

**The Second International Workshop on Economic Census  
Seoul, Korea, 6 - 9 July 2009**

**Jordan's Economic Census 2006, Methodology and Main  
Results**

**Prepared by Abdelwadoud Matouk  
Director of Economic Statistics**

**1. Introduction**

The Department of Statistics DoS is by low the only institution to conduct Population, Agricultural, and Economic Censuses in Jordan. Before the year 1999, DoS used to only conduct Industrial Censuses every five years covering only the manufacturing sector. As for the other sectors DoS used to identify the working enterprises by conducting field listings of those enterprises through the Population and Agricultural Censuses collecting data on the address and activity of those enterprises. Also DoS used to update the frame of establishments through some administrative sources such as the Ministry of Industry and Trade and some other associations.

In the year 1999 DoS conducted its first Economic Census followed in the year 2006 by conducting the second Economic Census.

**2. The need for Economic Census**

It is well known that the Economic Census is so important for lots of reasons, mainly to provide an updated frame of Establishments that could be used in post surveys. An updated fram which includes some of the main basic characteristics of the establishments would lead to more efficient sampling designs and therefore more accurate estimates. Another important issue is that the Census provides data on the smaller administrative levels with zero sampling errors, and that could be so helpful in identifying the spread and size and activities of establishments on the smallest administrative levels which could also be helpful in effective regional planning.

## **2.1 The scope of the Economic Census 2006**

In the Economic census of Jordan conducted in 2006, the census covered all establishments employing one person and more, and all localities were covered in Jordan. The Public sector, the Agricultural sector and the Military sector such as the Public Defense, the Public Security, the Armed Forces and the Intelligence Department were not covered.

The DoS used Virgin 3.1 of ISIC to code the main Economic Activity of the Establishments on the six digit level of the classification which was set by DoS to provide a more comprehensive frame of establishments.

Several indicators that could refer to the size of the establishment were collected such as the number of employees, the capital paid and the annual revenues. Those indicators were introduced in the questionnaire to categorize the sizes of the Establishments for post sampling designs.

The Method of personal interview was used in the collection of data, where the enumerators went door to door in the blocks that were used in the latest Population Census conducted in the year 2004. An update of the buildings in the blocks was done during the field work to insure a complete coverage of all establishments in each block.

A list of all non-residential establishments was done to identify the type of the establishment, where only the main branches which have separate accounts were covered. Other establishments such as branches which don't keep separate accounts, warehouses, Government establishments, religious establishments and military establishments were excluded.

## **3. Planning and Organization of Economic Census**

### **3.1 Legal and financial provisions**

As mentioned previously the law of Statistics gives only the statistical office DoS the authority of conducting Censuses in the Country. The DoS had to get a letter of approval from the Prime Minister to conduct the Economic Census and the allocation of the needed budget. The Budget of the Census was about one million (\$1,000,000) dollars.

### **3.2 Administrative arrangements**

After the allocation of the budget which was completely from the Ministry of Finance MoF and the approval letter from the Prime Ministry, DoS formulated a technical committee from the following agencies:

- The Ministry of Industry and Trade
- The Ministry of Planning
- The Central Bank of Jordan
- The Companies Control Department
- The Jordan Investment Board
- The Department of Statistics

The committee had to look into the draft questionnaire and the proposed methodology to give any feedback on them or to add whatever could serve there needs without burdening the questionnaire. The administrative team for the Census was formulated as all other Censuses conducted by DoS as follows:

- The Director General of DoS / as the National Manager for the Census
- The Director of Economic Statistics / as the Executive Manager for the Census.
- Technical Assistant to the Executive Manager
- Field work Assistant to the Executive Manager
- Financial and Administrative Assistant to the Executive Manager

### **3.3 The pilot Survey**

After finalizing the questionnaire and been approved by the technical committee. The DoS recruited 10 of its permanent staff in the Directorate of Economic Statistics to perform a pilot survey for the questionnaire for a small sample of blocks in two governorates. The sample was about 10 blocks and 110 establishments. The pilot survey didn't return any comments on the questionnaire contents but rather gave a good indicator on the time spent for one enumerator to complete a block and the time that it will take to fill up a complete questionnaire. This information was important to estimate the number of field staff given the total number of blocks in Jordan and the period for the field work which was three months.

After the pilot survey, the questionnaire was sent to the IT Directorate to set up the data entry programs and the dummy tables programs. An electronic data check was designed by the Census team and also provided for the IT Directorate.

### **3.4 Staff Recruitment and Training**

According to the results of the pilot survey it was decided that (120) enumerators were needed to complete the field work in three months. The field organization was as follows:

- Five Field Coordinators were appointed to supervise the field work on the governorate level. Jordan has (12) governorates, but two small governorates in some cases were assigned to one Field Coordinator. For big Governorates one was assigned to one enumerator. The field coordinators were senior permanent staff of DoS who had big experience in field work and had participated in previous Censuses.
- Twenty Inspectors were appointed to supervise the work on the district level and they had to report to the Field Coordinator and they supervised the work of the enumerators under them. Those Inspectors were permanent staff of DoS who had good field experience.
- (20) Field Auditors were appointed to check the completeness of the submitted questionnaires at the end of each day and to check the consistency of the filled data. Those Field Auditors were permanent staff of DoS working in the annual economic surveys.
- (120) Enumerators were newly recruited as temporary staff for the field work period.

A training course was held for all the field staff and lasted for five days concentrating on the concepts and definitions, the objectives of the Census, how to fill up the questionnaire and how to use the maps to allocate the establishments. Since the blocks sketches were two years old, the enumerators were also trained to update those sketches.

The data collection procedure was to go door by door in every block and list all establishments within the block, then fill up a questionnaire for those

which meet the requirements and the conditions. For example the government establishments, the warehouses, the mosques, and the branches which don't have separate accounts were listed but the enumerator didn't fill up a questionnaire for them as they were excluded from the scope of the Census.

### **3.5 Raising awareness and promotion**

Since the budget of the Census was not huge enough to meet different types of promotion, DoS only had to announce about the Census in the daily newspapers and write official letters to be submitted to the establishments on the day of visit explaining the objectives of the Census and the confidentiality of data, and requesting the establishments to cooperate in filling up the questionnaire.

### **3.6 Field supervision and reappraisal of questionnaire response**

The field supervision started from the first day of field work, where the Inspectors had to select a sample of visited establishments and check whether they were visited actually and make sure that the data that was filled was correct.

The Field Auditors had to check every questionnaire that was submitted on the previous day to make sure that the questionnaire is complete and the data is consistent. Any uncompleted questionnaire or the ones that had mistakes were returned back to the enumerators to correct them or to complete them.

The establishments that did not respond in filling the questionnaire were visited by the Inspector or the Field Coordinator to urge them to respond. And since the questionnaire was easy and not so big all the establishments had responded after several visits.

## **4. Data collection and data processing**

### **4.1 Data items collected**

The census questionnaire was divided into two questionnaires. The first one was for the purpose of listing all establishments in the block to make sure non of them would be missed or neglected. A second purpose for the

first questionnaire was to identify and filter the establishments that should be enumerated and have their questionnaire filled.

The first questionnaire contained the following items /questions:

- Complete address
- Number and name of building
- Status and purpose of the building
- Number of establishments in the building
- Serial No. of the establishment in the building
- Status of the establishment
- Commercial name of the establishment
- Structure if the establishment if headquarter without branches, headquarter with other branches, branch with separate accounts (questionnaire to be filled), else branch without separate accounts, regional office (stop and no questionnaire to be filled).

The second questionnaire contained the following items / questions:

- Complete address and the Key
- Registration number at the MoIT
- Commercial name of the establishment
- Economic main activity
- Economic secondary activities
- Date of starting production
- Legal Status of the establishment
- Capital paid
- Contribution in the capital paid / Jordanian private sector, Jordanian government, non-Jordanian private sector, foreign government and others.
- Whether the establishment holds legal accounts
- Number of employees during the last month of the visit by sex and nationality.
- Annual revenue
- Whether the establishment is connected to the internet or whether it has a website.

## **4.2 Data processing**

The data for the census was collected by filling up the two paper questionnaires by either the enumerator or in some rare cases the person in charge in the Establishments. The field work started in the 1<sup>st</sup> September 2006 and ended in 10<sup>th</sup> December 2006.

The questionnaires were then edited by the Field Auditors and sent to the Department Headquarters to be edited again and coded. After the questionnaires were registered and coded they were sent to the IT Directorate to be entered into the computer by data entry staff. Electronic edit rules were submitted to the programmers and built into the data entry program so that any inconsistent data would be captured at the data entry stage. If any inconsistent data was discovered, the questionnaire was referred back to the Census technical team to correct it by either sending it to the field again or by making a telephone call with person in charge in the Establishment to correct it.

## **5. Post-census activities**

There was no kind of Post-census enumeration activity after the field work stage had finished. But as mentioned before the Field Inspectors had to visit daily a sample of completed questionnaires to make sure that the Enumerators had visited the Establishment and then check for some items in the questionnaires.

The data collected from the Census provided an updated frame of actually active establishments in Jordan and their main characteristics for post sample surveys which are conducted annually for all sectors and even quarterly to estimate the quarterly growth of the GDP.

DoS conducts since 1992 annual Surveys on all economic sectors such as the manufacturing sector, the services sector, the transportation and storage and communication sector, the wholesale and retail sector, the banking and insurance sector, the construction and the employment survey. Those surveys are conducted yearly and are funded completely by the budget of Dos.

Other surveys are conducted upon request by other ministries such as the foreign direct investment FDI which was requested by the Central Bank of

Jordan and the Jordan Investment Board JIB and the ICT survey that was requested by the Ministry of Communication and Information Technology. Those surveys were funded by the JIB and the MoCIT.

The annual Surveys that DoS conducts are huge surveys with a sample size that is about 10% of the total establishments. All big establishments in terms of number of employees or capital or revenues are completely enumerated yearly while other SMES are sampled. The main purpose of these surveys is to provide the necessary data for the National Accounts Division to prepare the tables on national accounts. The questionnaire was more detailed since 2006 to help prepare the I-O tables for Jordan. The project of the I-O tables started early this year and the year 2006 was selected because it was considered to be the most recent normal year.

DoS also conducts quarterly surveys in the sectors of manufacturing, services, communication and storage and transportation, wholesale and retail, and the construction sector. Those surveys are small surveys that provide data to estimate the growth of the quarterly GDP.

The quarterly sample is a sub sample from the annual survey sample with a shorter and smaller questionnaire which provides estimates mostly on the two digit level of the ISIC on the Jordan level. While the annual surveys the questionnaire is more detailed and provides estimates on the regional level and the four digit level of the ISIC.

## **6. Dissemination of Economic Census results**

The results of the economic census were presented in a comprehensive paper report (Hard Copy). The data was represented on the four digit level of ISIC and on the Governorate level. The tables disseminated covered all items of the census questionnaire. Also the DoS has disseminated the results on its own website for easier access by users world wide.

For any further data which could be requested by different users on the lower administrative levels such as districts and sub districts or even in a different cross tabulated forms. The users either contact the DoS by visiting the headquarters or send an e-mail request, and the DoS would send them the required data taking always into consideration the confidentiality issue.



The results of the Census were launched in a Press Conference chaired by the Director General of DoS, where a short analytical report was prepared that showed the main results of the Census and circulated to the press attendants.

The main results of the Census showed that Jordan had a total of (147023) active establishment, where (48%) of them were located in the capital Amman and (79%) in Amman, Irbid and Zarqa governorates which are the bigger three governorates in Jordan out of (12) governorates. (87.7%) of the total establishments were individually owned and (92.2%) had less than five workers. As for the distribution of establishments according to the sectors, the Census showed that (60.7%) were in the wholesale and retail sector, (24.4%) were in the services sector, and (13.8%) were in the manufacturing sector.

## **7. Future of Economic Census**

The DoS is intending to ask for funding to conduct the third Economic Census in 2013 rather than 2016 due to the quick changes in the number and structure of establishments in Jordan.

In the year 2007 DoS had suggested a project for establishing a Business Register. This register would be so helpful in providing an updated frame of establishments between the period of the Censuses. A higher committee was formulated and it was represented by the Secretary Generals of:

- The Ministry of Industry and Trade
- The Ministry of Municipalities
- The Department of Statistics
- The Social Security Association
- The Income and Sales Tax Department
- The Municipality of Greater Amman
- The Companies Control Department

The Higher committee formulated a Technical Committee to put a plan for the project. The technical committee had representatives from the above mentioned institutions. The committee worked on a two stage plan, where the first was to assign a unique ID for the establishments that should be used in all institutions dealing with the establishments such as the Ministry of

Industry and Trade, the Department of Statistics, the Income and Sales Tax Department, the Social Security Association and the Municipalities. It was decided that this unique ID should be used beside the ID's that were used in those Institutions so that they don't disturb there data bases.

The Ministry of Industry and Trade which is the first stop for registering any establishment gave automated ID's to all establishments in their data bases whether they were active or not. Then as a next step all other institutions started to introduce the ID number in their data bases and forms.

The Second stage for the project is to monitor the active establishments when they change activity or get out of the market, and also to be able to capture the new registered establishments. This stage is a bit complicated and needs the efforts of the municipalities to submit the updated data on establishments to the Unit of the Business Register since the establishments have to renewal their permits every year from the municipality they belong to. This stage is proposed to start in early 2010 because the establishments are requested to renewal their permits during the first three months of every year. A form would be submitted to the municipalities to be filled by the establishment representative, which includes the address, the economic activity of the establishment, the number of workers or employees and the paid up capital.

The forms would then be sent to the Unit of the Business Register to be entered on a separate data base. This data base is suggested to be hosted by the Ministry of Industry and Trade with close cooperation with DoS specially in terms of coding the economic activity. The concerned institutions would have access to this data base as soon as it is ready.

