



UMEÅ UNIVERSITY

Behind the Numbers

Authorities' Approach to Measuring Disability in Swedish Populations from 1860 to 1930

Maria J. Wisselgren and Lotta Vikström

CEDAR Working Papers 2021:8

Centre for Demographic and Ageing Research

Behind the Numbers

Authorities' Approach to Measuring Disability in Swedish Populations from 1860 to 1930

Maria J. Wisselgren

Centre for Demographic and Ageing Research (CEDAR), Umeå University, Sweden

Lotta Vikström

Dept. of Historical, Philosophical and Religious Studies, Umeå University, Sweden

Centre for Demographic and Ageing Research (CEDAR), Umeå University, Sweden

Abstract

This study investigates the main features of collected disability statistics for the nationwide censuses in Sweden from 1860 to 1930. During this period, the disability prevalence rose from four to 21 individuals per thousand of the population. To understand this significant rise, there is a need to peer behind the census numbers to trace Swedish authorities' approach to measuring disabilities in the population. We use qualitative methods to analyze the authorities' means of collecting, categorizing, and defining disability, while quantitative methods help us estimate the prevalence by disability type and gender across the study period in urban and rural areas. Our long-term findings reveal that the increase of disability prevalence in Swedish populations, and especially the peak in 1930, reflect a new approach to measuring disability. Authorities applied other methods to collect disability data by using additional sources, wider disability definitions, as well as introducing new categories. The temporal variations in disability prevalence were largely influenced by the censuses becoming more scientific in their reporting of disabilities, as well as by societal concerns and by what was viewed as disabling conditions when the censuses were taken.



Behind the Numbers: Authorities' Approach to Measuring Disability in Swedish Populations from 1860 to 1930*

Maria J. Wisselgren, Research Analyst/Doctor in History | Centre for Demographic and Ageing Research (CEDAR) | Umeå University | SE-901 87 Umeå, Sweden | *E-mail*: maria.wisselgren@umu.se | *Orcid*: 0000-0001-7819-7913

Lotta Vikström, Professor of History | Dept. of Historical, Philosophical and Religious Studies | Centre for Demographic and Ageing Research (CEDAR) | Umeå University | SE-901 87 Umeå, Sweden | *E-mail*: lotta.vikstrom@umu.se | *Orcid*: 0000-0001-9042-9166

Abstract

This study investigates the main features of collected disability statistics for the nationwide censuses in Sweden from 1860 to 1930. During this period, the disability prevalence rose from four to 21 individuals per thousand of the population. To understand this significant rise, there is a need to peer behind the census numbers to trace Swedish authorities' approach to measuring disabilities in the population. We use qualitative methods to analyze the authorities' means of collecting, categorizing, and defining disability, while quantitative methods help us estimate the prevalence by disability type and gender across the study period in urban and rural areas. Our long-term findings reveal that the increase of disability prevalence in Swedish populations, and especially the peak in 1930, reflect a new approach to measuring disability. Authorities applied other methods to collect disability data by using additional sources, wider disability definitions, as well as introducing new categories. The temporal variations in disability prevalence were largely influenced by the censuses becoming more scientific in their reporting of disabilities, as well as by societal concerns and by what was viewed as disabling conditions when the censuses were taken.

Keywords: Swedish history, Population Statistics, Disability Prevalence, Historical Censuses, Disability Definition

* This project has received funding from the European Research Council (ERC) under the European Union's Horizon 2020 research and innovation programme, Grant Agreement No. 647125, 'DISLIFE Liveable Disabilities: Life courses and opportunity structures across time', headed by Lotta Vikström. This paper is the pre-print version submitted (July 2021) to a scientific journal (*Historical Methods*).

Introduction

In Sweden, authorities systematically collected disability statistics for the censuses during the period from 1860 to 1930. Between these years, the disability prevalence rose from four individuals to 21 per thousand of the population. Even if the prevalence was low, the increase over time was indeed substantial. Today, high and middle-income countries, including Sweden, report a prevalence from 100 to 200 per thousand of the population,¹ while many low-income countries report only 50 per thousand or below. Prevalence estimations can differ significantly both within and across countries, as the means of defining and measuring disability are not consistent; nor have they been historically, as our study will show. In the present-day world, there is an expressed need to facilitate and harmonize data collection on disability to make cross-country comparisons and to increase global awareness of disabilities (Mont, 2007; WG; WHO²). Our study shows that Swedish census reports addressed some of these issues more than 150 years ago in order to improve the definition, collection, and reporting of disabilities in the population.

Within the fields of historical population studies and historical demography, population registers and censuses have been extensively studied to obtain knowledge on health and living conditions in past societies (Osamu, 1996). While health issues in terms of mortality, diseases, and epidemics have been examined accordingly and have helped establish the subfield of medical history, disabilities have received little recognition from historians using past population records. One explanation for this is probably the insufficient reporting of disabilities in these records, which jeopardizes any further examination. Another explanation might be that disability history is a comparatively recent subfield within the history discipline. Since disability history was established in the 1980s, it has primarily encouraged qualitatively oriented social historians having a research interest in minorities or marginalized groups in society, who examine narrative sources describing disability issues (Kudlick, 2003; Kudlick, 2018).

Statistics are not objectively collected in a vacuum in a statistical bureau, but in a political, scientific, and governmental milieu with certain intentions. Previous research has likewise stressed the political nature of censuses and the importance of population statistics for the

¹ Present-day estimations suggest that between 1.3 and 1.8 million of the total Swedish population (10.3 million) has some type of disabilities (<http://www.funka.com/design-for-alla/tillganglighet/statistik/>).

² <https://www.washingtongroup-disability.com> [2021.04.20] and <https://www.who.int/news-room/factsheets/detail/disability-and-health> [2021.04.20].

formation of the nation during the late 19th century, where the censuses have been described as a nation-making instrument (Schor, 2017; Lie, 2002; Lie and Roll-Hansen, 2001; Rogers and Clark Nelson, 2003). Scholars emphasize that the categorization of the population in the censuses was shaped by normative views and played a vital role as a policy tool in the formation of the nation. The development of statistical categories became part of the construction of “the other”, by using classifications referring to ethnicity, class, and gender (Höjer, 2001, 29-30; Vikström, 2010; Brännlund and Axelsson, 2013). In studies of the formation of the Swedish nation, scholars have explained the statistical categories in terms of moral statistics, as a means to describe the social behavior of the population. This illustrated an increasing interest in enumerating and distinguishing “normal” groups from “abnormal”, and to identify the poor, sick, or other “deviants” in population. Interest in moral statistics increased during the 19th century in Europe and the Western world and was followed by numerous surveys of the health of the population stock to improve its future quality (Lie and Roll-Hansen, 2001; Schor, 2017; Höjer, 2001, 165; Björkman, 2001).

While definitions and categorizations of class, gender, and ethnicity have been subject to many studies and critical investigations, disability has not been to a similar extent.

Knowledge of the use of disability definitions and categorizations in historical population records like these censuses is still insufficient and poorly differentiated, mainly because they do not report comprehensive disability data, which in turn can limit their usage for research. By examining Swedish censuses from 1860 to 1930, we will contribute with results that not only identify the use of disability definitions and categorizations, but also their impact on the prevalence of disabilities in past populations.

The overall aim of this study is to investigate how Swedish authorities collected and reported disability statistics in the censuses between 1860 and 1930, in particular regarding whether and how:

- (1) the methods and sources of collecting disability data used by national authorities changed;
- (2) the disability categories and definitions were altered;
- (3) the approach to measuring disability affected its prevalence over time, with regard to different disability categories and gender in urban and rural areas.

Answering these questions enables us to discuss both the benefits and drawbacks of using censuses as a resource for studying disabilities in history.

Materials and Methods

The census reports conducted between 1860 and 1930 constitute the primary sources of our longitudinal study. These start with the first nominative census³ of 1860 and end with the extensive census of 1930. During this period, a census was conducted every tenth year, all of which included information and statistics about disabilities in the population. After 1930, the censuses were conducted more irregularly; mainly every fifth year, but none of them reported any disability data.

For each census taken, Statistics Sweden compiled and published a census report.⁴ It contained aggregated population statistics for the whole nation based on individual-level data. With some variations over time, these reports provided data on the sociodemographic structures and health status of the population with regard to age, gender, mortality, marital status, household compositions, geographical location, occupations, ethnicity, religious affiliation, and disability. Every census report further provided information about how the data about the population was collected and presented statistically, which we examine with respect to disability. Statistics Sweden has digitalized and published all census reports from 1860 to 1960 on its website, which makes them an accessible source to investigate.⁵

Methodologically, this study makes use of both qualitative and quantitative analysis to identify the collection, reporting, definition, and categorization of disability statistics in the censuses, and their changes over time. Our qualitative analysis implies an examination of Statistics Sweden's instructions concerning census taking, the types and definitions of disabilities considered in the census reports, and those subject to enumeration. This helps us uncover temporal variations regarding the measuring and data collection associated with disabilities at each census taking, which would affect the disability statistics reported. Our quantitative analysis implies estimations of disability prevalence in the population based on the disability statistics reported in each census. We further differentiate the prevalence in order to identify gender differences over time in urban and rural areas.

³ Nominative censuses are enumerations that list individuals by name, and provide information about the person, his/her family, household, and other variables collected in the census (Thorvaldsen, 2018).

⁴ Censuses taken during the period 1860 to 1900 were published in: Bidrag till Sveriges officiella statistik. A, Befolkningsstatistik (BiSOS A). Subsequent censuses are included in the series: Sveriges officiella statistik (SOS).

⁵ <https://www.scb.se/hitta-statistik/aldre-statistik/innehall/sveriges-officiella-statistik-sos/folk-och-bostadsrakningarna/>.

Similar to the vocabulary used at the time, the Swedish censuses used the term “lyte” to describe all disability types. In this study, disability refers to “lyte”. Other contemporary concepts for different disabilities that we come across in the censuses and make use of below might appear insulting due to their derogatory meaning today. However, when used, it is without any intention to offend and only to avoid translation issues.

Results

Methods of Collecting Disability Statistics

Historically, censuses worked as a tool to collect and obtain detailed information about the population as a whole. The main objective behind collecting population statistics was for local and national planning and administration. Already in the late 17th century, the Swedish state started to keep records of the entire population, which was exceptional from an international perspective. Compared to other Western countries, Sweden differed in the way census data was taken. The *de jure* principle was used, associating inhabitants with their legal residence when collecting information for censuses. In many other countries, census takers, enumerators, collected information about the population by registering people at a specific time in a specific place. Census takers, in that sense, were not seen in Sweden, as parish ministers provided all population data to the decennial censuses.

When it was time to implement the first nominative census in 1860, a royal decree designated the catechetical examination registers (*husförhörsbok*) as the primary source of information for the censuses (Census 1860, XXXIV; Wisselgren et al., 2014). These registers were exhaustive, well-organized, and comprised the total population, as all inhabitants in the country belonged to the Swedish Lutheran Church by law (Lext, 1984, 33-34; Thorvaldsen, 2018; Axelsson and Wisselgren, 2018, 63-64). Statistics Sweden organized the censuses and gave instructions to the ministers regarding what information to provide. The ministers selected the information called for, on an individual basis, and transcribed it onto pre-printed forms designed by Statistics Sweden (see Figure 1) (Census 1870, I; Axelsson and Wisselgren, 2018, 65-66).

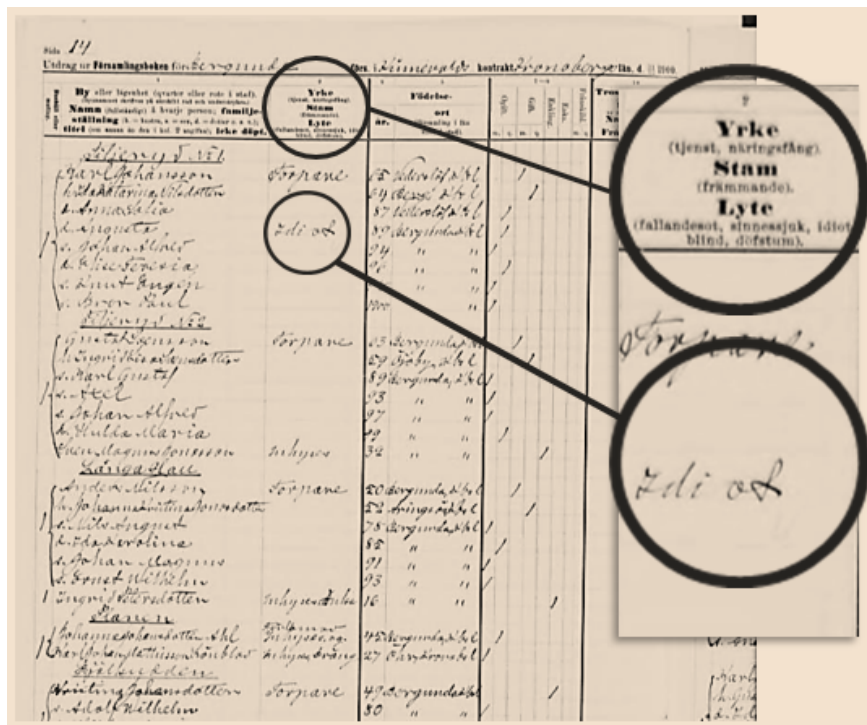


Figure 1. Image of a pre-printed census form, Bergunda parish in Kronobergs county, 1900.

Source: Statistics Sweden (SCB) – Församlingsboksutdrag, 1900 census. SE/RA/420401/08/H 1 AA/25. [https://sok.riksarkivet.se/bildvisning/A0061156_00030].

Notes: The second column in the pre-printed census form designed for the 1900 census shows information about occupation (*yrke*), ethnicity (*stam*), and disability (*lyte*) recorded by the minister. The header specifies what types of disabilities to register (i.e., epilepsy, insanity, idiocy, blindness, and deaf-muteness). As highlighted in the image, the minister in this parish has written “idiot” after one of his parishioners.

A census taking was a huge statistical exercise. When the pre-printed forms from all parishes were collected, census officials at Statistics Sweden reviewed and compiled the received population information. They inspected every form, carefully following specific instructions. Ambiguous data was noted and sent back to the parish ministers for correction (Axelsson and Wisselgren, 2018, 75). When all forms were checked and adjusted, the individual-level information was aggregated into geographical areas (urban/rural, county and national level) and into different categories such as gender, age, marital and occupational statuses, ethnicity, and disability, for example. The aggregated statistics were subsequently presented in the census reports. A report usually contained up to three volumes depending on how extensive the census itself had been.

These procedures for census taking persisted during the period studied, however, by the end of the 19th century, census officials stressed that ministers’ disability reporting was

inadequate and not based on medical assumptions (Census 1880). Hence, parish ministers were not only responsible for the collection of census data; they were, every so often, also giving the parishioners the disability diagnoses. The census officials stated that the census forms included too many ambiguities regarding certain disabilities that the ministers reported among the parishioners (Census 1890). The ministers, as well, expressed dissatisfaction with the current method of using parish registers as the only source of information for the census. This interfered with their actual clerical ministry and implied extra administrative duties for them. Consequently, in 1910, authorities like Statistics Sweden and the Lutheran State Church collectively addressed a proposal to the Royal Majesty (*Kunliga Maj:t*) and the Parliament (*Riksdagen*) requesting to include supplementary sources in the compilation of data for forthcoming censuses (Axelsson and Wisselgren, 2015, 77-78). The proposal was accepted, and the 1920 census took a wider approach to collecting statistics about the population by involving other sources. Besides the parish registers, information was collected from the yearly poll tax registration (*mantalsskrivning*). The poll tax form (*mantalslängd*) consisted of a self-reported questionnaire provided at the end of each year, in which the head of every household answered questions about his/her occupation, income, education, disabilities etc. and those of other household members.⁶

As for the census takings in 1920 and 1930, the method of collecting population data changed overall and was based on two general sources: the catechetical registers and the self-reported information from the annual poll tax questionnaires. Consequently, from 1920 onward, not only parish ministers provided disability information to the censuses, but also household heads or members, when they had any disabilities to report. However, this was not the first time Statistics Sweden used other sources to complete and ensure reception of the information from the parish registers regarding disabilities in the population, as explained below.

⁶ In 1930, when an extraordinarily extensive census was conducted, detailed guidance was sent out to every household in order to identify and classify the form of disability to collect in the census. For this census, special municipal officials (*kommunalombud*) were recruited and organized in census districts to help the public complete and fill in the poll tax forms correctly. These officials also collected, corrected, and complemented the forms if required, before sending them to Statistics Sweden. When needed, these officials furthermore assisted the parish ministers with the transcription of information from the parish registers (Axelsson and Wisselgren, 2018, 65).

Changes in the Collection and Categorization of Disability Data

Throughout the period scrutinized, Statistics Sweden did not explicitly state the reasons for collecting disability statistics or why different types of disabilities were enumerated, neither in the census reports nor in the census instructions to the ministers. However, the benefits of conducting a nominative census for the purpose of state administration were stressed in the 1860 census report, as it became of importance to identify disabled people staying at different forms of care institutions. This was of state interest both to monitor people enrolled at institutions and to avoid double registration of disabled individuals at institutions (by register disabled people both in their home parish and at the parish of the institution). In the 1860 census report, it was stated that the intention with collecting nominal data was to gather as much information as possible about the population, as this would be useful for both state administration and for scientific purposes and disability statistics, as well:

However, the statistical information in question, like all others, should be intended to provide as much information as possible for both science and public administration. For such a purpose, it would perhaps be best if the count of the insane could henceforth be subject to special health and medical care statistics, based on surveys carried out by national doctors in accordance with the regulations specified by the Royal Board of Health (Census 1860, XXXIV).⁷

Even if Statistics Sweden's intention with the nominative censuses was to collect as much information as possible, it is evident, when examining the census reports, that the officials at Statistics Sweden were not satisfied with the ministers' reporting, especially of mental disabilities as the quote illustrates. Different governmental agencies, in need of disability statistics, did not consider the censuses completely reliable sources. Some departments carried out their own investigations to obtain more consistent data, as a substitute to the censuses. For instance, in 1901, the National Board of Health (*Medicinalstyrelsen*) conducted an independent investigation to achieve more adequate information on the number of mentally disabled individuals in the population who were in need of institutional care:

The fact that the information obtained from the censuses about insane people and idiots was incomplete has long been considered plausible, and this is confirmed by the survey carried out

⁷ ”Den ifrågavarande statistiska uppgiften bör emellertid liksom alla andra afse att så vidt möjligt bereda någon upplysning både åt vetenskapen och statsförvaltningen. För sådant ändamål vore måhända bäst, om redogörelsen för de sinnessjuka framdeles kunde blifva föremål för den speciela helso- och sjukvårdsstatistiken och grundas på undersökningar anställda af Rikets läkare enligt särskilda föreskrifter af Kongl. Sundhets-Kollegium” (Census 1860, XXXIV).

by the National Board of Health, announced on June 14th, 1901, implemented for the purpose of identifying the total number of insane and feeble-minded (idiots) in the nation, and how many of them were in need of institutional care (Census 1900, XLVI).⁸

Physicians, with a medically based definition of the term mentally ill, were commissioned and their investigation revealed that the number of people with a mental disability was almost the double compared to the census reports. From then onwards, the census numbers were compared and adjusted in accordance with the figures collected by the National Board of Health, and by 1920, the difference between the two sources was trivial (Census 1900, IXLV-XLV; Census 1920, II, 55).

Similarly, the Ministry of Ecclesiastical Affairs (*Ecklesiastikdepartementet*) needed more accurate numbers regarding blind people in Sweden. In 1920, the ministry conducted an investigation, which showed that the number of blind people in the population was higher than the figures reported in the 1920 census (Census 1920, 64). Results from this investigation supplemented the information from the parish registers and the poll tax questionnaires in the 1920 census, in order to increase the identification of blind people in the population. As for the 1930 census, Statistics Sweden furthermore extracted information about blind people from membership registers held by various associations of visually impaired people, to improve the statistics even more (Census 1930, 25-26).

Not only did the collection of disability statistics change over time, but the disability categories in the censuses evolved as well. Some persisted, while new categories were included. As Table 1 shows, the categories of insanity, blindness, and deaf-muteness persisted throughout the scrutinized period. In 1880, the category of insanity was divided into “idiocy” and “insanity”. The ministers were told to distinguish those who had a mental or intellectual disorder since childhood (“idiots”) from those who had become ill later in life (“insane”). In 1900, epilepsy was included as a disability category in the census reports and “cripple” in 1930.

⁸ ”Att det vid folkräkningarne erhållna uppgifterna om sinnessjuka och idioter voro ofullständiga, har man länge ansett sig kunna antaga, och denna förmodan bekräftas af den undersökning, som Kungl. Medicinalstyrelsen, jämlikt i nådigt bref den 14 juni 1901 meddeladt uppdrag, lät verkställa i syfte att utröna hela antalet sinnessjuka och sinnesslöa (idioter) inom riket, samt huru stor del af dem finge anses vara i behof af vård å anstalt” (Census 1900, XLVI).

Table 1. Disability categories in the Swedish census reports 1860 to 1930.

Disability category	1860	1870	1880	1890	1900	1910	1920	1930
“Insanity”	x	x	x	x	x	x	x	x
“Idiocy”			x	x	x	x	x	x
Blindness	x	x	x	x	x	x	x	x
Deaf-muteness	x	x	x	x	x	x	x	x
Epilepsy					x	x	x	x
“Cripple”								x

Figure 2 distributes the prevalence per disability category and shows that blindness and deaf-muteness were relatively low and stable during the whole study. The prevalence of “insanity” decreased in 1880, when it was divided into the two categories “insanity” and “idiocy”. By 1930, the prevalence of these two categories had more than doubled. Until the census of 1930, only blindness, deaf-muteness, and different types of mental disabilities were the disability categories observed and reported in the census reports. In 1930, “cripple” (physical impairment) was regarded as a disability valuable to enumerate in the census and it demonstrated the highest prevalence of all categories under consideration.

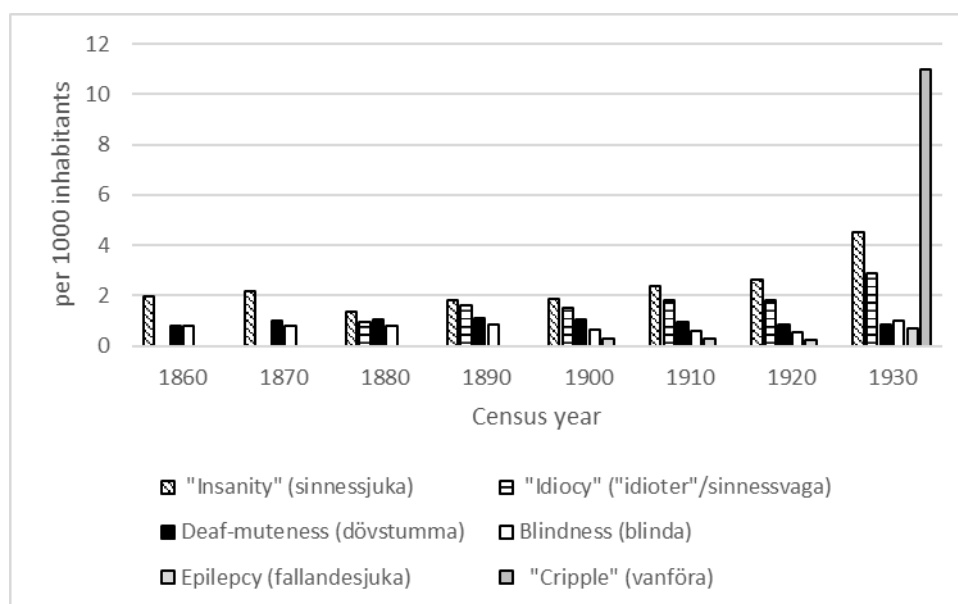


Figure 2. Distribution of prevalence per disability category 1860 to 1930.

Sources: Census reports 1860 to 1930 and *Historical Statistics of Sweden* (1969).

Note: 1860 (N= 3 859 728); 1870 (N= 4 168 525); 1880 (N= 4 565 668); 1890 (N= 4 784 981); 1900 (N= 5 136 441); 1910 (N= 5 522 403); 1920 (N= 5 904 489); 1930 (N= 6 142 191).

With new disability categories enumerated and included in the censuses, the definition of disability widened and became more differentiated over time. In the next section, we show how this affected the number of people classified as disabled in the population when the prevalence for each specific category is analyzed by gender in urban and rural areas.

Temporal variations in disability prevalence by gender in urban and rural areas

In its census reports, Statistics Sweden classified the disabled part of the population in accordance with the disability categories presented above. In 1860, the total disability prevalence in Sweden was four individuals per thousand of the total population. Figure 3 shows that it stayed relatively consistent for many years. In 1890, the prevalence was five per thousand and then six in 1920. However, ten years later in 1930, it more than tripled to 21 per thousand in the population.

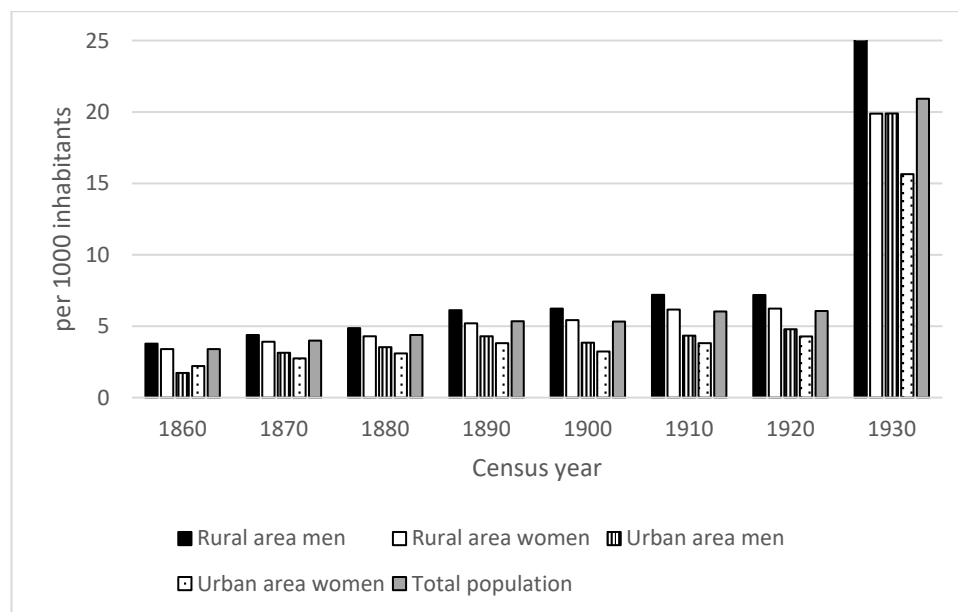


Figure 3. Disability prevalence among men and women in rural and urban areas of Sweden. **Sources:** Census reports 1860 to 1930, and *Historical Statistics of Sweden* (1969).

Figure 3 further shows that there were some urban versus rural as well as gender variations in disability prevalence between 1860 and 1930. Only in 1860, urban women showed a slightly higher prevalence compared to urban men while in all subsequent census reports, women in towns showed a lower disability prevalence than urban men did. In general, the

prevalence was higher among men than women, and lower in urban populations than rural. In 1930, the gender difference was sharper both within urban and rural areas.

Below, the prevalence of each specific disability category is further described, following the order in which the categories were introduced in the census reports during the study period (cf. Table 1). The prevalence of each disability category is distributed by gender in urban and rural areas.

Mental disorders

For the 1860 census, Statistics Sweden instructed the parish ministers to send information about all parishioners with any form of insanity. The census officials reported problems concerning the categorization of mental disorders. First, they had difficulty estimating the number of mentally ill in the population due to under-registration, since some people, or their family, might hide their mental illness. Secondly, officials were confused about what types of mental disorders the ministers included in their reporting and whether they excluded some sorts of illnesses. The scope of the category “insanity” was too wide and included too many concepts, the officials argued, questioning whether the ministers really described mental disorders at all (Census 1860, XXXIV).

The census of 1860 reported insanity in the population by gender in urban and rural areas, and by making international comparisons. In the 1870 census, insanity was distributed by age groups as well. As explained above, the 1880 census distinguished those who had a mental or intellectual disability since childhood from those who had become mentally ill later in life. “Idiocy” was the term used to define the former, while “insanity” referred to the latter. This census enumerated mental disability by marital status as well. The 1910 census distributed the statistics of mental disability further by also accounting for occupation. In the 1920 census, the statistics were more accurate than before, the officials argued, since information derived partly from the investigation by the National Board of Health, and partly from the poll tax registration questionnaire, was added to the parish registers. In the 1920 census, a change in terminology occurred referring to the use of feeble-minded instead of “idiots”. Notably, the 1930 census reported mental disability among ethnic minorities in Sweden for the first time, such as the Finns and the indigenous Sami people. The census found these minority groups to have a very high prevalence of mental disability.

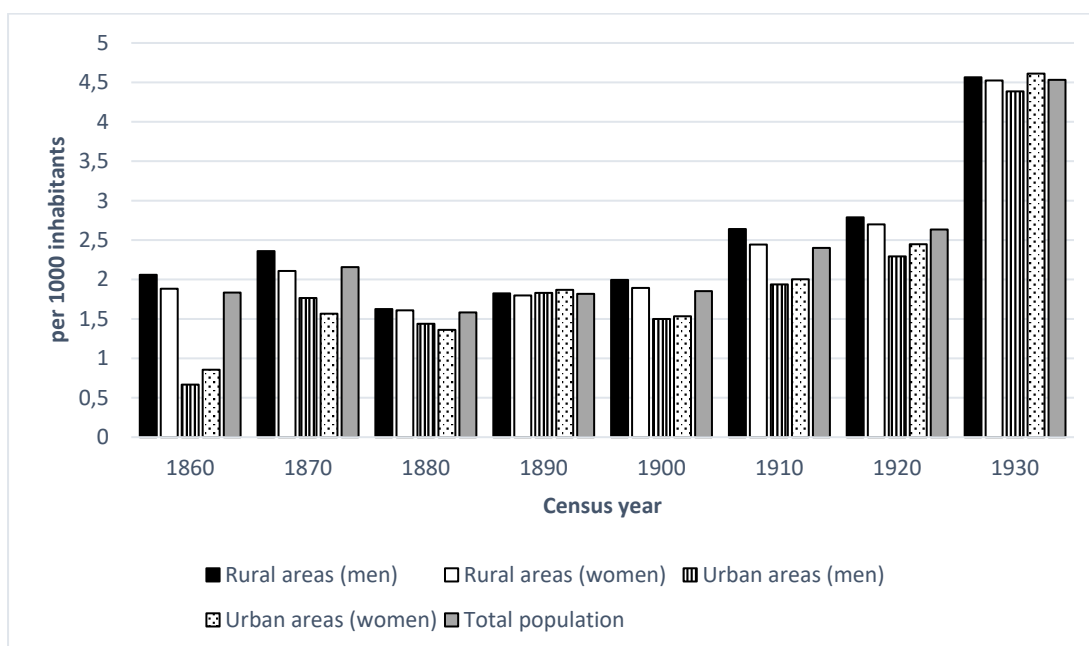


Figure 4: Prevalence of “insanity” in Swedish populations by gender in urban and rural areas. Sources: Census reports 1860 to 1930 and *Historical Statistics of Sweden* (1969).

The prevalence of “insanity” among men and women in urban and rural areas is shown in Figure 4. This prevalence was higher in the latter area in 1860 and 1870 but decreased for both genders from 1880, when the census distinguished “insanity” from “idiocy”. In 1890, the prevalence of “insanity” was equal in rural and urban areas, while the following censuses reported a higher prevalence in the countryside yet again and up until the peak of 1930, which concerned rural as well as urban areas. The prevalence of “insanity” was slightly higher among men in rural areas and somewhat higher among women in urban areas.

As for the prevalence of “idiocy”, the pattern was slightly different from “insanity”. Between 1880 and 1930, the prevalence of “idiocy” increased, especially in rural areas and in men, although women’s rates rose as well. In urban environments, “idiocy” was less pronounced over time (Figure 5).

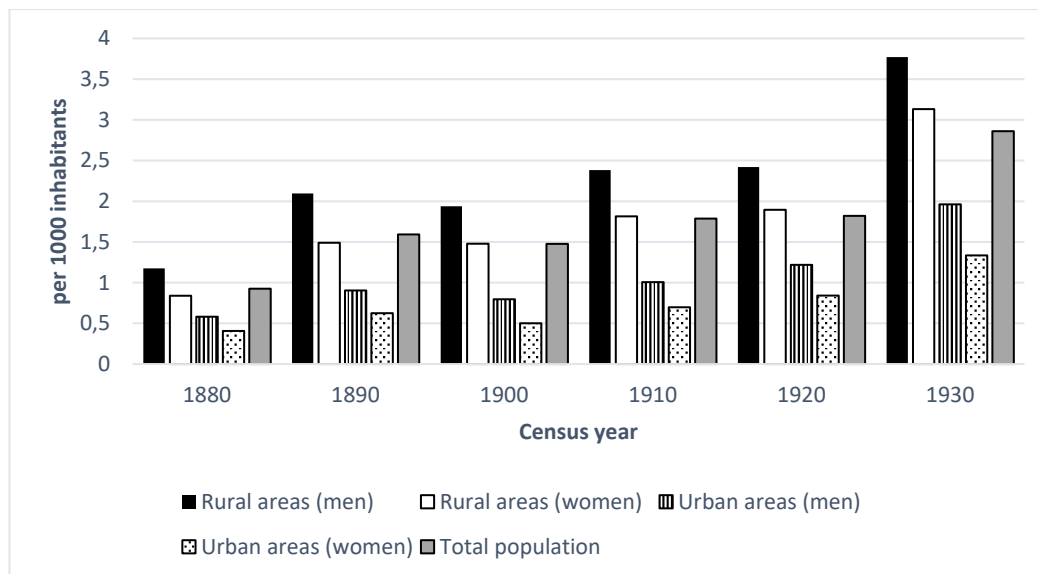


Figure 5: Prevalence of “idiocy” in Swedish populations by gender in rural and urban areas. **Sources:** Census reports from 1860 to 1930 and *Historical Statistics of Sweden* (1969).

In 1930, the prevalence of mental disability (“insanity” and “idiocy”) peaked. The extended use of supplementary sources, in parallel with modifications regarding the definition of mental disorders, was not the only reason for this peak according to census officials. They also recognized some circumstances in society having negative effects on mental health in the population, such as mass emigration to North America, depriving both the country and families of a strong and healthy resource (Census 1920, 56).

Blindness

From the 1860 census until 1930, blindness in the population was enumerated. However, it was not clear in the 1860 census whom to count as blind and thus include in this category. It was debated whether or not infants who had contracted an eye disease, or if individuals being half-blind or having an eye sickness should be included in the group defined as blind. Conclusively, census officials decided to include statistics only regarding people with complete loss of sight. For future census takings, officials suggested that the ministers mark whether blindness was congenital or acquired. In the census of 1860, blindness in the population was reported by gender and geographical areas (counties, urban and rural). It was noticed that several institutions for blind people were located in rural areas, offering blind inmates housing and education. In the 1870 census, blindness was reported by variables such as gender, age, geographical areas, and marital status. Heredity factors, as well as

educational institutions for blind people, were also considered in this census. In that of 1910, their occupations were reported and found to be relatively scant. The census of 1930 stated that the educational level among blind people was unsatisfactory low, although many of them could find support in adulthood through work in the handicraft sector (Census 1930, 27). Similar to mental disorders, ethnic minorities especially represented blindness according to the statistics reported in the 1930 census.

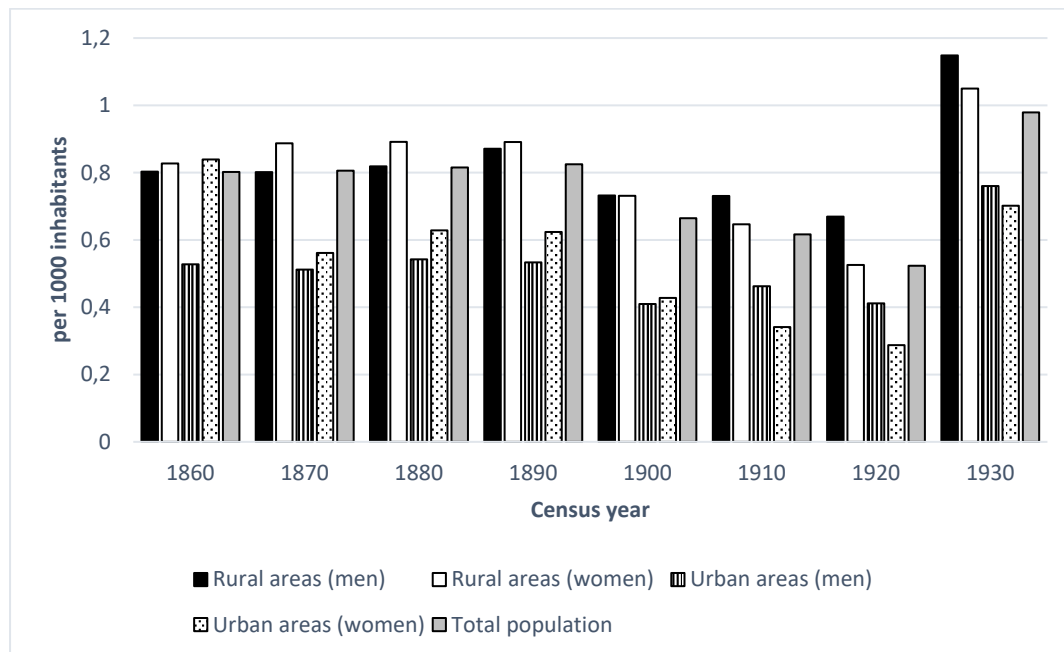


Figure 6: Prevalence of blind people in Swedish populations by gender in rural and urban areas. **Sources:** Census reports from 1860 to 1930 and *Historical Statistics of Sweden* (1969).

The prevalence of individuals regarded as totally blind was fairly small and stable from 1860 to 1890, with a slow decrease during subsequent decades until 1920 (Figure 6). In 1930, the prevalence of blind people rose. During the whole period studied, the prevalence was higher in rural areas. From 1860 to 1900, women in rural areas had a slightly higher prevalence compared to men. This gender difference reversed from 1910, when blind men in rural areas showed a slightly higher prevalence than women did. The census explained the higher prevalence of blindness in rural populations by the association between old age and loss of vision, because the countryside was largely populated by elderly people. Additionally, many educational institutions for blind individuals were located in rural areas. In the census reports, better access to eye doctors in towns further explained the urban-rural difference, as they could treat eye problems, which lowered the rate of blindness in urban populations.

Deaf-muteness

In the past, people with a complete inability to hear were often perceived as being both deaf and mute, because they lacked the ability to communicate orally. In all censuses between 1860 and 1930, the term deaf-mute (*dövstum*) referred to people who were unable to hear. During the entire period, deaf-muteness was reported by the same variables as was blindness in the censuses. In the census of 1910, which concerned occupations among disabled people, it is mentioned that those in the category of deaf-muteness had better chances of finding work, such as a tailor or seamstress, compared to people with other disabilities.

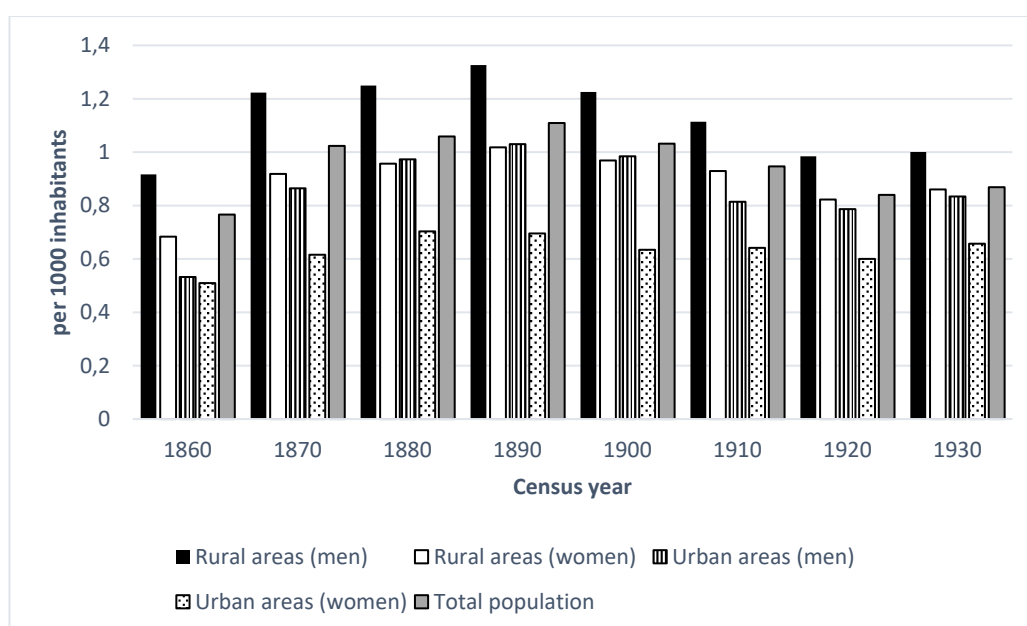


Figure 7: The number of deaf-mute in Swedish populations by gender in rural and urban areas. **Sources:** Census reports from 1860 to 1930 and *Historical Statistics of Sweden* (1969).

The prevalence of deaf-muteness in Swedish populations was low from 1860 to 1930 and in comparison with blindness, as Figure 7 illustrates. Between 1860 and 1890, the prevalence increased slightly, but from 1890 onwards, it decreased. Unlike the disability categories discussed above, the prevalence of deaf-muteness did not peak in 1930. There were clear differences between urban and rural areas, as this prevalence was markedly higher in the latter throughout the study period. The gender differences were obvious as well, since the rate in deaf-muteness was higher in men than in women both in rural and urban areas. Women in towns show the lowest rate, which persisted over time.

Epilepsy

The census of 1900 enumerated people with epilepsy (*fallandesjuka*) for the first time, although it appeared in very few cases and thus had a low prevalence (Figure 8). The census officials explained this by the uncertainty involved with collecting this kind of information. For example, there was confusion about whether the ministers had really registered the correct case of epilepsy, namely “epilepsy idiopathica”.⁹ Since the statistics on epilepsy were regarded as deficient, the census officials found it difficult to compare over time. They further argued that people tried to hide this type of disability, as epilepsy constituted an impediment to marriage.



Figure 8: The prevalence of epilepsy in Swedish populations by gender in rural and urban areas. **Sources:** Census reports from 1860 to 1930 and *Historical Statistics of Sweden* (1969).

The prevalence of epilepsy in the population was low overall and quite stable according to the two censuses of the 20th century. In 1930, it rose significantly, as was the case with all other types of disabilities enumerated in the censuses, except deaf-muteness. The prevalence

⁹ According to *Nordisk familjebok* (1907), epilepsy (*fallandesot*) was considered a mental illness since it was long perceived as a neurosis. (*Nordisk familjebok*, Uggleupplagan, 1907, 1323, *fallandesot*). See also Riving (2012, 39).

of epilepsy was higher in rural areas than in towns, while there were no prominent gender differences.

“Cripple”

The census of 1930 took account of people being “crippled” (*vanföra*). This was the first occasion in which physical disabilities were statistically counted in a Swedish census. Statistics Sweden defined a “crippled” person as someone having chronic or bodily dysfunctions, regardless of whether it was congenital or caused by an accident or illness (Census 1930, 28).

Even if the overall disability prevalence in the Swedish population was low during the study period, irrespective of the peak in 1930, the rate of “crippled” cases in 1930 was the highest compared to all other disability categories considered. This rate was higher in rural populations than in urban ones, and more prevalent in men than in women no matter whether they lived in the countryside or in towns (Figure 9). Census officials explained this by noting the older age structure of the population in the countryside, since physical disability tended to increase with growing age.

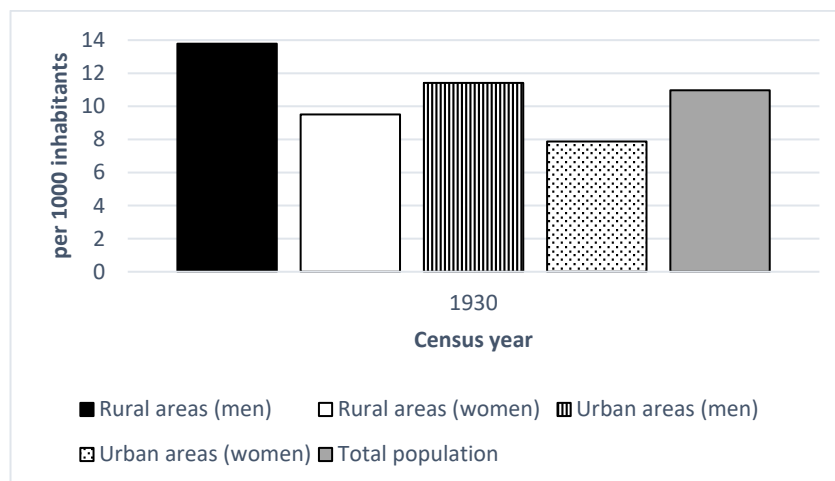


Figure 9: The prevalence of “crippled” individuals in Swedish populations by gender in rural and urban areas.

Sources: Census report 1930 and *Historical Statistics of Sweden* (1969).

Discussion

Disability is a complex concept. Different approaches to measuring disability can affect its prevalence, such as the methods used to collect data and the type of sources addressed. The kind of disabilities in the population that are in focus in the census, as well as the definition of disability, are other factors that shape its prevalence rate. These issues have come to the fore and are subject to analysis in our study, which aimed to move behind the numbers to examine how disability statistics were collected and reported in Swedish censuses between 1860 and 1930. This helped us trace both continuity and change regarding the collection of disability statistics, as well as disability definitions and categories, used by Statistics Sweden when presenting the census results during the period.

We find that authorities introduced a new approach during the study period to measure disability in the population. Census officials at Statistics Sweden, as well as authorities from other state departments, requested more consistent disability data. This explains why additional statistical investigations and sources were used to improve the census statistics. Disability information from other sources supplemented the information from the parish registers, which constituted the basic source for the censuses throughout the period. This approach also implied that new disability categories were introduced over time, which widened as well as differentiated the disability definition.

During the period, the overall disability prevalence rose from four of every thousand individuals in 1860 to 21 in 1930. This rise, and the prevalence variations within this time interval, were largely influenced by the censuses becoming more scientific in the reporting of disabilities. Besides including more sources to help picture the disability status in the population, medical expertise was consulted, and the disability statistics collected became more detailed over time and distributed by age groups, occupational and marital status, and geography, for example. Moreover, societal concerns when the censuses were taken and perceptions of disabilities tended to have affected the disabilities focused on and thus the disability prevalence. This latter notion makes the censuses provide a window into history, showing what was viewed as (dis)abled, (ab)normal, or (un)healthy conditions at the time. For more than sixty years, visual and hearing disabilities and mental disorders were regarded as important to observe and report as disabilities (*lyten*) in the Swedish censuses.¹⁰ During

¹⁰ In this overview and discussion, epilepsy is included in the term mental disorders, since it was considered a mental disease at the time, as well as “idiocy” and “insanity” (Riving, 2012, 39)

the ending decades of the 1800s, there were calls for incorporating medically based statistics in the censuses and dividing mental disabilities into more than one category, according to new and modified definitions.

In parallel with these measurement developments of the censuses, there was a growing concern in society and within academia about mental disorders. The Swedish state and medical authorities had strong confidence that improving statistics would also improve the enumeration of disabled groups in the population, and the censuses was a useful tool for this identification. As previous research contends, this measuring indicates the effort to segregate groups of people, like those having disabilities, from society and place them into institutions, when eugenics and race biology became of increasing concern to states and medical authorities (Björkman, 2001; Engwall and Larsson, 2012, 20; Qvarsell, 1991; Junkka, Sandström and Vikström, 2020). Most certainly, this societal concern had an impact on the increasing prevalence of the mental disability categories of “insanity” and “idiocy” that we found during the period. As the collecting and reporting of disability statistics, and especially of mental disorders, became more intricate, scientific, and medicalized over time, more and more people were labeled mentally disabled in the censuses.

Interestingly, not until 1930 were people with physical disabilities (“crippled”) considered important enough to enumerate and statistically report in the census. The inclusion of this disability category, as well as the use of self-reported questionnaires and other supplementary sources, worked to increase the disability prevalence in the population over time and especially in 1930. However, why did the censuses not keep statistics on “crippled” people before 1930? The census officials did not explicitly state why, but one possible explanation might be found in the structural changes that Sweden underwent at the time when transforming from an agrarian to an industrial-based economy. During the first decades of the 20th century, Sweden was hit hard by the international post-war depression, which caused political problems and rocketing unemployment rates. Disabilities made people less able to compete in the labor market and excluded many of them from it (Förhammar, 2004, 57). Recurrent recessions made employers hesitant to hire people in general, and studies suggest that it was even more difficult for people with disabilities to find employment in the factories that replaced agrarian and handicraft production, in which many of them had previously found a job and income (Olsson, 2004, 101; Vikström, Häggström Lundevaller & Haage, 2017). This situation called for a clearer picture of the composition and working capacity in the population. In the 1930 census, all inhabitants had

to answer questions about whether they were fully or partially capable of working and about their earning capacity. In the census report, these results showed that disabled people had an overall low capacity to work and live independently without state support. Most likely, these means of obtaining detailed information about the working capacity and health status of the population through the comprehensive census of 1930, were a response to the social circumstances at the time.

Disability is a complex condition and includes challenges for measurements and data collection, as impairments regarded as disabling differ depending on the time-space context and normative views on who is (dis)abled or not. As this study indicates, measures of disability and their definitions are historical and largely dependent of the socio-cultural context. Sweden has been a pioneer in the collection of population statistics and of disability data as well. Swedish historical censuses constitute a valuable and rich source for studying disability in past populations, since censuses include the total population. Even a relatively rare characteristic among individuals, such as a disability, generates groups to study and differentiate further. However, knowledge about how the data for the census was taken, and the types of disabilities enumerated, is essential for the analysis, as our study has shown. It has stressed the need to look beyond the numbers when studying disability statistics and making use of the census reports' narrative and qualitative information. This information laid the foundation for what disabilities the census should account for and could change over time, even though the disability data collected did not always match the data called for. While the more narrative census information has been subject to research concerning how censuses have categorized people depending on ethnicity, class, gender, and even disability to some extent, the censuses have been under-used as a historical source regarding the reporting of disability numbers in populations. Our examination of disability prevalence using the Swedish censuses indicates that their quantitative reporting holds potential for supporting new research on disability in history through more in-depth analysis of the nationwide results of this study.

Acknowledgements

This work was supported by the European Research Council (ERC) under the European Union's Horizon 2020 research and innovation program, Grant Agreement No. 647125, 'DISLIFE Livable Disabilities: Life courses and opportunity structures across time', led by Lotta Vikström.

Declaration of Interest Statement

The authors declare no conflict of interest.

References

- Axelsson, P. and Wisselgren M.J. (2018). Sweden in 1930 and the 1930 census. In Thorvaldsen, G. (ed.), *Three centuries of northern population censuses*, Abingdon: Routledge: 61-86.
- Björkman, J. (2001). *Vård för samhällets bästa: Debatten om tvångsvård i svensk lagstiftning 1850–1970* [*Care for the Sake of Society. The Debate on Compulsory Care in Swedish Legislation, 1850–1970*]. Stockholm: Carlssons.
- Brännlund, I., and Axelsson, P. (2013). Family matters: Representation of Swedish Sámi households at the turn of the nineteenth century. In D. G. Anderson, R. P. Wishart, & V. Vate (Eds.), *About the hearth: Perspectives on the home, hearth, and household in the circumpolar north* (pp. 103–122). Oxford and New York: Berghahn Books.
- Funka, [<https://www.funka.com/design-for-alla/statistik/>].
- Engwall, K. & Larsson, S. (Eds.) (2012). *Utanförskapets historia: om funktionsnedsättning och funktionshinder*. First edition. Lund: Studentlitteratur.
- Förhammar, S. (2004). Svensk handikappolitik: Från separation till integration. In Förhammar S. and M. C. Nelson (Eds). *Funktionshinder i ett historiskt perspektiv* First edition. Lund: Studentlitteratur: 45–66.
- Historical Statistics of Sweden*. Part 1. Population. Second edition. 1720-1967. Stockholm: Statistics Sweden.

- Höjer, H. (2001). *Svenska siffror: nationell integration och identifikation genom statistik 1800-1870*. Diss. Uppsala Univ., 2001. Hedemora.
- Junkka, J., Sandström, G., Vikström, L. (2020). The emergence of social gaps in mental health: A longitudinal population study in Sweden, 1900-1959. *PLoS ONE* 15:4; e0232462.
- Kudlick, C. J. (2003). Disability history: Why we need another “other”. *The American Historical Review*, 108:3, 763-793.
- Kudlick, C. (2018). Social history of medicine and disability history. *The Oxford handbook of disability history*, 105-24.
- Lext, G. (1984). *Studier i svensk kyrkobokföring 1600–1946* [Studies in Swedish Church registers, 1600–1946]. Göteborg: Landsarkivet.
- Lie, E. (2002). Numbering the nationalities: Ethnic minorities in Norwegian population censuses 1845–1930. *Ethnic and Racial Studies*, 25, 802–822.
- Lie, E., and Roll-Hansen, H. (2001). *Faktisk talt: Statistikkens historie i Norge*. Oslo: Universitetsforlag.
- Mont, D. (2007). Measuring health and disability. *The Lancet*, 369(9573), 1658-1663.
- Nordisk familjebok (1907). *Fallandesot*, 1323.
- Olsson, I. (2004). Synen på avvikelser. In Förhammar S. and M. C. Nelson (Eds). *Funktionshinder i ett historiskt perspektiv*. First edition. Lund: Studentlitteratur, 87-104.
- Osamu S. (1996). Historical Demography: Achievements and Prospects, *Population Studies*, 50:3, 537-553, DOI: 10.1080/0032472031000149606.
- Riving, C. (2012). Från fånighet till ADHD. Glimtar ur de psykiatriska diagnosernas historia. In Engwall, K., and Larsson, S. (Eds.). *Utanhörskapets historia – om funktionsnedsättning och funktionshinder*. Lund: Studentlitteratur.
- Qvarsell, R (1991). *Vårdens idéhistoria*. Stockholm: Carlsson
- Rogers, J., and Nelson, M. C. (2003). “Lapps, finns, gypsies, jews, and idiots”? Modernity and the use of statistical categories in Sweden. *Annales de démographie historique*, 105, 61–79.
- Schor, P. (2017). *Counting Americans: how the US Census classified the nation*. New York, NY: Oxford University Press.
- Schweik, S. M. (2009). The ugly laws: *Disability in public* (Vol. 3). NYU Press.
- Statistiska Centralbyrån. *Folkräkningen den 31 december 1860* [Elektronisk resurs]. Stockholm: Statistiska centralbyrån.

Statistiska Centralbyrån. *Folkräkningen den 31 december 1870* [Elektronisk resurs]. Stockholm: Statistiska centralbyrån.

Statistiska Centralbyrån. *Folkräkningen den 31 december 1880* [Elektronisk resurs]. Stockholm: Statistiska centralbyrån.

Statistiska Centralbyrån. *Folkräkningen den 31 december 1890* [Elektronisk resurs]. Stockholm: Statistiska centralbyrån.

Statistiska Centralbyrån (1903–1908). *Folkräkningen den 31 december 1900* [Elektronisk resurs]. Stockholm: Statistiska centralbyrån.

Statistiska Centralbyrån (1913–1918). *Folkräkningen den 31 december 1910* [Elektronisk resurs]. Stockholm: Statistiska centralbyrån.

Statistiska Centralbyrån (1923–1927). *Folkräkningen den 31 december 1920* [Elektronisk resurs]. Stockholm: Statistiska centralbyrån.

Statistiska Centralbyrån (1935–1939). *Folkräkningen den 31 december 1930* [Elektronisk resurs]. Stockholm: Statistiska centralbyrån.

Statistiska Centralbyrån. Församlingsboksutdrag, 1900 census. SE/RA/420401/08/H 1 AA/25. [https://sok.riksarkivet.se/bildvisning/A0061156_00030].

Thorvaldsen, G. (2018). *Censuses and census takers: a global history*. London: Routledge/Taylor & Francis Group.

The Washington Group on Disability Statistics. [<https://www.washingtongroup-disability.com/>].

World Health Organisation. *Disability and health*. [<https://www.who.int/news-room/fact-sheets/detail/disability-and-health>].

Vikström, L. (2010). Identifying dissonant and complementary data on women through the triangulation of historical sources. *International Journal of Social Research Methodology*, 13:3, 211-221.

Vikström, L., Häggström Lundevaller, E. and Haage, H. (2017). First a job, and then a family? Impacts of disabilities on young people's life courses in a nineteenth-century Swedish region, *Disabilities Studies Quarterly*, 37:4.

Wisselgren, M. J., Edvinsson, S., Berggren, M. and Larsson, M. (2014). Testing methods of record linkage on Swedish censuses. *Historical Methods: A Journal of Quantitative and Interdisciplinary History*, 47, 138–151.