Cyprus Blaise Integrated Census System (CY-BICS)

Costas K. Diamantides, Statistical Service of Cyprus
Lon Hofman, Statistics Netherlands

1   Introduction

Aim of the census of population is to enumerate the population, the households and the dwellings and to collect information on the demographic and socio-economic characteristics of the population and households, on the size and amenities of dwellings and the geographic distribution of the population, households and dwellings. This information is essential for governmental policy-making, planning and administration. The census is in fact one of the main sources that provide statistical data which is used in policy development in such fields such as education, employment and manpower, housing, rural development etc.

For the 2011 census the Statistical Service of Cyprus (CYSTAT) had set the following main objectives:

    i. Collect data of high quality
    ii. Timely publication of results
    iii.   Minimize the cost
    iv.   Full and accurate coverage

Secondary objectives derived from the need to monitor the performance of all the personnel involved as well as to obtain a flexible and scalable system, or parts of it, so that can be configured easily for other censuses and surveys.

To achieve the census objectives, CYSTAT in cooperation with Statistics Netherlands (CBS), developed the Cyprus Blaise Integrated Census System (CY-BICS). The aim of CY-BICS was twofold. First, to capture the census data by applying the Computer Assisted Personal Interviewing (CAPI) method and second, to incorporate innovative and highly automated technologies for the production of accurate data quickly and efficiently at a low cost.

2   Background

The first census of population in Cyprus was conducted in 1881 and recorded a total population of 186.173 inhabitants. Until 1931, censuses were carried out every 10 years. Due to the World War II, the next census was conducted in 1946 and then in 1960, the year in which the Republic of Cyprus was established. In the 70s there were two censuses, one in 1973 and another in 1976. This exception was due to the 1974 Turkish invasion. The following censuses were carried out in 1982, 1992 and 2001. In 2001 a population of 703.529 inhabitants was recorded in the government controlled area (Statistical Service of Cyprus, 2011).

The 2011 census was conducted for the first time in the framework of a European regulation[1]. The Regulation stipulates that National Statistical Offices should provide reliable, detailed and comparable data on population and housing, following basic principles, definitions and specific deadlines for the submission of data and metadata.

---

[1] Regulation 763/2008 of the European Parliament and of the Council of 9 July 2008 on population and housing censuses

In order to safeguard the data quality, traditionally the censuses of population in Cyprus are carried out with personal interviews. Although the data capture is a small part of a national census project it is one of the most critical, costly and time consuming activity (United Nations, 2009). In order to fulfil the objectives of the census, CYSTAT considered three options for carrying out the data capture in 2011.

The first option examined was the "traditional" method i.e. the manual entry from paper. In this approach the operators type in the responses they see on the physical census form into the computer system. Before the data entry all questionnaires are manually edited and coded. This method has significant disadvantages such as: large number of staff needed for editing, coding and data entry, high cost of manpower, time consuming process, potential for errors during data entry affect data quality and finally, large volumes of paper.

The second option considered was the optical data entry method which was applied in the 2001 census of population. Based on the 2001 experience this approach has several disadvantages such as: it requires specially printed and cut forms, sophisticated hardware/ software, errors in recognition affect data quality and finally, no significant difference in the total cost compared to the traditional method.

The third alternative was the use of Computer Assisted Personal Interviewing (CAPI). CYSTAT has been using Blaise for more than 10 years in household surveys. Although there is some experience in Blaise the knowledge is very basic and definitely not sufficient for the needs of a census. For this reason, CYSTAT sought the cooperation of CBS. A feasibility study prepared by CYSTAT and CBS showed that such a system would fulfil all the census objectives. It would be cost efficient as all the costs for the manual data entry, editing and coding are eliminated. The data collected is of high quality as the manual input errors are reduced, there is data validation during the interview and consequently the logical error are reduced. Finally, the census information is processed faster leading to timely publication of results.

Alea jacta est! CYSTAT in cooperation with CBS would develop the Cyprus Blaise Integrated Census System (CY-BICS) with the aim to capture the census data by applying CAPI and to incorporate innovative and highly automated technologies for the production of accurate data quickly and efficiently at a low cost.

3   Census Organisation

3.1   Organisational Structure

The census' geographical breakdown parallels the organisational division of the fieldwork. The geographical division into enumeration blocks facilitates the better organisation of the census as well as the collection of data at a very detailed level. In this way it is possible to make a precise indication in any geographical subdivision and in addition, double entries or omissions are avoided.

The government controlled part of Cyprus was divided into clear geographical limits according to the official administrative boundaries as defined by the Department of Lands and Surveys. In particular, within each of the five districts of Cyprus (Lefkosia, Lemesos, Larnaca, Ammochostos (rural only), Pafos) the following geographical levels were specified: Municipality/ Community, Quarter, Enumeration Block (Figure 1. Geographic Hierarchy). Each enumeration block had a maximum area of 1km^2 and around 300 inhabitants based on the data of the previous census. A total of 3.145 enumeration blocks were formed.
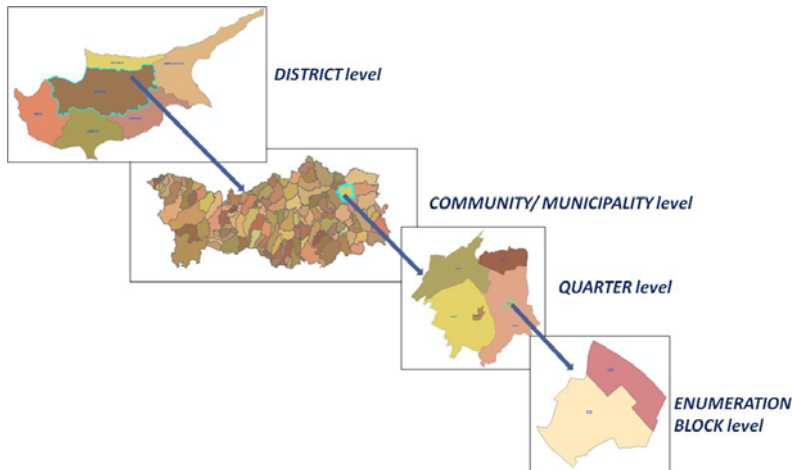
Figure 1. Geographic Hierarchy

To facilitate efficient fieldwork, a hierarchical organisational structure was designed (Figure 2. Hierarchical Organisational Structure). The field setting comprised the enumerators peaking at 800, 80 supervisors, 13 Assistant District Officers (ADO), 4 District Officers (DO) (Larnaka District Officer was also responsible for Ammochostos) and the managerial team comprised of the Director of CYSTAT, the Chief Statistics Officer who had the overall responsibility of the census and the IT Director. Technical support was provided by the support team at each level of the hierarchical system.
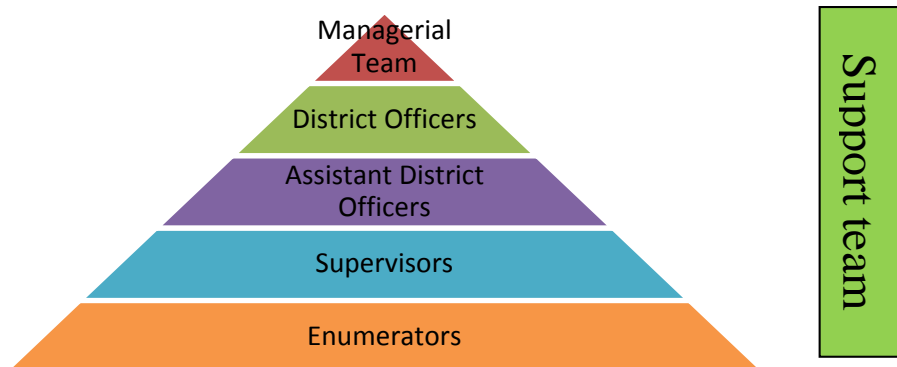

Figure 2. Hierarchical Organisational Structure

DO/ ADO were permanent staff of CYSTAT, while supervisors and enumerators were temporary employees recruited for the census. The duties of DO/ ADO included the organisation and supervision of the fieldwork in the district. The task of the supervisors was to co-ordinate, supervise and check the daily work of the enumerators. On average each supervisor was responsible for 10 enumerators. Each enumerator was responsible to enumerate on average four enumeration blocks.

Recruitment of temporary staff was carried out in each district by DO/ ADO. Training was carried out by the 'ladder method', each rung of the hierarchy training the one below it. In particular, DO/ ADO were trained by the development team and users team (see section 4.1), the supervisors by the DO/ ADO and the enumerators by the supervisors.

3.2   Geographical Information System (GIS)

Throughout the history of population censuses in Cyprus maps were generated and provided to each district office. The maps covered the whole urban area, which was divided into the administrative levels (municipality-quarter) and enumeration blocks. These base maps constituted the reference of

the supervisors and interviewers in each district. At the same time a map of the relevant enumeration block with well defined boundaries was given to each interviewer.

For the first time in the history of census-taking in Cyprus, the geographic part was based on computerized mapping through the use of the GIS. The digitization and encoding of the entire road network in the government controlled area of Cyprus was assigned to a private firm by CYSTAT and the Department of Lands and Surveys.

The GIS has significantly assisted in the organisation and implementation of the census, by improving the coverage as well as in supporting and facilitating the process of data collection. Furthermore, the GIS facilitate the presentation of the results in the form of thematic maps.

Each enumerator was given two maps for each enumeration block. One map was a satellite image of the enumeration block (Figure 3. Satellite image) and the other displayed the streets of the enumeration block (Figure 4. Map with streets). Each map displayed the boundaries of the enumeration block in red colour and each street type (motorway, asphalted, loose surface, under construction, pedestrian) by a different colour.
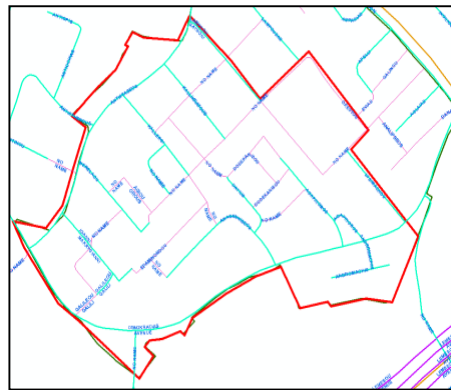

Figure 3. Satellite Image   Figure 4. Map with streets

4   The Cyprus Blaise Integrated Census System (CY-BICS)

CY-BICS aimed to offer users a friendly environment to work with and to carry out automated procedures the maximum possible extent. The inclusion of all validation and consistency checks in the electronic questionnaire facilitated the capture of high quality data. The use of automation within and between applications enabled the near real time quantitative and qualitative monitoring of the data collection and the identification of coverage problems.

CY-BICS consists of four applications as follows:

    i.   Electronic Questionnaire (EQ)
   ii.   Supervisors' Application (SA)
  iii.   District Officers' Application (DOA)
  iv.   Central Application (CA)

This section provides information on the development of CY-BICS, the dataflow and the four applications.

4.1 Development

The development of CY-BICS started two years before the census. CY-BICS was designed and built in a stepwise approach, i.e. first the electronic questionnaire followed by the supervisors application, the district officers application and finally the central application.

During the development period two teams were setup, the development team and the users team. The development team had the responsibility for constructing the system and the users team for specifying the requirements, evaluating and testing the system during its build up. The development team was composed of three persons, two from CYSTAT and one from CBS who was the expert in programming with Blaise. One person from CYSTAT had the responsibility for the design and analysis of the system and acted as the mediator between the development team and the users team. The other person from CYSTAT contributed to the programming in cases where no expert knowledge was required and was also involved in the testing of the system. The users team comprised of four persons all CYSTAT staff.

During the two year period, three missions to Cyprus of the Blaise expert were carried out. During these missions it was possible to discuss in person the development process as well as to resolve several issues on the spot. The development mainly was carried out by the Blaise expert in the Netherlands and files were exchanged through the internet.

The first version of the EQ was tested in a pilot survey that took place in October 2010. In this survey four enumerators were trained in the handling of electronic questionnaires and personal interviews were carried out in households which were randomly selected. The survey proved to be very useful as it gave the opportunity to identify and rectify errors of the application. Moreover it enabled in the determination of the required settings of the netbooks and in the adjustment of the users manual. One month later a second pilot was carried out. This pilot took place within CYSTAT, i.e. the respondents were CYSTAT employees, and its aim was to test whether the errors identified in the first pilot were corrected. The role of the enumerators was taken by the members of the users team. The outcome was very positive and the electronic questionnaire was considered as completed.

The SA and DOA were mainly tested by the members of the development and users teams. A final test of all applications, except the central, was carried out in June 2011 at the presence of the Blaise expert (third mission to Cyprus). This test was carried out by all district and assistant district officers (all CYSTAT permanent staff). The aim of the test was twofold. First, to give the opportunity to all permanent staff to get acquainted with the different applications and second, to make a final test of the electronic questionnaire, the supervisors and district officers application. As a result all participants got familiar with the census applications, all problems were rectified and suggestions for improvement were implemented.

For each application the development team prepared a users manual which was used both as a guide during the training course and as reference during the census.

4.2 Dataflow

The setup in each district was similar the only difference being the size (Figure 5. Dataflow in each district). Dataflow within each district office was based on the available LAN infrastructure. In each district there was a central computer which acted as a server. The technical specifications of the 'server' were exactly the same as those of the supervisors PCs and are described in Appendix A'. The DO/ ADO used their own PCs and consequently there were different kinds of specifications. However, this heterogeneity in the PCs imposed no restrictions to the use of the different CY-BICS applications. In general, the technological infrastructure applied was very 'basic' and there was neither need for expensive hardware nor for other 'means' for data transfer rather than cables.

Although all computers were connected through the LAN the data transfer between the computers was determined by the different CY-BICS applications. Each netbook could connect at any point of the LAN but SA could only receive data from specific netbooks and send data only to the district

'server'. There was no data transfer from/ to the district officers' application but there was only access to the Blaise database installed on the district 'server'.

A number of supervisors were responsible for the supervision of data collection in rural areas only. In those cases the supervisors were provided with a laptop on which SA was installed. As the meetings of the supervisors with their enumerators were taking place in different places each time, away from the district offices, the data transfer between the netbooks and laptops was carried out with the use of cross cables. The data were transferred to the district 'server' from the supervisors laptops each time the supervisor was visiting the office, about twice a week.
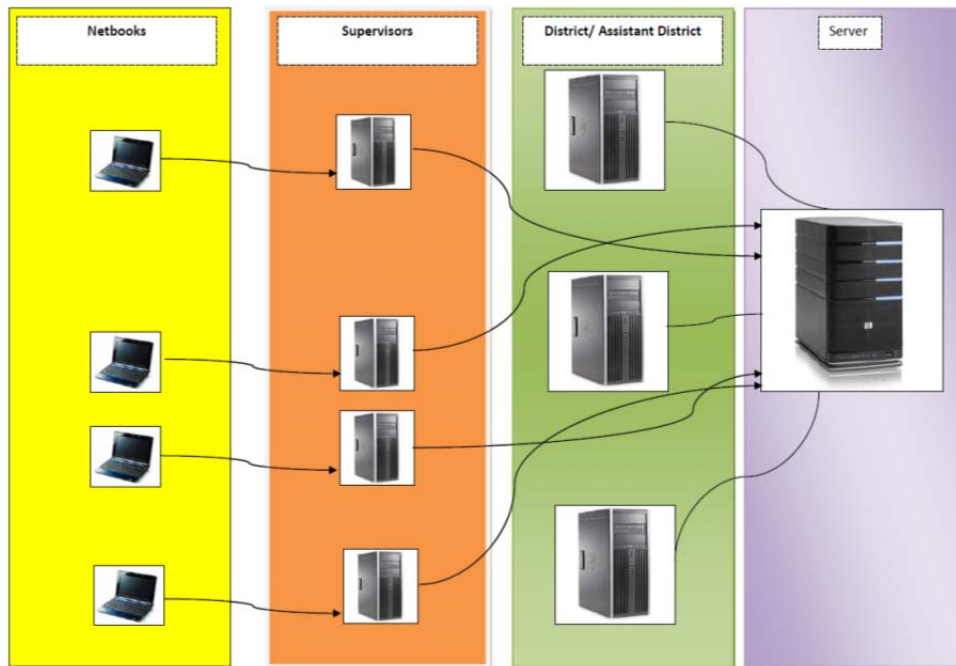

Figure 5. Dataflow in each district

Data from districts were transmitted to a central 'server' located in the main offices of CYSTAT in Lefkosia through the Government Data Network (GDN) which provides a fast and secure way for data exchange (Figure 6. Dataflow within Cyprus). Data were transmitted to the central 'server' automatically every evening according to a predefined transmission schedule for each district. The technical specifications of the 'server' were the same as those of the district 'server'.

Figure 6. Dataflow within Cyprus

4.3 Electronic Questionnaire (EQ)

The working unit of the census of population was the enumeration block. Each enumerator was responsible for the completion on average four enumeration blocks. EQ was designed in such a way as to map the logical sequence of the actions of the enumerator. The enumerator should first handle the street information and then the dwelling questionnaire which consists of five parts as follows:

PART A: Housing Unit questionnaire
PART B: Household questionnaire
PART C: Household Roster
PART D: Personal questionnaire
PART E: Completion Status

In Blaise there were two main datamodels, one for the housing unit (Part A) and another for the household (Parts B-E). The last question of Part A concerned the number of households residing in the housing unit. Depending on the answer given to that question the corresponding number of household questionnaires were created.

The adoption of the GIS for the census enabled the unique identification of all street segments within each enumeration block. Consequently for each enumeration block there was available a list of streets with unique codes and names. Before the beginning of the census each netbook was uploaded with all the streets information for all enumeration blocks of the district. The enumerator after selecting the enumeration block was then given the option to select a street from the streets list (Figure 7. Streets within an enumeration block). Each enumeration block was password protected and the enumerators were provided only the passwords of the blocks they had the responsibility of.

Figure 7. Streets within an enumeration block

Due to the time lag between the last updating of the GIS with the streets information and the census it was expected to find differences such as addition of new streets and change of street names. For this reason EQ facilitated the addition of new streets and the correction of the street names. Both procedures could be carried out very easily at the 'Streets in enumeration block' table (Figure 7. Streets within an enumeration block). This table contains several information at the street level such as the existence or not of housing units in each street, the number of housing units and the number of 'complete' and 'incomplete' cases.

A case was considered as 'complete' if one of three conditions were satisfied. First, the housing unit was occupied by one or more persons and all five parts of the dwelling questionnaire were completed in full. Second, the housing unit was vacant and third, the housing unit was used as a second home (holiday). A case was considered as 'incomplete' if any of the five parts of the dwelling questionnaire was not completed in full.

After selecting the street the application displays the table 'Housing Units' which includes all the currently listed housing units of this street (Figure 8. Housing units listed within a street). For each housing unit the table displayed several information such as the status ('complete'/ 'incomplete'), if the housing unit is occupied or not, the household/ flat number, the number of households, there presence of any remarks/ DK and whether the questionnaire had been checked by the supervisor.

Figure 8. Housing units listed within a street

After adding/ selecting a housing unit the dwelling questionnaire must be completed. Part A includes questions for both resident and empty housing units. Specifically the questions refer to the building type, the number of rooms and the various available facilities such as kitchen, bathroom, heating etc. Part B includes questions about the ownership, rent etc. Part C is the list of names of household members and the relationship among members. Part D includes questions for all members (one questionnaire for each individual) usually resident in the household such as marital status, religion, employment/ unemployment etc. Finally, Part E includes questions on the completion of the various parts of the questionnaire and finally, the details of the contact person.

In the cases where the questions referred to country, municipality, citizenship and spoken language the data entry was carried out through trigrams. As a result the selection of the correct description and coding were carried out very efficiently.

In general, the comments of all users of EQ were very positive. Nevertheless, there is always room for improvement. Although the enumerators made a few suggestions for improvement during the census those were not possible to be implemented as the process of data collection was running. Those suggestions concerned the ability to delete streets that were created accidentally and the availability of the option to enter the code directly in the cases where the code was known instead of following the procedure of trigrams. As regards the general design of CY-BICS and in particular the integration of EQ and SA the restriction of one enumerator for each enumeration block and one supervisor for each enumerator caused some additional burden in the cases where the enumerators resigned and their job had to be assigned to another enumerator.

4.4 Supervisors' Application (SA)

The supervisors were responsible for checking and correcting the questionnaires completed by the enumerators. They were also responsible for the transfer of 'completed' cases from the netbooks to their PCs and for the production of summary reports at the enumeration block level. The tool for carrying out all the tasks was SA which can be considered as the 'heart' of CY-BICS.

Although the interface of SA looks very simple there is a lot of automation behind it. For instance, the completed cases are transferred by the press of a button but behind this function there are several processes carried out like the regeneration of a new unique id for the dwelling questionnaire on the supervisors' database, the change of mode of the dwelling questionnaire that stays on the netbook into read only and the creation and storage on the supervisors pc of a zip file with all the data of the specific enumeration block stored on netbook.

The supervisor have the option to work through SA either on the netbook of the enumerator or locally. In the former case (Figure 9. Supervisor application in 'netbook' mode) the supervisor is able to perform various tasks related to the handling of streets and the editing of the questionnaires (those not transferred from the netbook), produce summary reports for all 'complete' and 'incomplete' cases of the enumeration block and finally transfer the 'completed' cases from the netbook to the supervisor's pc. As soon as a dwelling questionnaire is transferred to the pc then it is not possible to make any changes on the netbook which it is now only available for viewing. The functions that are available in each application are displayed in the table of Appendix B'.

A total number of six reports can be produced by a click of the button as follows (sample of reports is available in Appendix C):

a. Report 1: Number of 'completed' questionnaires within an enumeration block, by date
b. Report 2.1a: Summary statement of completed housing unit/ household questionnaires within an enumeration block, by street name
c. Report 2.1b: Summary statement of completed housing unit/ household questionnaires within an enumeration block, by transferred date
d. Report 2.2: Summary statement of 'incomplete' housing unit/ household questionnaires within an enumeration block, by street name
e. Report 3: Summary statement of housing units by street name
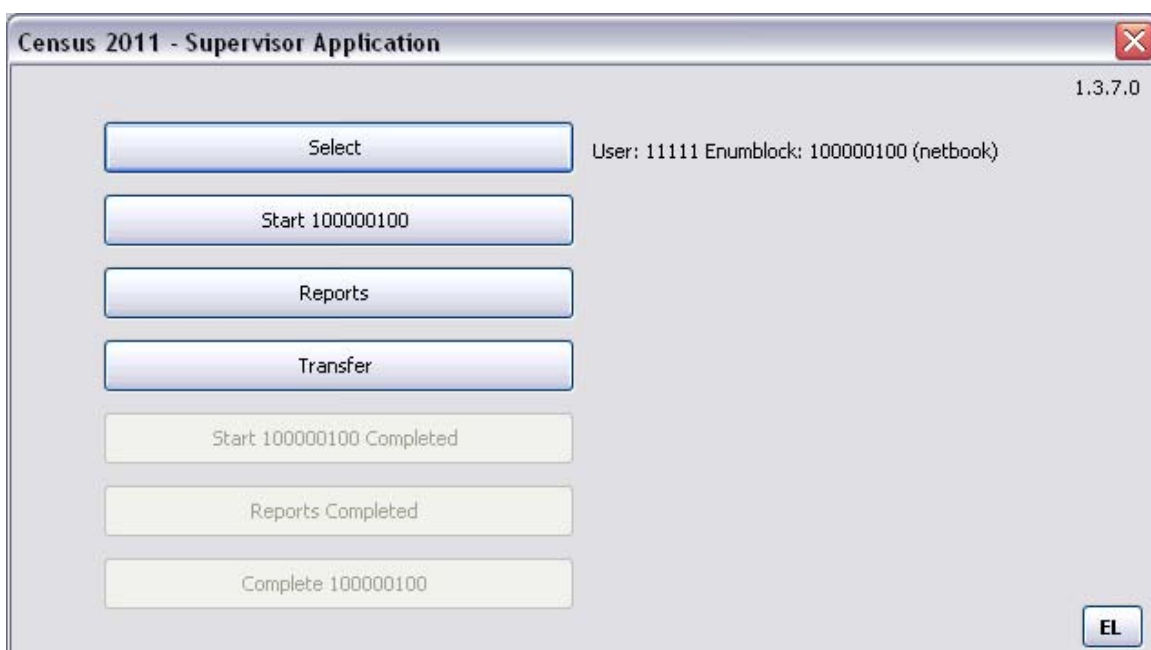f. Report 4: Summary statement on the status of each street, by enumeration block

Figure 9. Supervisor application in 'netbook' mode

When the supervisor chooses to work locally (Figure 10. Supervisor application in 'local' mode) the application allows to either work on the database with all the transferred 'complete' cases or to view the last copy of the netbook's database. In the former case the supervisor can perform the same tasks as an enumerator and some additional such as deletion of housing units and household members. In the latter case, i.e. when the supervisor wants to consult the last copy of the netbook's database, no changes are possible.

In both cases it is possible to produce the same reports as those described above with the exception of report 2.2 in the case when the supervisor accesses the database with the 'complete' cases. In all reports the source of data is clearly indicated i.e. netbook or 'complete' database.

Figure 10. Supervisor application in 'local' mode

The decision on whether an enumeration block was declared as completed or not left on DO/ ADO. SA facilitated the transfer of 'completed enumeration blocks' from the supervisor's pc to the district 'server'. However, this procedure could only be carried out by DO/ ADO. Depending on the login details, i.e. DO/ ADO/ supervisor, the application enabled or disabled the 'Complete enumeration block' button accordingly. As soon as the enumeration block was transferred to the district 'server' no changes could be made on the supervisor's database.

SA worked smoothly during the census and no problems or suggestions for improvement were reported.

4.5 District Officers' Application (DOA)

DO/ ADO through DOA were able to edit/ view data, produce summary reports and create backups of the census data (Figure 11. District officers' application). The application had direct access to the data that was stored on the district 'server'. On the district 'server' there were two sets of data. The first set was a copy of each enumeration block database with 'complete' questionnaires stored on the pcs of the supervisors. The copy on the server was created automatically each time the supervisor was exiting the database. The second set included all the completed enumeration blocks transferred from the pcs of the supervisors by DO/ ADO. DO/ ADO could only edit the latter data set but were able to produce the same type of reports for both sets.
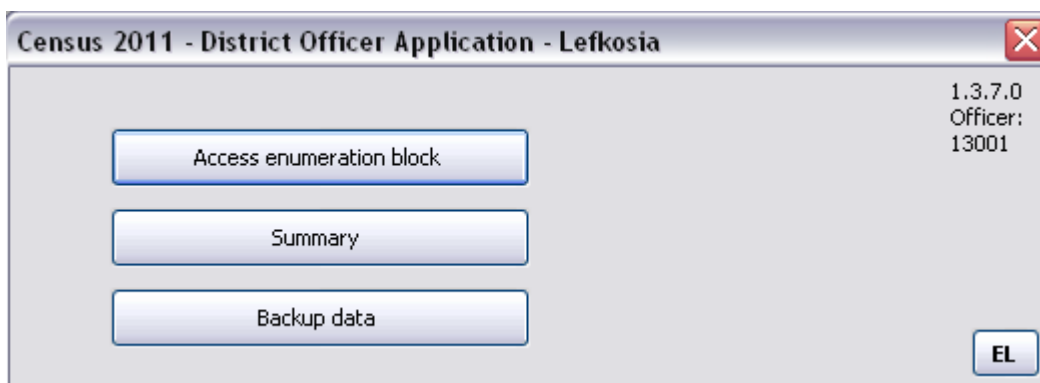
Figure 11. District officers' application

The access to the first data set was only for consultation purposes and in particular, to assess the work progress. Although DO/ ADO were responsible for declaring an enumeration block as complete the application was designed in such a way as to facilitate the capability of making changes on the transferred completed enumeration block. In this way, DO/ ADO were given full authorization to edit the data before transferring the enumeration block to the main census 'server' in Lefkosia. In practise, it proved to be a wise decision. The selection of the data set (Figure 12. Selection of data set) is made as soon as DO/ ADO choose to work either on the data or to produce reports.
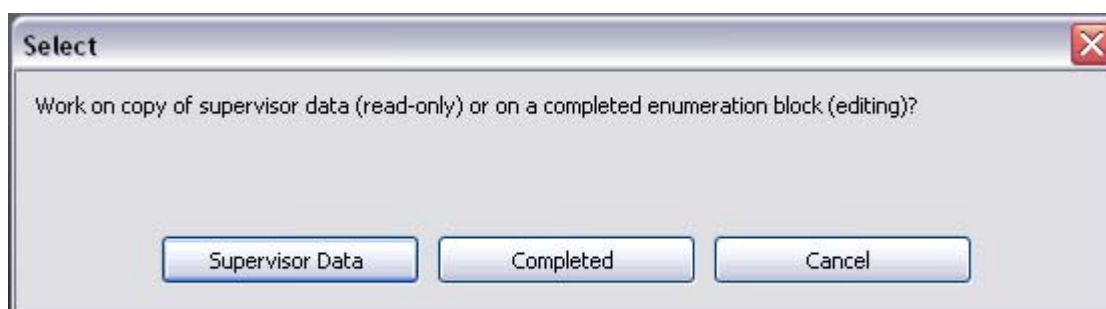

Figure 12. Selection of data set

The reports produced for the two datasets are similar. The first report produced by DOA contains information for each enumeration block such as the total number of households, housing units and number of persons. The information is sorted in three ways by enumeration block, enumerator or supervisor. There is also available the total figures for the whole district. The second report contains the same information but only for a selected supervisor. A sample from the reports produced by DOA is available in Appendix D'.

Similarly to the rest of applications DOA worked smoothly without any problems. The only suggestion received during the census which was not possible to be implemented at that time concerned the capability to produce the reports of SA. As explained by DO/ ADO that option would allow them to check the supervisors and enumerators work more efficiently.

4.6 Central Application

The Central Application was implemented for the exclusive use by the census managerial team (Figure 13. Central Application). The members of the team were located at the main building of CYSTAT in Lefkosia. The census central 'server' was also located at the same building.

The server contained the data from all districts that were replicated automatically from district 'servers' every evening. The data included both the completed enumeration blocks and the copies of the supervisors databases with the complete questionnaires.

Figure 13. Central Application

The members of the team were able to produce reports for each district separately as well as for the whole Cyprus. In this way, it was possible to monitor the progress of the data collection in each district and consequently in Cyprus (Figure 14. Data collection progress in Cyprus). Similarly to DOA it was possible to select one of the two data sets, i.e. database with 'complete' cases or database with completed enumeration blocks. The reports for each district were similar to those produced by DOA whereas in the case of whole Cyprus the total figures were just displayed on screen (Appendix E').

Figure 14. Data collection progress in Cyprus

5   Conclusions

The increasing demand for statistical data from the different categories of users such as policy makers, academics, journalists and others, result in application of such methods and procedures by

CYSTAT with which to achieve timely production and dissemination of reliable official statistics. Furthermore, the significant reduction in available funds requires the adoption of innovative methods through the use of modern technology.

A census of population is considered as the biggest challenge for a Statistical Office due to the large volume of data collected and the organization needed to coordinate the work of a large number of people employed. Traditionally, a census is considered as a 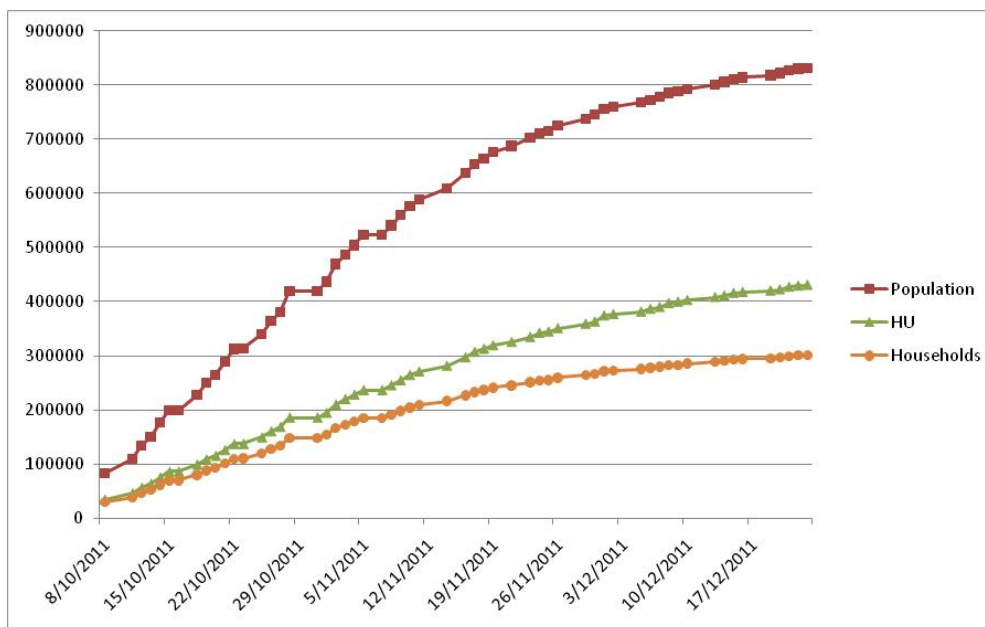good opportunity to implement new methods and techniques that will form the basis for the carrying out of subsequent surveys.

CYSTAT's response to the above challenges was the development and implementation of the innovative system CY-BICS. CY-BICS has fulfilled all the census objectives and in particular it is considered to be a big success for the following reasons:

Significant cost savings
By applying the CAPI method significant savings in cost have been achieved estimated at 25% of the total budget. The direct data entry, editing and coding in netbooks prevented the manual work after the data collection as well as the printing of questionnaires (only a small amount was printed).

Data quality and improved coverage
The data editing during the interviews but also the editing in near real time by the supervisors and the assistant district officers contributed to the collection of high quality data and improved coverage.

Timely dissemination
The public was informed about the progress in the data collection during the census. The first preliminary results were published immediately after the end of the census and the first analytical data were released within three months.

Development and implementation of similar systems in CYSTAT
All knowledge and experiences gained in the development and implementation of CY-BICS will be applied to future surveys and this can bring additional benefits for CYSTAT.

Environmental protection
By using electronic instead of printed questionnaires significant savings in paper have been achieved contributing to the protection of the environment. It is estimated that a volume of $28m^3$ of paper has been saved.

Immediate availability of sampling frame for household surveys
For the first time a sampling frame is available immediately after the completion of the census. Sample was drawn for three household surveys a few days after the end of the data collection.

6   References

Statistical Service of Cyprus. (2011). *Demographic Report 2009.* Nicosia: Statistical Service of

Cyprus.

United Nations. (2009). *Census Data Capture Methodology, Technical report.* New York: United Nations.

Appendices

A. Hardware specification

Netbooks
Acer aspire 10.1" SD 1024X600 (WSVGA)

Intel Atom N455 (512K Cache, 1.66GHz)
1024MB DDR3 1066 MHz
250GB Storage Capacity
Microsoft Windows 7 Starter Multilanguage OEM

PCs (District 'servers', main server, supervisors pcs)
Arrow-C2D desktop computers
Intel Core 2 Duo E8400
3.0GHz processor
4GB (DDR2-800MHz) RAM
Intel GMA 4500 (512MB) Graphics
Philips 22" TFT multimedia monitor
Windows 7 Pro

B. Functionalities available to enumerators, supervisors and district officers

	Enumerator - netbook	Supervisor - local (copy of netbook database)	Supervisor - netbook connection	Supervisor - local Complete database (transfered questionnaires)	District Officer - Supervisors copied database	District Officer - Complete Enumeration Blocks
Add Street	√	X	√	√	X	√
Delete Street	X	X	X	X	X	X
Change street name	√	X	√	√	X	√
Add Housing Unit	√	X	X	√	X	√
Delete Housing Unit	X	X	For questionnaires not transfered	√	X	√
Transfer Housing Unit fron one street to another	X	X	For questionnaires not transfered	√	X	√
Edit questionnaire	For questionnaires not transfered	X	For questionnaires not transfered	√	X	√
Delete Household Member	X	X	For questionnaires not transfered	√	X	√
Add REMARK/ DK	For questionnaires not transfered	X	For questionnaires not transfered	√	X	√

√: Applicable
X: Not applicable

C. Reports produced by SA

Report 1: Number of completed questionnaires within an enumeration block, by date

Source: Netbook

Date of the Report: 16-02-2012
Enumeration block: 102400104
Enumerator's code: 11082
Supervisor 's code: 12001

DISTRICT: Lefkosia - (1)
MUNICIPALITY/COMMUNITY: Γέρι - (1024)
QUARTER: ΔΕΝ ΥΠΑΡΧΕΙ ΕΝΟΡΙΑ - (10)

Date	No of Occupied HU	No of Not Occupied HU
02-12-2011	1	0
03-12-2011	2	0
05-12-2011	3	0
07-12-2011	1	0
10-12-2011	11	0
13-12-2011	7	0
Total	25	0

Report 2.1a: Summary statement of completed housing unit/household questionnaires within an enumeration block, by street name

Source: Netbook

Date of the Report: 16-02-2012
Enumeration block: 102400104
Enumerator's code: 11082
Supervisor 's code: 12001

DISTRICT: Lefkosia - (1)   No. of households: 25
MUNICIPALITY/COMMUNITY: Γέρι - (1024)   Occupied housing units: 25
QUARTER: ΔΕΝ ΥΠΑΡΧΕΙ ΕΝΟΡΙΑ - (10) Not occupied housing units: 0
                                                                     No. of household members: 93
                                                                     %Edit: 0,0%

HOUSING UNIT							HOUSEHOLD							
ADDRESS														
Street name	House nr	Flat nr	Remark	Housing Unit ID	Occ/ Vac	HH serial nr	First name HH	Surname HH	Telephone Nr	Nr of HH members	Start date	Completed	Transfer	Edit
Αρη Βελουχιώτη	■			0001	1	01	██████	██████	█████	3	05-12-2011	05-12-2011	06-12-2011	
Αρη Βελουχιώτη	■			0002	1	01	██████	██████	█████	3	10-12-2011	10-12-2011	14-12-2011	
Αγίας Λαύρας	■			0001	1	01	██████	██████	█████	4	07-12-2011	07-12-2011	14-12-2011	
Αγίας Σοφίας	■			0001	1	01	██████	██████	█████	5	13-12-2011	13-12-2011	14-12-2011	

D. Report produced by DOA

Summary data for all enumeration blocks – Sorted on Enumerator

Source: Supervisors data

DISTRICT: Lefkosia
Report date: 16-02-2012

No. of households: 117202
No of Occupied HU: 115294
No of Not Occupied HU: 26115
Nr of HH members: 319699
%Edit: 48,1%
Total number of completed enumeration blocks: 0

Enumerator	Enum block	Supervisor	No. of households	No of Occupied HU	No of Not Occupied HU	Nr of HH members	%Edit	Completed EB
11001	102103403	12014	141	141	24	506	96,5%	
11002	102103600	12014	57	57	2	209	89,5%	
11002	102103701	12014	43	42	15	136	90,7%	
11002	102103702	12014	92	92	10	292	81,5%	
11002	102103901	12014	96	96	8	334	88,5%	
11003	102103503	12014	205	205	35	714	98,5%	
11003	102200201	12014	91	91	12	228	94,5%	
11003	102200202	12014	83	83	18	172	100,0%	
11004	102200101	12014	102	102	29	234	98,0%	
11004	102200102	12014	63	63	19	169	84,1%	

E. Report for the whole Cyprus

Summary Cyprus: Completed Enum Block

Cyprus totals

No. of households	303258
No of Occupied HU	299294
No of Not Occupied HU	134269
Nr of HH members	836671
%Edit	48,6%

Total number of enumeration blocks	3156
Total number of completed enumeration blocks	3156

Ready