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State of Kuwait

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Contact Center and Internet Data Collection for the 2011 Kuwait General Census



(Preliminary Results)

Online Population Censuses have several advantages compared with traditional face-to-face interviews. The Kuwait 2011 Census of Population and Housing is using the Internet as a possible form for the first time. Almost 42.2% of all Kuwaitis households have an internet connection which confirms that the e-census was performed well. This paper presents operational results of the e-census obtained from the Kuwait 2011 Census, namely response rates, demographics of respondents and data quality.

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Contact Center and Internet Data Collection for The 2011 Kuwait General Census

Abstract

The purpose of any general census is to collect and analyze socio-economic data for all persons residing in a specific country or region at a given time. Analysis of the data yields demographic trends and patterns which are crucial to planners and decision-makers.

Online Population Censuses have several advantages compared with traditional face-to-face interviews. Questionnaires on the Internet can be developed in a very user-friendly manner. The costs of data entry and data editing are much lower, the data are rapidly available and are of better quality.

The Kuwait 2011 Census of Population and Housing is using the Internet as a possible form for the first time. Almost 42.2% of all Kuwaitis households have an internet connection (Internet World Stats, 2011) which confirms that the e-census was performed well, at least among groups having good levels of internet coverage.

This paper presents operational results of the e-census obtained from the Kuwait 2011 Census, namely response rates, demographics of respondents and data quality. Also it explains the role and importance of contact center for supporting of e-census, and solving the problems of citizens and residents. Perhaps this experience is the way in future for using various forms of technology in statistical surveys and censuses, such as household expenditures.

1 Background

A population census is the total process of collecting, compiling, evaluating, analyzing and publishing or otherwise disseminating demographic, economic and social data pertaining, at a specified time, to all persons in a country or in a well delimited part of a country. Analysis of the data yields demographic trends and patterns which are crucial to planners and decision-makers. Kuwait Law No. 27 of 1963 stipulates that a general census of Kuwait's population and buildings is to be conducted every ten years. The United Nations Economic and Social Committee proposed that all nations undertake a general census in the year 2010. This UN proposal has been adopted by the GCC Supreme Council via its resolution to conduct a census for all GCC countries between 2005 and 2014. The General Census for the State of Kuwait was conducted during April 21st – May 31th 2011. It was conducted by the Central Statistical Bureau, and addresses all individuals and families residing in Kuwait, both Kuwaiti and non-Kuwaiti, as well as houses, apartments, and buildings. Entities and institutions such as banks, schools, and companies will also be included in the 2011 Kuwait General Census. The 2011 Kuwait

General Census collects information on the socio-economic characteristics of all residents, such as: Age, Gender, Employment, Level of education, Nationality, Marital status, Special needs, etc.

2 Census Histories

The first census was undertaken in Kuwait in 1957, i.e before independence in 1961. But the first official census was undertaken in 1965. Since then, many censuses were undertaken. IT and internet technology were introduced for the first time in the 2011 census, comprised a new expertise in population census in Kuwait and was tremendously successful.

3 Objectives and Benefits

Information in the 2011 Kuwait General Census will serve as a vital resource for planners and decision-makers. Using Census data and analyses, responsible parties in Kuwait will be able to make informed decisions as they plan to meet the needs of the population in: General services and utilities, Public transportation, Roadway design, Employment needs, Health services, Social welfare programs, and Educational requirements.

The Census will also serve as a statistical database for academic researchers investigating various aspects of life in Kuwait. Ultimately, the 2011 Kuwait General Census will be utilized to bring about improvements in the infrastructure and quality of life in Kuwait.

4 E-census

The internet is being increasingly favored as the mode of communication between citizens (companies, government, and the society in general). In recent years, a number of countries have used the internet as a response to census operations. The USA, Singapore, Switzerland and Spain were pioneers in the 2000/2001 census and Canada, Australia and New Zealand followed in the 2006 census (Haug, 2001). Although response rates were relatively modest, 22%, 7% and 9%, respectively, the latter countries have made a positive evaluation of the e-census as it enabled them to meet population expectations and helped transmit a modern and innovative image of the national Statistics Bureaus. However, this new use of technology resulted in an increase and not a reduction in costs. The e-census has been seen as part of the strategy to modernize the collection mechanisms that would be extended to other surveys of families and therefore was considered as an investment that would bring future returns. Just as in other countries, The Kuwait 2011 Census of Population and Housing allowed people to respond via the internet as part of an effort to innovate and bring the country in line with the best international practices.

Five main principles were adopted for the e-census application of the 2011 Census in Kuwait: it must be easy to use, guarantee data security, having similar navigation features as other sites, a similar questionnaire layout to the paper version and no central database of dwellings.

4.1 Why e-census?

Several goals can be achieved via the option of the Web:

1. A modern image for the Census

In the early days of Censuses and almost until the end of the 20th century, there was no other possibility to collect the necessary information on persons and households than with the help of paper forms and enumerators. But this traditional survey method began to take an increasingly antiquated image as the information society developed at a breathtaking pace. Modern ICT tools enhance the image of the Census and can reduce some of the resistance against Census taking.

2. Better user-friendliness

The Web has no limits to the size of the questionnaire, the support and help functions. Respondents can choose the language in which they want to respond, they are assisted by the good legibility of the questions and a large number of electronic aids and notes about completing the questionnaire. The questionnaire can be customized (personalized questions, suppression of non-applicable questions) depending on the answers to preceding questions and to the characteristics of a person according to age, sex, economic activity etc. In addition, it is possible to print a personal copy of the completed questionnaire.

3. Better data quality

The Web offers the opportunity to build in consistency checks and show immediate warnings for missing or implausible data. Each field can be linked to attributes, which have to apply before the questionnaire can be completed. Selection menus reduce the range of wrong or unclear answers and support the coding process. Data entry is completed directly, without intermediate stages of writing, posting, scanning or copying. Progress can be monitored immediately and any problems arising with the data can be recognized early on.

4. Cost reduction

The costs of data acquisition decrease thanks to the direct data entry in a central database, the skipping of intermediate stages (scanning, manual data entry) and the lower proportion of missing, wrong or implausible data thanks to better coding and on-line checks. However, in order to reach these goals, a number of technical and political challenges have to be met. And if they are not well handled, they can easily offset the possible gains in efficiency or can even have reverse effects on the image and the quality of the Census.

4.2 Methodology of E-census

E-census depends on two main phase, first phase of registration and a second phase filled the data, as follows:

The first phase: The Kuwait E-Census web site is open for all Kuwaitis and Residents of Kuwait who have a Civil ID issued by the public authority for civil information. The data should be entered by the head of the family or a delegated family member, as follow:

1. Entering household head civil ID.
2. Entering password you received by Email or SMS
3. Verifying the household head or someone on behalf of him / her.
4. Then press "Login" to start the electronic census.

The second phase: Household head will add all household members (including maids and drivers), including ones who are temporarily out of Kuwait with basic information for each member as follow:

1. Adding all household members.
2. Confirmation for entering all members.
3. Entering detailed information for all members added on the previous step.
4. Using contact center at any time for more help.
5. Visiting the login page again to continue the Information at a later time.
6. Entering residence Information.

4.3 E-census results

The overall results of the e-census were positive. The E-census application functioned reasonably well. The E-census also allowed the potential peak days and times to be identified. It is necessary to ensure that all the available servers will be capable of dealing with the entry flow into site for the future operation. The website was monitored 24 hours a day in order to minimize respondents' problems in accessing. The e-census present set of different reports as follows:

1- E-Census in First Phase

E-census registers percentage to the total number of population in the first phase	Number of E- census registers in the first phase.	Total number of population
9%	252353	2802939

Table 1: E-census registers percentage and number of registers to the total number of population in the first phase

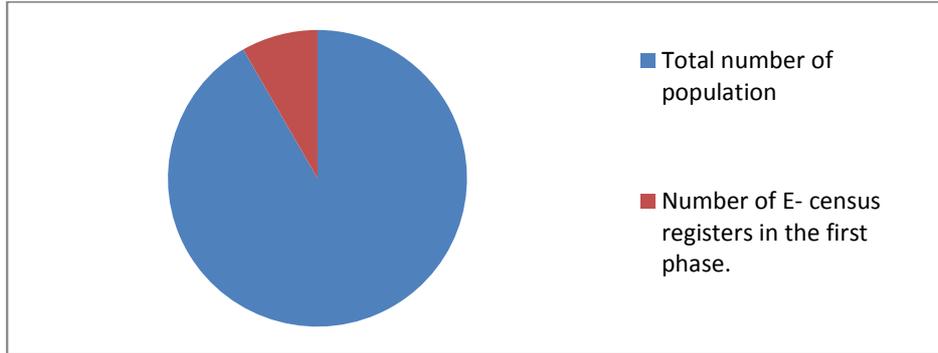


Figure 1: E-census registers percentage and number of registers to the total number of population in the first phase

2-E-Census in second phase

E-census registers percentage to the total number of population in the second phase	Number of E- census registers in the second phase.	Total number of population
8.11%	227376	2802939

Table 2: E-census registers percentage and number of registers to the total number of population in the second phase

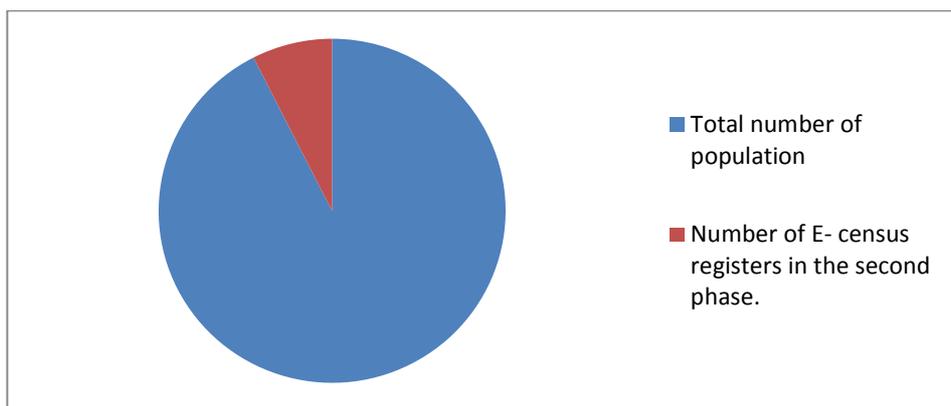


Figure 2: E-census registers percentage and number of registers to the total number of population in the second phase

3- Not completed registration in E-Census

Total number of population	The number of people who have not completed the census	The percentage of people who have not completed the census	Reasons
2802939	85984	3.07%	A visit from the enumerator to take the data

Table 3: Not completed registration in E-Census

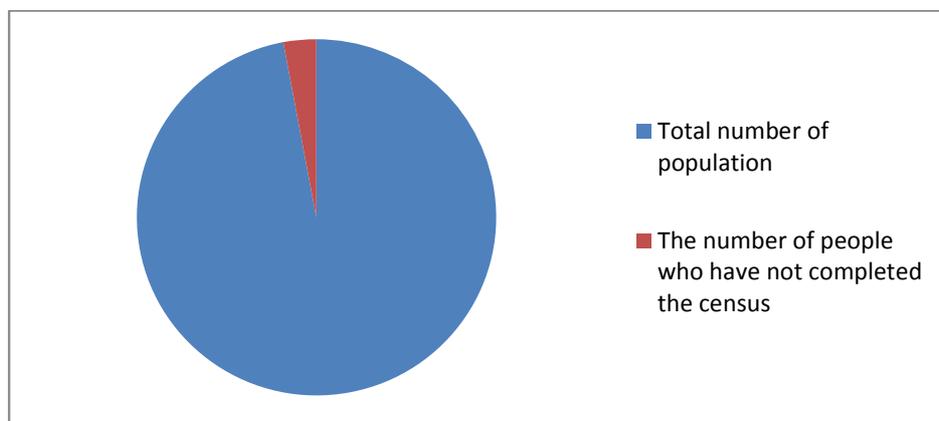


Figure 3: Not completed registration in E-Census

4- Comparison with E-Census Nationalities

Population	Country
243,135	Kuwait
63,013	India
25,880	Philippines
20,686	Egypt
16,428	Saudi Arabia
11,688	Pakistan
10,215	Sri Lanka
9,783	Jordan

8,581	Syria
70,320	Others

Table 4: Comparison with E-Census Nationalities

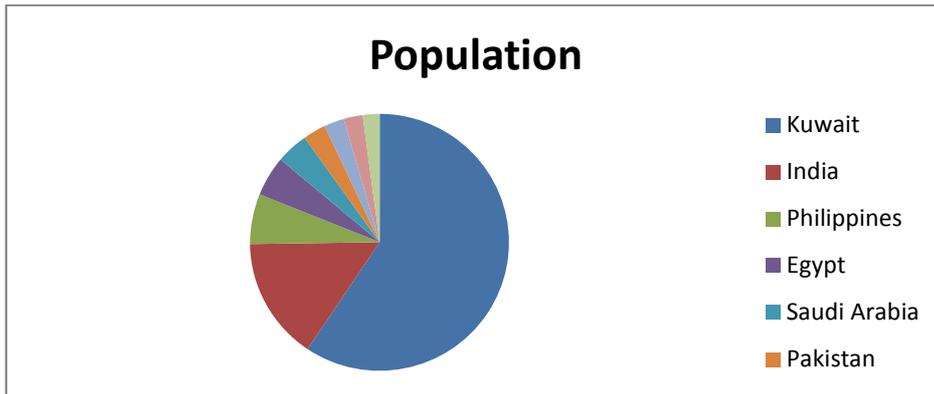


Figure 4: Comparison with E-Census Nationalities

5- E-Census Ages Percentage

Age	Age Percentage
From 0 to 5 years	10.29
From 5 to 10 years	9.16
From 10 to 15 years	8.02
From 15 to 20 years	7.09
From 20 to 25 years	8.48
From 25 to 30 years	11.50
From 30 to 35 years	11.36
From 35 to 40 years	9.64
From 40 to 45 years	8.08
From 45 to 50 years	6.10

From 50 to 55 years	4.19
55 to 60 years	2.63
From 60 to 65 years	1.48
From 65 to 70 years	0.86
From 70 to 75 years	0.55
More than 75 years	0.57

Table 5: E-Census Ages Percentage

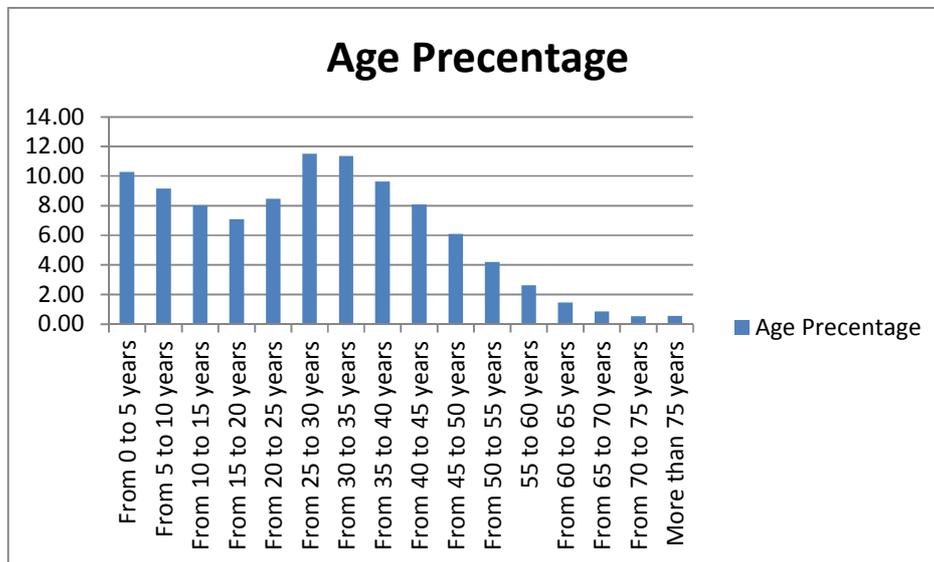


Figure 5: E-Census Ages Percentage

6- Daily Reports

Date	People who completed the registration on this date	Number of operations completed on this date
2011.04.25	0.58%	11,410
2011.04.26	3.07%	66,217
2011.04.27	3.73%	78,809
2011.04.28	4.26%	82,127

2011.04.29	1.99%	40,960
2011.04.30	2.21%	50,185
2011.05.01	1.68%	36,850
2011.05.02	3.18%	68,517
2011.05.03	3.31%	69,713
2011.05.04	2.13%	46,836
2011.05.05	1.38%	30,946
2011.05.06	0.76%	17,944
2011.05.07	0.78%	18,410
2011.05.08	1.45%	31,335
2011.05.09	3.29%	75,932
2011.05.10	3.53%	75,628
2011.05.11	1.52%	27,436
2011.05.12	0.85%	19,562
2011.05.13	0.70%	15,727
2011.05.14	1.26%	25,607
2011.05.15	1.84%	42,399
2011.05.16	2.08%	48,137
2011.05.17	2.39%	47,141
2011.05.18	2.14%	42,989
2011.05.19	2.07%	49,529
2011.05.20	3.71%	88,417
2011.05.21	6.66%	149,005
2011.05.22	2.90%	54,079

2011.05.23	2.04%	41,439
2011.05.24	2.29%	43,743
2011.05.25	2.67%	52,890
2011.05.26	3.02%	60,334
2011.05.27	2.95%	61,534
2011.05.28	3.43%	67,954
2011.05.29	3.62%	75,461
2011.05.30	4.26%	94,131
2011.05.31	3.04%	86,164
2011.06.01	7.23%	116,468

Table 6: Daily Reports



Figure 6: Daily Reports

7-E-Census versus traditional Census

Governorate	The number of Kuwaitis registered in the E-census	Total number of Kuwaitis	Percentage of Kuwaitis registered in the E-census (%)	The number of Non-Kuwaitis registered in the E-census	Total number of Non-Kuwaitis	Percentage of Non-Kuwaitis registered in the E-census (%)	Total of E-Census	Census total	E-Census percentage (%)
Al Asima	43,042	147,469	29.2%	22,614	129,335	17.5%	65,656	276,804	23.7%
Hawali	57,443	195,464	29.4%	79,231	433,478	18.3%	136,674	628,942	21.7%
Al Ahmadi	40,628	227,139	17.9%	42,899	320,223	13.4%	83,527	547,362	15.3%
Al Jahra	25,647	154,395	16.6%	32,692	219,867	14.9%	58,339	374,262	15.6%
Al Farwaniya	41,355	210,831	19.6%	47,885	563,587	8.5%	89,240	774,418	11.5%
Mubarak Al Kabeer	35,020	154,440	22.7%	11,273	46,711	24.1%	46,293	201,151	23.0%
Total	243,135	1,089,738	22.3%	236,594	1,713,201	13.8%	479,729	2,802,939	17.1%

5 The Contact Center

Kuwait Census 2011 project had a great deal of challenge, having had a new direction of implementing a multichannel communication model with Kuwait population to maintain the high quality & efficiency of information given under a customer centric service approach.

5.1 The Contact Center objectives

To utilize the latest communication technology to match the needs of different segments of Kuwaitis and/or residences by providing 24/7 immediate support helping them to submit their census information through multiple channels such as:

Phase I: Enumerator recruiting

- Answering inquiries
- Confirming training.
- Calling for contract.
- Supporting during field work.

Phase II: Census

- Running awareness campaigns
- Quality Control of enumerators

- Home visits follow-ups and appointment fixing
- Information corrections
- Customer satisfaction surveys
- Supporting E-Census.

5.2 The Contact Center functions

- Outbound calls “awareness, quality assurance, customer satisfaction surveys, registrations confirmation and feedbacks”
- Inbound calls “Inquiries, complaint management, suggestions and revisit arrangements”
- Back office “ Data corrections, accounts reset, trouble tickets closing and reporting”

5.3 The Contact Center Added Values

- Increased customer satisfaction.
- Immediate progress feedback.
- High level of responsiveness.
- Project close monitoring.
- Managing with numbers “detailed reports”
- High security of information.

5.5 The Contact Center and the E-census

The Contact center has an important role in the success of the E-census through making or receiving a wide range of calls and directing a large amount of text and audio messages to raise awareness of the citizens and residents and helping them to complete the registration. The following table shows the number of calls and their types:

Outgoing Calls	Incoming Calls	Total
82453	68268	150721

- **Type of incoming & outgoing calls.**

- Incoming calls include: modifications and inquiries received from citizens to modify or delete data that have been made during the recording.
- Outgoing calls include: A campaign by the call center, including: Updated data registered in the E-census.
- Voice messages reminding the people of the expiration date of the E- census
- Ensure completion of the E-census: What are the citizens and expatriates' opinions of the website

- **Incoming Calls**

The call center receives calls regarding the problems faced by citizens and expatriates during the E- census and tries to resolve them immediately, for example:

- Missing the password
- Entering the data incorrectly for citizens and expatriates
- Updating the number of family's members after the registration
- Requests for assistance in the registration process and asking for the required data

- **Campaigns that have been completed and its objectives:**

- Campaign (1): Updating data
Objective: to ensure the validity of the data that have been presented by the citizens and expatriates, including the number of family members and the number of families residing in the same house.
- Targeted number: 45.000 persons
Results: Data correction and re-contact them to confirm the data that have been modified in order to complete the phases of electronic registration.
- Campaign (2) : Announcing the date of the E-census completion

- Objective: to remind the citizens and residents through automatic SMS on the last date to complete the data on the site
- Targeted number: 36.000 persons
- 31.000 has been reached
- Campaign (3): The call center to contact a sample of 500 people who completed the E- census and measure their level of satisfaction with the website as well as the time spent to complete the E- census. The result was 87.2% of customers were satisfied with the site
- Campaign (4): Make sure to complete the E-census
- Targeted number: 4.000+ 28.000
- Objective: Urged citizens and expatriates to complete the data and help who didn't understand the process.
- Results: Over 1,000 people a day completed the E-census correctly.
- Campaign (5): Make sure to complete the E-census
- Targeted number: 24.000
- Objective: Urged citizens and expatriates to complete the data and help who didn't understand the process.
- Campaign still ongoing

- **Response**

It should be noted that the call center received a good response from the citizens and residents of Kuwait, where observed high rates of incoming calls on a daily basis, this reflects the growing customer's confidence with the services provided by the Center. This was due to cooperation between the various departments to improve and develop the level of services. This includes: data correction through technical support and continuous tracking of customer complaints and suggestions; which raises the level of service and increases customer satisfaction.

Conclusions

The global experiences of the year 2011 proved that the Electronic Census is feasible from a technical and operational point of view and that safe solutions exist. The general acceptance and the image of the internet option were very positive. The data were available much more rapidly and in better quality than the paper-based data, due to online

data entry and online checks, thus saving several months of processing time. However, saleable and flexible solutions, secure and powerful data connections as well as the monitoring of online transactions are expensive. And as long as the access to the Internet and the incentives to use it are not radically improved, official statistics will continue to use a mix of data collection methods. Harmonized and up to date population and housing registers are the backbone of the central database and mailing systems, which are essential for online surveys. Therefore, improving electronic registers and their linkage is also an investment in online surveys. Future trends are promising and will lead to safer and less costly solutions.

The main advantages of the 2011 E-Census are: it simplifies response, transmits a modern image of Kuwaiti Statistics and the 2011 Census and creates a positive climate which favors citizens' cooperation, and improves response quality. Our objective; enumerators and paper questionnaires will entirely disappear in future Population Censuses and applying this in Household surveys at a later stage. To place online surveys in the more general perspective of E-Government, this will promote a new administrative culture, building on transparency and the standardization of the available information and fostering the regular electronic exchange between administrations and the empowered citizens.

References

1. Central Statistical Bureau, “The 2011 Kuwait General Census”, Kuwait, 2011
2. United Nations, Department of Economic and Social Affairs Statistics Division, “Principles and Recommendations for Population and Housing Censuses, New York, 2008
3. Internet World Stats, “Middle East Internet Usage and Population Statistics”, <http://www.internetworldstats.com>
4. Paula Vicente¹, Álvaro Rosa¹, Elizabeth Reis¹, “E-Census 2011 Portugal: implementation and results of the Pilot Survey”, Statistics Portugal, 2011
5. Haug, W. (2001) Population censuses on the internet, Paper presented at the IUSSP General Population Conference 2001, Salvador da Bahia, 18th-24th August.
6. United Nations, “Principles and Recommendations for Population and Housing Censuses”, Department of Economic and Social Affairs Statistics Division, Revision2 New York, 2008