


# Migration and the Historical Population Register of Norway

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## Abstract

The Historical Population Register (HPR) of Norway gives rise to new research opportunities on a large array of topics spanning medicine, social sciences and humanities. This introductory article outlines the contents of the register, the periods it covers, and its use, particularly with respect to the study of geographic mobility. This article introduces the articles in this issue, which concentrate on the emigration to the US and the returnee emigrants.

## Keywords

emigration – Historical Population Register (HPR) of Norway – Norway – United States – returnees

## Introduction

For the sake of contextualising the Historical Population Register (HPR) of Norway this article provides a brief overview of Norway's migration history more generally, including immigration and internal mobility, and how the HPR can serve research into the respective forms of migration. Besides historical geography, the most relevant scholarly fields are epidemiology, genetics, public health, demography, economics, history, sociology, onomastics and dialectology. The construction of the register involves important challenges within

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the field of informatics. Thus, the HPR project has developed software to link data files with fuzzy, nominative information and develops advanced procedures for more efficient extraction of information from handwritten sources; it is also building a Wiki-style (as used by Wikipedia) information system for cooperation among genealogists via the Internet to enhance the open part of the register.

The register will include 9.7 million people, based on 37.5 million entries from censuses and church records, which provides virtually complete coverage. Record linkage rates will vary by period and region from 75 to over 90 per cent of the records, and with national coverage overall linkage rates should come close to or exceed 90 per cent. An important advantage of covering the entire population is that this will improve the quality of the HPR because historians now have a better long-term grip on emigration than on internal migration and in-migration to Norway. Therefore, a national register will have fewer incomplete life courses than the current local databases which miss many migrants who cross parish and municipality borders. Thus, record linkage reliability will especially increase among domestic migrants. Our emigration registers have been transcribed and will be integrated into the population register. We are confident that in a decade Norway will be the first country to provide an integrated HPR covering a population significantly larger than the Icelandic population – and on a non-commercial basis. The intensive migration inside and out of Norway (plus many returning) is a specific reason why we need a national register; otherwise migrants will be underrepresented in the database together with regions having unique characteristics. Thus, the HPR will open up a new window on the implications of national and international population flows for Norway. The article by Holden and Boudko in this special issue explains the register itself in more detail.

### National and International Migration History

Most of Norway's long-term immigration, emigration and domestic migration history is shrouded in darkness. Before the seventeenth century, an HPR has little to offer in the way of new insights. Here we shall not carry on the discussions about to what extent the country was originally settled from the south or from the north-east, or whether the indigenous group of Sami people came from the east or retreated northward with the ice. In connection with the expansion of the Norwegian 'imperialism' in the medieval period of the Vikings, the likely half million inhabitants in Norway built colonies around the North Sea, in Iceland, in Greenland and in America. The two latter settlements were

small and likely died out – some may have returned to Scandinavia or Iceland. In the fourteenth century, the black plague and adverse climate reduced the size of the population; we estimate there were about 100,000 to 200,000 persons in a union with Denmark from 1380. Before the farm tax lists of 1647 there are only fragmentary sources listing the inhabitants of Norway.<sup>1</sup> The steadily tighter union entailed an influx of administrators and other specialists to the country, as can be seen from the surnames originating in Denmark and the German realm listed in the nominative 1801 census.<sup>2</sup> The first church book was started in 1623 in Andebu parish in Vestfold province, and from then on the keeping of church records spread to new parishes, especially after their keeping became obligatory from the mid-1680s. Even if combined with the male censuses of the 1660s and 1703, their usefulness for migration research is limited – it was only from the 1840s that the birthplace variable was introduced with the Belgian censuses.

During the union with Sweden from 1814 to 1905 it was unfortunate that Norway did not adopt their longitudinal catechismal church registers, but rather prolonged the Danish system. The number of immigrants born in Sweden peaked at 50,000 according to the 1900 census. In the north, many ethnic Finns born in Finland or Sweden immigrated during the nineteenth century, most intensively during the hunger years of the 1860s. When we get precise birthplace information for the first time, in the 1865 nominative census, only 1.4 per cent of the population was born abroad, which increased to 3.2 per cent by 1900 due to the Swedish arrivals. The historian of immigration for the period 1860 to 1901 has estimated a gross influx of 130,000 persons.<sup>3</sup> During the Second World War there were up to half a million German troops in Norway, in addition to primarily Russian and Yugoslav prisoners of war (POW), most of whom were repatriated. More than 10 per cent of the 140,000 POWs died in Norway, and authorities buried the corpses at a new graveyard, allegedly for counter-espionage reasons.<sup>4</sup> With the exception of the Finns and the Sami, Norway was a homogenous country ethnically, until guest workers started to arrive from, in particular, Pakistan in the 1960s. It is a fortunate circumstance that the Central Population Register was established in 1964 and covers this period of more

1 Rolf Fladby and Harald Winge, *Den Eldste matrikkelen: en innfallsport til historien: skattematrikkelen 1647* (Oslo 1991).

2 Sølvi Sogner and Gunnar Thorvaldsen, 'Surnames as proxies for place of origin in the 1801 census for Norway', in: Jørgen Carling (ed.), *Nordic Demography: trends and differentials*. Scandinavian Population Studies 13 (Oslo 2002) 251–265.

3 Einar Niemi, et al. *I nasjonalstatens tid, 1814–1950*. Norsk innvandringshistorie 2 (Oslo 2003).

4 Marianne Neerland Soleim, *'Operasjon asfalt'. Kald krig om krigsgraver* (Stamsund 2016).

intensive immigration – although there is under-registration. In February 2017, there were about 700,000 immigrants in Norway making up about 13 per cent of the population.<sup>5</sup>

### Emigration and Return Migration

The first significant emigration documented was to the Netherlands, mainly during the seventeenth and eighteenth centuries, which has been researched via the marriage registers of Amsterdam, containing 11,869 brides and grooms from Norway. If we accept the rule of thumb that 60 per cent of the immigrants to Amsterdam did not marry there, it means that about 30,000 Norwegians came to sail and serve in the Dutch economy during the two centuries.<sup>6</sup> The late nineteenth and early twentieth century saw geographic population movements on an unprecedented scale. The large-scale emigration to America profoundly shaped both the receiving and contributing countries. From the 'official' start of Norwegian emigration to the US in 1825 until the end of the Civil War, the number of migrants was small – by 1850 only about 18,000 immigrants from Norway can be documented.<sup>7</sup> During this period, the registration of immigrants arriving in America was superior to the registration of emigrants from Norway. The forms for the registration of migrants introduced in the church books in 1820 were not designed to cope with international migration, and they were barely sufficed for domestic migrants who might need some proof of identification for marriage in a distant parish, perhaps several years after moving there. After the US Civil War, the number of emigrants remained high during most years – peaking in the 1880s and from 1902 to 1907, but with a nadir during the First World War – until the US introduced serious immigration restrictions in 1929.<sup>8</sup>

Comparing emigrant numbers with census results in the US, and searching for emigrants versus immigrants by name, indicates that the US and Norwegian

5 <https://ssb.no/befolkning/nokkeltall/befolkning>.

6 Sølvi Sogner, *'Og skuta lå i Amsterdam': et glemt norsk innvandrersamfunn i Amsterdam 1621–1720* (Oslo 2012); Hilde Leikny Sommerseth, Peter Ekamper and Sølvi Sogner 'Marriage patterns and residential behaviour among Norwegian women in Amsterdam, 1621–1720', *Continuity and Change* 31:2 (2016) 175–209.

7 Gerhard B. Naeseth and Blaine Hedberg, *Norwegian immigrants to the United States: a biographical directory, 1825–1850* (Madison 2008).

8 Nils Olav Østrem, *Norsk utvandringshistorie* (Oslo 2014).

sources tell somewhat different stories as is documented in Thorvaldsen's article in this special issue. A combination of individual level source material from both sides of the Atlantic is thus warranted, including censuses as well as emigration and immigration registers. When in the future we can add the emigrants from non-Norwegian harbours and the escaped sailors from ships in American ports to the HPR, it is likely that the number of emigrants overseas during the nineteenth and twentieth centuries will reach closer to one million rather than the present estimate of about 900,000.<sup>9</sup> Constructing a large sample of emigrants and return migrants observed in both Norway and America becomes feasible with automatic record linkage strategies. Such techniques are employed to link source entries in both the North Atlantic Population Project, and the Historical Population Register of Norway. The possibilities of electronic linkages should be juxtaposed with the challenges of this research strategy, however. Using a group of 448 Norwegian migrants matched between the 1900 American and 1910 Norwegian census an empirical analysis shows that migration and marital transitions were likely to have been closely linked, as is substantiated in Evan Robert's article in this special issue. He also shows how machine-linked records hold the promise of tracing several thousand Norwegians across the Atlantic and back again.

Many of the emigrants travelled with and spent their lives in America among co-ethnics.<sup>10</sup> Up to one fourth of the emigrants stayed for only a few years before returning to their homelands, often taking home money and always transferring new ideas and experiences. The experiences of the Norwegian Labour Party leader Martin Tranmæl and the intellectual communist leader Erling Falk in the US, and their participation in Industrial Workers of the World, were extremely important for the radicalisation of the Norwegian labour movement from 1917.<sup>11</sup> Returning engineers constitute another case in point: they brought back technology and became important for Norwegian

9 Ole Jone Eide and Gunnar Thorvaldsen, 'Historisk befolkningsregister: Oversikt over emigrasjonen', *Heimen* 48:3 (2011) 207–228; Sverre Mørkhagen, *Drømmen om Amerika: innvandringen fra Norge 1825–1900* (Oslo 2012).

10 Jon Gjerde, *From peasants to farmers. The Migration from Balestrand, Norway, to the Upper Middle West* (Cambridge 1985); Gunnar Thorvaldsen, 'Marriage and names among immigrants to Minnesota', *The Journal of the Association for History and Computing* 1:2 (1998) <http://hdl.handle.net/2027/spo.3310410.0001.205>; Rasmus Sunde, *Vikjer ved fjorden, vikjer på prærien: ein demografisk-komparativ studie med utgangspunkt i Vik i Sogn* (Sogndal 2001) Thesis Sogn og Fjordane University College.

11 Trygve Bull, *Mot Dag og Erling Falk* (Oslo 1987).

and Nordic industrialisation.<sup>12</sup> Due to the scarcity of immigration registers, especially digital ones, the HPR will be a rich resource particularly for the study of return emigrants once we have linked the emigration protocols to later censuses and church books on the individual level.

The data in the Norwegian Historical Population Register has already been used in articles on central issues in international migration research.<sup>13</sup> Economists at the University of California asked two interrelated questions about the immigrants to the US during the period of mass emigration from Europe: comparing relatives who stayed behind with those who emigrated, what was the benefit from migration – in other words did those who settled in the US benefit in comparison with those who decided to not emigrate? Using linked census data about brothers where one stayed in Norway while the other emigrated, they found a difference of on average 70 per cent in favour of those who left. Given the higher salaries in the US at the time, this result can likely be substantiated from other data covering other European nations. Their other question was whether the emigrants were selected positively or negatively among potential emigration candidates. Here the researchers found evidence of negative selection in the sense that men whose fathers did not own land or whose fathers held low-skilled occupations were more likely to migrate. Results from a thesis using local data from a municipality just north of Oslo concluded differently, stating that the farmers' children were more likely to emigrate than the cottars' children.<sup>14</sup> Even with a sample of 50,000 Norwegian men, there is no guarantee that it is more representative than a locality study, since the linkage rate between the US and Norwegian censuses was lower than could be achieved between the Norwegian emigration lists and censuses for a locality. It is possible, however, that emigrants more often originated in lower social strata after the turn of the century – the locality study did not cover the twentieth century.

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12 Per-Olof Grönberg, 'Internationale Migration und Rückwanderung von nordischen Ingenieuren, 1880 bis 1930', *Technikgeschichte* 3:4 (2006) 169–206.

13 Ran Abramitzky, Leah Platt Boustan and Katherine Eriksson, 'Europe's tired, poor, huddled masses: Self-selection and economic outcomes in the age of mass migration', *American Economic Review* 102:5 (2012) 1832–1856; Ran Abramitzky, Leah Platt Boustan and Katherine Eriksson, 'Have the poor always been less likely to migrate? Evidence from inheritance practices during the age of mass migration', *Journal of Development Economics* 102 (2013) 2–14.

14 Elisabeth Koren, *Utvandringen fra Ullensaker 1867–99: en sosialhistorisk undersøkelse* (Oslo 1979) Thesis University of Oslo.

### Net Migration in Consecutive Censuses

A method that requires a word of warning is the calculation of net migration by comparing population numbers in consecutive censuses. The logic is that population increases or decreases during the inter-census periods can indicate net immigration from a locality, district or nation. Such population developments will naturally also be influenced by the number of births and deaths during the same period. Since Norway has relatively good registration of vital events and State Church membership was virtually obligatory, the number of births and deaths can usually be calculated year by year so that the surplus or deficit of births can be deducted from the difference in population change between the censuses. There is still reason for caution, however, since many censuses around the world have failed to register the whole population. A case in point is the treatment of net international migration in the second volume of the *Norsk innvandringshistorie* [Immigration History of Norway].<sup>15</sup> The calculations showed that the population of Norway was about 166,000 persons lower in the 1815 census than according to the census in 1825, indicating a population growth of nearly 19 per cent. The births and deaths in this ten-year period numbered 352,000 and 202,000 respectively – thus the birth surplus was about 150,000 persons. After deducting the birth surplus from the population growth, the remainder can be interpreted as net immigration or emigration. In this case, the author calculated a net immigration from abroad during the decade 1815 to 1825 of about 16,000 persons. It is naturally tempting for a migration historian to publish such an interesting finding as ‘the largest [immigration surplus] we have for any decade during the period’.<sup>16</sup>

The author is thus aware of the singularity of this migration phenomenon and also of the source problems with numeric censuses during this period. The reason that his suspicions are still not raised may be that he considers the net calculation method ‘simple’, and that the text contains no discussion of the historiography related to the weakness of the 1815 census. The 1801 census was nominative and taken during a period of peace by administrators in Copenhagen who were world leaders in nominative census taking. In 1815, those administrators were building a new bureaucracy in a country on the brink of bankruptcy. However, they still decided to take a census – the world’s first national one after the Napoleonic Wars. On closer inspection, three outstanding quantitatively oriented social scientists and historians have discussed the

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15 Niemi, et al., *In nasjonalstatens tid*.

16 Niemi, et al., *In nasjonalstatens tid*, 20.

quality of the early nineteenth-century censuses, and agreed that the 1815 census is of low quality and plagued by under-enumeration. The first to criticise the 1815 census was the theologian and social scientist Eilert Sundt. The second was the director of the Statistical Central Bureau, Gunnar Jahn<sup>17</sup> and the third was the British demographer Michael Drake in his doctoral dissertation on *Population and Society in Norway 1735 to 1865*.<sup>18</sup> We have to conclude that there was no immigration wave into Norway after 1815, and neither was there an emigration wave out of the country during the previous fifteen years – a corollary to the lack of emigration. The net migration method is suitable both for international and domestic migration currents that crossed administrative borders, provided the source material provides sufficient coverage. The longitudinal HPR with individual level data will render the method redundant once gross immigration and emigration numbers can be calculated.

### Internal Migration

The vast under-registration of migration in the church books in comparison with the entries in the longitudinal Swedish protocols means that internal, domestic migration is difficult to trace, even when after 1829 the priests were supposed to register the migrants. The introduction of ministerial records makes it possible to link baptism records from one part of the country to marital and burial records or the 1801 census in other regions, especially because of the special marker names, which were given to children born in certain parishes. So far, however, no one has taken on such a study in a systematic way. The most researched internal migration is the 'colonisation' of areas in Northern Norway by farmers from the valleys in South-Eastern Norway, most notably the contemporary municipalities of Bardu and Målselv south-east of Tromsø from the 1790s. These territories were previously used by the Sami, who trekked with their reindeer between their winter pastures further north or in Sweden and the Norwegian coast, and thus their rights to the land were difficult to defend against the incoming settlers. The pioneering settling of Målselv and Bardu continued until 1805, when 40 colonist families had settled in these northern valleys, but then almost stopped until it restarted in the 1820s with 159 colonist families until 1835. In 1865, when the population had reached 3,500 mostly due to natural growth, a quarter of the people was born in Southern Norway

17 Gunnar Jahn, 'Folketellingene 1801 og 1815 og befolknings-forholdene dengang', *Statsøkonomisk tidsskrift*, 43 (1929) 202–218.

18 Michael Drake, *Population and society in Norway, 1735–1865* (Cambridge 1969).



according to the birthplace information in the census that year.<sup>19</sup> There were similar settlements in other parishes in Northern Norway and, until the Russian Revolution, Norwegians also settled on the Kola Peninsula.<sup>20</sup>

From 1865, Norway has taken full count nominative censuses with birthplace information on the parish level in every decade except in the 1880s. These censuses up until and including 1910 have been or will soon be transcribed, allowing statistical or genealogical analysis on the individual level. This cross-sectional material allows us to study gross migration between administrative units such as provinces (counties) or municipalities, migration being defined as the difference between the municipality or parish of birth and of residence for the same individuals. This has been done in the most detailed way in a thesis on the province of Troms in Northern Norway, also using record linkage to follow the same persons from census to census.<sup>21</sup> This province had the lowest emigration rates in the country, because partible inheritance of the land in combination with fishing secured a basic outcome for children who did not leave their parish.<sup>22</sup> An even more detailed analysis of step migration is possible in the HPR, since here entries from the church records are also linked to the censuses, meaning that we can follow step migrants who married or had children baptised in other parishes. We are presently working to include the censuses from 1920 to 1950 among those transcribed, together with church records and to link these closed records to the open HPR database and the Central Population Register. This will give researchers access to similar longitudinal datasets, although these records will be anonymised. Until then, some census publications from Statistics Norway provide detailed aggregates about domestic migration flows, for instance based on the census in 1946.<sup>23</sup>

Temporary geographic mobility may be a more significant phenomenon in Norway than in many other countries due to the large proportion of the population involved in shipping and the fisheries. One hypothesis is that the annual shipping of fish from Northern Norway to Bergen and their return with grain plus other merchandise led to more permanent migration along the coast,

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19 Gunnar Thorvaldsen, 'Koloniseringen av Bardu og Målselv', in: Kjartan Soltvedt (ed.), *Folketellinger gjennom 200 år* (Oslo 2004) 48–70.

20 Morten Jentoft, *De som dro østover: Kola-nordmennenes historie* (Oslo 2005).

21 Gunnar Thorvaldsen, 'A constant flow of people? Migration in Northern Norway 1865–1900', *History & Computing* 11:1–2 (2000) 45–59.

22 Gunnar Thorvaldsen, *Migrasjon i Troms i annen halvdel av 1800-tallet. En kvantitativ analyse av folketellingene 1865, 1875 og 1900* (Tromsø 1995) Thesis University of Tromsø.

23 Statistisk Sentralbyrå, *Folketellingen i Norge 3. desember 1946. Hefte 3. Folkemengden etter kjønn, alder og ekteskapelig stilling, etter levevei og etter fødested i de enkelte herreder og byer* (Oslo 1951).

since the fishermen carried out most of this transport themselves after participating in the regional fisheries which also entailed much temporary geographic mobility. From 1875 onwards, we can trace some forms of temporary mobility in detail because the Central Statistical Bureau followed the international recommendation to enumerate both the resident and the actual population in the censuses. Thus, both visitors and those absent from their usual addresses were entered in the census manuscripts and marked according to the *de facto* and the *de jure* principle respectively. Some of these records are already linked to the population register, making it possible to analyse to what extent more permanent migration was inspired by temporary geographic mobility. Tracing the 'swallows', those who moved back and forth between Norway and the US as seasonal workers will be hard, since the censuses are only decadal and people only randomly reported these movements to the priests. They should be found repeatedly in the emigration protocols when leaving in the autumn, but often without reporting their return in the spring.

It is likely that the local community histories explained in Arnfinn Kjelland's article in this special issue will be of the highest value for this volatile group, in addition to other returnee emigrants. With their detailed, longitudinal histories of farms and families to supplement the skeleton built from censuses, church books and emigration registers, his BSS databases of *Busetnadssoge* [Settlement History] promise to deliver the kind of social and demographic detail that the HPR can contain for the whole country in the more distant future.

### Consequences for Demographic Analysis

In a seminal article, Steven Ruggles has analysed major sources of error in family reconstitution studies connected with the incomplete tracing of migrants and building on only a selected number of parishes or population groups.<sup>24</sup> Even if due to non-conformism, the representativeness problems are more serious in the partial English church records he targeted than in the Norwegian vital records, his principle arguments are well worth repeating here. First, there is *the non-representativeness of selected parishes*, which is serious in the case of Norway because we transcribe and link the censuses and church records. Upon completion, this will only apply to a few parishes where the ministerial records are missing primarily due to fires or where the priests' handwriting is more difficult to read than usual. The second problem is the selection bias, meaning

24 Steven Ruggles, 'The limitations of English family reconstitution: English population history from family reconstitution 1580 – 1837', *Continuity & Change* 14:1 (1999) 105–130.

the *non-representativeness of selected individuals* because of the exclusion of migrants and nonconformists. In Norway, only four per cent of the population had left the State Church at the time the Central Population Register was constructed in 1964, while the percentage was two in the early twentieth century. Since also other congregations were supposed to submit lists of their baptised, wed and buried to Statistics Norway, and generally did so, non-conformism creates few problems.

A bigger problem are all the inconsistencies in the sources – due mostly to errors in the originals and other (albeit fewer) errors introduced during transcription. One reason for building the Historical Population Register is that we can spot these problems more easily when we have linked the entries on the individual level. The biggest remaining problem is the migrants, since the internal migration must be mapped by building a countrywide registry. The challenge lies in tracing immigrants and returnee emigrants who did not leave traces by marrying or fathering children, but many of these can be found in censuses. Third, there is sensoring (*mis-specification of at-risk population*): The censuses specify the total at-risk population every decade, and the combination with vital and emigration records makes it possible to compute this annually. It is more problematic to specify the at-risk population by municipality or social group, especially during the period 1815 to 1855, when the censuses were numeric. Fourth, there is the *Linkage failures and under-registration of vital events*: The registration of vital events failed locally also in the nineteenth century, but was a more serious problem during the eighteenth century, which is not yet planned for inclusion in the HPR. From 1870 onwards the church records and from 1910 the censuses often have birthdates, which means that the duplicates problem became smaller, except for persons with very common names in the biggest cities. Again, the problem will be most serious during the period of numeric censuses, because it is difficult to use the method of elimination when the population of linkage candidates is unknown. Finally, there is the *Random error*: An important rationale behind building a full-count national register is to minimise random error. While building the HPR and when analysing small groups such as ethnic minorities, random error should still be considered when splitting the aggregates in fine-grained analyses.

## Conclusion

Since 1964 Norway has had a Central Population Register which in principle should cover all migration that crossed administrative borders, including the rapidly increasing influx of immigrants. The major under-registration is

of immigrants from particularly Eastern Europe who have returned without notifying the Norwegian authorities. Thus, nowadays 'emigration is the main challenge when tracing the details of the population development'.<sup>25</sup> For the period 1920 to 1964, we are building the closed part of the Historical Population Register, mainly from censuses and vital registers. The main challenge is to transcribe the scanned protocol images into text files in efficient ways. After record linkage and anonymisation, the closed HPR will allow more detailed analyses of step and return migration in particular. For the period 1801 to 1920 the open HPR will have lower density of observations and lower record linkage rates, but due to national coverage will allow more detailed tracing of domestic geographic mobility and a more complete overview of emigration due to the combination of Norwegian and foreign microdata. This was by far the most extensive migratory phenomenon in our history, deserving our attention both during a seminar in 2015 and in this special issue. National coverage is unrealistic prior to the nineteenth century and therefore this period is not part of the current plans for the HPR. For a number of localities, however, databases have been built which allow demographic research, including on migration. In addition, emigration to the Netherlands in the seventeenth and eighteenth centuries has been studied in Dutch sources. For the period before the male censuses, church records in single parishes and tax records from the mid-seventeenth century, the sources limit our studies to the migration of small groups or single individuals.

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25 Helge Brunborg, 'Slik beregnet vi når Norge ville passere 5 millioner', *Samfunnsspeilet* 3 (2012) 12–18.