

Historical Sample of the Netherlands

HSN

Annual Report 2019



International Institute of Social History, Amsterdam

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The Historical Sample of the Netherlands (HSN) is an initiative of researchers from different disciplines within the social and historical sciences. The goal of the HSN is to create a representative database of nineteenth- and twentieth-century life courses. A sample of the birth certificates from the period 1812-1922 serves as the basis for the HSN database.

Within the environment of the HSN two other initiatives developed. One is the so-called LINKS database which is a software project to link the indices of all civil certificates of the Netherlands into pedigrees and families. The second one is the *European Historical Population Sample Network* (EHPS-Net) which is chaired by the HSN and its website and journal is published by the IISH/HSN.

1 The HSN in 2019 (summary)

Besides the continuous work on the extension of the HSN and LINKS database and the EHPS Network, the HSN staff was engaged in three projects during 2019: GIANTS, collecting heights from militia registers, LONGPOP, employing two so-called Early Stage Researchers (ESR) and Against the Stream (ANDB). The last one is a new project concerning the gathering of about 1000 life courses of Jewish persons, most of them sampled from the ANDB, the Dutch diamond workers union, and other sources.

Definitive 2019-highlights were the five PhDs that defended a thesis which was (fully or partly) based on HSN material or related projects: Ashkan Ashkpour, Evelien Walhout, Peter Ekamper, Ingrid van den Berg and Rick Mourits.



Ashkan Ashkpour



Evelien Walhout



Peter Ekamper



Ingrid van Dijk



Rick Mourits

On the 17th of January Ashkan Ashkpour defended his thesis on the Theory and Practice of Historical Census Data Harmonization with the Dutch Historical Censuses as case study. He explored the applicability of Semantic Web technologies, proposing a ‘source oriented harmonization workflow’. A couple of weeks later Evelien Walhout defended her thesis on infant mortality in the province of North-Brabant, and concluded that religion, after all, superseded region in explaining the higher infant mortality risks of Roman Catholic babies. The 1st of July Peter Ekamper centered his thesis around the time and space in historical demography using LINKS data for the research on the effects of climate on mortality and the geography of the marriage market. The first integrated LINKS dataset of births, marriages and deaths (for the province of Zeeland, 19th and early 20th centuries) was used by both Ingrid van Dijk and Rick Mourits within the context of the project *Genes, Germs and Resources*. Ingrid concentrated on high mortality families researching the importance as well as the intergenerational transmission of familial death clustering. Rick focused on mortality after age

50 and individual chances to belong to the top 10% survivors of their birth cohorts. He demonstrated that in longevity there was a clear element of familial clustering.

But there was more published research than our five PhD's. During 2019 53 different researchers were involved in publishing and presenting studies based or partly based on the HSN and LINKS databases. In total 22 publications in relation to the HSN or using data from the HSN and LINKS databases were published. Quite a lot of them in top journals such as *Nature Communications*, *Demographic Research* and *Demography*.

The number of lectures, presentations, interviews and other promotional activities amounted to 63, an all-time record above the record of 2010 (57 activities). With 10 papers, the HSN had a strong presence at the *European Social Science History Conference* which took place in Belfast, Northern Ireland. With three to four presentations the HSN was also very visible at the *43rd Annual Meeting of the Social Science History Association*, *The Dutch Demographic Day* and the *European Population Conference (EPC)*.

Work on the HSN database itself continued throughout the year. The CLARIAH grant gave new impetus on the curing and completing of the HSN database. The project ran from 2017 and successfully ended halfway 2019. Goals of CLARIAH were to bring the death certificates (including personal cards) till a level of 85% of all research persons, to add 3,000 marriage certificates to the HSN-database and to cure and collect about 5,000 life courses. All goals were reached except for the level of death certificates of the births from the period 1812-1862 which stuck at 71%, mainly due to incomplete indexes where the period 1863-1922 reached 87%. This year about 2,000 death certificates/personal cards were entered into the database and extra data were gathered of about 1,000 life courses. Another goal was the curing of the life course dataset. Almost all files with problems were checked and improved. This resulted in a stream of new mail, while about 8,000 additions to the life courses were integrated. About 2,000 files with life courses were entered into the database.

Because of the ending of the HSN part of CLARIAH, the GIANTS project and the main activities of the LONGPOP project, the number of HSN employees including volunteers decreased from 20 to 16 at the end of the year. Part of the employees work part-time and some of them work outside the institute, to collect data in various archives.

The LINKS project received a grant from Edinburgh University to enlarge the existing release with standards of occupational titles. Working on the linking of the certificates itself continued and in December a new release was published by the website [WieWasWie](#) (WhoWasWho) of the Dutch Family Center. The release contained about 5,5 million links of marriage certificates linking the parents of a bride or a groom to their own certificate. In February a meeting took place at the Dutch Family Centers in which a fruitful discussion took place with data archivists on how to create better indices by the community of WieWasWie by using the error messages from the LINKS data cleaning program.

The GIANTS project aims at recovering the heights of HSN Research persons and their relatives from the national militia registers of the Netherlands. During the second half of the nineteenth and the first half of the twentieth centuries, the Netherlands experienced a remarkable growth in stature, both in absolute and relative terms, which resulted in making the Dutch the tallest people on earth. GIANTS aims to understand this development, by zooming in on processes at both micro and macro levels. The existing HSN database will be enriched with information on

heights of a representative sample of about 20,000 individuals, namely of the HSN male persons themselves, as well as of their fathers, brothers and sons.



HSN staff (25 April 2019)

*From left to right and top to bottom: Kees Mandemakers, Rolf Wasser, Reinier Sijbrands, Kirsten Schimmel, Jan Bartman, Marja Koster, Theo Dibbets, Behice Güll, Bert Schijf, Ben Mouwes, Walfried Commandeur
Not on this picture: Jos van Hees and Frits Nijstad (Picture: Francisco Anguita)*

LONGPOP stands for the project *Methodologies and Data mining techniques for the analysis of Big Data based on LONGitudinal POPulation and Epidemiological Registers*. LONGPOP is a EU-project within the framework of the Marie Skłodowska-Curie Innovative Training Network. LONGPOP is a consortium of high profile universities, research institutions and companies located in Spain, Sweden, the Netherlands, Italy, the United Kingdom, Belgium and Switzerland. LONGPOP focuses on transformations in European societies, covering family structures, fertility, the decline of mortality. It has created a network in which the different research teams share experiences, construct joint research, create a training track for specialists in the field and increase the number of users of these large – possibly underused – databases. In total 15 so-called ‘Early Stage Researchers’ are positioned at the mentioned institutions, of whom two at the IISH. One works on the documentation and extension of IDS related extraction software and the other one works on methods of standardizing addresses.



LONGPOP is part of a broader movement of cooperation between databases with population data. For quite some time several important databases with historical life course data have been working together to develop comparable datasets and joint software. A grant of the European Science Foundation (ESF) gave this cooperation a strong impulse founding the *European Historical Population Sample Network* (EHPS-Net). The network concentrates not only on the creation of common data structures and software, but also on education by way of summer schools, on developing new databases and on the publication of results in an e-journal. The HSN is chair of this network in which over ten countries and twenty databases are cooperating. The e-journal of the network, *Historical Life Course Studies*, continued and reached an average of seven articles per year.

Chapter 2 of this report gives an overview of the HSN organization, of the development of the database during 2019 and of the outreaching activities. Chapter 3 contains a more detailed account of the projects that we worked on. Chapter 4 presents the composition of the staff and the several boards of the HSN.

An overview of the publications, presentations, working papers and data releases of 2019 is presented in respectively appendix A, B, C and D. Appendix E contains an overview of all projects undertaken by the HSN since the start in 1991.

2 The HSN

2.1 Organizational Structure

The HSN is governed by the HSN foundation. The members of the Board work at several Dutch universities. The purpose of the foundation is the construction of the HSN database and to make the HSN data available to scientific researchers in the Netherlands and abroad. The only restrictions concern preventing overlap of the research inquiries in question and the protection of data confidentiality.

Although the database of the HSN is a historical database of which most of the included individuals is no longer alive, some still are. This implies that the HSN is bound to the regulations of the European Union as laid down in the General Data Protection Regulation and as implemented by Dutch law. Secondly, although most of the data are taken from records which are open to the public, some of the data have been made available by the archives for the HSN-database only for scientific research and under the condition of anonymous use of the data. The HSN privacy regulations (see <https://iisg.amsterdam/en/hsn/privacy-statement>) determines that the HSN data are only available for researchers after they have signed a license agreement.

In order to guarantee continued existence and accessibility of the HSN database, the HSN Foundation has linked itself by contract to the International Institute of Social History (IISH) in Amsterdam, which forms part of the Royal Netherlands Academy of Sciences (KNAW). The IISH is an internationally renowned archive and research institute in the field of social

history. It is devoted to the acquirement, management and accessibility of collections in that area.



IISH building

The International Institute of Social History (IISH) provides housing for the HSN activities and incorporates the burden of the resulting costs. The IISH has guaranteed a permanent position for coordination tasks. The actual data gathering is done on the basis of projects, which are externally funded. The HSN is part of the IISH research department. Decisions regarding projects are made by the Steering Group which consists of members of the Board of the HSN and members of the management team of the IISH (for the composition of these boards, see chapter 4).

2.2 Data Collection: Starting point and sources

The Historical Sample of the Netherlands (HSN) aims to construct life histories as completely as possible for a representative portion of the nineteenth and twentieth century population in The Netherlands. The sample was drawn from all persons born in the Netherlands between 1812 and 1922. Ultimately, the HSN database will include information on an individual level from about 85,500 persons on subjects like family structure, occupation, birth place, literacy, social network and migration history.

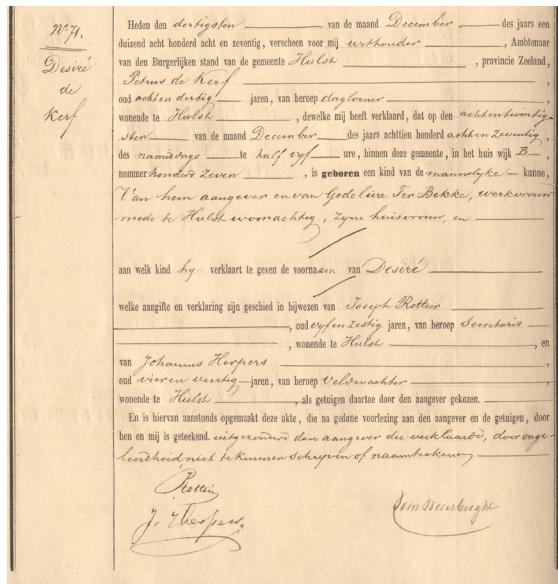
These characteristics make the data set a basic resource for historical research into the areas of demography, sociology, epidemiology, genetics, economy and social geography. The importance of the HSN for the researcher is fourfold:

- The HSN provides a representative dataset with which research can be done into social developments in the 19th and 20th centuries.
- The HSN provides a control group or groups for researchers to compare with their own research population.
- The HSN is developing the expertise which individual researchers usually cannot acquire in the limited time at their disposal.
- The HSN offers the possibility for researchers to use the existing HSN dataset as a base for their own research projects.

Of course, this cuts both ways. Every researcher who wants to use the infrastructure and data of the HSN must agree that in return he or she will deliver his or her data to the central database, in accordance with the formal structure of this database. In this way the HSN has developed into a data centre that functions as a centre for quantitative research on life courses.

The sample is drawn from the birth certificates and stratified in periods of ten years. To achieve rather equally sized cohorts of persons from the age of twenty years, depending on infant and child mortality on the one hand and the number of births on the other hand, it was decided to have two sample frequencies: 0.75% for the period 1812-1872 and 0.5% for 1873-1922. This results in a sample size that is large enough to make sound statistical conclusions for

subpopulations of minimal two percent of the 14.5 million persons born in the Netherlands during the 19th and early 20th century.



Birth certificate of Desiré de Kerf, Hulst,
28 December 1878 (Zeeuws Archief).

The Netherlands is one of the few countries in the world with a continuous population register starting as early as the mid-19th century. These sources deliver data about the occupational careers, the family structure and the migration patterns of the sample person and his or her relatives.

In the early registers each household was entered on a double page, with the head of the household first; he was followed by his wife, children, other relatives, and other members of the household. Date and place of birth, relation to the head of the household, sex, marital status, occupation, and religion were recorded for each individual. All changes occurring in the household were recorded in the register.

Population registers remained in use until 1910 or 1920, after which a new form of continuous registration was introduced, consisting of single sheets, so-called family cards. From then on the registration unit was no longer the household, but the family.

In the late 1930s, the population register was replaced by the personal card; from that time on the individual person became the registration unit in all municipalities. Since then the population register in each municipality has consisted of a collection of personal cards, containing nearly the same information as the population register. All persons who were alive on 1 January 1940 or were born after that year received a personal card. At the time of death, this card was removed from the files and sent to the Central Bureau of Statistics ([CBS or Dutch Statistics](#)), where the data on the card were used for statistical purposes; and then it was sent to the Central Genealogical Bureau ([CBG](#)), nowadays the Dutch Family center. Copies of the cards could be used for the HSN database. They contain the following information: name, municipality and date of birth of the person concerned, as well as those of his or her parents, marriage partner(s) and children. The nationality is given as 'Dutch' or 'Foreign'. Successive occupations, addresses and changes therein are also indicated. From 1 October 1994 onwards this system has been replaced by a centralized electronic system (Basic Registration Persons).

After a person had been recorded as deceased a list with personal information is sent to the CBG (or Dutch Family Center). This archive is used by the HSN to get data for sampled persons who died after the 1st of October 1994.

2.3 Content of the HSN Database

Figure 1 gives an overview of the data gathered for each RP since the start of the HSN in 1991. In the first ten years the HSN concentrated on the data entry of all birth certificates and the death certificates of children who died before the age of ten. After the year 2000 more and more marriage certificates were entered and the HSN also started entering data from the population registers. During 2012-2015 the HSN completed the sample of the birth certificates of the period 1903-1922 (except about 200 from the province of South-Holland). The whole sample contains 85,383 births at the end of 2019.

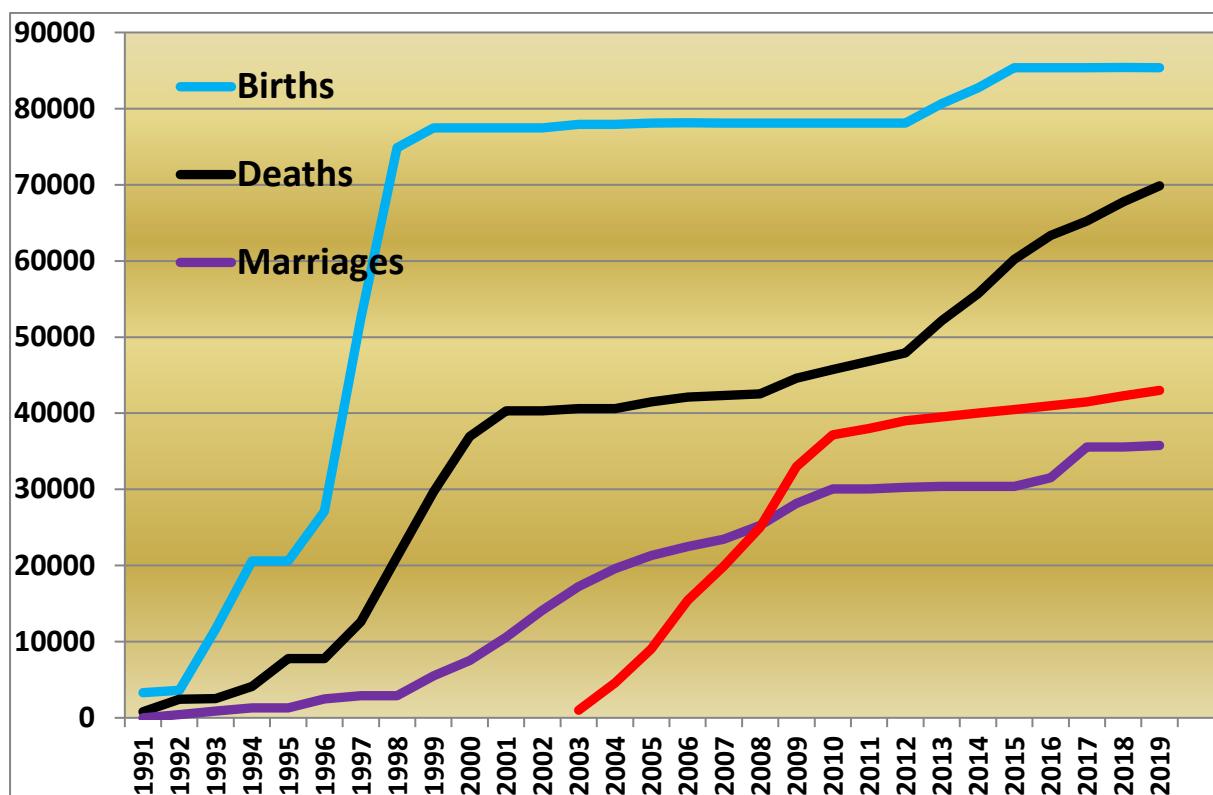


Figure 1 Development of the HSN-database, 1991-2019

The maximum number of all sources to be entered is defined by the number of births. From figure 1 it is clear that complete life courses are nearly half way and the combination of death certificates and personal cards stands at almost 80 percent of the number of births. During the year about 2,500 death certificates and personal cards were added to the database and data of 500 life courses were completed. During 2016 we restarted working on the marriage certificates, since then about 5,000 certificates were entered. In total, we expect to enter about 45,000 to 50,000 marriage certificates.

The fact that the HSN is not yet complete poses a selection problem for each researcher. If and how the data are used depends on the research question and the selection the researcher will make from the dataset, see the following tables 1 and 2 for more detailed information.

Table 1 presents the databases for three periods. We see that for the period 1863-1922 the percentage of found death records is 87 to 88%, For the period 1812-1862 the percentage is about 71%. The reason for this lower percentage is mainly because part of the civil certificates of death have not yet been indexed, so we do not know the date and place of death (especially for the provinces of North- and South-Holland). In the early years of the HSN the focus was on the data entry of death certificates of infants and children. This means that these certificates of death are still overrepresented in the HSN database, although for the two last periods the percentages in the table exaggerate the situation since we only enter death certificates for the period before 1940 focusing on ‘young deaths’.

Table 1 Number of birth and death certificates and personal cards in HSN dataset by period of birth, 31st of December 2019

Period	HSN Basic Sample (Number Birth Certificates)	Death Certificates and Personal Cards (PK) and Personal Lists (PL)				
		Death Certificates		PK's & PL 's	Death Certificates and PK's & PL's	
		N	% < 16 year	N	N	% Basic Sample**
<hr/>						
1812-1862*	36,280	25,136	42.5	865	26,001	70.9
1863-1882*	16,502	9,541	57.5	5,517	15,058	87.9
1883-1922*	32,601	7,899	78.8	20,903	28,802	87.5
<hr/>						
Total 31-12- 2019	85,383	42,576	52.6	27,285	69,861	80.9
Total 31-12- 2018	85,383	40,525	54.4	27,243	67,768	79.4

* Sampling frequency 0.75% for the birth period 1812-1872 and 0.5% for the birth period 1873-1922.

** The percentages of deaths exclude double counting (of certificates and personal cards).

Table 2 presents the number of life courses that we put into production since 2002 (mainly by way of the NWO investment program *Life Courses in Context*), all in all 44,252 cases. We prioritized parts of the sample using schemes based on distinctions in the birth period: 1863-1882 and 1883-1922 and region: the provinces of Utrecht, Zeeland, Friesland and the city of Rotterdam acted as spearheads. For these areas sampled persons were not prioritized but all of them were completed, the life courses for the period 1850-1862 were also included and the sample size for the period 1903-1922 was already brought to the necessary 0.5%.

Table 2 Number of Life Courses by region, date of birth and priority of data entry, HSN Release 2010.01

Region	Priority	Period of Birth	Total	In release		Complete Life Course	
				N	%	N	%
Spearhead Regions	X	1850-1882	6,208	5,827	93.9	4,179	67.3
Rest of the Netherlands	X	1863-1882	6,795	5,608	82.5	4,009	59.0
Rest of the Netherlands		1863-1882	5,931	2,159	36.4	1,785	30.1
Spearhead Regions	X	1883-1922	6,528	6,309	96.6	4,805	73.6
Rest of the Netherlands	X	1883-1922	14,150	13,185	93.2	10,113	71.5
Rest of the Netherlands		1883-1922	4,640	4,085	88.0	3,081	66.4
Total			44,252	37,173	84.0	27,972	63.2

* Spearhead regions are the provinces of Friesland, Utrecht and Zeeland and the city of Rotterdam. For these regions the life courses from the period of birth 1850-1862 and the full sample from 1903-1922 are included (other regions only 0.25% for 1903-1922).

The actual data release comprises a number of 37,173 life courses. Table 2 also presents a bifurcation of the life courses by region and period. Almost 2/3 of the included cases have a complete life course which means that we could follow them from the cradle to the grave or till the year 1940 when the personal card became the only form of population registration. We are still working on the incomplete cases. However, due to emigration, loss of registers (damage by water or fire), loosing track of persons, quite a lot of these cases will never have a complete recording of their life course.

Most of the 7,000 persons who are not included in the release, originate from the birth period 1863-1882. From this total 2,500 persons have been collected and entered into the database, 500 of whom in the report year. So far, a number of 1,000 persons could not be tracked in the registers (mostly because of the incompleteness of the registers). The resulting number of 3,000 are in different stages in the process of data collection and data entry. Besides this we have already started working on the extension of the life course dataset, especially for Amsterdam, The Hague and the provinces of South-Holland and Noord-Brabant for persons from the birth period 1850-1862 and 1903-1922 (not included in table 2).

Since October 2010 the HSN has worked on the implementation of the *Intermediate Data Structure* (IDS). The work started within the context of the Alfab project for just the population registers. During this project it was decided that the work would include all types of HSN data. This implied that work on the IDS as a whole was brought under the umbrella of the HSN main activities. The IDS is built in several parts: an IDS for the population registers till 1940, an IDS for the civil certificates and an IDS for the personal cards (population register after 1940). In a second stage the three parts are integrated into one IDS-system. At the end of 2019 all software had been developed but parts of it still needed to be tested thoroughly, especially the data from the population registers till 1940.

2.4 Promotional activities, lectures and publications

In addition to the work directly connected to the database, activities were developed to raise our profile at home and abroad. One of the tools to achieve this is the [HSN website](#). In 2019 this website was visited 1,387 times, and the number of page views was 7,940.

At the end of 2012 the portal of the [European Historical Population Samples Network](#) (EHPS-Net) was launched. Part of this portal are, among others, a collaboratory in which about eighty researchers participate and an e-journal, *Historical Life Course Studies*. In 2019 the EHPS-Net portal generated 3,665 visitors and 17,064 page views.

In the spring an old HSN tradition of organizing regional conferences was revived. Together with the Social Historical Centre for Limburg (SHCL) and the Faculty of Arts & Social Sciences (FASoS) of Maastricht University we organized a conference ‘Living and Surviving in Limburg’ (14 March 2019). We hosted five presentations among which a presentation of Björn Quanjer and Kristina Thompson about the relation between heights and the biological standard of living in 19th century Limburg’ and one of Hans Mol about the perspectives for a Maastricht time machine.



Presentation Björn Quanjer and Kristina Thompson, HSN conference Maastricht (Picture: Jan Kok)

In 2019 nineteen HSN related articles and books were published (see appendix A for an overview), together with three working papers (Appendix C), this amounts to 22 publications. Highlights were the five dissertations of Ashkan Ashkpour, Evelien Walhout, Ingrid van Dijk, Peter Ekamper and Rick Mourits.

During the year 63 conference contributions, lectures and other public activities were counted, both presented in the Netherlands and abroad. This number of 63 contribution was an all-time

record, overreaching the one of 2010 (see appendix B for an overview). With eight presentations/papers, the HSN had a strong presence at the *3rd European Society of Historical Demography Conference*, Pécs, Hungary, 26-29 June 2019. Six presentations were given at the *44th Annual Meeting of the Social Science History Association*, Chicago, IL, USA, 21-24 November 2019. With three to four presentations the HSN was presented at the seminar *Life at the Extremes 2.0: A new research agenda for studying historical life courses in the Netherlands and Taiwan*, Taipei, Taiwan, 28-31 October 2019, the final workshop of the LONGPOP network, Edinburgh, Scotland, UK, 16-17 September 2019 and the symposium *The Impact of the Family. Closing conference NWO-research project ‘Genes, Germs & Resources’*, Radboud University Nijmegen, 14 June 2019.

In total eight data sets for research were released. Three by the LINKS project: a release with marriage links for the website of WieWasWie and two versions of the integrated dataset of Limburg. The HSN released the final dataset of the GIANTS project and three other ones with data from civil certificates.

In the publications and presentations 53 different researchers were involved (the same number as in 2018).

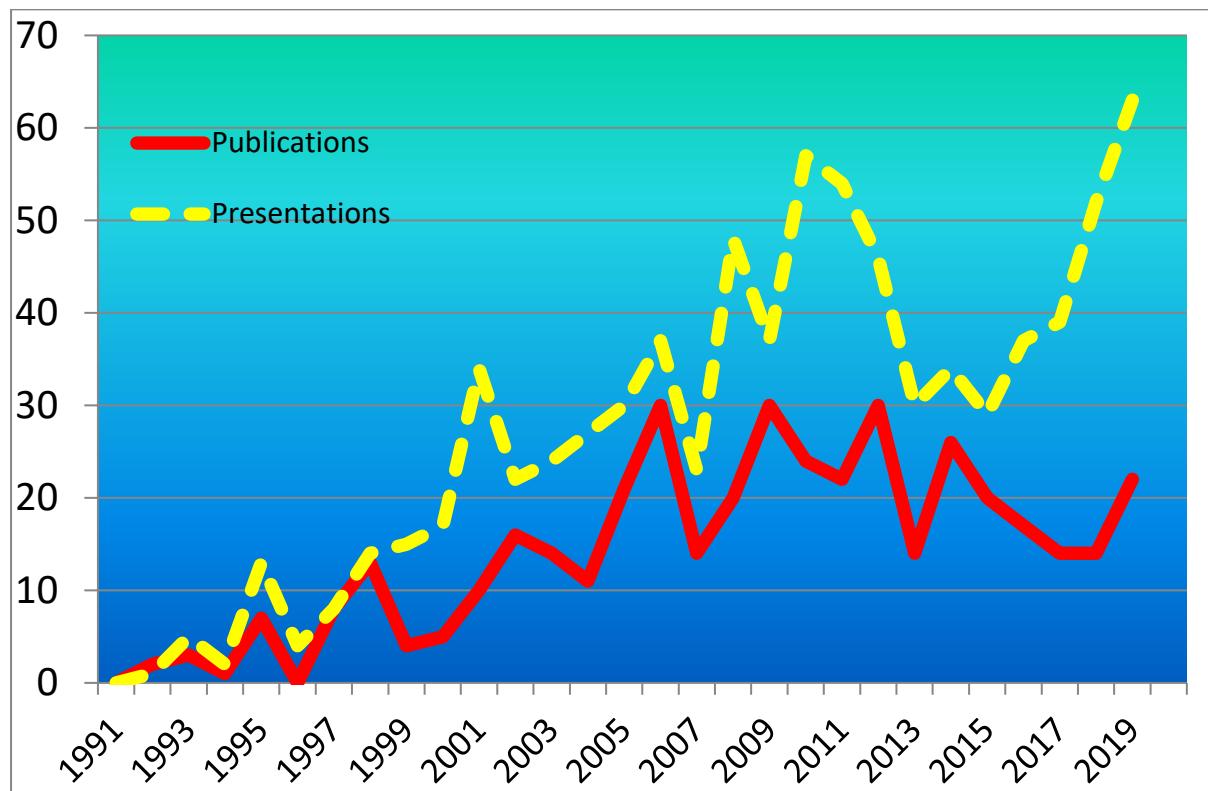


Figure 2. Development of the number of publications and presentations, 1991-2019

The HSN-database is not only an important source for research and a source for control groups, the HSN also serves as the basis for collecting new data. In practice this is realized by:

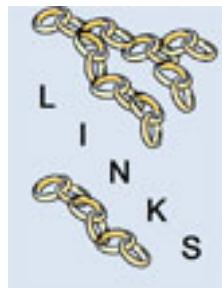
- a) designing and maintaining a data structure for use by individual researchers;
- b) taking the database as a starting point for further research, both by increasing the number of individuals included (oversampling) and by adding supplementary variables for a specific group of research subjects.

Scholars thus kill two birds with one stone. They can use both the data already recorded, and the software and expertise developed by the HSN. This expertise is an important byproduct of the data entering of the past ten years. For those researchers wanting to use its software and already recorded data, the HSN sets the precondition that new data must be added to the data set, so that these data will eventually become available to other researchers too.

3 HSN-Projects

In this chapter all current projects and the activities during 2019 are presented. For a list of all HSN-projects we refer to Appendix E and for a complete overview of all activities to the HSN website (<https://iisg.amsterdam/en/hsn>).

3.1 LINKS and LINKS valorization



LINKS entails the development of software for a **LINKing System** for historical family reconstruction and was financed by the CATCH program of the Netherlands Organization for Scientific Research (NWO). It aims to link all Dutch civil certificates into families and pedigrees from the 19th and early 20th century. During the year we worked a lot on debugging the system, several releases were made and we worked on the so-called valorization project publishing the results of the matching at the website of *WieWasWie*.

For more than fifteen years volunteers have been indexing civil records at the Dutch provincial archives, insofar these records are accessible to the general public. Since 2012 the Centre for Family History (CBG) has taken over the organization collecting all the indexes from the provincial archives in one big data base (called WieWasWie previously GENLIAS) and it maintains the website that makes the data accessible to the general public (<https://www.wiewaswie.nl/en/>). Nowadays the index contains names from about 10,5 million birth certificates of the period 1812-1918, names from about 4,5 million marriage certificates of the period 1812-1943 and names from about 12 million death certificates of the period 1812-1968. These indexed names are a multiple of the number of certificates, because the certificates are indexed for more than just one name; for marriage certificates e.g. not only the names of the bride and groom are indexed, but also the names of both parents.

Initially, LINKS was a cooperation of LIACS, NIDI, the Meertens Institute, the CBG and the organizations behind GENLIAS/WieWasWie (mainly Dutch regional archives) granted by the CATCH-program (Continuous Access To Cultural Heritage) of the Netherlands Organization for Scientific Research. The project started in June 2009 and was finalized at the end of 2014.

At the end of 2017 by way of the CATCH project a grant was received to valorize the results from the matching system (LINKS Valorisation) by presenting the links on the website of WieWasWie.

LINKS has generated a sophisticated, fast and general family reconstitution programme on the basis of the combination of birth, death and marriage certificates. As far as possible other sources such as church registers (baptism, funeral and marriage) are included as well. The first version of the programme was delivered at the end of 2014. During 2019 we worked on improving the system, especially software to fasten the handling, reading and matching of the data.

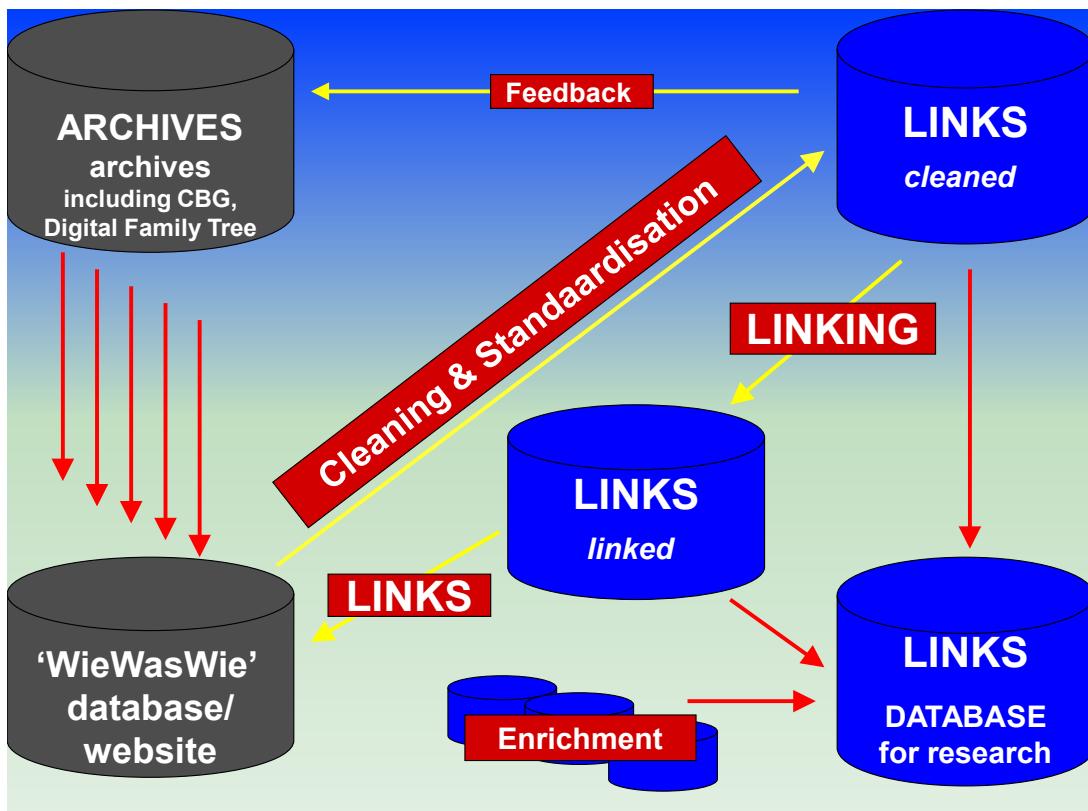


Figure 3 Dataflow LINKS project

Scientific research based on LINKS datasets is flourishing. Research already started with a dataset linked by trainee Maarten Oosten who built a first version of a program linking the parents of brides and grooms found in marriage acts to their own marriage acts. The work was done for five provinces where occupational titles were included in the index (Groningen, Overijssel, Gelderland, Zeeland and Limburg). Other datasets for research goals were created by Kees Mandemakers and Fons Laan (linking birth, death and marriage certificates for the provinces of Groningen and Zeeland).

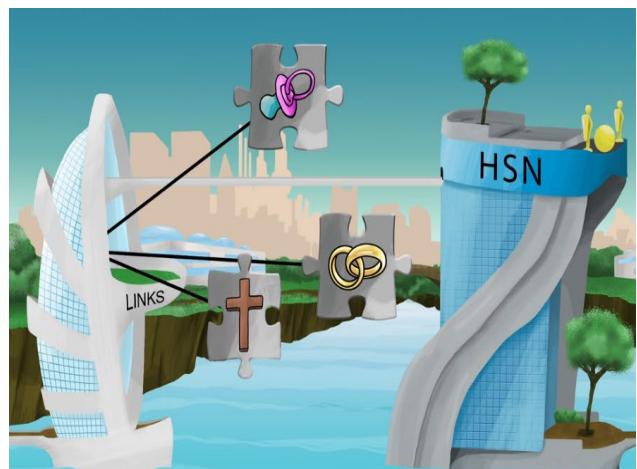
During 2019 several studies were published which were fully or partly based on LINKS data among which the dissertations of Ingrid van Dijk and Rick Mourits. These dissertations were written within the context of the project *Genes, Germs & Resources* (P.I. Angélique Janssens and Eline Slagboom), which closing conference delivered Severta; presentations with LINKS based research. Besides these dissertations LINKS data formed the basis for an article in *Nature Communications* (Niels van den Berg et al) in which longevity defined as the top 10% of the survivors was related with genetic factors. Other conferences where LINKS data were

presented were the 3rd European Society of Historical Demography Conference, Pécs, Hungary and the 44th Annual Meeting of the Social Science History Association in Chicago. Kees Mandemakers gave an invited lecture about the way the LINKS program is organized at the Center for Economic History, Northwestern University Evanston, IL, USA, 17-19 May 2019. In February he presented LINKS to the main participants of the WieWasWie program at the Dutch Family Center. In this meeting also a fruitful discussion took place with the data archivists how to create better source data for LINKS (and WieWasWie) by using the error messages from the LINKS data cleaning program.



Participants of the closing conference *Genes, Germs & Resources*, Nijmegen, 14 June 2019

Another off spring of the LINKS programme is software that combines the HSN dataset with the results of the LINKS record linkage. The HSN database is largely based on municipal population registers. A weakness of this source is that it does not provide information on the wider kin network of the sampled individuals and sometimes gives conflicting information or – especially in the early registers – simple does not contain the expected information. By combining the information from the HSN with LINKS, we will offer a way to improve the quality and completeness of the HSN database. For an introduction to this software, see the [video](#) at the CLARIAH website (the bottom on the right activates English subtitles).



Still from the HSN CLARIAH Video

In September 2018 the first release of the LINKS valorization project was forwarded to the Dutch Family Center which is the organization behind the WieWasWie data collection. In December 2019 an updated revised version saw the light which contained about 5,4 million links between the parents of a bride or a groom on a marriage certificates and their own marriage certificate. See figure 4 for the way these links are presented at the website of WieWasWie. The orange blocks present the links with other marriage certificates; not only the pedigrees but also the reverse, linking parents with their children. The first block refers to documentation by which the linkage process is explained.

In cooperation with the department of economics of Edinburgh University the HSN is working on several releases from the LINKS database to be published in 2020. One of them is a new release with standardization and classified occupational titles. Thanks to a grant of Edinburgh University it was possible to offer Jan Hornix a contract to work on these titles. New in this release will be a systematic classification of so-called ‘double titles’ and ambiguous titles. Just before Jan Hornix had published an HSN working paper about ambiguity in occupational titles as a trainee from Radboud Universiteit Nijmegen, titled *Koffiebrander of alcoholstoker? Onderzoek naar een omgangsprocedure aangaande ambigue beroepstitels in de Historische Steekproef Nederland*.

The screenshot shows a婚姻记录 for Pieter van der Bijl. The page has a header with 'WieWasWie' logo, 'CBG sites', language options (NL, EN), and a login link. Below the header, there are navigation links for Zoeken, Bronnen, Nieuws, Hulp nodig?, and Abonnement. The main content area displays the following information:

Bruidegom	Pieter van der Bijl	Documenttype	BS-Huwelijk
Geborenpaarts	Puttershoek	Erfgoedinstelling	Regionaal Archief Dordrecht
Leeftijd	22	Collectiegebied	Zuid-Holland
Bruid	Maria Goud	Aktenummer	8
Geborenpaarts	Puttershoek	Registratiедatum	17-05-1900
Leeftijd	22	Akteplaats	Puttershoek
Vader van de bruidegom	Leendert van der Bijl	Aktesoort	Huwelijksakte
Moeder van de bruidegom	Grietje van Kleef		
Vader van de bruid	Cornelis Goud		
Moeder van de bruid	Niesa Broere		
Gebeurtenis	Huwelijk		
Datum	17-05-1900		
Gebeurtenisplaats	Puttershoek		

On the right side, there are several orange buttons with links to related records:

- Kopiëren URL
- Afdrukken
- Informatie over gelinkte akten
- 1865 Huw. ouders bruidegom
- 1875 Huw. ouders bruid
- 1924 Huwelijjk dochter
- 1926 Huwelijjk zoon
- 1927 Huwelijjk dochter
- 1929 Huwelijjk dochter

Figure 4 Still from the website ‘WieWasWie’

3.2 European Historical Population Sample Network (EHPS-Net)

The European Historical Population Samples Network (EHPS-Net) brings scholars together to create a common format for databases containing non-aggregated information on persons, families and households. This format or Intermediate Data Structure (IDS) forms an integrated and joint interface between many European databases. In June 2011 the *European Historical Population Sample Network* was launched in Strasbourg. Fourteen countries agreed to cooperate and fund the project. Kees Mandemakers was appointed as chair and Marja Koster

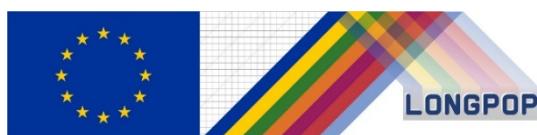
as programme coordinator. Key activities of the network are the website including the collaborative and the IDS repository and the e-journal.

During 2019 several activities like the development of extraction software were continued under the flag of the LONGPOP project (see section 3.3); several data extraction programs were published on the EHPS website. The e-journal *Historical Life Course Studies* published 4 articles.



Participants of the last general meeting of EHPS-Net (Picture: Marja Koster)

3.3 LONGPOP



This project has received funding from the European Union's Horizon 2020 research and innovation programme under the Marie Skłodowska-Curie grant agreement No 676060

On 4 February 2016 the kick-off meeting of LONGPOP took place at CCHS-CSIC, in Madrid, Spain. LONGPOP stands for the project *Methodologies and Data mining techniques for the analysis of Big Data based on Longitudinal Population and Epidemiological Registers*.

LONGPOP is a project within the framework of the Marie Skłodowska-Curie Innovative Training Network within the Horizon 2020 Programme of the European Commission. LONGPOP is a consortium of high-profile universities, research institutions and companies located in Spain, Netherlands, Sweden, Italy, United Kingdom, Belgium and Switzerland. Principal investigator is Diego Ramiro Fariñas based at the Agencia Estatal Consejo Superior de Investigaciones Científicas (CSIC, Madrid).

LONGPOP focuses on the rapidly changing European societies. These transformations cover changes in family structures, fertility, the decline of mortality and increase of longevity, and periods of economic and social instability. Owing to population ageing across Europe, countries are now experiencing the impact of these rapid changes on the sustainability of their welfare systems. At the same time, the use of the space and residential mobility has become a key topic, with migration within the EU countries and from outside Europe being at the center

of the political agenda. Over the past decade research teams across Europe have been involved in the development and construction of longitudinal population registers and large research databases, while opening up avenues for new linkages between different data sources (i.e. administrative and health data) making it possible to gain an understanding of these fast societal transformations.



Participants of the general LONGPOP meeting, Edinburgh, 17 October 2019 (Picture: Ángela Martínez-Carrasco Martínez)

However, in order to work with these types of datasets one requires advanced skills in both data management and statistical techniques. LONGPOP aims at creating a network in which the different research teams share experiences, construct joint research, create a training track for specialists in the field and increase the number of users of these large - possibly underused - databases, making more scientists and stakeholders aware of the richness in the databases. In total 15 so-called 'Early Stage Researchers' are positioned at the mentioned institutions, of whom two at the IISH. Both started on the first of September 2016: Francisco Anguita works on the documentation and extension of IDS related extraction software and Diogo Paiva works on methods of standardizing addresses. And both worked on the linking of HSN Research Persons with the American censuses.

During 2019 Francisco Anguita and Diogo Paiva presented their final results of the linkage of the HSN database with the USA censuses at the final workshop of the LONGPOP network, Edinburgh, Scotland, UK, 16-17 September 2019. Francisco Anguita also presented the latest situation regarding work package 3 ('Data mining, extraction techniques and software with common methodologies and structures') and Diogo Paiva evaluated his gained experience with the geocoding of addresses in historical population databases'. The same issues were addressed at the conference of European Historical Demography in Pécs. Also 'LONGPOPPERS' from other institutions presented research based on HSN data on these and other conferences: Dolores Sesma Carlos about ageing and migration, Matthias Rosenbaum-Feldbrügge about the impact of family structures on leaving home and Ton Hermsen, Paul Puschmann, Jan Kok and Dolores Sesma Carlos developed a *GIS Mobility Tool* for the HSN-IDS data extraction structure. On the 14th of January 2019 a LONGPOP workshop was organized at the Institute of Statistics and Cartography of Andalusia (Sevilla) about the *Intermediate Data Structure* which was introduced by Kees Mandemakers.



Diogo Paiva and Francisco Anguita presenting their research at the LONGPOP conference (Pictures: Kees Mandemakers)

3.4 GIANTS



The GIANTS project aims at recovering the heights of HSN Research persons and their relatives from the national militia registers of the Netherlands. During the second half of the nineteenth and the first half of the twentieth centuries, the Netherlands experienced a remarkable growth in stature, both in absolute and relative terms, which resulted in making the Dutch the tallest people on earth. Given the known impact of early life diseases and nutrition on stature, this

trend indicates a remarkable improvement in health. In the proposed project we aim to understand this development, by zooming in on processes at both micro and macro levels. We study the impact on young adult stature of heritability and early life conditions such as family size, parental socioeconomic status, the availability of nutrition and the local disease environment. Moreover, we look at the consequences of adult height and health on people's later lives. Were taller people more successful on the marriage market, in their careers, and in reproduction? Can we discern 'virtuous cycles' or selection processes which allowed each successive generation to be taller?

At the macro level the role of (changing national and regional socioeconomic) inequality in explaining the Dutch gains in heights and health will be studied. For this study the HSN database has been enriched with information on heights of a representative sample of about 12,000 individuals, namely of the HSN male persons themselves, as well as of their fathers, brothers and sons (total n = about 8,000 relatives). During 2018 it was decided to include the archives of the Ministry of Defense as well. This archive was relevant for the data of the sons of HSN Research Persons, many of whom were examined after 1945. In September 2019 permission was granted from the Ministry to collect these data for the birth years 1924 till 1965.

Principal Investigator of this project is Jan Kok from Radboud University Nijmegen. The project is financed by the Dutch National Scientific Organisation (the *free competition* program of the Humanities), other involved researchers are France Portrait (VU University Amsterdam), Vincent Tassenaar (University Groningen), Kristina Thompson and Björn Quanjer. The

researchers will gain a unique longitudinal and intergenerational perspective on the remarkable history of heights and health in The Netherlands.

The end of 2018 saw the release of most of the data. The release consisted of the HSN Research Persons (n=11,384), their fathers (n=2,154), their brothers (n=5,800) and part of their sons (n=1,136). The second part of the sons (those with data from the archive of the Ministry of Defense) was released in May 2019 (n=3,335).

During the year first results of the research were presented at *Social Science History Association Conference*, Chicago. First articles appeared in a special issue of *Economics and Human Biology*, devoted to its founding editor John Komlos.



Björn Quanjer, still from Télématin, 2 December 2019

3.5 CLARIAH Cure

CLARIAH Cure is part of the Common Lab Research Infrastructure for the Arts and Humanities (CLARIAH) which is a distributed research infrastructure for the humanities and social sciences.



The [CLARIAH](#) infrastructure aims to provide researchers access to large collections of digital data and to innovative and user-friendly applications for the processing of these data. The HSN was funded with 200,000 euro to improve and cure the existing database.

Specific goals of the HSN part of CLARIAH are a) to complete the death certificates and personal cards till a level of 80% of all research persons (additional n=13,000), b) to add 3,000 marriage certificates and c) to publish a new improved release of the life course database including 4,400 not earlier published life courses, mainly from the period 1863-1902. Important goals of the project are a) the updating of the province of Groningen which is seriously lagging behind in the availability of life courses and b) finishing life courses from part of the focus area: the cities of The Hague and Rotterdam. 'Focus area' means that the sample period 1850-1862 and 1903-1922 will be fully implemented as well.

During the project it was decided to postpone the projected release of a new life course dataset, due to the fact that the testing of the new release software had not been finished yet. So, in case of checking and testing life courses the focus remained on collecting population registers and data entry. June 2019 the project was closed. At the end of the project almost all files with life course data from population registers were checked on the completeness of the data collection. New was the incorporation of the three cities Amsterdam and The Hague to complete the sample of the birth period 1850-1862 and 1903-1922. During this project about 8,000 additions to the life courses were integrated. About 2,000 files were made ready for data entry and 1,326 complete files and 552 additions were entered.

Besides the population registers, work on the certificates continued as well. In total 5,378 marriage certificates, 4,893 personal cards and 9,050 death certificates were entered. This was in line with the projected numbers, except the marriage certificates which were estimated at about 3,000 at the beginning of the project. For an overview of all entered data in the HSN database, see section 2.3

3.6 Against the Stream (ANDB)



Part of the project ‘Against the stream. Social Mobility of Dutch Jews, 1880-1940’ is the analysis of the social mobility and integration of Dutch Jews in the late nineteenth and early twentieth century. The project is granted by the Royal Academy of Science and is a cooperation project with Huygens ING (<https://iisg.amsterdam/en/research/projects/tegen-de-stroom>) and supervised by Karin Hofmeester, Leo Lucassen and Lex Heerma van Voss.

The mobility part of the project is realized by Joris Kok. He will focus on individual life strategies employed by Dutch Jews and the relation between these strategies and outcomes in integration, social mobility, and (de)segregation. Among the strategies studied will be residential mobility, inter-/intragenerational occupational mobility, intermarriage, and other demographic patterns.

For this research a special sample (n=800) was drawn from the database of the Diamond Workers Union the ANDB (Algemene Nederlandse Diamantbewerkersbond, <https://iisg.amsterdam/nl/onderzoek/projecten/andb>). Microdata on diamond workers will allow for comparing trajectories of Jewish and non-Jewish diamond workers. Life courses from the Historical Sample of the Netherlands will be used to extend this analysis to Jewish workers outside the diamond industry and the general Dutch population.

The Amsterdam diamond industry employed a large share of Dutch Jews. Besides the mentioned ANDB sample and the basis dataset the HSN will also supply life course data from an earlier project ‘Dutch Jews or Jewish Dutch (JDJ, see <https://iisg.amsterdam/en/hsn/projects/jdj>). This dataset will be enlarged with the birth cohort 1873-1882 (n=200).

During the report year a start was made with collecting, coding and entering the data. The dataset is aimed to be finished in the year 2021.

4 Staff and Boards HSN

4.1 Staff HSN

The HSN is headed by Kees Mandemakers. Marja Koster functions as office manager of the HSN and coordinates the EHPS-Net program. Coordination between the steering committee and the research department of the IISH is managed by Karin Hofmeester.

Seven workplaces were available for the work in the archives and the data entry in the office (among two SWV workplaces). During the year three persons left the HSN, because both the GIANTS project and the LONGPOP project ended. Cor Munnik continued as a volunteer to work on the HSN software; Fons van Laan continued his work on LINKS by way of the LINKS valorization project. Starting in July, Jan Hornix entered the staff to work on occupational codings within the context of the LINKS project.

At the end of 2019 the total number of HSN-staff, directly and in cooperation with other organizations, was 16 persons (2018: 20 persons). During the year, a total of 20 persons worked for the HSN, among whom eight volunteers, who were engaged in collecting material in archives and in data entry.

Staff in 2019:

F. Anguita, MSc	1,0 fte	Jan.	- Sept.
J. Bartman	0,4 fte	Jan.	- Dec.
T. Breugelmans	0,4 fte	Jan.	- Febr.
W. Commandeur	0,3 fte	Jan.	- Dec.
Th. Dibbets	0,4 fte	Jan.	- Dec.
B. Gül	0,8 fte	Jan.	- Dec.
drs. J. van Hees	0,1 fte	Jan.	- Dec.
J. Hornix	0,4 fte	July	- Dec.
prof. dr. K. M. Hofmeester	0,1 fte	Jan.	- Dec.
drs. M. Koster	0,8 fte	Jan.	- Dec.
drs. F. Laan	0,2 fte	Jan.	- Dec.
prof. dr. C.A. Mandemakers	0,8 fte	Jan.	- Dec.
drs. B. Mouwes	0,3 fte	Jan.	- Dec.
drs. C. Munnik	0,2 fte	Jan	- Dec.
drs. F. Nijstad	0,1 fte	Jan.	- Oct.
D. Paiva, MSc	1,0 fte	Jan.	- Sept.
dr. B. Schijf	0,2 fte	Jan.	- Dec.
drs. K. Schimmel	0,4 fte	Jan.	- Dec.
R. Sijbrands	0,8 fte	Jan.	- Dec.
drs. R. Wasser	1,0 fte	Jan.	- Dec.

4.2 Board Foundation HSN

During the year two new members entered the board: Hilde Bras and Marianne Beekman. At the end of 2019 the board consisted of the following persons (the year of resignation is between brackets):

Prof. dr. F.W.A. (Frans) van Poppel, Netherlands Interdisciplinary Demographic Institute (NIDI), Utrecht University, chair (2022)
Dr. M. (Marian) Beekman, Leiden University Medical Center, member (2024).
Prof. C.J.H. (Catrien) Bijleveld, VU University Amsterdam, director Netherlands Institute for the Study of Crime and Law Enforcement (NSCR), member (2022)
Dr. H. (Hilde) Bras, University of Groningen, member (2024).
Prof. dr. R.I.A. (Ruben) van Gaalen, University of Amsterdam, Statistics Netherlands, member (2022).
Prof. dr. A. F. (Lex) Heerma van Voss, Utrecht University, director Huygens ING, member (2022)
Prof. dr. J. (Jan) Kok, Radboud University Nijmegen, IISG, member (2020)
Prof. dr. M.H.D. (Marco) van Leeuwen, Utrecht University, vice chair (2020)
Prof. dr. L.A.C.J. (Leo) Lucassen, head research department IISG (2022)
Dr. F.R.M. (France) Portrait, VU University Amsterdam, treasurer (2021)
Dr. P.G. (Vincent) Tassenaar, University of Groningen, member (2021)

Official secretary: prof. dr. C.A. (Kees) Mandemakers.

The board met on 17 July 2019. Main item on the agenda was the progress of the projects and ongoing applications.

4.3 Steering Committee HSN

The steering committee of the HSN is the decision-making body regarding the implementation of the work of the HSN. The steering committee was established to integrate the HSN into the structure of the IISH and to carry out the work related to the NWO investments.

The steering committee consists of the members of the HSN board (see foregoing section 4.2) and, on behalf of the IISH, prof. dr. L.A.C.J. (Leo) Lucassen as head of the research department of the IISH (of which the HSN is a part). The secretary of the steering committee is prof. dr. K.M. (Karin) Hofmeester. Advisor to the steering committee is prof. dr. C.A. (Kees) Mandemakers, head of the HSN. The steering committee had one meeting on 17 July 2019.

4.4 Scientific Council of Advice

Task of the Advice Council is to provide the board with solicited and unsolicited advice. In the course of the year there were several informal contacts.

The Scientific Advisory Board consists of:

Dr. P.K. Doorn, director DANS

Prof. dr. M.G.J. Duijvendak, University of Groningen

Prof. dr. H. van Dijk, em. university lecturer Erasmus University Rotterdam

Prof. dr. W.Th.M. Frijhoff, em. university lecturer VU University Amsterdam

Prof. dr. H. Knippenberg, em. university lecturer University of Amsterdam

Prof. dr. P.Th. van de Laar, Erasmus University Rotterdam

Prof. dr. C.H. Mulder, University of Groningen

Prof. dr. J. Plantenga, Utrecht University

Prof. dr. F.N. Stokman, em. university lecturer, University of Groningen

Prof. dr. W.C. Ultee, em. university lecturer Radboud University Nijmegen

Prof. dr. J.L. van Zanden, Utrecht University

4.5 International Advisory Board

The HSN is advised by the International Advisory Board convening on an annual basis. Chair of the Board is prof. Hélène Vézina. The board was extended with a new member: Prof. dr E. Roberts, University of Minnesota, Minneapolis. Term of each board member is seven years. The composition of the Board is as follows:

Prof. dr. C (Cameron) Campbell, University of Science and Technology, Hong Kong

Prof. dr. L. (Lisa) Dillon, Département de Démographie, Université de Montréal

Prof. dr. M. (Martin) Dribe, Centre for Economic Demography, Lund University

Dr. D. (Diego) Ramiro-Fariñas, Instituto de Economía, Geografía y Demografía, Madrid

Prof. dr E. Roberts, University of Minnesota, Minneapolis

Prof. dr. H. (Hélène) Vézina, l'Université du Québec à Chicoutimi (UQAC)

The Board met in Chicago on 21 November 2019 during the annual conference of the *Social Science History Association* (SSHA). The various projects of the HSN and the future of the HSN were discussed.

Appendix A

Publications

2019

- 412 Niels van den Berg, Mar Rodríguez-Girondo, Ingrid van Dijk, Rick Mourits, Angélique Janssens, Kees Mandemakers, Marian Beekman, Ken Smith & Eline Slagboom, ‘Longevity defined as top 10% survivors and beyond is transmitted as a quantitative genetic trait, *Nature Communications*, 10 (2019), article 35, 1-12, <https://doi.org/10.1038/s41467-018-07925-0>.
- 411 Paul Rotering & Hilde Bras, ‘The age difference between spouses and reproduction in 19th century Sweden’, *Demographic Research*, 41 (2019), article 37, 1059-1090, <https://doi.org/10.4054/DemRes.2019.41.37>.
- 410 Rick Mourits, Niels van den Berg, Mar Rodríguez-Girondo, Kees Mandemakers, Eline Slagboom, Marian Beekman & Angélique Janssens, ‘Intergenerational transmission of longevity is not affected by other familial factors: Evidence from 16,905 Dutch families from Zeeland, 1812-1962’, *BioRxiv*, 1-40, <https://doi.org/10.1101/781500>.
- 409 Hilde Bras & Reto Schumacher, ‘Changing gender relations, declining fertility? An analysis of childbearing trajectories in 19th-century Netherlands’, *Demographic Research*, 41 (2019), article 30, 873-912, <http://doi.org/10.4054/DemRes.2019.41.30>.
- 408 Rick Mourits, *Exceptional lives, extraordinary families. Familial clustering of longevity in the 19th and early-20th centuries*, Dissertation Radboud University Nijmegen (2019), 194 pp., <https://repository.ubn.ru.nl/bitstream/handle/2066/213756/213756.pdf?sequence=1>.
- 407 Björn Quanjer & Jan Kok, ‘Homemakers and heights. Intra-household resource allocation and male stature in the Netherlands, 1860-1930’, *Economics and Human Biology*, 34 (2019), 194-205, <http://doi.org/10.1016/j.ehb.2019.04.003>.
- 406 Kristina Thompson, Maarten Lindeboom & France Portrait, 2019. ‘Adult body height as a mediator between early-life conditions and socio-economic status: The case of the Dutch Potato Famine, 1846-1847’, in: *Economics and Human Biology*, 34 (2019), 103-114, <https://doi.org/10.1016/j.ehb.2019.04.006>.
- 405 Evelien Walhout, *An Infants’ Graveyard? Region, religion and infant mortality in North Brabant, 1840-1940*, Dissertation Tilburg University (2019), 226 pp., https://pure.uvt.nl/ws/portalfiles/portal/29027270/Walhout_An_Infants_25_01_2019.pdf.
- 404 Matthias Rosenbaum-Feldbrügge, ‘The impact of parental death on sons’ and daughters’ status attainment in young adulthood in the Netherlands, 1850-1952’, *Demography*, 56 (2019), 1827-1854, <http://doi.org/10.1007/s13524-019-00808-z>.
- 403 Evelien Walhout, 2019 ‘Fleskinderen. Voeding en zuigelingensterfte in Noord-Brabant tussen 1840 en 1940’, *Jeugdbeleid*, 13, (2019), 1-7, <https://doi.org/10.1007/S12451-019-00205-Y>.
- 402 Evelien Walhout, ‘Een kinderkerkhof? Regio, religie en babysterfte in laat negentiende-eeuws Noord-Brabant’, *In Brabant. Populair-wetenschappelijk tijdschrift over Brabantse geschiedenis en erfgoed*, 10 (2019), 2, 18-27.

- 401 Matthias Rosenbaum-Feldbrügge & Enrico Debiasi, ‘The impact of parental death on the timing of first marriage: Evolutionary versus social explanations (The Netherlands, 1850-1940)’, *Demographic Research*, 40 (2019), article 28, 799-834, <https://doi.org/10.4054/DemRes.2019.40.28>.
- 400 Vincent Tassenaar, ‘Development of regional variety of the biological standard of living in the Netherlands, 1812-1913’, *Economics and Human Biology*, 34 (2019), 151-161, <https://doi.org/10.1016/j.ehb.2019.02.004>.
- 399 Ingrid van Dijk, Angélique Janssens & Ken Smith, ‘The Long Harm of Childhood: Childhood Exposure to Mortality and Subsequent Risk of Adult Mortality in Utah and The Netherlands’, *European Journal of Population*, 35 (2019), 851-871, <https://doi.org/10.1007/s10680-018-9505-1>.
- 398 Ineke Maas & Marco H.D. van Leeuwen, ‘Partner choice in the Netherlands 1813-1922: The changing importance of ascribed and achieved status’, *The History of the Family*, 24 (2019), 1, 123-148, <https://doi.org/10.1080/1081602X.2018.1558412>.
- 397 Peter Ekamper, *Time and space in historical demography; some case studies using Dutch micro-data*, Dissertation University of Groningen (2019), 211 pp., <http://hdl.handle.net/11370/04fdf1a5-03de-488b-ac3a-3c06e6248d50>.
- 396 Michael Hermanussen, Aman B. Pulungan, Christiane Scheffler, Rebekka Mumm, Alan Rogol, Raluca Pop, James Swanson, Edmund Sanuga-Barke, Anna Reimann, Anna Siniarska-Wolanska, Martin Musalek, Berry Bogin, Jesper Boldsen, Petrus Tassenaar, Detlef Groth, Yuk-Chien Liu, Cristof Meigen, Björn Quanjer, Kristina Thompson, K., Bacak Köcer Özer, Ewa Bryl, Paula Mamroth, Thomas Hanc, Slawomir Koziel, Jani Söderhall, Aleksandra Gomula, Sudip Datta Banik, Mathieu Roelants, Gudrun Veldre, Leslie Sue Lieberman & Lynnert Leidy Sievert, ‘The role of belief and perceptions on body size: Proceedings of the 26th Aschauer Soiree, Held at Aschauhof, Altenhof, Germany, May 26th, 2018’, in: *Pediatric endocrinology reviews*, 16 (2019), 3, 383-400.
- 395 Ingrid van Dijk, *Death and the family. High mortality families and the life course, The Netherlands, 1812-1912*, Dissertation Radboud University Nijmegen (2019), 251 pp., <https://repository.ubn.ru.nl/bitstream/handle/2066/204718/204718.pdf?sequence=1>.
- 394 Ashkan Ashkpour, *Theory and Practice of Historical Census Data Harmonization. The Dutch Historical Census Use Case: A Flexible, Structured and Accountable Approach using Linked Data*, Dissertation Erasmus University Rotterdam (2019), 399 pp., <https://repub.eur.nl/pub/114388>.

For the publications in foregoing years see the HSN website: <https://iisg.amsterdam/en/hsn/products/publications>

Appendix B

Lectures, presentations, symposia and other promotional activities

2019

- 802 Jee-Yeon K. Lehmann, Ana Nuevo-Chiquero & Marian Vidal-Fernandez, ‘Is the Birth Order a Modern Phenomenon? Evidence from the Netherlands’, *Universitat Rovira i Virgili*, Tarragona, Spain, 9 December 2019.
- 801 Rick Mourits, Auke Rijpma & Ruben Schalk, ‘Reconstructing a country: Linking over 12 million lives in the Dutch Civil Registry’, *ESDG Seminar*, Nijmegen, 4 December 2019.
- 800 Björn Quanjer, Interview Télématin, 19 December 2019.
- 799 Matthias Rosenbaum-Feldbrügge & Paul Puschmann, ‘Measuring Migration in Historical Populations Based on Incomplete Marriage Data: Is the Place of Marriage a Good Indicator for the Place of Residence?’, *Historical Demography Day*, Nijmegen, 29 November 2019.
- 798 Marco van Leeuwen, Leo Lucassen, Jan Kok, Catrien Bijleveld, Monique Verschuren, Ruben van Gaalen & Kees Mandemakers, ‘The rise and fall of equal opportunities. A long term multigenerational approach, the Netherlands, 19th-21st century’, *Workshop 'Labour and social inequality*, International Institute of Social History, Amsterdam, 22 November 2019.
- 797/
- 792 44th Annual Meeting of the Social Science History Association, Chicago, IL, USA, 21-24 November 2019, with the following contributions:
- Ingrid van Dijk, ‘Kept in the Family: Remarriage, Siblings, and Consanguinity in the Netherlands 1812-1927’.
 - Ingrid van Dijk, ‘Bearing the Cost? Mother’s Survival in Later Life in The Netherlands and Sweden’.
 - Joe Raad, Albert Meroño-Peña, Rick Mourits, Auke Rijpma, Ruben Schalk, Bram van den Hout, Kees Mandemakers & Richard Zijdeman, ‘Linking Dutch Civil Certificates’.
 - Björn Quanjer & Jan Kok, ‘Drafting the Dutch. Selection biases in Dutch conscript records in the second half of the 19th century’.
 - Ashkan Ashkpour, Ramtin Soltani & Kees Mandemakers, ‘A Centralized Data Classification Platform: Exploration and Contribution of Knowledge Systems’.
 - Rick Mourits, Auke Rijpma, Ruben Schalk & Jan Luiten van Zanden, ‘Reconstructing a country: Linking over 12 million lives in the Dutch Civil Registry, 1812-1967’.
- 791/
- 790 Dutch Demography Day, Utrecht, 20 November 2019, with the following contributions:
- Matthias Rosenbaum-Feldbrügge, ‘Parental death and children’s home leaving behavior in the Netherlands, 1850-1940’.
 - Niels van den Berg, ‘Longevity relatives count score defines heritable longevity carriers and suggest case improvement in genetic studies’ (invited speaker).
- 789 Jee-Yeon K. Lehmann, Ana Nuevo-Chiquero & Marian Vidal-Fernandez, ‘Is the Birth Order a Modern Phenomenon? Evidence from the Netherlands’, *University of Lancaster*, Lancaster, UK, 18 November 2019.
- 788 Jee-Yeon K. Lehmann, Ana Nuevo-Chiquero & Marian Vidal-Fernandez, ‘Is the Birth Order a Modern Phenomenon? Evidence from the Netherlands’, *Universitat de Barcelona*, Barcelona, Spain, 5 November 2019.

- 787/
- 786 *Genes and Germs end symposium 2*, Radboud University Nijmegen, 4 November 2019, with the following contributions:
- Niels van den Berg, 'The heritability of longevity from a familial perspective' (invited lecture).
 - Auke Rijpma, 'Data integration in the CLARIAH project: The case of the Dutch Civil Registry'.
- 785/
- 783 NWO-Most joint seminar *Life at the Extremes 2.0: A new research agenda for studying historical life courses in the Netherlands and Taiwan*, Academia Sinica & Taiwan National University, Taipei, Taiwan, 28-31 October 2019, with the following contributions:
- Ingrid van Dijk, 'Reproductive Cost across Contexts' (invited speaker).
 - Hilde Bras, 'Changing gender relations, declining fertility? An analysis of childbearing trajectories in 19th-century Netherland'.
 - Rick Mourits, 'LINKS-Netherlands: Reconstructing the Dutch population between 1812 and 1967 using the Dutch civil registry'
- 782 Jee-Yeon K. Lehmann, Ana Nuevo-Chiquero & Marian Vidal-Fernandez, 'Is the Birth Order a Modern Phenomenon? Evidence from the Netherlands', *Universidad de Alicante*, Alicante, Spain, 23 October 2019.
- 781 Jee-Yeon K. Lehmann, Ana Nuevo-Chiquero & Marian Vidal-Fernandez, 'Is the Birth Order a Modern Phenomenon? Evidence from the Netherlands', *IAE-CSIC*, Barcelona, Spain, 10 October 2019.
- 780 Jee-Yeon K. Lehmann, Ana Nuevo-Chiquero & Marian Vidal-Fernandez, 'Is the Birth Order a Modern Phenomenon? Evidence from the Netherlands', *University of Copenhagen*, Copenhagen, Denmark, 25 September 2019.
- 779/
- 776 Final workshop of the LONGPOP network, Edinburgh, Scotland, UK, 16-17 September 2019, with the following contributions:
- Kees Mandemakers & Francisco Anguita, 'Work Packet 3: Data mining, extraction techniques and software with common methodologies and structures'.
 - Diogo Paiva, 'Challenges and insights on geocoding addresses in historical population databases'.
 - Dolores Sesma Carlos, 'Old-age mortality and migrant trajectories: Longitudinal life-course studies in the Netherlands, 19th -20th centuries'.
 - Diogo Paiva & Francisco Anguita, 'Filling the gap. Completing individual life courses by linking Dutch and American data 1850- 1940'.
- 775 Ingrid van Dijk, 'Bearing the Cost? Mother's Survival in Later Life in The Netherlands and Sweden', *IUSSP Seminar on Kinship and Reproduction in Past Societies*, Minneapolis, Minnesota, USA, 22-23 August 2019.
- 774 Björn Quanjer, 'Levensstandaard en huishoudsamenstelling in Nederland, 1860-1930', *Historicidagen*, Groningen, 22-24 August 2019.
- 773 Ineke Maas & Marco H.D. van Leeuwen, 'Migration and status attainment: A long-term perspective', *RC28 Summer meeting*, Princeton, NJ, USA, 15-17 August 2019.
- 772 Jan Kok, 'Anthropometrics: a new field for historical demography?', *Curs d'Estiu. Métodos de investigación en Demografía Histórica para el tratamiento de datos censales y parroquiales* (keynote), Centre for Demographic Studies, UAB Barcelona , 19 July, 2019.

- 771 Andrea Scharnhorst, Albert Meroño-Peñuela, Christophe Gueret, Ashkan Ashkpour, ‘Dutch Historical Censuses – Preserving Data for Research, the Wider Public and Future Generations’, session ‘Curating and Archiving Linked Data Datasets from the Humanities – From Data of the Present to Data of the Future’, *Digital Humanities Conference*, Utrecht, 9-12 July 2019.
- 770/
764 3rd European Society of Historical Demography Conference, Pécs, Hungary, 26-29 June 2019, with the following contributions:
- Francisco Anguita & Kees Mandemakers, ‘New Extraction Software for Historical Population Databases’, session ‘The Intermediate Data Structure: How far are we now?’.
 - Kees Mandemakers & Gerrit Bloothooft, ‘Linking Dutch marriages into pedigrees, 1795-1938, the case of Zeeland’, session ‘Record Linkage’.
 - Diogo Paiva & Kees Mandemakers, ‘Placing lives on tracks. Geocoding the Historical Sample of Netherlands’, session Spatial Perspectives on Historical Family Demography II.
 - Matthias Rosenbaum-Feldbrügge, ‘The impact of family structure on the risk of leaving home for marital and non-marital reasons in the Netherlands, 1850-1940, session ‘Vulnerability, survival strategies, and the life courses of parentally bereaved children’.
 - Dolores Sesma Carlos, ‘Coping with ageing: a longitudinal study of late-life return migrations, 1850-1890 Dutch cohorts’.
 - Ingrid van Dijk, ‘Trade-offs in Health and Survival: Two Approaches’, session ‘From the cradle to the grave’.
 - Rick Mourits, Theo Engelen & Kees Mandemakers, ‘Pinpointing the start of the mortality transition: Origins of decreasing early-life and later-life mortality in the Netherlands, 1812-1962’, session ‘Epidemiological and mortality transitions’.
- 763 Ineke Maas, ‘Migration and status attainment: a long-term perspective’, keynote lecture at the *International conference ‘Immigrants’ Integration: Educational Opportunities and Life Chances’*, Monte Verità, Switzerland, 23-28 June 2019.
- 762 Jee-Yeon K. Lehmann, Ana Nuevo-Chiquero & Marian Vidal-Fernandez, ‘Is the Birth Order a Modern Phenomenon? Evidence from the Netherlands’, 2019 European Society of Population Economics Conference, Bath, UK, 20-22 June 2019.
- 761/
758 *The Impact of the Family. Closing conference NWO-research project ‘Genes, Germs & Resources’*, Radboud University Nijmegen, 14 June 2019, with the following contributions:
- Ingrid van Dijk, ‘Death and the Family: High Mortality Families and the Life Course, the Netherlands, 1812-1912’.
 - Niels van den Berg, ‘Nature conference on aging health and rejuvenation: Longevity defined as top 10% survivors and beyond is transmitted as a quantitative genetic trait’ (poster presentation).
 - Niels van den Berg, ‘Family matters: A genealogical inquiry into the familial component of longevity’.
 - Rick Mourits, ‘The impact of the family: Individual vs familial determinants of longevity’.
- 757/
756 Annual Posthumus Conference 2019 ‘Institutions and innovations’, Ghent, Belgium, 28-29 May 2019, with the following contributions:
- Matthias Rosenbaum-Feldbrügge, ‘The impact of family structure on the risk of leaving home for marital and non-marital reasons in the Netherlands, 1850-1940’.
 - Dolores Sesma Carlos, ‘Old age mortality in the Netherlands during industrialization and epidemiological transition: a longitudinal study (1850-1940)’.

- 755 Kees Mandemakers, 'LINKS, the HSN Linking System for Historical Family Reconstruction', *Putting the Pieces Together: Promise, Programs and Pitfalls in Linking Historical and Contemporary Records*, Center for Economic History, Northwestern University Evanston, IL, USA, 17-19 May 2019.
- 754 Ingrid van Dijk, 'Mortality Clustering: Causes and Consequences', *Seminar at the Department of Economic History*, Lund University, Sweden, 14 May 2019.
- 753 Antonie Knigge, 'Over dubbeltjes en kwartjes: afkomst en toekomst', *Studium Generale*, Utrecht University, 10 April 2019.
- 752/
749 *HSN-studiedag Leven en overleven in Limburg*, Sociaal Historisch Centrum Limburg, Maastricht, 14 March 2019 (organisers Angélique Janssens, Kees Mandemakers & Willibrord Rutten), with the following contributions:
- Kees Mandemakers, 'De Historische Steekproef Nederland en de provincie Limburg'.
 - Björn Quanjer & Kristina Thompson, 'A short introduction: heights and the biological standard of living in 19th century Limburg'.
 - Kees Mandemakers, 'Aard en rol van de getuigen in de burgerlijke stand in Limburg'.
- 748 Kees Mandemakers, 'Crowd Sourcing and the LINKS project', *CREATE Salon, Elab Mediastudies*, University of Amsterdam, 14 February 2019.
- 747 Ingrid van Dijk, 'The long harm of childhood. Childhood exposure to mortality and subsequent risk of adult mortality in Utah and the Netherlands', *IUSSP Seminar on Lifespan Extension with Varying Cause-of-Death Trajectories in European Societies*, Marburg, Germany, 11-13 February 2019.
- 746 Kees Mandemakers, 'Het LINKS project', *WieWasWie deelnemers bijeenkomst*, CBG/Centrum voor familiegeschiedenis, Den Haag, 12 February 2019.
- 745 Niels van den Berg, 'Bij de meeste mensen is levensverwachting helemaal niet zo erfelijk', *New Scientist*, 28 January 2019, <https://newscientist.nl/nieuws/bij-de-meeste-mensen-is-levensverwachting-helemaal-niet-zo-erfelijk/> (press publication).
- 744 Kees Mandemakers, 'Main outline of the Intermediate Data Structure (IDS)', *IDS-Meeting*, Institute of Statistics and Cartography of Andalusia, Sevilla, 14 January 2019.
- 743 Niels van den Berg, 'Your uncle's genes may decide your longevity', *Business Standard*, 14 January 2019, https://www.businessstandard.com/article/news-ians/your-uncle-s-genes-may-decide-your-longevity-study-11901140117_1.html (press publication).
- 742 Niels van den Berg, 'Lang leven is erfelijk, maar genen zijn nog spoorloos', *De Standaard*, 8 January 2019, https://www.standaard.be/cnt/dmf20190107_04085922 (press publication).
- 741 Niels van den Berg, 'Over het geheim van oud worden', *Omroep Zeeland*, 14 January 20019, <https://soundcloud.com/omroepzeeland/zeeuwse-kamer-over-het-geheim-van-oud-worden-1412019?in=omroepzeeland/sets/zeeuwse-kamer-2019> (press publication).
- 740 Niels van den Berg, 'Zeeland levert het bewijs: lang leven is erfelijk', AD, 8 January 2019, <https://www.ad.nl/zeeland/zeeland-levert-het-bewijs-lang-leven-is-erfelijk~a6f8b097/> (press publication).

For the presentations in foregoing years see the HSN website: <https://iisg.amsterdam/en/hsn/products/presentations>

Appendix C

Reports and Working papers

This list includes internal (HSN published) and external HSN related papers.

2019

48. Ton HermSEN, Paul Puschmann, Jan Kok and Dolores Sesma Carlos, *GIS Mobility Tool* for the HSN-IDS data extraction structure.
47. Jan Hornix, *Koffiebrander of alcoholstoker? Onderzoek naar een omgangsprocedure aangaande ambigue beroepstitels in de Historische Steekproef Nederland*, Radboud Universiteit Nijmegen.
46. Tom Willemsen, *Expansion and Improvement of the HSN: addresses. Translating systems of location - from addressed based on wijk-code to a street-based system*, Radboud Universiteit Nijmegen.

For the papers in foregoing years see the HSN website: <https://iisg.amsterdam/en/hsn/products/papers>

Appendix D Releases

Releases of the HSN and LINKS are only available on request and after signing a license agreement.
For more information, see our website: <https://iisg.amsterdam/en/hsn/privacy-statement>

2019 – HSN

- 72 Kees Mandemakers, *HSN dataset Heights and Life Courses, Release 2019_05.*
- 71 *Historical Sample of the Netherlands (HSN). Dataset Civil Certificates, release 2019.04_marriage_witnesses* (n=29.480), only table ‘Witnesses’.
- 70 Kees Mandemakers, *HSN dataset Heights and Life Courses, Release 2019_03.*
- 69 *Historical Sample of the Netherlands (HSN). Data Set Survival dates Release 2019.02* (n=85,383).
- 68 *Historical Sample of the Netherlands. HSN web release 2019.01* (n=76,741).

For a complete overview of releases see the HSN website:
<https://iisg.amsterdam/en/hsn/products/releases>

2019 – LINKS

- 36 Kees Mandemakers and Fons Laan, *LINKS dataset Linked Marriage Certificates Netherlands, WieWasWie website, Release_2019_03* (n=5.444.707).
- 35 Kees Mandemakers and Fons Laan, *LINKS dataset WieWasWie Limburg, Linked Civil Certificates (Births, Deaths and Marriages)*, Release 2019.02.
- 34 Kees Mandemakers and Fons Laan, *LINKS dataset, WieWasWie Limburg, Death Certificates*, Release 2019.01.

For the LINKS releases in foregoing years see the HSN website:
<https://iisg.amsterdam/en/hsn/projects/links-links-releases>

Appendix E

Project history

During the foregoing twenty five years several projects were undertaken by the HSN. The following lists these projects; most of them delivered specific datasets.

For more information on these projects we refer to our website.

Acronym	Project title
MUT/ASG	Migration in the province of Utrecht
OVF	Reduced fecundity because of maternal high-risk conceptions
RDN	Regional differences in demographic behaviour, the Netherlands, 1900-1960
AKON	General index of death certificates in the Netherlands
TTA	Textile industry workers in Twente
MFZ	Geographic and Social Mobility of Female Domestic Servants in Zeeland, 1850-1950
DUM	Germans in Utrecht: a temporary minority in the 19th century
RCM	Religious differences in infant and childhood mortality, The Hague, 1860-1920
DVI	Settlement determinants for immigrants and their descendants in the Netherlands, 1853-1960
GBW	Family formation and living strategies in the western parts of the Netherlands 1830-1940
ESM	Early-life conditions, social mobility and longevity
RAM	Living Strategies of Born Rotterdammers
VBA	On the move in Amsterdam. Mobility of the Amsterdam poor 1900-1940
LCC	Life Courses in Context (NWO Large investment)
MNI	European migration to the Dutch East Indies
HVL	Marriage certificates Pupils of Dutch Higher Secondary Education
LINKS	LINKing System for historical family reconstruction
LMP	Long Term Mortality Effects of Potato Crisis
JDJ	Jewish Dutch or Dutch Jews?
Alfalab	KNAW software integration project (HSN focusing on IDS structure)
LHL	Linking Historical Lives (Linked Lives)
MOSAIC	MOSAIC - the Netherlands
EHPS-Net	European Historical Population Samples Network
CEDAR	Census Data Open Linked
HLZ	HSN LINKS Zeeland (CLARIAH seed)
GGR	Genes, Germs and Resources
LINKS val	LINKing System for historical family reconstruction valorization
IDS meso	IDS meso: Intermediate Data Structure for organizations
LONGPOP	Methodologies and Data Mining Big Data based on Longitudinal Population and Epidemiological Registers
GNT	GIANTS of the modern world. A new history of heights and health in The Netherlands, 1811-1940
CCH	CLARIAH Curing the Historical Sample of the Netherlands
LINKS occ	LINKing System for historical family reconstruction standardization occupational titles
ANDB	Against the Stream, Life Courses of members of the diamond workers union (ANDB)