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COMMUNITY

SECRETARIAT

TWENTY-EIGHTH MEETING OF THE

RESTRICTED

STANDING COMMITTEE OF

CARIBBEAN STATISTICIANS

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Providenciales, Turks and Caicos Islands

3-5 November 2003

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PROGRESS AND PLANS

Submitted by Saint Lucia's Statistics Department

Attached for the attention of the Meeting is Paper entitled Progress and Plans.

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**TWENTY -SEVENTH MEETING OF THE STANDING COMMITTEE OF CARIBBEAN  
STATISTICIANS**

**ST. LUCIA STATISTICS DEPARTMENT PROGRESS AND PLANS**

*By Edwin St. Catherine, Director of Statistics*

**November 3rd to November 7th 2003 Turks and Caicos Islands**

**Census:**

Much of the work of the office in the past year revolved around the dissemination of the census of May 2001, this came to ahead with the release to all members of parliament of a report entitled "Preliminary Report of the May 2001 Census" this report in addition to publishing data from the visitation records on population by enumeration districts and community also provided information on all major/key housing and person variables in the census. We recognized that having captured the census data with TELEform we had a fairly clean, 100% verified census dataset, thus after performing some basic checks that we were in a position to define the characteristics of the population of the country at the household and person level on almost every variable. While a number of the hardcopy publications was made available to the members of parliament and other senior officials of the government this publication was mostly disseminated in PDF form and has enjoyed through this means wide circulation. There is now currently available from our web site a copy of the publication. We have subsequent to this first major publication been through the assistance of ECLAC's Serge Poulard been able to link the census person and housing records and perform further checks these will be finalized soon. In addition, we will be receiving from the EO funding for the Redatam Census database project, this will allow the creation of an online queryable Redatam Database for dissemination of the census 200 1 results through our web site. A prototype of the website already running on the 1991 census available on our website at [www.stats.gov.lc](http://www.stats.gov.lc). This project will fund new computers and our planned move to ARC Editor 8.3/9.0 in the near future.

**Hardware and software infrastructure:**

We had always envisaged the census as an opportunity to enhance our infrastructural and technological capability. To this end the census allowed the possibility of justifying expenditure on a state of the art document centre the Xerox 440st which is a fully networkable, fax, copier, printer which is linked directly into our network. Along with this we also acquired a high end network solid ink wax color printer which is well suited to the production of publications and maps requiring good quality color printing, as is the case with the environmental statistics report and maps especially satellite imagery maps which we are in the process of acquiring in collaboration with the Ministry of Agriculture and the Ministry of Planning. Now that we have re-designed the labour force survey into a quarterly survey and have re-designed all of our questionnaires into TELEform templates suitable for scanning we can readily print our own questionnaires and use our Fujitsu document scanners acquired during the census to capture all of our sample survey data. The Document Center will also give us the capability to publish a small number of copies of publications which we have been unable to publish through the government printery.

As I make this presentation we are now completing data capture through scanning of the Labour Force survey, thus an activity which took us several weeks, now, takes us only about one week to complete. TELEform software now allows us to print out our questionnaires for surveys within the office using the document centre, to Barcode these questionnaires sequentially, thus allowing us more control on printing of questionnaires and the timing of our surveys. Employing the Fujitsu Scanners in combination with TELEform we are able to process our surveys far more quickly. The additional benefits which the introduction of TELEform for forms processing has allowed include, the possibility of pre-filling or merging data unto forms for surveys where our client base is well known to us and we want to present data to the client for correction or identification. We are in the process of strengthening the national insurance scheme data on occupation by merging address and employee identification information unto a form designed to capture this information. I will refer to this exercise in more detail in the later part of this presentation.

In addition, the office converted its internet connection from an unlimited dial-up service to a DSL (digital subscriber line) service using NAT (network address translation) over a Linux box we expect to make a transition from Linux to Windows 2000 server NAT in the not too distant future. The Linux box which manages the internet access translates incoming and outgoing requests for internet services from within the office using NAT so that the IP addresses of machines on our network are not visible to persons on the internet thereby increasing the security of our network. In addition, we will soon be moving our website from being hosted in Canada to hosting at a local source where we can have more direct control over the web server and have the possibility of presenting public facing forms to improve our interaction with local enterprises.

The office has also introduced software called LiquidOffice, an n-tier forms centric document management software to assist in our transition from the use of paper forms to public facing forms accessible over the internet/intranet. Liquid office allows us to publish in PDF or HTML public facing forms respecting WC3 Xform standards to our Intranet within a controlled server environment. All forms published in PDF or HTML using liquid office retain validation and consistency checks based on javascript which accompanies the product. Since LiquidOffice sits on SQL Server 2000 all records collected through the public facing forms are eventually routed to a table in SQL Server, with SQL server in the background we are also able to link code tables via lookup features built into the LiquidOffice designer to fields on the form. Liquidoffice not only allows us to maintain our online version of forms but also allows for scanned documents to be routed to specific members of staff or to the general staff as the case may be. This is a very effective means of collaboration and information sharing. We intend to make SQL Server 2000 the main vehicle by which we store and retrieve databases in the statistical office in the not to distant future, especially because of the secure way in which it stores, backs up and maintains data.

## **TRAINING**

The Department of Statistics has been quite active in this area over the past year; this activity is expected to continue throughout the upcoming year unabated.

Firstly, the Department completed the engagement of the services of Dr. Godfrey St. Bernard through a program of assistance funded by the CDB. This has assisted staff in improving their skills in various quantitative statistical techniques including sampling and survey data processing techniques. Staff members were trained in the use of specific software packages, SPSS and IMPSS 4.1. A wide cross section of staff was involved in the training and approximately 12 persons were trained. The second part of the training in sample survey design was completed in June 2002 and we have received customized course documentation of methodologies which all the young and upcoming statisticians can use at the Statistical Office in St. Lucia. We intend to use the documentation of methodology which Dr. St. Bernard completed to train all new Statisticians and Statistical Assistants in practical aspects of handling, publishing, disseminating and analyzing data at a Statistical Office. During this programme of training Dr St. Bernard paid a good deal of attention to evaluation of cross tabulations using various Chi-sq and directional statistical test to examine relationships between various types of variables we regularly come across in sample surveys. This proved to be particularly useful to staff as were the sessions on sampling. Thus far we have received from Dr St. Bernard a document entitled "Survey Sampling Training Manual" and we expect soon to receive the document on Statistical testing.

During the course of this year the department assisted one member of staff obtain certified training from the University of the West Indies in GIS, based on an outreach course developed by Dr Jacob Opadeyi. This course covered all the fundamental GIS principles, in addition, as part of the work programme for the course participants were required to complete a course project. In the case of our participant she completed a project designed eventually to create a census Atlas for St. Lucia. All of this was done in addition to the ESRI certification training in the following two courses completed with the assistance of IDAS/GeoCaribe, a certified ESRI training company out of Florida:

- 1) Migrating from Arcview 3.2 to ArcGIS 8.1 2) Fundamentals of ArcGIS 8.1
- 2) The University based certification was extended to other interested government departments and persons from the Lands and Surveys Department, the GIS unit within the Ministry of Planning also obtained the training along with our staff. Since the completion of the UWI certification programme we moved all our maps onto the ArcGIS 8.3 platform and have accelerated the work to build a clean set of community boundaries and to transfer all the housing and some person census data to the building level of our maps. A good deal of this work is now complete. We have also subsequently acquired a couple extensions to a) allow us to disseminate mapping products via a simple map interface on CD ROM or for sharing on our LAN in the office -the publisher extension b) the Geo-statistical analyst for modeling spatial phenomena c) the image analyst to allow us to begin to build topography into our ED maps.

## TRADE STATISTICS

The trade section of the Statistical Department continues to maintain a lag in trade processing of no more than one month. We were able to provide data to all critical data users in St. Lucia by the end of January 2003 for the year 2002 for all classes of data on imports.

The statistical department publishes data in HS 96, HS 93, SITC rev 3, BEC, ISIC, CPC 1.0 formats. These additional nomenclatures have been made possible due to the installation of correlation tables obtained from the UN between the HS93 and the respective nomenclatures. The BEC trade classification in particular has assisted us immensely in publishing data on trade and trade indices in particular for the use of economist in a more meaningful manner.

The department has abandoned the implementation of the trade indices module of EUROTRACE. This has been replaced by a quarterly trade indices survey which we have established with the assistance of CARTAC (Caribbean Regional Technical Assistance Center) working closely with a consultant from the Statistical Office of the IMP, Mr. John Sungren. The structure of these new indices will be based on the Balance of Payments (BOP), external trade and tourism data, while the price data for the indices primarily were to be obtained through direct price surveys. It was decided to rely on direct price surveys because of the serious shortcomings detected in the unit value data derived from external trade values and volumes. The main difficulty with a sample survey based approach of this nature is the possibility of non-response, where this occurs we have used detailed data available from Customs Warrants as a substitute source. We realize that this approach will have a number of benefits primarily for the purpose of national accounts deflation and terms of trade analysis. The economy of St. Lucia is heavily dependant on the international price developments for its major exports (bananas and tourist services) and the imports needed to produce them and products consumed locally. In addition, the use of this approach also has as a central focus import and export price indices of services generally but tourism services in particular, sold on the international markets and that this represents a significant advantage over the goods centric approach which the development of import and export price indices directly from the goods trade involved in the past.

The department has been absorbing electronic data from ASCUYDA since the entire customs function is now fully computerized. This is what allowed us to produce data for 2001 and 2002 for some of our users on imports by the end of January 2002 and 2003 respectively. The data on exports is now less problematic since we enter it directly at the office so that the non availability of this information in the Customs electronic file is not a problem. We have entered customs data into EUROTRACE and prior to that into a mainframe AS400 system from the time the department started producing trade data, this system at best produces all data on imports, exports and re-exports with a lag of about three months. We have by using both sources to compile trade data now been able to examine the deficiencies in the ASYCUDA data and have put in place a system to correct its problems. This has now allowed us to discontinue the manual re-entering of all data which was used to obtain information on trade. Members of staff have now been relocated to duties in support of the work in the national accounts and surveys section of the department and significantly to deal with the quarterly import and export prices surveys to which I referred previously. In addition staff duties in the trade section of the department are now being re-oriented to focus more on consistency checking, generation of trade indices or more generally on adding value to the trade data rather than performing the more routine and repetitive task.

We continue to await developments with EUROTRACE which has been released in an Access/SQL or ORACLE software environment. On review of documentation available from the EUROTRACE website we are please with the new capabilities of the system. especially with regard to its enhanced file sharing and collaboration capabilities, the greater degree of granularity available in data published, for example, data can be extracted directly from the system for any period of time specified, whereas the currently deployed version of EUROTRACE is only capable of producing the more traditional monthly, quarterly or annual publications. The new version of EUROTRACE relies more heavily on current technologies as reflected in its reliance on Access as its core database format for small offices and SQL Server/ORACLE for larger offices. This would allow a more effective integration of the trade data with the computer network in the statistical office and make trade data more readily available internally to network users within the department and more widely over the Wide Area Network of the government of which the statistical office LAN is apart.

## **SURVEYS**

The Statistical Department has been very active in this area this year, much more so than usual due to the demands emanating from the public sector, our own internal sample survey programme and greater collaboration which we have developed with the National Insurance Cooperation (NIC). We have successfully completed a number of surveys during the year and the reports for all of these surveys are available for use, the following is a list of the surveys performed which are not part of the on-going survey programme of the Statistical Department.

National Insurance Survey December 2002 Report finalized by the of Banana farmers Actuary of the National Insurance Scheme

Survey on Retirement February 2003 Report produced by the Plannin national insurance scheme Bureau of Standards July 2003 Report written by the Survey on the conversion Standards Bureau to metric for Establishments Survey of Water August 2003 Report produced for the Resources Management Water Resources Management Unit in October 2003 Ox farm Survey of September 2003 Report presented to a meeting linkages between the Ministry of Vegetable farmers and Agriculture and Tourism on Hotels linkages between the sectors Survey on Parenting October 2003 Work in Progress education in poor communities Surveys for the December 2003 Soon to be conducted development of a national pension scheme for Banana Labourers and Fishers. In addition to this the Department continued some of its normal survey programme, as mentioned before the labour force survey was discontinued due to the census. However this survey has resumed on a quarterly basis, although the sample size has not increased. The sample frame from which this survey is drawn has been re-designed completely based on the Census 2001 data and to reflect the new occupational stratification inherent in the Census 2001 data. When we have finished designing all of the TELEform based processing systems we should have a truly efficient system producing with less than one month of lag, regular data on the Labour Force which has been published for the last two quarters of 2002. The strategy change to producing quarterly data allows for more frequent and meaningful publication of results, in addition, we have added an ICT module to this survey which will allow the constant monitoring of internet, cellular and other important high growth areas in information, communication technology. The balance of payments surveys overall response rate improved slightly from 65% to 68% in 2002. We are now in the process of putting in place a better coordinated effort in the area of the national accounts survey to better support the implementation of SNA '93. There is a plan with the assistance of CART AC to put in place a new HBS survey since the work done on the 98 HBS was fundamentally flawed.

An important development in this area has been our collaboration with the national insurance scheme. We have been able to obtain from the scheme its establishment registers which we use to update our own register not only with up to date address information, but also up to date employment data on a firm by firm basis. This makes the process of sample selection of establishments for the national accounts, the wages survey and other establishment type surveys much more precise and effective. We have also collaborated with the NIC (National Insurance Cooperation) to pre-fill their employee/establishment database using TELEform's Automerge publisher into some forms we designed in TELEform designer. This will allow us to make a collaborative effort to upgrade the data on occupations within the NIC's data source and improve its relevance as a source of very accurate information on wages and salaries by occupation. This joint effort between the Statistics Office and the NIC is about to start with enumerators going into the field with forms pre-filled with employee names and NIC numbers for each firm, based on its name and NIC number. We are very excited by the full access we now have to their databases through this collaboration (appendix circulated).

## **NATIONAL ACCOUNTS**

Efforts in the implementation of SNA 93 continue with continued training and the support of CARTAC which was previously mentioned. We have re-designing all of our national accounts questionnaires into TELEform and began the survey to collect baseline data for the development of the supply and use table. Our systems have recently been reviewed by Ms Lone Marshall with the assistance of CARTAC and she has recommended some approaches which we are currently reviewing. We also believe that through this process of having missions sponsored by CART AC of Ms Marshall we should after having collected the national accounts data be in a position to produce our supply and use table and subsequently recast our national accounts to respect the SNA '93 methodology. This process will also allow us to bring real data to the Statistics Sweden/CARTAC sponsored workshops which is, I believe in CARTAC's

plan of action for SUT implementation in the OECS offices in particular. We are also constantly updating our establishment register; we are in the second phase of this. Given that the first phase of updating employment numbers at the enterprise level was completed using the Census 200 1 visitation records we have a fairly up to date establishment register upon which we can develop our core commodities and services for use in the supply and use tables to be developed in the course of implementing SNA '93. NIC data is also incorporated in our establishment register, this is an extremely important input since national insurance payments are based on a good register the NIC regularly updates this information and we benefit by this collaboration in having a constantly updated establishment register.

During the month of September 2002, St. Lucia and two other OECS countries along with the ECCB, UNSD and CARTAC met with Ian Redeby of Statistics Sweden. The purpose of this activity was to devise a plan of action for implementation of training programmes in national accounts which will allow us to transition our approach to national accounts compilation to SNA 93. We have come up with a work plan which we expect with the assistance of CARTAC and Statistics Sweden we will implement during the course of the next 2-3 years.

### **Demography and Social Statistics**

This section of the Department monitors the vital registration system of St. Lucia and publishes this information annually in a publication entitled *The St. Lucia Vital Statistics Report*. This report covers information on teenage pregnancy, mortality, population growth and population projections, births, deaths etc. Much of this information is collected on an on-going basis by district and can therefore be desegregated in that way for more detail where necessary.

### **Environmental Statistics:**

As you know already we released about one year ago a report entitled " A Compendium of Environmental Statistics 200 1" which we had been working on in collaboration with the sustainable development unit of the Ministry of Planning, Environment and Housing. This work was initiated by the UNSD and the assistance we got under that project in having Professor Polfelt provide technical expertise to us has been instrumental in ensuring that we now have the capacity to produce the environmental publication on a regular basis. We are planning to repeat the 2001 compendium with a similar publication for 2002 due to come out by the end of this year. This will be a constantly updated publication which we will be working closely with the environmental unit of the Ministry of Planning and the large number of agencies with whom we have collaborated with in the past. Due to financial constraints we were unable to print the large number of colored copies which ought to have been made available, but we did prepare a PDF (Portable Document Format) of the publication which is readily available from our Website.

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