

# The Electronic Census Portal

for Population, Residences & Establishments

# 2020

E-Census Documents  
Series 2020

08



## His Majesty Sultan Haitham Bin Tarik

- may Allah protect him-

endorses E-Census 2020 results of Population, Residences and Establishments as of 12 December 2020. His Majesty the Sultan expressed his satisfaction with the outcome of this major project which was implemented as scheduled. His Majesty the Sultan underscored the significance of data and indicators provided by the Census in enhancing Oman Vision 2040, as well as the Census's important implications to developmental planning in all sectors of the Sultanate.

14 December 2020

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# Introduction

The main objective of any implemented census is to provide data of all kinds, whether those that can be viewed by all individuals, or that can be allocated to specific users who are identified based on their specializations, tasks and work entrusted to them as decision-makers and officials in the Country. In addition to specialized researchers who work in various studies.

Countries have accelerated in providing various statistical data and facilitating access to them for the various categories used with the emergence of several terms such as open data and big data. The Sultanate, through the electronic census 2020, has sought to integrate and interrelate the databases of the government and private sectors, on building the electronic system that enables data users to obtaining detailed, high-resolution and instantaneously updated data for various demographic information, and other detailed data. It will contribute to serving the country's development plans in line with Oman's future vision 2040.

On the fourteenth of December, the final results of the electronic census 2020 were approved by His Majesty Sultan Haitham bin Tariq - may Allah protect him - and the electronic census portal was launched at the press conference to make data and information available for use by various segments of society.

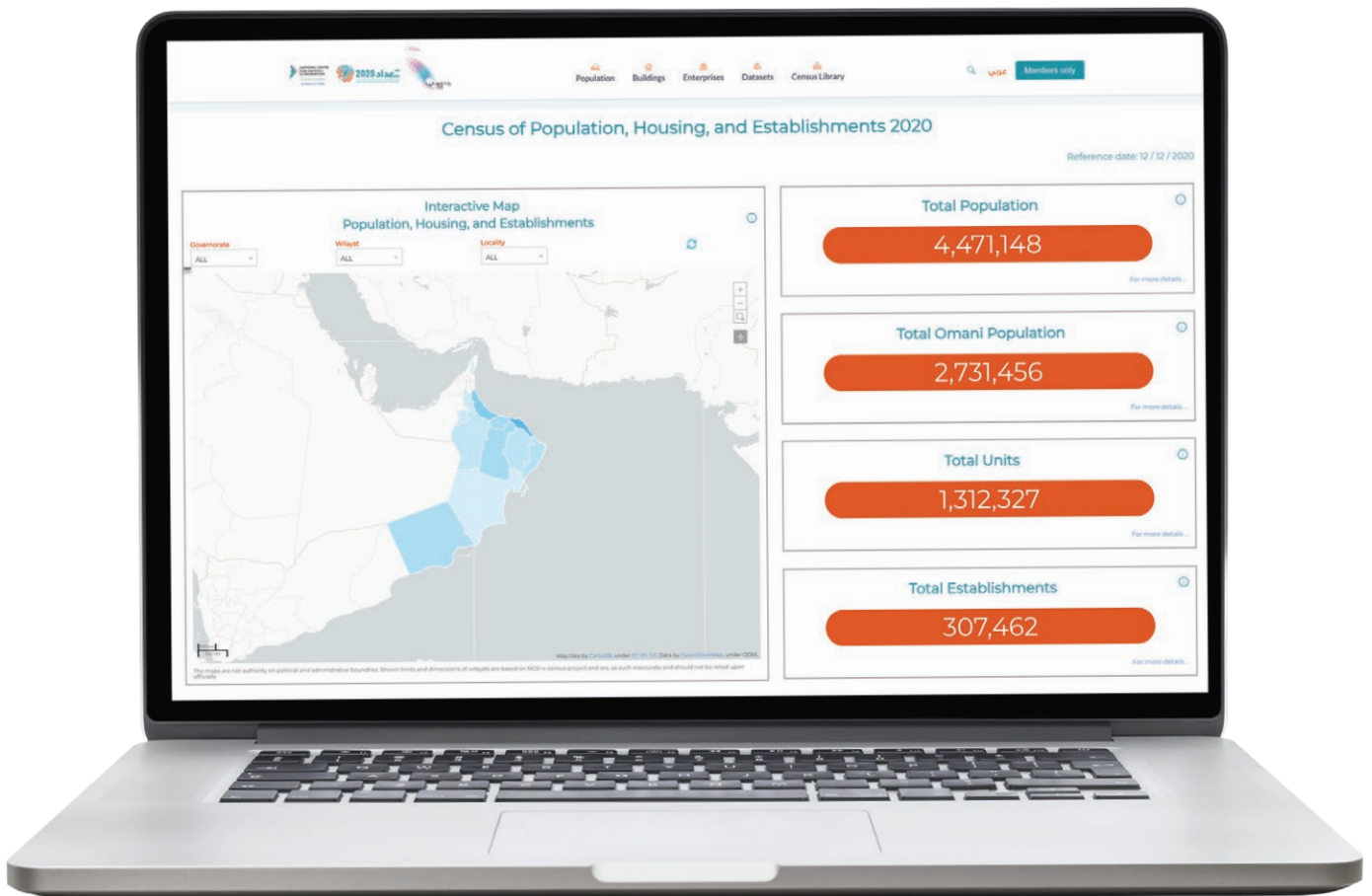
Through a series of publications that document the electronic census project 2020, this document reviews the electronic census data portal for Population, Residences and Establishments 2020, which will explain the importance and objectives of the portal, its components, and the presentation methods it uses to provide data. In addition to the census library through which issued bulletins are made available.

# 1 | The Electronic Census Portal

## 1.1 Definition

The census portal is an electronic platform that reviews the various statistical data collected through the administrative records of various authorities in the Sultanate in different ways based on maps, interactive graphs, statistical reports and statistical tables, which reflect the image of those data in a unified reference history.

### Interface of Census Data Portal



## 1.2 Objectives of Census Portal

The electronic census portal aims to enable community members, research centers, users in general, policy and strategy makers, and decision makers in particular, to obtain accurate and updated detailed data that contribute to the work of a wide range of reports, studies and development plans. Thus, we can say that the portal's objectives are:

- Availability of data on an updated periodic basis
- Facilitate data acquisition
- Reverse the various data spatially
- Supporting decision makers and makers of plans and policies
- Create a large set of cross tables from various data sources

### 1.3 Importance of Census Portal

The importance of statistical data and indicators lies in providing decision-makers and strategic planners, with a clear vision of the actual reality experienced by a particular society. It predicts accordingly the near and long-term future of development plans. Thus, programmes, policies and plans are developed according to those data and indicators, which is positively reflected on the development of society and pushes the development wheel on the right track.

Hence, the importance of the census data portal appears to us in that it is an important and essential source for the primary base upon which these programs, policies and plans are built.

In summary, the importance of the portal can be summarized in the following points:

- It represents an essential source for all data users, including individuals, researchers, and decision-makers.
- It enables users to get detailed data with different variables according to a wide range of display methods.
- It is a database that is updated periodically and reflects a unified time picture of the various data.

### 1.4 Logging into Census Portal

The census data portal is available on the internet and all individuals can access it through the following link:



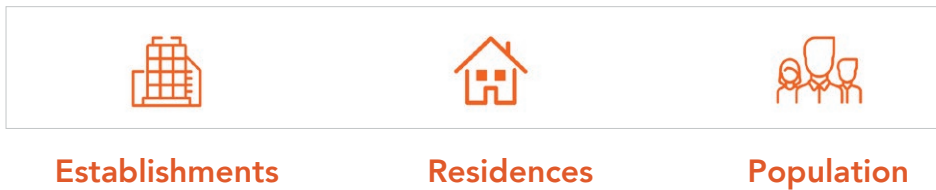
## 2 | Requirements Document of the Electronic Census Portal

### 2.1 Basic Databases

The census data portal reviews three main rules. All of its component variables can be returned to, in the census system document that explains the collected variables by the Electronic Census for Population, Residences and Establishments 2020. This is done through a set of statistical presentation methods that are compatible with the various portal users in an easy and accessible way and an innovative model in displaying statistical data.

All the rules that make up the census data can be viewed according to the topics and sub-headings that make up that rule and the variables available in it. The portal can also view a set of sub-headings and statistical tables integrated between the three rules at the same time. Therefore the electronic census data portal is one of the leading models in browsing the data for a different set of databases.

#### The basic rules of the portal



#### Population Database:

This database includes a basket of statistical data on the demographic structure of the population in terms of the characteristics of the population distribution, in addition to workers, job seekers, disabled, births, deaths, and vehicles owned by individuals.

**The most important variables:** gender, age group, nationality, address, marital status, type of disability and its cause, education enrolment status, educational level, specialization, relationship to manpower, profession and economic activity.

#### Residences Database

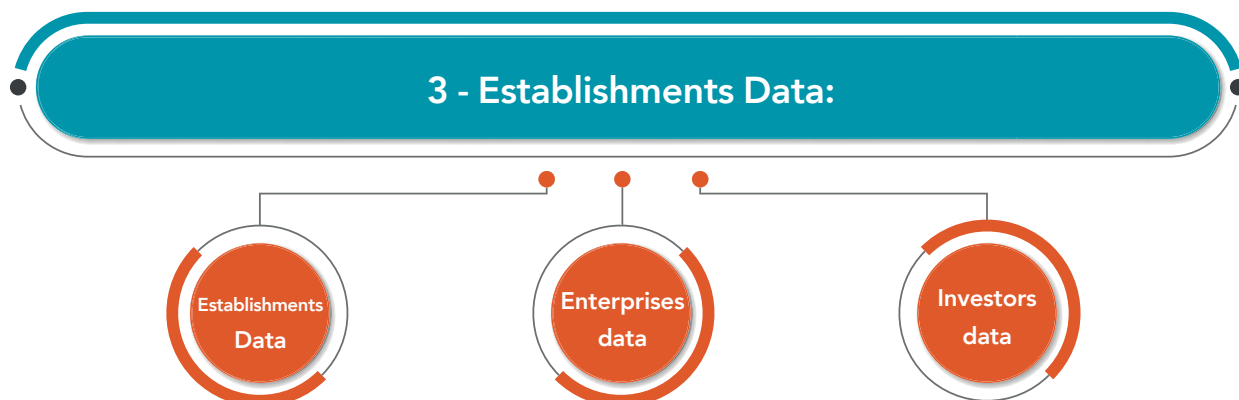
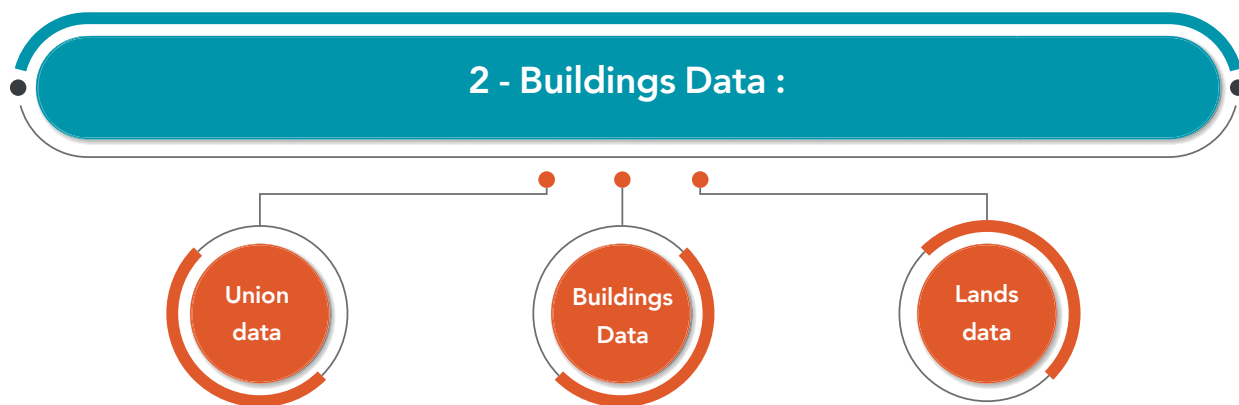
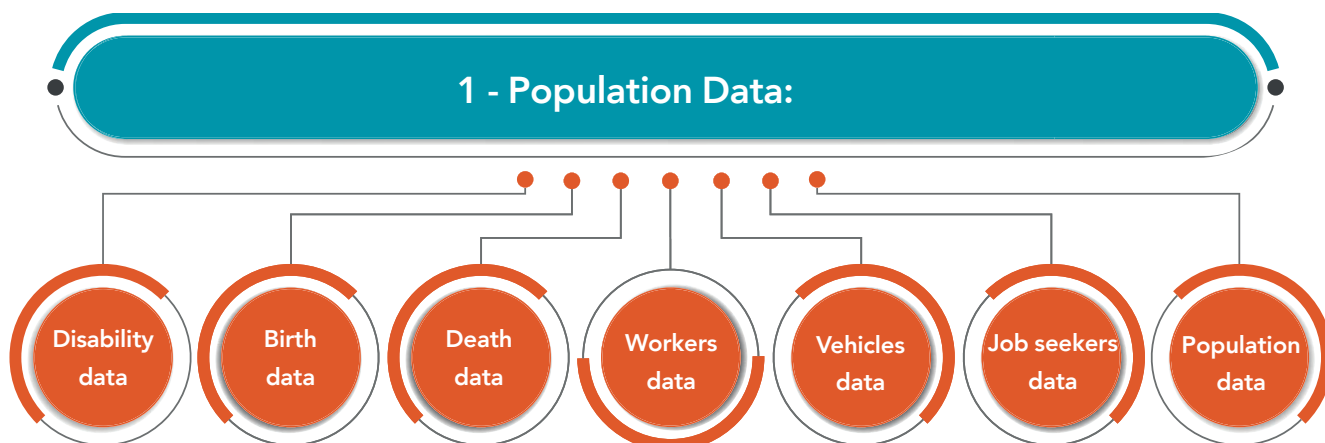
This database includes a basket of statistical data on Residences in terms of lands, units and buildings.

**The most significant variables:** (land use, unit use, or building use), type (building type or unit type), and occupancy (unit occupancy)

## Establishments Database:

This database includes a basket of statistical data on establishments in terms of investors, enterprises, and establishments

The most important variables: legal form, economic activity, size, address and investor characteristics (investor type, nationality and age)





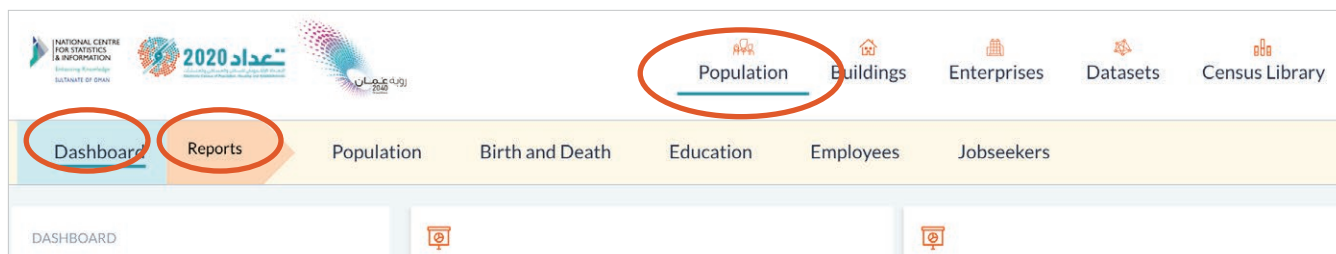
## 2.2 Methods of Displaying Data in the Census Portal:

The census data portal uses a set of display methods that fit with the different categories of data users. The portal takes into account the ease of obtaining general and aggregate data for general users and detailed data for scholars and researchers. It also provides more detailed and highly focused data for a special group of users.

The portal views the data in three different ways:

- Dashboards (maps and graphs)
- Statistical reports
- Datasets

### The Available Display Methods in the Data Portal



#### Data Panels:

The first method of display provided by the census data portal is the dashboard. The dashboards embody an interactive map and interactive graphs of the most important topics related to each database.

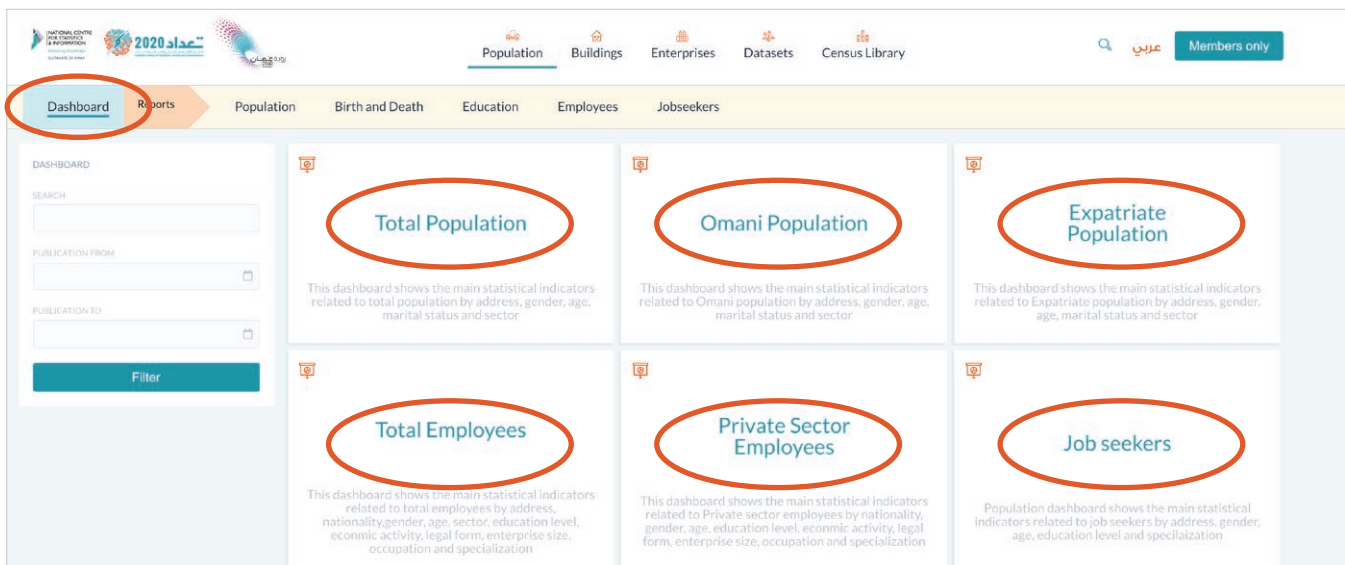
The portal endures the design of an unlimited number of data panels for each of the three main bases that make up the census data, according to the specific goal and topic determined by those in charge of the data portal. It is also possible to design a common dashboard between the main bases, which is evident through the main page of the data portal that reflect a summary of the most important topics and indicators available in the main census databases.

The dashboards have the advantage of interconnection and interaction in the way of displaying the data. Through the interactive map, it is possible to view the data on each page at four geographic levels: (the total of the Sultanate / the governorate level / the Walayats level / the population level). Once the geographical level is determined by the user for a Governorate, Walayat, or population, all data in the Dashboard is updated for the selected option of the user.

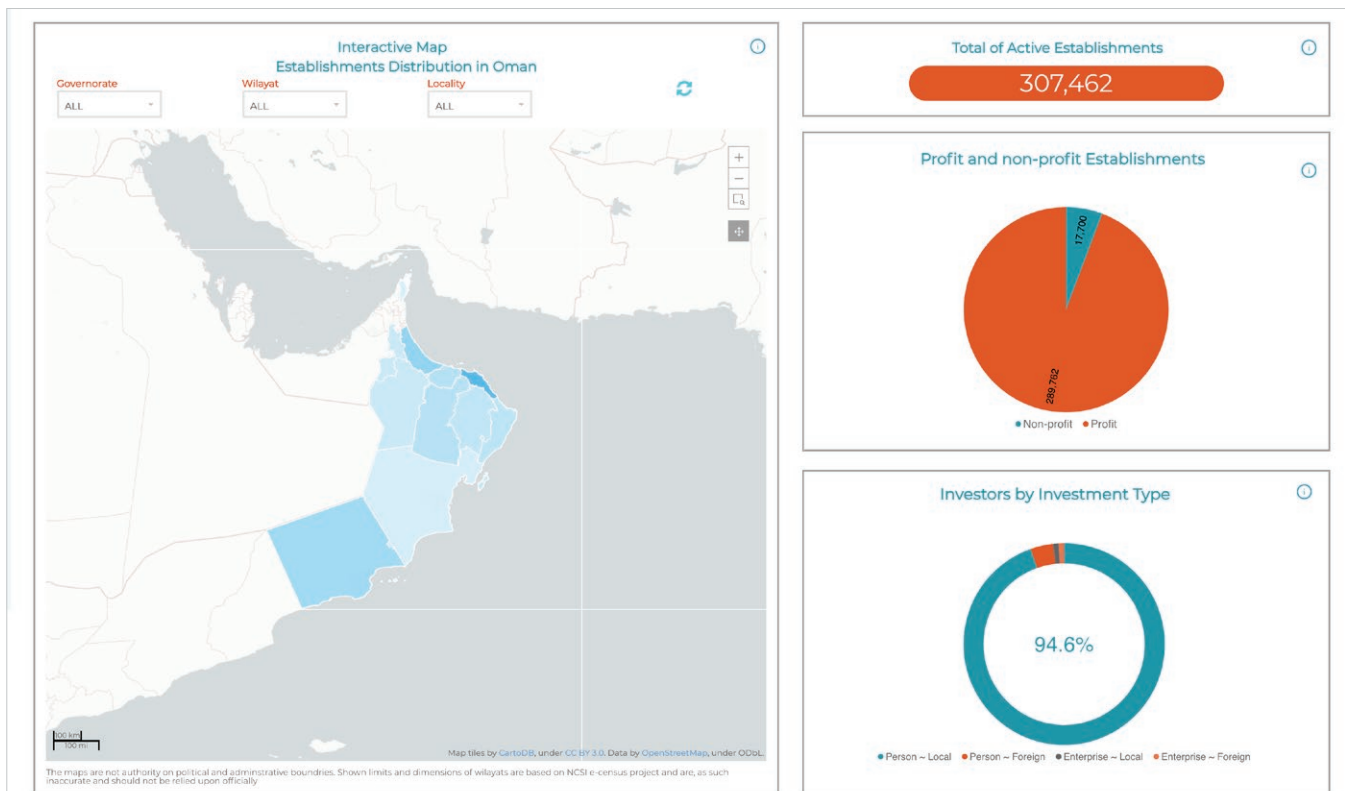
Thus, the user can obtain quick detailed data for any geographic level he wishes to view through the dashboards for any of the topics designed by the portal administration.

The portal currently has more than 15 dashboards distributed over the three main rules. In addition to the main dashboard that appears at the moment of logging into the portal and contains a summary of the most important data included in the three rules.

### Samples of topics and titles of the dashboards available in the portal



### (Establishments Dashboard Form)



## Reports

The reports represent the second display method in the census data portal. It is considered more detailed than its predecessor (data panel). It is fixed and designed by the involved and supervisors of the census data portal. The user can obtain the statistical report in pdf format for the topic that is considered an aspect of interest by him.

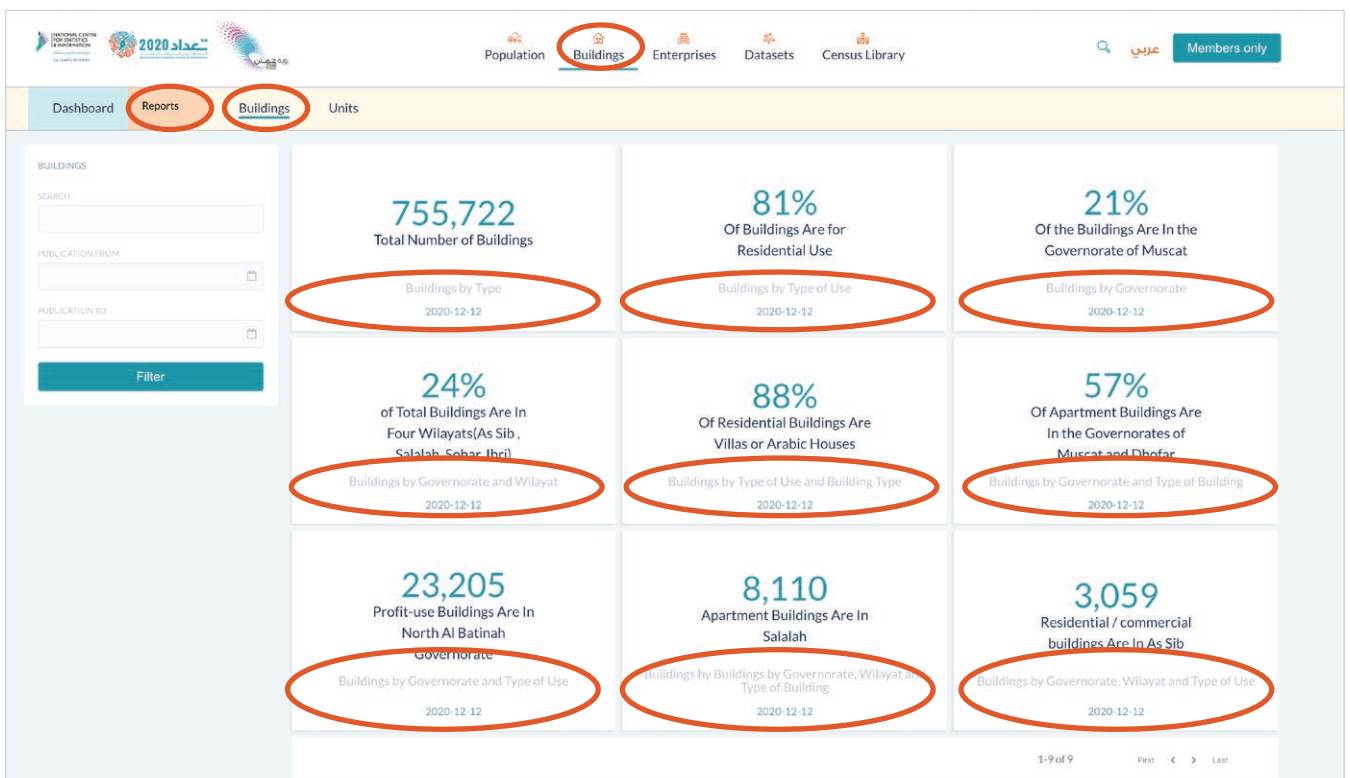
The portal contains more than 500 statistical reports that were designed in the portal and made available to all users. It has been classified on the three main rules under sub-headings. Each sub-address contains a set of reports related to it. For instance, within the establishment database there is a sub-title entitled: Non-Profit Establishments. This sub-title contains a set of fixed reports (statistical tables) that were designed in the portal for various variables and intersections related to non-profit establishments.

Likewise, the reports are divided into the sub-headings of the basic rules that make up the census, which are: (Population, Residences and Establishments).

The reports can be accessed by choosing one of the three basic rules from the main bar. Then selecting the reports in the second sub-bar, choosing the sub-title of the topic to be obtained, and subsequently choosing the target report from the reports listed under that title.

In the reporting process, the portal allows for an informational message to be placed explaining the most important result or statement available in the designed report.

### (The method of accessing reports provided by the data portal)



(A sample of one of the reports available in the data portal)

Type	المجموع / Total		النوع
	%	العدد Number	
Activities of mosques	82.27	14,561	أنشطة المساجد
General secondary education	2.81	498	التعليم الثانوي العام
Public service activities (overall)	2.36	418	أنشطة الخدمة العامة (الشاملة)
Basic education (phase ii)	2.33	412	التعليم الأساسي (المرحلة الثانية)
Other activities related to other personal service activities n.e.c.	1.91	338	أنشطة أخرى خاصة بأنشطة الخدمات الشخصية الأخرى غير المصنفة في موضع آخر
Basic education (phase i)	1.73	307	التعليم الأساسي (المرحلة الأولى)

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Type	المجموع / Total		النوع
	%	العدد Number	
Health centers	1.22	216	المراكز الصحية
Holy quran schools	1.18	208	مدارس تحفيظ القرآن
Renting and operating of self-owned or leased real estate (residential and non-residential)	0.84	148	إدارة وتأجير العقارات المملوكة أو المؤجرة (السكنية وغير السكنية)
Activities of various professional societies and guilds	0.56	99	الجمعيات والائتلافات المهنية المختلفة
Government Agencies	0.51	91	جهات حكومية

## Data Set:

The data set is the most significant way of displaying the data, especially for specialized researchers and decision makers. The of display enables users to form the statistical table according to its actual needs and access to a large detailed level of data that cannot be provided by other display methods that has been designed by the data portal management. The data can also be displayed according to a set of graphs and maps.

Regardless of the current arrangement of the data set that displays the three basic bases (Population, Residences and Establishments), the data set also enables users to obtain a data set consisting of the three databases combined into one set containing a large set of variables that have been collected by the census in the various bases.

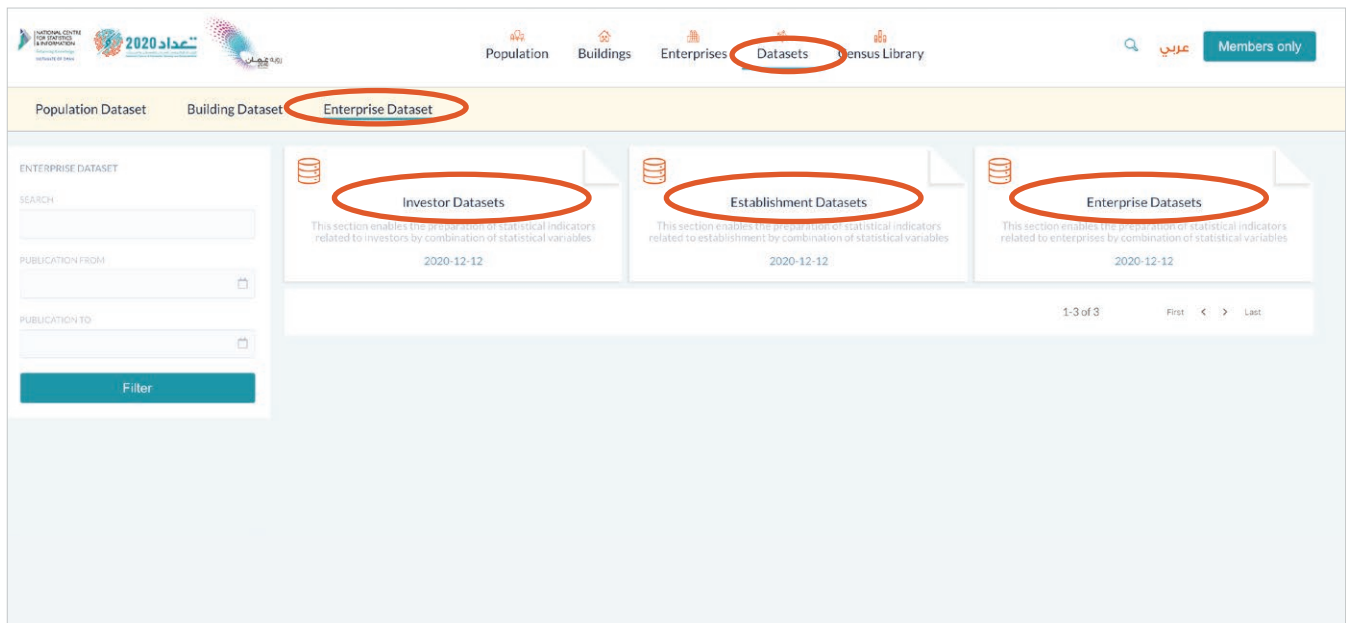
An unlimited number of databases can be formed in the portal. It could be small from a few variables, or they might be massive consisting of more than a hundred variables. These variables allow obtaining more detailed data and creating cross tables between those data to study various social and economic phenomena.

Through the data set, the portal allows all users to export the statistical tables that were formed to a group of different formats that suit the user's desire, such as (excel-pdf-csv). It can be used later in the reports and studies they work on.

The data sets can be accessed from the main tape in the census portal and then select one of the three main databases. Then select one of the data sets from those master databases.

### (Sample for topics and titles of data sets)

The screenshot displays the user interface of the National Center for Statistics and Information Systems portal. At the top, there are navigation tabs for 'Population', 'Buildings', 'Enterprises', 'Datasets', and 'Census Library'. The 'Datasets' tab is highlighted with a red circle. Below the navigation, there are three main categories: 'Population Dataset', 'Building Dataset', and 'Enterprise Dataset'. The 'Population Dataset' category is selected and highlighted with a red circle. Underneath, there is a search bar and a 'Filter' button. The main content area shows a grid of data set cards, each with a database icon, a title, a description, and a date. The cards include: 'Population Datasets', 'Births Datasets', 'Workforce Datasets', 'Vehicles Datasets', 'Job Seekers Datasets' (highlighted with a red circle), 'Deaths Datasets', and 'Disability Datasets'. At the bottom right, there is a pagination indicator showing '1-7 of 7' and navigation arrows.



The following shape discloses a first sample of the population data set from the population database and the variables that are available in that group. In it, a data table consisting of three variables was viewed to reflect the distribution of the Sultanate's population according to (governorates, nationality and gender). The user can add other variables and expand on the details and data provided by the portal, by including other variables within the rows or columns shown in the data set options.

### (A sample of a population data set with its component variables)

Available fields (12) for: public\_population\_en

Find:  View v

- Measure
  - Number
- Level (Names, Categories, etc.)
  - Academic Qualification
  - Age Group
  - Education Level
  - Gender v
  - Governorate
  - Marital Status
  - Reference Date
  - Residential Status
  - Student Status
  - Wilayat
  - Workforce Relation

Layout

Rows ☰

Governorate v

Drop Level Here

Columns ☰

Gender v

Residential Status v

Drop Level Here

Measures ☰

Number v

Drop Measure Here

No Filters

To add a new filter, drag a field from Available Fields to

Governorate	Gender			
	Male		Female	
	Expat	Omani	Expat	Omani
	Number	Number	Number	Number
Muscat	564,754	272,581	195,163	269,942
Dhofar	162,521	108,837	38,846	106,254
Musandam	12,069	17,557	2,751	16,685
Al Buraymi	39,501	36,991	9,556	35,754
Ad Dakhliyah	93,469	183,387	21,175	180,470
Al Batinah North	190,920	277,272	44,606	271,883
Al Batinah South	90,062	176,627	24,273	174,588
Ash Sharqiyah Sou...	74,489	113,384	16,326	111,246
Ash Sharqiyah Nor...	69,185	95,663	11,646	95,328
Adh Dhahirah	41,468	81,377	9,519	80,679
Al Wusta	25,225	12,615	2,168	12,336
<b>Grand Total</b>	<b>1,363,663</b>	<b>1,376,291</b>	<b>376,029</b>	<b>1,355,165</b>

A second model for the labours data set is one of the forms of data sets that can be created within the population database. In it, specialized data sets can also be built, such as labours in the private sector or in establishments whose economic activity is manufacturing industries and other models that can be formed based on the variables available in the population data that is referred to in the census system document.

### (A sample of a population data set with its component variables)

The screenshot shows a data visualization tool interface. On the left, there is a sidebar with 'Available fields (12) for: public\_population\_en'. Below this, there are sections for 'Measure' (Number), 'Level (Names, Categories, etc.)' (Academic Qualification, Age Group, Education Level, Gender, Governorate, Marital Status, Reference Date, Residential Status, Student Status, Wilayat, Workforce Relation), and 'Layout'. The 'Layout' panel shows 'Rows' (Marital Status, Residential Status, Gender), 'Columns' (Student Status), and 'Measures' (Number). The main table area displays a pivot table with the following data:

Marital Status	Residential Status	Gender	Student Status			
			Currently enrolled	Never enrolled	Not applicable	Previously enrolled
			Number	Number	Number	Number
Never married	Expatriate	Male	10,127	14,333	-	611,790
		Female	9,379	10,034	-	108,124
	Omani	Male	133,757	4,974	-	213,559
		Female	138,406	7,922	-	137,268
Married	Expatriate	Male	205	2,881	-	649,331
		Female	341	2,789	-	175,739
	Omani	Male	12,973	25,743	-	429,015
		Female	13,198	31,343	-	434,481
Divorced	Expatriate	Male	3	27	-	922
		Female	3	58	-	896
	Omani	Male	312	1,204	-	12,536
		Female	817	3,817	-	21,461
Widowed	Expatriate	Male	25	62	-	4,043
		Female	11	161	-	1,991
	Omani	Male	59	2,766	-	5,065
		Female	193	23,557	-	27,439
Not applicable	Expatriate	Male	35,832	7,318	24,565	2,199
		Female	34,680	6,581	23,353	1,889
	Omani	Male	290,254	5,429	237,640	1,005
		Female	281,004	4,521	228,858	880
<b>Grand Total</b>			<b>961,579</b>	<b>155,520</b>	<b>514,416</b>	<b>2,839,633</b>

Data sets allow viewing data for several different dates based on what is available in the basic bases constituting the census data. It is also possible to filter the variables available in the set, such as viewing only the data of Governorate of Muscat, or population data at a certain educational level, or limited to the data of males, and other properties related to display type, file export, and adding totals for rows and columns.

## 2.3 Census Library:

The census library is one of the display methods that the census data portal can provide. Unlike the three main views that derive data from the census system directly, it can view the various studies, reports and documents that were designed outside the census data portal. It also views the final outputs to analyse the fetched data from the data portal in particular and the various data available in other sources.

An infinite number of publications, studies and reports can be added to the census library, such as bulletins, books and reports in (pdf) format. The user can view the various bulletins available in the portal.

The portal in the census library allows adding sub-headings as a second level of presentation and distributing various publications to those addresses in order to be classified in an easy and clear manner.

(Samples for versions available in the census library)

The screenshot displays the 'Census Library' section of a web portal. At the top, there are navigation tabs for 'Population', 'Buildings', 'Enterprises', 'Data sets', and 'Census Library' (the latter is circled in red). A search bar and a 'Members only' button are also visible. Below the navigation, there are three sub-sections: 'Publications' (circled in red), 'Methodologies', and 'Classifications and concepts'. The 'Publications' section contains a search filter with fields for 'SEARCH', 'PUBLICATION FROM', and 'PUBLICATION TO', and a 'Filter' button. Below the filter, three publication cards are displayed, each with a red circle around its title and date: 'The Detailed Book Of eCensus 2020 Results' (2021-03-16), 'E-Census 2020 Executive Summary' (2021-03-16), and 'Main Indicators of the eCensus' (2020-12-12). A pagination indicator '1-3 of 3' and navigation arrows are located at the bottom right of the cards.



## 3 | Other Features and Options in the Data Portal:

### 3.1 Registration in the Census Data Portal:

The portal enables users to log in using: Username and Password. The user must be activated by the admin management on the census data portal. Therefore, portal users can be identified according to the following categories:


- **The core management of the data portal:**

Their tasks are summarized in identifying the users of the portal and giving powers to the registrants in the portal in terms of the tasks and data assigned to them and they are supervising the portal in general.



### Access to services

Please proceed by selecting one of the following options



**Username**  
You need username  
and password

USERNAME

PASSWORD

Login with username

Access to the portal by username/password is restricted to designated users only. Please e-mail [admin@ecensus.gov.om](mailto:admin@ecensus.gov.om) for more info.

- **Technical and executive management of the portal:**

They are a group of technicians, statisticians, data-based management and publication whose tasks are to design dashboards, reports and data sets for census databases, and then review the validity of what has been designed and examined by the data administrator. Then summarize those works and publish them to the public in the census data portal. No work can be displayed at the data portal level unless it is approved by the census data portal administration.

### **Progression in the mechanism of designing the approval and dissemination of data in the data portal**

Posting reports and statistics on the portal requires the following approval levels:

- statistical
- Head of Department
- Director
- Director General
- Director General of Information
- CEO of the National Center for Statistics and Information

- **Specialized Groups:**

The data portal management can create specialized groups with a group of users who have access to a specialized group of data, whether through dashboards, reports, or data groups. Such data will not appear only to users specified by the project management.

Many groups can be created within the portal, such as decision makers, researchers and study authors, policy makers, those interested in specific data, government staff and private establishments. Thus, each group can be targeted with a data quality assigned to them with an additional set of details that are not available to all portal users for reasons related to data confidentiality, or reports dedicated to a specific type of data.

## Conclusion:

In view of what has been mentioned in this document of the great importance of the census data portal, the great potential provided by the various methods of displays, and the huge amount of data that feeds this portal, it has become undoubtedly that this portal will be a primary source of data in the Sultanate and for all Countries of the world, including individuals and international and regional establishments.

This portal has become one of the leading models in the availability and ease of access to data and various interactive displays that allow the user to obtain accurate, instantaneous and detailed data from various establishments in the Sultanate.

With these capabilities, it has become necessary to emphasize the necessity of feeding the data portal with the latest data, expanding the amount of data that is included in the portal, and good marketing for it so that all data users can easily reach the data and benefit from it as it was designed for this purpose.

# E-Census Documents Series 2020

