

# Historical demography

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Historical demography is a branch of population studies, which can be defined as ‘the application of demographic techniques to historical data’ (Zhao 2008) but there is no clear definition of the age at which such data becomes ‘historical’. Typically, the record sets are more than a century old, but there is no universally agreed date on which current demography takes over from historical demography. Another factor that distinguishes historical demography from other branches of population studies is the array of techniques, such as *family reconstitution*. Family reconstitution is a technique whereby historical records, typically parish registers, are used to reconstruct the lives of entire nuclear families, in order to investigate demographic concepts such as fertility, nuptiality and mortality (Smith 2003).

This brief chapter will give a broad overview of historical demography, its main data sources, the development of the discipline over time and its potential future. The focus will be mainly on the Asia-Pacific region and the geographic terms used will be that of the time when the data were collected. For example, the term ‘India’ will refer to the area that makes up the modern countries of India, Bangladesh and Pakistan. Within Asia, the main focus will be on China, Japan and India, as these were large, centrally-administered societies which required administrative records for control and taxation of the population and these types of records are the mainstay of historical demography in non-Christian countries (Caldwell, J. 2001). Most of Southeast Asia lacks records suitable for demographic research and researchers must often rely on accounts of travelers and records of colonial officials (Campbell and Kurosu 2018). No discussion of historical demography would be useful without some reference to the origins of the discipline in Europe, and Africa provides some useful examples of the impact of historical demography on modern public health policy.

The ultimate purpose of population studies is to better inform decision makers in relation to matters of population dynamics, and therefore theoretically make the world a better place in the future. So what is the point of historical demography? We can’t change the past so why should we bother with studying populations centuries ago, and how will that help populations in the future?

The founder of historical demography, Louis Henry, remarked that we cannot estimate the future of populations if we don’t understand the past (Rosental 2003: 98). Historical demography’s original focus on socioeconomic

conditions and their effect on fertility and migration have had widespread impact on population policy throughout the developing world (Zhao 2008). The work of historical demographers demonstrated that the demographic transition theory did not apply uniformly throughout the world, nor even throughout individual countries, and it was not always linked to economic development and industrialisation, as had been previously thought, based on Western European experiences (Fetter 1990:5).

Historical studies of cause-specific mortality, in conjunction with knowledge of relevant public health initiatives and advances in medicine have enabled researchers to test theories about their impact and further drive a reduction in the mortality rate (Campbell and Kurosu 2018). For example, the efficacy of public health initiatives such as sanitation improvements in the 1920s in Beijing have been demonstrated by comparing age-specific death rates in the 17th and 18th centuries with those in the early 20th century (Campbell 1997). Similarly, research using historical Namibian parish records demonstrated the massive impact of AIDS on the population, by contrasting age-specific mortality rates before and after the arrival of the epidemic (Notkola, Timaeus and Siiskonen 2004), thus contributing to the public health response to the epidemic.

Due to the length of time covered, historical demography can allow the researcher to study the epigenetic effect of life events, across multiple generations. Epigenetics refers to heritable changes that do not involve changes in relevant genes, but rather affect the way genes work in an individual. For example, historical studies in Sweden have shown that famine during childhood can affect not only an individual's children but also their grandchildren, increasing their grandchildren's risk of cardiovascular disease (Bygren et al 2014), mortality from cardiovascular disease (Kaati et al 2002) and all-cause mortality (Kaati et al 2007). On the other hand, over-eating by a grandparent during their own childhood can increase the rate of diabetes mortality in their grandchildren (Kaati et al 2002). Although the grandparents' genes weren't changed by their childhood experiences, the way the genes work in the bodies of their grandchildren was impacted by life events occurring decades before their birth. This knowledge generated from historical demography provides new insights into the causes of modern chronic diseases, which can lead to improved treatment.

Similarly, a recent study examining family trees of 86 million people over 300 years estimated that the contribution of genetics to longevity was only 16% (Kaplanis et al 2018). This knowledge provides more evidence to support policy to influence changes in lifestyle, such as tobacco control, weight reduction measures and promotion of healthy eating habits.

Historical demography can dispel myths about demographic characteristics that are assumed to be longstanding. For example, it is well understood that

females in India have lower life expectancy at birth than males, however, analysis of Indian censuses from 1881 to 1961 shows that this imbalance did not occur until the 1950s (Bhat 1989). This may help to inform public policy on reversing this disturbing trend. India's overall mortality is high compared to many other countries, and historical demography has shown how this has varied widely over time and place, and the influence of local meteorological effects (Dyson and Das Gupta 2001; Ortega Osana 2001). This, too, can inform policy to reduce local crop failure, rather than take a national approach, and hence lower mortality.

Similarly, historical demography dispelled myths that there was high fertility in pre-colonial Africa (Cordell, Omoluabi and Stiegler 2016), thus influencing population policies in modern Africa. European historical demography demonstrated that previous assumptions about the correlation between economic conditions and fertility were not universal in either time or place (Smith 2003), leading to changes in focus regarding fertility control in modern times.

Historical demography has some advantages over other branches of population studies, as the analysis can be undertaken quickly, since the data has already been collected. Humans have a finite life span, and even demographers must die eventually, so no matter how well planned and executed a longitudinal study may be, no single researcher can live long enough to cover the whole lifespan, and all life experiences, of an entire cohort of people from birth to death. Even if a researcher wanted to use cross-sectional data, many useful public records such as census returns and vital registration data are often not available for decades, and in some countries, such as Australia until 2006, the original census records are actually destroyed once the data are aggregated, due to privacy concerns. In comparison, historical records are constantly available and there are no concerns about privacy for individuals who are long dead. In fact, the researcher is freed from all concern about the privacy, opinions and preferences of the people studied, as their lives are over.

Historical demography is not without its disadvantages, however. For example, using records created in the past means that the researcher does not have the ability to influence data collection in the future. In the present day, the input of researchers is sought on how to improve data collection. For example, the Australian Bureau of Statistics asks academics and other users of census data to suggest new questions for the next census. That is not possible using historical records.

A second disadvantage is that questions that may have intrigued ancient record keepers, such as the validity of a certain type of Christian baptism, or the virtuousness of an individual, may have no relevance today. The opposite

is also true: questions that might be of interest today, such as HIV-status or gender identity, might never have occurred to our ancestors.

Thirdly, we have no way of validating many of the records which will be discussed below. For example, we cannot go back and interrogate individual British census enumerators of the 19th century about how they assessed people as 'deaf, dumb, blind, idiot, imbecile or lunatic', or ask 17th century Javanese population enumerators precisely how they defined a *cacah*, which literally means 'number' but has been interpreted to mean 'family', 'household' and other units (Boomgaard and Gooszen 1991).

Fourthly, historical records have many well-documented gaps and missing data. For example, females tend to be under-represented in family registers, and infants who die between censuses are entirely absent from these records.

Finally, for many calculations, the historical demographer must use different classes of records for the numerator and denominator, introducing uncertainty. For example, when calculating mortality rates, burial records might provide the numerator but the denominator, or whole population, might be derived from census records. Whilst this can also be true for current demography, the problem for the historical demographer is that the different classes of records may have different levels of completeness and accuracy, or indeed unknown levels of completeness and accuracy. Nevertheless, data of uncertain quality is better than no data at all. As the poor quality of colonial records in Africa used as sources for population studies has been described, "Blurred vision is better than blindness" (Fetter 1990:2).

Notwithstanding these limitations, there is great value in historical demography helping us to understand the mechanism of population dynamics.

## **DATA SOURCES**

### **Population censuses**

Some advantages of using population censuses are that, theoretically at least, the entire population is included and since they are repeated at intervals, changes can be tracked over time. However, in using historical population censuses, it is important to consider the expressed purpose of the census (e.g. taxation, militia service obligations) and the cultural values of the time and place (e.g. assumptions about the significance of women's work, or characteristics of certain racial, ethnic and religious groups). Understanding the historical context of the data collection will help to identify gaps and under-representations. It is also important to consider changes in boundaries for censuses and changes in the ability of government to collect data due to war, famine and large-scale weather events (Zhao 2016).

The first census in Australia was conducted in 1828 in the state of New South Wales, and national censuses began in 1881. Until 2006, individual details of national censuses were destroyed after statistical compilation and were not available to historical researchers, unlike other countries, which preserved them. Aboriginal Australians were not counted in the census until 1971. New Zealand censuses have been conducted regularly since 1851.

China has a long history of population censuses, far exceeding that in Europe. It has probably had population registration systems for over 2,000 years (Zhou 2016) and these became increasingly comprehensive over time. For example, there are still over 400 national population figures available in China covering the period from the 7th to the early 20th century (Zhou 2016). The abundance of records may in part be due to the widespread use for paper in China, for at least the last thousand years.

Japan conducted national censuses every six years from 1721 to 1846, when they ceased, not resuming until 1920 (Hayami 1986).

For countries that were subject to colonial rule, the colonisers were often responsible for commencing national censuses, to help control and evaluate the subject populations. The British introduced regular decennial censuses in both India and Ceylon in 1871 (Campbell and Kurosu 2018) although irregular censuses had been undertaken by the Dutch in Ceylon since 1789 (Perera 1974). From 1901, censuses in Ceylon have had more detailed information allowing robust demographic enquiries (Caldwell, B. 2001). Indonesia has had fairly reliable censuses since 1831, conducted by the Dutch, although they are restricted to the most populous island, Java, and it has had unreliable population counts since 1631 (Boomgaard and Gooszen 1991).

Similarly, the population censuses available to historical demographers interested in Africa were commenced by European colonisers and have limited value to Africans today. For example, the earliest population counts in Africa, which began as early as 1652 in the Cape of Good Hope, only counted European residents (Cordell, Omoluabi and Stiegler 2016).

### **Family registers**

A related, but distinctly different, set of population records are family registers, which record individuals within their family units, and were often updated comparatively frequently. Such family or household registers were in use in Japan, China, and Korea, with some series lasting several centuries (Saito 1992; Campbell and Kurosu 2018). These are invaluable data sources for historical demographers, as individuals were enumerated within their families, allowing researchers to make comprehensive estimates of fertility, mortality

and migration. The data can be analysed cross-sectionally or linked for individuals or groups (Campbell and Kurosu 2018).

In Ceylon, the Dutch compiled detailed population registers which included much information on economic and social matters, and family composition. These are available from 1760 (Drixler and Kok 2016). The Philippines had a form of household registers in the 19th century, which have been used to study labour and migration patterns (Doeppers 1998) and to supplement information from parish registers to study fertility, mortality and migration (Owen 1998; Xenos and Ng 1998).

### **Religious registration systems**

In the past, event registration systems did not record actual births and deaths, but rather religious ceremonies related to birth and death, such as baptism, circumcision, dedication at a temple, burial or cremation. Marriage has historically been a religious ceremony, with civil marriage being introduced comparatively recently. For example, civil marriage in Britain was only permitted from 1837 and is still not available in some countries.

In India, parish records have been used to examine the historical demography of states with large Christian communities, usually on the west coast. Christianity arrived in India prior to the 4th century, and possibly as early as the 1st century (Frykenberg 2008:91-115), but it is only recently that Christian records have been used for purposes of historical demography (Gopinath 2016; Srivastava 1976).

Similarly, the Philippines has a large Catholic population and parish records have been used in several studies for the purposes of historical demography (e.g. Owen 1998; Xenos and Ng 1998). Although Catholicism has been a dominant force in the Philippines for centuries, family reconstitution is made more difficult as most Filipinos lacked regular surnames until 1849 when the Governor-General ordered all inhabitants to select a surname from a predefined list. In addition, many people had nicknames which bore no resemblance to their formal, baptismal names, so identifying family relationships in the Philippines before the mid-19th century is very problematic (Owen 1998).

Historical parish registers have also been used to study populations in Africa, but like most of Asia, their use is limited to populations with large proportions of Christians, such as Namibia (Siiskonen, Taskinen and Notkola 2005). In regions without large Christian populations, other religious events can be used by historical demographers. For example, death registers in Buddhist temples have been used to study mortality rates in 18th and 19th century Japan. In contrast to findings from other sources, these records have

led to the conclusion that fertility and mortality were both high in this period and were comparable to those in Western Europe (Jannetta and Preston 1991).

Since these historical registration systems were connected with religious practice, they were not always universal and certain sections of the community were either excluded or opted out. For example, in the Philippines, negritos resisted Christian conversion and so parish records rarely mention them (Owen 1998). In Britain from 1754 to 1837, all people except Quakers and Jews were required to be married in an Anglican church, regardless of their own faith. Many Roman Catholics refused to conform and were married in their own churches, which rendered the marriage invalid. There were very few Catholic burial grounds, so most people were buried in Anglican graveyards. For these reasons, a historical demographer might find burial records for many Catholics, marriages of a few, and baptisms of none (Day 2013). The level of detail available in church records varies widely by time, place, denomination and the whims of the person making the record (Day 2013).

### **Secular registration systems**

Government vital registration systems do not have the pitfalls of religious-based event registration systems and when they are compulsory, they should theoretically capture all the relevant demographic events in a county or region. Despite Britain introducing compulsory civil registration in 1837, Australia did not immediately follow suit and compulsory civil registration began in different states at different times, ranging from 1838 in Tasmania to 1930 in the Australian Capital Territory.

Victorian civil registrations are the most comprehensive in the world, with respect to the detail collected during the registration process. It was the only jurisdiction to fully adopt the recommendations of the London Statistical Society regarding vital registration, which included invaluable demographic data such as the place of birth of individuals and their parents, names and ages of all children of a couple and details of all previous marriages (Registration Committee 1847). The richness of detail in these records make them ideal for the study of a wide array of issues.

From vital registrations in Victoria, a unique database of 8,000 Aboriginal Australians who lived in the 19th century and the first decades of the 20th century has been developed. This has yielded new insights into social inequality and the effect on life courses, as well as the effects of Aboriginal identification legislation on the recognition of Aboriginal people in Victoria (Smith et al 2008). It demonstrates that the huge increase in numbers of Aboriginal Australians in the late 20th century was not due to changes in self-

identification of individuals, but rather a change in the way that Australian institutions counted Aboriginal people, finally recognising what had been known by Aboriginal people for more than a century, that Aboriginality was not a question of fractions of descent.

A study of maternal mortality in Tasmania compared civil death registration records, family reconstitution and contemporary statistical publications, and determined that each source alone led to under-registration (Kippen 2005), providing useful evidence in studying maternal mortality in developing nations today.

In some Indian states, birth and death registration during the 19th century have been used to study fluctuations in mortality over time (Ortega Osona 2001) and these have been shown to be reasonably complete, with an estimated under-registration of only about 3% (Dyson and Gupta 2001).

### **Administrative records**

A wide array of administrative records can be used in historical demography, including:

- convict records, particularly where they detail physical characteristics such as height and life events such as place of birth
- school admission and attendance records
- hospital admission and discharge records
- welfare beneficiary lists
- passenger lists, especially for the study of migration
- apprenticeship records
- military service records, including medical and deployment data
- employment records, especially for the study of migration and mortality
- membership records of societies

These records can be used to create rich demographic data, when the records are comprehensive and a wide array of data is recorded. For example, records of payments and in-patient admissions of The Benevolent Society have also been combined with a wide variety of other records to create a rich history of Sydney's poorest people from 1813 onwards (Evans 2015).

Similarly, the Founders and Survivors project is a partnership between family historians, genealogists, demographers and population health researchers working to create a database of 73,000 men and women convicts who were transported to Tasmania in the 19th century (McCalman, Smith, Silcot and Kippen 2015). It has already generated new information on the



longevity benefits of having families and the mortality penalties endured by women (Founders and Survivors 2018).

A combination of convict records and passenger lists has been used to compare convicts and free settlers in Australia in 1841 (Haines and McDonald 2002) and a combination of convict records and prison records has been used to investigate the relationship between smallpox and height, whilst controlling for other confounders such as occupation and literacy (Oxley 2003).

Employment records can have a wide range of applications for the study of population, particularly in colonial settings, where other data sources may be lacking. For example, recruitment records from road construction and mining companies in central Africa have been used to study internal African migration as well as the effect of poor living conditions on the mortality of workers at the beginning of the 20th century (Kivilu 1990). Army personnel records, which include medical and deployment data, have been used to study the impact of climate and disease on the health of permanent and temporary migrants in the 19th century, generating new insights into disease pathways (Curtin 1989).

### **Other quantitative sources**

There are other quantitative data sources used in historical demography which are not used in other branches of population studies. In China, genealogies have been recorded for over two thousand years. These can be useful for studying migration patterns, since individuals don't need to be living in one place, as required in population censuses (Zhao 2016). However, researchers using genealogies for demographic purposes must be especially mindful of under-registration, particularly of women, those who died young, and people who were considered embarrassments or failures by their families. In addition, genealogies are records of surviving patrilineages, which may have avoided extinction by enjoying favourable demographic conditions, so may not necessarily be representative of the demographic experience of the whole region (Zhao 2001).

Korean clan genealogies have been kept from the late 15th century (Kim 2016) and often include details not available in Chinese genealogies, including social status and details of daughters (Campbell and Kurosu 2018).

Pilgrimage registers have been kept in northern India for centuries. As each generation of a family makes a pilgrimage to a traditional place of pilgrimage, any updates to the family history, such as births, marriages and deaths, are recorded on long scrolls by pundits whose sole task is upkeep of these records. Some of these genealogies stretch back 20 generations (Jameson 1976).

Japanese religious faith registers were designed to assist in the extinction of Christianity in Japan from the time the religion was banned in 1638. They

recorded the name, age and relationship to the head of the household of all people throughout Japan, and the Buddhist temple with which the head of the household was associated (Cornell and Hayami 1986). Although designed as a tool to help stamp out a religion, the rich data recorded for every family is a unique and lengthy series of records for historical demographers, placing each individual within their own family context.

Registers of 'virtuous women' and 'faithful widows' in China gave information on the date of death, age at death, number of children, age of parents-in-law and other details, thereby enabling calculations of mortality and fertility to be made (Zhao 2016).

### **Qualitative sources**

Demography, whether historical or not, should never be just about the numbers. Whilst it is crucial to understand statistical trends in fertility, mortality and migration, it is also crucial to understand the human decisions that led to the demographic outcomes. Qualitative data is the key to understanding 'why', and not just 'how many'. Much work in historical demography has focused solely on quantitative figures, and although these can describe a change in marriage patterns or number of children born per couple, ultimately decisions about sex and marriage are made by individuals. Unless we can understand their motivations, choices and practices, we have no hope of explaining the way that the numbers arose (Kertzer 1997).

For example, a range of records, including witness statements from a Royal Commission, contemporary newspaper articles, and private diaries of Tasmanian women of the time, were used alongside 19th century Tasmanian birth records to examine fertility decline. The quantitative birth registration data enumerated the fertility decline and the qualitative data helped to understand its causes (Moyle 2015).

Similarly, using a range of qualitative sources produced in 19th century Australia, McDonald and Moyle (2018) argue persuasively for the role of female agency in decision making about fertility, a topic of current interest in modern family planning programs in low-resource settings.

## HISTORY OF HISTORICAL DEMOGRAPHY

The past is often viewed as a fixed and unchanging place, but this is almost never true. Even historical demography has a history and, like other disciplines, it has grown and evolved. Historical demography, as a distinct and thriving discipline, began in France in the 1950s, as demographers tried to explain the sudden rise in fertility after World War Two, when the fertility rate had previously declined in a steady and predictable pattern (Smith 2003; Zhao 2008). A French demographer, Louis Henry, gathered together large numbers of old parish records and 'reconstituted' families, enabling the calculation of rates of marital fertility and other important demographic indices, and providing evidence of the relation between marital fertility and economic and environmental factors (Rosental 2003).

In a similar way, the Cambridge Group for the History of Population and Social Structure was founded in 1964 and used card indexes of parish records to reconstitute families, enabling them to report on age at first marriage, average marital fertility, mortality rates, and other indices for the period 1580-1837 (Zhao 2008).

As researchers of all kinds moved on from printed records and card indexes, historical demographers were greeted with an explosion of readily available online sources to conduct research. The Church of Jesus Christ of Latter-Day Saints ('the Mormons'), have offered billions of records of baptism and marriage for decades, first going online in 1999. Websites such FreeReg (<https://www.freereg.org.uk/>) and FreeBMD (<https://www.freebmd.org.uk/>) offer millions of records, online, for free and have done so since 1998. Commercial companies such as Ancestry (<https://www.ancestry.com/>) and FindMyPast (<https://www.findmypast.co.uk/>) offer billions of historical records to subscribers, for a fee.

This has largely been driven by the explosion in public interest in family history, perhaps related to the success of television programs like *Who Do You Think You Are?* and its association with major commercial genealogical online services such as Ancestry (Davison 2009). The rise in online historical data sources made family history much easier for individuals, which in turn further fueled the expansion of public interest.

A process which is becoming increasingly useful in historical demography is data linkage, in which records collected in different years are linked together to form a continuous series, or different sets of records with different purposes are linked together to generate new insights. For example, the first and only genealogical database on cousin marriage in Britain in a mainstream population examined all marriages in two parishes in Wiltshire between 1754

and 1914, then linked individuals and their ancestors in a wide array of records including census, parish, civil, criminal, welfare and military, in a process termed parish reconstitution. The extensive use of multiple sources enabled the author to accurately identify a high proportion of individuals and their ancestors, which would not have been possible without data linkage (Day 2013).

An area of increasing interest in historical demography is prosopography, or mass biography, in which aspects of the life course of an historical group of individuals in a defined category (e.g. passengers on a ship, inmates in an institution, members of a professional association) are investigated and analysed, with a view to understanding their commonalities (Lucas, Edgar and Lucas 2017). In essence, it is building macro-histories from micro-histories of ordinary people. The work previously described on Tasmanian convicts, Victorian Aboriginals and the Wiltshire marriage database are all examples of prosopography.

The focus of historical demography has changed over time, and by place. In its original form, European historical demography was concerned with socio-economic explanations for change in fertility, marriage, mortality and migration, but it soon grew to encompass much wider explanations for change in population dynamics, such as climate, the environment, family composition, public health measures, education and government policy.

However, Asian historical demography has always had different concerns from European historical demography. The differences between European and Asian family formation and composition have been well known since the seminal work on European marriage patterns by Hajnal (1965) and much work since then has confirmed differences in household size and composition between Asia and Europe (Bengtsson et al 2004). Asian historical demography has been more concerned with '... the role of kinship networks in shaping individual outcomes, the diversity of marriage forms, the availability of adoption and other alternatives to biological reproduction, and in some societies, the use of infanticide' (Campbell and Kurosu 2018:46). Household size and composition was a more important determinant of mortality in China and Japan than it was in Belgium and Sweden, where socioeconomic issues were more important determinants (Lee, Campbell and Feng 2004).

Historical demography in Asia is developing as more data is uncovered and that which already has been identified begins to be used for research. For example, long term genealogies are available in Vietnam but have not yet been used in demographic research (Campbell and Kurosu 2018).

## THE FUTURE OF THE PAST

Historical demography has an exciting future and it is underpinned by collaboration. One significant development in collaboration is the connection of family history with academic research. In Australia, The Australian National University and Macquarie University have combined with interested family historians to pursue the study of the nexus of the two fields. The first Related Histories conference was held in November 2017 in Canberra, where the value of prosopography was examined and plans drawn up for more work. An example of work done in collaboration between academics and family historians in Australia is the First Three Fleets and Their Families project. The National Centre of Biography has established the project researching individuals who arrived in Australia from Britain in the first three fleets of ships, between 1788 and 1791, and their families. In partnership with family historians, they are piecing together a great deal of information from an array of sources about the new arrivals and their children and grandchildren. It is ultimately expected to add 100,000 entries to the *People Australia* database. Although the project is still in its infancy, it has already been able to generate new information on birthplace, mortality and number of spouses of these early arrivals and their offspring (National Centre of Biography 2018).

Collaboration is on the way to becoming the norm in historical demography. For example, the Eurasia Population and Family History Project involves the collaboration of users of historical data from Belgium, China, Italy, Japan and Sweden enabling researchers to explore the respective population dynamics and compare and contrast them (Bengtsson, Campbell, Lee et al 2004). Similarly, a network of researchers working on population registers from historical Japan, Korea and China have recently begun working together to share data and expertise (Dong et al 2015).

The sharing and pooling of data is powerful new force in historical demography. For example, the Human Mortality Database allows researchers to examine aggregated mortality data from 39 countries over three centuries, all high income and highly industrialised, as these countries are the ones with near-complete mortality registration (Wilmoth et al 2017). Another example of the use of very large pooled databases for the study of historical demography is the Integrated Public Use Microdata Series (IPUMS) which collects and integrates census microdata across multiple countries. In 2018 it consisted of records of 672 million people across 85 countries (IPUMS 2018). This volume of data is not only useful in helping researchers to understand population-wide trends such as urbanisation and population ageing, but also allows policy makers to assess the consequence of social and economic change at both the macro and micro level.

Perhaps the most promising development in historical demography is the creation of very large databases, linking millions of records, to enable researchers to investigate demography over multiple continents and several

centuries, and answer a range of questions. For example, a team of researchers based in North America have created a database of linked pedigrees of 86 million individuals, born mainly in North America and Western Europe between 1650 and 1950. This has generated new insights into the heritability of longevity, marital migration and rate of cousin marriage (Kaplanis et al 2018).

As these massive databases grow in size and geographic reach, they will continue to provide unique insights into a wide array of demographic processes. With more knowledge about the past at their fingertips, policy makers and practitioners will be able to make better-informed decisions that might ultimately lead to a better future for human populations.

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