

Review Article

Census data-the missing link: are we shooting in the dark?

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Received: 27 September 2025

Revised: 04 October 2025

Accepted: 10 October 2025

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ABSTRACT

The 16th Census of India was supposed to be held in 2021 however it was indefinitely delayed. This impacted the various administrative, policy and health planning efforts by the government of India. An extensive literature search was carried out using search engines like PubMed, Google scholar etc. Relevant articles in newspapers and policy documents pertaining to the Census were searched for. The authors reviewed the available literature and determined that the delay in conducting the Census impacted various sectors of India, from policymaking, health, business to administration. The authors concluded that the delay in conduction of the Census had severely impacted Indian polity and evidence-based decision making in health programming. Thus, the government must conduct the Census at the earliest to ensure up to date data for adequate planning of programmes and policies to improve the lives of the citizenry.

Keywords: Census, National family health survey, Policymaking, Sample registration system

INTRODUCTION

Human resource is the most important resource a nation can have! India is the most populous country surpassing China in terms of population with 1.46 billion individuals.¹ To keep an estimate of each and every individual is a humongous and challenging task. This is where the role of population census (PC) comes into play. The PC is described as “the total process of collecting, compiling, analysing or otherwise disseminating demographic, economic and social data pertaining, at a specific time, to all persons in a country or a well-defined part of a country.”^{2,3}

It is one of the most comprehensive and largest statistical enterprise conducted by the government of any country. It provides comprehensive data on human resources, demography, culture and economic structure of a population at the local, regional and national level.⁴

The history of modern census of India dates back to 1872 when India was still under the British regimen.^{5,6} Since then, despite World War II in the year 1941 or the Sino-Indian War in 1961 there has been an uninterrupted series of decennial censuses in India. After independence, in the year 1948, giving the much-needed importance that the census deserves, the Census of India act was formed. Since then, the census of India is conducted by the registrar general and census commissioner under the flagship of the ministry of home affairs of India. The census division assists the registrar general and census commissioner to conduct the humongous task of census operations once in every 10 years.

This division helps in planning, preparations and conducting of Census, pre-testing of questions/schedules, tabulation and analysis of the collected data and finally the dissemination of the final results to various ministries and the general public.⁷

WHY IS IT IMPORTANT TO CONDUCT A CENSUS?

As the Great Indian national leader, Shri Govind Ballabh Pant stated “In fact in these days you cannot take up any serious administrative, economic or social work without referring to the Census report, which is an essential part of every enquiry, of every study. Even for solution of minor problems you have often to consult the Census reports.”⁸ The census data not only provides the answer to “How many are we?” but also to “who are we” in terms of age, sex, education, occupation, socio-economic status, etc, and “Where do we live?” in terms of availability and access to essential facilities, opportunities, housing, water, etc.⁹ These answers provide a numerical profile of the nation and is used for evidence based decision making at all levels for efficient management of economic resources, social affairs and effective governing of the societies such that it leads to the development of the nation.

HOW IS THE CENSUS CONDUCTED IN INDIA?

The census of India is conducted in two phases-i) House listing and housing census and ii) Population enumeration.¹⁰

“A housing census is the total process of collecting, compiling, evaluating, analysing and publishing or otherwise disseminating statistical data pertaining, at a specified time, to all living quarters (structurally separate and independent places of abode) and occupants thereof in a country or in a well-delimited part of a country.”³ As a first step, all the census houses are identified and systematically listed. This activity helps in preparing and updating the details of the enumeration blocks so as to ensure complete coverage. This provides data on the condition of the human settlements, special households like- hostels, hospitals and abandoned houses, housing deficit and housing requirements.⁴ This database assists in the formulation of housing policies, disaster preparedness, sampling frame for sample survey design and serves as an indirect indicator for socio-economic status of the household. This phase also paves way for the second phase, i.e., population enumeration, by providing data of population size of the house listing blocks to ensure that blocks are divided into a manageable size for population enumeration.

The second phase is the population enumeration phase which takes place six to eight months after the first phase. Population enumeration is “an official enumeration through a direct visit of all the people either physically present or regularly residing in a country or any of its subdivisions at a given point of time.”⁸ In this phase all the individuals along with other socio demographic and economic data like-age, sex, marital status, education, occupation, religion, mother tongue, disability, caste (Schedule tribe/ schedule caste), etc is collected from every person as per a pre designed census questionnaire.⁴

The last census was conducted in the year 2011 which was the fifteenth continuously conducted census in the series since 1872. Despite huge efforts put in by the government, the next census in the queue which was supposed to be conducted in the year 2021 has been delayed for more than 4 years now.^{11,12} The most important hurdle for the 2021 census was the COVID-19 pandemic.¹³ There were lockdowns throughout the country and people were advised to stay inside home. The extensive field work that is required for data collection was not possible during this time. Another reason that contributed to further delay was the “freezing” of the political geographical boundaries. There should be a gap of at least 3 months after freezing of the political boundaries before conducting a census. There has been repeated postponement of the “freezing” leading to delay in the initiation of the enumeration phase. Another reason can be the lack of preparation for the digital census.¹⁴ The government, through digitalization of the census, aimed to save time, efforts, expense and make census results available for use quicker. However, factors like digital divide, data privacy, storage and security, adequate manpower capacity building and infrastructure to support this new idea are yet in their incipient stages and require time. Some political issues like the national population register (NPR) and caste census were also to some extent responsible for the delay of the current census.¹⁵

Impact of a delayed census

The decennial census has been the backbone for data driven evidence-based planning for more than a century. The census data has enabled governments to plan and implement welfare schemes, ensure equitable and accessible distribution of resources among the subjects, proper planning and informed decision making. The census data of India is one of the world’s largest dataset and India’s ability to manage such gigantic data has been appreciated on an international level. Though voluminous, the wealth of data the census provides is useful for the growth of various sectors and in general the progress of the country. This delay will have huge impact on health care planning as there is a lacuna of the need assessment and resource allocation accordingly.

The delay in timely updating of population data is likely to have adverse effects on various domains such as:

Planning and policymaking

The PC provides not only the size of people in the country but also the composition, employment status, literacy levels, etc of the population. Timely Census can play a pivotal role in defining the developmental trajectory of India, as planning and policy decisions based on actual data are likely to succeed better in both the rural and urban setting. On the other hand, lack of quality data to design evidence-based strategies to achieve health goals, may not be as successful. The data which is collected by the Census forms a crucial aspect of the

policymaking and planning exercises carried out by the government of India. Non-availability of the adequate data can lead to incorrect targeting and allocation under various welfare schemes. To talk about few; crucial welfare schemes running in India like the public distribution system (PDS), need a comprehensive population database for resource allocation to render their services effectively ensuring comprehensive coverage. Due to paucity of new census data, new beneficiaries who should have got the benefits of the scheme are unable to avail it. It has been estimated that about 10 crore people missed out on ration under the PDS. The number of beneficiaries has been capped as per the 2011 census.¹⁶ Provision of services like the midday meal scheme to schoolchildren and numerous monetary benefits under the direct benefit transfer schemes across various programmes in India have also got affected. The effect has been seen as the status of the country in global hunger index dipped from 99 in 2014 to 107 in 2022.¹⁷ Hence, determining the allocation of resources to different areas with regards to healthcare schemes is significantly affected due to lack of proper data and leads to under or over allocation in different sectors rather than in an equitable manner. Moreover, healthcare planning can vary widely based on various characteristics of the population which need due consideration at the time of planning. For instance, planning for healthcare infrastructure cannot be the same for a rural and an urban area, or a town and a metropolitan city. Also, the needs of the older population are different than that of the younger population. Hence planning cannot be one-size-fits-all.¹⁸

Administration

In terms of population India is the largest democratic country. India's governance has been deeply rooted in democratic ideals. The census data helps in ensuring that there is appropriate political representation and constituency delimitation as per the changing demography of the country. The lack of timely data also affects the political sphere as the delimitation exercise to redistribute the political boundaries of the country has been put on hold till a population enumeration isn't carried out. The provisions of the women's reservation bill in the Indian parliament are also not enforceable till the exercise of delimitation takes place.¹⁹ Thus, crucial activities across all sectors of policy making are affected by this delay. However, in unavailability of the data the constituency demarcation cannot be adjusted as per the changing population size.

Business and industry

Data is the new gold. Census data can help in the growth of business by providing information that can help in curating market strategies, labour force availability, distance from manufacturer to the end product user, etc. There can also be a reasonable estimate for proper infrastructure investments, assessing regional demands and gauging the labour characteristics. However,

unavailability of data due to delayed census doesn't give full confidence for the investor to invest at a particular place or a particular sector. Though the government has come up with 'Make In India' scheme, subsidized rate of interest to entrepreneurs, etc however, lack of updated statistical data has hindered the government's decision to promote, develop and scale small industries in a timely and systematic manner.²⁰ As the census data also conveys the employment levels of the country, the missing data doesn't enable to know the workforce participation, the needs and lacunae in the employment sectors and the unemployment rates so as to devise a strategic plan to curb its menace. Labour market planning and economic development strategies can also not be accurately planned due to lack of data.²¹ Also, foreign investments are hampered as there are no reliable sources for investors to identify the consumer market. The economic trend which relies on demographic variables like age, gender is not properly available with the investors so as to make their investment decision. Moreover, changes in the rules and regulation for the business industry has to keep pace with the changing need, demand and demography of the country. Hence for robust and decisive investment plans too census data is critical.

ON CONDUCTION OF CIVIL REGISTRATION AND VITAL STATISTICS

The census data is released in the public domain periodically, i.e. every ten years. Once released, this data acts as a gold standard for planning and policy making for various sectors, especially in healthcare service delivery and programme implementation strategies. Since the population is continuously growing and changing, its dynamics also change, thereby necessitating the availability of data from other sources of vital statistics which are conducted at short intervals of time as compared to the census. This role is fulfilled by sample registration system (SRS), civil registration system (CRS) and national family health survey (NFHS), national sample survey (NSS).²²⁻²⁴ These surveys fulfil another purpose by helping in data triangulation in the sphere of public health and policy making. The availability of data from multiple sources helps corroborate and strengthen the validity of our findings. It may also help shed light on and help correct any discrepancies within the data. This will increase the ability of policymakers and researchers to better cater to the needs of the population or help them better understand it. All of these surveys rely on sampling a part of the population with the Census data forming a cornerstone of the sampling techniques employed for the same. The lack of accurate, timely data renders the accuracy and validity of these surveys to be diminished. Many of these surveys are used by various ministries to form the backbone of their policies. This in turn affects the functioning of such programmes as well. For instance, if the population denominators are underestimated then immunization rates will falsely appear to be high in the area. Similar conclusions can be drawn for programmes

of maternal and child health intervention that are adversely affected due to incorrect data.

CONCLUSION

India has a long history of conducting one of the largest censuses in the world in a timely manner. Census not only provides data on important demographic profiles, structure of population, social and economic data but also helps to decide the trajectory of development of the country. The current census was scheduled to be conducted in the year 2021 however the decennial census was delayed primarily because of the COVID-19 pandemic and some other factors. Despite the government's dedicated efforts to conduct it in a timely fashion there have been challenges in performing this mammoth task without error. This delay has hindered informed decision making in governance, policy, socio-economic planning, etc because of the crucial data the census provides. This data also helps in determining the needs, gaps and opportunities for the country. In this era driven by data, census is not a mere population counting exercise but influences economy, national security, disaster control and management, public health, to name a few. Hence, for an informed decision making, for the growth of the country, this delay should be addressed as early as possible so that all the stakeholders, ministries and citizens can understand, use and benefit from it and the goal of Viksit Bharat can be achieved.

Funding: No funding sources

Conflict of interest: None declared

Ethical approval: Not required

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Cite this article as: Shah PP, Goel M. Census data-the missing link: are we shooting in the dark? *Int J Community Med Public Health* 2025;12:5331-5.