

2013 Census of Economic Activities

Phase 1 – Small establishments

Introduction

Statistics Mauritius is currently conducting its sixth Census of Economic Activities (CEA) in Mauritius and Rodrigues, with 2013 as reference year. The main objective of this exercise which is normally carried out every five years is to collect data on the operating characteristics and structure of all types of economic activities, except agriculture. A separate exercise is being conducted for the agricultural sector as different measurement techniques are needed for data collection.

The CEA is conducted in two phases - Phase I covering a sample of small production units (i.e. those operating with less than ten persons) and Phase II covering large units, that is, those with ten or more persons. Data collection for Phase I was carried out from January 2013 to December 2013 while that for Phase II started in July 2014 and is expected to be completed by December 2014.

This Economic and Social Indicator presents the preliminary results of Phase I of CEA 2013. The concepts and definitions used are given at Annex I, and the methodology including the coverage and the sampling design at Annex II. Grouping of activities is according to sectors of the UN International Standard Industrial Classification of Economic Activities, ISIC Rev. 4 of 2007.

It is to be noted that the data are provisional and may have to be adjusted for any possible under-reporting or misreporting after further analysis and comparison with indicative information from other sources. A more detailed report pertaining to the results of Phase I will be published by end of this year, and another one integrating the results of Phase I and Phase II and including estimates of sectors not covered by the CEA (agricultural activities and activities of household employees such as maids and gardeners, etc.) will be released by the end of 2015.

2. Highlights

The table below shows the main results of Phase I of CEA 2013 compared with those of CEA 2007.

Production units, persons engaged, and value added - CEA 2007 and 2013

	2007	2013¹	Percentage change
Production units	92,400	125,500	35.8
Persons engaged	211,600	283,000	33.7
Value added (Rs million)	43,040	82,060	90.7

¹ Provisional

(i) Production units

The number of small production units (establishments and itinerant units) operating in Mauritius and Rodrigues is estimated at 125,500 in 2013 compared to 92,400 in 2007, that is, about 36% higher.

(ii) Employment

The total number of persons engaged in those small units is estimated at 283,000 (197,000 males and 86,000 females), around 34% higher than the figure of 211,600 (156,800 males and 54,800 females) in 2007. The figures include both full-time and part-time workers; a part-time worker being counted as one person engaged.

The number of persons engaged per unit works out to 2.3, same as in 2007.

(iii) Value added

Total value added generated during 2013 by the small units covered is estimated at Rs 82,060 million, 91% higher than in 2007 when a value added of Rs 43,040 million was estimated. The contribution of the small units covered in the CEA 2013 to the economy works out to 25% compared to 20% in 2007.

Annual value added per unit increased by 40% to Rs 653,000 in 2013 from Rs 466,000 in 2007.

(iv) Main activity of the small units

“Wholesale and retail trade; repair of motor vehicles and motor cycles” is the most important activity group among the small units. With some 46,800 units in operation in 2013, the sector employed around 98,800 persons, representing 35% of the total workforce of the small units. Its value added estimated at Rs 25,970 million, represented 32% of the total value added generated by the small units covered.

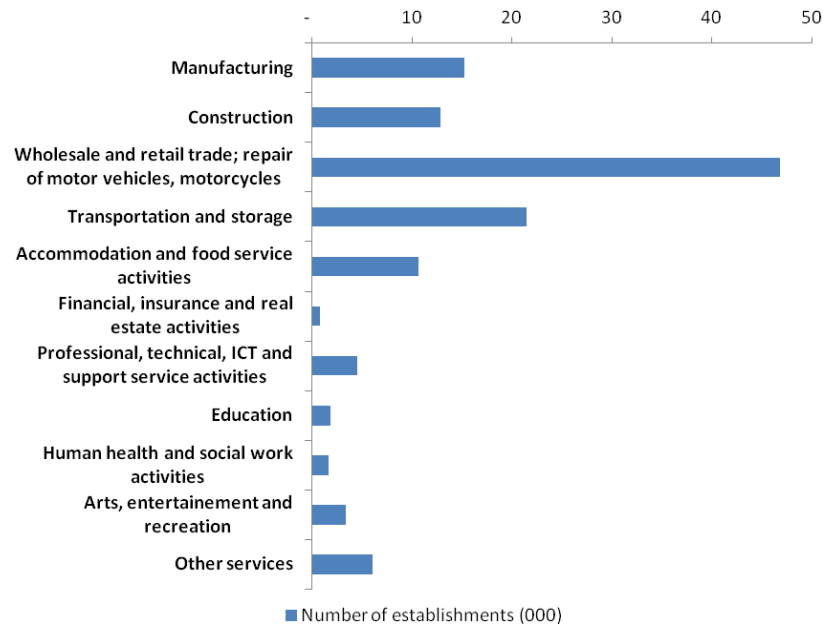
3. Small production units

The number of small production units operating in the different activities covered by the CEA is estimated at around 122,600 in Mauritius and 2900 in Rodrigues. These figures include small establishments operating at a fixed location as well as itinerant units.

3.1 Activity

The CEA results indicate that in 2013, small units were mainly engaged in the following activities: “Wholesale and retail trade; repair of motor vehicles and motor cycles” (37%), “Transportation and storage” (17%), “Manufacturing” (12%), “Construction” (10%) and “Accommodation and food service activities” (8%).

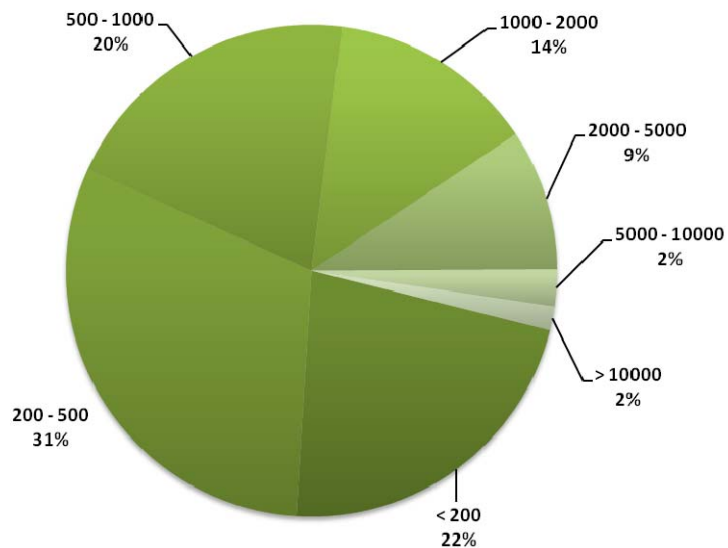
Figure 1: Distribution of small units by industry group (in thousands)



3.2 Size

Out of the 125,500 units covered in Phase I, around 52,000 or 41% were run by self employed persons without any assistance; 66,000 or 53% were operated by two to five persons and the remaining 7,500 or 6% engaged five to nine persons.

Figure 2: Distribution of establishments by gross output range (Rs 000)



Approximately 22% of the small units operating in 2013 generated an annual gross output of less than or equal to Rs 200,000; 31% produced between Rs 200,000 and Rs 500,000; 20% between Rs 500,000 and Rs 1 million; 23% between Rs 1 million and Rs 5 million and the remaining 4% generated over Rs 5 million.

4. Employment

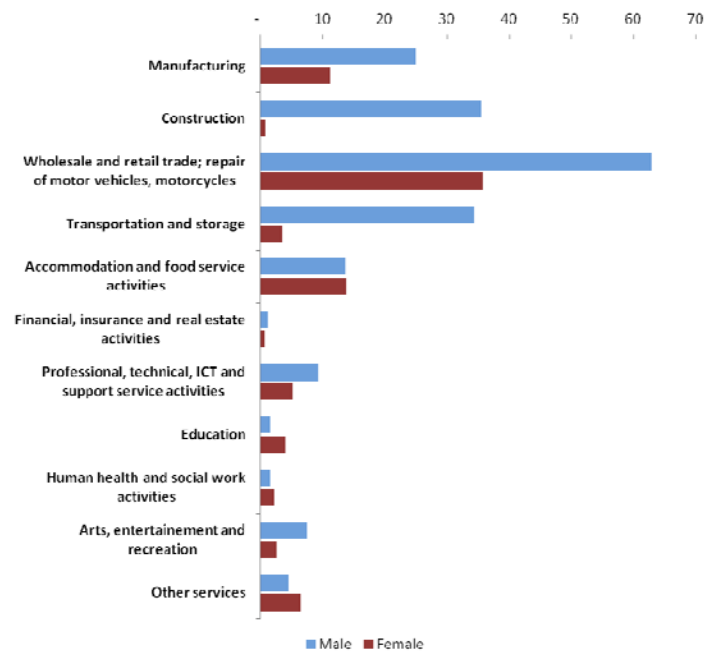
The total number of persons engaged in the small production units is estimated at 283,000. Some 252,400 or nearly 90% were full-time workers and 30,600 or 10% were part time workers (part timers were those working less than half of the usual working hours of the establishment where they were engaged). Around 42% of the part time workers were engaged in “Wholesale and retail trade; repair of motor vehicles and motor cycles”, 13% were in “Manufacturing”, and 12% in “Accommodation and food service activities” and 11% in “Transportation and storage”.

4.1 Employment by sex

Male workers estimated at 197,000 constituted almost 70% of the total workforce of the small units and female workers estimated at 86,000 around 30%.

Male workers were mostly engaged in “Wholesale and retail trade; repair of motor vehicles and motor cycles, etc” (32%), “Construction” (18%), “Transportation and storage” (17%) and “Manufacturing” (13%). Among female workers, 42% were in “Wholesale and retail trade; repair of motor vehicles and motor cycles”, 16% in “Accommodation and food service activities” and 13% in “Manufacturing”.

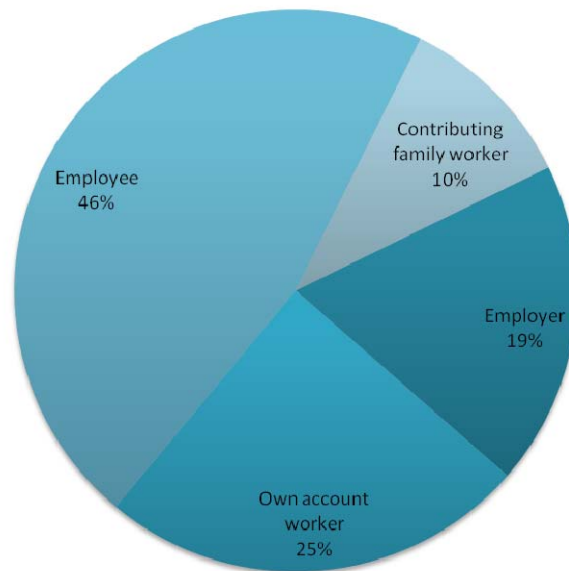
Figure 3: Employment by industry group and sex (in thousands)



It is noted that the proportion of female workers was higher than that of male workers in “Accommodation and food service activities”, “Education” (mainly pre-primary education), “Human health and social work activities”, and “Other services”. In all the other industry groups, the majority of workers were male.

4.2 *Employment status*

Figure 4: Distribution of workers by employment status



Out of 283,000 persons engaged in the small units, 19% were employers with paid employees, and 25% were own account workers who either worked on their own or with the help of contributing (unpaid) family members. Paid employees represented 46% and contributing family workers 10%.

5. **Production**

5.1 *Gross output*

The 2013 CEA results indicate that the gross output or the total value of goods and services produced by the small units amounted to Rs 131,390 million.

5.2 *Intermediate consumption*

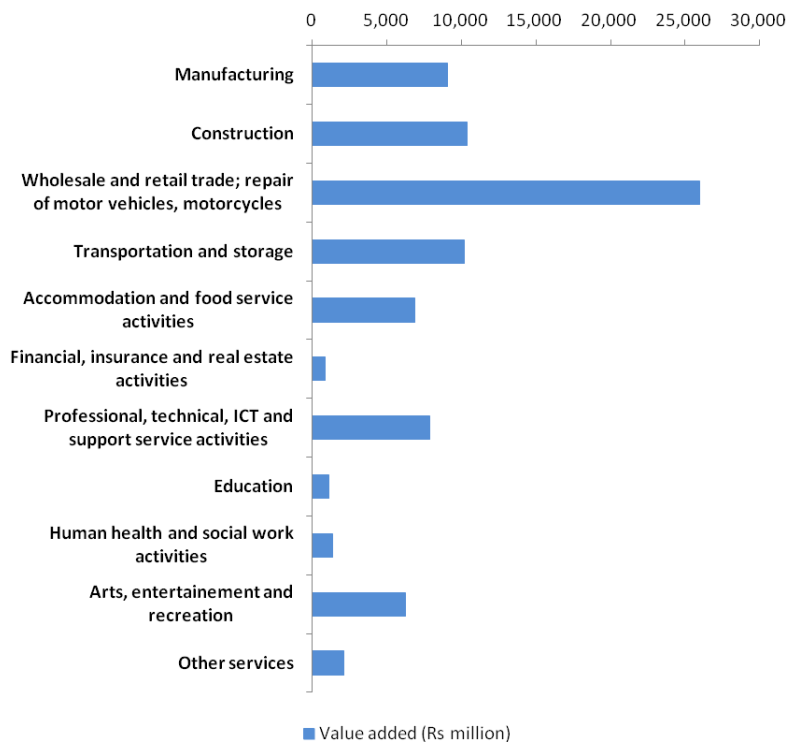
The value of goods and services used in the production process or the intermediate consumption amounted to Rs 49,330 million, representing around 38% of the gross output.

5.3 Value added

Value added worked out to Rs 82,060 million, representing 62% of gross output.

Activities that contributed most to the total value added generated by the small units were: “Wholesale and retail trade; repair of motor vehicles and motor cycles” - Rs 25,970 million or 32%; “Construction” - Rs 10,390 million or 13%, “Transportation and storage” - Rs 10,210 million or 12% and “Manufacturing” - Rs 9,080 million or 11%.

Figure 5: Value added by industry group



5.4 Compensation of employees

Compensation of employees which includes wages and salaries, payments in kind as well as employers’ contributions to pension and insurance schemes is estimated at Rs 19,840 million. Around Rs 5,100 million or 26% of this amount was paid to persons working in “Wholesale and retail trade; repair of motor vehicles and motor cycles”, Rs 4,520 million or 23% to employees in “Construction”, Rs 2,235 million or 11% to persons engaged in “Manufacturing.” and Rs 2,100 million or nearly 11% to those in “Transportation and storage” .

5.5 Investment

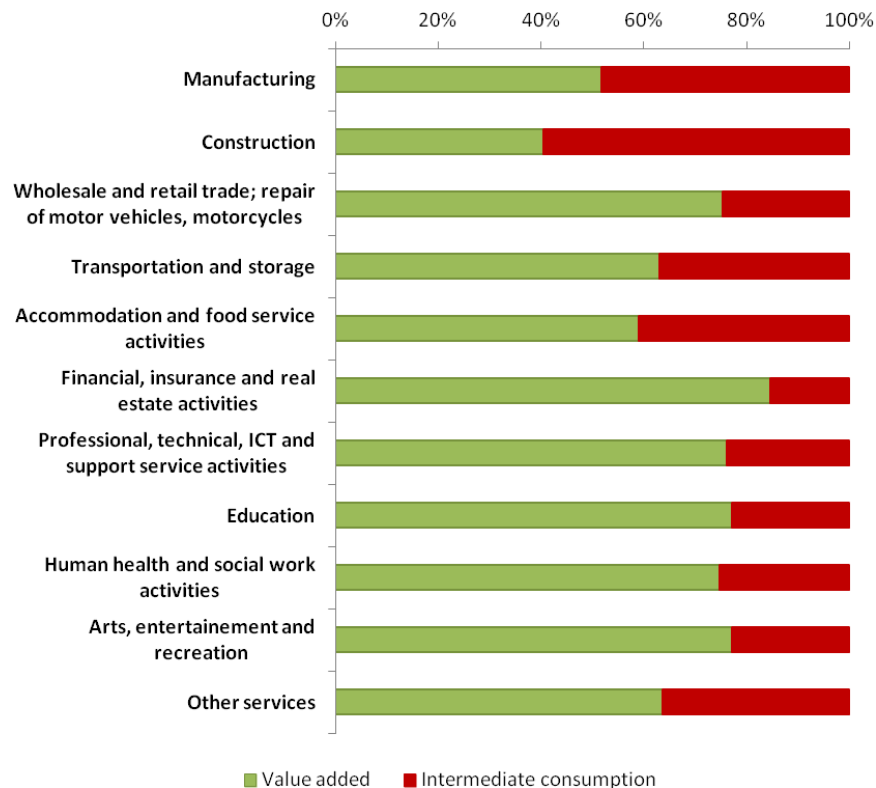
In 2013, the small units invested a total of Rs 1,670 million, of which Rs 440 million (26%) were on buildings, Rs 576 million (35%) on transport equipment, Rs 560 million (33%) on other machinery and equipment including IT equipment, and Rs 94 million (6%) on furniture.

6. Production structure

The production structure of activities covered by the CEA can be illustrated as follows: To produce Rs 100 worth of goods or services, Rs 38 worth of goods and services (intermediate consumption) were consumed in the process. Of the resulting Rs 62 generated as value added, Rs 15 were paid out to employees.

Intermediate consumption was highest in “Construction” and lowest in “Financial, insurance and real estate activities”. Thus, to produce an output of Rs 100, Rs 60 worth of goods and services were consumed in the process in “Construction” compared to Rs 14 in “Financial, insurance and real estate activities”.

Figure 6: Distribution of gross output by industry group



7. Operational ratios

The employment size of the units was highest in “Financial and insurance activities” with an average of 3.9 persons engaged per unit compared to 2.3 for all sectors covered.

“Financial and insurance activities” also had the highest annual gross output per unit, Rs 3.1 million compared to Rs 1.0 million for all sectors combined. Its annual value added per unit was also highest, Rs 2.7 million while the overall average worked out to Rs 0.7 million.

8. Caution

The objective of the CEA is to collect information from productive units with a view to obtaining updated data on the structure of the economy. Distinction should therefore be made between the estimates published in this paper and other official estimates such as employment and national accounts aggregates which are regularly published by this office through relevant issues of economic and social indicators. As already mentioned, estimates given in this publication relate to small establishments only and do not cover all sectors of the economy while estimates of employment include secondary jobs as well.

The data in this publication are still provisional. Evaluation of the data and integration with the results of Phase II of the CEA and data available from other sources will be carried out to have a better picture of the economy, as well as the contribution of the small establishments to the economy. The results of the evaluation and integration exercise will be published by end of 2015.

9. Note on tables

Small discrepancies in the table totals are due to the calculation procedures in blowing the sample data to population estimates.

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Concepts and Definitions

1. The concepts and definitions follow the recommendations of the 1993 System of National Accounts (SNA93).
2. An **establishment** is defined as a production unit engaged in one kind, or predominantly one kind of economic activity at a fixed physical location.
3. An **itinerant unit** refers to a mobile production unit, which does not operate at a fixed location. Examples are hawkers and sellers along the road within a makeshift location, taxi operators and units involved in construction activities.
4. A **production unit** is either an establishment or an itinerant unit.
5. '**Small**' units are those engaging less than 10 persons, including working proprietors.
6. **Persons engaged** in a production unit refer to the total number of persons who work in or for the unit. It includes working proprietors, employees and contributing (unpaid) family workers.
7. An **employee** is a person who works in a paid job and receives wages/salary in cash or in kind.
8. An **employer** is a person who works in his/ her own production unit and engages one or more persons to work for him/her as employees.
9. An **own account worker** is a person who works in his/her own production unit alone or with the help of unpaid family members and does not hire any employees.
10. A **contributing family worker** is a family member of the owner of the unit, who is actively engaged in the business, without any remuneration.
11. **Part-time** workers are those persons who work less than half of the usual working hours of the unit.
12. **Gross output** is equal to the value of goods and/or services produced.
13. **Intermediate consumption** is equal to the value of goods and services used up in the production process.
14. **Value added** is equal to the gross output less the value of intermediate consumption.
15. **Compensation of employees** comprises payments of wages and salaries by producers to their employees. Payments in kind and contributions to pension funds, casualty insurance and similar schemes are also included.
16. **Gross operating surplus** is the excess of value added over compensation of employees.

Methodology

Scope and coverage

1. The first phase of the CEA 2013 covered small economic units engaged in all types of economic activities except:

- (i) Agricultural activities,
- (ii) Activities of household employees (maids, gardeners, etc.) and
- (iii) Illegal activities (prostitution, drug trafficking, etc.)

Unit of enquiry

2. The unit of enquiry was a production unit consisting of either an establishment or an itinerant unit. An establishment is defined as a production unit engaged in one kind, or predominantly one kind of economic activity at a single physical location. An itinerant unit refers to a mobile production unit which does not operate at a fixed location. Examples are hawkers and sellers along the road within a temporary makeshift location, taxi operators and units involved in construction activities.

Sampling frame

3. The sampling frame consisted of a list of production units obtained from the database of licences of local authorities, supplemented with information from other administrative sources such as taxi operators registered at the National Transport Authority, professionals from various professional associations, persons engaged in economic activities at home with or without license (identified from the 2011 Population Census), etc.

Sampling design

4. The economic units were stratified (grouped) according to type of economic activities based on the National Standard Industrial Classification (NSIC) of Economic Activities, an adapted version of the United Nations International Standard Industrial Classification of Economic Activities, Revision 4.

5. The sample comprised 3,680 units (3,280 for the Island of Mauritius and 400 for the Island of Rodrigues) which were allocated to the different strata according to Neymann Allocation or optimum allocation at fixed cost. This type of allocation was considered to be more appropriate than the usual proportional allocation as data from the previous CEAs indicate that value added varies widely from one economic activity group or stratum to the other. Within the strata, selection of units was effected by Systematic Random Sampling to ensure representativeness.

6. To capture seasonal features in production activities, the 3,280 units that were selected for the Island of Mauritius were spread evenly over the 12 months of the year and 400 units for Rodrigues over the four quarters, while ensuring representativeness.

Data collection

7. Given that small units do not usually keep proper records of their transactions, data collection was carried out by direct interviews. Each month, four Supervisors and 20 Interviewers were responsible for the data collection in the Island of Mauritius. In Rodrigues, the data collection

was carried out during the second month of each quarter by eight Interviewers working under the responsibility of two Supervisors.

8. The data collection was preceded by an identification phase, during which each interviewer had to locate the selected production units. That phase also helped to identify units that had moved, changed activities, been dormant or ceased operation.

9. Once the selected units have been successfully identified, the respondents were requested to keep daily/weekly records of their transactions in diaries provided to them. The units were visited regularly by interviewers to ensure that records are being properly kept and to answer to any queries. The completed diaries were collected at the end of the survey month, and the data from the diaries transcribed to the relevant census questionnaires by the interviewer.

10. The whole exercise was coordinated and supervised by one Chief Supervisor, supported by one Senior Supervisor.

Data processing

11. The whole data processing exercise (editing and coding of completed questionnaires, data entry and validation in the IMPS software and tabulation in STATA) was carried out by staff of Statistics Mauritius.

Reference period

12. The reference period for the collection of information was one month. The monthly data were consolidated and weighted to obtain the population estimates for the calendar year 2013.

Legal authority and confidentiality

13. The CEA was conducted under the authority of the Statistics Act 2000. The Statistics Act provides for an obligation on selected respondents to furnish to the Director of Statistics such information as requested in the approved questionnaire and at the same time guarantees the confidentiality of all information provided.

Concepts, definitions and classifications

14. The concepts and definitions follow the recommendations of the 1993 System of National Accounts (SNA93).

15. Activities were classified according to NSIC (National Standard Industrial Classification of Economic Activities), an adapted version of ISIC (International Standard Industrial Classification of Economic Activities) Rev. 4 of 2007. Products were classified according to CPC (Central Product Classification) Ver. 2.0 of 2007.

Table 1 - Units, employment and output of small production units by industry group, CEA 2013 - Republic of Mauritius

Industry group	Production units		Persons engaged		Gross output		Value added	
	Number	%	Number	%	Amount (Rs mn)	%	Amount (Rs mn)	%
Total	125,543	100.0	282,971	100.0	131,391	100.0	82,061	100.0
Manufacturing	15,241	12.1	36,207	12.8	17,499	13.3	9,083	11.1
Construction	12,911	10.3	36,326	12.8	25,650	19.5	10,390	12.7
Wholesale and retail trade; repair of motor vehicles, motorcycles	46,776	37.3	98,804	34.9	34,470	26.2	25,970	31.6
Transportation and storage	21,520	17.1	37,838	13.4	16,170	12.3	10,213	12.4
Accommodation and food service activities	10,699	8.5	27,367	9.7	11,680	8.9	6,905	8.4
Information and communication	557	0.4	1,788	0.6	1,072	0.8	589	0.7
Financial and insurance activities	175	0.1	680	0.2	549	0.4	471	0.6
Real estate activities	600	0.5	1,200	0.4	440	0.3	365	0.4
Professional, technical and support service activities	3,978	3.2	12,656	4.5	9,301	7.1	7,316	8.9
Education	1,853	1.5	5,451	1.9	1,410	1.1	1,088	1.3
Human health and social work activities	1,705	1.4	3,687	1.3	1,783	1.4	1,334	1.6
Arts, entertainment and recreation	3,408	2.7	10,083	3.6	8,090	6.2	6,246	7.6
Other services	6,119	4.9	10,884	3.8	3,277	2.5	2,092	2.5

Table 2 - Number of small production units by employment size, CEA 2013 - Republic of Mauritius

Industry group	Employment size									Total
	1	2	3	4	5	6	7	8	9	
Total	52,295	37,396	15,057	8,429	5,217	1,927	2,100	1,624	1,475	125,519
Manufacturing	6,824	3,614	2,055	711	615	542	372	320	187	15,241
Construction	3,558	3,030	2,593	1,523	873	-	719	228	342	12,866
Wholesale and retail trade; repair of motor vehicles, motorcycles	19,675	16,080	4,771	2,876	1,631	407	480	452	404	46,776
Transportation and storage	11,383	6,644	2,133	525	592	41	61	105	58	21,542
Accommodation and food service activities	2,753	4,176	1,320	1,245	594	239	151	130	92	10,699
Information and communication	193	75	75	75	11	79	4	46	-	557
Financial and insurance activities	25	24	50	30	10	6	5	16	10	175
Real estate activities	375	150	-	-	-	-	75	-	-	600
Professional, technical and support service activities	1,084	704	705	485	472	238	95	97	97	3,978
Education	771	304	201	254	97	62	65	14	83	1,853
Human health and social work activities	715	580	135	125	90	20	-	20	20	1,705
Arts, entertainment and recreation	1,242	821	506	92	138	180	69	180	180	3,408
Other services	3,697	1,194	512	488	93	115	5	15	-	6,119

Table 3 - Full time and part time employment in small production units , CEA 2013 - Republic of Mauritius

Industry group	Full time			Part time			Total		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
Total	178,451	73,991	252,442	18,607	11,995	30,602	197,058	85,986	283,044
Manufacturing	22,744	9,514	32,258	2,211	1,738	3,949	24,955	11,252	36,207
Construction	35,056	760	35,816	640	-	640	35,696	760	36,456
Wholesale and retail trade; repair of motor vehicles, motorcycles	55,105	30,689	85,794	7,840	5,110	12,950	62,945	35,799	98,744
Transportation and storage	31,450	3,122	34,572	2,943	323	3,266	34,393	3,445	37,838
Accommodation and food service activities	11,977	11,586	23,563	1,632	2,173	3,805	13,609	13,759	27,368
Information and communication	1,092	482	1,574	139	75	214	1,231	557	1,788
Financial and insurance activities	347	308	655	10	14	24	357	322	679
Real estate activities	750	225	975	75	150	225	825	375	1,200
Professional, technical and support service activities	7,116	4,472	11,588	883	185	1,068	7,999	4,657	12,656
Education	906	3,426	4,332	584	535	1,119	1,490	3,961	5,451
Human health and social work activities	1,425	1,614	3,039	150	499	649	1,575	2,113	3,688
Arts, entertainment and recreation	6,239	2,026	8,265	1,273	548	1,821	7,512	2,574	10,086
Other services	4,244	5,767	10,011	227	645	872	4,471	6,412	10,883

Table 4 - Number of persons engaged in small production units by employment status and sex, CEA 2013 - Republic of Mauritius

Industry group	Employer			Own account worker			Employee			Contributing Family Worker			Total		
	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total
Total	43,990	8,718	52,708	52,175	17,344	69,519	88,063	42,873	130,936	12,440	17,067	29,507	196,669	86,001	282,670
Manufacturing	5,437	908	6,344	6,234	2,636	8,869	11,551	5,587	17,138	1,755	2,162	3,917	24,976	11,292	36,269
Construction	8,931	-	8,931	3,325	-	3,325	22,537	759	23,296	606	-	606	35,398	759	36,157
Wholesale and retail trade; repair of motor vehicles, motorcycles	11,568	2,831	14,398	21,396	10,240	31,636	22,247	12,963	35,209	7,652	9,727	17,379	62,862	35,761	98,623
Transportation and storage	9,071	522	9,593	11,569	-	11,569	13,696	2,048	15,744	57	876	933	34,393	3,445	37,838
Accommodation and food service activities	3,744	1,273	5,017	3,535	1,929	5,464	4,893	7,459	12,352	1,435	3,098	4,533	13,608	13,759	27,367
Information and communication	243	7	250	196	107	303	611	310	921	182	146	328	1,231	571	1,802
Financial and insurance activities	75	29	104	6	19	25	277	274	551	-	-	-	357	322	680
Real estate activities	300	-	300	225	75	300	225	300	525	75	-	75	825	375	1,200
Professional, technical and support service activities	2,112	440	2,552	1,048	143	1,192	4,651	3,920	8,571	161	153	314	7,972	4,656	12,629
Education	280	664	943	383	385	768	809	2,866	3,675	18	47	65	1,490	3,962	5,451
Human health and social work activities	652	190	842	456	239	695	411	1,569	1,980	55	115	170	1,574	2,113	3,687
Arts, entertainment and recreation	1,004	457	1,461	1,269	111	1,380	4,992	1,696	6,688	246	308	554	7,511	2,572	10,083
Other services	574	1,399	1,973	2,534	1,459	3,994	1,164	3,121	4,285	199	434	633	4,471	6,414	10,884

Table 5 - Production account of small production units , CEA 2013 - Republic of Mauritius

Industry group	No of production units	Gross output (Rs mn)	Intermediate consumption (Rs mn)	Value added (Rs mn)	Compensation of employees (Rs mn)	Gross operating surplus (Rs mn)
Total	125,543	131,391	49,330	82,061	19,842	62,219
Manufacturing	15,241	17,499	8,417	9,083	2,235	6,847
Construction	12,911	25,650	15,260	10,390	4,517	5,873
Wholesale and retail trade; repair of motor vehicles, motorcycles	46,776	34,470	8,500	25,970	5,100	20,870
Transportation and storage	21,520	16,170	5,957	10,213	2,104	8,109
Accommodation and food service activities	10,699	11,680	4,775	6,905	1,508	5,397
Information and communication	557	1,072	483	589	164	425
Financial and insurance activities	175	549	77	471	143	328
Real estate activities	600	440	75	365	72	293
Professional, technical and support service activities	3,978	9,301	1,986	7,316	1,838	5,477
Education	1,853	1,410	322	1,088	450	638
Human health and social work activities	1,705	1,783	449	1,334	227	1,106
Arts, entertainment and recreation	3,408	8,090	1,844	6,246	982	5,264
Other services	6,119	3,277	1,186	2,092	501	1,591

Table 6 - Operational ratios of small production units , CEA 2013 - Republic of Mauritius

Industry group	Number of persons engaged per unit	Gross output per unit (Rs 000)	Value added per unit (Rs 000)	Intermediate consumption as a % of Gross output	Value added as a % of Gross output
Total	2.3	1,046.6	653.6	37.5	62.5
Manufacturing	2.4	1,148.2	595.9	48.1	51.9
Construction	2.8	1,986.7	804.7	59.5	40.5
Wholesale and retail trade; repair of motor vehicles, motorcycles	2.1	736.9	555.2	24.7	75.3
Transportation and storage	1.8	751.4	474.6	36.8	63.2
Accommodation and food service activities	2.6	1,091.7	645.4	40.9	59.1
Information and communication	3.2	1,925.5	1,058.1	45.0	55.0
Financial and insurance activities	3.9	3,132.5	2,690.5	14.1	85.9
Real estate activities	2.0	733.3	608.8	17.0	83.0
Professional, technical and support service activities	3.2	2,338.1	1,838.9	21.3	78.7
Education	2.9	761.0	587.2	22.8	77.2
Human health and social work activities	2.2	1,045.9	782.4	25.2	74.8
Arts, entertainment and recreation	3.0	2,373.5	1,832.5	22.8	77.2
Other services	1.8	535.6	341.8	36.2	63.8