the Jewish population kept their traditions and connections with relatives in the Pale of Settlement. Prisoners of WWI usually marrying within their own religious group. Infant mortality in Ekaterinburg was lower among Jews and the Catholics, minorities with higher education and western background, while the Orthodox majority exposed their newborn to extremely tough baptism. The burial records show cases of the Spanish flu in 1918–1919, but on a lower level than in the West, supporting recent theories that estimates of flu mortality may be too high. Based on the tax revisions, polygyny was officially recognized among the indigenous Siberian people. The strategy of the URAPP project has evolved from transcribing microdata about minorities towards covering the whole population.

Keywords: Russia, Urals, Ekaterinburg, Siberia, Parish records, Censuses, Tax revisions, Nuptiality, Mortality, Ethnicity, Indigenous people, Religions, Religious minorities

e-ISSN: 2352-6343

DOI article: <https://doi.org/10.51964/hlcs12320>

© 2022, Glavatskaya, Borovik, Thorvaldsen

This open-access work is licensed under a [Creative Commons Attribution 4.0 International License](http://creativecommons.org/licenses/), which permits use, reproduction & distribution in any medium for non-commercial purposes, provided the original author(s) and source are given credit. See <http://creativecommons.org/licenses/>.

1 INTRODUCTION

Today, ethno-confessional relations and demographic processes are crucial for understanding and promoting the stability and development of countries and regions. For many decades, we studied the evolution of the ethno-religious cultural landscape of the Urals with qualitative methods and sources. We now increasingly focus on social processes, involving ethnic, religious and demographic relationships and other conditions. We concentrate on Perm' province in the middle Urals during the late 19th and early 20th centuries (see map in Figure 1). The period is characterized by rapid modernization which led to changes in ethnic and religious composition, as integral parts of the first demographic transition. The traditional quantitative focus on statistical aggregates in Russia enhanced our understanding of this field only marginally. In order to understand the details of these changes, it is necessary to study the ethnic and religious communities as mirrored in source material containing information about each individual. Analysis on the individual level is also necessary to avoid ecological fallacies — i.e., drawing conclusions about smaller groups based on aggregates about society at large. In addition, in contrast to the use of published aggregate data, the method of studying selected communities at the individual level makes it possible to analyze the composition of small ethno-religious groups as parts of the larger rural and urban multi-ethnic and multi-confessional community.

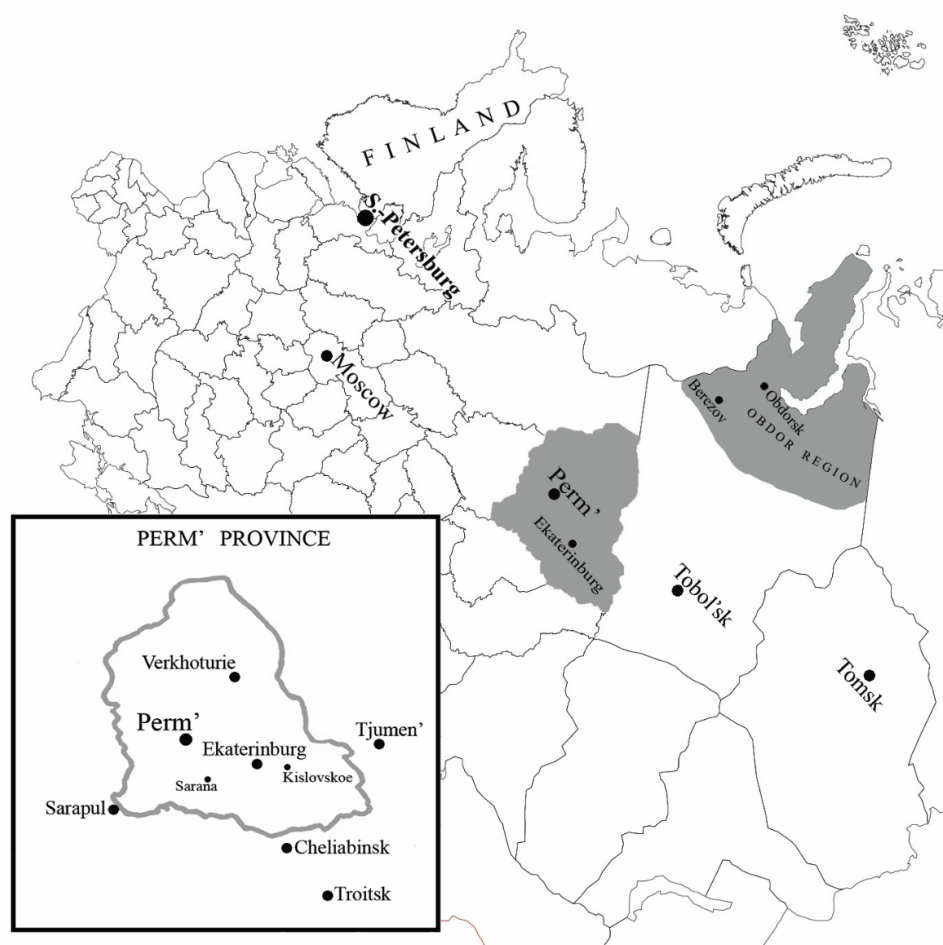
Interest in nominative microdata in Russia developed gradually during the 1980s after Heldur Palli, an Estonian historian, introduced quantitative methods in population studies in the Soviet Union (Palli, 1983). It inspired immense interest in historical demography in the 1990s due to cooperation with Western historical demographers and the introduction of computers in the Russian historians' toolkit. The Russian branch of the Association for History and Computing (AHC) founded in 1992 is still active and helpful with its professional journal *Istoricheskaia informatika* [Historical Information Science] and biannual conferences attracting both Russian scholars and researchers from the post-Soviet realm: the Republics of Belarus, Kazakhstan, Kyrgyzstan, Latvia, Ukraine and other countries (Borodkin & Vladimirov, 2017). During 30 years of new historical demography, several academic and university centers ran independent projects based on nominative data sources: in Moscow (Blum & Troitskaya, 1997; Ul'yanova & Troitskaya, 2016a, 2016b); in Sankt-Petersburg (Kashchenko & Markova, 2012; Markova, 2016); in Tambov (D'iachkov, Kanishchev, & Orlova, 2007; Strekalov & Strekalova, 2018, 2019); in Barnaul (Bryukhanova, 2019; Vladimirov & Sarafanov, 2013). Mostly, these scholars used census-like tax records and parish records.

In this contribution we describe the sources, content and strategy of the Ural Population Project dataset (URAPP). The URAPP is one of the youngest historical microdata resources, created by a group of historians at the Ural Federal University in Ekaterinburg, Russia — a city named Sverdlovsk during 1924–1991. It spans the period 1858–1959 and covers the Urals and northwestern Siberia. It consists of individual level data mainly transcribed from 18th- and 19th-century Russian census-like tax records (*revizskie skazki*) and the 19th- to early 20th-century parish records (*metricheskie knigi*) and it also includes a sample of the 1959 Soviet census. This article discusses the source material, the contents and the strategy of the URAPP database and the outcome of the main research topics so far, including historical demography, Jewish studies, indigenous studies and studies of religious minorities.

2 NOMINATIVE SOURCES IN IMPERIAL RUSSIA

While there are several types of nominative sources in Russia, we shall focus on two main ones for the following reasons: they are universal for the whole country, well preserved in Russian archives and therefore became the basis for the Ural Population Project (URAPP). They are the *revizskie skazki* (census-like tax revisions) and the *metricheskie knigi* (parish registers of vital events, hereafter called parish records), both introduced by Tsar Peter the Great (ruling from 1682 to 1725) as part of his modernization program. For an overview of other Russian and Soviet nominative sources, see (Mazur & Gorbachev, 2016).

Figure 1 Areas and localities included in URAPP database

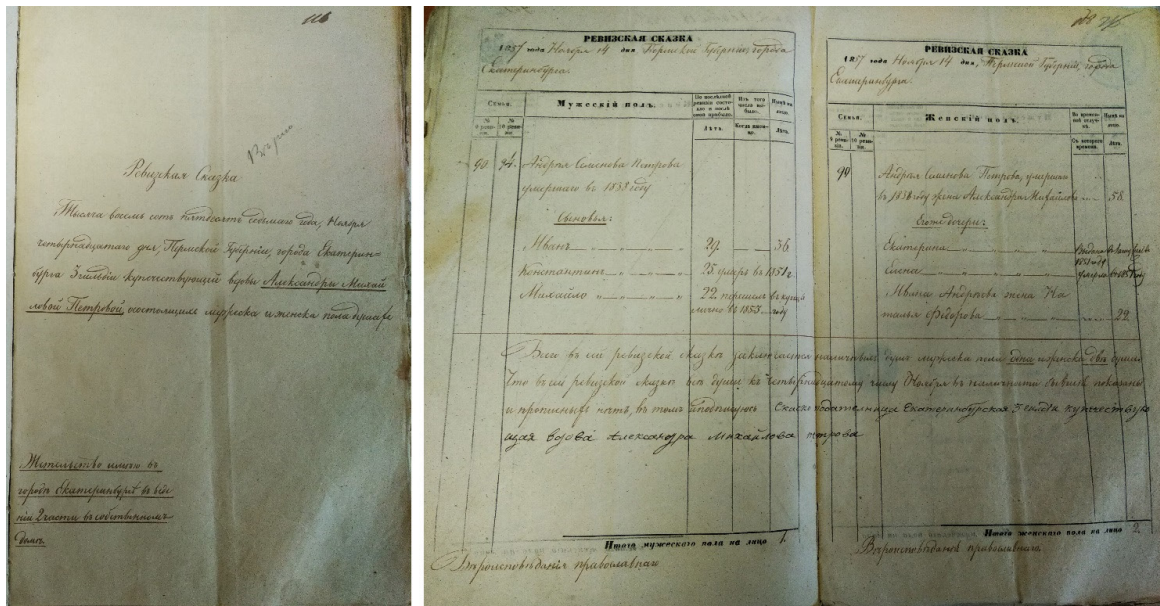


2.1 THE REVIZSKIE SKAZKI (CENSUS-LIKE TAX REVISIONS) AND CENSUSES

Even if the very concept of population registration came from the East, the Europeans modified the method and implemented modern censuses already from the 18th century (Thorvaldsen, 2018), while Russia followed only in the late 19th century (Clem, 1986). However, until the 18th century, the Russian authorities constructed lists of certain population groups on the household level, updated regularly for taxation purposes. These lists could leave out children, women, noblemen and military units, who were exempt from taxation. Table 1 provides an overview of the tax censuses that took place from 1718 to 1858. During this period 10 of them provide detailed, census-like information on individual members of the families and households (see Figure 2 for an example of these sources).

All revizskie skazki were nominative, listing the first name, patronymic and family name for the head of the household, age and social standing/status (*soslovie* [estate]) with values such as peasants, *inorodtsy* – indigenous people, *meschane* – office clerks, individual craftsmen and workers, *tsekhovye meschane* – guild craftsmen and *kuptcy* – merchants. For the rest of the family only the first name was listed, together with the relation to the head of the household and the age. New family members and data about the deceased would be registered at each revision as well as about those not present with explanation of the reason for their absence (exile, etc.). In this way the revisions combined the *de facto* and the *de jure* enumeration principles. The age information was updated according to the number of years since the previous revision, and for this reason may be inaccurate. Record linkage using records from two or more tax revisions will be facilitated by a system that numbered the households in a persistent way. The tax censuses of 1718, 1743 and 1811 excluded women, since only men were taxed. On the other hand, taxes had to be paid for the men listed until the next revision, thus also for those who had passed away in the meantime.

Figure 2 Revizskaia skazka of the merchant's household headed by 58 years old widow Alexandra Mikhailovna Petrova living in her own house together with a son and his wife



Source: Gosudarstvennyi Arkhiv Sverdlovskoi Oblasti [State Archive of Sverdlovskaiia oblast'], Ekaterinburg, Russia (GASO) F. 8. Op. 1. D. 1775. List 116–118.

Titles of the columns:

Left side (Males): 1. Family number according to the 9th revision, 2. Family number according to the 10th revision, 3. Name, 4. Age as registered in the previous revision, 5. Reason for absence and since what time, 6. Age at present.

Right side (Females) 1. Family number according to the 9th revision, 2. Family number according to the 10th revision, 3. Name, 4. Age as registered in the previous revision, 5. Reason for absence and since what time, 6. Age at present.

After the second revision, the authorities ordered that the revizskie skazki should be updated every 15th year. This schedule was in general followed with two exceptions: the revision of 1794 planned for 1811 was not completed due to the Napoleonic Wars and the 9th revision planned for 1850 was revamped into the 10th which started in 1856. Unlike the proper censuses taken later, it was not the aim of the revizskie skazki to mirror the population's composition on a single census day or within the timeframe of the same year for demographic purposes. We can find these lists in archives all over the previous Russian Empire. Scanned images of tax censuses for western Siberia are available at <http://archiv.72to.ru/index.php/ga-tobolsk/tobolsk-ob-material>.

Troitskaya (1995) used the revizskie skazkie to construct mortality tables for the Moscow region between 1750 and 1850. In a later co-authored work (Blum & Troitskaya, 1997) the mortality estimates based on the revizskie skazski were compared with other mortality tables for the period. They also expanded the work on the Moscow region by constructing mortality tables for all of Russia during the second half of the 19th century. The authors showed that in the mid-18th century mortality in Russia was comparable to the level in France, but a century later Russian mortality remained unchanged, while the French level was significantly lower. For more information on the revizskie skazki and research made on this source, see Ul'yanova and Troitskaya (2016a, 2016b).

The first All-Russian census conducted in 1897, was carefully prepared, run and processed according to contemporary international enumeration standards. However, in accordance with what was to become Russian practice, most of the microdata were destroyed after the information was processed, aggregated and published. After this otherwise successful start of modern population census taking, there was a break due to the first Russian revolution in 1905 and yearlong insurgences making the next census impossible. The economic hardships and food crises after Russia entered World War I, required urgent information about population and supplies. Attempts to register the population in order to arrange an efficient food supply were made by Russian municipalities in 1916 and 1917. However, these and the Bolshevik attempt to take a census in 1920 partly failed, due to lack of resources during the turbulences of the foreign interventions and civil war (Thorvaldsen & Glavatskaya, 2017).

Table 1 Revizkie skazki taken in the Russian Empire 1718 to 1858

Revision number	Date of the ordinance	Period taken	Aggregate numbers
I	26.11.1718	1718–1727	15,738,000
II	16.12.1743	1743–1747	21,200,000
III	28.11.1761	1761–1767	23,200,000
IV	16.11.1781	1781–1782	28,400,000
V	23.06.1794	1794–1795	37,400,000
VI	18.11.1811	1811	41,010,400
VII	20.06.1815	1815	46,300,000
VIII	16.07.1833	1833	59,132,955
IX	01.01.1850	1850–1852	68,500,000
X	26.08.1856	1857–1858	74,556,400

Source: Andreev and Andreev (n.d.), Thorvaldsen (2018).

2.2 METRICHEKIE KNIGI (PARISH RECORDS)

From 1722 the Orthodox clergy had to perform registration of vital events in parish records. During the next two centuries, the forms evolved, and other religious denominations (Lutherans in 1764, Catholics in 1826, Muslims in 1828, Jews in 1835 and the Old Believers in 1905) were also obliged to register their vital events in the standardized state provided forms (see Figure 3 and 4).

Figure 3 Metrichekaia kniga of Ekaterinburg Synagogue on births in 1906

№	Имя совершавшего обряд	Год	Место рождения и крещения	Состояние отца, имени отца и матери	Имя новорожденного и какое ему дано имя
6	Карац	1906	22 мая 1906	Александр Иванович Карац	Сын Александр Иванович Карац
7	Карац	1906	11 июня 1906	Александр Иванович Карац	Сын Александр Иванович Карац
8	Карац	1906	12 июня 1906	Александр Иванович Карац	Сын Александр Иванович Карац
9	Карац	1906	15 июня 1906	Александр Иванович Карац	Сын Александр Иванович Карац
10	Карац	1906	18 июня 1906	Александр Иванович Карац	Сын Александр Иванович Карац
11	Карац	1906	21 июня 1906	Александр Иванович Карац	Сын Александр Иванович Карац

Source: GASO. F. 6. Op.13. D. 68. List 2–3.

Titles of the columns: 1. Sequence number of females, 2. Sequence number of males, 3. Name of the circumciser, 4. Year, 5. Day and month of birth and circumcision, 6. Place of birth, 7. Social status of the father, names of both father and mother, 8. Name and gender of the newborn.

Figure 4 Metricheskaia kniga of Ekaterinburg Lutheran Church on deaths in 1887

Monat		Tauf- und Familienname, Stand, Rang oder Gewerbe des Verstorbenen; bei Kindern: Tauf- und Familiennamen, Stand, Rang oder Gewerbe der Eltern.		Geburtsort des Verstorbenen.	Alter des Verstorbenen.	Wann geboren.	Stand des Verstorbenen.	Relig. bekenntnis, verheiratet, oder geschieden.	Krankheit im Tode.	Allgemeine Bemerkungen.
6.	Januar 29. d. d. 1887	11.00	Johann Lorenz Wilhelm Thomas Kolla	Dänemark	35 J. 11 M. 22 T.	1.	Verheiratet	Keine Krankheit	Keine Bemerkungen	
7.	Januar 30. d. d. 1887	11.00	Carl Wilhelm Hoffmann	Dänemark	60 J. 7 M. 15 T.	1.	Verheiratet	Keine Krankheit	Keine Bemerkungen	
8.	Januar 31. d. d. 1887	11.00	Barthelemya Louise	Finnland	10 J. 4 M. 25 T.	1.	Keine Krankheit	Keine Bemerkungen	Keine Bemerkungen	
9.	Februar 1. d. d. 1887	11.00	Carl Wilhelm Hoffmann	Dänemark	19 J. 3 M. 19 T.	1.	Keine Krankheit	Keine Bemerkungen	Keine Bemerkungen	
10.	Februar 2. d. d. 1887	11.00	Carl Wilhelm Hoffmann	Dänemark	10 J. 7 M. 10 T.	1.	Keine Krankheit	Keine Bemerkungen	Keine Bemerkungen	
11.	Februar 7. d. d. 1887	11.00	Alie Petrus Joh. Knuyt	Dänemark	58 J. 11 M. 22 T.	1.	Verheiratet	Keine Krankheit	Keine Bemerkungen	
12.	Februar 7. d. d. 1887	11.00	Alie Petrus Joh. Knuyt	Dänemark	58 J. 11 M. 22 T.	1.	Verheiratet	Keine Krankheit	Keine Bemerkungen	
13.	Februar 10. d. d. 1887	11.00	Therese Karoline Joh. Sangel	Dänemark	34 J. 3 M. 25 T.	1.	Verheiratet	Keine Krankheit	Keine Bemerkungen	
14.	Februar 14. d. d. 1887	11.00	Wilhelmine Wilhelmine Kolud	Dänemark	44 J. 11 M. 6 T.	1.	Verheiratet	Keine Krankheit	Keine Bemerkungen	
15.	Februar 14. d. d. 1887	11.00	Julia Sophie Brandt	Dänemark	1 J. 7 M. 10 T.	1.	Keine Krankheit	Keine Bemerkungen	Keine Bemerkungen	

Source: GASO. F. 6. Op.13. D. 5. List 3-4.

Titles of the columns: 1. Number, 2. Date and hour of death, 3. Date and hour of funeral, 4. Christian name and family name, status, rank or occupation of the deceased; if children: First name and family name, status, rank or occupation of parents, 5. Birthplace of the deceased, 6. Age of the deceased, 7. Gender (male), 8. Gender (female), 9. Free, married, widowed or divorced, 10. Cause of death, 11. General remarks.

They all had three common parts: baptisms/births, weddings and burials/deaths. In addition, Muslim and Jewish books also had a section on divorces, which these religions allowed. This registration of vital events took place all over the Russian Empire until the October Revolution in 1917, in some places a few years longer. Russian legislation regulated the parish registers and their accuracy. The religious community board had to check and verify the books frequently and religious leaders and communities were to be fined when any disorder was found in the records (Glavatskaya & Borovik, 2019) and their quality improved significantly from the mid-19th century onwards (Mironov, 2007). After the implementation of the decree on separation of the Church from the State, a civil office established by the Bolsheviks took over the registration of vital events in each municipality, and the State did not recognize documents issued by the Church after 1917. Moreover, all the parish records from before 1917 were seized and stored in the State Archives. These collections of parish records are well preserved and together with the revizskie skazki became the source basis for the Ural Population Project (URAPP).

3 BACKGROUND OF THE URAL POPULATION PROJECT

Several independent research projects eventually brought us to the Ural Population Project (URAPP). All of them were related to ethnic or religious minorities and often dealt with Siberia. International cooperation taught us the merits of working with microdata, motivated us and prepared for launching the URAPP.

3.1 THE URAL ETHNO-RELIGIOUS STUDIES FOCUSING ON EKATERINBURG

An important step leading up to the URAPP was our multifaceted research on the evolution of the ethno-religious landscape in the Urals. A thoroughfare for migration to Siberia, the region was interesting due to its ethnic and religious diversity. It had become the meeting point for the indigenous, Muslim and Russian Orthodox traditions during the initial Russian colonization in the late 1600s, and later Catholics, Lutherans and Jews added to the religious diversity. The history of this encounter included the Christianization of the Urals and the Siberian indigenous populations (Glavatskaya, 1995, 2011a, 2011b).

Coincidentally, Swedish officers, exiled prisoners of war after the Swedish defeat at Poltava in 1709, wrote the earliest descriptions of the Siberian indigenous peoples made available in the West. We examined how the prisoners preserved their identity in exile and other aspects of their destinies by studying their diaries and other documents. It inspired our interest in religiously mixed marriages that given the shortage of Lutheran brides in Siberia, were concluded by the prisoners as an alternative marriage strategy. Many Russian widows became involved in a relationship with Swedes after the death of their husbands. However, most interfaith marriages ended when the Russian Orthodox wives were abandoned together with their children as the prisoners returned to their homeland after the 1721 peace treaty. The remaining ones, together with German contractors, made up the nucleus of the Lutheran community in the Urals with its center in Ekaterinburg (Glavatskaya & Thorvaldsen, 2015). While Lutherans were the oldest religious minority in Ekaterinburg, other denominations also added to the city's religious landscape (see Table 2).

The more than 90% Orthodox in the 1897 population census were overwhelmingly ethnic Russians, like the 4% orthodox Old Believers (Russian Orthodox who split from the mother church in the 17th century). The city's Muslim community, a religious minority of Tatars and Bashkirs, in-migrants from rural suburbs, was the third biggest. The Catholics were Polish, while the Lutherans were mainly German of origin. In addition, there were 24 Calvinists and seven Anglican Church members (likely British and Swiss), six Baptists and a Mennonite, adding to the well-established Protestant congregation. The Jews came from diverse places, mostly in western Russia. The Russian government postponed the next census planned in 1915 due to World War I, but a survey listing the names of house owners was conducted in Ekaterinburg in 1913. All the non-Orthodox denominations had expanded their share in the city, mainly due to in-migration and natural population growth; some had increased their congregation's size several times since 1897 (see Table 2).

The problem we faced when studying ethnic and religious minorities, was a lack of personal detail in the cross-sectional source material, which brought us to the parish records in the GASO archive in Ekaterinburg for the Urals region, which we shall return to in section 4 about the Ural Population Project.

Table 2 *Religious denominations in Ekaterinburg in the 1897 census and 1913 survey aggregates*

Denomination	1897		1913	
	Population	%	Population constructed	%
Orthodox	39,745	91.9	96,881	90.6
Old Believers	1,790	4.1		
Muslims	678	1.6	5,590	5.2
Protestants	343	0.8	1,245	1.2
Catholics	323	0.7	1,331	1.3
Jews	303	0.7	1,589	1.5
Other	57	0.1	251	0.2
Total	43,239	100	106,887	100

Explanation: Children under 14 were not registered in 1913. Based on the 1897 census aggregates on children, we estimated the actual population by adding 40% to each denomination in the 1913 city survey.

Source: Troinitskii (1905); GASO. F. 62. Op. 1. D. 524. List 126.

3.2 THE POLAR CENSUS PROJECT

Our second step towards the URAPP was research on the indigenous peoples of Siberia and the Urals. The Mansi, Khanty and Nenets had been under Russian rule since the 17th century and they now claimed the right to use their lands. Dr. David Anderson headed this research project at the University of Aberdeen in 2005–2008. Its main part was locating the Polar census primary sources in the Russian archives and their transcription. While most of the Polar census manuscripts were lost, fragments including those on the Khanty, Mansi and Nenets survived in the GASO archive (Glavatskaya, 2011c; Glavatskaya & Borovik, 2013). The Soviet 1926–1927 Polar census was an extension of the 1926 all-union enumeration and the organizers introduced a unique system of ethno-demographic registration allowing detailed ethnographic descriptions of the indigenous households. Its value for research was pivotal, since this census took place on the eve of Soviet social modernization. The scanned and transcribed Polar census materials became the basis for several studies (Anderson, 2011).

The Polar census itself was an outstanding statistical and ethnographical study especially in the Obdor region far north in the Urals. The collected data permits understanding of the cultural landscape along ethnic, demographic, social, economic and religious dimensions. For the only time in Russia, the lives of most of the indigenous people were documented comprehensively. The Polar census covered a huge territory and collected the widest range of characteristics about people and settlements in the history of the census.

The census documents include a nominative household card with 405 cells, which lists each person by name (the household head also with a nickname), age, family relationship, marital status, ethnicity, occupation, income, etc. The census takers gave a qualitative description of the settlements in the settlement cards, providing detailed information on the settlement's exact location, its economy and involvement in trade. These cards also provide information about schooling and medical care, as well as traditional religion issues, shamans and healing practices. The budget cards were nominative and contain a thorough description of dwellings, the interiors, transportation means, number of the reindeer herds, pets, clothes, utensils, etc. The trade cards inform us about what the households sold, bought, exchanged and the quality of the game, specifying the different types of game and fish. It also includes a simple time use study, what equipment they needed, etc. (Glavatskaya, 2011c).

After the household cards, we transcribed the settlement cards, the budget cards and the trade cards for the Obdorsk region (Glavatskaya & Borovik, 2013). The polar census database became the basis for research on family patterns and polygamy in particular (Glavatskaya, 2015). To understand the details of the region's polygamy we needed the revizskie skazki, which were transcribed as part of the URAPP.

3.3 SERGEI SERGEL'S FIELD RESEARCH AMONG THE SAMI COMBINED WITH NORWEGIAN MICRODATA

We used an interesting publication by the Russian student-ethnographer Sergei Sergel, who spent several months together with the Norwegian Sami in 1907–1908. He joined the nomadic Sara family, accurately describing each family member, their relations, way of life etc. (Sergel, 1927). What happened with this family before and after Sergei Sergel met them, could be found in the transcribed Norwegian censuses and church records (Glavatskaya & Thorvaldsen, 2013). This research again demonstrated the importance of the nominative sources and their potential for studying ethno-religious minorities, also in Russia. That was the third main source of inspiration towards building the URAPP. The University of Aberdeen project focused on the Polar area of the USSR where the Kola Peninsula included a minority called Fil'mans. We shall return to this Sami minority in section 5.3 when we discuss marriage patterns.

4 THE URAL POPULATION PROJECT — CREATION, CONTENT AND STRATEGIES

4.1 CREATION

However, the creation of the URAPP cannot be understood without rewinding to 1998–1999, when Elena Glavatskaya was invited to the Norwegian Center for Advanced Study in Oslo to participate in the international project "The Endangered Language of Shamanhood" (Pentikäinen & Simoncsics, 2005). While in Oslo, she had a chance to be acquainted with demographers, who studied mortality (Hubbard et al., 2002). Naturally, historical demography could be combined with religious studies.

Shortage of documents on the history of religious groups and minorities led us towards the rich *metricheskie knigi* — the parish records. Having these data on religious groups in abundance, and the inspiration of the Western demographic databases such as IPUMS, CEDAR, and HSN, led to the ambitious idea to create URAPP — the Ural Population Project. The Ural Federal University supported our plan, and we received seed funding to establish the International Demographic Unit (IDUN), see <https://idun.urfu.ru/en/about-idun/>. The Russian Science Foundation enabled us to create two databases covering our research interests dealing with the Siberian indigenous peoples and the Ural religious landscape.

Initially, the local archive possessing the parish records did everything to block our access to the source material for scanning, but we overcame that obstacle. Another archive contained the *revizskie skazki* and eagerly provided us with them for a decent price. As a result, we made two separate databases. One based on the *revizskie skazki* collected in 1852 and 1858 in Obdorsk (contemporary Salekhard) region, the northernmost part of the Urals, among the Nenets and Khanty people — Siberian, indigenous reindeer herders. The other was based on parish records, covering the period 1900–1919. These two databases were the start of the URAPP which was extended with more data during the next stages.

4.2 CONTENT

The core of the URAPP are the transcribed parish records of Ekaterinburg, extended with records of Verkhoturie — an Orthodox Church center to the north of Ekaterinburg. In addition, there are the data from the village of Kislovskoe to the east where infant mortality (IMR) reached nearly 70% in the late 19th century, a figure based on the baptismal and burial lists transcribed into URAPP. There are also several data sets transcribed from Jewish parish records in Siberia and the Urals as well as other nominative sources, such as the synagogues' member rosters or lists of repressed Jews. Another part are the *revizskie skazki* of 1852 and 1858 from the Obdor region with indigenous population groups and a sample prepared for the MOSAIC project from the village of Sarana¹. Currently we are working on transcribing the 10th tax revision of 1856–1858 for Ekaterinburg. In addition, we found primary cards from the 1959 Soviet Union census for several districts in Sverdlovsk² and transcribed them. For an overview of all available data, see tables 3 to 7.

We primarily base our microdata research on vital events registered in the parish records (*metricheskie knigi*) from Ekaterinburg's religious communities. The ecclesiastical registration of vital events took place all over the Russian Empire until the October Revolution in 1917, with extensions where the white troops prevailed. After that, a civil office established by the Bolsheviks gradually took over the registration in each municipality.

We found parish records in the State Archive of Sverdlovsk oblast' (GASO) with births, weddings, funerals and divorces. The registration of marriages in the church books provides names (first, family and patronymics), marital status, social standing and/or occupation of grooms and brides (see section 5.3), their place of origin or registration, age, religion (when appropriate) and date of the wedding, information on the parents, witnesses and the person who performed the ritual.

The entries on burials in the parish registers provide names, death date, the age of the deceased and death cause. In the case of children aged under 16, there is also information about the parents: their names, social standing/occupation, place of birth or origin and marital status. In addition, the records contain data on priests conducting funeral services and occasionally death certificate extracts verified by a doctor or police officer.

Records on baptisms provide information on dates and places of birth and baptism, parents' names, their social status/occupation, place of origin and marital status and the same information on godparents. In addition, it included the names of the priests who conducted the baptism service and occasionally godparents' signatures. We have so far transcribed over 65,000 vital events for 10 Eastern Christian parishes of Ekaterinburg (Russian Orthodox Church, Edinovercyy and Old Believers), as well as the Catholic parish of St. Anna Church; St. Paul Lutheran Church; the Synagogue and the Muslim community (see Table 3).

- 1 <https://censusmosaic.demog.berkeley.edu/home>. However, Sarana data has not yet been processed and harmonized.
- 2 Ekaterinburg was renamed after the revolutionary leader Iakob Sverdlov in 1924. Only in 1992 its original name Ekaterinburg was restored.

Table 3 *Ekaterinburg parish records included in the URAPP database*

Parish	Denomination	Years	Baptisms	Weddings	Funerals	Divorces	Total
Ascension Church	Russian Orthodox	1880–1919	7,808	2,793	8,275	0	18,876
St. Epiphany Church	Russian Orthodox	1880–1919	5,976	1,100	4,273	0	11,349
St. Catherin Church	Russian Orthodox	1880–1919	1,874	2,613	7,386	0	11,873
Holy Spirit Church	Russian Orthodox	1880–1919	3,922	1,683	2,401	0	8,006
St. Alexander Nevskii Church	Russian Orthodox	1897–1919	1,463	365	3,505	0	5,333
Church of the Saviour	Edinovercty	1901–1919	497	278	515	0	1,290
Holy Trinity Church	Edinovercty	1901–1918	139	247	189	0	575
Assumption Chapel (Chasovennye)	Old Believers	1908–1919	185	41	125	0	351
St. Nikolai Chapel (Chasovennye)	Old Believers	1907–1919	246	24	194	0	464
Holy Trinity Church (Belokrinitskie)	Old Believers	1907–1926		129	347		476
St. Anna Church	Catholic	1898–1919	821	273	699	0	1,793
St. Peter Church	Lutheran	1886–1919	406	427	511	0	1,344
Synagogue	Jewish	1906–1917	520	136	219	18	893
Muslim Prayer house	Muslim	1891–1918	1,326	76	1,355	22	2,779
Total			25,183	10,185	29,994	40	65,402

Note: The parish records were transcribed from sources archived in the Gosudarstvennyi Arkhiv Sverdlovskoi Oblasti [State Archive of Sverdlovskaja oblast'], Ekaterinburg, Russia (GASO).

Apart from Ekaterinburg we have transcribed parish records of Verkhoturie — one of the oldest Russian cities in Perm' province, which used to be an administrative centre in 17th-century Siberia and the Orthodox Church parish with the biggest monastery and a pilgrimage site since the 18th century. Another sample of Orthodox Church parish records transcribed for URAPP are the records of St. Peter and Paul Church in Kislovskoe village, noted for its high infant mortality rate reaching 700‰ (see Table 4).

We also discovered synagogues' parish records in the Ural and Siberian regional archives and transcribed them (see Table 5). In addition to Ekaterinburg we transcribed revizskie skazki from Sarana settlement founded as metal producing factory in 1758 some 200 km to the west of Ekaterinburg and from the Obdorsk region in the polar area (see Table 6 and Figure 1 for location). Another sample of individual level data are the lists of Jewish settlers and members of synagogues, which were prepared by the authorities on different occasions and have a different structure. We transcribed these sources both for research purposes and in support of genealogical studies (see Table 7).

Table 4 *Verkhoturie (Intercession church) and Kislovskoe village (St. Peter and Paul church) parish records included in the URAPP database*

Parish	Denomination	Years	Baptism	Wedding	Funeral	Total
Intercession Church	Russian Orthodox	1886-1919	2,146	766	2,276	5,188 ³
St. Peter and Paul Church	Russian Orthodox	1880	158	46	166	370
St. Peter and Paul Church	Russian Orthodox	1915-1917	540	99	584	1,223
Total			2,844	911	3,026	6,781

Note: The parish records were transcribed from sources archived in the Gosudarstvennyi Arkhiv Sverdlovskoi Oblasti [State Archive of Sverdlovskaja oblast'], Ekaterinburg, Russia (GASO).

3 The transcription was done for the Mosaic project in collaboration with Max Plank Institute. Dr. Benjamin Matuzak while in Ekaterinburg as a research fellow in IDUN did significant parts of the transcriptions.

Table 5 *Urals and Siberian Jewish parish records included in the URAPP database*

City	Years	Birth	Marriage	Funeral	Divorce	Total	Archive
Troitsk	1906–1911	53			3	56	OGACHO ^a
Cheliabinsk	1877–1919	628	188	142	12	970	OGACHO ^a
Sarapul	1903–1917	105	10	7		122	TSGA UR ^b
Perm'	1880–1916	492	201	301	14	1,008	GAPK ^c
Ekaterinburg	1906–1917	520	139	18	219	896	GASO ^d
Tomsk	1860–1917	5,858	1,923	4,533	339	12,653	GATO ^e ; OGKU GATO ^f
Total		7,656	2,461	5,001	587	15,705	

Note: The parish records were transcribed from sources archived in the following places:

- ^a OGACHO — *Ob'edinennyi Gosudarstvennyi Arkhiv Cheliabinskoi Oblasti [United State Archive of Chelyabinsk Oblast'] in Cheliabinsk;*
- ^b TSGA UR — *Tsentral'nyi Gosudarstvennyi Arkhiv Udmurtskoi Respubliki [Central State Archive of Udmurt Republic] in Izhevsk;*
- ^c GAPK — *Gosudarstvennyi Arkhiv Permskogo Kraia [State Archive of Perm' Region] in Perm';*
- ^d GASO — *Gosudarstvennyi Arkhiv Sverdlovskoi Oblasti [State Archive of Sverdlovskaiia oblast'] in Ekaterinburg;*
- ^e GATO — *Gosudarstvennyi Arkhiv Tjumenskoi Oblasti [State Archive of Tjumen' Oblast'] in Tjumen';*
- ^f OGKU GATO — *Gosudarstvennyi Arkhiv Tomskoi Oblasti [State Archive of Tomsk Oblast'] in Tomsk.*

Table 6 *Data transcribed from revizskie skazki (census-like tax revisions) included in the URAPP database*

Place name	Year	Category	Men	Women	Both	Households	Archive
Ekaterinburg	1857–1858	Small guild artisans [tsekhovye meschane] and merchants [kuptcy]	675	710	1385	256	GASO ^a
Sarana	1858	Peasants	1,435	1,416	2,852	487	GASO ^a
Obdorsk region Nenets and Khanty	1850–1852	Indigenous nomads	4,652	4,063	8,725	1,151	GATO T ^b
Obdorsk region Nenets and Khanty	1857–1858	Indigenous nomads	5,230	4,547	9,777	1,548	GATO T ^b
Total			11,992	10,736	22,739	3,442	

Note: The parish records were transcribed from sources archived in the following places:

- ^a GASO — *Gosudarstvennyi Arkhiv Sverdlovskoi Oblasti [State Archive of Sverdlovskaiia oblast'] in Ekaterinburg;*
- ^b GATO T — *Gosudarstvennyi Arkhiv Tjumenskoi Oblasti v Gorode Tobol'ske [Tobol'sk Branch of the State Archive of Tjumen' Oblast'] in Tobol'sk.*

The URAPP data set from the 1959 census for Ekaterinburg includes two parts: one containing personal data and another with aggregate data on the level of the family. The first one includes the following information: surname, first name and patronymic, age, sex, relationship to the householder, marital status, ethnicity (natsional'nost' in Russian), citizenship, mother tongue, educational level, place of work, position, source of subsistence, employer, occupation, and permanent place of residence. The second one builds on the first and contains number of family members, number of children under 18 in each family and number of employed family members (Gorbachev, 2020). So far, our 1959 transcription includes 9,382 persons (4,667 men, 4,715 women) in 2,079 families.

Table 7 *Lists of Jews in the URAPP database*

Document	Years	Entries	Archive
Tjumen' city Jews	1907, 1911–1912	50	GATO ^e
Ekaterinburg city Jews	1901	145	GASO ^d
Perm' province Jews	1901	172	GAPK ^c
Perm' city Jews	1901	256	GAPK ^c
Ekaterinburg city Jewish communities leaders	1920	36	GASO ^d
Ekaterinburg city Jewish communities leaders	1925	131	GASO ^d
Ekaterinburg city Jews	1927	374	GASO ^d
Repressed Jews in Sverdlovskaja oblast'	1917–1938	423	GASO ^d
Total		1,587	

Note: For the archives where the parish records were transcribed from, see the explanation at table 5.

4.3 STRATEGY

The strategy of the URAPP project has evolved from one of transcribing microdata about religious minorities to one of covering the whole population. The research experience of the group was to work with the Orthodox minority of Old Believers and ethno-religious minorities, as well as indigenous peoples in the northern Urals. It was then natural to seek funding for transcribing church records covering areas inhabited by these minorities, in order to complement previous findings with new results based on the vital records. This led to a comparative deficit, and we saw the need for including microdata about the Orthodox majority from their parish records and the revizskie skazki tax censuses — the manuscripts of most modern censuses are not available. Therefore, we included several parishes from Ekaterinburg city, Verkhoturie town — the center of Orthodoxy in the Urals, as well as a village of Kislovskoe. In the long run, we would like to extend the URAPP into a nationwide register, however right now we are planning to extend the data entry in the city longitudinally and to include a smaller factory town in the Urals to run comparative analyses of infant mortality.

The project on the Jews in the Urals and Siberia is a PhD student project. In addition to the research, it has the rather ambitious aim to eventually construct a dataset on the understudied Jewish population who lived beyond the Pale of Settlement, in the Urals and Siberia. In order to find more resources, we are negotiating with genealogists, but targeting research council funding in connection with research projects will still be important. We clearly see a need to expand the database in both time and space, especially to cover the 1920s with data from the civilian life event registers.

Another priority is to cover wider areas of Ekaterinburg and the surroundings. Methodologically, we have started experiments with record linkage. Another task is to systematize the encoding performed in connection with concrete research tasks into standardized translation tables. We have also built a web-based user interface, where genealogists can trace their ancestries with an exemption for the 1959 census data which are too recent to be made publicly available.

5 RESEARCH WITH THE URAPP DATABASE

Our initial research interests focused on religious and ethnic minorities and directed the development of the databases and the URAPP in general. No wonder most of the research conducted by the URAPP team members has ethno-religious issues as its main topic, combined with research questions on migration, nuptiality and mortality issues. Below are examples of research based on the URAPP data.

5.1 JEWISH STUDIES

Our study of Jewish history in Ekaterinburg is based on the nominative vital records of the Orenburg battalion No. 8 and the Synagogue's parish records (see Table 3). These documents registered the Jewish marriages from the first families of Jewish soldiers in Ekaterinburg in 1850. According to our

data, Ekaterinburg's Jews managed to keep connections not only with relatives remaining within the Pale of Settlement in the western provinces of the Empire, but also with Jewish communities in western Siberia. With few exceptions, they created ethnically and religiously homogeneous marriages, which contributed to the preservation of their ethnic and religious identity. Observing religious regulations with regard to the time and date of marriage at least until 1917, each marriage was accompanied by the signing of a marriage contract, the so-called *ktuba*. The presence of a government rabbi was not mandatory; instead, the so-called spiritual rabbis or respected members of the community could conduct the wedding. Despite the pressure of the authorities against religion during the Soviet era, some Sverdlovsk Jews continued to hold religious weddings with the *ktuba* signing, putting up the wedding canopy *huppah* and breaking glass in memory of the destroyed Temple in Jerusalem. After 1917, they registered marriages and divorces in the secular state's vital events registry offices (Glavatskaya & Zabolotnykh, 2018). Jews' conversion to Russian Orthodoxy in Ekaterinburg in the early 20th century was also studied. The highest number of such Jewish baptisms was recorded in 1911–1912. The decision to accept Orthodoxy was taken familywise, including infants. However, most often this decision was made by young people in their twenties since religious affiliation was part of the wedding preparations or career plans (Zabolotnykh, 2018).

5.2 THE OLD BELIEVERS STUDIES

The Old Believers are ultra-conservative dissenters who split from the Russian Orthodox Church in the 17th century. Persecuted by the state, they migrated to the country's peripheries, including the Urals, in order to maintain their pre-reform traditions. This biggest religious minority among ethnic Russians got legal status and started to register vital events in church books after the Religious Freedom Manifesto of 1905. Complementing an extensive bibliography on the Urals Old Believers history and culture, the URAPP allowed us to conduct several studies on their demography. We have presented results from the computerized analyses of their parish records, including marriage activities, age at first marriage with special attention to gender, social status and migration as determinants of marriage timing. We also addressed the issue of remarriage and conversion in connection with marriage, and argue that it was a sign of social lifting and abandoning of religious endogamy, signaling modernization of the marriage institution in early 20th-century Russia (Borovik, 2018, 2019b; Glavatskaya & Borovik, 2019; Palkin & Borovik, 2019).

With the birth entries, Julia Borovik analyzed the Old Believers' practice of naming their newborn and found evidence of modernization. Ekaterinburg's Old-Believers more often followed the current naming fashion, in addition to the Russian Orthodox Church prescription to use the name of the Saint, whose veneration day was closest to the baby's birth or baptism (Borovik, 2019a). In a parallel study on the Orthodox, Elizaveta Zabolotnykh disclosed an interesting practice of giving identical names to both twins and to all three children in a triplet (2020).

5.3 NUPTIALITY STUDIES

5.3.1 RELIGION AND AGE AT FIRST MARRIAGE

Our analyses of marriage behavior in the church records allowed insights into different religious groups' life in early 20th-century Ekaterinburg. The individual level provided clues to understand the religious affiliations' influence on age at first marriage. The Catholic, Lutheran and Muslim men married a few years older than the Russian Orthodox and Jewish men. The difference in age at first marriage of their brides was less significant: one to two years higher than Catholic and Lutheran women compared to the Russian Orthodox and one year younger than the Muslim brides. We also found that belonging to a certain parish within the same confession might influence mean age at first marriage in case of both brides and grooms (Glavatskaya, Borovik, & Bobitskii, 2016; Korkodinova, Glavatskaya, & Borovik, 2016).

Unfortunately, we do not yet have individual level data after 1919 to explain why 10 years after the Revolution Sverdlovsk abandoned the European tradition of late marriage. According to the 1926 aggregate census data, both the singulate mean age at marriage (SMAM) and the percentage of never married declined. Our hypothesis is that after the Revolution, the new regime shut down in-migration from the West, while in-migration increased from the rural suburbs. These in-migrants, paradoxically during revolutionary times, brought with them Orthodox or Muslim marital ethics, which required obligatory marriage. The Bolshevik legislation separated the Church from the State, depriving it of the right to register weddings, and introduced freedom of divorce in 1917. Both marriages and divorces

were to be registered by a civil officer in a state office, with no sacraments required. To prove this hypothesis we need individual level data from the new civilian sources, which are part of our next project (Glavatskaya, Bobitsky, Zabolotnykh, & Vishnevskaya, 2019).

5.3.2 RELIGION, MARRIAGE AND WORLD WAR I

We also conducted research on prisoners of war (POWs) who were kept in the Urals from 1915 to 1919: their numbers, their nationality and their marriage strategies. During World War I, the Urals received both refugees and prisoners of war, many of whom were Catholics, Lutherans and Jews. Individual level data show that mean age at first marriage was slowly increasing in the State Church parishes until World War I. With the war, the average age at first marriage increased by 1.8 years for grooms and 1.3 for brides. The Lutherans, mostly ethnic Germans, postponed their weddings even more, by 2.3 and 2 years respectively; likely due to the shortage of eligible partners on the marriage market since the Lutheran-German population decreased dramatically between 1913 and 1920. Naturally, their life in a country being at war with Germany was difficult. We found that the POW groups joined the marriage market of Ekaterinburg from 1916, influencing the city's demography to varying degrees, and that religious affiliation played an important role for the demographic consequences and intermarriage (Glavatskaya & Borovik, 2016; Glavatskaya, Borovik, Thorvaldsen, & Zabolotnykh, 2020).

5.3.3 MIXED MARRIAGE

Our comparative analyses of mixed marriages with respect to religion and ethnicity focused on Russia and Norway. In both countries, the State Churches dominated religious life with more than 90% of the population during the decades around 1900. However, both were losing influence during this period — rapidly in Russia after the 1917 revolution. The Finno-Ugric Sami and Finns were the main ethnic minorities in Norway, while Russia also had over 100 other ethnic groups. The research on Norway employs nominative and aggregate census material, which from 1865 asked questions about religious affiliation, while the Russian case study utilized the database of church microdata being built for Ekaterinburg, in addition to census aggregates. Our main conclusion is that religion was a stronger regulator of intermarriage than ethnicity. Thus, the Lutheran Sami on the Kola Peninsula, who never intermarried with the Orthodox Sami according to the 1926 Polar census microdata, were typical. Religious intermarriage was also unusual in Ekaterinburg, even if official regulations were softened by the State over time. The exception was during World War I, when there was a deficit of young, Russian men at home and an influx of refugees and Austro-Hungarian Prisoners of War (mostly Catholics and Lutherans). In addition, the 1917 Revolution created equal rights for all religious denominations. The relatively few religious intermarriages in Norway were mostly between members of different Lutheran congregations — atheist men being the only group who often outmarried (Glavatskaya, Thorvaldsen, Borovik, & Zabolotnykh, 2020).

5.3.4 INDIGENOUS POLYGAMY

A particularly interesting nuptiality study was performed on the Khanty and Nenets — indigenous groups in northwestern Siberia based on the URAPP dataset with entries from the 9th revision of 1852 and the 10th revision of 1858. This transcribed dataset contains 1,240 households, 450 Khanty and 790 Nenets. Since there were 4,280 men and only 3,771 women registered, we assume significant female under-registration. According to the database, there were 1,604 married men and 1,712 married women, which is not surprising, since there were 105 cases of polygyny reported: 20 among the Khanty and 85 among the Nenets. As usual, polygyny ran in certain families: in most cases, if the head of the household had more than one wife, so did his brothers and sons, if living together. The maximum number of wives — three for one man, was recorded in seven households. According to our data, up to 7% of the married men had more than one wife in 1858. Thus, in the middle of the 19th century polygyny was officially recognized and a common phenomenon among the Khanty and especially among the Nenets of the Obdorsk region (Glavatskaya, 2015).

5.4 RELIGION AND THE URBAN FAMILY

In Russia, the rural family has been studied in detail with ethnographic methods, but the urban family previously received little attention. Ekaterinburg, chosen as the object of study, in the mid-19th century became the largest industrial center in Perm' province. We used the materials of the 10th revizskie skazkie of 1858. The households were divided into three categories, reflecting their socio-economic status and formal social standing (so-called *soslovie* [estate]) in the city. The first category

kuptcy [merchants], included both owners of trading enterprises and owners of small shops. Like the nobility, they were exempt from taxation, but unlike the nobility still registered. The second category, *meschane*, were petty bourgeois and former peasants, who became city dwellers engaged in trade and services both as office clerks and workers. The third category was the *tcekhovye meschane* [guild craftsmen], engaged in craftsmanship.

Analysis of the tax census data from 1858 showed that 39.7% of the households with 28.4% of the inhabitants were nuclear families. Almost the same proportion of households, 38.9%, were family households that included more than two generations of relatives or several married couples related by family ties (19.7% and 19.2%, respectively). In these extended households lived 25% and 39.6% respectively of the city dwellers. A less significant number of households, 15.3%, consisted of just one person whose other family members still lived in the countryside. The average size of Ekaterinburg households was five persons. With respect to social standing (“estate”), the petty bourgeois, with business activities based on family cooperation, averaged 6.2 persons, and the merchants averaged 4.2 persons. Among the guild craftsmen, combined group and family households in the city included up to 25 persons. Our analyses allowed us to determine the religious composition among the representatives of this social and professional group and their family size. The high share of Old Believers among the guild craftsmen was related to this confession by ancestry, they continued to live according to the rules of this religious community that had developed in the 18th and 19th centuries (Borovik & Glavatskaya, 2020). This study confirmed both the importance of the religious factor and its influence on preserving the large family tradition (Szołtysek, 2015). However, we also argue that big households were justified by the necessities of production.

5.5 MORTALITY

The mortality situation in late 19th to early 20th centuries Ekaterinburg was influenced by the mass influx of industrial and craftsman enterprises as well as migrants, which worsened the already poor environmental and sanitary conditions. The city administration was unable to provide urban dwellers with health care, access to information and sometimes even food, which resulted, among other things, in a high level of infant mortality rates. Thus, Ekaterinburg was lagging more and more behind the regional standards at the time. The role of ethnic and religious affiliation was a significant factor as it determined either a high level of education (Jews, Catholics, Lutherans) and/or strict adherence to hygiene rules (Jews, Muslims). These factors, in their turn, determined the quality of infant care and increased the baby's chances to survive in the city. Peasants who constituted the majority in Orthodox parishes brought potentially hazardous rural ways of life into the densely populated city and had lower levels of education. They were suspicious of doctors, preferring folk healing practices or simply had no time or money to obtain professional medical assistance.

5.5.1 INFANT AND CHILD MORTALITY

Demographers analyze regional and other infant mortality differentials as important factors behind the current life expectancy of Russian citizens (Kumo, 2017). Historically, however, the Russian Empire is simply displayed as one block with high infant mortality rates (Kluesener et al., 2014). The first epidemiological transition started in Russia later than in most European countries and soon after the start was interrupted by the socio-political disasters of the early 20th century (Isupov, 2016). Although the administrative region of Perm', surrounding Ekaterinburg, had extremely high levels of infant mortality when it entered the epidemiological transition, it soon became one of the leaders in terms of declining infant mortality rates (IMR). While from 1886–1897 to 1908–1910 IMR declined on average at a pace of 21‰ points across Russia, the Perm' gubernia IMR dropped by 117‰ points. Comparative analysis of district and city dynamics shows that the IMR declined in rural areas while in the city it remained on the same level.

We believe that this effect was due to the doctors that were employed by the *zemstvo* (self-governing, elected, sub-provincial level institutions introduced in 1865 to manage local affairs including medical services, sanitation, public education and other socially important activities). These doctors focused predominantly on promoting knowledge and medical care in rural areas. This movement was particularly influential in the Urals, which had a large number of *zavody* (metal producing factories) with a surrounding population which was generally more exposed to innovations. These settlements had a developed medical network, a system of district doctors (Shestova, 2017, p. 38) and nurseries (Golikova & Dashkevich, 2014). Spatial analyses of the IMR in Ekaterinburg *uezd* [counties] supports

this hypothesis. The uezds' subdivisions with industrial settlements on their territories had lower IMR than its agricultural units (Bakharev, 2017).

Our hypothesis that the level of infant mortality is closely connected with the type of settlement was confirmed when we compared the corresponding data for a city parish and the surrounding countryside. Late 19th-century Ekaterinburg had a moderate level of infant mortality, but from 1889 to 1917 it demonstrated only a slight decrease in the post-neonatal infant mortality rate. This decrease, however, was nullified by a slight increase in neonatal mortality: 1909, 1911 and the first year of war — 1914 — were grievous years for infants, which affected IMR (see Figure 5).

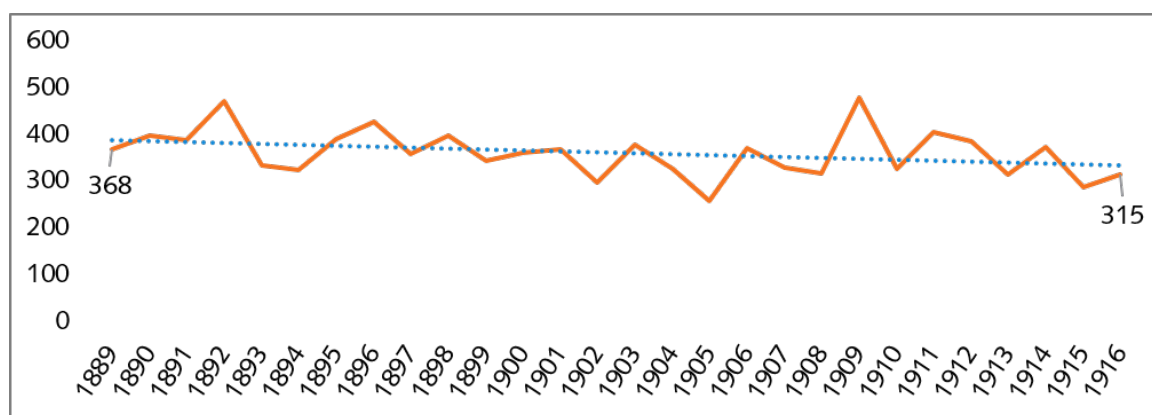
Our analyses of IMR among the different religious communities in Ekaterinburg showed that religion did matter: Jews and Catholics, minorities with higher education and cultural background from the western parts of the Empire, did better with respect to infant mortality around the start of the 20th century. The Orthodox minority of Old Believers was in a middle position, but clearly did better than the Orthodox majority (Glavatskaya, Borovik, & Thorvaldsen, 2018).

5.5.2 CAUSES OF DEATH

We were able to identify the main causes of child mortality from the parish records from two Orthodox parishes in Ekaterinburg — Ascension and Epiphany — for the period 1880–1919, comprising 7,187 records. We encoded the records in accordance with the international historical death causes classification, developed by European historical demographers (Sommerseth & Walhout, 2019). It consists of six classes: deaths caused by infections (1); non-communicable diseases (2); causes described by outdated popular terms (3); external causes such as drowning (4); illegible records (5); missing causes (6). Our study revealed low involvement of professional physicians in the mortality registration — doctors checked less than 4% of childhood deaths. In Ekaterinburg, the clergy performed this duty, and an indication of the specific cause of death was stated in almost all records. Analysis of the Ekaterinburg data showed that infectious diseases claimed up to 65% of children's deaths; diseases described with obsolete terms caused 28% of children's deaths and non-communicable diseases claimed 7% of the deaths among young Ekaterinburg residents. Deaths due to external causes amounted to less than 1% (Bakharev & Glavatskaya, 2019).

The URAPP data in addition allowed us to find out that the members of the Ascension church parish on average baptized their babies within the first three days of life (see Table 8).

Figure 5 *IMR Dynamics per 1000 live births in the Ascension Church parish, 1889–1916**



* Instead of the missing 1904 data, we inserted aggregate numbers.

Source: Bakharev & Glavatskaya (2019)

Table 8 *Average baptism age of infants in the Ascension Church parish, Ekaterinburg*

	1889–1899	1900–1910	1911–1918
Average baptism age in days	3,7	4,6	5,2

Source: Bakharev & Glavatskaya (2019)

This practice was based on the Orthodox Church's strong belief that babies would not reach paradise if they died before being baptized. This belief made both parents and priests hurry with baptism, whether a baby was well or not. Given the fact that the ritual required a baby's complete immersion into a vessel full of water three times, it is easy to believe that the whole procedure could affect the babies' health. It is interesting to note, that Ekaterinburg Catholics, who generally believed in the same idea that only baptized babies would get access to heaven, on average baptized their newborn at the age of 41 days (Bakharev & Glavatskaya, 2019). In accordance with other researchers we found that the especially high infant mortality was also caused by inconsistent breastfeeding and lack of hygienic measures for childcare (Ransel, 1991).

In order to study the non-specific cause of death "old age", we split all deaths into three groups: Russian Orthodox Church parish members, religious minorities (migrants from European Russia: Catholics, Lutherans and Jews) and Muslims (local migrants from rural areas). The analysis showed that Russians aged over 50 were registered as dead from "old age" more often than the minorities from the west and local Muslims. In all three groups, women more often received the cause of death "old age" than men, and the widest gender difference was among Muslims. We interpret this as caused by the European origin of the Catholic, Lutheran and Jewish migrants, who were more educated and more likely to seek medical help when necessary.

5.5.3 THE SPANISH FLU IN EKATERINBURG

Inspired by the COVID-19 pandemic, we focused on the Spanish flu pandemic of 1918–1920, which killed, according to some researchers, from 50 to 100 million people while others estimate lower numbers such as 20 million victims (Johnson & Mueller, 2002). The reason for this uncertainty is that data for a number of countries, including Russia, are rather rough estimates based on mortality rates from other parts of the world. We analyzed the causes of death in Ekaterinburg during the period of the Spanish pandemic to determine likely signs of the spread of influenza (Glavatskaya & Thorvaldsen, 2020). The church records indicate that the Spanish flu affected mortality levels in Ekaterinburg during and after the end of World War I. This applies particularly to the timing of the seasonal mortality spikes and to the many who died from respiratory illnesses. However, these features dominated only to some degree, and they did not create such clear and special gender and age profiles as in Western Europe and the US. This is likely because most young men were away fighting in the army, people were protected by the enormous distances and because train traffic was disrupted due to the hostilities

Another hypothesis is that persons aged over 30 had immunity due to the "Russian flu" pandemic in the winter of 1889–1890, which may explain why younger men were more at risk in 1918 (Shanks & Brundage, 2012). We lack historical mortality statistics covering larger areas, but further microdata from parish records can be brought forward from the archives to illuminate the course of the Spanish influenza in Russia. Based on our present evidence, we can only conclude that the Spanish flu virus in all likelihood hit Russia with less force than the US or Norway at 0.6% mortality, and we agree with Patterson and Pyle (1991) that it killed less than half a million persons. While global mortality has been estimated at 2.5% (Billings, 1997), this gives a mortality rate under a half percent in a Russian population of 137 million.

6 CONCLUSION

We are building the Ural Population Project (URAPP) from individual level data transcriptions of the 19th- to early 20th-century parish records (metricheskie knigi) and the mid-19th-century census-like tax revisions manuscripts. Decade-long studies of the ethno-religious cultural landscape of the Urals and northwestern Siberia with qualitative methods and sources are an important background of the URAPP. The traditional quantitative focus on statistical aggregates in Russia contributed little to our understanding of this research field. However, contacts with and participation in demography and social history projects abroad and in Russia, showed the potential of using individual level data combined with quantitative and qualitative methods. The microdata could be combined in flexible ways, aggregated to the unit level studied and even be used to illuminate groups of people who had been studied in previous research. Of special significance on our way towards the URAPP were the transcriptions and studies of the 1926–1927 Polar census manuscripts, the world's most detailed

census ever, focusing on the ethnic minorities in the northern parts of Russia. The Polar census does not cover the Sverdlovsk region, however, and has not become a priority for the URAPP.

The more than 65,000 vital events transcribed from parishes of Russian Orthodox Churches and minority religions in and around Ekaterinburg have been the basis for studies of mortality and nuptiality, in combination with the parishioners' religion and other characteristics. We found that the Jewish population in Ekaterinburg managed to hold on to their traditions and to keep connections both with relatives in the western Pale of Settlement as well as further east and that they usually married within their ethnic group. Catholic, Lutheran and Muslim men married a few years older than the Russian Orthodox and Jewish men did, and both the levels and the difference increased during World War I. Prisoners of war joined the difficult marriage market of Ekaterinburg from 1916, usually marrying within their own religious group. Also, the comparison of marriage strategies in Russia and Norway proved religion to be more decisive than ethnicity when finding a marriage partner. Based on the census-like tax revisions from the mid-19th century, polygyny was common and officially recognized among the indigenous Khanty and Nenets of the Obdorsk region, as a rule running in certain families.

Analyses of infant mortality in the religious communities' parish records in Ekaterinburg showed that religion did matter: Jews and the Catholics, minorities with higher education and background from the west, experienced lower infant mortality around the start of the 20th century. The Orthodox minority of Old Believers was in a middle position but did better than the Orthodox majority. In addition to inadequate care and nutrition, an important reason was that the latter brought their newborn to church for an extremely early and tough baptism. The causes of death stated in the protocols also indicate that this religious majority less often sought help from medical doctors, more often simply stating "old age". Lastly, explorative analysis of the burial records for Ekaterinburg shows cases of the Spanish flu in 1918–1919, but on a lower level than what is found in the US or Western Europe, which supports recent theories that Russia was less hit by this pandemic than earlier non-empirical calculations indicated, and that some global estimates of flu mortality may be too high.

The strategy of the URAPP project has evolved from one of transcribing microdata about religious minorities to one of covering the whole population. We clearly see a need to expand the database in both time and space, and in this respect both genealogical, infrastructure oriented and research project resources must be combined. We plan to extend the URAPP by also transcribing the rest of the revision lists of 1858 for Ekaterinburg and pioneering the selected individual level vital events records from the 1920s. Further development of the URAPP and record linkage will allow us to base our findings on more vital records and cross-sectional data in order to also answer research questions on fertility and naming traditions.

ACKNOWLEDGEMENTS

The research was supported by the Russian Foundation for Basic Research (project number 19–29–07154).

REFERENCES

- Andreev, A., & Andreev, M. (n.d.). *Gde iskat' revizskie skazki po perepisi naseleniia* [Where to search tax revisions as population censuses]. http://livemem.ru/articles/revizskie_skazki.html
- Anderson, D. G. (Ed.) (2011). *The 1926/27 Soviet polar census expeditions*. Oxford, New York: Berghahn.
- Bakharev, D., & Glavatskaya, E. (2019). Infant mortality in the late 19th and early 20th century Urals: Macro and micro analyses. In E. Glavatskaya, G. Thorvaldsen, G. Fertig, & M. Szoltysek (Eds.), *Nominative data in demographic research in the East and the West* (pp. 202–219). Ekaterinburg: Ural University Press. doi: [10.15826/B978-5-7996-2656-3.12](https://doi.org/10.15826/B978-5-7996-2656-3.12)
- Bakharev, D. S. (2017). Mladencheskaya smertnost' v Ekaterinburgskom uezde v kontse XIX veka: Opyt kartografii [Infant mortality in Yekaterinburg uезд in the late XIX century: Experience of mapping]. Paper presented at the *International Scientific Conference "Digital Humanities: Resources, Methods, and Research"*. Perm', Russia. Retrieved from http://2017.dhconf.ru/wp-content/uploads/2017/05/DH_PERM_2.pdf

- Billings, M. (1997). *The influenza pandemic of 1918*. Retrieved from <https://virus.stanford.edu/uda/>
- Blum, A., & Troitskaya, I. (1997). Mortality in Russia during the 18th and 19th centuries: Local assessments based on the Revizii. *Population: An English Selection*, 9, 123–146. Retrieved from <https://www.jstor.org/stable/2953828>
- Borodkin, L. I., & Vladimirov, V. H. (2017). Asociaciija «Istorija i Komp'juter»: 25 let spustja [Association "History and Computing": 25 years on]. *Historical informatics*, 3, 1–6. doi: [10.7256/2585-7797.2017.3.24702](https://doi.org/10.7256/2585-7797.2017.3.24702)
- Borovik, I. V. (2018). Staroobriadtsy-chasovennye Ekaterinburga: Chislennost soslovnaia prinadlezhnost i proiavlennie konfessionalnoi obosoblenosti [The Old Believers of Yekaterinburg: Number, social status, and religious identity]. *Izvestiia Uralskogo federalnogo universiteta. Serii 2. Gumanitarnye nauki*, 20(1), 160–180. doi: [10.15826/izv2.2018.20.1.013](https://doi.org/10.15826/izv2.2018.20.1.013)
- Borovik, I. (2019a). Lichnye imena novorozhdennykh v ekaterinburgskikh staroobryadcheskikh obshchinah nachala XX veka [Personal names of newborns in the Old Believer communities of Ekaterinburg in the early 20th century]. *Voprosy Onomastiki*, 16(3), 30–47. doi: [10.15826/vopr_onom.2019.16.3.029](https://doi.org/10.15826/vopr_onom.2019.16.3.029)
- Borovik, I. (2019b). *Staroobryadcheskaya obschina i sem'ya rossiiskogo goroda: Ekaterinburg* [Old Believers' congregation and family life in the Russian town Ekaterinburg]. Ekaterinburg: Ural University Press.
- Borovik, I., & Glavatskaya, E. (2020). Tsekhovye meshchane Ekaterinburga po materialam X revizii: Religii i razmer sem'i [Guild craftsmen of Yekaterinburg according to 10th census: Religion and family size]. In *Dokumental'noe nasledie i istoricheskaja nauka. Materialy Ural'skogo istoriko-arhivnogo foruma, posvjashhennogo 50-letiju istoriko-arhivnoj special'nosti v Ural'skom universitete* (pp. 143–147). Ekaterinburg: Ural University Press. Retrieved from https://elar.ufu.ru/bitstream/10995/92827/1/978-5-7996-3078-2_2020.pdf
- Bryukhanova, E. A. (2019). Perepis' 1897 g.: Obretenie «utrachennykh» materialov i ikh predvaritel'nyi analiz [The 1897 census: The acquisition of "lost" materials and their preliminary analysis]. *Izvestiia Uralskogo federalnogo universiteta. Serii 2. Gumanitarnye nauki*, 21(3), 152–167. doi: [10.15826/izv2.2019.21.3.053](https://doi.org/10.15826/izv2.2019.21.3.053)
- Clem, R. S. (Ed.). (1986). *Research guide to the Russian and Soviet censuses*. Ithaca, NY: Cornell University Press. Available from <https://www.cornellpress.cornell.edu/book/9781501707070/research-guide-to-the-russian-and-soviet-censuses/#bookTabs=4>
- D'iachkov, V. L., Kanishchev, V. V., & Orlova, V. D. (2007). Mesto metriceskikh knig v komplekse istochnikov po istoricheskoi demografii Rossii XVIII – nachala XX v. [The parish registers in the complex of sources on the historical demography of Russia in the 18th – early 20th centuries]. In V. N. Vladimirov (Ed.), *Materialy tserkovno-prikhodskogo ucheta naseleniia kak istoriko-demograficheskii istochnik* (pp. 48–84). Barnaul: Altai State University Press.
- Glavatskaya, E. (1995). Christianization=Russification? On preserving the religious and ethnic identity of the Ob-Ugrians. In J. Pentikäinen (Ed.), *Shamanism and Northern ecology* (pp. 373–386). Berlin-New York: Mouton de Gruyter. doi: [10.1515/9783110811674.373](https://doi.org/10.1515/9783110811674.373)
- Glavatskaya, E. (2011a). The Mansi sacred landscape in long-term historical perspective. In P. Jordan (Ed.), *Landscape and culture in Northern Eurasia* (pp. 235–257). Walnut Cree, CA: Left Coast Press.
- Glavatskaya, E. (2011b). Siberian indigenous religious traditions in an ever changing world: The Khanty and Nenets case. In T. Yamada & T. Irimoto (Eds.), *Continuity, symbiosis, and the mind in traditional cultures of modern societies* (pp. 95–107). Sapporo: Hokkaido University Press.
- Glavatskaya, E. (2011c). Undaunted courage: The Polar census in the Obdor region. In D. Anderson (Ed.), *The 1926/27 Soviet polar census expeditions* (pp. 97–116). Oxford, New York: Berghahn.
- Glavatskaya, E. (2015). Polygamy among indigenous people of northern West Siberia in ethnographic and early census materials. *The History of the Family*, 21(1), 87–100. doi: [10.1080/1081602X.2015.1046467](https://doi.org/10.1080/1081602X.2015.1046467)
- Glavatskaya, E., Bobitsky, A., Zabolotnykh, E., & Vishnevskaya, A. (2019). Religion and marriage age in early twentieth century Ekaterinburg, Russia: A microdata analysis. In E. Glavatskaya, G. Thorvaldsen, G. Fertig, & M. Szoltysek (Eds.), *Nominative data in demographic research in the East and the West* (pp. 138–155). Ekaterinburg: Ural University Press. doi: [10.15826/B978-5-7996-2656-3.08](https://doi.org/10.15826/B978-5-7996-2656-3.08)
- Glavatskaya, E., & Borovik, I. (Eds.). (2013). *Ural'skaia ekspeditsiia na Obdorskome Severe: Pripoliarnaia perepis', 1926–1927 gg.* [Ural Expedition in the Obdorsk North: Subpolar census, 1926–1927]. Ekaterinburg: Ural University Press

- Glavatskaya, E., & Borovik, I. (2016). Death and marriage: World War I Catholic prisoners in the Urals. *Transylvanian Review*, 25(4), 28–40.
- Glavatskaya, E., & Borovik, J. (2019). The Old Believers and their marriage in the early twentieth century Urals, Russia: A microdata analysis. *Transylvanian Review*, 28(1), 112–130.
- Glavatskaya, E., Borovik, J., & Thorvaldsen, G. (2018). Urban infant mortality and religion at the end of the nineteenth and in the early twentieth century: The case of Ekaterinburg, Russia. *The History of the Family*, 23(1), 135–153. doi: [10.1080/1081602X.2017.1341845](https://doi.org/10.1080/1081602X.2017.1341845)
- Glavatskaya, E., Borovik, J., Thorvaldsen, G., & Zabolotnykh, E. (2020). From war to wedding: Marriage strategies of WWI POWs in the Urals, Russia. In S. Brée & S. Hin (Eds.), *The impact of World War I on marriages, divorces, and gender relations in Europe* (pp. 252–276). Leiden: Routledge. doi: [10.4324/9780429243684](https://doi.org/10.4324/9780429243684)
- Glavatskaya, E., & Thorvaldsen, G. (2013). Sergej Sergel's field research in Northern Norway and Finland: Contextualizing early 20th-century Sami. *Arctic Anthropology*, 50(1), 105–119. doi: [10.3368/aa.50.1.105](https://doi.org/10.3368/aa.50.1.105)
- Glavatskaya, E., & Thorvaldsen, G. (2015). Sibirskij Vavilon: Shvedskie uzniki v nachale XVIII v. *Quaestio Rossica*, 4, 215–240. doi: [10.15826/qr.2015.4.134](https://doi.org/10.15826/qr.2015.4.134)
- Glavatskaya, E., & Thorvaldsen, G. (2020). What role did the Spanish flu play? Analysis of the death causes in Ekaterinburg 1918–1919. In I. M. Garskova (Ed.), *Istoricheskie issledovanija v kontekste nauki o dannyh: Informacionnye resursy, analiticheskie metody i cifrovytehnologii. Materialy mezhdunarodnoj konferencii* (pp. 33–39). Paper presented at the Association for History and Computing, Moscow State University. doi: [10.29003/m1786.978-5-317-06529-4/33-39](https://doi.org/10.29003/m1786.978-5-317-06529-4/33-39)
- Glavatskaya, E., Thorvaldsen, G., Borovik, I., & Zabolotnykh, E. (2020). Mixed marriages in late nineteenth to early twentieth century: Comparing Russia and Norway. *Journal of Family History*, 46(4), 414–432. doi: [10.1177/0363199020945215](https://doi.org/10.1177/0363199020945215)
- Glavatskaya, E. M., & Zabolotnykh, E. A. (2018). «...Po zakonu Moiseia i Izrailia»: Brak za chertoj osedlosti (po materialam evreiskoi religioznoj obshchiny Ekaterinburga) [Jewish Marriages outside the pale of settlement (with reference to the materials of the Yekaterinburg Jewish religious community)]. *Izvestiia Uralskogo federalnogo universiteta. Seriya 2. Gumanitarnye nauki*, 20(4), 68–84. doi: <https://doi.org/10.15826/izv2.2018.20.4.063>
- Glavatskaya, E. M., Borovik, J. V., & Bobitsky, A. V. (2016). Katoliki Ekaterinburga v konce XIX – nachale XX v. po materialam perepisej i metriceskikh knig [The Catholic community of Yekaterinburg between the late 19th and early 20th centuries according to the 1897 census and church records]. *Izvestiia Uralskogo federalnogo universiteta. Seriya 2. Gumanitarnye nauki*, 18(3), 68–84. doi: [10.15826/izv2.2016.18.3.044](https://doi.org/10.15826/izv2.2016.18.3.044)
- Golikova, S. V., & Dashkevich, L. A. (2014). Spasenie zhizni detey: Opyt ural'skikh guberniy v kontse XIX – nachale XX veka [Saving children's lives: The Ural provinces' experience in the late XIX – early XX centuries]. *Vestnik Permskogo Universiteta. Seriya Istorija*, 24(1), 124–134.
- Gorbachev, O. (2020). Vsesoiuznaia perepis' naseleniia 1959 g. kak istochnik dlia izuchenii istorii gorodskoi sem'i [USSR population census 1959 as a source for studying the history of the urban family]. In *Dokumental'noe nasledie i istoricheskaja nauka. Materialy Ural'skogo istoriko-arhivnogo foruma, posvjashhennogo 50-letiju istoriko-arhivnoj special'nosti v Ural'skom universitete* (pp. 154–158). Ekaterinburg: Ural University Press. Retrieved from https://elar.urfu.ru/bitstream/10995/92827/1/978-5-7996-3078-2_2020.pdf
- Hubbard, W. H., Pitkänen, K., Schlumbohm, J., Sogner, S., Thorvaldsen, G., & van Poppel, F. (2002). *Historical studies in mortality decline*. Oslo: Novus.
- Isupov, V. A. (2016). Epidemiologicheskij perekhod v Rossii: vzglyad istorika [The epidemiological transition in Russia: A historian's view]. *Demograficheskoe obozrenie*, 3(4), 82–92. doi: [10.17323/demreview.v3i4.3207](https://doi.org/10.17323/demreview.v3i4.3207)
- Johnson, N. P. A. S., & Mueller, J. (2002). Updating the accounts: Global mortality of the 1918–1920 «Spanish» influenza pandemic. *Bulletin of the History of Medicine*, 76(1), 105–115. doi: [10.1353/bhm.2002.0022](https://doi.org/10.1353/bhm.2002.0022)
- Kashchenko, S. G., & Markova, M. A. (2012). Demograficheskie protsessy v uezdakh Sankt-Peterburgskoi gubernii vo vtoroi polovine XVIII – pervoi polovine XIX vv. Opyt analiza massovoi pervichnoi dokumentatsii ucheta naseleniia [Demographic processes in the Saint Petersburg province in the second half of the 18th – first half of the 19th centuries. Experience in analyzing mass primary documentation]. *Informatsionnyi Biulleten' Assotsiatsii «Istorija i Komp'iuter»*, 38, 55–57.

- Kluesener, S., Devos, I., Ekamper, P., Gregory, I., Gruber, S., Martí-Henneberg, J., ... Solli, A. (2014). Spatial inequalities in infant survival at an early stage of the longevity revolution: A pan-European view across 5000+ regions and localities in 1910. *Demographic Research*, 30, 1849–1864. doi: [10.4054/DemRes.2014.30.68](https://doi.org/10.4054/DemRes.2014.30.68)
- Korkodinova, A., Glavatskaya, E., & Borovik, I. (2016). Brachnye strategii liuteraan Ekaterinburga po materialam metriceskikh knig tserkvi sv. Petra (1892–1919 gg.) [Marriage strategies of the Lutherans of Yekaterinburg according to the parish records of St. Peter Church (1892–1919)]. In P. I. Mangilev (Ed.), *Tserkov', bogoslovie, istoriia: materialy IV Mezhdunarodnoi nauchno-bogoslovskoi konferentsii: Ekaterinburg* (pp. 166–172). Ekaterinburg: Theological Seminary.
- Kumo, K. (2017). Changes in mortality: Meta-analysis. In T. Karabchuk, K. Kumo & E. Selezneva (Eds.), *Demography of Russia: From the past to the present. Studies in Economic Transition* (pp. 219–259). London: Palgrave Macmillan. doi: [10.1057/978-1-137-51850-7_7](https://doi.org/10.1057/978-1-137-51850-7_7)
- Markova, M. A. (2016). Smertnost' pravoslavnogo naseleniia g. Vyborga po dannym metriceskikh knig XIX–XX v. [The mortality rate of the orthodox population of Vyborg according to the metric books of the 19th–20th centuries]. In V. F. Blokhina (Ed.), *Rossiiia v epokhu politicheskikh i kul'turnykh transformatsii* (pp. 173–175). Bryansk: Kursiv.
- Mazur, L., & Gorbachev, O. (2016). Primary sources on the history of the Soviet family in the twentieth century: An analytical review. *The History of the Family*, 21(1), 101–120. doi: [10.1080/1081602X.2015.1031808](https://doi.org/10.1080/1081602X.2015.1031808)
- Mironov, B. N. (2007). Novaja istoricheskaja demografija imperskoj Rossii (ch. 2): Analiticheskij obzor sovremennoj literatury [New historical demography of Imperial Russia (pt. 2): Analytic review of contemporary literature]. *Vestnik Sankt-Peterburgskogo universiteta*, 2(4), 100–125.
- Palkin, A., & Borovik, I. (2019). Brachnye strategii v edinovercheskoj obshhine Ekaterinburga v nachale XX v. [Marriage strategies of the Yekaterinburg Edinoverie community in the early 20th century]. *Quaestio Rossica*, 7(4), 1311–1323. doi: [10.15826/qr.2019.4.440](https://doi.org/10.15826/qr.2019.4.440)
- Palli, H. (1983). Parish registers and revisions: Research strategies in Estonian historical demography and agrarian history. *Social Science History*, 7(3), 289–310. doi: [10.1017/S0145553200019672](https://doi.org/10.1017/S0145553200019672)
- Patterson, K. D., & Pyle, G. F. (1991). The geography and mortality of the 1918 influenza pandemic. *Bulletin of the History of Medicine*, 65(1), 4–21.
- Pentikäinen, J. & Simoncsics, P. (Eds.). (2005). *Shamanhood: An endangered language*. Oslo: Novus.
- Ransel, D. L. (1991). Infant-care cultures in the Russian empire. In B. E. Clements, B. A. Engel, & C. Worobec (Eds.), *Russia's women. Accommodation, resistance, transformation* (pp. 113–134). Berkeley, CA: University of California Press.
- Sergel, S. (1927). *God Kochevki s lopariami. Ocherki prirody i liudei. [A year of traveling with the Sami. Essays on the people and nature]*. Moscow, Leningrad: Gosudarstvennoe izdatel'stvo.
- Shanks, G. D., & Brundage, J. F. (2012). Pathogenic responses among young adults during the 1918 influenza pandemic. *Emerging infectious diseases*, 18(2), 201–207. doi: [10.3201/eid1802.102042](https://doi.org/10.3201/eid1802.102042)
- Shestova, T. Y. (2017). Razvitie zdravookhraneniya v Permskoy i Vyatskoy guberniyakh v kontse XIX – nachale XX vekov [The development of the public health service in Perm' and Vyatka provinces in the late 19th – early 20th century]. *Historia Provinciae. Zhurnal regional'noy istorii*, 1(1), 24–39. doi: [10.23859/2587-8344-2017-1-1-2](https://doi.org/10.23859/2587-8344-2017-1-1-2)
- Sommerseth, H. L., & Walhout, E. C. (2019). Deaths in a city: A view from the 19th century church registers in Norway. In E. Glavatskaya, G. Thorvaldsen, G. Fertig, & M. Szoltysek (Eds.), *Nominative data in demographic research in the East and the West* (pp. 185–201). Ekaterinburg: Ural University Press. doi: [10.15826/B978-5-7996-2656-3.11](https://doi.org/10.15826/B978-5-7996-2656-3.11)
- Strekalov, D. V., & Strekalova, N. V. (2018). Struktura i tipologija provincial'noj gorodskoj sem'i v konce XVIII – pervoj polovine XIX veka (na materialah Tambova) [The structure and typology of a provincial urban family at the end of the 18th – first half of the 19th century (based on materials from Tambov)]. *Vestnik Tambovskogo universiteta. Serija Gumanitarnye nauki*, 23, 119–130. doi: [10.20310/1810-0201-2018-23-172-119-130](https://doi.org/10.20310/1810-0201-2018-23-172-119-130)
- Strekalov, D. V., & Strekalova, N. V. (2019). Vozrast vstupleniya v brak v provincial'nom gubernskom gorode v konce XVIII – pervoj polovine XIX v. (na materialah Tambova). [The age of marriage in a provincial town at the end of the 18th – first half of the 19th century (based on materials from Tambov)]. *Rus', Rossija. Srednevekov'e i Novoe Vremja*, 6, 276–280.
- Szoltysek, M. (2015). *Rethinking East-Central Europe: Family systems and co-residence in the Polish-Lithuanian Commonwealth. Contexts and analyses*. Bern: Peter Lang.
- Thorvaldsen, G. (2018). *Censuses and census takers. A global history*. London: Routledge.
- Thorvaldsen, G., & Glavatskaya, E. (2017). The three main Western revolutions and their censuses. *Quaestio Rossica*, 5(4), 922–1008. doi: [10.15826/qr.2017.4.263](https://doi.org/10.15826/qr.2017.4.263)

- Troinitskii, N. A. (1905). *Obshchie svedeniia po imperii rezul'tatov razrabotki dannykh pervoi vseobshchei perepisi naseleniia, proizvedennoi 28 ianvaria 1897 goda* [General information on the results of the first All-Russian census of the population, produced on 28 January 1897] (Vol. 1). Sankt-Petersburg.
- Troitskaya I. (1995). *Revizii naseleniya Rossii kak istochnik demograficheskoi informatsii (metodologicheskie problemy)* [The Revisions of the population of Russia as a source of demographic information (methodological problems)] (Ph. D. thesis). Moscow State University, Moscow. Retrieved from https://rusneb.ru/catalog/000199_000009_000096474/
- Ul'yanova, G., & Troitskaya, I. (2016a). Revizskie skazki kak istochnik izucheniia istoricheskoi demografii v istoriografii 1950–1960-kh godov ['Revizskie skazki' as a source of the study of historical demography in the historiography of the 1950s–1960s]. *Vestnik Pravoslavnogo Sviato-Tikhonovskogo Gumanitarnogo Universiteta. II: Istorii. Istoriiia Russkoi Pravoslavnoi Tserkvi*, 68(1), 89–101.
- Ul'yanova, G., & Troitskaya, I. (2016b). Revizskie skazki kak istochnik v istoriografii 1970-kh–2010-kh godov ['Revizskie skazki' as a source in the historiography of the 1970–2010s]. *Vestnik Pravoslavnogo Sviato-Tikhonovskogo Gumanitarnogo Universiteta. II: Istorii. Istoriiia Russkoi Pravoslavnoi Tserkvi*, 71(4), 118–135.
- Vladimirov, V. N., & Sarafanov, D. E. (2013). *Informatsionnye tekhnologii v izuchenii metricheskikh knig (naselenie Barnaula v kontse XVIII – nachale XX v.)* [Information technologies in the study of parish registers (the population of Barnaul in the late 18th – early 20th centuries)]. Barnaul: Altai State University Press. Retrieved from <http://elibrary.asu.ru/handle/asu/403>
- Zabolotnykh, E. A. (2018). Conversion of Jews to the Russian Orthodoxy at the beginning of the 20th century: Microhistorical analysis (based on the materials of Ekaterinburg metric books). In I. V. Krasavin (Ed.), *Mnogomernost' obshchestva: Chelovek v social'nom vzaimodejstvii: 2-j molodezhnyj konvent: Materialy mezhdunarodnoj studencheskoj konferencii 29–31 marta 2018 goda*. Ekaterinburg: Ural University Press. Retrieved from <http://elar.urfu.ru/handle/10995/61741>
- Zabolotnykh, E. A. (2020). Metricheskie knigi Bogojavlenskogo prihoda Ekaterinburga: Kritika i informacionnye vozmozhnosti istochnika [Ekaterinburg Epiphany Church's parish books: Source criticism]. In *Materialy Ural'skogo istoriko-arhivnogo foruma, posvjashhennogo 50-letiju istoriko-arhivnoj special'nosti v Ural'skom universitete* (pp. 49–54). Ekaterinburg: Ural University Press. Retrieved from <https://elar.urfu.ru/handle/10995/92880>