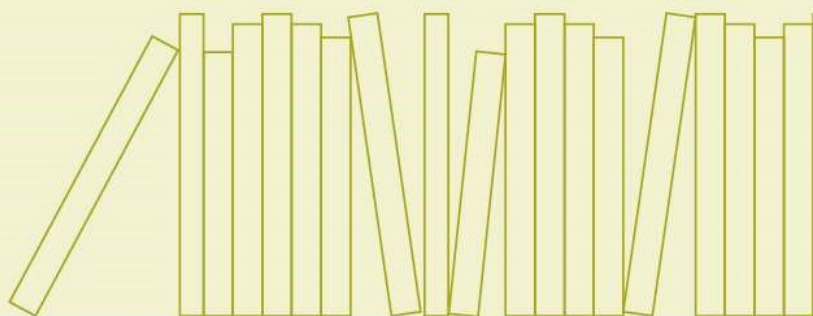


Economic Commission for Latin America and the Caribbean
**ECLAC SUBREGIONAL HEADQUARTERS
FOR THE CARIBBEAN**



Report of the workshop on the use of REDATAM for the dissemination of census and survey microdata

Jamaica and Belize



UNITED NATIONS

ECLAC



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Economic Commission for Latin America and the Caribbean
Subregional Headquarters for the Caribbean

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of census and survey microdata - Jamaica and Belize
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**REPORT OF THE WORKSHOP ON THE USE OF REDATAM FOR
THE DISSEMINATION OF CENSUS AND SURVEY MICRODATA
JAMAICA AND BELIZE**

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A. INTRODUCTION

1. Subregional capacity building in census data processing and dissemination

1. Since the 2000 round of population and housing censuses, the Economic Commission for Latin America and the Caribbean (ECLAC) has sought to make Caribbean census data more widely available to policy analysts, researchers, and the public by promoting and supporting the use of the Retrieval of Data for Small Areas by Microcomputer (REDATAM) software for online dissemination of census data. ECLAC carried out 14 REDATAM workshops in the Caribbean between 2008 and 2023. These were a mixture of regional and national workshops and included two online workshops in 2020 and 2021 when face-to-face workshops were not possible due to the COVID-19 pandemic. As of December 2024, 10 countries have made their data from the 2010 round of censuses available online through REDATAM. This represents an improvement over the 2000 round when four countries implemented REDATAM. The seven member States that have released data from one or more censuses online through REDATAM are: Antigua and Barbuda, Belize, Jamaica, Saint Lucia, Saint Vincent and the Grenadines, Suriname and Trinidad and Tobago, and the three associate members are: Aruba, Cayman Islands and Montserrat.

2. The 2020 round of population and housing censuses was significantly impacted by the COVID-19 pandemic. Most countries originally planned to carry out their census during either 2020 or 2021, but due to the pandemic, the majority were undertaken in 2022 or 2023.¹ It should also be noted that many countries experienced problems in their census enumeration, particularly the recruitment and retention of census field workers, which meant that census data collection extended over many months, leading to further delays. The majority of countries have now completed their census fieldwork but are still engaged in checking, editing and imputation, processing, analysis and dissemination of census results. In some countries, the problems experienced in census enumeration have prompted statistical offices to consider the use of model-based small area estimation methods to make appropriate adjustments for the underenumeration.

3. This is the case in Jamaica, where the Statistical Institute (STATIN) will be carrying out further analysis and processing of their 2022 census data over the coming months. In Belize, the Statistical Institute (SIB) has already published key findings from their 2022 census and are now planning to provide online access to the census microdata using REDATAM.

2. REDATAM: a tool for census dissemination

4. Providing easy access to census data is essential if statistical offices are to encourage wider use of the data for decision-making and development planning. Caribbean statistical offices disseminate census data in many forms, for example census reports, thematic reports, REDATAM applications, and through the release of anonymized microdata (census data also feeds into many other statistical outputs). While traditional census reports are perhaps the first port of call for users of census data, REDATAM applications provide controlled access to census microdata, thereby allowing users to generate customized tables, indicators, graphs and maps in accordance with their own needs. These applications provide users with much richer and more flexible access to the data, for example the ability to disaggregate data by sex, age, ethnicity, employment status, health status, disability status or any other variable of interest, while still protecting the confidentiality of individual census records.

5. The REDATAM software is developed and supported by ECLAC. The software is used in many Latin American countries and increasingly in the Caribbean. It is also being used by a number of national

¹ Statistical offices carrying out censuses in 2022 included Anguilla, Bahamas, Belize, Dominica, Grenada, Guyana, Jamaica, Saint Kitts and Nevis, Saint Lucia and Sint Maarten, while Curaçao, Montserrat, Saint Vincent and the Grenadines and Turks and Caicos Islands carried out censuses in 2023.

statistical offices in Africa, Asia and the Pacific. REDATAM has been used primarily to provide access to census data, although it can also be used for survey data such as living conditions surveys. Improved online access to these data sets can only encourage their use in research, development planning and evidence-based policymaking.

6. The version of the software that has been used since 2014, Redatam7, is being replaced by an updated version, RedatamX. The most significant new development in RedatamX is the replacement of the programming language which, in previous versions, was used to build web applications. From now on, they will be built using a more user-friendly point-and-click interface, making the process easier for statistical offices, and the resultant web applications will also have an improved and more modern appearance.

7. The principal objective of this workshop was to provide training in the use of the new RedatamX for web application development. STATIN has some previous experience of using REDATAM, having used it to disseminate one census data set (2011) although the Institute has seen significant staff turnover, particularly among IT staff, since training was last provided, in 2016. This workshop introduced RedatamX to prepare staff for its use for dissemination of the 2022 census. SIB has more experience of using the REDATAM software, having used it to disseminate its 1991, 2000 and 2010 censuses. It is anticipated that participation in this workshop will enable both institutes to disseminate their 2022 census data using the new RedatamX.

B. ATTENDANCE AT THE WORKSHOP

1. Place and date of the workshop

8. The workshop on the use of REDATAM for the dissemination of census and survey microdata was held from 18 to 22 November 2024 in Kingston, Jamaica at the offices of STATIN.

2. Participation

9. The workshop targeted statisticians and IT officers from two participating organizations. There were 14 participants from STATIN and 2 participants from SIB. The composition of the participants by sex was 10 women and 6 men. A complete list of participants is provided in Annex I of this report.

C. SUMMARY AND KEY OUTCOMES OF THE WORKSHOP

1. Opening session

10. The workshop was opened by the Statistician of ECLAC subregional headquarters for the Caribbean who highlighted the importance of promoting the use and analysis of census data and the potential of the REDATAM software to expand access to census and survey microdata.

11. He emphasized that the main aim of the workshop was to facilitate the development of web applications for the latest national census data sets and restated the Economic Commission's commitment to provide whatever follow-up support was necessary in order to achieve this.

2. Organization of work

12. The workshop was organized over one week with days one and two covering essential aspects of database creation and processing, while days three to five focused on web application development using the new RedatamX. Day one provided an introduction and overview of REDATAM database creation from SPSS data sets, using the Create Module. Day two covered basic verification and querying of databases using both point-and-click menus and REDATAM command language in the Process Module. Days three to five focused on the new RedatamX module for web application development, Redline. Using Redline, participants developed simple prototype applications, for a test data set, which incorporated basic functionality for tabulation, the calculation of indicators and the creation of maps.

3. Closing session and the way forward

13. A short closing session was held on the final afternoon of the workshop, which included a discussion of next steps regarding the dissemination of data from the two national censuses. While STATIN continues to work on the census data set, it was recommended that, at an early stage, a test census 2022 REDATAM database should be created. This will provide a useful consistency check on the integrity of the hierarchical relationships between building, dwelling, household and person levels, highlighting any problems that there might be before the data is finalized. In parallel with this, it was also agreed that ECLAC would work together with STATIN to explore the possibility of using REDATAM to provide access to microdata from the Jamaica Labour Force Survey.

14. Representatives of SIB expressed their intentions to use RedatamX for online dissemination of their 2022 census data, with ECLAC available to provide any advice or further guidance that may be necessary.

4. Summary of post-workshop evaluation

15. Annex II provides a summary of participants' responses to the evaluation questionnaire administered at the end of the workshop. The evaluation confirmed a high level of satisfaction with the workshop, with all participants giving the workshop an overall rating of good or excellent. The technical content of the workshop also received ratings of good or excellent from 15 of 16 respondents.

Annex I**LIST OF PARTICIPANTS****Statistical Institute of Jamaica (STATIN)**

- Conray Forrester, Director, Information Technology Division, email: cforrester@statinja.gov.jm
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Annex II**WORKSHOP EVALUATION**

Total number of participants = 16

Number of evaluation forms submitted = 16 (10 females and 6 males)

Response rate = 100 per cent

1. How would you rate the training overall?

	Excellent	Good	Regular	Poor	Very poor	Not sure/ no response	Total
Female, n (%)	2 (20)	8 (80)	0 (0)	0 (0)	0 (0)	0 (0)	10 (100)
Male, n (%)	4 (80)	1 (20)	0 (0)	0 (0)	0 (0)	0 (0)	5 (100)
Total, n (%)	6 (40)	9 (60)	0 (0)	0 (0)	0 (0)	0 (0)	15 (100)

2. How would you rate the technical content of the workshop?

	Excellent	Good	Regular	Poor	Very poor	Not sure/ no response	Total
Female, n (%)	4 (40)	5 (50)	1 (10)	0 (0)	0 (0)	0 (0)	10 (100)
Male, n (%)	3 (50)	3 (50)	0 (0)	0 (0)	0 (0)	0 (0)	6 (100)
Total, n (%)	7 (44)	8 (50)	1 (6)	0 (0)	0 (0)	0 (0)	16 (100)

3. Did the workshop meet your initial expectations?

	Yes	No	Not sure/ no response	Total
Female, n (%)	7 (78)	1 (11)	1 (11)	9 (100)
Male, n (%)	5 (83)	0 (0)	1 (17)	6 (100)
Total, n (%)	12 (80)	1 (7)	2 (13)	15 (100)

4. How relevant was the training for the work of your institution?

	Very relevant	Relevant	Somewhat relevant	Not relevant	Not sure/ no response	Total
Female, n (%)	3 (30)	5 (50)	2 (20)	0 (0)	0 (0)	10 (100)
Male, n (%)	5 (83)	0 (0)	1 (17)	0 (0)	0 (0)	6 (100)
Total, n (%)	8 (50)	5 (31)	3 (19)	0 (0)	0 (0)	16 (100)

5. How would you improve this workshop in terms of the subjects addressed (for example, issues you would have liked to address or analyse in greater depth or subjects which were not so important)?

- The workshop was good, just needs some manuals for future reference.
- I believe the course content covered the objectives of the workshop.

- Population by county/ constituencies.
- More in depth training in coding.
- Workshop executed well. All areas of interest were addressed.
- Detailed instructions for each task (written).
- I would prefer an explanation into most of the activities that were done. We tended to follow the instructions without really understanding why.
- Spread the content across a week and a half to allow for more time to absorb the (difficult) technical concepts.
- A manual would be good, especially for the instruction - step by step instructions.
- A search section could be added to make the process more user friendly.
- The workshop material was excellent given the stage reached in Belize's 2022 population census. Belize is very much interested in disseminating census results using the REDATAM platform and this new version is a great improvement to the Redatam7 version. It is much more intuitive to set up and much more user friendly for end users.

6. How useful did you find the training for strengthening your capacity to develop REDATAM applications for the dissemination of microdata?

	Very useful	Useful	Regular	Not very useful	Not useful at all	Not sure/ no response	Total
Female, n (%)	6 (60)	3 (30)	1 (10)	0 (0)	0 (0)	0 (0)	10 (100)
Male, n (%)	5 (83)	1 (17)	0 (0)	0 (0)	0 (0)	0 (0)	6 (100)
Total, n (%)	11 (69)	4 (25)	1 (6)	0 (0)	0 (0)	0 (0)	16 (100)

7. How useful did you find the workshop for engaging in discussions and exchanging experiences with representatives of other institutions?

	Very useful	Useful	Regular	Not very useful	Not useful at all	Not sure/ no response	Total
Female, n (%)	2 (20)	6 (60)	1 (10)	1 (10)	0 (0)	0 (0)	10 (100)
Male, n (%)	2 (40)	3 (60)	0 (0)	0 (0)	0 (0)	0 (0)	5 (100)
Total, n (%)	4 (27)	9 (60)	1 (7)	1 (7)	0 (0)	0 (0)	15 (100)

Note: Row percentages may not appear to sum to 100% due to rounding to the nearest whole number.

8. How would you rate the organization of the workshop? If you choose “poor” or “very poor” please explain your response so that we can take your opinion into account.

		Excellent	Good	Regular	Poor	Very poor	Not sure/ no response	Total
Quality of materials provided	Female, n (%)	3 (30)	5 (50)	2 (20)	0 (0)	0 (0)	0 (0)	10 (100)
	Male, n (%)	3 (50)	3 (50)	0 (0)	0 (0)	0 (0)	0 (0)	6 (100)
	Total, n (%)	6 (38)	8 (50)	2 (13)	0 (0)	0 (0)	0 (0)	16 (100)
Duration of the sessions and time for debate/questions	Female, n (%)	0 (0)	6 (60)	4 (40)	0 (0)	0 (0)	0 (0)	10 (100)
	Male, n (%)	1 (17)	4 (67)	1 (17)	0 (0)	0 (0)	0 (0)	6 (100)
	Total, n (%)	1 (6)	10 (63)	5 (31)	0 (0)	0 (0)	0 (0)	16 (100)

		Excellent	Good	Regular	Poor	Very poor	Not sure/ no response	Total
Quality of the infrastructure (room, sound, catering)	Female, n (%)	0 (0)	5 (50)	5 (50)	0 (0)	0 (0)	0 (0)	10 (100)
	Male, n (%)	2 (33)	3 (50)	1 (17)	0 (0)	0 (0)	0 (0)	6 (100)
	Total, n (%)	2 (13)	8 (50)	6 (38)	0 (0)	0 (0)	0 (0)	16 (100)

Note: Row percentages may not appear to sum to 100% due to rounding to the nearest whole number.

9. Based on the ratings selected above, please indicate what worked well and what could be improved.

- Overall, the workshop went well.
- As it relates to quality of materials, a manual would be very useful for easier navigation. I also believe two additional days would be more adequate to cover all the materials in a timelier manner.
- Improvement in the video quality infrastructure.
- Sessions should be delivered in a more relatable manner.
- The materials were adequate and easy to understand when explained.
- More on coding using the software.
- The presenters ensured that participants were able to participate in all the exercises and that worked well. Detailed instructions (written) would assist the participants to do tasks more confidently and help the presenter to perform tasks more efficiently.
- Better projector is needed. A break would have been appreciated after every couple of hours.
- I'd like more coding materials as I am not very versed.
- The subject material presented worked well.
- The time spent on each topic was good.
- More exercises would be useful and how other aspects of STATIN can be streamlined using REDATAM software.
- The new web application is a tool Belize is very much interested in adopting.

10. Do you have any other comments or suggestions on the organizational aspects of the workshop?

- More time could be spent creating the codes.
- There are some areas in REDATAM that need work e.g. how the programme handles multiple languages.
- The need for a manual for RedatamX.

11. What additional technical cooperation activities in the field of population and development or statistics would you suggest that ECLAC undertake in the future?

- Technical assistance on trade, health, and labour force statistics.
- Computation of vital statistics and other indicators to SDG and other UN Methodologies. Estimation of migration in countries of the Caribbean with limited data.
- Technical assistance on Surveys of Living Conditions as well as the Consumer Price Index (CPI).
- Additional technical cooperation in the dissemination of census data.
- Further integration of REDATAM with R.



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