

**The Golden Age of Published Demographic Data in Europe 1850-1915:
Sources and Research Possibilities**

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The last half of the 19th Century was a kind of European Golden Age in the production and publication of socioeconomic and demographic data. The volume of such published output has rarely been equaled. The reasons behind this massive output are buried with the obscure bureaucrats who conceived and directed these efforts. They obviously had no computers to process the data. The few attempts to actually analyze the data took the form of simple graphs or maps, and the few studies generally revolved around bivariate inferences. Perhaps the bureaucrats wanted to create databases which described their states in numbers, with the hope that more data would be added each year and that eventually the data could be analyzed. Perhaps their goal was to try to understand the workings of the social system, maybe to control it. In that era, books were the only way to both distribute and to more-or-less permanently store large amounts of data. Books were used as “read-only” storage media. The fact is that until the development of the scanner and optical character reader software in the late 1980s, little useful research could be done with this mass of published data.¹

The period was peculiar. It was a time of innovation, industrialization, and optimism. The 11th Edition of the Encyclopedia Britannica (1910-1911) epitomizes the age. One need only compare it to the sorry truncated versions which followed World War I to appreciate the time in which it was written. “The late Victorian and Edwardian eras may be the most minutely documented in history. Strikingly modern printing methods, cheap labor, a literate population, and a lack of competition from yet-to-be-invented media created a market for thousands of books on every conceivable subject” (Tracy 1979:xv-xvi).

From a purely demographic perspective, it was, coincidentally, the time most of Europe began the fertility and mortality transitions. It was also a period of massive migration from the countryside to the cities, and considerable out-migration from many European countries to the Americas. As a

¹ Please note that this paper is about data published by state sources. The data are aggregate in nature. I am not concerned with individual level data in this paper. My purpose is not to rehash theories and techniques, but rather to consider what might be done with aggregated data from the Golden Age of Europe. The theories and methods mentioned in this paper are described in detail in my articles, most of which can be downloaded from www.patrickgalloway.com. I focus on examples of data from the Preussische Statistik volumes, because that is what I know best.



consequence, we just happen to have some of the best data to analyze some of the most interesting problems in demography. The following presents research possibilities and methods according to the quantity and quality of available data.

Fixed Effects Models

FERTILITY

The Princeton European Fertility Project set the groundwork for marital fertility transition research using generally large units of analysis. I argued that the units used in the Princeton European Fertility Project were often overly large, and that the analyses almost always focused on level effects (Galloway et al. 1994b, 1998a). The point was followed up by Brown and Guinnane (2003). The Princeton Project authors usually found that cultural variables were the most important factors associated with marital fertility levels, but they provided little information about what forces drove marital fertility decline.

Because most researchers are interested in marital fertility decline, some effort should be made to examine changes over time among the important variables, preferably using pooled cross-section time series analysis, in economics often called fixed effects models. Studying simple cross-sections, as was generally done in the Princeton Project, is unlikely to provide much information about changes in marital fertility. The marital fertility transition is analyzed using fixed effects models by Richards (1977) on 71 counties in Germany, Galloway et al. (1994b, 1998a, 1998b) on 407 small areas in Prussia, Brown and Guinnane (2002) on 196 small areas in Bavaria, Oliveira (2006) on 20 counties in Portugal, and Dribe (2006) on 25 counties in Sweden. All find that economic variables are important indicators of marital fertility decline, very much like what one finds in many less developed countries today.

Any future studies of the fertility transition in Europe should incorporate pace effects, best done



with fixed effects models. This places a heavy burden on the data set, because variables must have constant definitions over time, and the areas of the units of analysis must generally remain constant over time.

Given the theoretical importance of cities in the fertility transition, I examined fertility decline in the 54 largest cities of Prussia from 1875 to 1910, using the fixed effects model (Galloway et al. 1998b). Using city-only datasets eliminates the need for variables like “urbanization”, which are usually thought to be important, but are difficult to interpret.

Recommendations:

Studies of marital fertility decline, using independent variables like religion, ethnicity, urbanization, migration, female labor force participation, education, health workers, communication workers, bank and insurance workers, churchworkers, booksellers, manufacturing workers, miners, and infant mortality rate would be useful. Datasets composed of units smaller than counties would be more informative, as would datasets composed of only cities. Studies of non-marital fertility decline using the above independent variables might be interesting.

MORTALITY

Fixed effects models using aggregate data have rarely been used in the study of secular mortality decline in Europe. Galloway et al. (1998a) examined infant mortality decline in Prussia using 407 small units of analysis, along with a separate analysis of 54 cities. The results for the cities showed that improvements in municipal water and sewage infrastructure were significantly associated with infant mortality decline. As with the fixed effects fertility models, the findings for infant mortality decline in Prussia are similar to studies in less-developed countries today. Nearly all Golden Age sources include measures of infant mortality, some for very small units of analysis. Many have information on deaths by



age and deaths by cause.

For example, deaths by 29 causes in each of some 400 small areas of Prussia for each year from 1875 to 1914 are available. Mortality statistics for Prussian cities are particularly rich. Deaths by age, deaths by cause for 29 causes, and deaths by cause by age, are available yearly from 1875 to 1914. Deaths by age according to 28 occupations and 11 social groups are also available. Deaths by ages 1 day, 2 days, 3 days, and on up to 15 days, and by ages 1 month, 2 months, 3 months, and on up to age 12 months, are available by sex from 1875 to 1914. Deaths by ages 1 month, 2 months, 3 months, and on up to age 12 months of non-marital births are also available.

Recommendations:

Studies of age-specific and cause-specific mortality decline using variables like religion, ethnicity, urbanization, migration, female labor force participation, education, health workers, communication workers, bank and insurance workers, churchworkers, booksellers, manufacturing workers, and miners, with special emphasis on infrastructure variables are recommended. The analysis of city datasets would be particularly useful.

MIGRATION

Migration is a complicated, but interesting field for analysis. For example, in the Preussische Statistik volumes, there are abundant data to calculate net migration rates, gross in-migration, and gross out-migration rates for some 400 small units of analysis 1862 to 1886 and cities from 1859 to 1886.

Recommendations:

Studies of gross in-migration and gross out-migration rates and their causes would be informative, especially in cities.



Spatial Analysis

Aggregate data lends itself to spatial analysis. Diffusion is the most obvious mechanism to examine using spatial analysis. However, diffusion of say, new ideas about contraception, need not occur along geographic pathways, but could easily jump from urban center to urban center. Nonetheless, it is always useful to examine spatial autocorrelation.

Inverse Projection

Inverse projection generates age structure and detailed demographic rates using only an initial population, and a series of births, deaths, net-migration, and some demographic tables (Lee 1974). Expansion of Lee's method along with an overview of the inverse projection literature can be found in Barbi et al. (2004). A useful program for performing the many calculations involved in inverse projection can be found at Robert McCaa's website:

<http://www.hist.umn.edu/~rmccaa/populate/index.htm>.

Applying inverse projection to small units would generate a wealth of demographic data. The results should be compared to whatever age structure is available for the areas from censuses. Infant mortality rates are usually available and can be compared to the data created by inverse projection. Inverse projection can be run for each sex separately. Because inverse projection generates an age structure, it can be a useful tool for checking the age structure from census counts, assuming of course one has accurate and long series of births, deaths, net-migration, and an accurate initial total population count (Galloway 1994a).

Time Series Analysis

An examination of the responses of fertility, mortality, and nuptiality to changes in the economy



can be useful, a kind of study of short-term Malthusian preventive and positive checks. The impact of seasonal changes in the weather on mortality has been shown to be important. Many articles have been written along these lines, most using a distributed lag model (Galloway 1985, 1988, 1993, and 1994c which also includes a review of the literature). One generally needs only series of births, marriages, or deaths, and grain prices. Monthly temperature readings are needed to test for weather effects.

In addition to analyzing overall fertility, mortality, and nuptiality responses to economic shocks, I have looked at the responses by age of mother at birth, deaths by age, deaths by cause, marriages, first marriages by sex, and remarriages by sex using this simple model (Galloway 1985, 1987, 1988). One can interact the terms to explore the impacts according to social standing or changes over time (Galloway 1993 and 1994c).

This kind of time series analysis lends itself to the study of gender-specific responses. There is the notion that during difficult times, the mortality of female infants or young girls might increase at a greater rate than the mortality of male infants or young boys. The responses to economic downturns of first and remarriages by sex might also prove interesting. Migration responses to economic shocks have rarely been explored using distributed lag models and aggregate data. The Golden Age provides much data for this kind of analysis, little of which has been used along these lines.

Volumes of Data

In the late 1980s, I was doing some research in the library of the University of California at Berkeley, and came across a small 3" by 5" library card which read "Preussische Statistik, 305 volumes". I decided to take a look at a few of the more promising titles and saw data in great quantity and detail, especially for small units of analysis (Galloway 1988, updated in 2007). Prussia, the largest state within unified Germany, had published 305 thick volumes between 1861 and 1915, filled with socioeconomic



and demographic data. The series continued sporadically after World War I, but these few later volumes were inferior in depth and scope to the earlier ones. The books, a nearly complete set, had been taken from a Berlin library by the U.S. Army after World War II. They had never been checked out, and I doubt if they were much used in Germany. With the help of a small grant, I purchased one of the first optical character scanners, a Kurzweil, which cost some \$17,000 then (today you can get the same power for \$99). Eventually, more grants were obtained, a dataset was developed, and a number of articles were written about fertility and mortality decline in Prussia 1875 to 1910.

The point is that other countries, or subdivisions of countries, have likely published similar detailed data for the period. Goyer and Draaijer (1992) provide a useful account of European censuses, but their focus is mainly after 1945, and they provide no information on vital events. Table 1 is an inventory of official census and vital registration publications in European countries from around 1850 to 1905. It was compiled by the heads of the statistical departments at the time (around 1907), and the reference titles are usually in their original languages. It includes the years of coverage. I have added some comments. I have also added the addresses of some web sites that provide some useful aggregate data in machine-readable form from these sources. Particularly rich datasets are available on-line for France, the Netherlands, and Prussia. A very comprehensive database of scanned images is available on-line for the United Kingdom (the images can be made machine-readable with optical character reading software).

Table 2 is a listing of the number of units of analysis used by previous researchers studying marital fertility decline in 19th Century Europe. A summary of the findings of most of the authors in Table 2 is available in Galloway et al. (1998a). It would appear that much work has been done on Prussia, Bavaria, the Netherlands, and the United Kingdom. Yet no doubt much more remains. For example, I put together the Prussia Database, which is relatively large, yet it represents less than one



percent of all the available data in the Preussische Statistik volumes (Galloway 1988, updated in 2007). It is likely that a thorough examination of the books in Table 1 will lead in many cases to data for many small units of analysis for many of the countries, and to the creation of theoretically relevant and interesting variables.

Conclusions

The process of data accumulation in a form usable for analysis began in the 19th Century with the printing by states of massive volumes of data. Aside from a few graphs and simple discussions, there was little analysis. From the end of World War II to the end of the 1980s, some of this information was laboriously keyed onto punch cards or hand read into computers, when computers were available. Work was done by adding machines, slide rules, and calculators, so that only a very small proportion of the printed material could be used. The next era, our era, is the period of inexpensive computers, scanners, and optical character reading software. Making machine readable the printed data from the 19th Century has now become cost effective. We now have the opportunity to examine in detail the mechanisms behind the fertility and mortality transitions in European countries, and the forces which drove migration.



Table 1. Principal Official Publications of Census and Registration Data for Major European Countries to around 1905

The references are taken from *Statistique Générale de la France*, 1907, pp. xxvii-xxi. The information was supplied by the directors of the statistical offices of the various countries at the time. I use their punctuation and italics. The titles of the publications (generally in their original language), the dates of the census and vital registration source material, and occasional details (in French) are shown. I have added other material where appropriate, including information about some possibly useful online sources.

The following are in alphabetical order by the English name of the country, except that Baden, Bavaria, Prussia, Saxony, and Wurttemberg are found immediately under German Empire.

AUSTRIA

Tafeln zur Statistik der österreichischen Monarchie, tableaux pour la statistique de la monarchie autrichienne 1849 à 1865 (42 vol.).

Bevölkerung der im Reischsrade vertretenen Länder. Population 1869 (6 vol.); 1880 (6 vol.) ; 1890 (18 vol.); 1900 (23 vol.).

Bewegung der Bevölkerung, mouvement de la population, volume annuel depuis 1881.

Statistisches Jahrbuch der österreichischen Monarchie, Annuaire statistique : 1863-68 (1 vol.); 1869-70 (1 vol.); volume annuel de 1871 à 1881.

Statistisches Jahrbuch der österreichisch-ungarischen Monarchie für 1867-76 (1 vol. 1878).

Statistisches Handbuch der österreichisch-ungarischen Monarchie, Neue Folge (1 vol. 1889).

Osterreichisches statistisches Handbuch, volume annuel depuis 1881.

BELGIUM

Documents statistiques publiés par le Ministère de l'Intérieur (17 vol. de 1836 à 1869).

Exposé de la situation du royaume pour les périodes 1841-50 (1 vol.); 1851-60 (3 vol.); 1861-75 (2 vol.).

Recensements de la population 1846, 1856, 1866, 1876, 1880 (chacun 1 vol.); 1890 (2 vol.); 1900 (2 vol.).

Relevé officiel de la population au 31 décembre de chaque année, depuis 1863.

Recensement des industries et métiers 1896 (18 vol.).

Statistique de la Belgique. Population. Relevé décennal 1831-40 (1 vol.). Relevé annuel 1841-50 (10 vol.).

Mouvement de l'état civil et de la population : 1867-1881 (1 vol.); 1882; 1883; 1884; 1885; 1890; 1900.

Tables de mortalité ou de survie d'après les statistiques officielles par J. Leclerc : 1881-90, 1891-1900 (2 vol.).

Annuaire statistique, depuis 1870.

BULGARIA

Recensements : Bulgarie du nord, 1881 (1 vol.); Roumélie orientale, 1885 (7 vol.); Principauté de Bulgarie, 1888 (24 liv.); 1893 (25 liv.); 1900 (14 vol.).

Mouvement de la population, volumes annuels depuis 1881.

DENMARK

1° Statistisk Tabelwoerk. Tableaux statistiques:



Recensement de 1834 et mouvement de la population 1801 à 1833 (1 vol.); *Recensement 1840 et mouvement de la population 1834 à 1839* (1 vol.); *Recensement 1845 et mouvement de la population 1840 à 1844* (1 vol.); *Recensement 1850 et mouvement de la population 1845 à 1849* (1 vol).
Recensements de 1855 (2 vol.); 1860; 1870; 1880 (chacun 1 vol.); 1890 (3 vol); 1900 (2 vol.).
Mouvement de la population: 1850-54; 1856-69; etc. jusqu'à 1890-94 et 1896-1900 (chacun 1 vol.).
La population du Royaume de Danemark pendant le 19 siècle (1 vol. 1 1905.)
2° Statistisk Aarbog, *Annuaire statistique*, depuis 1895.

FINLAND

1° Bidrag till Finlands officiella statistik:

Recensements de 1865 (1 vol.), 1875 (1 vol.), 1880 (2 vol.), 1890 (1 vol.), 1900 (1 vol.).

Mouvement de la population : années 1865-68 et résumé depuis 1812; 1869-74 ; 1875-71 (1 vol. contenant aussi le recensement 1875); 1878, 1879, 1880-81, 1882-83; volumes annuels de 1883 à 1900; 1901-02; 1903-04.

Éléments démographiques principaux de la Finlande, années 1750-1890; vol. I. Etat de la population; vol. II. Mouvement de la population.

2° Statistisk Arsbok, *Annuaire statistique*, depuis 1879.

FRANCE

Documents statistique de la France: territoire, population, mouvement de la population, 1780 à 1851, etc. (1 vol. 1837) (1 vol. 1855).

Statistique de la France; territoire et population. Population en 1700, 1764, 1884; recensements de 1801, 1806, 1821, 1831; mouvement de la population de 1781 à 1784 et de 1800 à 1835 (1 vol. 1837).

Recensements de 1836, 1841, 1846; mouvement de la population, 1836 à 1850 (1 vol. 1855).

Recensements de 1856, 1861, 1866, 1872, 1876, 1881, 1886 (chacun 1 vol.) 1891 (2 vol.), 1896 (1 vol.).

Recensement des industries et professions 1896 (4 vol.). Recensement général 1901 (4 vol.).

Mouvement de la population : années 1851 à 1853; 1854; 1855 à 1867; 1858 à 1860; 1861 à 1865; 1866 à 1868; 1869 à 1871; volumes annuels de 1872 à 1898; 1899 et 1900; volumes annuels de 1901 à 1904.

Annuaire statistique, depuis 1878.

The Inter-University Consortium for Political and Social Research has a large number of data sets under the titles "Demographic, Social, Educational and Economic Data for France, 1833-1925" available at <http://www.icpsr.umich.edu/cocoon/ICPSR/STUDY/07529.xml>, and "Social, Demographic, and Educational Data for France, 1801-1897" available at <http://www.icpsr.umich.edu/cocoon/ICPSR/STUDY/00048.xml>. The downloads are restricted to ICPSR members.

GERMAN EMPIRE

1° Statistik des Deutschen Reichs:

Volkszählung, recensement de la population, 1871 (2 vol.); 1875 (3 vol.); 1880 (1 vol.); 1885 (1 vol.); 1890 (1 vol.); 1895 (résultats parus dans : Vierteljahrshefte 1897 et 1898); 1900(2 vol.).

Berufszählung 1882 (6 vol.); 1895 (9 vol.).

Bewegung der Bevölkerung 1872 à 1882 (de 1883 à 1890 voir Monatshefte zur Statistik ; depuis 1890 Vierteljahrshefte).

Deutsche Sterbetafel 1871-72 à 1880-81 (voir Monatshefte 1887, XI et XII).

Stand und Bewegung der Bevölkerung des Deutschen Reichs und fremder Staaten 1841-1886 (1 vol.).

2° *Monatshefte zur Statistik des Deutschen Reichs*, bulletin mensuel de 1877 à 1891.



3° *Vierteljahrshefte*, bulletin trimestriel depuis 1892.

4° *Statistisches Jahrbuch* für das Deutsche Reich, annuaire statistique, vol. annuel depuis 1880.

Pour plus de détails voir *Statistisches Jahrbuch* 1906. Quellennachweis p. XI.

BADEN

Statistisches Jahrbuch, Annuaire statistique, depuis 1871.

BAVARIA

1° Beiträge zur Statistik des Königreichs Bayern:

Bevölkerung nach den Zählungen 1818, 1827, 1830, 1834, 1837, 1840, 1843, 1846, 1852, 1855, 1858, 1861, 1864, 1867, 1871, 1875, 1881, 1885, 1891, 1895, 1901, 1905.

Geburten, Sterbfälle, Trauungen, depuis 1825.

Statistik der Todesursachen, depuis 1839-40.

2° Zeitschrift des Kgl. statistischen Bureaus (revue trimestrielle, depuis 1869).

3° *Statistisches Jahrbuch*, années : 1894, 1895, 1897, 1898, 1899, 1901, 1903, 1906.

Voir pour plus de détails : *Geschichte und Einrichtung der amtlichen Statistik im Königreich Bayern*, München 1895, page 309.

PRUSSIA

Preussische Statistik (amtliches Quellenwerk):

Die Ergebnisse der Volkszählung 1864 und *Bewegung der Bevölkerung* 1862, 1863 et 1864 (1 vol.) ; 1867 (2 vol.); 1871 (1 vol.); 1875 *Volks- und Gewerbezahl* (5 vol.); 1880 (1 vol.); 1882, *Berufszählung* (3 vol.); *Gewerbebetriebe* (3 vol.); 1885 (1 vol.); 1890 (2 vol.); 1895 *Volkszählung* (2 vol.); *Berufs- und Gewerbezahl* (2 vol.); 1900 (3 vol.).

Die Bewegung der Bevölkerung : *Geburten, Eheschliessungen und Sterbefälle* 1862, 1863 et 1864 (mit *Volkszählung* 1864, 1 vol.); 1865, 66, 67 (1 vol.); 1868 à 1872 (1 vol.); 1873 et 1874 (1 vol.); volume annuel depuis 1875.

Die Sterblichkeit im preussischen Staate nach Todesursachen und Alterklassen der Gestorbenen, volume annuel depuis 1877.

Rückblick auf die Bewegung der Bevölkerung im preussischen Staate 1816-1874 bearbeitet von Fircks (1 vol. 1879).

Rückblick auf die Entwicklung der preussischen Bevölkerung, 1875-1900, bearbeitet von Broesike (1 vol. 1904).

Jahrbuch für die amtliche Statistik des preussischen Staates, 1863, 1869, 1876 (3 vol.).

Statistisches Handbuch für den preussischen Staat. Bd. I (1888), II (1893), III 1898, IV 1903 (4 vol.).

Statistisches Jahrbuch für den preussischen Staat, volume annuel depuis 1903.

Pour plus de détails, voir : *Festschrift des Königlich preussischen statistischen Bureaus*, Berlin 1905, vol. 1 page 232.

For a more detailed, but not completely exhaustive, listing of the Prussian statistical data, see Galloway (1988, updated in 2007). This can be downloaded from www.patrickgalloway.com.

The Galloway Prussia Database 1861 to 1914 (Galloway 2007) can be downloaded from www.patrickgalloway.com. The database consists of 114 files readable by most spreadsheet programs, including Microsoft Excel and Microsoft Access. The files were developed to study fertility and infant mortality decline in Prussia. The database includes much population and registration data, along with much socioeconomic data. A codebook (Galloway 1992, updated in 2007) is also available for



download from www.patrickgalloway.com. It has the useful feature of including a scanned image of the original publication page displaying the first line of data for most files, usually the Kreis Memel. My general view is that codebooks which attempt to describe the data are often confusing. It is much more useful to actually include in the codebook the scanned first page from the original publication.

SAXONY

1° Zeitschrift des Kgl. statistischen Bureaus (revue trimestrielle, depuis 1855).

2° Kalender und Statistisches Jahrbuch, volume annuel depuis 1873.

WURTTENBERG

Statistisches Handbuch 1902-1903, Wurttembergische Jahrbücher für Statistik und Landeskunde, Annuaire statistique.

HUNGARY

Recensements de 1870 (1 vol.), 1880 (1 vol.), 1890 (3 vol.), 1900 (10 vol. dont 8 parus).

Mouvement de la population : années 1890 et 1891; 1892 et 1893; 1897; 1900, 1901 et 1902.

Tables de mortalité des pays de la couronne hongroise 1900-1901 (1 vol.).

Annuaire statistique, depuis 1893.

ITALY

Censimento generale della popolazione, 1861 (3 vol.); 1871 (3 vol.); 1881 (5 vol.); 1901 (5 vol.).

Movimente della popolazione seconda gli atti dello stato civile, volumes annuels depuis 1863.

Statistica delle cause di morte, volumes annuels: pour 281 communes, depuis 1881 ; pour tout le royaume, depuis 1887.

Annuario statistico : 1878, 1881, 1884, 1886, 1887-88, 1889-90, 1892, 1895, 1897, 1898, 1900, 1904.

LUXEMBOURG

Recensements de 1900 (2 vol.), 1905 (2 vol.).

Mouvement de la population; 1891 à 1902 (2 vol.); 1903 (1 vol.); 1904 et 1905 (1 vol.).

NETHERLANDS

Staten der Bevolking, état de la population 1840 (1 vol.).

Uitkomsten der tienjaarlijksche volkstelling in het koningrijk der Nederland, résultats du recensement décennal: 1849 (1 vol.); 1859 (3 vol.); 1869; 1879 (12 vol.); 1889 (12 vol.); 1899 (population 12 vol.; professions 12 vol.).

Statistische Bescheiden voor het koningrijk der Nederlanden (Documents statistiques sur le Royaume des Pays-Bas, contenant: mouvement de la population: 1865 à 1874; mortalité par causes de décès 1869-72) (10 vol.).

Bydragen tot de algemeene statistiek van Nederland (Documents pour la statistique général des Pays-Bas, contenant mouvement de la population 1876, 1877, 1878) (3 vol.)

Statistiek van den loop der bevolking, statistique du mouvement de la population, volume annuel depuis 1878.

Statistiek van de sterfte naar den leeftijd en naar de oorzaken van den dood (statistique de la mortalité par âge et causes de décès) 1873 (1 vol.); 1874 (1 vol.); 1875 à 1880 (1 vol.); 1880-85; 1885-90; 1890-95; 1895-1900; volume annuel depuis 1900.

Statistiek der sterfte van maanen van 18 tot en met 59 jaar, statistique des décès des hommes de 18 à 50



ans, par profession, âge, cause de décès; 1891-95 (1 vol.), 1896-1900(1 vol.).

Befolkingsstafeln (Tables de population : tables des naissances vivantes et des décès pour 12 années : 1840-1851 ; lois de la vitalité et de la mortalité pour le Royaume des Pays-Bas) (1 vol. 1856).

*Sterftetafel*n (tables de mortalité) 1840-51, 1850-59, 1860-69. (1 vol. 1878).

*Sterftetafel*n 1870-79, 1880-89, 1890-99 par Van Pesch (3 vol.)

Statistisch Jaarboek années I à XV. 1851 à 1866 (non continué).

Jaarcijfers voor het koninkrijk der Nederland : 2 vol. chaque année I.Rijk in Europa depuis 1898. II. Kolonien; depuis 1897.

Dutch censuses from 1795 to 1971 are available online at <http://www.volkstellingen.nl/en/>. This website enables you to view or download most of the Dutch census tables, published in the period 1795-1971. The original records were scanned and digitized and are now available as images as well as MS Excel tables. In addition to the Excel record tables, this site includes many of the original census documents in Adobe PDF format. (<http://www.volkstellingen.nl/en/>) There appears to be no vital registration data in this database.

Infant mortality, live births and infant mortality rates by municipality in the Netherlands in the periods 1841-1860, 1861-1874, 1875-1884, 1885-1894, 1895-1903, 1904-1913, 1914-1923, 1924-1933, 1934-1939 are available from Drs. Peter Ekamper; Dr. Frans van Poppel (2008-02-06) , Infant mortality by municipality in the Netherlands, 1841-1939. See http://easy.dans.knaw.nl/dms?command=AIP_info&aipId=twips.dans.knaw.nl-822841668046047305-1202303041998&windowStyle=default&windowContext=default

The Population Atlas has a number of maps showing various demographic indicators for municipalities back to 1795. See <http://www.nidi.knaw.nl/en/atlas/>.

NORWAY

1° Norges officielle Statistik. Statistique officielle de Norvège:

Recensements de 1801 et 1825, 1835, 1845, 1855, 1866, 1875, 1891, 1900.

Mouvement de la population : volumes annuels depuis 1866; volumes récapitulatifs pour les périodes 1856-65, 1851-70, 1871-75, 1876-80, 1881-86, 1886-90, 1891-95, 1896-1900 et 1886-1900.

Tables de mortalité et de survie : années 1871-72 à 1880-81; 1881-82 à 1890-91; 1891-92 & 1900-01 (3 vol.).

Rapports sur l'état sanitaire et médical (contenant les causes des décès) ; volumes annuels depuis 1859.

2° Statistisk Aarbog, *Annuaire statistique*, depuis 1881.

A detailed catalog of Norwegian data publications beginning in 1828 can be found at <http://www.ssb.no/english/subjects/00/histstat/>.

PORTUGAL

Censo da população, 1864 (1 vol.), 1878 (1 vol.), 1890 (3 vol.), 1900 (3 vol).

Movimento da população, 1887, 1888, 1889, 1890, 1891 à 1893, 1894 à 1896.

Annuário estatístico : années 1875 ; 1884; 1885; 1886; 1887 à 1892 (1 seul vol.); 1900.

ROUMANIA

Recensement, 1899 (1 vol.). *Mouvement de la population*, volumes annuels.

Annuaire statistique, 1^{er} vol. 1904.



RUSSIA

Recensement 1897 (Relevé général pour l'Empire: 2 vol.; par gouvernement: 89 vol.).

Mouvement de la population, vol. annuel depuis 1867.

Annuaire statistique 1904, 1905 (2 vol.).

SERBIA

Recensements de 1890 (1 vol.); 1895 (2 vol.); 1900 (2 vol.).

Mouvement de la population, années : 1886 à 1890 (1 vol.); 1891; 1892; 1893; 1894 à 1899 (1 vol.); 1901 à 1905 (1 vol.).

Annuaire statistique, depuis 1893.

SPAIN

Censo de la poblacion, 1857 (1 vol.); 1860 (1 vol.); 1877 (3 vol.); 1897 (1 vol.); 1900 (2 vol.).

Movimiento de la poblacion, 1861 à 1870 (1 vol.); 1900 (2 vol.), 1901 (2 vol.).

SWEDEN

1° Bidrag till Sveriges officiella statistik. Befolknings statistik:

Population au 31 décembre 1855 et *tables de mortalité* 1816-40, 1840-50 et 1851-55 (2 vol.); population au 31 déc. 1860 et *tables de mortalité* 1856-60 (2 vol.); population au 31 déc. 1870 et *tables de mortalité* 1861-70 (2 vol.); population au 31 déc. 1880 et *tables de mortalité* 1871-80 (2 vol.); population au 31 déc. 1890 et *tables de mortalité* 1881-90 (2 vol.); population au 31 déc. 1900 (2 vol. parus).

Mouvement de la population: 1851-55 (1 vol.); 1856-60 (1 vol.); volume annuel depuis 1861.

2° *Statistik Tidskrift* (bulletin de statistique, 3 numéros par an depuis 1860).

SWITZERLAND

Statistique de la Suisse:

Recensements fédéraux de 1860 (4 vol.), de 1870 (3 vol.), de 1880 (1 vol.), de 1888 (3 vol.), de 1900 (3 vol.).

Mouvement de la population : volumes annuels depuis 1867.

Mariages, naissances, décès en Suisse de 1871 à 1890 (4 vol. parus de 1895 à 1903).

Annuaire statistique, depuis 1891.

UNITED KINGDOM AND IRELAND

Census décennaux : Angleterre et Pays de Galles depuis 1801 ; Ecosse, depuis 1801 ; Irlande, depuis 1821.

Quarterly Return of Births, Deaths and Marriages. — Bulletin trimestriel: naissances décès et mariages: Angleterre et pays de Galles depuis 1849, Ecosse depuis 1855, Irlande depuis 1864.

Annual Report of the Registrar general of Births, Deaths and Marriages. — Rapport annuel: Angleterre et Pays de Galles depuis 1837, Ecosse depuis 1855, Irlande depuis 1864.

Supplements of the Annual Reports: Angleterre et Pays de Galles: Suppléments aux rapports annuels no. 25, 35, 45, 55, 65 : *Mortality in England*, périodes 1851-60 (1 vol); 1861-70(1 vol.); 1871-80 (1 vol.); 1881-90 (2 vol.); 1891-1900 (1 vol. paru); — Ecosse: Supplément au rapport annuel no. 48; *Vital statistics* 1891-1900 (1 vol.); — Irlande : Suppléments aux rapports no. 17, 27, 37: *Summaries for* 1871-80, 1881-90, 1891-1900 (3 vol.); no. 29 : *Surnames in Ireland* (1 vol.); no. 38, *Cancer in Ireland* (1 vol.).

Comprehensive online data are available at <http://www.histpop.org>. It appears that all of the above data



are available at this site. The website appears to consist entirely of scanned images of publications. The website says it is possible to download a machine-readable version of some tables, but I could not find any such tables. I only saw scanned images. However the resolution of the images is adequate for optical character reading software. A few maps are included along with some useful essays which contextualise the material found elsewhere in the site, and provide a comprehensive history of registration and population statistics within the British Isles before the Second World War. (www.histpop.org). ” The Online Historical Population Reports (OHPR) collection provides online access to the complete British population reports for Britain and Ireland from 1801 to 1937. The collection goes far beyond the basic population reports with a wealth of textual and statistical material which provide an in-depth view of the economy, society (through births, deaths and marriages) and medicine during the nineteenth and early twentieth centuries. These 200,000 pages of census and registration material for the British Isles are supported by numerous ancillary documents from The National Archives, critical essays and transcriptions of important legislation which provide an aid to understanding the context, content and creation of the collection” (www.histpop.org).



Table 2. Number of Units of Analysis Used in Studies of Marital Fertility Decline in 19th Century Europe

<u>Country</u>	<u>Units</u>	<u>Source</u>
Belgium	41 arrondissements	Laesthaege 1977
France	81 departments	Van de Walle 1978
Germany	71 provinces	Knodel 1974
"	71 provinces	Richards 1977
"	407 Kreise in Prussia	Galloway et al. 1994b, 1998a, 1998b
"	54 cities in Prussia	Galloway et al. 1998b
"	152 rural districts in Bavaria	Brown and Guinnane 2002
"	24 urban districts in Bavaria	Brown and Guinnane 2002
Italy	92 provinces	Livi Bacci 1977
Netherlands	375 districts	Boonstra and van der Woude 1984
Portugal	18 provinces	Livi Bacci 1971
"	20 provinces	Oliveira 2006
"	250 concelhos	Oliveira 2006
Russia	50 provinces	Coale et al. 1979
Spain	50 provinces	Reher and Iriso-Napal 1989
"	84 areas in Catalonia	Benavente 1989
Sweden	25 counties	Mosk 1983
"	25 counties	Dribe 2006
United Kingdom	125 registration districts	Haines 1979
"	619 urban districts	Crafts 1984
"	101 towns	Crafts 1989
"	590 districts	Woods 1987
"	222 urban districts	Woods 1987
"	368 rural districts	Woods 1987
"	600 districts	Friedlander et al. 1991



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