Economic Census Survey – ECS 2018

Methodology Report

Written By: Jason Grant

Statistical Analyst (Researcher) – Business Statistics

Table of Contents

1. Background

1.1 Introduction

An Economic Census (ECS) is a statistical survey conducted on the full set of economic units belonging to a given population or universe. It is the complete enumeration of a population or groups at a point in time with respect to well defined characteristics. The partial enumeration resulting from a failure to cover the whole population, as distinct from a designed sample enquiry, may be referred to as an "incomplete census ". An economic census is the total process of collecting, compiling, evaluating, analyzing and publishing or otherwise disseminating economic data pertaining, at a specified time, to all units in a country or in a well delimited part of a country. There will be therefore no sampling done.

In order to plan for, and implement, economic and social development, administrative activity or scientific research, it is necessary to have reliable and detailed data on the number and distribution of economic units by various categories. The economic census is a primary source of these basic benchmark statistics, covering not only the units in a formal sector but in informal as well. Data from economic census should allow presentation and analysis in terms of statistics on economic units of the whole country.

The following methodology report is meant as a tool in the preparation of the upcoming ECS in 2018 to be carried out by the department of statistics (STAT) Sint Maarten with strong support from the Chamber of Commerce (COCI).

Structure of the report

This report is organized in eight chapters as follows:

- Chapter 1 gives the background to, and justification for and Legal Authority to conduct the Economic Census (ECS)

- Chapter 2 discusses a conceptual framework and operational definition for Census. Identifying the components to be included in the operational definition, those that should be excluded.

- Chapter 3 this chapter presents the planning and organization of the ECS project.

- Chapter 4 provides the planning, organization and requirements to execute the field work of the ECS project.

- Chapter 5 describes the method of data collection, editing and coding process, tabulation and ultimate reporting of the results..

1.2 Objectives

An economic census is a means of identification and listing of collected basic economic statistics as part of an integrated program of data collection and compilation aimed at providing a comprehensive source of statistical information for economic and social development planning, for administrative purposes, for assessing conditions in human settlements, for research and for commercial and other uses. The economic census will be conducted to get a comprehensive Statistical Business Register which will enable the department to among other things improve their sampling frame for its annual business surveys, be able to provide relevant statistics about the entities operating on Sint Maarten as well as report more accurately on vital economic indicators such as Gross Domestic Product (GDP).

The key objectives are to:

- Create a comprehensive Statistical Business Register system
- Create a database of economic activities
- Improve the sampling frame for existing & future business surveys (e.g. BTS)
- To obtain data on the number and distribution of economic establishments by industrial category, region and number of employees
- To obtain baseline data which will be an input to the System of National Accounts on economic activities

1.3 Historical Development

The previous Economic Census (ECS) was carried out by CBS Curacao in 1998. Prior to this, there were censuses conducted in 1993 and 1986. International statistical standards recommend economic censuses to be conducted at regular intervals of time (five years) in order to establish sound benchmarks of basic economic statistics. Latin America and the Caribbean regions could be noted as an exception to this general pattern. More than half of the countries in these regions tend to conduct decennial censuses. Looking at the longer run, this could lead to significant limitations in the usefulness of census information for basic economic statistics as well as in its quality and comparability. As per 10-10-2010 Department of Statistics (STAT) has been formed and will hence forth aim to carry out all ECS on a 5-year interval.

1.4 Coverage

The ECS 2018 will cover all of the active visible and non-visible business establishments. STAT will liaise with the COCI to get the addresses and contact details of the non-visible establishments to ensure a wide range of establishments are covered. The following will not be counted:

- Governmental offices
- Taxi's & busses
- Business activities which are related to hobbies, e.g. agriculture activities for own use

The aim is to capture as many business establishments as possible, however establishments operating under the radar or in the informal economy will be extremely difficult to capture. The Labor Force Survey (LFS) will have to be used to estimate how large this sector is in relation to the whole.

1.5 Legal Authority

Statistics Ordinance, AB 2013 GT no. 450 provides the legal authority to conduct the Economic Census (ECS). The Statistics Legislation obligates the business establishments to provide the required information according to the approved questionnaires and documents. All staff (including temporary recruited staff) has signed a declaration of secrecy as to ensure that all information collected is kept confidential.

While business establishments are cognizant of the above, they are usually hesitant to fill out surveys and in most cases do not fill these surveys out at all. For the ECS, STAT will be getting the full support from the COCI as they have a stronger relationship with the business establishments and will add much needed support to the department.

2. Concepts and Definitions

Census

The term "census" implies that each unit is enumerated separately and that the characteristics thereof are separately recorded. Only by this procedure can the data on the various characteristics be cross-classified. The requirement of individual enumeration can be met by the collection of information in the field, by the use of information contained in an appropriate administrative register or set of registers, or by a combination of these methods.

Statistical Business Register

An SBR is a regularly updated, structured database of economic units in a territorial area, maintained by an National Statistical Institute (NSI), and used for statistical purposes.

Business Establishment

The establishment is defined as an enterprise or part of an enterprise that is situated in a single location and in which only a single (non-ancillary) productive activity is carried out or in which the principal productive activity accounts for most of the value added.

Informal Economy

The informal economy is comprised of all forms of 'informal employment'—that is, employment without labor or social protection—both inside and outside informal enterprises, including both self-employment in small unregistered enterprises and wage employment in unprotected jobs.

Non-response

Non-response is when an approached business establishment declines to participate in the survey, could not be located or does not complete the survey sufficiently. The degree of non-response bias depends essentially on two factors: the percentage of the sample not responding and the extent to which non-responders differ systematically from the study population (S. Barclay, C. Todd, I. Finlay, G. Grande, and P. Wyatt; 2002). Purpose for not successfully participating in the survey may arise due to the following reasons:

- The perceived salience of the subject matter is a strong predictor of response.

- Many potential respondents perceive a rising tide of questionnaires that they are too busy to complete.
- Communication problems with the potential participant.

3. Survey Organization

This chapter is intended to present the planning and organization of the ECS project to be conducted by the Department of Statistics (STAT) in 2018.

3.1 Survey and Reference Period

The survey period is defined as the period over which data as a whole are collected or compiled. The survey period of the Pilot Survey is Feb 5 – Mar 2, 2018. For the Main Survey, this period is from March 17 – June 15, 2018.

Business income and Business expenditure statistics should relate to a full-year accounting period to take into account seasonal variations in incomes and expenditures. For the purpose of compiling the financial figures, the accounting period should as much as possible be a normal year with respect to economic and social factors. (ILO, 2003)

The reference period is the first day of the start of the Main Survey which will be March 17, 2018.

3.2 Schedule

The Economic Census has seven (7) phases namely;

I. Planning and Preparation
II. Digitalization and Testing
III. Publicity, Recruitment and Training
IV. Pilot Survey
V. Survey period
VI. Analysis
VII. Publishing

Phase 1: Planning and Preparation

Timeframe: 1 year (Jan - Dec 2017)
- Budget
- Schedule Plan
- Business Mapping
- Questionnaire Development
- Methodology Development
- Instruction Manuals

Phase 2: Digitalization and Testing

Timeframe: 5-6 months (Jul 2017 – Dec 2017)
- Questionnaire in Survey 123
- Development of SQL Database
- Testing Digital Questionnaire
- Development of ECS Intranet
- Development of Edit Program (Access)

Phase 3: Publicity, Recruitment and Training

Timeframe: 2 month (Dec 2017 – Jan 2018)
- Recruitment of 12 freelancers
- Publicity Campaign (Dec 2017 – Jan 2018)
- 3 day Training (Jan 31 – Feb 2, 2018)

 Phase 4: Pilot Survey

Timeframe: 2 months (Feb – Mar 2018)
- 350 Businesses Participating (Feb 5 – Mar 2, 2018)
- Pilot Survey Evaluation (Feb 5 – Mar 2, 2018)
- Refresher Training (Mar 12 – 16 2018)

Phase 5: ECS Survey period

Timeframe: 4 months (Mar – June 2018)
- Fieldwork (Mar 17 – May 26, 2018)
- Recount (May 28 – June 15, 2018)

Phase 6: Analysis

Timeframe: 5 months (Mar 17 – July 31, 2018)

Phase 7: Publishing

Timeframe: August 2018
- Newspaper Article
- Brochure with Key Figures
- Presentation to Council of Ministers
- Presentation to Key Stakeholders
- Publish all communication on STAT Website

3.3 Project Budget

STAT recognizes that funds to be used on projects post hurricanes Irma and Maria will be hard to come by. There are therefore 2 scenarios in which to be considered: 1) All interviewers to be hired external of government (Table 1) and 2) A mixture of external interviewers and government employees (Table 2). In Table 2, the government employees will not be reimbursed for their work on the census.

Table 1

Economic Census (ECS) 2018 Budget				
Item **Pilot Survey**	**Rate (NAF)**	**Quantity**	**Unit**	**Total (NAF)**
Publicity Campaign	250.00	1		250.00
Training Jan 29 - Feb 2, 2018	30.00	12	3 (Days)	1,080.00
Interviewer Materials	10.00	12		120.00
Catering	2,500.00	1	20 (persons)	2,500.00
Training Specialist	2,160.00	1	1 (Day)	2,160.00
Survey 123 Subscription	1,000.00	12		12,000.00
Tablet chips and UTS plan	63.00	12		756.00
Business Token	2.70	350		945.00
Pilot Feb 5 - Mar 2, 2018	36.00	350		12,600.00
Refresher Training	30.00	12	3 (Days)	1,080.00
Catering for Refresher Training	2,500.00	1	20 (persons)	2,500.00
Miscellaneous Costs				3,599.10
Subtotal Pilot Survey				39,590.10
Economic Census Survey				
Survey	36	4000		144,000
Miscellaneous Costs				14,400

Subtotal Economic Census Survey			158,400

Total Costs			**197,990.10**

Under Miscellaneous Costs are any unforeseen costs. This amount is 10% of the total of the activity lines in the Pilot Survey and Economic Census.

As the interviewer will have many businesses to cover in a 10 week period, it is preferred that they are currently unemployed. This will better enable them to fulfill approximately 40 businesses per week.

Table 2

Economic Census (ECS) 2018 Budget

Item Pilot Survey	Rate (NAF)	Quantity	Days	Total (NAF)
Publicity Campaign	250.00	1		250.00
Training Jan 29 - Feb 2, 2018	30.00	6	3 (Days)	540.00
Interviewer Materials	10.00	12		120.00
Catering	2,500.00	1	20 (persons)	2,500.00
Training Specialist	2,160.00	1	1 (Day)	2,160.00
Survey 123 Subscription	1,000.00	12		12,000.00
Tablet chips and UTS plan	63.00	12		756.00
Business Token	2.70	350		945.00
Pilot Feb 5 - Mar 2, 2018	36.00	350		12,600.00
Refresher Training	30.00	6	3 (Days)	540.00
Catering for Refresher Training	2,500.00	1	20 (persons)	2,500.00
Miscellaneous Costs				3,491.10
Subtotal Pilot Survey				**38,402.10**

Economic Census Survey

Survey	18	4000	72,000.00
Miscellaneous Costs			7,200.00
Subtotal Economic Census Survey			**79,200.00**
Total Costs			**117,602.10**

Under Miscellaneous Costs are any unforeseen costs. This amount is 10% of the total of the activity lines in the Pilot Survey and Economic Census.

3.4   Staff Requirements

The ECS project requires both the involvement of office staff as well as recruited temporary staff. The project is headed by the statistician (researcher) focused on Business and supported by office staff and temporary staff to form the ECS unit. The following functions are needed:

- Project Coordinator
- Fieldwork Coordinator
- Assistant fieldwork (Internal)
- IT support
- Interviewers / enumerators

The project coordinator and fieldwork coordinator functions are held by office staff. Twelve (12) enumerators are needed of which 10 are to be in the field conducting the survey and 2 enumerators are back-up field staff.

3.5   Recruitment of Field Staff

The recruited fieldwork staff should have the following qualifications and competencies:

- Minimal Completed High School (preferred MBO or Associate Degree)
- Computer and mobile device literate
- Excellent communication skills (verbal & written)
- Good with numbers
- Organized and Good Time Management
- Stress Resistant
- Strong Work Ethic with no 9 to 5 mentality (can handle confidential information and has a sense of integrity)
- Team Player

Roles and Responsibilities of ECS Staff

Tasks of **Project Leader**:
- Responsible for the management and daily activities of the project;
- Recruitment & Training of Fieldwork staff
- Weekly reporting of Fieldwork Status at ECS Team Meetings (Wednesdays)
- Weekly meetings with Fieldwork Coordinator (Wednesdays)
- Approval of ECS completion and Voucher issuance
- Data validation, tabulation and analysis

Tasks of **Fieldwork Coordinator**:
- Development of instruction draft manual for Interviewers
- Recruitment & Training of Fieldwork staff
- Responsible for the management of Fieldwork staff in the field
- Performance report of the field work staff
- Payment production lists of Interviewers
- Weekly/ Regular contact with Interviewers (on appointment) and Project Leader (Wednesdays)
- Providing supply material to interviewers (maps, pens, etc.)
- ECS quality control call-backs

Tasks of **Fieldwork Staff / Interviewer**:
- Scheduling of ECS visits with the Business Establishments.
- Collection of data from business establishments via mobile device (Tablet)
- Management of administration for STAT office
- Scheduled weekly visits with STAT office

Tasks of **Temp Assistant Fieldwork**:
- Assistant to Fieldwork Coordinator
- ECS quality control call-backs
- Providing supply material to interviewers

Tasks of **IT support**:

- Development of Digital Survey (Survey 123)
- Development of Data storage software (intranet & SQL DB)
- Management and creator of Users for Intranet
- Trouble shoot Major Survey 123 or Intranet Errors
- AD Hoc specific request for additional SQL Queries

4. Fieldwork

4.1 Required Resources

For the training of the fieldwork, STAT will employ the service of a professional communication specialist who will show the right way to conduct an interview and how to handle different situations. For example, how must the interviewer handle a phone call in the middle of an interview, stall tactics, dirty business, etc.

The training will take place in a location that allows room for 15 people (interviewers and trainers) and enough room for role play. As trainings will be held during the day, food and beverages will be provided for.

4.2 Training Schedule

The interviewers will receive the training manuals before the training starts. They must review all the material before arriving for the training. Any non-compliance will not be tolerated.

Training Schedule
Day 1: 9am - 12:00pm Introduction (STAT Team & Interviewers)
                                    Background & Purpose of ECS
                                    Questionnaire & Tablet

            1pm – 4:00pm Questionnaire & Tablet
                                     Map & Survey Procedures

Day 2: 9am - 12:00pm Questionnaire & Tablet
                                     Map & Survey Procedures

            1pm – 4:00pm Presentation Communication Skills (Mr. Renaldo Baker)

Day 3: 9am - 12:00pm Role Play

            1pm – 4:00pm Recap

4.3 Interviewer visits

All businesses will be notified beforehand that there will be a census by way of a card delivered to them. In addition to this, the businesses will be contacted by the respective interviewer to set a time and date for the interview to fill in the questionnaire. The interviewer must visit the

assigned business establishment for that week. Establishments where no one was present at the time has to be called back so that an appointment can be made.

All interviewers will be equipped with a map of their designated region, a list and picture of their assigned businesses, a tablet device, a bag, a temporary STAT badge and pens.

MAP EXAMPLE TO BE INSERTED HERE

4.4 Fieldwork Quality Control

The Fieldwork coordinator and assistant must conduct a follow-up call with each business establishment. During this call, the establishment will be asked three standard questions as it relates to the questionnaire, the interviewer and the process. The interviewer will be marked on this score and this will be added to their quality score.

5. Data Collection, Processing and Reporting

The Economic Census will be administered to business establishments via a digital questionnaire on Samsung Tablets. The software being used is Survey 123. There will be no sampling conducted.
Programming of this questionnaire is not yet completed but the initial design is done.

Once STAT has closed off the data-collection phase and performed its editing activities, the department will analyze the data in Excel and SPSS.

All findings will be presented to all key stakeholders and uploaded to STAT's intranet.

APPENDIX 1

Chamber of Commerce

CRIB Number

SZV Number

General Information

1. Legal Business Name

Doing Business As (DBA)

Street name	Number	Unit Number	Postal Box

Telephone Number #1

Telephone Number #2

Email Address #1

Email Address #2

Website

Business Characteristics

2. What is the legal form of this entity?

- ☐ NV
- ☐ BV
- ☐ Sole Proprietorship
- ☐ Foundation
- ☐ Association
- ☐ Partnership
- ☐ VOF (Venootschap Onder Firma)
- ☐ Other type of business

3. What is the main economic activity carried out by this entity?

4. What is the second economic activity carried out by this entity?

5. This entity is a:

Company/foundation with no branches	☐	Go to question 9
Head Office	☐	Go to question 7
Intercompany/Holding structure	☐	
Branch	☐	

6. Official Business Name of Head Office

Doing Business As (DBA)

Street name   Number   Unit Number   Postal Box

Telephone Number #1   Telephone Number #2

Email address Head office

7. Fill in the contact person information at the Head office

First Name: **Last Name:** **Job Title:** **Telephone Nr:** **Email address:**

End of questionnaire for branch

8. List of Branches

Name of Branch/Unit	Chamber of Commerce Nr.	**Address**	**Main** Activity

9. What percentage of your company's assets is owned by a foreign company? Please specify your answer with the percentage and the country of establishment of the foreign company

Percentage (%)	Country

10. In what year and month did this entity start operations in St. Maarten?

Year opened   Month opened

Employment Characteristics

11. How many persons are working at this entity **as at February 28, 2018**?

	Fulltime	Part-time
On Payroll		
Not on Payroll		
Average working hours per week		

12. How many women are working at this entity?

	Fulltime	Part-time
On Payroll		
Not on Payroll		

13. What is the average age of your employees?

- ☐ 18 – 25
- ☐ 26 – 30
- ☐ 31 – 35
- ☐ 36 – 40
- ☐ 41 – 45
- ☐ 46 – 50
- ☐ 51 or older

14. How many proprietors and family workers, not on the payroll, are working at this entity **as at February 28, 2018**?

19

15. What was the amount **proprietors** and family workers, not on payroll, allocated to themselves for the month of **February** 2018 **(to be filled in NAF)**?

<div style="border:1px solid black; width:340px; height:100px;"></div>

Visitors

16. Please indicate in percentages how much the below categories contributed to your sales revenue over the last 12 months

☐	Residential (Local individuals)
☐	Non-residential (Tourists/Visitors)
☐	Commercial (Businesses)
☐	Government Agencies
☐	Other, please specify……………………………………………

17. Does this entity provide accommodation services to visitors?

☐ Yes   ☐ No   Go to question 23

18. How many rooms are available to visitors?

<div style="border:1px solid black; width:340px; height:100px;"></div>

19. How many bed places are available to visitors (number of persons that can sleep in these rooms (per night))?

<div style="border:1px solid black; width:340px; height:100px;"></div>

Vacancies

23. Does this entity have any job vacancies to be filled?

☐ Yes

☐ No   Go to question 28

24. Please list your vacancies:

Vacancy (Job Title)	Educational level	Years Experience Required	Weekly Hours	Address	Driver's License Required

25. Does this entity expect to have more vacancies in 2019?

☐ Yes

☐ No

26. Does this entity provide opportunities for interns?

☐ Yes

☐ No

Business Activity

27. How do you market your entity? On a scale of 1 to 10, with 1 being the most, please rank how your company does its marketing:

☐ Social Media

☐ Newspaper

☐ Radio/Television

☐ Billboards

☐ Other, please specify……………………………………………

28. How much do you spend on average on marketing annually?

☐   Less than **NAF** 5,000

☐   **NAF** 5,001 – 10,000

☐   **NAF** 10,001 – 15,000

☐   **NAF** 15,001 – 20,000

☐   **NAF** 20,001 or more

29. What is the biggest threat to the economic survival of your entity?

☐   Competitors

☐   Economic recession

☐   Decrease in tourists/visitors

☐   Government policy

☐   Other, please specify……………………………………………

Hurricane Assessment

30. Did your entity sustain any damages from hurricanes Irma and Maria?

☐   Yes ⟶ please indicate value (in NAF) ☐

☐   No

31. Contact information of person who filled in questionnaire

First Name: **Last Name:** **Job Title:** **Telephone Nr:** **Email address:**

1a Please give an estimation of total gross turnover of the whole year 2017 **(in NAF)**

b Compared with the entire year 2016 the turnover

   a) Increased by   + [ ] %
      or
   b) Decreased by - [ ] %

c Total amount of turnover exported to foreign countries **in 2017 (in NAF)**

d Total estimation **C**ost of **S**ales (COS) **in 2017 (in NAF)**

e Total estimation gross wages and salaries in 2017 (in NAF)

f Total estimation social security contributions in 2017 (in NAF)

g Total estimation **depreciation costs in 2017 (in NAF)**

h Total estimation Other Operational Costs in 2017 (in NAF)

Investments

2. How much was invested in 2016 and 2017 in the following areas (to be filled in NAF)?

[ ] IT Hardware & software

[ ] Machinery & other equipment

[ ] Land and Buildings

[ ] Personnel Training

[ ] Other, please specify……………………………………………

3. Please indicate in which area(s) will this entity invest in 2018 and 2019?

[ ] IT Hardware & software

[ ] Machinery & other equipment

[ ] Land and Buildings

[ ] Personnel Training

☐ Other, please specify……………………………………………

4. Were there any investment(s) into your company from a foreign company in the last 2 years?

☐ Yes ⟶ please indicate amount (in NAF) [   ]

☐ No

Confidence in Business and Economy

5a The confidence in the economy compared with January 2017 has:
- ◯ Deteriorated
- ◯ Remained the same
- ◯ Improved

b Does the company have confidence in the future?
- ◯ Yes
- ◯ No

c What is your opinion on the investment climate at this moment?
- ◯ Good
- ◯ Moderate
- ◯ Bad

This Year Expectations

6. The turnover of 2018 compared to 2017 will:

a) Increase by   + [   ] %
     or
b) Decreased by   - [   ] %