## Labor Force Survey 2013 Methodology

Annual Labor survey conducted by the Department of Statistics, Sint Maarten

## BACkground

Before 10/10/10 the Labor Force Survey was conducted by the CBS department in Curacao. This survey was done every two years except for Census years. The last Labor Force Survey was done in 2009.

The primary objective of the Labour Force Survey is to provide up-to-date information on the labour force size, unemployment and the supply of labor.

After review of the 2009 Labor Force questionnaire and consulting with the stakeholders, the questionnaire has been adapted to include child labor questions, a more detailed probe into the informal labor sector, questions on the length and renewal practices of contract workers and more background on multiple job holders.

The Labor Force Survey covers all residents of Dutch Sint Maarten except for those living in institutions. As with all surveys, there will be an overlap between the Dutch and French side as there are people who although residing on the Dutch side, are employed on the French side. The opposite is also true. So as you are over-extending on one side, you under-extend from the other side.

As we are also covering child labor, the survey is limited to respondents 6 years and older.
The current Labor Force Survey will be linked with the Poverty Assessment Well-being survey. As a result, income and expenses questions are also included. This information will provide a basis for the poverty line calculations.

## TOPICS COVERED

The topics covered in the 2013 Labor Force Survey are:

- Demographics: gender, age, country of birth, nationality, marital status, years on island, migration intentions, relationship to head of household
- Education: current students, school attending, diplomas, trainings
- Employment: employed status, main job, additional jobs, business ownership, economic status, contract details, membership to labor union, work benefits
- Unemployed: length of unemployment, reason for unemployment
- Children: education, work outside the home, work inside the home
- Income and expenses: income, common expenses


## Concepts and definitions

Definition of employment: Employment refers to all persons aged 15 years and over who worked for pay any time during the reference week or who worked without pay for at least one hour in a family-operated business. Persons who were temporarily absent from their regular jobs because of vacation, illness, inclement weather, or similar reasons are also included.

Employment refers to people who during the reference period:

- worked for one hour or more for wage or salary, in cash or in kind
- worked for one hour or more for profit or family gain, in cash or in kind
- were temporarily not at work and had a formal attachment to a wage employment job
- were temporarily not at work and had an enterprise
- worked for at least one hour without pay on a family business or farm


## Reference period for employment: A specifically determined fixed week

Definition of unemployment: Unemployment refers to persons aged 15 years and over who did not work or have a job from which they were temporarily absent during the reference week, but were actively looking for work in the four weeks prior to the survey week, and were able and willing to work. Persons who did not look for work because they were on layoff or waiting to start a new job within the following 30 days are also classified as unemployed.

Unemployment refers to people who during the reference period: Are without work, available to work and actively seeking work

Reference period for seeking work: The four weeks preceding the interview date (moving)
Reference period for availability for work: Two weeks prior
Labor Force (also called the economically active population): The number of employed and unemployed added together.

Economically inactive persons: people who were neither employed or unemployed and who have not actively sought work in the last four weeks and/or are not available to start work in the next two weeks. They include people who are retired.

Informal sector units: The informal sector is defined as that part of the economy that is not taxed nor monitored by any type of government units.

Informal employment: Informal employment refers to workers who usually have no contracts, little or no job security, no fixed hours, and often no fixed location from which they operate and no employment benefits such as paid sick or maternity leave.

Unemployment rate: The number of unemployed divided by the labour force multiplied by 100 .
Youth unemployment rate: The unemployment rate of persons in the age group 15 to 24 .
Participation rate: The labour force divided by the total population multiplied by 100. It indicates what proportion of the total population is economically active.

Employment to population rate: The number of employed persons, divided by the population 15 years and older.

## SAMPLE DESIGN

The sample will be drawn from the population of housing unit as mapped in the first quarter of the year 2013. Earlier surveys used the data from The Civil Registry but because of duplicities and lack of unregistered families, STAT has opted to do a mapping exercise in the first quarter of the year 2013. This will become an annual exercise where the map will be updated with new, abandoned or non-existent dwellings. The fieldwork for the mapping exercise has been completed and STAT is working with VROMI to update the maps.

As the composition of the neighbourhoods on St. Maarten is very income-based, the sampling will be done using the stratified sampling method. Here a strata is defined as a neighbourhood. The sample must reflect the composition of St. Maarten as far as density of the population. Once the number of housing units from each neighbourhood is determined, a simple random sample will select the number of housing units.

The overall sample size has been determined by the normal sample size formula with $95 \%$ confidence, population of 14.000 households and an error of $3 \%$. This puts the sample size at 991. The non-response rate of $20 \%$ means that we need to select 1189 households.

According to the Census 2011, the division of the St. Maarten population is as stated in the third column of the table below. According to the population in each district, STAT should have at least 141 households in the sample that reside in the Simpson bay area in order to make any statistically significant statements regarding this area. With the budget constraint this will not be possible.

|  |  | sample needed from each |  | sample size <br> based on $1200$ | difference |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | Simpson Bay | 2\% | 141 | 24.98351 | -116.016 |
| 2 | Lower Princess Quarter | 26\% | 337 | 307.4894 | -29.5106 |
| 3 | Cul-de-sac | 24\% | 334 | 291.8888 | -42.1112 |
| 4 | Colebay | 21\% | 328 | 255.2614 | -72.7386 |
| 5 | Little Bay | 9\% | 274 | 108.1865 | -165.813 |
| 6 | Upper Princess Quarter | 11\% | 291 | 136.1093 | -154.891 |
| 7 | Low Lands | 1\% | 107 | 16.73104 | -90.269 |
| 8 | Philipsburg | 5\% | 220 | 57.99341 | -162.007 |
|  |  |  | 2032 | 1200 |  |

## Fieldwork

The data collection will be done on tablets during face-to-face interviews. The interviewers approach the household residing at the pre-selected address. Each member of the household older than 5 years old has to be interviewed. As the Labour Force Survey is done in conjunction with the Well-Being survey, the interviewer will make an appointment with the household to return
within a week or two for the Well-Being survey. The Well-Being survey is a lengthy survey so this method is preferred to doing both surveys at the same time. The Well-Being survey needs to be answered by just one member of the household.

## CORRECTION FACTOR

After the fieldwork, 2776 personal entries were received. This allows for a $1.8 \%$ sampling error based on a population size of 33,609 .

Any survey has sampling error and interviewer error. During the 2013 Labor Force Survey the interviewers were tasked with coding education, industry and occupation themselves. This could introduce some biases that over time will remedy themselves.

As a correction factor, age was used. This is in line with earlier LFS surveys. The sample was compared to the population estimates of 2013. Based on that comparison, each respondents was given a weight based on age.

The gender distribution of the LFS 2013 is comparable with the population distribution.

| Gender | Labour Force <br> Survey <br> respondents | Percentage |
| :--- | ---: | ---: |
| Male | 1,292 | $46.54 \%$ |
| Female | 1,484 | $53.46 \%$ |


| Gender | Census 2011 <br> Population | Percentage |
| :--- | ---: | ---: |
| Male | 15,868 | $47.21 \%$ |
| Female | 17,741 | $52.79 \%$ |


| Age | Population Total | LFS Total | Correction factor |
| :---: | :---: | :---: | :---: |
| 0 | 499 | 17 | 29.4 |
| 1 | 533 | 32 | 16.6 |
| 2 | 588 | 37 | 15.9 |
| 3 | 495 | 48 | 10.3 |
| 4 | 551 | 46 | 12.0 |
| 5 | 522 | 39 | 13.4 |
| 6 | 539 | 47 | 11.5 |
| 7 | 514 | 43 | 12.0 |
| 8 | 520 | 54 | 9.6 |
| 9 | 549 | 36 | 15.3 |
| 10 | 569 | 42 | 13.5 |
| 11 | 497 | 40 | 12.4 |
| 12 | 503 | 36 | 14.0 |
| 13 | 529 | 45 | 11.8 |
| 14 | 516 | 46 | 11.2 |
| 15 | 523 | 56 | 9.3 |
| 16 | 505 | 50 | 10.1 |
| 17 | 481 | 49 | 9.8 |
| 18 | 345 | 35 | 9.9 |
| 19 | 318 | 42 | 7.6 |
| 20 | 360 | 25 | 14.4 |
| 21 | 358 | 27 | 13.3 |
| 22 | 384 | 24 | 16.0 |


| Age | Population Total | LFS Total | Correction factor |
| :---: | :---: | :---: | :---: |
| 23 | 393 | 21 | 18.7 |
| 24 | 413 | 37 | 11.2 |
| 25 | 442 | 44 | 10.1 |
| 26 | 443 | 40 | 11.1 |
| 27 | 452 | 42 | 10.8 |
| 28 | 503 | 39 | 12.9 |
| 29 | 495 | 40 | 12.4 |
| 30 | 530 | 29 | 18.3 |
| 31 | 509 | 31 | 16.4 |
| 32 | 535 | 42 | 12.7 |
| 33 | 529 | 37 | 14.3 |
| 34 | 553 | 29 | 19.1 |
| 35 | 589 | 38 | 15.5 |
| 36 | 599 | 51 | 11.8 |
| 37 | 618 | 33 | 18.7 |
| 38 | 648 | 49 | 13.2 |
| 39 | 655 | 39 | 16.8 |
| 40 | 651 | 63 | 10.3 |
| 41 | 642 | 44 | 14.6 |
| 42 | 661 | 53 | 12.5 |
| 43 | 624 | 45 | 13.9 |
| 44 | 612 | 40 | 15.3 |
| 45 | 624 | 50 | 12.5 |


| Age | Population Total | LFS Total | Correction factor |
| :---: | :---: | :---: | :---: |
| 46 | 626 | 58 | 10.8 |
| 47 | 622 | 42 | 14.8 |
| 48 | 595 | 57 | 10.4 |
| 49 | 558 | 45 | 12.4 |
| 50 | 517 | 55 | 9.4 |
| 51 | 538 | 42 | 12.8 |
| 52 | 528 | 52 | 10.1 |
| 53 | 510 | 52 | 9.8 |
| 54 | 442 | 55 | 8.0 |
| 55 | 453 | 45 | 10.1 |
| 56 | 439 | 35 | 12.5 |
| 57 | 402 | 33 | 12.2 |
| 58 | 371 | 41 | 9.1 |
| 59 | 387 | 29 | 13.3 |
| 60 | 353 | 37 | 9.5 |
| 61 | 301 | 25 | 12.0 |
| 62 | 277 | 26 | 10.7 |
| 63 | 273 | 22 | 12.4 |
| 64 | 250 | 22 | 11.4 |
| 65 | 207 | 20 | 10.4 |
| 66 | 148 | 9 | 16.5 |
| 67 | 138 | 23 | 6.0 |
| 68 | 135 | 11 | 12.3 |


| Age | Population Total | LFS Total | Correction factor |
| :---: | :---: | :---: | :---: |
| 69 | 123 | 9 | 13.6 |
| 70 | 88 | 13 | 6.8 |
| 71 | 70 | 7 | 10.0 |
| 72 | 77 | 10 | 7.7 |
| 73 | 79 | 3 | 26.2 |
| 74 | 68 | 4 | 17.0 |
| 75 | 56 | 10 | 5.6 |
| 76 | 48 | 6 | 8.0 |
| 77 | 40 | 5 | 8.0 |
| 78 | 35 | 3 | 11.7 |
| 79 | 27 | 3 | 8.9 |
| 80 | 18 | 1 | 18.3 |
| 81 | 13 | 1 | 12.8 |
| 82 | 22 | - | 22.0 |
| 83 | 24 | - | 23.7 |
| 84 | 17 | - | 17.0 |
| 85 | 16 | 4 | 3.9 |
| 86 | 13 | 1 | 13.5 |
| 87 | 11 | - | 11.4 |
| 88 | 13 | 2 | 6.3 |
| 89 | 13 | 1 | 12.7 |
| 90 | 6 | 1 | 6.4 |
| 91 | 1 | 1 | 1.0 |


| Age | Population Total | LFS Total | Correction factor |
| :---: | :---: | :---: | :---: |
| 92 | 9 | 1 | 9.3 |
| 93 | 6 | 1 | 6.0 |
| 94 | 3 | - | 2.6 |
| 95 | 1 | - | 1.4 |
| 96 | 1 | 1 | 0.9 |
| 97 | 2 | - | 2.2 |
| 98 | 0 | - | 0.1 |
| 99 | 1 | - | 0.7 |
| 100 | 2 | - | 1.6 |

