

SOCIO - ECONOMIC SURVEY IN BENGHAZI CITY

AN EXPLORATORY STUDY

*S. Mukerji & J. Dutta **

1. Introduction

Socio-economic Surveys have been found to be extremely useful in planning and in Social research. One distinct advantage of such surveys is that they furnish quantitative information on certain needs of the population in a relatively short time and at a nominal expenditure. Some countries have set up specific bodies for conducting sample surveys on a continued basis. For example, in India The National Sample survey, Indian Statistical Institute, which is a Semi - Government Organisation has been conducting detailed surveys since Indian Independence. In Libya a detailed survey, but on a limited scale was conducted in 1962 ¹. It is felt that similar studies with greater geographical coverage and extension over time would have been more useful. It is gratifying to learn that the Faculty of Economics and Commerce, of the University of Libya has a plan to conduct a sample survey within the city limits of Benghazi in near future.

The present study is based on the data collected by some of the students of the fourth years class of the Department of Economics. The survey was primarily designed to give the students training in the various aspects of sample survey. This necessarily restricted both the

* J. Dutta, M.A., M.Sc. LL.B., Associate Professor of Statistics, Faculty of Economics & Commerce, University of Libya.
S. Mukerji, M.Sc. M.Sc., Ph.D., Assistant Professor of Statistics, Faculty of Economics & Commerce, University of Libya.

(1) Sami W. Dajani : Report on Family Budget Survey in Tripoli Town (1962).

Size of the sample and the questionnaire.

2. Sample Design and the Questionnaire

It was planned to get the information in the questionnaire only from the Libyan nationals. This was done because it was felt that the expenditure pattern and social outlook of foreigners might be different from that of the Libyan Nationals. As the Sampling frame for the total population within the Benghazi City limits was not available the students were advised to go to different areas and collect informations from the head of the households selected on the basis of systematic sampling with a random start. In any street the first house was selected at random and then every fifth house was selected for the purpose of the survey. A house-hold was defined as a group of people normally residing in the house and taking their principal meals from the same kitchen. Every student was advised to interview fifty heads of the house-holds. It was expected that the actual field-work would take not more than five days but due to the fact that the students could not contact the respondents in the first attempt in some cases and as the average time needed for filling one questionnaire was about thirty minutes, the field work actually took nearly fifteen days.

The questionnaire was designed to furnish information on the following main items : Number of households in different professions Age-Sex composition of the house holds together with the information on the type of activity in which the members are engaged and their economic status. Average monthly income of the head of the house-hold and that of the other members of the family and from any other sources. Average monthly expenditure on different items, type of tenancy and civic facilities available in the house. Number of children going to school etc.

While interpreting the results it should be kept in mind that the sample was insufficient to give complete coverage of the city, however, the data are likely to show the pattern with reasonable accuracy. The total number of households on which the report is based was 355.

3. Tables and results

Table 1 annexe shows the distribution of households into different professional groups. Profession was defined as the activity which provides the major part of the earning. If a person had more than one gainful activity, the student-investigators were advised to record all the activities. Surprisingly multiple activities were not reported. Out of 355 heads of the house holds 96, 181, 19, 7 and 2 reported Business, Service, Teaching, Agriculture, Religious services respectively as their profession : There were 50 households in the group headed "Others". In terms of percentages the respective professions occurred with incidence 27, 51, 5, 2, 1 and 14. Table 2 annexe shows the age sex composition of the house-holds. This table also shows the civil status distribution of the members. From columns 2 and 3 we find the ratio of females to males in the house-holds as 0.923 this is in agreement with the result obtained by Dutta and Sharif ² for total citizen population of Libya which is 0.922 nearly. Among the 782 males 313 or forty percent are married, 460 or fiftynine percent are unmarried. In other categories which include widowers, separated, etc., only one percent of the males fall. Beyond age of thirty years very few males are unmarried and prior to age twenty no body is married. Among 722 females, 322 or 44 percent are married, 352 or 49 percent are unmarried and nearly 7 percent are in the category of widows, separated etc. Further it appears that very few are married before the age 19 and very few remain unmarried after age 24.

Table 3 shows the distribution of the members by Economic Status. The three Economic Statuses considered are earner, earning dependent and non earning dependent. A person is called earner if his income is sufficient for maintenance of his family and himself. The proportion of earners turns out to be 357 out of 782 males i.e. 0.456. Earning dependents are those members who have some income but it is not sufficient for their maintenance. 67 out of 782 or 8.6 percent males fall

(2) J. Dutta & Sharif : Sex ratio in Libyan Population Libyan Economic & Business Review, Vol. IV Spring 1968.

in this category. Earning dependents are mostly in the age group of 10 to 34 years. 358 out of 782 or 45.8 percent males are in the non-earning dependent class. Majority of the non-earning dependent males are of age less than 19 years. Among females earners and earning dependents are very few, together they are only 8 out of 722 or nearly one percent. The remaining 99 percent come in the category of non-earning dependents. Age wise distribution of female-non-earning dependents does not show any concentration.

Table 3-A shows the distribution of the activities in which the members of the house-holds are engaged. Four types of activities have been considered, namely gainful activity, domestic work, student and nil ; the last group consists of children too young to work or very old persons and other classifications are self explanatory. From the table it can be seen that male students are more numerous than female students. Adult males generally come in the gainful activity. Very few adult females are engaged in gainful activity, majority of them are engaged in domestic work, a pattern which is true in the case of almost all developing economy.

Table 4 shows the age-wise distribution of the total population included in the survey. The pattern observed in this table is very similar to that obtained in the 1964 general population census of Libya. The 1964 Census report shows that the population of Benghazi City was 136641 on the census day (First of Aug. 1964). Assuming the general rate of growth of 3.65 percent per annum the estimated population on the first of February 1968 was 155000 nearly. Thus our sample of 1504 covers about one percent of the population of Benghazi. The last column shows the proportion of the population in each age group,

Table 5 annexe gives the distribution of the monthly personal income of the heads of the house holds. 355 house-holds were investigated, out of which 3 heads were unable to give any estimate of their monthly income or disbursement. There were three others who had no personal income, they depended on the income of the other members of the family.

In these three cases monthly expenditures were available. From the Table 5 it can be seen that about 27 percent of the heads have monthly income less than Pound Libyan Forty. About Seventy percent have income less than £.L. 70, about 14 percent earn more than £.L. 100 per month. The modal class is £.L. 40-70 and it covers 43 percent of the heads. The median income is £.L. 56 and the mean income turns out to be £.L. 68.860. However, the mean in such a skew distribution is of very little use.

Table 6 annexe shows the distribution of the average monthly income of the house-holds. The average income here incorporates income from all sources. The total number of house-hold included in this table is 352 as the three house-holds for which the income and disbursement figures were not available were excluded. From table 6 it can be seen that about 19 per cent of the house-holds have average monthly income less than £.L. 40. About 38 percent have income between £.L. 40-70 and 22 percent of the house-holds have income in the range £.L. 70-100. Again about 22 percent of the house-holds have income £.L. 100 or more.

In the column 5 of Table 6 mean income for each class is shown.

In each income class the distribution of persons is not uniform. In most of the classes there is a clustering of persons near the lower limit of the class interval. Thus in the interval 40-70 the mid value of the class is £.L. 55, the observed mean is £.L. 51.2, in the interval 70-100 the mid value is £.L. 85, the observed mean is £.L. 80.8, etc. The lowest and highest income classes show opposite types of scatter. In the class 0-40 more people are in the neighbourhood of £.L. 40 and the mean income is £.L. 29.6. This is in agreement with the general belief that in a city there is a minimum level of income necessary for subsistence. The last open class of £.L. 250 and more shows a mean income £.L. 434.2, this is obviously the affluent class and only 4 percent of the people fall in this class. Column six of the table shows the variance of the income. It can be seen that variance increases with the

mean. This again is in agreement with the general belief. The over all mean income turns out to be £.L. 147.4, for the skew distribution of the type of the table this over all mean has very little meaning. The modal income class is £.L. 40-70 and it contains 38 per cent of the house-holds. The median income turns out to be £.L. 61.

Table 7 shows the average family size in each income group and the per-capita income. Column 3 shows the number of persons in each income class, column 4 shows the average family size in each income class. It can be seen that the average family size increases with rise in income. On the average there is a difference of about 3 persons per family between the highest and the lowest income class. The over all average family size is 4.3 this is slightly lower than the average 5.15 obtained for Benghazi in the census of 1964 ³. Column 5 shows the total monthly income in each class, as mentioned earlier this incorporates income from all sources. The last column shows the per capita income. The brisk rate of increase in the percapita income is worth attention : The over all average percapita income turns out to be about £.L. twenty per month.

Table 8 shows the average house-hold expenditure on certain principal items. Monthly average expenditure on food, clothing, rent, medicine and miscellaneous are shown in the table : These expenditures show the expected increase with the increase in income. Average rent has been calculated taking only those house-holds who are paying rent. From the second and sixth columns it can be seen that 13, 31, 25, 13 and 6 out of 66, 133, 76, 33, 31 and 13 house-holds pay rent in the six income classes respectively. In percentages this means that in the six income classes nearly 20, 23, 33, 39, 42, and 46 per cent of the house-holds pay rent. Thus with the increase in average income both the proportion paying rent and the average rent paid increase. Among the total 352 households 101 or about 29 percent are paying rent.

(3) Preliminary Results of the General Population Census 1964, p. 14 Census & Statistical Dept. Tripoli (1964).

The last column of the table 8 shows the total monthly expenditure. This total has been obtained by taking the sum of expenditures on food, clothing, Medicine and Miscellaneous items ; rent has been excluded as all the households do not pay rent.

Table 9 annexe shows the percentage of income spent on the various items of consumption. Column four shows the percentage of income spent on food. As income increases the proportion of income spent on food decreases. This is what is known as Engel's Law. For clothing, medicine and miscellaneous items also the proportion of income spent decreases as income increases but the rate of decline is smaller than that in food expenditure. In column 8 the percentage expenditure on rent is shown, here except in the class 40-70, where there is a sudden drop, the percentage of income spent decreases with increasing income. The last column shows the percentage of income spent on food, clothing, medicine and miscellaneous items, from the last two columns it can be seen that in the income class 0-40, those who pay rent, have on the average a total monthly expenditure more than their monthly income. Again in the next class 40-70 the total expenditure including rent is 99 percent of the income. It is felt that in these classes there might have been a tendency to over estimate the expenditure. However, on the basis of this survey a definite statement cannot be made in this respect. A more detailed study will throw more light. The last row shows the percentage of income spent for all the 352 house-holds.

Table 10 annex shows the percapita income and expenditure distribution for food, clothing, medicine and miscellaneous items. Columns 5 to 8 show that as income of the household increases generally the percapita expenditure on various items also increases. The last column shows the per capita total expenditure on the above items of consumption. Here there is a monotonic increase in the total per capita expenditure with increase in income but the magnitude of increase in expenditure is much less than that of the income. The last row shows the average percapita expenditure for all the 352 house-holds.

Table 11 shows the distribution of the average number of rooms available in the houses, it also shows the percentage of houses in which bath room, w.c., electricity and water tap are available. From column four it can be seen that as income increases the average number of rooms available to the house-holds increases. On the average a house-hold in the highest income group possesses three more rooms compared to those in the lowest group. Availability of other civic facilities increases quickly with the increase in income. It is surprising that even in the income group 150-250 as much as 16 per cent of the house-holds do not possess a bath. On the basis of this, there is a need of improvement in civic facilities for the public. The last row as usual gives the average values for all house-holds.

Table 12 shows the distribution of the percentage of house-holds living in owned, and partly occupied and rented house. Another type of tenancy that came in the survey was rented and partly occupied ; but the incidence of such tenancy is very small. From the Table 12 it can be seen that 66% of the people have a house of their own.-of which 60 percent fully occupy their houses and 6 percent partly let out their houses and 34 percent people live in rented houses. From table 8 we find that about 29 percent of the house-holds pay rent ; the difference of 5 percent [34-29] is on account of the fact that the Govt, pay the rent of their employees and the five percent people are in the service of the Government. The proportion owning houses does not show marked difference over the income classes. However the proportion paying rent and the amount paid as rent both increases with the increase in income.

Table 13 shows the distribution of the percentage of children going to school. None of the children below 5 years of age go to school. In the age group 5-9, 61 and 50 percent of the male and female children respectively go to school. Obviously it is desirable that these percentages should be improved. In the age group 10-14, 86 percent of male and 74 percent of female children go to school. The distressing fact is the drop in the percentages in the next age group namely 15-19.

In this age group only 72 percent of the males and 54 percent of the females go to school. This is the age-group which supplies most of the students in the secondary schools. Considering the amount of importance given to Education in Libya more active participation of the population is desired in the Educational programmes. Female education needs considerable encouragement and improvement. Fifty percent, twenty-six percent and forty-six percent females in the age groups 5-9, 10-14, and 15-19 respectively are not going to school.

4. Summary and Conclusions

As has already been mentioned the present survey was mainly designed to give the students training in conducting sample surveys, the sample size was kept as small as possible. About one percent of the total house-holds within Benghazi City were interviewed. Fortunately the interviews were conducted by students of high intellectual calibre. Thus what we have lost in numbers we hope have been compensated due to efficiency of the investigators. A general problem in Socio-Economic surveys is the apathy or lack of cooperation of the respondents. A skilled interviewer is very necessary to draw out the respondents from their reluctant attitude. As usual, income figures were the most difficult to get. Some of the respondents had genuine difficulty in assessing their monthly income. Some were cautious and afraid of taxation. We feel that even though actual incomes reported might not be exact the pattern observed is not likely to be very much off the mark. Similarly the expenditures are the best guesses that the respondents could make. It is natural for a respondent, where he has not kept an actual record of expenditure, to be unable to give the amounts spent on various items of house-hold expenditure. We also expect that the averages quoted might be in error but the pattern is not likely to be wrong.

Some of the results obtained are summarised below.

1. Average Family size was found to be 4.3.

2. The mean per capita income was about £.L. 20 per month.
3. On the average thirty nine percent of the income of a household is spent on food, clothing, medicine and miscellaneous items taken together. Those who pay rent also, they spend on the average 64 percent of their income. In the low and medium income groups savings are nil and some-times people spend more than their income.
4. Majority of the house-holds have their own houses but improvement in civic facilities specially in the low and middle income groups will be welcome.
5. About 73 percent of the male children between ages 5-19 go to the school while among the female children in the same age group only 59 percent go to school. These call for improvement.

5. Acknowledgement

Field work was carried by Messrs Taher El Gehami, Ajaili Sarkaz, Ashour Aghaibi, A. El Tbouly, Ali M. Younes, Salem Mustafa and Bulqassem Ahmed. Their individual summarices of questionnaires filled by each and their reports on them have been heavily drawn upon in preparation of this consolidated report. They deserve our praise and thanks. We offer special thanks to Mr. Taher El Gehami who acted as the leader of the team and contributed more than his due share.

We take this opportunity to express our thanks to Professor Misbah El Oreibi, Dean of the Faculty of Economics and Commerce for his keen interest in sample survey studies of Libyan population.

TABLE 1
Distribution of Heads of House-holds by Profession

Profession	Number of House-holds	
Service	181	0.509
Business	96	0.270
Teaching	19	0.054
Agriculture	7	0.020
Religious	2	0.006
Others	50	0.141
Total	355	1.000

TABLE 2
Age - Sex Composition & Distribution of member
in the house-holds by civil Status

Age-group	SEX		MALE			FEMALE		
	Male	Female	married	un-mar	others	married	un-mar	others
0 — 4	105	126		105			126	
5 — 9	111	107		111			107	
10 — 14	75	74		75			74	
15 — 19	60	63		60		27	35	1
20 — 24	68	78	15	53		66	9	3
25 — 29	99	69	47	50	2	68	1	
30 — 34	69	46	63	6		45		1
35 — 39	50	27	50			25		2
40 — 44	38	49	37		1	41		8
45 — 49	28	31	28			22		9
50 — 54	37	19	35		2	12		7
55 — 59	19	11	15		4	6		5
60†	23	22	23			10		12
Total	782	722	313	460	9	322	352	48

TABLE 3
Distribution of the members of house-holds by
ECONOMIC STATUS

Age-group	MALE			FEMALE		
	Earner	Earning Dependent	non- earning dependent	Earner	Earning Dependent	non- earning dependent
0 — 4			105			126
5 — 9			111			107
10 — 14		3	72			74
15 — 19	1	18	41		3	60
20 — 24	28	28	12	1		77
25 — 29	85	12	2		1	68
30 — 34	63	4	2		2	44
35 — 39	50		0	1		27
40 — 44	37		1			48
45 — 49	28		0			31
50 — 54	35		2			19
55 — 59	15		4			11
60†	15	2	6			22
Total	357	67	358	2	6	714

TABLE 3 A
Distribution of the Activity Status of the Members in the
house-hold

ACTIVITY	MALE		FEMALE	
	Frequencies	Proportion	Frequencies	Proportion
Gainful	445	.569	8	.011
Domestic work	2	.003	373	.516
Student	180	.230	142	.197
Nil	155	.198	199	.276
Total	782		722	

TABLE 4

Age - Distribution of the members of the house-holds

Age Group	Total Population	Proportion
0 — 4	231	.1536
5 — 9	218	.1449
10 — 14	149	.0990
15 — 19	123	.0818
20 — 24	146	.0971
25 — 29	168	.1117
30 — 34	115	.0765
35 — 39	77	.0512
40 — 44	87	.0578
45 — 49	59	.0392
50 — 54	56	.0372
55 — 59	30	.0200
60†	45	.0300
Total	1504	1.0000

TABLE 5

Distribution of monthly personal Income of the heads of the house-holds

Income Class £L.	Number of Persons	Proportion	Cumulated Proportion
0 — 40	94	0.269	0.269
40 — 70	150	0.430	0.699
70 — 100	55	0.158	0.857
100 — 150	21	0.060	0.917
150 — 250	21	0.060	0.977
250†	8	0.023	1.000
	349	1.000	

Modal Class £L. 40—70
 Median Income £L. 56
 Mean Income £L. 68.860

TABLE 6
Distribution of average monthly Income of the
house-holds

Income Class £L.	Number of house-holds	Proportion	Cumulated Proportion	Mean	Variance in each Class
0— 40	66	0.187	0.187	29.6	16.20
40— 70	133	0.378	0.565	51.2	70.29
70—100	76	0.216	0.781	80.8	68.75
100—150	33	0.094	0.875	114.0	154.12
150—250	31	0.088	0.963	174.3	626.67
250†	13	0.037	1.000	434.2	20454.28
Total	352	1.000		147.4	

Modal Class £L. 40—70

Median Income £L. 61

Mean Income £L. 147.4

TABLE 7
Distribution of Per - Capita Income

Income Class £L.	Number house-hold	Number of Persons	Average size of house-hold	Total Income	Percapita Income
0— 40	66	220	3.3	1956.50	8.893
40— 70	133	548	4.1	6817.01	12.439
70—100	76	323	4.3	6143.17	19.019
100—150	33	173	5.2	3762.00	21.019
150—250	31	163	5.3	5404.00	33.154
250†	13	77	5.9	5643.93	73.298
Total	352	1504	4.3	29726.61	19.756

TABLE 8
Average Monthly Disbursement of House-holds

Income Class £L.	Number of House-holds	Mean Monthly Income £L.	Average Monthly Expenditures						TOTAL**
			Food	Clothing	Size*	Rent	Medicine	Miscellaneous	
0—40	66	29.6	16.137	2.691	(13)	11.923	1.224	1.439	21.491
40—70	133	51.2	24.466	4.285	(31)	14.548	1.370	6.015	36.136
70—100	76	80.8	32.171	5.292	(25)	25.520	2.240	9.303	49.010
100—150	33	114.0	38.424	8.270	(13)	36.847	2.879	11.303	60.876
150—250	31	174.3	45.645	7.112	(13)	53.861	3.742	13.065	96.564
250†	13	434.2	59.846	10.128	(6)	83.333	5.769	28.923	104.667
Total	352	147.4	36.115	6.296	(101)	37.672	2.871	11.674	56.956

(*) The figure in the brackets indicate the number of house-holds paying rent. Mean rent paid is calculated from those house-holds only who pay rent.

(**) The total is obtained excluding the Average rent as all house holds are not paying rent.

TABLE 9

Distribution of Expenditure as Percentage of Income

Income Class £L.	Number of households	Mean Monthly Income	Expenditure					Total*
			Food	Clothing	Medicine	Misc.	Rent	
0—40	66	29.6	55	9	4	5	40	73
40—70	133	51.2	48	8	3	12	28	71
70—100	76	80.8	40	7	3	12	32	62
100—150	33	114.0	34	7	3	10	32	54
150—250	31	174.3	21	4	2	8	31	35
250†	13	434.2	14	2	1	7	19	24
Total		147.4	24	4	2	8	26	38

* Excluding rent

TABLE 10

Per - Capita Income and Expenditure Distribution

Income Class £L.	Number of House-holds	Number of Persons	Per Capita Income	Per Capita Expenditure				
				Food	Clothing	Medicine	Misc.	TOTAL
0—40	66	220	8.893	6.054	1.007	0.324	1.009	8.394
40—70	133	548	12.439	6.857	1.261	0.383	1.980	10.481
70—100	76	323	19.019	8.316	1.362	0.557	2.517	12.751
100—150	33	173	21.745	8.173	1.874	0.541	3.128	13.716
150—250	31	163	33.154	9.361	1.621	0.734	2.694	14.410
250†	13	77	73.298	11.182	1.985	1.183	5.249	19.599
Total	352	1504	19.756	8.324	1.518	0.620	2.763	13.225

TABLE 11

Distribution of the average number of rooms and percentage of houses where certain facilities are available to the house-holds

Income Class £L.	Number of House-holds	Average Number of Person per House-holds	Average Number of Rooms per House-holds	Percentage of houses having the facilities			
				Bath room	W.C.	Electricity	Tap-water
0—40	66	3.3	2.2	29	79	40	36
40—70	133	4.1	2.8	58	92	67	72
70—100	76	4.3	3.3	80	98	89	88
100—150	33	5.2	3.3	85	100	91	91
150—250	31	5.3	3.9	84	100	93	97
250†	13	5.9	5.0	100	100	100	100
Total	352	4.3		73	95	65	87

TABLE 12

Distribution of the percentage of house-holds Living in Owned, Owned & Partly Occupied and rented houses

Owned and partly Occupied	Owned and fully Occupied	Rented
6	60	34

TABLE 13

Distribution of the percentage of children going to school

Age-Group	Percentage of children going to school	
	MALE	FEMALE
5 — 9	61	50
10 — 14	86	74
14 — 19	72	54