

Report on the

2008-09 Household Income and Expenditure Survey

for Fiji

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Abbreviations

AE	Adult Equivalent (children 0 to 14 = half an Adult; Over 14 = 1 Adult)
BNPL	Basic Needs Poverty Line: The dollar value of a basket of food and non-food expenditure items considered necessary to be out of poverty (= FPL +NFPL).
CPI	Consumer Prices Index
Decile	10% of the group by population or households as specified.
EA	Enumeration Area
FIBoS	Fiji Islands Bureau of Statistics
FPL	Food Poverty Line: the dollar value of a basket of food items which a particular group of the population would consume, providing the minimum nutrition requirements.
Hh	Household
HIES	Household Income and Expenditure Survey
NFPL	Non-Food Poverty Line: the dollar value of non-food items of expenditure considered to be the minimum necessary for a household not to be in poverty.
pa	per annum
pc	per capita
pm	per month
pAE	Per Adult Equivalent
pw	Per week
Quintile	20% of the group by population or households as specified.

Preface

This Report presents the major findings of the 2008-09 Household Income and Expenditure Survey which will be of interest to FIBoS stakeholders in patterns of income and expenditure in Fiji. This Report supersedes the earlier Preliminary Report on the 2008-09 HIES published last year.[1] The last HIES had been conducted in 2002-03 after a long gap, a Report published, and ancillary studies done.[2] This survey has been conducted with excellent participation by the general public and the Bureau believes that not only is there greater reliability in the survey results presented in this report, but extremely useful comparisons may also be made with the results of the 2002-03 HIES.

For FIBoS, a primary use of the data on household expenditure is to revise the weights for its Consumer Prices Index (CPI), so as to ensure that the basket of goods and services which are priced for the calculation of the CPI is reasonably close to what the "average" Fiji household consumes. However, the income and expenditure data are also very useful for other policy and statistical purposes. Some of the data is necessary for a more accurate estimation of national accounts of income and expenditure. Also, income and expenditure data at the household level, disaggregated by urban/rural areas, divisions, and ethnic categories, as well as major sources of income, can be extremely useful for the analysis of poverty and guidelines for poverty alleviation policies. There is evidence of reduced aggregate poverty nationally and especially in the urban areas, while rural poverty has increased between the two HIES.

The expenditure data is also very useful for examining trends in consumption patterns which have a bearing on the well-being of the Fiji economy, especially in the areas of food security, and new important items of consumer expenditure such as mobile phone costs. This Report therefore contains much "micro" data which both government planners and private stakeholders will find interesting and useful, especially the continued trend of greater consumption of processed and imported foods, and the very significant increase in mobile phone expenditure.

An important objective of this Report is to present key findings which will be of interest to the public stakeholders at large, rather than presenting masses of technical data and tables which few have the time to analyze and digest. Such tables will be available from the Bureau on request.

The Bureau's Household Survey Unit, under the management of Mr Epeli Waqavonovono (Chief Statistician), conducted the survey. Senior Bureau staff Mr Toga Raikoti (Principal Statistician) and Mr Serevi Baledrokadroka (Principal Statistician, Survey Unit) were responsible for the processing and editing of the data.

As he also did with the 2002-03 HIES, Professor Wadan Narsey analyzed the 2008-09 HIES data and prepared this Report for publication.



Timoci Bainimarama
Government Statistician

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[1] Some numbers in this Report will have changed slightly from the earlier Preliminary Report as minor adjustments have been made to household weights and CPI deflators.

[2] See *Report on the 2002-03 Household Income and Expenditure Survey*. Fiji Islands Bureau of Statistics. 2006. Prepared by Dr Wadan Narsey.

A Introduction

1. A national household income and expenditure survey (HIES) is a critical component of the work of the Fiji Islands Bureau of Statistics. It provides the data which is necessary for the periodic revision of weights for the Bureau's Consumer Prices Index and other indices, assists in the compilation of national accounts, the formulation of fiscal and social policies of government, and helps government and the private sector in their planning processes. A HIES, by providing income, expenditure and other data at the household level, is especially useful in the analysis of the national incidence of poverty and a better targeted formulation of poverty alleviation measures.

2. The Fiji Islands Bureau of Statistics (FIBoS) has conducted a number of Household Income and Expenditure Surveys (HIES) previously in 1977, 1991 and 2002-03.[3] The results of the 1990-91 HIES were deemed by the FIBoS to be unreliable.[4] However, while no report was produced, the data was used, following major adjustments, to assist in the poverty analysis[5] that was the basis of the 1997 Fiji Poverty Report (1997 FPR).[6] The 2002-03 HIES results were more reliable statistically. Readers may read the Report of the 2002-03 HIES for further information on this survey.

3. Annex A gives the details of the survey methodology and implementation of the 2008-09 HIES, which was carried out between June 2008 and May 2009.

4. The 2008 analysis in this Report is based on the 2008-09 HIES data at the household level, provided to the consultant by the FIBoS.[7] The 2002-03 data was that provided to the consultant partly by a previous consultant to FIBoS when the 2002-03 data was initially being analyzed, and partly recently by FIBoS in order to facilitate comparisons with the 2008-09 data.[8]

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[3] The earliest HIES was in 1943 covering 23 European families. This was followed a year later with a survey covering only Indo-Fijian workmen living in Suva. There were more comprehensive surveys in 1959, 1965, 1968, 1972, 1973, 1977, 1983, 1990-91 and 2002-03.

[4] One possible explanation of the unreliability of the 1990-1991 data is that with the survey following closely after the 1987 coups, there was considerable public distrust of government requests for information.

[5] The main resource documents for this Report were Denis Ahlburg's consultancy reports (December 1995, May and August 1996).

[6] This 1997 Poverty Report was produced jointly between the UNDP and the Fiji Government.

[7] This Report was begun while the author (Professor Narsey) was teaching at USP, and completed while on sabbatical at the Kagoshima University Research Centre for Pacific Islands, to whom the author is grateful for providing the time and space for this work.

[8] The initial 2002-03 data was provided by SPC consultant (Dr Kim Robertson) who prepared the raw HIES data for poverty and food consumption analysis. The recent 2002-03 data was provided by Mr Toga Raikoti, and there may be some minor differences with the initial 2002-03 data, because of possible differences in methodology in aggregating the data into the divisions which have changed between 2002-03 and 2008-09.

5. A Preliminary Report, which is now superseded by this one, was published in September 2010.[9]

6. In this Report, details of income and expenditure are provided in total and disaggregated form by area (rural/urban), division, ethnicity and other variables that stakeholders may be interested in.

7. The Imputed Rents data for both 2002-03 and 2008-09 have been estimated using Actual Rents Paid data. These estimations are necessarily differentiated between Urban and Rural, Central and other divisions, classes of settlements and types of houses. With the 2008-09 sample size being almost a half of that in 2002-03 for urban households, the number of Rent Paid observations was virtually halved. This meant that the number of regressions possible using Actual Rents Paid data was reduced, hence there may have been a loss of some consistency in methodology between the estimation of imputed rents for 2002-03 and for 2008-09.

8. Because of the interest in the characteristics of rich and poor households, some tables are given with decile or quintile distributions, which may be in terms of households or population. The latter is preferred as it contains an exact number of persons in both periods. Deciles of households usually contain different numbers of persons, which differ between rich and poor families, region to region, ethnicity, and by time, given that household sizes have generally been decreasing in Fiji. More detailed analysis will be given in a poverty report to be prepared soon.

9. Given that the 2007 Census results and the 2010-11 Employment and Unemployment Survey results on detailed labour market conditions should be available soon, it has been decided not to use the 2008-09 HIES data for analyses in this area, as was done with the 2002-03 HIES.

10. Where thought useful, comparisons are made with the 2002-03 HIES results. Given that comparisons between the 2002-03 HIES results and those for 2008-09 HIES results are based on "snapshots" at distinct points in time, crude conclusions need to be tempered by an understanding of the broad macro-economic changes taking place in between these two HIESs. The next section attempts to do so.

The macroeconomic background: 2002-03 to 2008-09

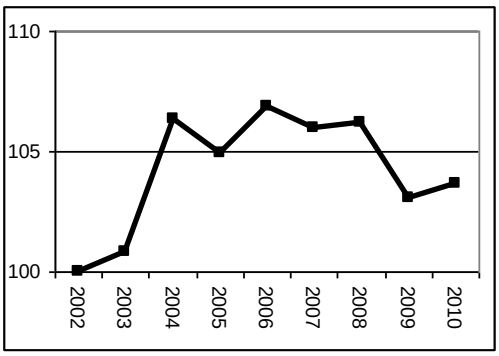
11. Gross Domestic Product gives a fairly good indication of the health of the economy over this period. While FIBoS has changed its GDP series from 1995 prices to 2005 prices, with the change occurring in the middle of the period under study, the data series on growth rates using 1995 prices can be spliced with that using 2005 prices to give the Graph A.1.

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[9] *Preliminary Report: Poverty and Household Incomes in Fiji 2008-09*. FIBoS. September 2010. Wadan Narsey, Toga Raikoti and Epeli Waqavonovono. "Real Percentage Changes" in the Preliminary Report have been corrected here.

12. GDP was generally increasing from 2002 to 2006, following which it declined somewhat, to 2009. With a growing population, the GDP per capita indicates a much large decline after 2006, reverting to just below the 2002 level by 2009 (Graph A.2).

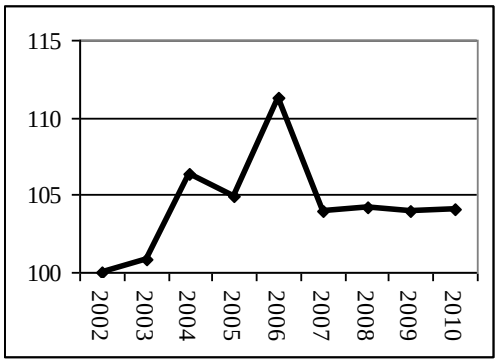
Graph A.1 Index Nos. GDP (constant prices)



13. Nevertheless, the situation during the 2008-09 HIES would have been slightly better than at the time of the 2002-03 HIES.

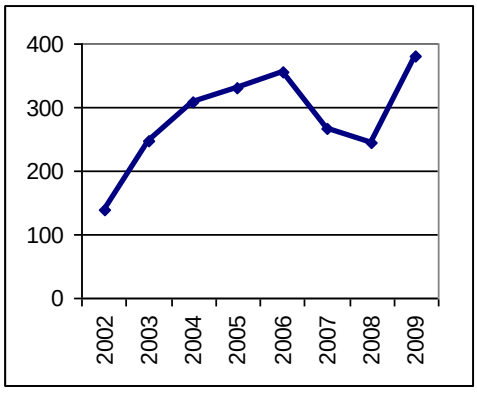
14. It is important to note also that GDP does not fully capture the well-being of the nation, as inward Remittances have been very large (over $300 million in recent years), and would be reflected in National Income for which there are unfortunately no data series. Remittances, growing strongly from 2002 to 2006, declined slightly to 2007 and 2008 before picking up again for 2009 (Graph A.3).

Graph A.2 GDP pc (constant prices)
(Index Numbers)



15. A good indication of the investment climate in Fiji during this period may be had from the series on the value of Building Permits Issued, Work in Place, and Value of Completion Certificates (Graph A.4). The graph indicates that there was some buoyancy leading up to 2006, but a general decline thereafter. It is expected that the values for Completion Certificates and Work in Place, will be lower for 2009.t

Graph A.3 Remittances ($m) (2002 pr.)

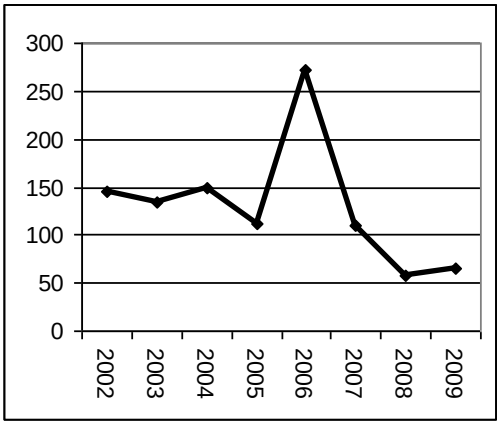


16. Another important indicator of the investment climate is the numbers of new vehicles registered (Graph A.5). This again shows a general rise up to 2005, a small decline in 2006, and a very large decline for 2007. This pattern was replicated for the new goods vehicles registered, which would be a good reflection of the commercial sector's investment activity.

17. The overall trends indicated by these graphs are mirrored by the trends in the two major industries in Fiji- tourism and sugar. Gross tourism earnings (2002 prices) were generally increasing from 2002 to 2005, but declined significantly in 2007 and 2009 (Graph A.6).

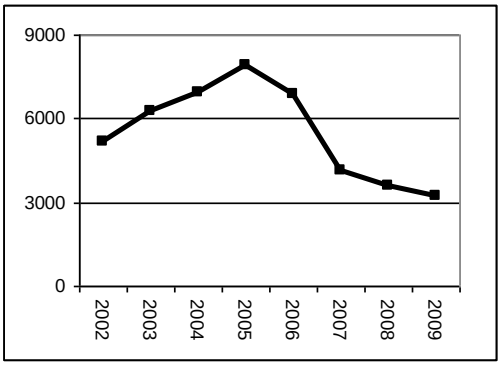
18. Sugar industry earnings however, have shown a steady decline from 2002-03 to 2009, suggesting that in the cane belt areas at least, there has been considerable worsening of conditions (Graph A.7).

Graph A.4 Building Permits, Work In Place and Work Completed ($ million)



19. This is also reinforced by the data on Loans to Agriculture as a proportion of Total Loans by the Commercial Banks and the Fiji Development Bank (Graph A.8). From 7 percent in 2000, the proportion steadily declined to about 2% in 2006. Loans to Sugar Cane farming have virtually disappeared, falling from 47% of all agricultural loans in 2000 to just around 5% in 2009. The bulk of the current loans to agriculture are to Forestry and Logging, non-sugar cane activities

Graph A.5 New Vehicles Registered

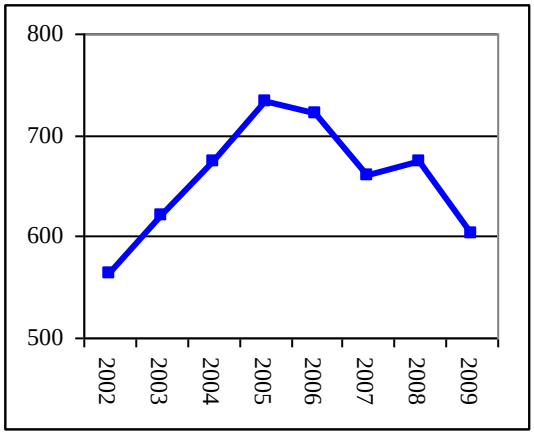


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20. These two graphs would suggest that economic activities in the rural areas have worsened between 2002-03 and 2008-09.

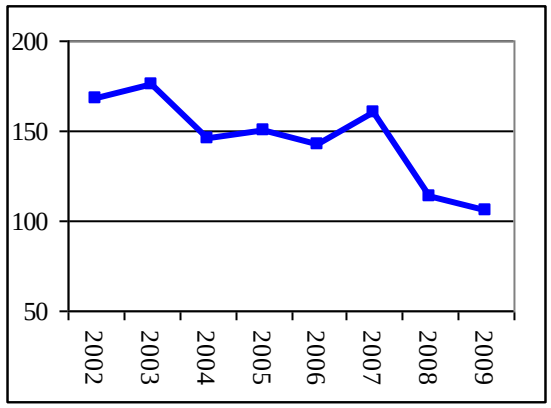
21. One last graph, Electricity consumption in millions of KWH (Graph A.9), suggests that even urban areas, which saw increasing consumption gradually from 2002 to 2006, saw significant declines from 2006 to 2008. While electricity consumption increased slightly in 2009, the level was around

Graph A.6 Gross Tourism Earnings ($m) (2002 prices)

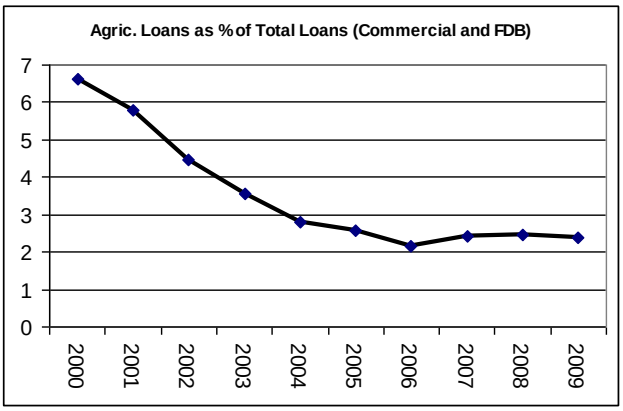


that of 2003, but still significantly higher than that in 2002.

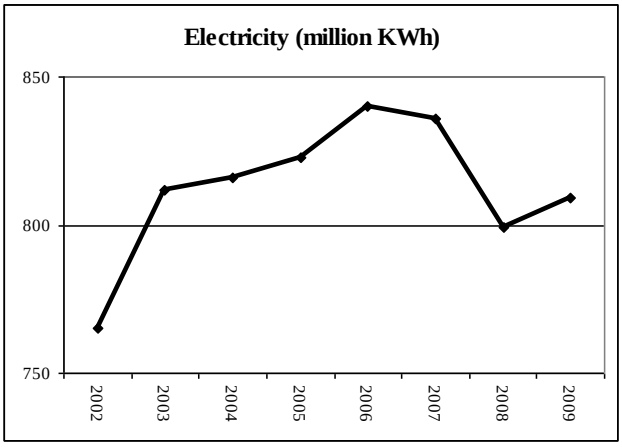
Graph A.7 Cane Farmers' Earnings ($m) (2002 prices)



Graph A.8 Agricultural Loans as % of Total Loans



Graph A.9 Electricity Consumption (million KWH)



B Survey and Household Demographics

22. Table B.1 indicates that there was a large reduction in the number of households being sampled in the two HIES, reducing by 32% in total. The number of urban households was reduced by 45% although the rural number was only reduced by 14%.

Table B.1 Sample Size (2002-03 and 2008-09

Area	2002	2008	% Ch.
	Count in Sample		
Rural	2230	1911	-14
Urban	3015	1662	-45
FIJI	5245	3573	-32
	Est. Households		
Rural	83680	86523	3
Urban	73001	88724	22
FIJI	156681	175246	12
	Sample Percent.		
Rural	2.7	2.2	-17
Urban	4.1	1.9	-55
FIJI	3.3	2.0	-39

23. The overall sample size reduced from 3.3% of the estimated number of households to 2.0%.

24. This reduction in sample size created difficulties for the estimation of Imputed Rents, as the number of households with actual rent paid data, was sharply reduced from 812 observations to 456. With Imputed Rent regressions being run separately by divisions, Rural/Urban, and classes of housing and residential neighborhoods, the number of regressions had to be reduced in order to maintain some statistical rigour. As a result Imputed Rent estimations were not as differentiated as would have been liked.

Table B.2 Estimated Occupants

Area	2002	2008	% Ch.
Rural	421980	412368	-2
Urban	346662	403039	16
Fiji	768643	815408	6
	Percentages		
Rural	55	51	
Urban	45	49	
Fiji	100	100	

25. Table B1 also indicates that the 2008-09 HIES indicates a fairly large 22% increase in the number of urban households, with rural households increasing only by 3%.

26. Table B.2 indicates that these HIES samples are consistent with the 2007 census results that while total population is estimated to have grown by 6%, rural population decreased by 2% while urban population increased by 16%. The rural and urban populations are now roughly equal.

Table B.3 Households (by ethnicity)

Ethnicity	2002	2008	% Ch.
iTaukei	78456	94827	21
Indo-F	71377	70386	-1
Other	6849	10033	46
FIJI	156681	175246	12
	Percentages		
iTaukei	50	54	
Indo-F	46	40	
Other	4	6	
FIJI	100	100	

27. Table B.3 also is consistent with the 2007 census results that the Indo-Fijian share of households has

declined from 46% in 2002-03 to 40% in 2008-09. iTaukei households have increased by 21% compared to the 1% reduction in Indo-Fijian households.

28. Table B.4 indicates that the changes in estimated occupants of households are more pronounced than the changes in households. The iTaukei population increased by 15% while that of Indo-Fijians declined by 10%. The Others rose by a large 41%.

Table B.4 Estimated Occupants (ethnicity)

Ethnicity	2002	2008	% Ch.
iTaukei	420182	484754	15
Indo-F	314899	283437	-10
Other	33561	47217	41
FIJI	768643	815408	6
	Percentages		
iTaukei	55	59	
Indo-F	41	35	
Other	4	6	
FIJI	100	100	

29. This is a reflection of the demographic fact that Indo-Fijian households are not only smaller than iTaukei households (by a full person), but their average size has reduced faster between the two HIESs, by 9% compared to a 5% reduction for iTaukei. The iTaukei households are now on average 27% larger than Indo-Fijian households, up from the 21% difference in 2002-03.

Table B.5 Average Household Sizes

Ethnicity	2002	2008	% Ch.
iTaukei	5.4	5.1	-5
Indo-F	4.4	4.0	-9
Other	4.9	4.7	-4
FIJI	4.9	4.7	-5
%(F-I)/I	21	27	

30. Table B.6 indicates that the largest concentration of population is in Central Division with around 40% of the total population, with the Western Division close behind with around 37%.

Table B.6 Occupants by Division

Division	2002-03	2008-09	% Ch.
Central	315203	324471	3
Eastern	44151	44154	0
Northern	131452	141050	7
Western	277837	305733	10
FIJI	768643	815408	6
	Percent		
Central	41	40	-3
Eastern	6	5	-6
Northern	17	17	1
Western	36	37	4
FIJI	100	100	

31. While these HIES estimates indicate that the Northern division households have increased their population by some 7%, this would seem to be somewhat at odds with the 2007 Census results which indicate that Northern Division has been suffering from a large outflow of population, mostly of Indo-Fijians.[10]

32. Comparisons between the HIES estimates of population and the 2007 Census numbers indicate that the Indo-Fijian HIES estimated population was around 10% less than the 2007 Census.

[10] This result may be due to errors in sampling and estimation of weights.

33. Table B.7 shows that while Child Dependency Ratios have declined for the two major ethnic groups, the decline for Indo-Fijians is larger (-18%) than for iTaukei (-11%). The margin between the iTaukei and Indo-Fijian Child Dependency ratios even in this short period appears to have increased from 59% to 74%, indicating the much greater burden placed by children on iTaukei households.

Table B.7 (0 to 14) as % (15 to 64)
Child Dependency Ratio

Ethnicity	2002-03	2008-09	% Ch
iTaukei	60	54	-11
Indo-F	38	31	-18
Other	49	56	15
FIJI	50	45	-9
%(F-I)/I	59	74	24

34. Table B.8 shows a quite unusual result that the Elderly Dependency Ratio – those over 64 as percentage of (15 to 54) has risen quite sharply in this period by a very large 52% for Indo-Fijians but a much smaller 8% for iTaukei. The difference between the two groups changed signs from 9% in 2002-03 to -22% in 2008-09. The elderly are already placing a heavier burden on Indo-Fijians and population projections indicate that the Elderly Dependency Ratio will rise to around 23% by 2027.

Table B.8 (>64) as % (15 to 64)
Elderly Dependency Ratio

Ethnicity	2002-03	2008-09	% Ch
iTaukei	6.2	6.7	8
Indo-F	5.6	8.6	52
Other	6.5	10.2	57
FIJI	6.0	7.6	28
%(F-I)/I	9	-22	-337

35. Given the opposite trends in Child and Elderly Dependency Ratios, the Total Dependency Ratio changed by the same -9% for both iTaukei and Indo-Fijians (Table B.9), although the Fijian Dependency Ratio remained 53% higher than for Indo-Fijians.

Table B.9 [(0-14) and > 64 as % of (15-64)
Total Dependency Ratio

Ethnicity	2002-03	2008-09	% Ch
iTaukei	66	61	-9
Indo-F	44	40	-9
Other	56	67	20
FIJI	56	53	-5
%(F-I)/I	53	53	

Working for Money

36. Table B.10 indicates that the percent Working for Money has increased by 14% from 29% to 33% while the overall numbers Working for Money increased by 21%.

37. There seem to be very low percentages working for money at ages 10 to 14 although the percentage at ages 15 to 19 shows a small 4%

Table B.10 Perc. of Age Group
Working For Money

Age Group	2002	2008	% Ch
B 10 to 14	0.2	0.5	110
C 15 to 19	9.6	10.0	4
D 20 to 24	39.7	42.7	8
E 25 to 34	53.6	58.8	10
F 35 to 54	57.9	62.2	7
G 55 to 64	35.7	42.9	20
H 65+	16.0	17.7	11
FIJI	28.9	33.0	14
All WFM	221866	268850	21

increase between the two HIES, to about 10% in 2008-09.

38. Of interest, given Fiji's official retirement age of 55, are the quite high proportions Working for Money between the ages of 55 to 64, rising by 20% from 36% in 2002-03 to 43% in 2008-09. Even at ages above 64, the proportion working for money also increased by 11% from 16% to 17.7%.

39. It would be useful to examine the extent to which both these increases in percentages working for money at the upper age levels, may be an indicator of increasing economic pressures on families, leading them to reduce their subsistence activities in favor of cash generating.

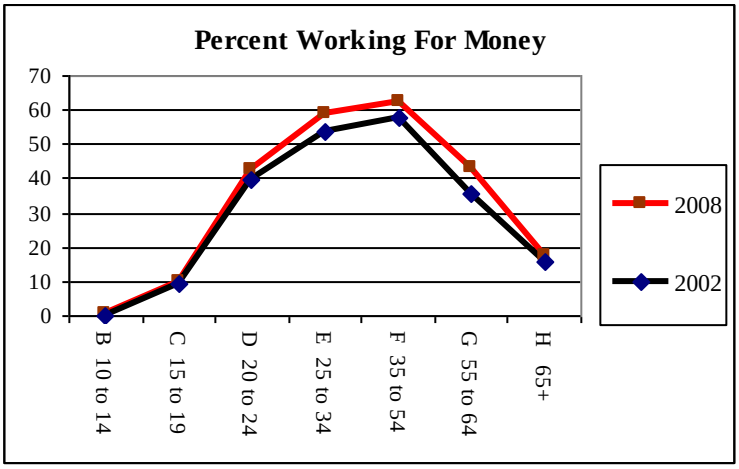
Table B.11 Perc. Working for Money (Rural/Urban Differences)

	2002	2008	%Ch.
Age group	Rural		
10 to 14	0.2	0.8	235
15 to 19	10	13	29
20 to 24	38	46	21
25 to 34	50	56	12
35 to 54	57	58	3
55 to 64	39	45	15
65+	19	21	10
Rural	27	31	15
	Urban		
10 to 14	0	0	-43
15 to 19	9	7	-21
20 to 24	41	40	-3
25 to 34	57	62	7
35 to 54	59	66	11
55 to 64	31	41	31
65+	11	14	20
Urban	31	35	13

40. Table B.11 indicates some rural:urban differences at both ends of the age scale. At the age group 15 to 19, not only are the percentages working for money higher in the rural areas, but the proportion has risen by 29% from 10% to 13%. In contrast, urban areas saw a decline of -21% from 9% to 7%- a reflection probably of higher proportions staying on in school.

41. At the other end of the age scale, those working for money between the ages 55 to 64 increased in rural areas by 15% from 39% to 45%, while in urban areas, there was an even higher 31% increase from 31% to 41%. Both rural and urban areas saw an increase in proportions working for money at the higher 65 and above age group.

Graph B.1 Percent. of Age Group Working for Money



Subsistence

Table B.12 Subsistence Workers (area)

Area	2002	2008	% Ch.
Rural	131592	165006	25
Urban	41094	65404	59
FIJI	172686	230410	33
% Urban	24	28	

42. The Subsistence economy has always been important in Fiji. While it might have been thought that this is of declining importance, Table B.12 indicates that it is employing more persons than before, increasing from 173 thousands to 230 thousands in 2008-09- an increase of 33%. Thus two processes are occurring simultaneously- increasing involvement in subsistence and cash economy. The time spent on each would be useful to ascertain.

Table B.13 Subsistence Workers (division)

Division	2002	2008	% Ch.
Central	53155	64487	21
Eastern	18165	20401	12
Northern	50629	66805	32
Western	50737	78718	55
FIJI	172686	230410	33

43. Unusually, the increase was a much higher 59% in urban areas, while the rural areas saw an increase of 25%. The urban share of subsistence workers therefore increased from 24% to 28%.

44. Table B.13 indicates another interesting result that the largest increase of 55% has been in the Western Division, possibly a reflection of the decline of the sugar industry. There also have been moderate increases for the Northern (32%) and Central (21%) divisions.

Table B.14 Subsistence workers (ethnicity)

	2002	2008	% Ch.
iTaukei	119494	167705	40
Indo-Fijians	47712	53693	13
Others	5480	9012	64
	172686	230410	33
	Perc. Composition		
iTaukei	69	73	5
Indo-Fijians	28	23	-16
Others	3	4	23
	100	100	

45. As would be expected, given the national demographic changes, indigenous iTaukei saw a large increase of 40% in subsistence workers, but Indo-Fijians also saw a moderate increase of 13%, no doubt related to the decline in sugar cane farming activities. The Indo-Fijian share of subsistence workers did decline, however, from 28% in 2002-03 to 23% in 2008-09.

Reasons For Not Working

46. In the HIES questionnaires on the demographic details of the occupants of all the households, if the person is not working, he/she is asked to be described as: Household Workers[11], Not Seeking Work, Available for Work, Retired/Pensioners, Available for Work, Students, and Others.

[11] Classifying Household Workers as "not working" is totally inappropriate in the current era. It is important that by the next HIES the questionnaires are modified to ensure that full-time Household Workers are classified amongst those "working".

47. Table B.15 gives the somewhat surprising result that while the total number of full-time Household Workers increased by 19%, that for Males reduced by 33%. The percentage of male full-time household workers reduced from the already low 2.0% to 1.1%. There would not seem to be any progress towards a more gender neutral sharing of full-time household work, and perhaps even a deterioration.

Table B.15 Full-time Household Workers

	2002	2008	% Ch.
Female	96230	115310	20
Male	1964	1312	-33
All	98194	116622	19
Perc. Male	2.0	1.1	

Table B.16 Not Seeking Work (gender)

	2002	2008	% Ch.
Female	30603	4123	-87
Male	8987	6445	-28
Total	39590	10568	-73

48. The numbers of people Not Seeking Work dropped dramatically from around 40 thousands to 11 thousands, with the largest decline of -87% taking place amongst Females, dropping from 31 thousand to 4 thousand. This result needs to be treated with great caution.[12]

49. Table B.17 indicates that while the number of Retirees/Pensioners increased by 12% between the two HIES, that for Males increased by 25% while that for Females decreased by -12%. While an increasing proportion of the elderly are females, Females as a proportion of the retired/pensioners, has further reduced from 36% to 28%. These results need further analysis as simplistic conclusions may be quite erroneous.

Table B.17 Retired/Pensioners (gender)

	2002	2008	% Ch.
Female	4292	3775	-12
Male	7665	9584	25
Total	11957	13359	12
Perc. Female	36	28	

50. Table B.18 reinforces the gender analysis above, with Females declaring to be unemployed increasing by 21% while male Unemployment declined slightly. The Female share of the Unemployed therefore increased from 39% in 2002-03 to 43%.

Table B.18 Unemployed (gender)

	2002	2008	% Ch.
Female	10602	12818	21
Male	16905	16700	-1
Total	27507	29518	7
Perc. Female	39	43	

Table B.19 Unemployed (Area)

Area	2002	2008	% Ch.
Rural	9127	10401	14
Urban	18379	19117	4
FIJI	27507	29518	7
% Urban	67	65	

[12] There needs to be some caution in interpreting questions where the interviewees are asked whether they are seeking work or not, available for work or not, or unemployed.

51. Table B.19 indicates that while a larger proportion of those declaring themselves formally unemployed were in Urban areas (two thirds), the rural unemployed had the larger growth of 14% compared to the 4% growth in urban areas.

Table B.20 Unemployed (Division)

Division	2002	2008	% Ch.
Central	11084	11303	2
Eastern	332	509	53
Northern	1306	2940	125
Western	14785	14766	0
All	27507	29518	7

52. Table B.20 indicates that the largest growth in unemployment appears to have occurred in Northern Division (with an increase of 125%) although the largest proportion is still in Western Division.

53. Table 21 shows a strong ethnic dimension to the unemployment with the numbers of iTaukei unemployed growing by 35% and the numbers of Indo-Fijian unemployed declining by -28%. By 2008-09, the iTaukei share of the unemployed had increased from 53% to 67%.

Table B.21 Unemployed (ethnicity)

	2002	2008	% Ch.
iTaukei	14614	19700	35
Indo-F U	11782	8482	-28
Other U	1111	1335	20
	27507	29518	7
% iTaukei	53	67	

54. The above trends are partly reflected in the 15% increase in the numbers of persons declaring themselves Available for Work (Table B.22). As would now be expected, there was a large 30% increase for Females declaring they were available for work, as opposed to Males, whose number in this category increased by only 5%.[13] The female percentage of those Available for Work increased from 38% to 43%.

Table B.22 Available for Work (gender)

	2002	2008	% Ch.
Female	10602	13778	30
Male	17128	18056	5
Total	27730	31834	15
% Female	38	43	

[13] Unusually, the number stating they were "Available for Work" was higher than the number "Unemployed".

Employment Status

55. Table B.23 suggests that with all the employment numbers increasing moderately, there has been very little change in the Employment Status structure of the workers in the households. Some 53% remain as Wages and Salary persons, while the Self-employed (a large proportion of whom are subsistence persons) remained around 23%.

Table B.23 Employment Status of Economically Active

	2002	2008	% Ch.
A Wage/Salary	151394	182043	20
B Employer	3869	4395	14
C Self-employed	65788	78093	19
D Unpaid Fam./Commun.	39216	48570	24
Unemployed	27507	29518	7
Total	287774	342619	19
	Perc.		
A Wage/Salary	52.6	53.1	1
B Employer	1.3	1.3	-5
C Self-employed	22.9	22.8	0
D Unpaid Fam/Comm	13.6	14.2	4
Unemployed	9.6	8.6	-10
FIJI	100.0	100.0	100

56. Unpaid Family and Community Workers have risen slightly to 14% of the Economically Active.

57. Table B.24 indicates that in all employment categories, the rural share declined between the two HIES: -11% for Wages and Salary persons, -30% for Unpaid Family and Community work and -59% for Employers. The overall rural share of employment declined from 58% to 51%.

Table B.24 Perc. Of Employment Rural

Perc. Rural	2002	2008	% Ch
A Wage/Salary	39	35	-11
B Employer	54	22	-59
C Self-employed	81	80	-1
D Unpaid Fam/Comm	96	67	-30
ALL	58	51	-13

58. Table B.25 shows some small improvement for Females overall, increasing their share from 30% to 33% of the Economically Active with the share of Wages and Salary increasing by 6% from 29% to 31%.

Table B.25 Female Share of Employment Status

	2002	2008	% Ch
A Wage/Salary	29	31	6
B Employer	21	21	1
C Self-employed	16	24	50
D Unpaid Fam/Comm.	55	54	-1
All	30	33	11

59. The largest increase (of 50%) was in the share of Self-Employed which rose from 16% to 24%, suggesting that recent initiatives to encourage women in self-employment may be showing results.

C Incomes

60. Table C.1 compares the HIES estimates of Total Household Income with the macro-economic indicators for Fiji such as Gross Domestic Product and Gross National Income. Despite the effects of the 2006 political upheavals and the general economic stagnation the results indicate that total household incomes in aggregate in Fiji improved between the HIES by 53% in nominal terms and 20% in real terms, adjusted for the CPI inflation of 27.1% from 2002 to 2008-09 (line 1)[14]. The HIES incomes were therefore picking up 58% of GDP in 2002 and 63% in 2008 (line 3).

Table C.1 HIES Est. and Gross National Income pc ($m and %)

	2002 -03	2008 -09	% Ch.	Real % Ch.
1.HIES Tot. Incomes ($m)	1998	3048	53	20
2.GDP ($m)(curr. prices)	3465	4861	40	10
3. HIES Est. as % of GDP	*58*	*63*		
4.Est. HIES Population	768643	815408	6	
5.HIES Income pc ($)	2600	3738	44	13
6.GNI pc (WB database)	2180	4010	84	45
7.HIES Inc.pc as % GNI pc	*119*	*93*		

61. The overall HIES income per capita increased by 44% in nominal terms and 13% in real terms. This suggests an overall aggregate improvement had taken place, although disaggregation will be necessary since the improvements were not homogenous throughout the economy.

62. With GDP not including remittance receipts which have become quite large in Fiji in recent years, it is useful to examine Gross National Income per capita which does. This is indicated to have increased by a very large 84% in nominal terms and a still large 45% in real terms (line 6, Table C.1). Thus the HIES income pc as a proportion of GNI pc was a very high 119% in 2002 but declined to 93% in 2008 (line 7, Table C.1).[15]

Table C.2 Total Est. Incomes (Rural and Urban)

Area	2002-03	2008-09	% Ch.	R % Ch.
Rural	884	1004	14	-10
Urban	1115	2044	83	44
All	1998	3048	53	20
% Rural	44	33		

[14] Wherever there is a reference to "Real % Changes)" this will be the result of adjusting for a 27% increase in the CPI change from 2002 to 2008-09. The CPI adjustment is taken from 2002 and not from 2002-03. With the urban part of that survey done in 2002 and the rural part done mostly in 2003, the rural values were all adjusted back to 2002 to enable a composite analysis. This procedure also had to be followed for the adjustment of the Non-Food Poverty Line to obtain the BNPL values for 2008-09. This adjustment was over-looked in the Preliminary Poverty Report for 2008-09. For specific items where price deflators are available, they were used rather than the CPI change. The Food deflator was 1.425.

[15] This may indicate that the official estimates of remittance earnings for 2002- were significantly under-estimated. This issue seems to warrant further investigation and research.

63. Table C.2 indicates that the improvements in Total Household Incomes have generally been confined to urban areas, with a nominal increase of 83% and real increase of 44%.

64. The rural areas have seen Total Household Incomes decline by 10% in real terms. The net result has been that the rural share of incomes has dropped from 44% in 2002-03 to 33% in 2008-09.

Table C.3 Average Household Incomes

Area	2002	2008	% Ch.	Real % Ch.
Rural	10559	11608	10	-13
Urban	15267	23036	51	19
All	12753	17394	36	7
% (R-U)/U	-31	-50		

65. Similar patterns are evident with average household incomes, with the national average rising by 36% in nominal terms, and 7% in real terms. This reflected the opposite changes of a real 19% increase in urban households and a decline of 13% in rural households. The gap between rural and urban households increased further from -31% to -50%.

66. To more accurately reflect the changes in standards of living, it is useful to adjust for household sizes.[16] Table C.4 indicates the same patterns with rural income per capita decreasing in real terms by 8% and urban incomes per capita increasing by 24%. Overall aggregate income per capita improved by 13%.

Table C.4 Av. Household Income per capita ($)

Area	2002	2008	% Ch.	Real % Ch.
Rural	2094	2436	16	-8
Urban	3215	5071	58	24
All	2600	3738	44	13
% (R-U)/U	-35	-52		

67. Averages may be unduly influenced by extreme values, whether low or high. In countries with uneven income distribution, Average Household Incomes are usually pulled upwards by small numbers of high incomes. The "median" household income often gives a better idea of the "average" household.[17] Table C.5 therefore indicates a slightly different result. In

Table C.5 Median Household Incomes ($ and %)

	2002	2008	% Ch.	Real % Ch.
Rural	8264	9573	16	-9
Urban	11520	17037	48	16
FIJI	10010	12200	22	-4
%(R-U)/U	-28	-44		

[16] While the more accurate indicator is Income per Adult Equivalent (which differentiates between children and adults, and is the indicator used for poverty analysis) the public more easily understand "Income per capita" which is household income divided by the number of occupants.

[17] The "Median" household incomes are derived by first ranking the households by Household Income and then selecting the middle household (50% household). Note that ranking by total household income does not select the household with the middle standard of living, which would require ranking by Household Income per Adult Equivalent.

contrast to the Average Household Income, the Median Household income for Fiji in aggregate declined by 4%. The urban median increased by 16% and the rural median declined by 9%. The gap between the rural and urban median incomes increased from -28% to -44%.

Table C.6 Median Household Incomes as % of Average Household Incomes

	2002	2008	% Ch.
Rural	78	82	5
Urban	75	74	-2
FIJI	78	70	-11

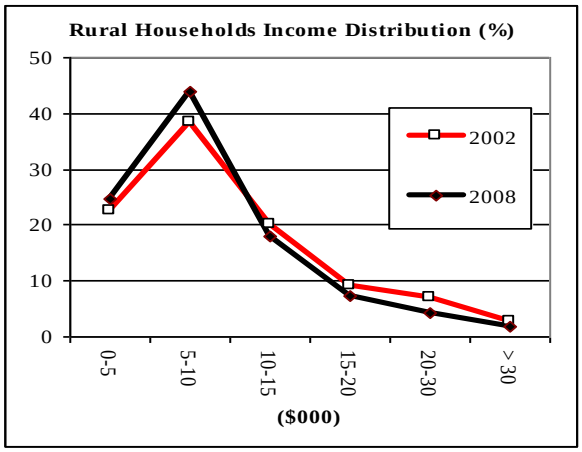
68. Table C.6 gives yet another interesting perspective by examining Median Household Incomes as a proportion of Average Household Income.[18] While the proportion for Fiji in aggregate declined from 78% to 70%, and that for Urban households by -2%, that for Rural households increased by 5% from 78% to 82%. This would suggest that the decline in rural household incomes may have been larger in the top half of the distribution, which would normally be the households depending on cash incomes (mostly from the sugar cane industry).

Table C.7 Changes in Income Distribution (2002-03 prices)

HH Inc	Rural	Rural	*Rural*	Urban	Urban	*Urban*
$000	2002	2008	*% Ch.*	2002	2008	*% Ch.*
0-5	23	25	*9*	12	8	*-31*
5-10	38	44	*14*	30	26	*-15*
10-15	20	18	*-10*	23	22	*-2*
15-20	9	7	*-19*	13	16	*26*
20-30	7	4	*-41*	12	14	*10*
> 30	3	2	*-39*	10	14	*43*
All	100	100		100	100	

69. Table C.7 (and Graph C.1) tries to get a clearer picture of this extremely important result, by comparing 2002-03 household incomes with 2008-09 household incomes deflated by the CPI. This confirms the conclusion that in rural areas, the percentage of households increased at the lowest income levels (positive changes in the proportions), while significantly declining at the higher income levels (negative changes in the proportions). Graph C.1 indicates the peak for 2008 being higher than the peak for 2003, while the percentages at the higher levels have been lower for 2008 than for 2002.

Graph C.1 Rural HH Income Distribution (%)
(2008 incomes deflated to 2002 prices)



[18] The Rural and Urban median incomes have been estimated separately for rural and urban distributions.

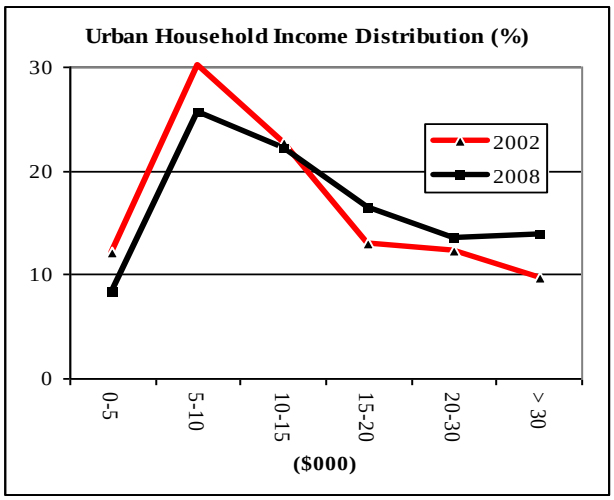
Table C.8 HH Inc. Distribution (2008-09) %

$000	Rural	Urban	FIJI
0-5	7.1	2.7	9.8
5-10	19.4	8.3	27.7
10-15	11.8	10.9	22.6
15-20	5.4	7.9	13.3
20-25	2.8	6.4	9.3
25-30	1.2	3.7	4.9
30-40	1.1	4.4	5.5
40-50	0.4	2.6	3.1
>50	0.3	3.6	3.9
All	49.4	50.6	100.0
	46.	*36.*	*82.*

70. The opposite happened in urban areas: the percentages of households decreased at the lower levels (- ve signs) while they increased at the upper income levels). Graph C.2 indicates that the peak of incomes declined for 2008, while the percentages at the upper income levels increased.

71. These results may usefully be considered with the Gini coefficients presented in the Preliminary Report (p.17) which indicated that the overall Gini had worsened slightly, that for rural areas had improved (with the decline in upper incomes), and that for urban areas had worsened.

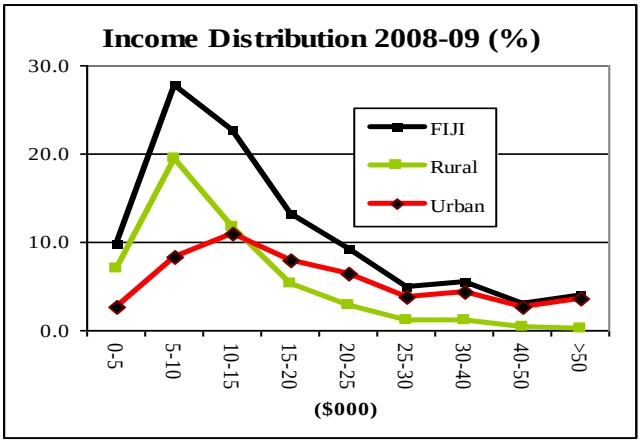
Graph C.2 Urban HH Income Distribution (%)



72. Table C.8 (and Graph C.3) gives the distribution of HH as a percentage of all households in Fiji. In 2008-09 they were roughly equally distributed between rural and urban areas. The peak of the rural household incomes (some 19%) are in the $5,000- $10,000) bracket, while the peak for urban households is in the ten to fifteen thousand bracket.

73. Some 83% of all households earn less than $25,000 of which 46% are in rural areas and 36% are in urban areas. Of the rural households, some 94% earn less than $25,000 while 72% of urban households earn less than that.

Graph C.3 Household Income Distribution (2008-09)



Sources of Income

74. A better understanding of the differential patterns of income changes may be obtained by first examining the changes taking place in the various types of income (Table C.9).

75. While Total Income of all the households was estimated to have increased by 53% nominally and 20% in real dollars (deflated by the 27.1% increase in CPI), the important production parts of the economy showed real declines of -32% for Commercial Business, -18% decline for Home Consumption and a large -14% decline for Agricultural Business. The latter decline is understandable given the collapse of the sugar industry. Far more accurate information on the agricultural sector will be available from the recent Agricultural Census. However, the very large decline in Commercial Business needs to be investigated further.

Table C.9 Major Income Sources ($m and % Change)

Data	2002	2008	% Ch.	R % Ch.
Wages Permanent	851	1344	58	24
Wages Casual	228	294	29	2
Agric. Business	197	216	10	-14
Comm. Business	145	126	-14	-32
Home Consumption	151	158	4	-18
Foreign Remittances	32	116	257	181
Local Remittances	16	35	113	67
Gifts Received	36	108	203	139
Other Income	342	652	91	50
Total Income	1998	3048	53	20

76. It is possible that this sector was not adequately picked up by the 2008-09 HIES because of the significant reduction in the urban sample from 4.1% in 2002-03 to only 1.9% in 2008-09. If this is the case then there may be a significant under-reporting of both Commercial Business income and Total Household Income for 2008-09.

77. It is of concern that Home Consumption declined by 18% in real terms suggesting that there is an ongoing decline in household self-sufficiency in food consumption.

78. Table C.9 indicates that there have been very large 58% nominal and 24% real increases in Permanent Income, probably a reflection of two factors. First, the increases in formal sector wages and salaries in the private sector during the period 2002-03 and 2006, were not reversed when the economy went into decline after 2006. Second, civil service salaries have kept increasing during this period, fueled by public sector deficit financing, even though the private sector economy has been in decline. Both increases are a cause for concern as it suggests that the formal sector waged and salaried persons are to some extent insulated from the private sector trends during down-turns, while enjoying benefits during times of prosperity.

Equity would suggest that the formal sector also needs to shoulder some of the burden of economic down-turns.

Table C.10 2008-09 Household Incomes Composition by Sources (%)

Data	2002	2008	% Ch.
Wages Permanent	42.6	44.1	4
Wages Casual	11.4	9.7	-15
Agric. Business	9.8	7.1	-28
Comm. Business	7.3	4.1	-43
Home Consumption	7.6	5.2	-32
Foreign Remittance	1.6	3.8	134
Local Remittances	0.8	1.1	39
Gifts Received	1.8	3.5	99
Other Income	17.1	21.4	25
Total Income	100	100	

79. The virtual stagnation of Casual Wages is of great concern given that the bulk of this type of income is earned by households a large proportion of whom are in poverty. Wages Councils have not been able to improve the incomes of the workers they cover because employers have pleaded inability to pay, due to the economic down-turn since 2006.

80. Table C.9 shows that many Fiji households may have been helped by the large increases in Foreign Remittances- 181% increase in real terms (probably underestimated), Local Remittances (67% increase in real terms) and Gifts Received (139% increase in real terms). These three transfer incomes amounted to $259 millions in 2008-09, a sum much larger than Commercial and Agricultural Business. Official Remittance receipts from abroad are estimated by the Reserve Bank to be about $250 million in 2008-09.

81. Table C.10 indicates the changes taking place in the composition of household incomes, with large decreases in the share of Casual Wages, Agricultural and Commercial Business and Home Consumption- all in the productive parts of the economy. The significant increases in shares are taking place largely in the different kinds of income transfers which have little to do with production.

Table C.11 Real % Ch. in Inc. (Rural/Urban)

	Real % Change	
Data	Rural	Urban
Wages Permanent	-11	39
Wages Casual	2	2
Agricultural Business	-13	-15
Commercial Business	-53	-18
Home Consumption	-17	-25
Foreign Remittance	55	241
Local Remittance	21	111
Gifts Received	166	113
Other Income	-18	96
Total Income	-10	44

82. There are some significant rural:urban differences in the changes in household incomes. Permanent Wages in rural households suffered a decline of 14% in real terms, compared to the increase of 50% in urban areas (Table C.11). Commercial Businesses in rural areas suffered from a much higher 68% decline compared to the 22% decline in urban areas. Foreign remittances, Local Remittances, and Gifts Received all grew in rural areas, but much less than in urban areas.

By Divisions

83. Table C.12 indicates that all the Divisions saw increases in real income, except for Eastern which saw a decline in real terms of -16%.

Table C.12 Total Incomes (by Division)

Division	2002	2008	% Ch.	R % Ch.
	$million			
Central	955	1547	62	28
Eastern	116	123	6	-16
Northern	236	368	56	23
Western	691	1010	46	15
FIJI	1998	3048	53	20
	Perc. Share			
Central	47.8	50.8	6	
Eastern	5.8	4.0	-30	
Northern	11.8	12.1	2	
Western	34.6	33.1	-4	
FIJI	100	100		

84. Central Division has increased its share of Total Household Income by 6% to 51%. The Western share declined slightly from 34.6% to 33%. The share of Eastern Division suffered a large decline of 30% while the Northern division saw a slight increase in its share.

85. It is important, however, to differentiate by rural and urban areas. Table C.13 indicates that except for the Northern Division (this needs to be explained), the rural households in all the other divisions suffered real declines in total household income or remained roughly the same. The zero percent change in rural Western Division is somewhat unusual as well given the decline of the sugar industry. However, the -39% decline in total rural incomes in the Central Division is also a matter of concern since this reflects a decline in non-sugar agriculture, which has been the focus of much attention from the Ministry of Agriculture.

Table C.13 Incomes and % (by Division)

Division	2002	2008	% Ch	R % Ch
		Rural		
Central	267	237	-12	-30
Eastern	102	94	-8	-27
Northern	162	225	39	9
Western	352	449	27	0
RURAL	884	1004	14	-10
		Urban		
Central	688	1311	91	63
Eastern	14	29	112	85
Northern	74	143	94	66
Western	339	561	66	38
URBAN	1115	2044	83	56
FIJI	1998	3048	53	20

86. Table C.14 shows that in aggregate, the Central division showed the largest increase (of 25% adjusted for inflation) in average household incomes, followed by Northern with a 14% increase. Western Division had a low real increase of 2% while Eastern Division saw a large decrease of -23%.

87. In rural areas, however, except for the Northern Division, all the other Divisions indicated declines in average household incomes, adjusted for inflation. This may be expected for the Western Division with the significant decline in the sugar industry.

88. However, the rural households in the Central Division indicated the largest real decline of 23%.

89. Again, the slight increase in the average household incomes in the Northern Division, both in rural and urban areas, needs to be explained, given that the sugar industry there has also been in decline. Tavenui has been an agricultural boom area over a number years, and with Savusavu, have also seen an improvement in tourism receipts.

90. Table C.15 gives the Average Household Income Gap with the National Fiji Average for 2002-0-3 and 2008-09. In rural areas, the percentage gaps with the National Fiji Average Household Income increased significantly for all Divisions, for Central going from 0% to -28%, for Eastern from -7% to -30% and Western from -20% to -34%. The smallest deterioration in gaps was with the Northern Division where the Gap widened from -35% to -38%.

91. In urban areas, the gap for Central Division widened from 29% to 53%

Table C.14 Average Household Income (Division)

Division	2002	2008	% Change	Real % Change
	Rural			
Central	12801	12529	-2	-23
Eastern	11823	12133	3	-19
Northern	8332	10861	30	3
Western	10142	11455	13	-11
RURAL	10559	11608	10	-13
	Urban			
Central	16474	26611	62	27
Eastern	19590	13990	-29	-44
Northern	12074	17645	46	15
Western	13882	19152	38	9
URBAN	15267	23036	51	19
	12753	17394	36	27
	Rural and Urban			
Central	15249	22708	49	17
Eastern	12398	12521	1	-20
Northern	9228	12771	38	9
Western	11686	14749	26	-1
FIJI	12753	17394	36	7

Table C.15 Av.HH Income Gaps with Fiji averages

Division	2002	2008
Rural		
Central	0	-28
Eastern	-7	-30
Northern	-35	-38
Western	-20	-34
RURAL	-17	-33
Urban		
Central	29	53
Eastern	54	-20
Northern	-5	1
Western	9	10
URBAN	20	32
Both		
Central	20	31
Eastern	-3	-28
Northern	-28	-27
Western	-8	-15
FIJI	0	0

while that for others were more modest increases. Interestingly, Urban Northern gap changed from -5% to a small positive of +1%. By and large, rural households lost ground to their urban counterparts.

92. Table C16 indicates that despite the overall national trend of worsening of rural incomes, there are some regions of positive developments.

93. In the Eastern Division, while Permanent and Casual Wages both indicated real declines, incomes from Agricultural Business increased by 36% nominally and 7% in real terms.

94. The Northern Division has several encouraging indicators of economic growth. Not only did Permanent Wages mirror the large national increases, with a 62% nominal increase, but also a 27% deflated real increase.

95. Surprisingly, Casual Wages in the Northern Division also had a large 101% increase in nominal terms and 58% increase in real terms. Agricultural Business there increased by 45% in nominal terms and 14% in real terms.

96. Home Consumption also increased by 26% in nominal terms and suffered a small

Table C.16 Source of Income (by Division)

Data	2002	2008	% Ch	R%Ch
Central				
Wages Permanent	488	750	54	21
Wages Casual	104	135	30	2
Agricultural Business	45	49	9	-14
Commercial Business	46	54	17	-8
Home Consumption	54	43	-19	-37
Foreign Remittance	18	82	352	256
Local Remittance	9	14	52	19
Gifts Received	16	56	242	169
Other Income	176	365	108	64
Eastern				
Wages Permanent	33	34	3	-19
Wages Casual	6	4	-44	-56
Agricultural Business	17	24	36	7
Commercial Business	13	2	-81	-85
Home Consumption	27	26	-4	-24
Foreign Remittance	1	2	89	49
Local Remittance	1	2	151	97
Gifts Received	1	12	836	637
Other Income	16	17	5	-18
Northern				
Wages Permanent	70	113	62	27
Wages Casual	23	45	101	58
Agricultural Business	46	66	45	14
Commercial Business	14	13	-7	-27
Home Consumption	33	41	26	-1
Foreign Remittance	2	6	182	122
Local Remittance	2	3	30	3
Gifts Received	5	15	186	125
Other Income	42	66	58	24
Western				
Wages Permanent	260	447	72	35
Wages Casual	95	110	16	-8
Agricultural Business	89	77	-13	-32
Commercial Business	73	56	-23	-39
Home Consumption	38	48	26	-1
Foreign Remittance	11	26	134	84
Local Remittance	5	17	259	183
Gifts Received	13	25	96	54
Other Income	109	205	88	48
FIJI	1998	3048	53	25

decline of only -1%, compared to the large decline nationally.

97. In the Western Division, Home Consumption also increased by 26% in nominal terms and only -1% in real terms.

98. Given the decline in the sugar industry it would be useful to clarify the relative agricultural buoyancy in the Northern Division.

Table C.17 Changes in Income and Shares

Ethnicity	2002	2008	% Ch.	Real % Ch.
	$m			
iTaukei	1018	1611	58	25
Indo-F	850	1094	29	1
Other	131	343	162	106
FIJI	1998	3048	53	20
	% Shares			
iTaukei	51	53	4	
Indo-F	43	36	-16	
Other	7	11	72	
FIJI	100	100	0	

By Ethnicity

99. Given Fiji's multi-ethnic composition and the historical sensitivities towards iTaukei participation in the modern economy, it is useful to present a national income analysis by ethnicity.

100. Table C.17 indicates a continuation of the trends indicated by previous HIESs. The Total Household Income earned by iTaukei has continued to increase- by some 25% in real terms, while that of Indo-Fijians has just increased by 1% in real terms. The largest increase, however, has been by the "Others" whose real income rose by 106% in real terms.

Table C.18 Average Household Incomes

Ethnicity	2002	2008	% Ch.	R % Ch
iTaukei	12972	16994	31	3
Indo-F	11902	15537	31	3
Other	19105	34197	79	41
FIJI	12753	17394	36	7
%(F-I)/I	9	9		

101. The share of iTaukei therefore increased slightly from 51% to 53%, while that for Indo-Fijians fell significantly from 43% to 36%. Much of this loss, however, would seem to have been gained by Others whose share rose dramatically from 7% to 11%. This latter change is explained below by large increases in transfer income for this group- both from Foreign Remittances, and Other Income.

102. Table C.18 indicates that the changes in the shares of total incomes is largely due to the changes in population and households. Average Household incomes have changed by about the

Table C.19 Household Income per AE

Ethnicity	2002	2008	% Ch.	R % Ch
iTaukei	2958	3995	35	6
Indo-F	3108	4341	40	10
Other	4628	8747	89	49
FIJI	3094	4389	42	12
%(F-I)/I	-5	-8		

same, and iTaukei households on average have maintained their 9% margin over Indo-Fijian households. There have been large gains, however, by Other households on average.

103. Table C.19 shows the significant impact of large household sizes for iTaukei: not only do they have a negative gap with Indo-Fijian households, but that gap has grown larger between the HIES from -5% to -8%. While both ethnic groups have seen reduced household sizes, the reduction for Indo-Fijian households has been larger than that for iTaukei.

104. Table C.20 indicates the iTaukei have made their largest gains in Permanent Wages, with a 60% increase in nominal terms and 26% in real terms. This is a reflection of their heavy dependence on formal sector employment, with it comprising 43% of all income received.

Table C.20 iTaukei Income Sources ($m and %)

Data	2002	2008	% Ch.	R % Ch
Wages Permanent	437	700	60	26
Wages Casual	92	116	27	0
Agric.Business	108	159	47	16
Comm. Business	43	66	55	22
Home Consumption	124	135	9	-14
Foreign Remittance	18	38	111	66
Local Remittance	9	19	113	68
Gifts Received	19	75	298	214
Other Income	168	303	80	41
FIJI	1018	1611	58	25
	Percent			
Wages Permanent	43	43	1	
Wages Casual	9	7	-20	
Agric. Business	11	10	-7	
Comm. Business	4	4	-2	
Home Consumption	12	8	-31	
Foreign Remittance	2	2	34	
Local Remittance	1	1	35	
Gifts Received	2	5	152	
Other Income	17	19	13	
FIJI	100	100		

105. Their earnings from Casual Wages have remained the same in real terms, but declined in its share from 9% to 7%.

106. Quite promising is that their earnings from Agricultural Business has increased in real terms by 16% and in Commercial Business increased by 22% in real terms.

107. What may be concern is given the heavy rural presence of iTaukei is that their earnings from Home Consumption has declined in real terms by -14%, with its share of their total income declining by -31% from 12% to 8% of their total income.

108. There have also been large increases in incomes transfers from Foreign Remittances, Local Remittances, Gifts Received and Other Incomes- with the

proportion increasing dramatically from 21% to 27%. The trend would seem to be reduced incomes from independent production (Agricultural Business, Commercial Business and Home Consumption) to transfer incomes.

Table C.21 Indo-Fijian Income Sources ($m and %)

Data	2002	2008	% Ch.	R % Ch
Wages Permanent	341	492	44	14
Wages Casual	126	165	31	3
Agric.Business	84	52	-38	-51
Comm. Business	95	58	-39	-52
Home Consumption	22	14	-36	-50
Foreign Remittance	12	32	178	119
Local Remittance	6	11	74	37
Gifts Received	15	26	76	38
Other Income	150	245	63	28
FIJI	850	1094	29	1
	Percent			
Wages Permanent	40	45	12	
Wages Casual	15	15	2	
Agric. Business	10	5	-52	
Comm. Business	11	5	-52	
Home Consumption	3	1	-51	
Foreign Remittance	1	3	116	
Local Remittance	1	1	35	
Gifts Received	2	2	37	
Other Income	18	22	26	
FIJI	100	100	0	

109. Table C.21 indicates some similarities for Indo-Fijians with that for the iTaukei and some contrasts. Incomes from Permanent Wages increased by 14% in real terms, while that from Casual Wages increased by a small 3%.

110. There were significantly reduced earnings from Agricultural Business (-51%), Commercial Business (-52%), and Home Consumption (-50%). Earnings from Foreign Remittances grew by a large 151% in real terms, and also that from Local Remittances (by 47% in real terms).

111. In total, the shares from Wages and Salaries (both Permanent and Casual) grew from 55% to 60%, from transfers from 22% to 29% of the total. The share of income from "production" declined from 24% to 11%. Indo-Fijians also now seem to be less involved in "real production" (Agricultural and Commercial Business, and Home Production), and more dependent on income transfers.

Table C.22 Others: Income Sources ($m) and %

	2002	2008	% Ch.	R % Ch
	$million			
Wages/Salaries	83	165	98	56
Production	18	15	-15	-33
Transfers	30	163	449	332
All	131	343	162	106
	Perc.			
Wages/Salaries	64	48	-24	
Production	14	4	-67	
Transfers	23	47	109	
All	100	100		

112. The decline in incomes from Agricultural Business is understandable given the serious decline in the sugar cane industry. However the

decline in incomes from Commercial Business may seem surprising given the apparent domination of Fiji's commercial and retail sector by Indo-Fijians. This result, as alluded to earlier, may partly be a result of the 2008-09 HIES not adequately picking up incomes from commercial business in the urban sector and it may reflect partly the replacement of Indo-Fijians in business by Others.

Table C.23 Remittance Earnings ($m)
[Source: Reserve Bank of Fiji]

	Nominal	Real
2002	213	213
2003	232	223
2004	297	276
2005	311	281
2006	322	283
2007	256	216
2008	188	148
2009	294	217

113. While it might have been thought that the increase in "Others" share of Total Household Income may be reflecting the apparently increasing and highly visible Chinese involvement in commercial and agricultural businesses, the 2008-09 HIES has not picked up any evidence of this. Table C.22 indicates that the largest increases in income have been in transfer incomes (rising from $30 million to $163 million) and in Permanent Wages (rising from $83 million to $165 million. Income from production (Agricultural Business, Commercial Business and Home Production) declined by -15% nominally and -33% in real terms.

114. The share of Transfer incomes therefore rose dramatically from 23% to 47% while that for Wages and Salaries declined from 64% to 48%. Caution is urged here in interpreting the data on Others' incomes.[19]

Table C.24 Foreign Remittances ($m and %)

Division	2002	2008	% Ch.	R % Ch.
	Rural			
Central	5	5	20	-5
Eastern	0	2	417	307
Northern	1	4	179	120
Western	4	9	126	78
Rural	10	21	96	55
	Urban			
Central	14	76	464	344
Eastern	1	1	-34	-48
Northern	1	2	187	126
Western	7	17	139	88
Urban	22	95	334	241
FIJI	32	116	257	181

Foreign Remittance Earnings

115. Given the importance of remittance earnings for the Fiji economy, a few tables on patterns of remittance earnings may be useful.

116. Table C.23 gives the latest estimates from the Reserve Bank with the average for 2002-03

[19] The data on Others shares of incomes etc. need to be treated with great caution as the HIES has traditionally not been able to obtain good samples of these households. For 2008-09, the incomes data may be unduly influenced by a few items of large transfer incomes.

being around $220 million and that for 2008-09 being around $241 million. Table C.24 indicates however that only $32 million was picked up in the 2002-03 HIES, while some $116 million has been picked up in 2008-09.

117. The bulk of the remittances accrue to the Urban households, with Central Division receiving the lion's share.

118. Table C.25 indicates that in contrast to the 2002-03 situation, the largest amount received by the ethnic groups was the Others at $46 million,[20] with iTaukei receiving just slightly less $38 millions. It is interesting that Indo-Fijian households also received a large $32 millions, of which only a quarter $8 million went to rural areas.

Table C.25 Foreign Remittances

Ethnicity	2002	2008	% Ch	R % Ch
	Rural ($m)			
iTaukei	7	12	72	36
Indo-F	3	8	129	80
Other	0	1	540	404
Rural	10	21	96	55
	Urban ($m)			
iTaukei	11	26	136	86
Indo-F	8	24	199	136
Other	3	45	1447	1118
Urban	22	95	334	241
	All ($m)			
iTaukei	18	38	111	66
Indo-F	12	32	178	119
Other	3	46	1411	1090
	32	116	257	181

119. For Fijian households, some $12 million was indicated to go to rural households directly, while $26 million went to urban areas. If these flows are rated up to equal the Reserve Bank of Fiji estimates of remittance inflows, then the rural areas would be receiving more than $40 million, which is substantial in comparison with bank loans to agriculture.

120. It is extremely important that policy makers attempts to strengthen remittance earnings by encouraging, enabling and maximizing the export of unskilled labour. Major avenues are opening up through trade agreements (such as PACER Plus and the EPAs with the European Union) but also bilateral arrangements with countries such as United States and Canada. Private employment agencies will no doubt be central to such movement of labour.

[20] This large estimation is the result of a very large remittance amount, weighted up by the household weight. The FIBoS HIES Unit decided to leave the item in the estimation.

D Expenditures

121. Table D.0.1 indicates that Total Household Expenditures increased between the two HIES by 51% in nominal terms and 19% in real terms.

122. With Total Household Incomes increasing more, the savings rate (as percentage of Income) has increased by 6% between 2002-03 and 2008-09. This was however the composite of an 18% increase in urban areas and a 7% decrease in rural areas.

123. For rural areas, income and expenditure both declined in real terms, while in urban areas, both increased in real terms.

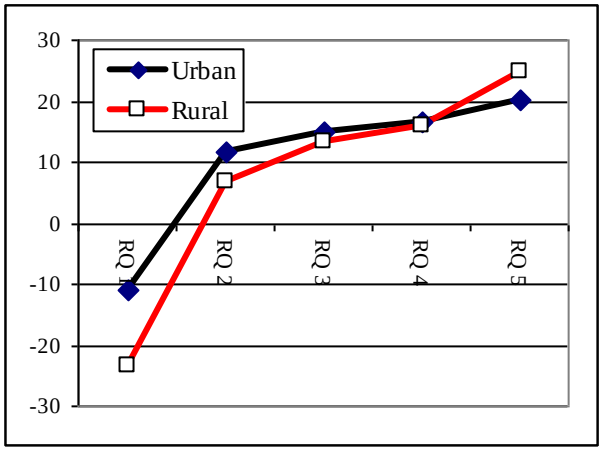
124. Graph D.1 indicates that urban households generally had higher savings ratios for the first three quintiles, with the relativity reversed for the fitth quintile.

125. Graph D.2 indicates that the changes in savings ratios have not been uniform in the rural areas. While households in the lowest quintiles increased their savings ratios between 2002-03 and 2008-09, those in the top two quintiles reduced their savings ratio. The decline in rural incomes may have hit the upper incomes rural households more than those in the lower quintiles.

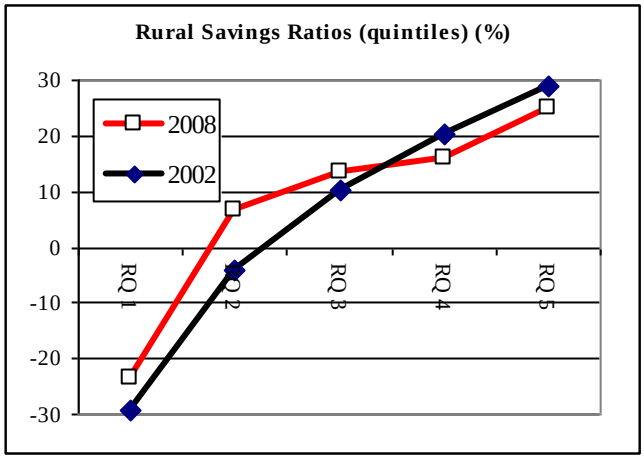
Table D.0.1 HH Incomes, Expend. and Savings

Area	2002	2008	% Ch.	Real % Ch.
	Income ($m)			
Rural	884	1004	14	-10
Urban	1115	2044	83	44
FIJI	1998	3048	53	20
	Expenditure ($m)			
Rural	735	847	15	-9
Urban	964	1716	78	40
FIJI	1698	2564	51	19
	% Savings			
Rural	16.9	15.6	-7	
Urban	13.5	16.0	18	
FIJI	15.0	15.9	6	

Graph D.1 2008 Savings Ratios (by separate quintiles)



Graph D.2 Rural Savings Ratios (2002, 2008)



126. Before we outline the patterns on food expenditure, it is useful to see the overall trends in Expenditure per Adult Equivalent[21] which may be expected to have an important influence on expenditure on different items.

127. Rural Expenditure per Adult Equivalent per annum increased nominally by 16% but declined in real terms by -8%[22] (Table D.0.2)

128. These declines were evident across three of the divisions (Central, Eastern and Western) with only the Northern division indicating a small real increase of 4%.

129. Urban Exp. pAE pa however increased by 52% nominally, and by 19% in real terms. These increases were evident in the three major divisions, with the Central Division recording the highest nominal increase of 64% and real increase of 29%.

130. Overall, the Central division saw a large nominal increase of 55% and a 22% increase in real terms. The Eastern Division saw a decline of -12%.

131. Given the importance of the ethnic factor in consumption patterns in Fiji, Table D.0.3 that while rural iTaukei saw a large decrease in real

Table D.0.2 Expenditure pAE pa (divisions)

Division	2002	2008	% Ch	R%Ch
	Rural			
Central	2585	2756	7	-16
Eastern	2747	3092	13	-11
Northern	1684	2230	32	4
Western	1893	2285	21	-5
Rural	***2100***	***2443***	***16***	***-8***
	Urban			
Central	3538	5815	64	29
Eastern	2835	3007	6	-16
Northern	2558	3347	31	3
Western	2932	3918	34	5
Urban	***3256***	***4938***	***52***	***19***
	FIJI			
Central	3212	4968	*55*	*22*
Eastern	2755	3075	*12*	*-12*
Northern	1879	2539	*35*	*6*
Western	2309	2950	*28*	1
FIJI	**2630**	**3691**	**40**	**11**

Table D.0.3 Expenditure pAE pa (ethnicity) ($,%)

Ethnicity	2002	2008	% Ch	R%Ch
	Rural			
iTaukei	2227	2469	11	-13
Indo-F	1879	2339	24	-2
Other	2015	2974	48	16
	Urban			
iTaukei	3031	4337	43	13
Indo-F	3269	4904	50	18
Other	4550	8693	91	50
	FIJI			
iTaukei	2520	3281	30	3
Indo-F	2643	3796	44	13
Other	3840	7245	89	49
FIJI	**2630**	**3691**	**40**	**11**

[21] This is a form of expenditure per capita, except that children aged 0 to 14 are treated as half an adult.
[22] Throughout this Report, dollar terms in general will be deflated by the CPI increase of 27% between he two HIES. Food values in aggregate will be deflated by the 42.% increase in food prices in this period.

Expenditure pAE pa (of -13%), the decline was much smaller for Indo-Fijians (-2%) while there was an increase of 16% for rural Others.

132. In urban areas, there was a large increase of 44% in nominal terms for Indo-Fijians (13% increase in real terms), a small 3% increase in real terms for iTaukei and a very large 49% real increase for Others.

133. These differential rural/urban, divisional, and ethnic patterns need to be kept in mind to explain the complex patterns of changes in consumption of food and other items, between the 2002-03 and 2008-09 HIES.

134. Table D.0.4 indicates the distribution of Total Expenditure in 2008 by the major categories adopted for the 2008-09 HIES. As these divisions are differently composed from the 2002-03 HIES, the 2008-09 data is presented here first. Where comparisons are possible, they are given.

Table D.0.4 2008 Major Expenditure Divisions (% of Tot)

	Rural	Urban	All	%(U-R)/R
1 Food Cash	22.5	18.3	19.7	-18
2 Alcohol/Tobacco	1.0	0.8	0.8	-21
3 Clothing/Footwear	1.2	1.3	1.3	2
4 Housing/Utilities	7.7	12.6	11.0	64
5 Furnishing	3.5	4.2	3.9	19
6 Health	0.8	1.0	0.9	31
7 Transport	9.2	9.8	9.6	7
8 Communication	3.2	3.9	3.6	20
9 Recreation	1.6	2.3	2.1	46
10 Education	4.8	7.9	6.9	66
11 Restaurant	1.0	1.9	1.6	91
12 Miscellaneous	2.7	5.9	4.8	122
13 Others	6.5	11.8	10.0	81
Own Consumption	16.1	1.3	6.1	-92
Goods, Gifts Received	7.5	3.9	5.1	-48
Gifts given	5.6	2.7	3.7	-51
Imputed Rent	5.3	10.5	8.8	96
Total Expenditure	100.0	100.0	100.0	0
Total Food	47	25	33	-46
Total Housing/Rent	13	23	20	
	$ millions			
Total Expenditure	847	1716	2564	
Total Food	398	435	834	
Total Housing/Rent	111	396	507	

135. In aggregate, rural households spent 47% of their Total Expenditure on Food, comprising Cash expenditure (22.5%), Home Consumption (16%), Goods and Gifts Received, and Restaurant expenditure.

136. Urban households only spent 25% on Food.

137. As would be expected, there were substantial differences in expenditure on Housing and Utilities, with the urban households proportion being some 60% more than rural households.

138. It is worth noting that the differences in proportion were not large for Health (29%) Transport (5%) or Communications (18%).

139. For Urban households, however, the proportion spent on education was some 63% more than that for rural households.

Major Expenditure Divisions (2008-09)

1. Food Expenditure and Food Security Issues

Table D.1.1 Food as % of Exp. (area)

	2002	2008	% Ch
Rural	40.5	46.5	15
Urban	26.4	24.7	-6
All	32.5	31.9	-2

140. Table D.1.0 gives and interesting perspective on likely changes in standards of living. Universally, Food Expenditure as a Percentage of Total Expenditure tends to decrease with improving standards of living. Table D.1.1 indicates that in Rural areas the ratio actually increased between the two HIES by 15%, from 40.5% to 46.5%. In Urban areas, the ratio reduced by -6% while in Fiji in aggregate the ratio reduced by a small -2%.

Table D.1.2 Food Exp. pAE pw

Area	2002	2008	% Ch	R % Ch.
Rural	16.37	21.84	33	-6
Urban	16.51	23.41	42	0
All	16.43	22.63	38	-3

141. This would suggest that in aggregate, rural areas may have seen a deterioration in living standards, while urban areas may have seen some improvements in aggregate.

142. This surmise is reinforced by Table D.1.2 which indicates that Food Expenditure per Adult Equivalent reduced in rural areas by -6% in real terms; was stagnant in urban areas, and reduced in aggregate by -3%.

Table D.1.3 Home Production ($m and %)

Area	2002	2008	% Ch	R % Ch.
	$ million		Percentages	
Rural	128	136	6	-26
Urban	23	22	-5	-33
All	151	158	4	-27

Home Production

143. Extremely important for Food Security is the food produced and consumed in the Households- referred to as Home Production (or Own Consumption), and added to both incomes and expenditure.

Table D.1.4 Home Prod. as % of Food

Area	2002	2008	% Ch
Rural	43	35	-20
Urban	9	5	-43
All	27	19	-30

144. Table D.1.3 gives the worrying results that while the urban areas saw a real -33% decrease in Home Production, the rural areas also saw a very large real -26% decrease in the dollar value of Home

Production. Even though there are problems with using the CPI Food index to deflate estimated values for Home Consumption, the extent of the decline would over-ride any small weaknesses in pricing subsistence production.

Table D.1.5 Home Prod. as % of Food (by major income source of household)

Major Inc. Source	2002	2008	% Ch.
Home Consumption	77	71	-8
Agric. Business	42	42	-1
Other Income	35	22	-36
Commercial Busin..	28	10	-66
Local Remittance	26	15	-42
Wages Casual	17	14	-19
Foreign Remittance	13	7	-43
FNPF withdrawal	11	5	-59
Wages Permanent	10	8	-16
All	27	19	-30

145. Table D.1.4 indicates that the overall household self-sufficiency in Food has seriously declined in this very short period, with the overall percentage declining by 30% from 27% to a mere 19%. Even in rural areas, the self-sufficiency in food declined from 43% to 35%.

146. Table D.1.5 gives an excellent perspective on the kinds of households, as designated by "major income source of the household",[23] which have seen the major decline in food self-sufficiency. As would be expected households whose major income source was Home Consumption had the highest food self-sufficiency of 77% in 2002-03, declining only slightly by -8% to71% in 2008-09.

Table D.1.6 Consumption pAE pa ($) and Perc. Changes

	2002	2008	% Ch.	R % Ch.	Price Adj.
Cassava	52.23	64.23	23	-10	1.37
Dalo	37.56	37.95	1	-32	1.49
Potatoes	13.09	15.31	17	-25	1.57
Rice	40.29	70.36	75	-12	1.98
Flour	39.96	56.66	42	11	1.27
Bread	17.12	54.87	220	156	1.25
Noodles	9.76	17.40	78	43	1.24
Fish	52.52	67.92	29	-8	1.41
Tin Fish	24.32	34.62	42	33	1.07
Chicken	41.11	61.95	51	20	1.26
Lamb	21.32	24.94	17	-15	1.37
Food Tot.	854.36	1176.62	38	-3	1.43

147. Households dependent largely on Agricultural Business also maintained their food self-sufficiency level of around 42%.

148. Significant declines were however recorded for all the other categories of households, with a -19% decline for households dependent on Casual Wages, and -16% decline for those dependent on Permanent Wages.

[23] "Major Income Source" was defined as that income which was either more than 50% of the total household income or the largest income source.

149. It is useful also to examine changes in consumption of major food items, and especially for those produced locally and competitive with those imported, where significant changes appears to be occurring.

150. Table D.1.6 indicates that major changes have been taking place in food consumption per Adult Equivalent for most items. These changes are the result both of changing preferences, and also of relative prices.

151. First it should be noted that while the overall Food Index calculated by the FIBoS went up by 42.5% between the 2002-03 HIES and 2008-09 HIES, some items had much larger percentage increases in price: rice: 98%; potatoes: 57%; dalo: 49%. On the other hand, all the flour related items (four, bread, noodles) had much lower price increases of around 25%: chicken prices only increased by 26% and Tin Fish only by 7%. These relatively lower price changes would have had their expected impact on quantities consumed.

152. On a per Adult Equivalent basis, cassava, dalo, potato and rice all showed decreases in real terms. Nevertheless, rice showed a very large nominal increase of 75% (Table D.1.6)

153. All the flour related items not only show large nominal increases in value (bread: 220%, noodles 78%) but all showed large positive real increases as well.

154. While Fish consumption per AE pa declined in real terms (by -8%), Tin Fish consumption went up by 33% in real terms.

155. Lamb consumption appears to have declined in real terms, probably largely due to the large increases in price. This may have a positive health effect.

156. While it would be essential to examine the entire basket of food items being consumed, just taking the major items above, expenditure pAE on the local items in nominal terms increased by 27%, while that on the imported items increased by 95%. The changing consumption patterns would seem to be more import oriented, placing a greater burden on foreign exchange reserves, and also indicative of reduced food self-sufficiency.

157. Table D.1.7 gives an indication of the extent to which Fiji households are self-sufficient in major food items. In cassava and dalo, while there have been small declines in the percentages grown and

Table D.1.7 Home Production
(as % of Total Expenditure on item)

	2002	2008	% Ch.
Cassava	88	86	-2
Dalo	79	76	-4
Rice	1	1	5
Fish	49	49	1
Chicken	2	5	148
Pork	36	67	88
Beef	5	4	-16
Eggs	2	1	-19
Rourou	6	7	29
Bele	90	93	3
Food	27	19	-30

consumed within the household, the percentages still remain high: 86% for cassava and 76% for dalo.

158. One positive indication is that fish self-sufficiency has remained about the same at 49%, while pork appears to have increased from 36% to 67%.

159. While chicken indicates a large increase, the proportion produced and consumed still remains at a low 5%, while the home production of eggs is not only extremely low, but appears to have declined.

160. Also positive is that some 93% of the b*ele* consumed is grown at home, a reflection of the extreme ease with which this nutritious leaf vegetable is able to thrive in all kinds of environments. Somewhat surprising is that only 7% of *rourou* consumed is grown at home, possibly because most Fiji varieties require well watered soil.

161. Table D.1.8 gives the ethnic dimensions to Home Production of food consumed. iTaukei had the higher levels of food self-sufficiency, but declining from 40% in 2002-03 to 29% in 2008-09.

162. While household self-sufficiency for all ethnic groups has declined, the largest decline has been for Indo-Fijians – by 53% compared to -28% for iTaukei and -17% for Others.

Table.D.1.8 Perc. Home Production (by ethnicity and area)

Ethnicity	2002	2008	% Ch
	Rural		
iTaukei	54	43	-21
Indo-F	16	11	-33
Other	47	46	-2
Rural	43	35	-20
	Urban		
iTaukei	11	9	-25
Indo-F	7	2	-75
Other	9	3	-66
Urban'	9	5	-43
	All		
iTaukei	40	29	-28
Indo-F	10	5	-53
Other	17	14	-17
FIJI	27	19	-30

163. In the rural areas, the decline for Indo-Fijians is again the highest at -33%. This is quite unusual given that one might have expected that the decline of interest in the sugar cane industry, might have led to more rural Indo-Fijians growing and consuming their own crops. That does not appear to be the case.[24]

164. Of concern as well is that in this inter-HIES period, rural iTaukei self-sufficiency also appears to have declined, by -21% from 54% to 43%.

165. It is useful to examine possible trends in the consumption of specific products which are of concern to health and nutrition stakeholders.

[24] Anecdotal evidence suggests that most rural Indo-Fijian households have family members working in urban areas hence resorting more to cash purchases of food.

166. Table D.1.9 indicates that while Sugar consumption per Adult Equivalent increased nationally by 31% in nominal terms, with a 41% increase in sugar prices, there was a -7% decline nationally. The decline was larger in the rural areas (-8%) than in urban areas (-3). This would suggest a positive development and perhaps greater awareness of health problems associated with excessive sugar consumption.

Junk Food and Drinks

167. The 2002-03 HIES had revealed quite high per capita expenditures on what may be classified as "junk food": namely sugary fizzy drinks, snacks with little nutritional value, and sweets. These items, if consumed in moderation, may be seen as reasonable items of consumption in the increasingly globalised diet of Fiji citizens. However, excessive consumption of these items, and any increased tendency towards that, would be seen as undesirable by nutritionists and health professionals, given the impact on lifestyle diseases such as diabetes, and the "crowding out" of more healthy expenditures.

Table D.1.9 Sugar pAE pa ($ and %)

Area	2002	2008	% Ch.	R % Ch.
Rural	19.69	25.57	30	-8
Urban	14.27	19.54	37	-3
All	17.21	22.55	31	-7
Price Adj.	1.414			

168. Table D.1.10 gives some mixed messages about the trends in consumption of junk foods. Overall, the nominal increase in all junk food expenditure was only 5%, and with junk food prices likely to have risen by more than that, then there would seem to be a decline in real consumption of these junk foods.

Table D.1.10 Junk Foods ($m and %)

	2002	2008	% Ch.
	$millions		
Sugary snacks/drinks	11.9	11.4	-4
Twisties, Bongos, etc.	2.5	3.7	46
Indian snacks	1.1	1.1	5
Total	15.5	16.2	5
	Percentages		
Sugary snacks/drinks	77	70	-8
Twisties, Bongos, etc.	16	23	39
Indian snacks	7	7	0
Total	100	100	

169. The good news is that the HIES data indicates a definite decline in expenditure on sugary items of drinks (nominal decline of 4% and real decline probably much greater). This is important given that sugary snacks and drinks comprised roughly 70% of all junk food expenditure in 2008-09. declining from an even higher 77% in 2002-03.

170. However, there was a large nominal (and probably real increase as well) of 46% in airy snack foods like Twisties, UFOs etc. whose share of the total increased by 39% from 16% to 23%. Undoubtedly the very heavy television and radio expenditure would be an important explanatory factor.

171. The Ministry of Health will need to take strong initiatives in the banning of advertisements of these types of products targeted at children, and other advertisement such as through sponsorship of sport events named after the junk food products..

Table D.1.11 Expenditure per Child pa ($)

Per Child	2002	2008	% Ch.
Sugary snacks/drinks	117.61	103.21	-12
Twisties, Bongos, etc.	24.81	33.11	33
Indian snacks	10.53	10.09	-4
Total	152.9	146.4	-4
Per Child	2002	2008	% Ch.

172. What may be seen as good sign is that the traditional Indian snacks, such as peas and *bhuja*, maintained their share of the total expenditure at 7% of the total, with a small nominal increase in dollar values of 5%.

Table D.1.12 Snack Expenditure per Child

Ethnicity	2002	2008	% Ch.
iTaukei	50.97	43.08	-15
Indo-F	114.52	132.68	16
Other	107.40	87.76	-18
All	82.07	75.42	-8
%(I-F)/F	125	208	

173. Table D.1.11 indicates that Expenditure per Child on snack foods declined by -4% in nominal terms, and far more than that in real terms (assuming positive change in average prices. Expenditure per child on sugary items reduced by -12%, while that on traditional Indian snacks reduced by a small -4%.

Table D.1.13 Sugary items per Child

Ethnicity	2002	2008	% Ch.
iTaukei	9.96	12.38	24
Indo-F	23.20	39.76	71
Other	14.14	28.05	98
All	15.89	22.45	41
%(I-F)/F	133	221	

174. Of concern is that Expenditure per child for airy snacks like Bongos, Twisties and UFOs, increased by a very large 33%.

175. Table D.1.12 indicates the ethnic dimension that while Sugary Items Expenditure per child for iTaukei declined by 15% (and for Others by -18%), that for Indo-Fijians increased by 16% in nominal terms. The differential gap with the iTaukei values increased from 125% in 2008 to 208% in 2008-09.

176. A similar picture is painted by Table D.1.13 which indicates that while all ethnic groups' children spent more on the airy snacks, that for Others increased by a large 98% and that for Indo-Fijians by 71%, the increase for iTaukei was a lower 24%, mostly driven by increases in rural areas.

177. It would be useful to investigate why Indo-Fijian consumption of junks foods is not only significantly higher than that of iTaukei but is increasing faster. One factor may be the higher discretionary expenditure within Indo-Fijian households.

178. Slightly more positive news is given by Table D.1.14 which indicates that Expenditure per child on Indian snacks, for Indo-Fijian children did increase by 27%. That by iTaukei on the other hand decreased by -27%, widening the gap with Indo-Fijians. Given that these snacks are more nutritious than the others, there may be scope for greater marketing with Fijian children and development of products that are more in tune with Fijian tastes.

179. Given that most Indo-Fijian snacks are manufactured with imported food inputs, a useful project could be developed between the Fiji Food Nutrition Centre, Ministry of Education, and food security stakeholders, enhancing the use of local food products in all snack foods manufactured in Fiji. The project should draw not only on iTaukei and Indo-Fijian recipes, but on practices elsewhere in the world.

Table D.1.14 Exp. on Indian snacks per child ($ pa)

Ethnicity	2002	2008	% Ch.
Fijian	3.61	2.64	-27
Indo-F	11.54	14.61	27
Other	5.93	4.57	-23
All	7.15	6.57	-8
%(I-F)/F	220	454	

180. It needs to be kept in mind that the estimates in all the tables above on expenditure on snack foods are probably all on the low side, as this data is derived from that recorded in the HIES diaries, which do not include the expenditure from pocket money.

181. It is reasonable to assume that a significant proportion of pocket money expenditure will be on snacks, although it is also likely to be a decreasing proportion, as expenditure out of pocket money on mobiles will almost certainly have been increasing.

2. Alcohol and Tobacco Products (and Yaqona)

182. While section 2 of the 2008-09 HIES expenditure is only on Alcohol and Tobacco products, it is useful to also bring in *yaqona* here because of the similar health concerns with this product.

Table D.2.1 Alcohol, tobacco and yaqona

	2002	2008	% Ch.
	$ millions		
Alcohol	9.1	10.1	12
Tobacco	11.9	11.2	-6
Yaqona	13.8	15.5	13
All	34.8	36.9	6
	Percentages		
Alcohol	26.1	27.5	5
Tobacco	34.3	30.4	-11
Yaqona	39.6	42.1	6
All	100	100	

183. Table D.2.1 indicates that Yaqona has increased its share of the total expenditure on these three narcotic products from 40% to 42%, alcohol has slightly increased its share and tobacco has decreased its share by 11%.

184. Table D.2.2 indicates the overall good result that while the total consumption of these three narcotic products increased by 6% between the HIES, in real terms, taking into account the increases in prices, there was probably a decline in real terms.

185. Extremely positive is that expenditure on tobacco products declined even nominally by 6%, although alcohol and *yaqona* consumption both increased in nominal terms but only by 12% and 13% respectively. Per capita expenditure on individual items suggests good news all round, although some of the reduced expenditures may be due to hardship.

Table D.2.2 % of HH with some consumption

	2002	2008	% Ch.
Alcohol	8	7	-10
Tobacco	27	23	-16
Yaqona	25	21	-17
At least one of above	41	36	-12

186. Table D.2.2 indicates that the proportion of households showing some consumption of these three narcotics declined between the two HIES: by -10% for Alcohol, -16% for Tobacco and -17% for Yaqona. The proportion consuming any of these three items also declined from 41% to 36%. Tobacco and Yaqona remain the more popular narcotics, despite the heavy volume of advertisements for Alcohol products.

187. Table D.2.3 indicates that Alcohol Expenditure per Adult (defined as over 14) increased nominally by 4% and probably declined in real terms. The rural expenditure per AE declined nominally by -9% in nominal terms.

Table D.2.3 Alcohol Exp. per Adult ($ and %)

Area	2002	2008	% Ch.
Rural	10.45	9.54	-9
Urban	25.42	26.31	3
All	17.47	18.08	4

188. Table D.2.4 indicates the extremely positive indicators that in nominal dollars, Tobacco and Cigarettes Expenditure per Adult declined nationally by -15%, -8% in rural areas and an extremely large drop of -21% in urban areas.

Table D.2.4 Tobacco Exp. per Adult ($ and %)

Area	2002	2008	% Ch.
Rural	22	20	-8
Urban	24	19	-21
All	23	20	-15

189. These significant declines are possibly the result of tighter rules regarding advertisement of tobacco products, new legislation limiting the areas of public smoking, public relations campaigns emphasizing the dangers of smoking, and higher prices due to higher taxes. It would be important for health stakeholders to continue the pressure that can lead to further reductions in tobacco consumption.

Table D.2.5 Yaqona Consump. per Adult ($ and %)

Area	2002	2008	% Ch.
Rural	23.36	29.16	25
Urban	22.37	23.26	4
All	22.89	26.15	14

190. The rural areas saw a -8% decline in nominal terms. It would be useful research to examine to what extent the decline in real consumption is due to advertising campaigns against the ill-effects of tobacco consumption, or the rise in prices and lowered income levels in the economy.

Table D.2.6 Total Exp. on Narcotics pa ($ and %)

	2002	2008	% Ch.
iTaukei	60.44	55.09	-9
Indo-F	72.98	77.26	6
Other	74.52	67.61	-9
All	66.62	64.29	-3
%(I-F)/F	21	40	

191. Table D.2.5 indicates that Yaqona consumption per Adult per year has increased nationally by 14% in nominal terms, with consumption in the rural areas increasing by more (25%) than in urban areas (4%).

192. It is useful to bring out the ethnic dimensions to the abuse of narcotics. Table D.2.6 indicates that Indo-Fijians have an extremely high consumption per Adult of the three narcotics, increasing by 6% between the two HIES. With iTaukei consumption declining by -9%, the Indo-Fijian margin over iTaukei expenditure increased from 21% in 2002-03 to 40% in 2008-09.

193. Table D.2.7 indicates that a large part of the gap is due to the very heavy expenditure by Indo-Fijians on alcohol, more than 150% above that of iTaukei.

194. Table D.2.8 indicates that there is very little difference ethnically in the consumption of tobacco products. All three groups are showing significant declines in Expenditure per Adult, both in nominal and even more in real terms.

195. Table D.2.9 indicates an extremely interesting result from this HIES that Indo-Fijian Expenditure on Yaqona per Adult has changed from a -15% gap with iTaukei to a +14% margin. Indo-Fijians appear to be now consuming more Yaqona per adult than Fijians.

196. The margin per adult is likely to be greater given that Indo-Fijian females generally do not consume yaqona while many iTaukei females do.[25]

Table D.2.7 Alcohol Exp. per Adult pa

	2002	2008	% Ch.
iTaukei	9.39	10.26	9
Indo-F	25.02	26.39	5
Other	33.44	32.73	-2
All	17.38	17.68	2
%(I-F)/F	167	157	

Table D.2.8 Tobacco Products per Adult pa ($ and %)

	2002	2008	% Ch.
iTaukei	22.10	18.53	-16
Indo-F	23.39	20.80	-11
Other	26.19	21.23	-19
All	22.85	19.55	-14

Table D.2.9 Expenditure on Yaqona per Adult ($ and %)

	2002	2008	% Ch.
iTaukei	29	26	-9
Indo-F	25	30	22
Other	15	14	-8
All	26	27	3
%(I-F)/F	-15	14	

[25] The per Adult estimate is based on Total Expenditure on Yaqona divided by the total number of adults. A much higher proportion of iTaukei adults would be consuming yaqona than Indo-Fijian females hence the iTaukei denominator would be larger,

3. Clothing and Footwear[26]

197. Table D.3.1 indicates that total expenditure on Clothing and Footwear appears to have declined quite significantly by -33% in total, 34% for Clothing and -29% for Footwear.

198. The per capita declines have been larger, given the small growth in population during the two HIES.

199. Table D.3.2 indicates that the spending per capita in the rural areas has declined slightly more than in the urban areas, with the Rural:Urban gap increasing from -42% tp -51%.

200. Table D.3.3 indicates that while all divisions have seen major decreases in Clothing and Footwear expenditure per capita, the Northern Division had the smallest nominal decline of -22% while Western had -40% and Eastern -59%.

201. There was negligible total value of Own Garments recorded, which did show some increase, with most produced by iTaukei.

202. Table D.3.4 indicates that iTaukei also saw a slightly larger decline in per capita consumption than others.

Table D.3.1 Clothing and Footwear ($m, $ and %)

	2002	2008	% Ch.
	$millions		
Clothing	37.7	24.9	-34
Footwear	10.8	7.7	-29
Both	48.5	32.6	-33
	Per Capita pa ($)		
Clothing	49.09	30.60	-38
Footwear	14.06	9.44	-33
Both	63.15	40.04	-37

Table D.3.2 Clothing/Footwear pc ($)

Area	2002	2008	% Ch.
Rural	47.50	26.58	-44
Urban	82.19	53.81	-35
All	63.15	40.04	-37
%(R-U)/U	-42	-51	

Table D.3.3 Clothing and Footwear pc (by division)

Division	2002	2008	% Ch.
Central	73.84	46.91	-36
Eastern	47.15	19.54	-59
Northern	54.45	42.33	-22
Western	57.67	34.65	-40
All	63.15	40.04	-37

Table D.3.4 Clothing and Footwear pc ($) (by ethnicity)

Ethnicity	2002	2008	% Ch.
iTaukei	48.76	30.58	-37
Indo-F	81.43	55.22	-32
Other	71.69	46.00	-36
All	63.15	40.04	-37
%(F-I)/I	-40	-45	

[26] The total values given here for 2002-03 are derived from the recent data provided by FIBoS and are different from the totals given in the earlier Report on the 2002-03 HIES.

4. Housing, Rentals and Utilities

Housing

203. Table D.4.1 gives the costs for housing- house and land rents and rates, house maintenance, and imputed rents which were estimated from actual rents paid data. As would be expected, the bulk of the rents paid in aggregate are in the urban areas, about ten times that in the rural areas. Imputed Rend comprises more than twice the rents paid.

Table D.4.1 Housing Costs (2008-09)

	Rural	Urban	All
Components	$ millions		
House/land rent rates	9	97	106
House maintenance	21	46	67
Imputed Rent	79	170	249
Total Housing	109	313	422
	Per HH ($)		
House/land rent rates	103	1090	603
House maintenance	240	519	381
Imputed Rent	914	1919	1422
Total Housing	1257	3527	2406

204. On a per household basis, Total Housing Costs in urban areas are about three times that in rural areas.

Table D.4.2 Average Household Costs ($,%)

Data	2002	2008	% Ch
House/land rent rates	514	603	17
House maintenance	190	381	101
Imputed Rent	1170	1422	22
Total Housing	1874	2406	28

205. Between 2002-03 and 2008-09, Table D.4.2 indicates that while average Total Housing Costs increased in nominal terms by some 28%, that for House Maintenance increased by a very large 101%, largely due to the increase in hardware and building and construction costs.

206. Table D.4.3 indicates that with urban average housing costs rising by a higher 26% compared to the 19% in rural areas, the ratio of urban:rural costs has increased further from 2.65 to 2.81.

Table D.4.3 Aver. Housing Costs

Area	2002	2008	% Ch
Rural	1060	1257	19
Urban	2807	3527	26
All	1874	2406	28
U:R	2.65	2.81	

207. Table D.4.4 gives the expected results that average housing costs in the Central Division are about twice that in the other divisions. However, the highest divisional increase between the two HIES was in the Northern Division (by some 52%) followed by that in the Central Division (43%). Quite unusually, there was only a 1% nominal increase in the Western Division, suggesting that the real change was negative.

Table D.4.4 Average Total Housing Costs

Division	2002	2008	% Ch
Central	2552	3661	43
Eastern	1331	1507	13
Northern	1120	1698	52
Western	1568	1585	1
All	1874	2406	28

Utilities

208. Table D.4.5 gives the costs for utilities: water, electricity, petroleum products, and wood products.[27] Urban utility costs and average household utility costs are twice that in the rural areas. actual rents paid data. While the largest average household expenditure appears to be on electricity, it needs to be remembered that a large component of electricity generation costs are also diesel at times that the hydro is not able to provide fully. Petroleum products are now the largest component of Fiji's utility costs, underlining Fiji's vulnerability to international energy price rises and foreign exchange shocks.

Table D.4.5 Utilities (2008-09)

	Rural	Urban	All
Components	$ millions		
Water	2	10	12
Electricity	16	37	53
Petroleum Prod	17	25	42
Others	1	2	3
Tot Utilities	36	74	109
	Per HH ($)		
Water	25	107	67
Electricity	184	418	303
Petroleum Prod	195	281	239
Others	8	25	17
Tot Utilities	412	832	625

209. Between 2002-03 and 2008-09, Table D.4.6 indicates that while Average Household Total Utilities increased in nominal terms by 11%, that for Petroleum Products by 18%, for electricity it was a larger 33%. Unusually, that for Water is recorded as -27%.[28]

Table D.4.6 Average Household Costs ($,%)

Components	2002	2008	% Ch
Water	91	67	-27
Electricity	228	303	33
Petroleum Prod.	202	239	18
Tot Utilities	561	625	11

210. Table D.4.7 indicates that the quite unusual result that Average Utilities Costs in rural areas appears to have increased by 23% while that in urban areas only by 1%. Consequently, the urban:rural ratio has declined from 2.46 to 2.02.

Table D.4.7 Aver. Housing Costs

Area	2002	2008	% Ch
Rural	334	412	23
Urban	822	832	1
All	561	625	11
U:R ratio	2.46	2.02	

211. Table D.4.8 gives the unusual results that average utility costs in the Central Division, while higher than average, increased by only 10%, while that in the Northern division increased by 21% and Eastern by 86%.

Table D.4.8 Average Total Utility Costs ($)

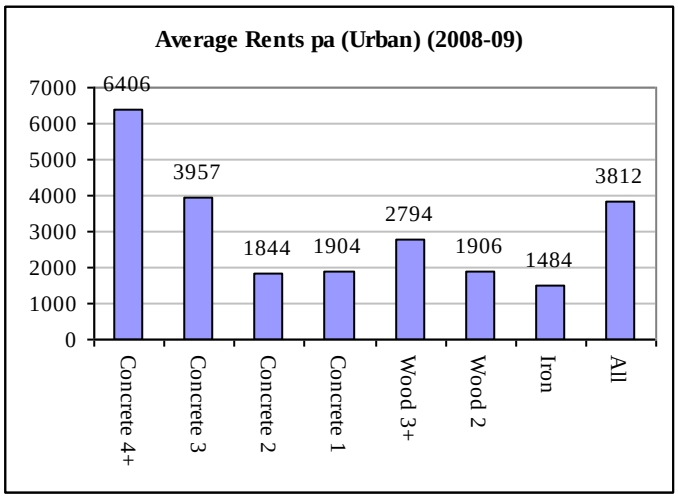
Division	2002	2008	% Ch
Central	716	785	10
Eastern	256	474	86
Northern	343	415	21
Western	540	575	6
All	561	625	11

[27] While wood appears to be quite a prominent source of cooking in rural and even urban areas, the recorded expenditure amounts were quite small, suggesting most was gathered from the environment.
[28] This has to be considered an odd result since the general perception is that water rates and collections have been increasing throughout Fiji.

Actual Rents Paid

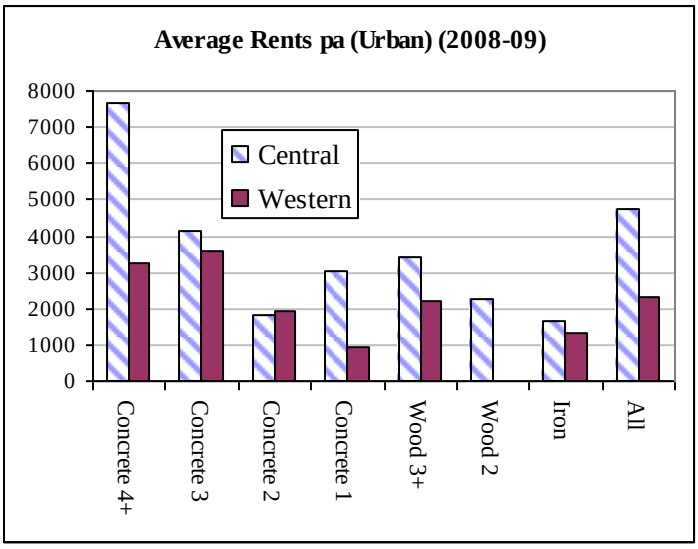
212. With the significant reduction in the number of households in the 2008-09, there were only 456 households in the sample with Rents Paid data- 405 urban and 51 rural.

Graph D.3 Average Urban Rents pa (by house type)



213. Rents in urban areas naturally are far more than rents in rural areas, and Central division rents are higher than Western, in turn higher than Northern and Eastern divisions. Concrete wall houses also generally have higher rents than wooden wall houses, and iron wall houses. Rents also rise with the number of rooms.[29]

Graph D.4 Average Urban Rents (Central and Western)



214. Many disaggregations in the 2008-09 HIES therefore did not have sufficient counts for statistical reliability. The tables presented here give results only for cells with 10 or more observations.

215. Graph D.3 gives the graph gradients by types of house for all urban areas. Graph D.4 gives the differences between Central and Western Divisions, with the former generally being higher than the latter. Table D.4.9 gives the rural rents for the two types of houses for which there were more than 10 observations.

Graph D.4.9 Rural Rents pa($) (all divisions)

	All
Concrete 4+	1648
Wooden 3+	1172
All	1324

[29] In the Tables, Concrete 3+ refers to concrete houses with 3 or more rooms.

5. Household Expenses

216. Table D.5.1 gives the components of the Household Expenses as recorded in the 2008-09 HIES. Some of these components did not have clear counterparts in the 2002-03 HIES hence comparisons for components will not be very useful.

Table D.5.1 Household Expenses ($m) (2008-09)

	Rural	Urban	FIJI
Furniture/furnishings	5	14	19
Textiles	1	1	2
Kitchen/Electrical	7	19	26
Equipment/tools/fittings	4	2	6
Cleaning/minor products	11	17	28
Household services	2	18	20
Total HH Expenses	30	72	101

217. For 2009-09 these expenses are roughly divided between Furniture, Fittings and Furnishings; Kitchen and Electrical Goods; Cleaning and Other Minor products, and Household Services (mostly House Help).

Table D.5.2 Average Household Expenses ($m) (2008-09)

	Rural	Urban	FIJI	%(U-R) /R
Furniture/furnishings	59	159	110	170
Textiles	7	10	9	40
Kitchen/Electrical	79	220	150	177
Equipment/tools/fittings	44	26	35	-41
Cleaning/minor products	128	188	158	47
Household services	26	204	116	691
Total HH Expenses	344	806	578	135

218. Table D.5.2 indicates the usual relativities between average household expenses in urban households and rural households, with the overall difference being 135%. Average expenses on Furniture and Fittings, and on Kitchen and Electrical tools are some 170% higher in urban households than in rural.

219. The only reversal in relativities is in Equipment, Tools and Fittings where urban households had a -45% gap with rural households reflecting the greater rural need for tools etc.

Table D.5.3 Average Household Expenses (2008-09)

Divisions	Cent.	East.	North.	West.	All
Furniture/furnishings	166	35	71	80	110
Textiles	12	3	8	7	9
Kitchen/Electrical	215	77	115	112	150
Equipment/tools/fittings	26	58	61	30	35
Cleaning/minor products	167	107	146	161	158
Household services	238	31	36	40	116
Total HH Expenses	824	312	436	430	578

220. Table D.5.3 gives the divisional averages for Household Expenses. The average for Total Household Expenses for Central Division is roughly twice that for the other divisions, largely due to the corresponding relativities in Furniture and Furnishings, Kitchen and Electrical Equipment, and Household Services.

221. The other divisions have more of a parity in Cleaning and Other products and Equipment and Fittings.

Table D.5.4 Average Household Expenses (2008-09)

Divisions	Fijian	Indo-F	Other	All
Furniture/furnishings	110	85	284	110
Textiles	10	7	10	9
Kitchen/Electrical	158	127	246	150
Equipment/tools/fittings	42	29	17	35
Cleaning/minor products	133	189	179	158
Household services	76	94	644	116
Total HH Expenses	528	530	1380	578

222. Table D.5.4 indicates a fairly new result that while the Average Household Expenses for Others is more than twice the national average, that for the two major ethnic groups are about the same in aggregate.

223. While Indo-Fijian households spend a bit more on Furniture/furnishings and Kitchen and Electrical goods, iTaukei households spend slightly more on Cleaning and other products, and Household Services.

6. Health Expenditure

224. Table D.6.1 indicates the quite worrying statistics that Total Health Expenditure although increasing between 2002-03 and 2008-09 by 6% nominally, roughly declined by -17% in real terms, adjusted for CPI inflation of 27.1%. All the components declined in real terms, except for Health Insurance which increased by 36% nominally and 7% in real terms, while Prescribed Medicines increased by 12% nominally.

Table D.6.1 Health Expenditure ($m and %)

	2002	2008	% Ch.	R %Ch.
Prescribed Medicine	10.7	12.0	12	-12
Other Pharm.Products	2.3	1.1	-53	-63
Private Medical services	11.2	10.2	-8	-28
Hospitalisation	0.6	0.5	-16	-34
Health insurance	8.3	11.3	36	7
Total	33.2	35.1	6	-17
As % of Total Exp.	2.0	1.4	-30	

225. The real decline of -28% for private medical services by private households is also of concern, suggesting that households are facing greater hardship in finding cash to pay the higher fees of private practitioners.[30]

Table D.6.2 Private HH Expenditure and Government Public Health Budget

	2002-03	2008-09
Total Private HH Exp.($m)	33.2	35.1
Govt Health ($m)	104.0	111.3
Total Health ($m)	137.1	146.4
Private hh share (%)	24.2	24.0

226. The last row indicates that overall there was a -30% reduction in Health Expenditure as a percentage of Total Household Expenditure, from 2.0% in 2002-03 to 1.4% in 2008-09.

227. This $35 million health expenditure by households privately, needs to be also compared with what the public tax-payers pay through the annual government budget. Table D.6.2 suggests that households privately contributed some 24% of total health expenditure in the country in both 2002-03 and 2008-09.

Table D.6.3 Composition of Health Expenditure

	2002	2008	% Ch.
Prescribed Medicine	32.3	34.1	5
Other Pharm.Products	7.1	3.2	-55
Private Medical services	33.7	29.1	-13
Hospitalisation	1.9	1.5	-20
Health insurance	25.1	32.2	28
Total	100.0	100.0	

228. Table D.6.3 shows the quite

[30] Anecdotal evidence from Suva GPs suggests that attendance at GP surgeries has declined even more in the last two years since the 2008-09 HIES.

dramatic increase in the contribution of Health Insurance, rising by 28% from 25.1% to 32.2%. This would be indicative of a much greater willingness of households to try to protect themselves medically through private insurance. The largest percentage outlay however remains Prescribed Medicine rising slightly to 34% in 2008-09.

229. Table D.6.4 indicates the quite dramatic differences in household health expenditure per capita between rural and urban areas. First, it may be noted that both rural and urban households saw nominal and real declines in all the major categories, except for a 20% real increase for health insurance in urban areas.

Table D.6.4 Expenditure . pc pa ($ and % Changes)

	2002	2008	% Ch.	R % Ch.
	Rural			
Prescribed Medicine	10.93	9.30	-15	-33
Other Pharm.Products	0.92	0.80	-13	-32
Private Medical services	8.91	5.71	-36	-50
Hospitalisation	0.66	0.01	-99	-99
Health insurance	8.06	3.73	-54	-64
Rural	29.48	19.53	-34	-48
	Urban			
Prescribed Medicine	17.62	20.18	14	-10
Other Pharm.Products	5.65	1.93	-66	-73
Private Medical services	21.35	19.58	-8	-28
Hospitalisation	0.99	1.30	31	3
Health insurance	14.17	24.22	71	34
Urban	59.79	67.21	12	-12
	Gap: % (R-U)/U			
Prescribed Medicine	-38	-54	42	
Other Pharm.Products	-84	-59	-30	
Private Medical services	-58	-71	22	
Hospitalisation	-33	-100	201	
Health insurance	-43	-85	96	
	-51	-71	40	

230. The overall gap in expenditure between rural and urban households (%(R-U)/U)) increased by 40% from -51% in 2002-03 to -71% in 2008-09.

231. The gap widened for every category of health expenditure, with a very large -85% gap in health insurance expenditure per capita in 2008-09.

232. The overall impact seems to suggest that for rural households, the expenditure on health, as a percentage of total expenditure, declined by 44% while that for Urban households also declined, but by 27%. The gap widened from -21% to -40%. It would seem that health expenditure bears a heavy brunt of the burden of coping with increasing hardships.

Table D.6.5 Health as % of Tot. Exp.

	2002	2008	% Ch.
Rural	1.7	1.0	-44
Urban	2.2	1.6	-27
%(R-U)/U	-21	-40	

233. While the above tables have given data on total expenditures on health, Table D.6.6 gives the percentages of households with some expenditure on Private Medical Services and Health Insurance.

Table D.6.6 Perc. of HH Spending on

Area	2002	2008	% Ch
	Private Medical Services		
Rural	14.9	14.9	0
Urban	23.7	28.0	19
All	19.0	21.6	14
	Health Insurance		
Rural	5.0	1.7	-66
Urban	12.4	9.5	-24
All	8.4	5.6	-33

234. Thus while there was a major reduction of expenditure on private medical services for both rural and urban households, the percentage of households making some payment on private medical services remained the same in rural areas (15%), but increased in urban areas from 24% to 28%. Urban households were twice as likely to visit private medical services as rural households.

235. The percentage of households making some payment in health insurance declined by a large 33% nationally from 8.5% to 5.6%, but the decline was -66% in rural areas, as compared to -24% in urban areas. It would seem that the down-turn in the rural areas amongst the upper income groups may been a factor in the reduction in the percentage of households using health insurance. Urban households in 2008-09 were four times as likely to take out health insurance as urban households.

Table D.6.7 Av. Household Expend. on Health Items (2008-09) ($)

	Central	East.	North.	West.	FIJI
Prescribed Medicine	84	16	37	74	68
Other Pharm.Products	6	1	9	6	6
Private Medical services	89	7	31	47	58
Hospitalisation	0	0	0	7	3
Health insurance	103	47	78	23	64
Total HH Health Exp.	283	71	155	156	201

236. It should be noted that the dollar expenditures on private medical services and health insurance reflect not just the numbers of households spending, but also the prices paid for these services. While some of the estimates for real change in spending have used the CPI deflator of 1.271, it would be more appropriate to take price deflators for health.

237. Table D.6.7 give the average Household Expenditure on health items by division. Prescribed medicines are important only in Central and Western Divisions, while Northern households spend about a half of the national average. It may be presumed that households revert to products "off the counter" (Northern has the highest per household expenditure for Other Pharmaceutical products) or to traditional medicine.

238. Similarly, average household expenditure on Private Medical Services and Health Insurance are highest in Central Division, with Western and Northern divisions having roughly a half of the values.

7. Transport

239. Table D.7.1 indicates that Fiji households generally spend 35% of Total Transport Costs on the operations of their own private vehicles, and 65% on public transport such as bus, taxis, carriers, minivans and water transport.[31]

Table D.7.1 Transport Costs (2008-09) ($m, $ and %)

	Rural	Urban	FIJI	%
	$ millions			Vert.%
Vehicles Operations	19	54	73	35
Public Transport	53	80	132	65
TOT TRANSPORT	72	133	205	100
	Per household ($)			%(U-R) /R
Vehicles Operations	218	605	414	178
Public Transport	610	898	756	47
TOT TRANSPORT	828	1503	1170	82

240. At the household level, urban households spend twice as much as rural households on transport, 178% more on own vehicle operation and 47% more on public transport.

241. At the divisional level, average household Total Transport costs for Central Division are some 50% more than the national average, which is close to that for the Western Division. Public Transport costs per household are fairly even for Northern, Eastern and Western Divisions and about half as much again for Central Division.

Table D.7.2 Transport Costs per Household (2008-09) ($)

By Division	Central	East.	North.	West.	FIJI
Vehicles Operations	610	109	174	363	414
Public Transport	1010	242	519	677	756
TOT TRANSPORT	1620	351	692	1040	1170

242. There are some ethnic differences as indicated by Table D.7.3. With Indo-Fijians and Others generally having higher vehicle ownership, they tend to have higher Total Transport costs hence

Table D.7.3 Transport Costs per Household (2008-09) ($)

By ethnicity	Fijian	Indo-F	Other	FIJI
Vehicles Operations	206	643	777	414
Public Transport	760	716	993	756
Total Transport	966	1359	1770	1170

[31] These Transport costs do not include Vehicle Purchases which are capital investment and are analysed separately below.

their vehicle operation costs per household are some three times as high as iTaukei households. However, their costs per household by Public Transport are unusually about the same.

Table D.7.4 Transport Costs per capita (2002-03 and 2008-09) ($, %)

Data	2002	2008	% Ch.
Vehicles Operations	270	414	53
Public Transport	683	756	11
TOT TRANSPORT	953	1170	23

243. Table D.7.4 indicates that while Vehicle Operating Costs per capita[32] increased by 53% between 2002-03 and 2008-09, that for Public Transport increased by only 11%. This differential outcome is probably a result of the tight price control over the bus and taxi industries. In real terms, there has probably been some reduction of expenditure on Public Transport.

Table D.7.5 Transport Costs pc pa (by mode)

Data	2002	2008	% Ch.
Bus	78	89	15
Taxi	37	35	-6
Water	12	11	-9

244. Table D.7.5 indicates an unusual difference in per capita transport costs by mode of public transport. While all modes appear to have suffered a real decline in per capita expenditure, that for buses seem to have suffered much less than for taxis and water transport. Per capita expenditure on buses saw a 15% increase in nominal terms as opposed to a -6% decrease in nominal terms for taxis and -9% decrease for water transport. Consumers may have been switching from the more expensive taxis to buses.

Table D.7.6 Vehicle purchases ($m, %)

Area	2002	2008	% Ch.
	Area		
Rural	4.7	1.8	-63
Urban	6.3	16.8	166
	Division		
Central	2.8	12.7	352
Eastern	0.0	0.0	-78
Northern	4.7	0.4	-91
Western	3.5	5.4	54
	Ethncity		
iTaukei	4.8	1.3	-73
Indo-F	5.7	8.5	48
Other	0.5	8.8	1641
FIJI	11.1	18.6	68

245. Table D.7.6 gives some perspectives on the acquisition of vehicle assets of all kinds- cars, boats, etc. The large increase of almost $10 millions has occurred in urban areas (by 166%), mostly in the Central Division (by 352%), and largely in Others households (increase of 1641%). Indo-Fijian households saw a $3 million or 48% increase in nominal dollars, while iTaukei households saw a major decline of -73% in nominal terms.

246. Rural households saw a major decline of -63% in total value, as did the Eastern and Northern divisions, and iTaukei households.

[32] These indicators are given "per capita" rather than per household as public transport is linked more to numbers of persons rather than numbers of households.

8. Communication

247. Table D.8.1 indicates the extraordinary progress in communication linkages brought on by the mobile revolution. During the 2008-09 HIES, 91% of all Fiji households indicated some expenditure on either mobile phones and recharge cards, or landlines and phone cards. Only 9% of households appeared not to have access to either.

Table D.8.1 Perc. of HH With Expenditure on (2008-09)

	Mobiles	Landline	Either	Neither
	Area			
Rural	72	36	86	14
Urban	94	51	97	3
	Division			
Central	86	52	93	7
Eastern	50	62	87	13
Northern	74	36	86	14
Western	88	36	92	8
	Ethnicity			
iTaukei	77	43	89	11
Indo-F	91	43	95	5
Other	82	60	93	7
FIJI	83	44	91	9

248. Mobiles had managed to reach 83% of all households, 94% of urban (72% of rural), 91% of Indo-Fijians and 77% of iTaukei households. Only the Eastern division did not have high access to mobiles (with only 50%) but even there, access to landlines ensured that only 13% did not have access to either mobiles or landlines. This was a similar percentage to those in the Northern Division (14%) who did not have access to either.

Table D.8.2 Expenditure on Mode ($m and %)

	Rural	Urban	FIJI
	$millions		
Mobiles/recharge	18	40	58
Land lines	8	19	28
Internet	0	5	6
Others	1	1	2
Tot. Communication	27	66	93
	Vert. Percentages		
Mobiles/recharge	67	61	63
Land lines	30	29	30
Internet	1	8	6
Others	2	2	2
Tot. Communication	100	100	100

249. Table D.8.2 indicates that with $93 millions being spent throughout Fiji in 2008-09, on communications, 63% of total communications expenditure, was already being spent on mobile phones and recharge cards. The proportion is likely to be higher currently. Interestingly, despite the fact that total expenditure in rural areas was about a half of that in urban areas (understandable given the lower rural access for mobiles and lower disposable incomes), the rural households spent a higher 67% on mobiles, compared to 61% in urban areas.

250. Table D.8.3 indicates the extraordinary high expenditures on communications- $533 per household on average and $334 on mobiles. For all items, there is the usual urban:rural differences, with a factor of around 2.2 applying to all items,

except Internet expenditure. The average household expenditures are large compared to that spent on health or education.

Table D.8.3 Expenditure per HH and pc ($)

	Rural	Urban	FIJI	U:R
	per household			
Mobiles	210	454	334	2.2
Land lines	95	219	158	2.3
Internet	3	60	32	23.8
Others	7	12	10	1.7
Total	315	746	533	2.4
	per capita			
Mobiles pc	*44*	*100*	*72*	*2.3*

251. The low amounts spent on Internet usage is of concern since the data indicates extremely low usage of the Internet in rural households, suggesting generally a lack of investment in computers. Only 7% of households had expenditures on the Internet, 12% in urban areas, and less than 1% in rural areas.

Table D.8.4 Expenditure per hh and pc (by division)(2008-09)

	Cent.	East.	North.	West.	FIJI
	per household				
Mobiles	439	190	212	300	334
Land lines	220	182	85	123	158
Internet	65	0	5	14	32
Others	10	6	15	7	10
Total	736	378	317	444	533
	per capita				
Mobiles pc	*92*	*42*	*43*	*67*	*72*

252. Given that the Internet has a great capacity to improve educational resources for children and adults, as well as give households cheap access to international communication through Skype and other communication software, this lack of investment in computers and Internet connections in both rural and urban households should be an important policy issue for educationists and social welfare stakeholders.

Table D.8.5 Expenditure per hh and pc (by ethncity)(2008-09)

	iTaukei	Indo-F	Other	FIJI
	per household			
Mobiles	328	326	442	334
Land lines	134	164	337	158
Internet	23	34	96	32
Others	12	6	19	10
Total	497	529	893	533
	per capita			
Mobiles pc	*64*	*81*	*94*	*72*

253. Table D.8.4 gives the divisional differences, with a rough 2:1 ratio between the average expenditure in Central Division and other divisions. Internet usage may be seen to be confined mainly to Central Division, with some in Western Division. Interestingly there is greater homogeneity in mobile expenditure per capita.

254. Table D.8.5 indicates a few ethnic differences: Internet usage is highest amongst Others by far. While there is little difference between average household expenditure on mobiles by iTaukei and Indo-Fijians, there is a

significant difference in per capita expenditure: $64 per person for iTaukei and $81 per person for Indo-Fijians. This may be partly a reflection of the urban bias, as well as other factors such as higher disposable income per individuals in the household and, possibly, a greater cultural proclivity towards mobile usage in Indo-Fijian families.

Table D.8.6 Changes per HH ($ and %)

Data	2002	2008	$ Ch.	*%Ch*
	Rural			
Mobiles	14	210	197	*1449*
Land lines	110	95	-15	*-14*
Total	132	315	182	*138*
	Urban			
Mobiles	25	454	429	*1725*
Land lines	469	219	-249	*-53*
Total	527	746	219	*42*
	FIJI			
Mobiles	19	334	315	*1671*
Land lines	277	158	-119	*-43*
Total	316	533	217	*69*

255. Table D.8.6 gives a clear idea of the changes taking place between the two HIES. While Average Household Total Consumption Expenditure on Communications increased by 69% nationally, that for Rural Households increased by 138%.

256. In rural areas, the increase of $182 was the result of a $15 decrease in land line usage, and a $197 increase in mobile usage. ie most of the extra expenditure was "new" expenditure on mobiles.

257. In urban households, however, the overall increase of $219 per household was made up of -$249 reduction in landline usage and a $429 increase in mobile usage. Thus increased mobile usage came at a substantial cost to land line usage.

258. Overall nationally, expenditure on communications per HH increased by $217 of which there was a decline in land line usage by -$119, with an increase in mobiles by $315 per household on average.

9. Recreation and Culture

259. The Division 9 in the 2008-09 HIES is unfortunately not comparable with any neat section in the 2002-03 HIES although it is possible to attempt a few comparisons with identifiable sub-groups.

Table D.9.1 Expend. on Recreation Items (2008)

	Rural	Urban	Fiji
	$ millions		
Electronic	5.8	12.4	18.2
Computer related	0.9	3.6	4.6
Sports	0.7	1.2	1.9
Books/stationery	0.6	3.7	4.3
Pay TV	1.8	9.5	11.4
Holidays	0.3	5.1	5.4
Others	3.2	3.7	6.9
ALL	13.3	39.3	52.7
	Percentages		
Electronic	43	32	35
Computer related	7	9	9
Sports	5	3	4
Books/stationery	5	9	8
Pay TV	14	24	22
Holidays	2	13	10
Others	24	10	13
ALL	100	100	100

260. Overall, it would seem that the largest expenditures on entertainment are electronic equipment related, comprising some 35% altogether of the expenditure on Recreation, followed by Pay TV with 22%. Together, these two comprised some 57% nationally. While the same percentage prevailed in rural areas, the emphasis there was more on Electronic expenditures (some 43% of the total) while expenditure on Pay TV was less at 14% (probably because of lower coverage in rural areas) (Table D.9.1).

261. Holidays (mostly overseas) accounted for 10% of expenditures (13% in urban households, but only 2% in rural households).

Table D.9.2 Expend. per HH on items ($) (2008)

	Rural	Urban	Fiji	%(R-U) /U
Electronic	67	140	104	-52
Computer Rel.	11	41	26	-73
Sports	8	14	11	-39
Books/stationery	7	41	24	-82
Pay TV	21	108	65	-81
Holidays	3	58	31	-94
Others	37	42	40	-13
ALL	154	443	300	-65

262. Somewhat of concern is that computer-related expenditures only amounted to 9% nationally, and only 7% in the rural households, while books and stationery also comprised fairly low proportions around 8%.

263. While "Culture" was part of the heading for this division, there was negligible expenditure on cultural items.

264. Table D.9.2 indicates the very large rural:urban gaps in recreation expenditure per household- -65% nationally, in aggregate, but equally large gaps in all the

components. Urban households tend to spend more than twice the amounts spent by rural households on most sub-categories.

Table D.9.3 Recreation Expend. per hh (by division) ($) (2008)

	Central	East.	North.	West.	All
Electronic	140	76	97	75	104
Computer rel.	45	2	8	18	26
Sports	21	2	5	4	11
Books/stationery	44	5	10	14	24
Pay TV	96	41	48	44	65
Holidays	73	0	0	6	31
Others	48	85	23	32	40
ALL	467	211	190	194	300

265. Table D.9.3 suggests that households in the Central Division spend roughly twice the mount that is spent on average by the other three divisions, in aggregate, and for all the sub-groups. Expenditure on holidays was virtually all from the Central Division.

Table D.9.4 Expend. per hh on Recreation items (2008)

	iTaukei	Indo-F	Other	FIJI	%(F-I)/ I
Electronic	117.20	75.90	171.29	103.71	54
Pay TV	43.11	81.07	155.26	64.78	-47
Holidays	15.93	43.47	84.91	30.94	-63
Computer related	18.96	30.66	61.69	26.10	-38
Books/stationery	18.98	24.41	75.94	24.42	-22
Sports	10.63	11.35	10.89	10.93	-6
Others	37.05	38.02	74.36	39.58	-3
Total	261.85	304.89	634.33	300.46	-14

266. Table D.9.4 gives an interesting perspective on ethnic relativities in expenditure on recreation items.

267. Overall, there is the expected negative gap for iTaukei (of -14%) but there is also a very significant positive 54% margin in favour of iTaukei for electronic equipment related to entertainment.

268. Of significance (and probably one of the factors in the targeting of advertisements) is that average household Indo-Fijian expenditure on PayTV was twice that for iTaukei households.

269. The negative gap in sports is also somewhat surprising. However, the negative gaps in computer related expenditure and books related items, ought to be a matter for policy focus.

270. While some of the categories may not be strictly comparable between 2002-03 HIES and the 2008-09 HIES, Table D.9.5 is indicative of broad changes that may be taking place within Expenditure Division 9 on Recreation and Culture.

271. The nominal increases in expenditure on sports and books/stationery is fairly close to that CPI percentage increase of 27%, hence the overall share of the sub-total

remains the same at around 4% and 9% respectively. There were large increases in the share going to Electronic equipment for entertainment (rising from 27% of the sub-total to 40%) while that on Pay TV also rose dramatically from 14% to 25% of the sub-total.

272. The only category which showed a significant decline both in nominal dollar terms and in percentage shares was the expenditure on holidays. This may be an indication of the higher budgetary constraints on discretionary expenditure in 2008-09 than in 2002-03.

Table D.9.5 Changes 2002-03 to 2008-09

Data	2002	2008	% Ch.
	$millions		
Electronic	9.5	18.2	92
Computer related	1.7	4.6	173
Sports	1.5	1.9	27
Books/stationery	3.2	4.3	34
Pay TV	4.8	11.4	139
Holidays	14.6	5.4	-63
Sub-total	35.2	45.7	
	Percentages		
Electronic	27	40	48
Computer related	5	10	110
Sports	4	4	-2
Books/stationery	9	9	3
Pay TV	14	25	84
Holidays	42	12	-71
	100	100	0

10. Education

273. Table D.10.1 indicates a quite large 200% increase in expenditure on education, in nominal terms. Expenditure in urban areas increased by an even larger 264% compared to the 89% in rural areas. It is not clear whether these large increases are indicative of a HIES classification or methodology problem. It will be useful to focus more on the values for 2008-09.

Table D.10.1 Education Exp. ($m, $ and %)

Area	2002	2008	% Ch.
	$million		
Rural	21	40	89
Urban	37	136	264
All	59	176	200
	$ per household		
Rural	256	466	82
Urban	511	1532	200
All	375	1006	168

274. Table D.10.2 shows the dramatic increase in Education Expenditure as a percentage of Total Household Expenditure, rising from 3.5% in 2002-03 to 6.9% in 2008-09- a virtual doubling during this period. The increase in proportion was again much bigger in the urban areas, with a 104% increase to 7.9% of total expenditure.

275. If the values are accurate, it would be important to examine the extent to which these increases in total value terms was due to increased fees and charges imposed by schools, or whether these are also due to major changes in priority of the families.

Table D.10.2 Education Expenditure ($m and %) (by ethnicity)

Ethnicity	2002 $m	2008 $m	% Ch.
iTaukei	24	84	243
Indo-F	30	63	111
Other	4	29	579
All	59	176	200

276. Table D.10.3 indicates the extremely large increases in Education expenditure by iTaukei, increasing in nominal terms by 243% and in real terms by 141%. Their total education expenditure, which was less than that by Indo-Fijians in 2002-03, had well exceeded that of Indo-Fijians by 2008-09.

277. Table D.10.3 abstracts away from the demographic changes with the iTaukei population rising and Indo-Fijian falling. It indicates the significant 125% increase in the proportion for iTaukei, rising from a mere 2.8% to 6.3%. The Indo-Fijian proportion also rose from 4.2% to 6.6%. Between these two HIES, the percentage gap between iTaukei and Indo-Fijians closed from -32% to -5%.

Table D.10.3 Education as % of Total HH Expenditure (ethnicity)

Ethnicity	2002	2008	% Ch.
iTaukei	2.8	6.3	125
Indo-F	4.2	6.6	59
Other	4.0	10.3	160
All	3.5	6.9	99
%(F-I)/I	-32	-5	

278. These changes may be due to any number of factors: increased revenue demands from educational institutions; increased attendance at schools; and very positively,

Table D.10.4 Educ. as % of Total Exp.

Area	2002	2008	% Ch.
Rural	2.9	4.8	64
Urban	3.9	7.9	104
All	3.5	6.9	99

increased emphasis on education by all ethnic groups. It may be observed that in 2008-09, the "Others" had the highest proportion of total expenditure on education- some 10.3%, an increase of 160% from the 4.0% in 2002-03.

Table D.10.5 Perc. At School (area)

Age Group	2002	2008	% Ch.
	Rural		
5	44	55	25
6 to 13	98	96	-2
14 to 18	73	74	1
19 to 21	24	21	-10
22 to 34	2	3	36
	Urban		
5	67	54	-19
6 to 13	98	97	-1
14 to 18	80	87	8
19 to 21	39	44	14
22 to 34	4	7	53
	Fiji		
5	54	55	1
6 to 13	98	96	-2
14 to 18	76	80	5
19 to 21	32	34	9
22 to 34	3	5	53

279. Table D.4.5 has a mix of "good" news and perhaps "bad". At the national level, there appears to be a slight improvement of enrolment at pre-school age (here taken to be 5 years) but the overall percentage is still low at 55%.

280. Enrolments at primary school ages (6 to 13) are high but declined slightly from 98% to 97%.

281. Enrolments at secondary school ages (ages 14 to 18) have shown a distinct improvement from 76% to 80%, although this would indicate that there are still some 20% not in school in this age group.

Table D.10.6 Education Expend. by levels

	2002	2008	% Ch.
	$ millions		
Pre-School	1.0	1.2	24
Primary	8.9	27.8	211
Secondary	15.2	36.0	137
Tertiary	33.6	111.0	230
All levels	58.7	176.3	200
	Percent.		
Pre-School	1.6	0.7	-59
Primary	15	16	4
Secondary	26	20	-21
Tertiary	57	63	10
All levels	100	100	0

282. Enrolments at tertiary age (19 to 21) also show a significant improvement of 9% although the percentage is still low at 34% in 2008-09.

283. Table D.10.6 indicates that the largest proportion of private household expenditure is at the tertiary levels, and increased from 57% to 63%. That at secondary levels has decreased from 26% to 20% while that at primary has remained roughly the same at around 16%. The financial burden of education on households is very definitely largest at the tertiary levels and significantly increased since 2002-03.

284. The proportion going to pre-school appears to have declined slightly, possibly as a result of greater government subsidy of pre-school teacher salaries.

11 Restaurants and Holidays

285. This is a new expenditure division created in the 2008-09 HIES, which will be analyzed here, with some limited comparisons possible with the 2002-03 HIES.

286. It should be noted that the Restaurant Expenditure here (which includes all cooked food bought outside the home) has already been included in the analysis of Division 1 (Food) expenditure.

Table D.11.1 Restaurants and Holidays ($m,%) (2008-09)

Data	Rural	Urban	All
	$ millions		
Restaurants	6.9	26.3	33.3
Holidays	1.5	6.2	7.7
Both	8.4	32.5	40.9
	per HH ($)		
Restaurants	80	297	190
Holidays	17	70	44
Both	97	367	234

287. Table D.11.1 indicates that of the total of $33 million spent on food from Restaurants and other outlets, the bulk of it ($26 million) is consumed by urban households and only $7 million by rural households.

288. The Expenditure per household on restaurants in urban households ($297) is therefore more than three times that in rural households ($80).

Table D.11.2 Restaurants Expenditure per HH ($ and %) (2008-09)

Division	Rural	Urban	All	%(R-U)/U
Central	63	404	310	-84
Eastern	29	14	25	102
Northern	131	241	162	-46
Western	71	152	106	-53
All	80	297	190	-73

289. A similar picture is painted with expenditure on Holidays, with the bulk being spent by urban households. The rural expenditure per household on Holidays was only $17 compared to the $70 for urban households.

290. Table D.11.2 indicates that Restaurant Expenditure per hh is highest in the Central Division ($310 per hh), but unusually, the next highest is Northern Division (with $162 per hh).

291. As would be expected, the largest rural:urban gap is with the Central Division.[33]

292. Table D.11.3 indicates the interesting result that there was very little difference between the two major ethnic groups in restaurant expenditure per household in 2008-09, although the Others had more than twice

Table D.11.3 Restaurants Expenditure per hh ($) (2008-09)

Ethnicity	Rural	Urban	All
iTaukei	78	262	154
Indo-F	89	260	191
Other	31	680	518
All	80	297	190

[33] The results for the Eastern Division are not to be taken as statistically significant because of the low responses for this expenditure item.

that of iTaukei and Indo-Fijians. The high values for Others was largely due to the urban Others, as Rural Others has the lowest average household expenditure of $31 per year.

Table D.11.4 Holidays Exp. per HH (by division) (2008-09)

Division	Rural	Urban	All
Central	31	120	95
Eastern	92	14	76
Northern	0	16	5
Western	5	4	4
All	17	70	44

293. Table D.11.4 gives the somewhat unusual result that by far if is the households in the urban Central Division who have any expenditure on Holidays (locally and abroad). The Northern and Western divisions have negligible average expenditure on Holidays.[34]

Table D.11.5 Holidays Exp. per HH (by ethnicity) (2008-09)

Ethnicity	Rural	Urban	All
iTaukei	26	55	38
Indo-F	0	53	32
Other	3	237	179
All	17	70	44

294. Table D.11.5 gives an interesting result that while the urban Others have the highest average household expenditure on Holidays ($237 per annum), that for iTaukei is now slightly higher than that for Indo-Fijians. This would be an interesting reflection of the increasing globalisation of iTaukei, who are matching the international connections of Indo-Fijians through emigration of family members.

Table D.11.6 Restaurant and Holidays Expenditure per HH ($ and %)

	2002	2008	% Ch.
Restaurants	14.5	33.3	129
Holidays	17.4	7.7	-56
Both	31.9	40.9	28

295. Table D.11.6 attempts to give a rough indication of the time trend in restaurant and holidays expenditures. It would appear that Fiji households have very significantly increased their expenditure on restaurants and food cooked outside the home, by some 129%.

296. The expenditure on holidays appear however to have gone down quite significantly by -56% in nominal terms and more in real terms.

Table D.11.7 Restaurant Expenditure per HH ($ and %) (by divisions)

Division	2002	2008	% Ch.
Central	156	310	98
Eastern	35	25	-27
Northern	48	162	235
Western	54	106	95
All	93	190	105

297. Table D.11.7 gives the unusual result that while all divisions (except Eastern) have seen large increases in average household spending on restaurants, the largest increase has been in the Northern division, to put them in second place behind Central division. In 2008-09 the value for Northern was some 50% higher than for the Western division.

[34] The unexpected high value for the rural Eastern Division is not likely to be representative.

298. Table D.11.8 indicates an interesting reversal of ethnic relativities between the two HIES. The average Indo-Fijian household had a -24% gap with iTaukei in expenditure on restaurants in 2002-03. A very high increase of some 153% converted this into a 24% positive margin by 2008-09. This may largely also be a result of the much greater choice in Indian restaurants now available throughout the country, as well as the greater disposable incomes within Indo-Fijian households leading to higher consumption of food outside the homes.

Table D.11.8 Restaurant Expenditure per HH ($ and %) (by ethnicity)

Ethnicity	2002	2008	% Ch.
iTaukei	99	154	55
Indo-F	75	191	153
Other	200	518	160
All	93	190	105
%(I-F)/F	-24	24	

299. Table D.11.8 indicates that the Others had the highest average household restaurant expenditure of some $518 compared to the national average of $190. Their increase between 2002-03 and 2008-09 was also the highest at 160%.

Table D.11.9 Holidays Expenditure per HH ($ and %) (by ethnicity)

Ethnicity	2002	2008	% Ch.
iTaukei	84	38	-54
Indo-F	121	32	-74
Other	320	179	-44
All	111	44	-61
%(F-I)/I	-30	21	

300. Table D.11.9 gives an opposite reversal in ethnic relativities. While all ethnic groups were indicated to have a reduction in expenditure on holidays, the Indo-Fijian reduction was larger than the iTaukei reduction with the result that the -30% gap that iTaukei had with Indo-Fijians in 2002-03 was converted into a positive 21% gap by 2008-09.

Table D.11.10 Holidays Expenditure per HH ($ and %) (by division)

Division	2002	2008	% Ch.
Central	152	95	-37
Eastern	190	76	-60
Northern	81	5	-94
Western	68	4	-94
All	111	44	-61

301. Table D.11.10 suggests that while all divisions have suffered declines in average household expenditure on holidays, that for Northern and Western showed the largest declines of -94%, to reach negligible levels by 2008-09.

12 and 13 Miscellaneous and Other Items

302. Divisions 12 and 13 in the 2008-09 HIES contained a number of miscellaneous items not easily classifiable elsewhere.[35] By the far the largest item is Loan Repayments which was ten times higher in urban areas than in rural areas.

Table D.12.1 Other Miscellaneous Items ($m) (2008-09)

	Rural	Urban	All
Loan Repayments	11	79	90
Religious Contribution	22	38	60
Insurance/Other services	6	43	49
Personal Care/Effects	9	29	38
Associations	7	23	30
Village/District	5	7	12
Pocket Money	2	4	6
Others 2008	0	1	1
Total 12 and 13	60	225	285

303. Worth noting is that Religious Contributions were higher than Insurance and other Services, and if combined with Village and District contributions, amounted to $72 million annually.

304. Table D.12.2 gives the miscellaneous expenditures per household. Very obviously there are large negative gaps between rural and urban households on all the items of expenditure. Overall, Urban Expenditure per household is some four times higher than that in rural households.

Table D.12.2 Expenditure per HH ($) (2008-09)

	Rural	Urban	All	%(R-U) /U
Loan Repayments	121	892	512	-86
Religious Contribution	255	432	345	-41
Insurance/services	65	486	278	-87
Personal Care/Eeffects	104	322	214	-68
Associations	77	259	169	-70
Village/District	53	79	66	-33
Pocket Money	17	51	34	-66
Others 2008	1	15	8	-95
Total 12 and 13	694	2536	1627	-73

305. Table D.12.3 indicates the divisional differences in all the items of expenditure. As would be expected, the Central Division, with its preponderance of high income households, has the largest per household expenditure for virtually all items. Loan repayments and Insurance payments are more than four times that of Western or Northern divisions; Personal Care and Effects are two to three times higher; Religious contributions and payments for Associations (including unions and social clubs) are two times higher. Only in District and Village Contributions and Pocket Money are Central unit expenditures comparable to the other divisions.

[35] In some HIES methodology, Loan Repayments are not included as part of normal expenditure (although interest payments and service charges are). FIBoS practice is to include Loan Repayments. Here the Insurance Payments exclude Life Insurances which are treated as savings and discussed below.

Table D.12.3 Average Household Expenditures ($ pa) (divisions) (2008-09)

Data	Central	Eastern	Northern	Western	All
Loan Repayment	975	104	166	254	512
Religious Contribution	464	405	270	249	345
Insurance/Other services	506	102	146	132	278
Personal Care/Effects	313	99	89	186	214
Associations	236	108	112	136	169
Village/District	111	122	44	23	66
Pocket Money	36	1	20	43	34
Others 2008	19	1	1	1	8
Total 12 and 13	2661	943	848	1023	1627

306. Table D.1.4 gives some of the ethnic dimensions of these expenditures. Quite significantly, average iTaukei household expenditure is some 41% higher than that of Indo-Fijians, with the only negative items being Loan Repayments (-23%) and Pocket Money.

Table D.12.4 Av. HH Expenditures Selected Items ($ pa) (ethnicity) (2008-09)

Data	iTaukei	Indo-F	Other	All	%(F-I) /I
Loan Repayments	423	549	1084	512	-23
Religious Contribution	484	128	545	345	278
Insurance/Other services	250	211	1016	278	19
Personal Care/Eeffects	203	201	418	214	1
Associations	230	79	226	169	192
Village/District	108	5	97	66	2011
Pocket Money	21	48	61	34	-56
Others 2008	1	1	119	8	20
Total 12 and 13	1721	1222	3566	1627	41

307. Significantly, though, the bulk of the ethnic difference is due to the fact that iTaukei contribution for religious purposes is some four times higher than it is for Indo-Fijians, while virtually all the Village and District Contributions, understandably, are in iTaukei households. It is unusual however, that iTaukei are making almost three times as much in contributions per household to Associations than Indo-Fijian households.

308. These next few tables attempt some comparisons with the 2002-03 HIES results where possible. Table D.12.5 suggests that while the CPI has risen by 27% between the two

Table D.12.5 Average. HH Expenditure ($)

Data	2002	2008	% Ch.
Religious Contribution	287	345	20
Associations	149	169	14
Village/District	119	66	-45

HIES, religious contributions rose by a lower 20% (ie declined in real terms) while that on Associations has risen by only 14%. Village and District level contributions have declined by a large -45% in nominal terms and much more in real terms.

House/Land Purchase and Major Improvements

309. While house and land purchases and major capital improvements, being properly classifiable as investments, are not included in the normal household expenditure, some tables are presented here as an indication of the possible changes in economic circumstances of households. Table D.12.6 indicates that while there was a small nominal increase of 3% in total expenditure nationally, this comprised an 8% increase in urban areas, and a large 25% decline in rural areas.

Table D.12.6 House/Land Purchase and Improvements

Area	2002	2008	% Ch.
	$ millions		
Rural	13	10	-25
Urban	77	84	8
All	90	93	3
	Per HH		
Rural	155	113	-27
Urban	1059	943	-11
All	576	533	-7

310. Expenditure per household however also declined by -11% in urban areas, with a -27% decline in rural areas.[36] Household expenditure in urban areas remained around seven times that in rural areas.

Table D.12.7 House/Land Purchase and Improvements per hh ($)

Division	2002	2008	% Ch.
Central	772	1100	42
Eastern	255	68	-73
Northern	227	407	79
Western	570	89	-84
All	576	533	-7

311. Divisional disaggregation (Table D.12.7) indicates that the increases in average household expenditure on house/land purchases and improvements were limited to the Central division (42% increase) and a much larger 79% increase in the Northern Division.[37] The Western Division suffered a large -84% decrease.

312. Table D.12.8 gives similar data disaggregated by ethnicity. The most outstanding feature is the extremely high levels and increases in average household expenditures for Others, while that for iTaukei and Indo-Fijians decreased quite significantly. The Indo-Fijian decrease of -58% was much larger than that for

Table D.12.8 House/Land Purchase and Improvements per hh ($)

Ethnicity	2002	2008	% Ch.
iTaukei	373	266	-29
Indo-F	715	302	-58
Other	1449	4677	223
All	576	533	-7
%(F-I)/I	-48	-12	

[36] To deflate to real terms would require an index for house and land prices, not currently available, nationally or by urban/rural and divisional disaggregations which would be necessary for meaningful deflation.

[37] While the Northern Division was seen in 2002-03 as being the poorest division, this improvement is consistent with other indicators presented in this report.

iTaukei (-29%) with the result that the gap between iTaukei and Indo-Fijians shrank from -48% in 2002-03 to -12% in 2008-09.

Table D.12.9 Life Insurance

Area	2002	2008	% Ch.
	$ millions		
Rural	13.9	7.9	-43
Urban	19.2	29.6	54
All	33.1	37.5	13
	Per HH		
Rural	166	91	-45
Urban	263	334	27
All	211	214	1

Life Insurance/Assurance

313. Payments for Life Insurance or Assurance in HIES are usually seen as savings and not expenditure. Table D.12.9 indicates that while there was an aggregate nominal increase of 13% nationally, this was the joint result of a large 54% increase in urban areas, and -43% decrease in rural areas.

314. Per household, there was virtually no change nationally, a 27% increase in urban areas and -45% in rural areas. This is in keeping with the general overall decline that has been documented for the rural areas. The extent of the decline in Life Insurance expenditure per household is also indicative of the significant decline in rural standards of living between the two HIES.

Table D.12.10 Life Insurance per hh ($)

Division	2002	2008	% Ch.
Central	284	275	-3
Eastern	295	104	-65
Northern	149	167	12
Western	148	188	28
All	211	214	1

315. Table D.12.10 gives the unusual results that Central Division households on average saw a decline of -3% while that in the North saw an increase of 12% and an even higher increase of 28% in the Western division. The dollar value of average household life insurance payments remain the highest in Central Division.

Table D.12.11 Life Insurance per hh ($)

Ethnicity	2002	2008	% Ch.
iTaukei	257	222	-14
Indo-F	150	189	26
Other	327	313	-4
All	211	214	1
%(F-I)/I	42	15	

316. Table D.12.11 indicates unusual relativities in that Life Insurance Expenditure per household for iTaukei has been higher than that for Indo-Fijians- by 42% in 2002-03, the advantage reducing to 15% in 2008-09. This was a result of the average expenditure increasing by 26% for Indo-Fijians, but decreasing by -14% for iTaukei.

E HOUSING, HOUSEHOLD ASSETS and SERVICES

317. Readers should note that the 2007 Census will give more accurate information on many of the variables below.

House Types

318. With the overall number of households increasing by 12% (22% in urban areas and 3% in rural areas), there appears to have been solid progress in the kinds of houses being occupied (Table E.1).

319. Overall, houses of concrete and wooden walls increased by 24% and 28% respectively, while iron houses decreased by 8%.

320. Significantly, even in rural areas, concrete houses increased by 13% while wooden houses increased by 21%.

Table E.1 House Wall Types

House wall	2002	2008	% Ch.
	Rural		
A Concrete	18929	21406	13
B Wooden	22219	26790	21
C Iron	36518	33957	-7
D Other/Bure	6014	4370	-27
Rural	83680	86523	3
	Urban		
A Concrete	36473	48033	32
B Wooden	14935	20839	40
C Iron	21218	19009	-10
D Other/Bure	376	843	124
Urban	73001	88724	22
	All		
A Concrete	55401	69438	25
B Wooden	37154	47628	28
C Iron	57736	52966	-8
D Other/Bure	6389	5213	-18
FIJI	156681	175246	12

321. With large amounts of mahogany plantations being harvested, it would be important for the Forestry Department to encourage the greater utilization of local timber in house construction, through technical assistance and financial incentives. It may be noted that there were some 53 thousand households still living in iron-walled houses in 2008-09.

322. Of usual policy concern is the type of housing which the poor are occupying. Of the lowest rural quintile 1, the HIES data suggests solid improvements, with a 91% increase in concrete houses, and a 17% increase in wooden houses. There were corresponding decreases in iron houses (-29%) and Other types (-66%).

323. Table E.3 gives the corresponding

Table E.2 House Types Rural Quintile 1

House wall	2002	2008	% Ch.
A Concrete	1626	3103	91
B Wooden	3622	4229	17
C Iron	8055	5739	-29
D Other/Bure	803	271	-66
Quintile 1	14105	13342	-5
	Perc.		
A Concrete	12	23	102
B Wooden	26	32	23
C Iron	57	43	-25
D Other/Bure	6	2	-64
Quintile 1	100	100	

statistics on the Urban Quintile 1.

324. In the lowest urban quintile, the largest increase of 154% took place in the Concrete houses, with a small 13% increase in wooden houses. There was a consequent significant decrease in iron houses (by -43%) although "Other" types indicated a 45% increase from a small base. The latter would no doubt be a reflection of increased rural-urban migration and squatting.

Table E.3 House Types Urban Quintile 1

House wall	2002	2008	% Ch.
A Concrete	3253	8260	154
B Wooden	2999	3394	13
C Iron	5783	3273	-43
D Other/Bure	123	179	45
Quintile 1	12158	15106	24
	Percent		
A Concrete	27	55	104
B Wooden	25	22	-9
C Iron	48	22	-54
D Other/Bure	1	1	17
Quintile 1	100	100	

Squatter Housing

325. While the detailed micro studies on squatter housing have always revealed a wealth of socio economic data, it is still useful to examine the HIES findings on squatter areas, which are specifically targeted by the Bureau's sampling procedures.

326. Table E.4 indicates that while the total number of households recorded increased by 48% between 2002-03 and 2008-09, there was a very large 142% increase in concrete houses and a 132% in wooden houses.

Table E.4 Squatter Households

House wall	2002	2008	% Ch.
A Concrete	414	1001	142
B Wooden	839	1948	132
C Iron	3885	4533	17
D Other/Bure	82	245	198
All	5220	7727	48
	Perc		
A Concrete	8	13	64
B Wooden	16	25	57
C Iron	74	59	-21
D Other/Bure	2	3	101
	100	100	

327. Wooden houses as a proportion increased from 16% to 25%, concrete houses increased from 8% to 13% while iron houses declined from a very large 74% to 59%.

328. The section below on poverty will also reveal some good news about changes in the state of poverty of the inhabitants of squatter areas.

Cars

329. Table E.5 indicates that while there has been an 18% increase in the numbers of cars in these sampled households, the increase has pretty well been in the urban areas, with

Table E.5 Cars (no. and percent.)

Area	2002	2008	% Ch.
	Number		
Rural	8124	8125	0
Urban	20030	25112	25
All	28154	33237	18
	Perc.		
Rural	10	9	-3
Urban	27	28	3
All	18	19	6

virtually no increase recorded in rural areas. The proportion or rural households with cars has therefore declined by 3% to 9% while that for urban households has increased by 3%.

330. Table E.6 indicate that while iTaukei continue to have low ownership of cars, the numbers owned has risen by 46% between the two HIES, and the proportion of iTaukei households with cars has risen from 6.8% in 2002-03 to 8.2% in 2008-09. The proportion of Indo-Fijian households with cars has increased only slightly by 5% to 31.1%.

331. The largest increase has been in Other households- an increase of 109% in numbers of cars, 43% in proportion- rising to 36% by 2008-09.

Table E.6 Car ownership (ethnicity)

Ethnicity	2002	2008	% Ch.
	Numbers		
iTaukei	5340	7790	46
Indo-F	21104	21868	4
Other	1711	3579	109
All	28154	33237	18
	Percent		
iTaukei	6.8	8.2	21
Indo-F	29.6	31.1	5
Other	25.0	35.7	43
All	18	19	6

Trucks/Carriers

332. Table E.7 indicates some unusual HIES results on the ownership of trucks and carriers, with an overall reduction indicated of 33%, -40% in rural areas and -20% in urban areas.

333. The total percentage of households with trucks and carriers seem to have significantly declined from 6.4% of all households to 3.8%. In rural areas, where trucks and carriers are of greater use, the percentage of households with trucks declined from 8.0% to 4.6%.

334. The relatively greater decline in the rural areas may be attributed to the relative economic decline there. However, it may be that part of the decline could be due to tougher LTA laws which may have deregistered poor condition trucks and carriers.

335. Table E.8 indicates that iTaukei ownership of trucks and carriers has declined far more than the other ethnic

Table E.7 Trucks/Carriers

Area	2002	2008	% Ch.
	Number		
Rural	6693	4015	-40
Urban	3370	2704	-20
All	10063	6718	-33
	Perc of Households		
Rural	8.0	4.6	-42
Urban	4.6	3.0	-34
All	6.4	3.8	-40

Table E.8 Trucks/Carriers (ethnicity)

Ethnicity	2002	2008	% Ch.
iTaukei	3112	1480	-52
Indo-F	6709	4955	-26
Other	242	283	17
All	10063	6718	-33
	Percent.		
iTaukei	4.0	1.6	-61
Indo-F	9.4	7.0	-25
Other	3.5	2.8	-20
All	6	4	-40

groups, both in absolute numbers (-52%) and percentage of houses with trucks and carriers, which declined from 4.0% to 1.6%.

336. Indo-Fijian households also saw a decline in both absolute numbers (-26%) and percentage of households with trucks and carriers (declining from 9.4% to 7.0%).

Table E.9 Supply of Electricity (number of hh)

	2002	2008	% Ch
FEA	104323	126851	22
Village Plant	10319	12775	24
Own Plant	5140	6124	19
Others	1640	1508	-8
None	36899	29496	-20
	156681	175246	12
Perc. FEA	67	72	

Access to Electricity and Durable Goods

337. As a large proportion of usage of durable goods depend on a regular supply of electricity, Table E.9 gives the HIES estimates of the kind of electricity supply available throughout Fiji. The percentage provided by FEA increased by some 22% from 67% of all households in Fiji in 2002-03 to 72% in 2008-09. Village Plants and Own Plants grew by 24% and 19% respectively.

338. Table E.10 indicates however, that in rural areas, FEA was able to increase supply only by 10%, with the proportion being supplied by it increasing from 47% to 49%.

Table E.10 Rural Source of Electricity

Rural areas	2002	2008	% Ch
	Numbers		
FEA	38973	42774	10
Village Plant	10203	12775	25
Own Plant	4923	5887	20
Others	736	598	-19
None	29581	25087	-15
All Rural	83680	86523	3
	Perc.		
FEA	47	49	6
Village Plant	12	15	21
Own Plant	6	7	16
Others	1	1	-21
None	35	29	-18
All Rural	100	100	0

339. With both Village Plants and Own Plants increasing their share (from a total of 18% to 22%) rural households without electricity declined from 35% to 29%.

Table E.11 Perc. With Electricity (area) (%)

	2002	2008	% Ch.
Rural	69	77	11
Urban	92	96	5
All	80	87	8
%(R-U)/U	-24	-20	

340. Table E.11 indicates that rural households have seen an increase in their access to electricity, with the percentage enjoying electricity rising from 69% to 77%, while that in the urban areas rose from 92% to 96%. The rural:urban gap declined slightly from -24% to -20%.

341. Table E.12 shows iTaukei increasing their access to electricity by 12% from 72% to 81%, while Indo-Fijians saw a smaller increase but to a higher proportion of 94% by 2008-09.

Table E.12 Access to Electricity (ethnicity) (% of Households)

Fridges	2002	2008	% Ch.
iTaukei	72	81	12
Indo-F	88	94	6
Other	86	93	8
All	80	87	8

342. Table E.13 indicates real progress being made by Fiji households. Not only have there been large increases in households with fridges, but the percentage using fridges has risen from 53% to 62% of all households.

Table E.13 Fridges (numbers and %)

Area	2002	2008	% Ch.
	Numbers		
Rural	28573	34237	20
Urban	55088	74336	35
All	83661	108572	30
	Perc.		
Rural	34	40	16
Urban	75	84	11
All	53	62	16
%(R-U)/U	-55	-53	

343. With the rural households seeing a larger increase in the proportion with fridges, the gap between rural and urban households declined slightly from -55% to -53%. Fridge ownership and usage is no doubt quite strongly correlated with provision of electricity to the household.

344. Table E.14 indicates that while all ethnic groups have seen increasing usage of fridges, iTaukei have seen the larger increase in usage, rising from 39% to 48% although still much lower than that for Indo-Fijians (78%) and Others (76%). The lower iTaukei usage is no doubt linked to the much more remote nature of their households and absence of regular electricity supply.

Table E.14 Fridges (ethnicity) (%)

Fridges	2002	2008	% Ch.
iTaukei	39	48	25
Indo-F	68	78	16
Other	72	76	5
All	53	62	16

345. Table E.15 indicates that for households with electricity and fridge, the gap between rural and urban areas remained at -41%, although rural households increased their usage of fridges from 49% to 51%, while that in Urban areas increased from 82% to 87%.

Table E.15 % Electricity/Fridge (area)

	2002	2008	% Ch.
Rural	49	51	5
Urban	82	87	6
All	66	71	7
%(R-U)/U	-41	-41	

346. It is a significant indicator of rural poverty that even though a large percentage of households in rural areas had electricity, some 49% of them still did not have fridges in the household.

Table E.16 Electricity and fridge (ethnicity) (%)

	2002	2008	% Ch.
iTaukei	54	60	12
Indo-F	76	83	9
Other	84	80	-5
	66	71	7

347. Table E.16 gives the same ethnic trends as previously, with iTaukei having a slightly larger 12% improvement than Indo-Fijians (by 9%). Nevertheless, some 40% of all iTaukei households with electricity, still do not have fridges as opposed to around a fifth for Indo-Fijians and Others.

Table E.17 Computers (nos. and %)

Area	2002	2008	% Ch.
	Numbers		
Rural	1297	4471	245
Urban	7300	26061	257
All	8597	30532	255
	Percentages		
Rural	2	5	233
Urban	10	29	194
All	5	17	218
%(R-U)/U	-85	-82	

348. Table E.17 indicates that while the numbers of computers has virtually tripled between the two HIES, and the percentages of households with computers has risen quite dramatically by 218% from 5% in 2002-03, it is still an extremely low 17% nationally in 2008-09. In rural areas in 2008-09, only 5% of households had computers compared to 29% in urban areas. These results correspond to the results earlier on expenditure on Internet usage.

Table E.18 Videos/TV (area)

Area	2002	2008	% Ch.
	Numbers		
Rural	35052	51971	48
Urban	58261	79702	37
All	93313	131673	41
	Percent		
Rural	42	60	43
Urban	80	90	13
All	60	75	26
%(R-U)/U	-48	-33	

349. Table E.18 makes clear where the preferences of Fiji households are for durable goods, with some 75% of all households having Videos or TV by 2008-09. The percentages in rural areas increased by a large 43% to 60%, and a more moderate 13% increase in urban areas to 90%. The Rural:Urban gap declined significantly from -48% to -33%. Given that computers and videos/TVs are roughly costing the same, it would be a useful national exercise to encourage households to invest relatively more of their household resources in computers.

Table E.19 Washing Machines (area)

Area	2002	2008	% Ch.
	Numbers		
Rural	12546	21724	73
Urban	35517	59585	68
All	48062	81309	69
	Percent		
Rural	15	25	67
Urban	49	67	38
All	31	46	51
%(R-U)/U	-69	-63	

350. Table E.19 gives the large progress being made in households with washing machines, rising from 31% in 2002-03 to 46% in 2008-09. The urban percentages rose from 49% to 67%, while that for rural households rose from 15% to 25%. The rural:urban gap decreased from -69% to -63%, but was still large. Rural women still do the bulk of their washing by hand. Nevertheless,

the numbers of washing machines appear to have increased quite significantly in both rural and urban areas.

351. The trend indicated for stoves in Table E.20 is quite different from the trends on the other durable goods above. There was no increase in the numbers of stoves in rural areas, although numbers increased by 26% in urban areas. Consequently, there a very small 3% increase in the national percentage of households with stoves, but the percentage in rural areas declined by 3% from 40% to 39%. With the percentage in urban areas rising from 71% to 73%, the gap between rural and urban increased from -44% to -47%.

Table E.20 Stoves (area)

Area	2002	2008	% Ch.
	Numbers		
Rural	33496	33505	0
Urban	51812	65076	26
All	85308	98581	16
	Percent		
Rural	40	39	-3
Urban	71	73	3
All	54	56	3
%(R-U)/U	-44	-47	

352. Unfortunately, the 2008-09 HIES questionnaire was changed for Lighting and Cooking, with the 2002-03 HIES allowing multiple answers, while the 2008-09 HIES questionnaire asked for major source of lighting or major means of cooking. Comparisons between the two HIES are not therefore accurately possible.

353. However, it would seem that the usage of fire wood for cooking has increased quite significantly between 2002-03 and 2008-09, and the usage of kerosene stoves has declined significantly, possibly as a result of the steep increases in the prices of the imported fuels. Use of LPG has increased from about 25% to 28% of houses.

Table E.21 2008 Cooking Method (%)

Data	Rural	Urban	Total
Wood	77	19	48
Kerosene	14	32	23
LPG	9	47	28
Electricity	1	2	1
	100	100	100

354. Table E.21 indicates the extremely significant result for 2008-09 that some 48% of all households in Fiji still use fire wood for cooking- some 77% in rural areas (which may be expected) but also 19% in urban areas. Most of this cooking will be done on open fires. The low expenditure on firewood in the earlier section, suggests that much of this wood is gathered and not bought.

355. Given the damaging health effects that cooking over open fires has on the persons involved (mostly women and girls), it must be an absolute priority that affordable energy-efficient and smokeless cooking stoves be made available to those who are forced to use firewood for cooking purposes. This would have affected some 83 thousand households in 2008-09. There can also be an extremely useful advantage in that better use may be made of the current waste products of logging (both mahogany and other local timbers) which are usually left to rot in the forests or dumped after saw-milling.

356. In 2008, LPG was the source of cooking for some 47% of all urban households, 9% in rural households and 28% for Fiji altogether. Kerosene was used for cooking in 23% of all households, and 32% of rural households. These are imported products, using up valuable foreign reserves.

357. Greater use of logging waste products for cooking firewood could result in some savings in foreign exchange for LPG or kerosene. Cooking with firewood must however be under conditions of fuel efficiency (to ensure minimal impact on emission of carbon pollutants in the atmosphere[38], and health safeguards, such as proper flues for wood stoves.

358. Table E.22 indicates that for 2008, electricity was the source for 87% of all lighting for households, some 96% in Urban areas and 77% in rural areas. For rural areas, kerosene still provided some 22% of all lighting. Benzene and solar lighting are were insignificant.

Table E.22 2008 Lighting Method (% of households)

Perc	Rural	Urban	All
Electricity	77	96	87
Kerosene	22	3	12
Benzene	1	0	0
Solar	0	0	0
Total	100	100	100

359. While strict comparisons between 2002 and 2008-09 are not possible, the numbers do suggest that as a source of lighting, kerosene usage may have declined (from about 23% to 12%) while that for benzene has also declined (from 7% to virtually zero).[39]

Table E.23 Water Source

Water supply	2002	2008	% Ch.
A Metered	98813	112188	14
B Comm. pipe	28028	37383	33
C Rooftank	4261	5050	19
D Borehole	4194	5113	22
E Well	6296	5657	-10
F River/Creek	3270	2027	-38
G Other	11819	7828	-34
FIJI	156681	175246	12
	Perc.		
A Metered	63	64	2
B Comm.	18	21	19
C Roof-tank	3	3	6
D Borehole	3	3	9
E Well	4	3	-20
F River/Creek	2	1	-45
G Other	8	4	-41
FIJI	100	100	

Water Supply

360. Table E.23 indicates that while the number of households receiving metered water has risen by 14% between the HIES, the proportion of households receiving metered water has only risen by 2% from 63% to 64%. Metered supplies have not been able to

[38] Whether poor developing countries like Fiji should pay greater attention to international carbon emission protocols than reducing fuel costs for poor households, is an issue that has not been debated extensively in Fiji or any other Pacific Island countries where wood fuel is relatively plentiful and cheap.

[39] The apparent decrease in the use of solar lighting between 2002-03 and 2008-09 needs to viewed cautiously as it may be a statistical aberration, a result of the small sample.

keep pace with the growth of numbers of households in Fiji.

361. It is positive however, that the proportions receiving their water supply from Communal pipes has increased by 19% to 21%, while the proportions using wells, rivers/creeks and Other sources, have all declined.

Toilets

362. Table E.24 indicates major progress in the kinds of toilets that households have been using.

363. In both rural and urban areas, the percentages of households with flush toilets increased significantly, by 40% in rural areas to 58% and by 11% in urban areas to 91%.

364. In both rural and urban areas, water sealed and pit latrines declined. While the national percentage declined from 19% to 13%, it was still a moderately high 16% in rural areas.

Table E.24 Toilet Types (%)

	2002	2008	% Ch.
	Rural		
A Flush (exclusive)	42	58	40
B Water Sealed (exclusive)	30	22	-25
C Shared above	1	3	147
D Pit Latrine	27	16	-41
	100	100	
	Urban		
A Flush (exclusive)	83	91	11
B Water Sealed (exclusive)	7	4	-47
C Shared above	1	2	54
D Pit Latrine	9	3	-63
	100	100	
	Fiji		
A Flush (exclusive)	61	75	24
B Water Sealed (exclusive)	19	13	-32
C Shared above	1	2	102
D Pit Latrine	19	9	-49
	100	100	

365. Overall, throughout Fiji, households with flush and water sealed toilets (exclusive and shared) accounted for 91% of all households. These trends would seem to be extremely positive for health issues associated with toilets, especially in rural areas.

Other durable goods

366. Table E.25 gives some indication of the extremely rapid increase in ownership and usage of brush cutters, with the numbers more than tripling between the two HIES. With urban numbers increasing five times, the

Table E.25 Brush Cutters (area)

Area	2002	2008	% Ch.
	Numbers		
Rural	7080	19694	178
Urban	3540	17422	392
All	10620	37116	249
	Percent		
Rural	8	23	169
Urban	5	20	305
All	7	21	212
%(R-U)/U	74	16	

Rural:Urban gap of 74% in favour of rural households was reduced to only 16% in 2008-09. It would seem that in urban areas, lawn mowers have given way to brush cutters in a major way.

Table E.26 Outboard Motors

Area	2002	2008	% Ch.
	Numbers		
Rural	3136	2677	-15
Urban	804	1292	61
FIJI	3940	3969	1
	Perc.		
Rural	3.7	3.1	-17
Urban	1.1	1.5	32
FIJI	2.5	2.3	-10

367. The ownership of brush cutters is an important indicator not just of agricultural activities, but also a source of income generation in urban areas.

368. Table E.26 gives some unusual results for the numbers of households with numbers of outboard motors. While the total number barely increased, the numbers in the rural areas reduced by -15%. The percentage of households in rural areas with Outboard motors declined by -17%.

Table E.27 Outboard Motors (ethnicity)

Ethnicity	2002	2008	% Ch.
iTaukei	2941	2957	1
Indo-F	724	613	-15
Other	275	399	45
FIJI	3940	3969	1
	Perc.	2008	
iTaukei	3.7	3.1	-17
Indo-F	1.0	0.9	-14
Other	4.0	4.0	-1
FIJI	2.5	2.3	-10

369. This is a somewhat worrying trend, given the importance of outboard motors in fishing, either for subsistence or cash incomes.

370. While there appears to be a large 61% increase in numbers and 32% increase in proportions owning Outboard motors in urban areas, the data indicates that the increase occurred mostly in ethnic Others (Table E.27). There has been a -15% decline in numbers owned by Indo-Fijians and -14% decline in proportion with Outboards. This may partly be a reflection of declining Indo-Fijians in rural areas, and also possibly declining interest in fishing for commercial purposes, because of difficulties with fishing licenses.

Table E.28 Phones (area)

Area	2002	2008	% Ch.
Rural	20257	24196	19
Urban	45484	48271	6
FIJI	65741	72467	10
	Perc.		
Rural	24	28	16
Urban	62	54	-13
FIJI	42	41	-1

371. Of concern should be that the percentage of iTaukei households with Outboard engines has also declined by -17%, indicating a lowered interest in fishing and possibly also a reflection of rising fuel prices.

372. Table E.28 gives the somewhat expected result that while the numbers of households with landline phones has increased by 10% (a higher 19% in rural areas) the percentage of households with phones has declined in urban areas by

15% to 54%. No doubt the massively increased use of mobile phone would need to be taken into account to obtain a fuller picture of communication linkages. The expenditure data on communications gives some indication of the extent to which mobile phone usage has made inroads into the landline usage in urban areas, while in rural areas, mobiles have by and large created extra communication usage.

Table E.29 Households With Mobiles

	Rural	Urban	All
No.	Number of HH		
0	23494	5488	28982
1	28815	22387	51202
2	20910	30084	50994
3	7458	14263	21721
4	3861	9526	13386
> 4	1986	6976	8962
All	86523	88724	175246
	Percent		
0	27	6	17
1	33	25	29
2	24	34	29
3	9	16	12
4	4	11	8
> 4	2	8	5
All	100	100	100
With	73	94	83

Mobile phones

373. Of all the household durables, mobile phones represents an incredibly high growth area for virtually all households in Fiji. It should be kept in mind that the data presented here is from 2008-09, some two years ago. Mobile phone coverage has improved dramatically since then, as has mobile ownership.

374. Table E.29 indicates that some 83% of all households in Fiji had mobile phones, 73% in rural areas, and 94% in urban areas. Remarkably high percentages had multiple mobile phones in the households, with some 25% having more than 2 mobiles.

Table F.30 Mobile phones (ethnicity) (% of hh)

	iTaukei	Indo-F	Other	All
None	23	8	18	17
1	28	31	26	29
2	25	35	28	29
3	11	14	9	12
4	8	7	10	8
> 4	6	4	9	5
All	100	100	100	100
With	77	92	82	83

375. Table E.30 indicates the much higher mobile ownership by Indo-Fijians, with some 92% of the households with mobiles. Some 77% of iTaukei households had mobiles. Put alternatively, only 8% of Indo-Fijian households did not have a mobile phone in 2008-09. This percentage would be much smaller today.

376. This data on mobile usage corresponds to the much higher per capita mobile phone expenditures for Indo-Fijians than for iTaukei. This is also the patterns for Others whose higher mobile phone ownership corresponds to their much higher mobile phone expenditure, no doubt largely linked to their higher disposable incomes.

F Income Distribution Issues[40]

Ranking Criteria

377. An important step in analysing income distribution is the ranking of all households according to some criterion which reflects in a general way the standard of living of the household. Some studies use Total Household Income to rank households. Total household income can reflect the household's standard of living in some characteristics, for instance the ability to purchase expensive durable household goods such as cars or refrigerators. However, it suffers from the weakness that there may be larger (or smaller) numbers of income earners in each household, and the same income may need to be spread out over a larger (or smaller) number of occupants. It is therefore useful to adjust for household size.

378. One approach that is commonly used to allow for household size is ranking of households by "income per capita". This criterion however has the weakness that it implicitly treats all children and elderly as the equivalent of adults in their material requirements. However, young children and the elderly usually do not earn or consume as much as working adults.

379. A much simpler and universally accepted method is the UNDP approach – which calculates "Adult Equivalents" for each household by treating children (14 and under) as half an adult.[41] The households are then ranked by "income per adult equivalent (Income pAE). This is the method generally used by this Report for the analysis of the 2002-03 HIES data on incomes and expenditures (unless otherwise stated).

380. Some approaches also take into account that households generally enjoy "economies of scale" in many costs. Unit expenditures in a number of areas (such as housing, durable goods, electricity, food) can drop significantly as household size increases. The World Bank methodology in calculating "Adult Equivalents" allows for the possibility of economies of scale. While easily calculated, it is somewhat difficult for ordinary lay persons to understand.[42]

381. There are also differences in the units for quintiles or 20% groups. While many studies use quintiles of households, this has the weakness that variables under study may have systematically different average household sizes, so a quintile of households could refer to widely different numbers of occupants. Unless otherwise stated, this Report will use population or occupants as the basis of the quintiles.

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[40] IQ will imply that the quintiles are from the national distribution; RIQ will imply that they are from separate regional distributions for urban and rural areas.

[41] While the UN and WB methods both discount children by a half, the WB method also discounts the number of adults. Thus under the WB formula 3 adults become 2.5, 5 adults become 4, 9 become 7.

[42] The WB formula for calculating Adult Equivalents is as follows: $AE = (0.5 * c) + (0.75 * a) + 0.25$. [Where c = number of children aged 0 to 14, and a = number of adults, > 14].

382. Table F.1 indicates that, nationally, not only was there an aggregate 20% real increase in Total Household Income (adjusting for CPI change of 27.1% between the two HIES), but these real improvements took place at all income quintile levels, with the largest being at Quintile 5.

Table F.1 Total HH Incomes (by quintiles)

Quintiles	2002	2008	% Ch.	R%Ch.
	$millions		Percent	
IQ 1	117	165	42	11
IQ 2	201	297	48	17
IQ 3	294	427	45	14
IQ 4	430	629	46	15
IQ 5	957	1530	60	26
All	1998	3048	53	20
Q5:Q1	8.2	9.3		

383. This is consistent with the overall aggregate reduction in the national incidence of poverty between 2002-03 and 2008-09.

384. However, the ratio of income earned by Quintile 5 to Quintile 1 (the ratio of the income earned by the top 20% of the population to that earned by the Bottom 20% of the population) worsened from 8.2 to 9.3

385. The internationally used measure of Income Distribution is the Gini Coefficient which can range from 0 (completely equal distribution) to 1 (perfectly unequal distribution). The Gini may be calculated for shares of households in the total income, or the shares of population in total income.

Table F.2 Gini Coefficients (2002-03, 2008-09)

	2002-03	2008-09	% Ch.
Population Gini	0.416	0.439	5.5
Household Gini	0.341	0.359	5.3

386. The population Gini deteriorated by 5.5% from 0.416 to 0.439 a worsening of 5.5%.

387. The Household Gini deteriorated from 0.341 to 0.359, a worsening of 5.3%.

388. Income distribution has clearly worsened between 2002-03 and 2008-09 for Fiji in aggregate by around 5%.

Table F.3 Gini Coefficients (Rural/Urban)

	2002-03	2008-09	% Ch.
	Rural		
Households	0.126	0.115	-9
Population	0.197	0.194	-2
	Urban		
Households	0.138	0.149	8
Population	0.222	0.245	11

389. A large factor in the uneven distribution of incomes at the national level, is the gap between the urban households as a group, and rural households as a group. Within each area (rural and urban on their own) the distributions are far more even.

390. Thus Table F.3 indicates that income distribution was much more equal both within rural areas and within urban areas, than in the national distributions, with much lower Gini than indicated for the national Gini.

391. For Rural areas, the Gini were not only quite low but improved (declined) from 2002-03 to 2008-09- by -9% for Household Gini, and -2% for Population Gini. Paradoxically, while the incidence of poverty was increasing in rural areas, the income distribution was improving slightly.

Table F.4 Total HH Income ($m and %)
(by regional income quintiles)

	2002 ($m)	2008 ($m)	% Ch.	R%Ch.
	Rural			
RQ 1	57	68	20	-6
RQ 2	95	118	25	-2
RQ 3	135	159	18	-7
RQ 4	194	223	15	-9
RQ 5	403	435	8	-15
Rural	884	1004	14	-11
	Urban			
RQ 1	66	120	81	43
RQ 2	114	206	81	43
RQ 3	163	291	78	40
RQ 4	235	420	79	41
RQ 5	536	1007	88	48
Urban	1115	2044	83	44
FIJI	1998	3048	53	20

392. For Urban areas, the Ginis were higher than for Rural areas and also indicated a significant worsening of income distribution between 2002-03 and 2008-09: increasing by 8% for Household Gini, and 11% for Population Gini.

393. The national distribution of income can be quite misleading however, as rural:urban patterns have been quite different. Disaggregated by regional income quintiles[43], it is clear that not only did rural households see a real reduction in Total Household Incomes of -11%, but there were reductions at all quintile levels- with larger reductions at the higher quintiles (Table F.4)

394. The urban households saw a large 44% increase in Total Household Incomes, with the increases also taking place at all

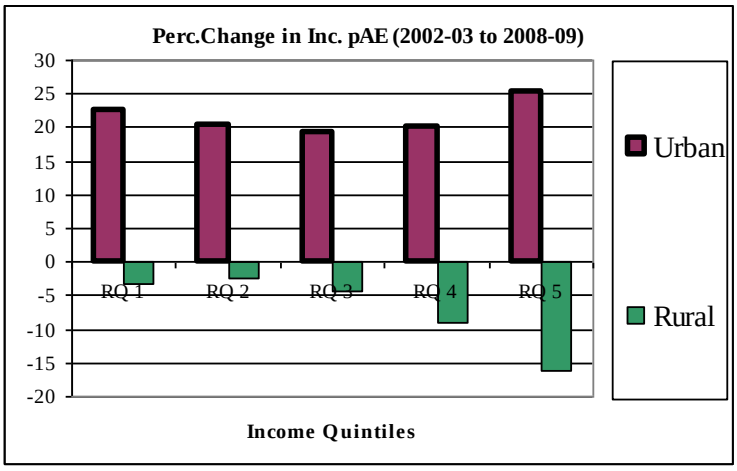
Table F.5 Income per Adult Equivalent
(by regional income quintiles)

	2002($)	2008($)	% Ch.	R%Ch.
	Rural			
RQ 1	814	1001	23	-3
RQ 2	1378	1707	24	-3
RQ 3	1938	2356	22	-4
RQ 4	2752	3187	16	-9
RQ 5	5664	6036	7	-16
Rural	2526	2895	15	-10
	Urban			
RQ 1	1133	1767	56	23
RQ 2	1953	2986	53	20
RQ 3	2764	4189	52	19
RQ 4	3936	6011	53	20
RQ 5	8848	14086	59	25
Urban	3766	5879	56	23
FIJI	3094	4389	42	12

[43] These are separate income quintiles for rural and urban areas.

the urban quintiles.

Graph F.1 Perc. Ch. in Income pAE (2002-03 to 2008-09)



395. To obtain a better idea of the likely impacts on standards of living, it is useful to examine changes to Household Incomes per Adult Equivalent as that also takes into account the increasing numbers of population at each quintile level.

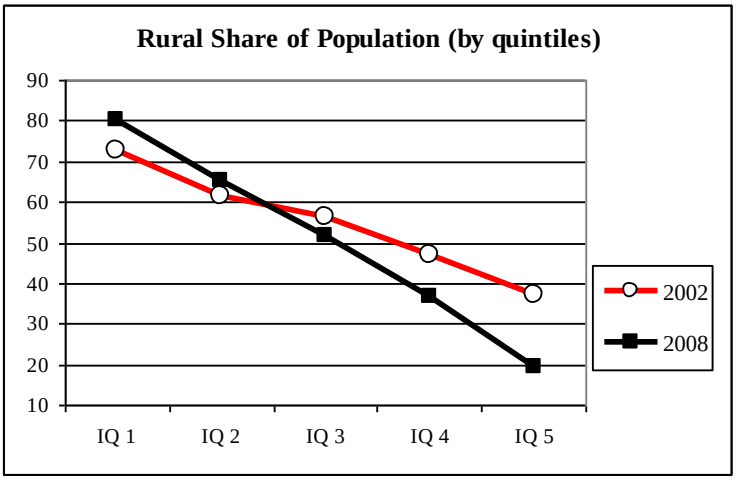
396. Table F.6 makes clear that standards of living have probably declined at all quintile levels in rural areas.

397. What is unusual is that the decreases have been larger at the higher quintiles. This is quite unusual given that it is usually the poorest who suffer more during the down-turns. However, the down-turn in the rural areas has occurred largely amongst those who earned their incomes from Cash Agriculture (sugar and other crops) and these households would have been at the higher quintile levels of rural areas.

398. This table is extremely strong evidence of the general rural impoverishment that has taken place at all quintile levels but particularly amongst the better off rural households.

399. It is also clear that standards of living have significantly increased in urban areas, at all quintile levels, with the "U" pattern suggesting that the improvements have been bigger at both the higher and lower quintiles.

Graph F.2 Rural share of National Quintile Populations



400. The overall change in national distribution may therefore be seen in Graph F.2 which indicates that between 2002-03 and 2008-09, the rural

share has risen in the bottom two quintiles (i.e. rural people now comprise a larger proportion of the bottom 40% of the country) and it has sharply fallen at the top 3 quintiles. The decreases have been much larger at the top two quintiles.

Table F.6 Ethnic shares of Quintile Pop.

	iTaukei	Indo-F	Other	FIJI
IQ 1	62	33	5	100
IQ 2	61	35	3	100
IQ 3	59	37	4	100
IQ 4	63	32	5	100
IQ 5	52	36	12	100
All	59	35	6	100

Ethnic issues

401. Table F.6 indicates that with the ethnic shares of total population being around 59%, 35% and 6% respectively for iTaukei, Indo-Fijians and Others, the ethnic shares at quintile levels are around the same proportions, except at the highest quintile where Others and Indo-Fijians have higher proportions..

402. At Quintile 5, Others comprise a much larger 12%, while the iTaukei share declines slightly to 52%. The Indo-Fijian share is uniform throughout the quintiles.

Table F.7 Gini Coefficients (ethnicity)

	2002-03	2008-09	% Ch.
	Households		
iTaukei	0.311	0.331	6.5
Indo-F	0.360	0.345	-4.3
Diff.(I-F)/F	16	4	
	Population		
iTaukei	0.394	0.403	2.3
Indo-F	0.427	0.429	0.4
Diff.(I-F)/F	9	7	

403. Within each ethnic group, there have been different changes to income distribution. For iTaukei, income distribution has worsened in this inter-HIES period- by 6.5% according to the Household Gini, and by 2.3% according to the population Ginis (Table F.7).

404. Indo-Fijians on the other hand have seen a small improvement in income distribution-of some 4.3% by the Household Gini and a small worsening (of 0.4%) by the Population Gini.

405. Comparing the two major ethnic groups, therefore, the Indo-Fijian population generally had a more unequal distribution of incomes than iTaukei (largely because of their greater predominance in the business sector), although the difference has reduced between 2002-03 and 2008-09: by Household Gini, from a 16% difference in 2002-03 to a mere 4% in 2008-09. By Population Gini, the difference was a reduction from 9% to 7%. In other words, the iTaukei and Indo-Fijian income distribution patterns are converging.

406. Table F.8 indicates that the downturn in the rural sector affected the ethnic groups fairly evenly as is evident from the prevalence of the negative values for all ethnic groups, and large decreases at the higher quintiles for all ethnic groups.

407. There was conversely large real increases in incomes per adult equivalent for all ethnic groups at all quintile levels in the urban area- as evidenced by the large positive numbers in the lower half of the table.

408. Two exceptions that do stand out are the rural Indo-Fijians in the Bottom quintile suffering a particularly large (-11%) reduction in Income pAE, while the Others in Quintile 5 enjoyed a particularly large (49%) real improvement in incomes per Adult Equivalent.

Table F.8 Changes in Income pAE between 2002-03 and 2008-09 (%)

	iTaukei	Indo-F	Others	All
	Rural			
RQ 1	1	-11	3	-3
RQ 2	-3	-1	-2	-3
RQ 3	-4	-5	-3	-4
RQ 4	-10	-8	0	-9
RQ 5	-14	-22	-11	-16
Rural	-11	-10	-4	-10
	Urban			
RQ 1	23	22	27	23
RQ 2	20	21	22	20
RQ 3	19	21	13	19
RQ 4	20	20	19	20
RQ 5	25	11	49	25
Urban	17	18	54	23

G Basic Poverty Statistics

409. This section will update the statistics given in the Preliminary Report, with two changes. First, there is a different factor used to update the Non-Food Poverty Lines,[44] and second, the estimates of "real" changes deflated for the changes in prices are slightly different[45] from those given in the Preliminary Report.

410. To be consistent with the recent quantitative analyses of poverty in Fiji, the "incidence of poverty" is defined as the "Percentage of the Population Below the Basic Needs Poverty Line" (BNPL) popularly referred to as the Head Count Ratio.

411. While a recent World Bank Team working with FIBoS used a modified Expenditure per Adult Equivalent[46] as the criterion to assess against the BNPL values, this Report continues to use Income per Adult Equivalent, both to maintain consistency with the previous analyses and on methodological differences with the approach taken by this World Bank team.[47] The WB Team also derived their BNPL values (both the Food Poverty Line and the Non-Food Poverty Line) using a different approach to that used in this Report. Nevertheless, the indications of the trends are the same using either approach, although the levels of poverty and the amount of poverty alleviation resources indicated by the World Bank approach are much higher than the estimates given in this Report using the incomes criterion.

412. The significant differences between the approach here and that of the WB, and their implications will be explored in a more comprehensive Poverty Report being currently prepared.

413. The BNPL has two components: Food Poverty Line (FPL) and Non-Food Poverty Line (NFPL).

414. The FPL consists of basket of foods, which for the 2002-03 analysis was derived from expenditure patterns of the middle quintile (20%) of the Rural and Urban groups of iTaukei and Indo-Fijians. The actual quantities of basic food items were according to food plans that the Fiji Food and Nutrition Centre estimated to give minimal levels of the energy and essential nutrients. These four groups were differentiated because the data indicated substantial differences in food consumption patterns, especially between Rural iTaukei and Urban iTaukei. The details of the methodology and FPL baskets may be obtained from Chapter 3 of *The Quantitative Analysis of Poverty in Fiji.*

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[44] In the Preliminary Report, the CPI was used to up-date the Non-Food component while the actual price changes were used to update the Food Poverty Line. The CPI however already includes and is largely influenced by the Food Index, hence in this section, an implicit "Non-Food" index is used to update the Non-Food Poverty Line.

[45] The Preliminary Report simplistically estimated the "Real % Change" as = to the "Nominal % Change" minus the % Change in the prices (e.g. CPI).

[46] The WB Team excluded expenditure on all durables and health.

[47] These will be elaborated in a later more comprehensive analysis of poverty in Fiji, to be done for AusAID and FIBoS.

415. To maintain consistency between the poverty analysis using the 2002-03 HIES and the 2008-09 HIES and to have an accurate estimate of the changes in poverty between the two periods, the Bureau's Poverty Analysis Team[48] decided that the 2008-09 BNPL would comprise the same FPL baskets used in 2002-03, valued at the prices prevailing in 2008-09. Between the two HIES, the total costs of the FPL baskets rose by around 38%.

Table G.1 Food Poverty Lines and Basic Needs Poverty Lines per AE pw

	Rural	Urban	FIJI
	Food Poverty Line		
2002	15.99	15.84	15.92
2008	21.76	21.28	21.52
	Basic Needs Poverty Lines		
2002	31.30	36.02	33.43
2008	40.82	46.10	43.43

416. While the Preliminary Report had adjusted the Non-Food Poverty Line values of 2002-03 by the change in the CPI a more correct method is to use the percentage change in the "Non-Food" items in the CPI, which excludes the impact of the Food Prices Index in the CPI.

Table G.2 Food Poverty Lines and Basic Needs Poverty Lines per HH of 4 AE pw

	Rural	Urban	FIJI
	Food Poverty Line		
2002	63.97	63.34	63.68
2008	87.04	85.12	86.09
	Basic Needs Poverty Lines		
2002	125.18	144.09	133.71
2008	163.27	184.41	173.72

417. In order to encourage consistency in poverty alleviation policies within each region across ethnic groups, the FPL and BNPL values for the different ethnic groups were aggregated to derive composite ones for Rural and Urban Fiji, without any ethnic differentiation. The problems of the poor will therefore be addressed without reference to ethnicity as ethnicity does not appear to be a significant variable for poverty as defined here by Income per Adult Equivalent.

418. Table G.1 gives the Food Poverty Line and Basic Needs Poverty Line values per Adult Equivalent per week for 2002-03 and 2008-09.

419. Table G.2 gives the corresponding values for an average household of 4 Adult Equivalents, or the equivalent of 3 adults and 2 children.

420. For international comparisons, a population weighted BNPL for all of Fiji was $173 per week in 2008-09 for a household of 4 Adult Equivalents. The figure that would be more appropriate for use by Fiji's Wages Councils, is the urban BNPL, which for 2008-09 was around $184 per week for a household of 4 Adult Equivalents.[49]

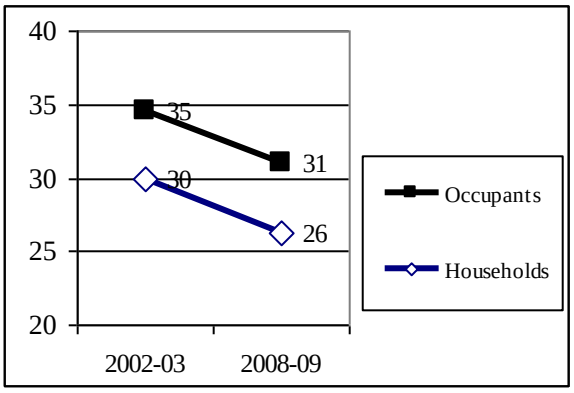
[48] Epeli Waqavonovono, Toga Raikoti and Wadan Narsey.
[49] Most employees covered by Wages Councils are in the urban areas.

421. Any assessment of the trend in poverty between the 2002-03 HIES and the 2008-09 HIES needs to keep in mind that there was political instability at the end of 2006, and that the global financial crisis also began to make itself felt, especially on tourism and remittance incomes. The indicators in Section A suggest that between these two HIES, there has generally been an earlier period of improvement followed by a deterioration.

The Incidence of Poverty

422. Between the two HIES, the percentage of households in poverty declined from 30% to 26%, while the percentage of the population in the households declined from 35% to 31%. The percentage of population in poverty is usually higher than the percentage of households in poverty because poor households are usually larger on average than non-poor households.

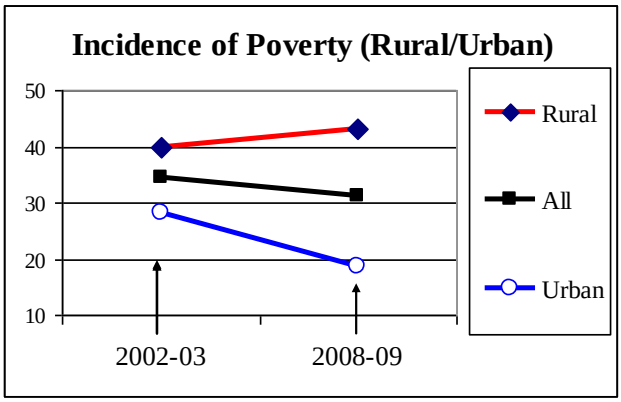
Graph G.1 Perc of Population and Household in Poverty (2002-03, 2008.09)



423. The numbers of people "Not Poor" increased by 12%, while the absolute numbers of "Poor" people decreased by 5%.[50]

424. Given the trends indicated in Section A, and the changes in the incidence of poverty in between the different rounds[51] of the HIES, it may be confidently concluded that the national incidence of poverty was probably declining from 2002-03, and rising slightly in 2008-09.

Graph G.2 Incidence of Poverty (Rural/Urban)



[50] While the proportions estimated to be "Poor" in 2002-03 are believed to be reasonably accurate, the absolute numbers of occupants need to be treated with some caution as FIBoS believes that the weighted numbers for the 2002-03 HIES may have been under-estimated.

[51] Each HIES is conducted in successive "rounds" each of which are independent sub-samples of the total sample. The 2002-03 HIES had 4 rounds of 3 months each, for each of urban and rural, while the 2008-09 HIES had 6 sub-rounds of 2 months each.

425. Table G.3 and Graph G.2 indicates that the reduction in poverty was uneven: the urban areas saw a dramatic reduction in poverty from 28% to 19% (a reduction of 34%), while poverty in rural areas increased from 40% to 43%. This is in keeping with the indicators presented in Section A, on the decline in the sugar industry, and declining proportions and amounts of loans to agriculture.

Table G.3 Incidence of Poverty (Rural/Urban)

	2002	2008	% Ch.
Rural	40	43	6
Urban	28	18	-34
All	35	31	-11

426. The WB study using expenditure as the criterion concluded that poverty in rural areas remained the same (at 44%). This WB results is not consistent with actual conditions in the rural areas between these two periods.

Table G.4 Percent. of the Poor

	2002	2008	% Ch
Rural	63	70	11
Urban	37	30	-19
All	100	100	

427. Table G.4 indicates that the percentage of the Poor in rural areas increased even more from the 63% in 2002-03 to 70% in urban areas. This will have its expected impact on the rural shares of any poverty alleviation resources made available by state and other poverty stakeholders.

428. All the divisions saw some reduction of poverty except the Eastern Division, where the incidence of poverty increased from 35% to 38% (Table 22).

429. The Northern Division, however, remained the most poor of all the divisions, with some 48% of the occupants below the BNPL.

430. Disaggregating by rural and urban continues the earlier conclusion that all the rural divisions (except for Northern) saw increases in poverty, while all the urban divisions saw reductions in poverty.

Table G.5 Incidence of Poverty (by Division)

Division	2002	2008	% Ch.
	Rural		
Central	29	35	23
Eastern	35	39	12
Northern	57	50	-11
Western	38	43	11
	Urban		
Central	24	16	-34
Eastern	42	30	-28
Northern	39	38	-2
Western	33	17	-48
Central	24	16	-34
	Fiji		
Central	26	21	-17
Eastern	35	37	4
Northern	53	47	-11
Western	36	32	-11
FIJI	35	31	-11

431. It is of interest that Rural Northern Division saw a larger reduction in poverty (-11%) while urban Northern division has a small increase in poverty. Nevertheless, rural Northern still had the highest rate of rural poverty (50%), while urban Northern had the highest rate of urban poverty (47%).

432. With the overall estimated rural Northern population remaining the same while the number of Poor seems to have declined, one possible explanation may be that the

poorest in the rural Northern division have migrated out to urban areas, both in Vanua Levu and Viti Levu. It is also a possibility that the remaining Indo-Fijians have better access to resources as well as marketing opportunities through networking with Northern migrants to Viti Levu.[52] There may also have been an increase in agricultural output with some reduction in rural crime.[53]

Table G.6 Incidence of Poverty (ethnicity)

Ethnicity	2002	2008	% Ch.
iTaukei	35	31	-10
Indo-F	36	32	-11
Other	24	25	4
All	35	31	-10

Table G.7 Ethnic shares of the Poor

Ethnicity	2002	2008	% Ch.
iTaukei	55	60	9
Indo-F	42	35	-16
Other	3	5	53
All	100	100	

433. Ethnic dimensions of poverty have always been of interest in Fiji, although the data here suggests that it should not be of any great significance in the future. Table G.6 indicates that the two major ethnic groups had almost the same incidence of poverty in 2002-03 (around 35%) and the same reductions in poverty to around 31% in 2008-09. The Others group saw a slight increase in poverty.

434. No doubt a reflection of the continuing decline through emigration and lower fertility rates of the Indo-Fijian population, indigenous iTaukei increased their share of the Poor from 55% to 60% while Indo-Fijians reduced theirs from 42% to 35%. This will have a direct bearing on the prescribed ethnic shares of poverty alleviation resources (see below).

435. The current trends indicate that with higher and improving income opportunities in urban areas, the rural:urban drift has continued its inexorable advance. Failure to improve the living standards and household incomes in rural areas, together with a continuation of poverty alleviation measures in the highly visible and easily accessible urban areas, will only serve to accelerate the rural:urban drift, increase pressures for basic services in urban areas, while further worsening rural poverty.

436. It is of the utmost importance that development strategies for Fiji and public sector infrastructure investment programs focus their efforts on rural development, including the appropriate support for cash income generating agriculture.

[52] Personal communication from Mr Baljeet Singh (Lecturer in Economics, USP)
[53] FIBoS field staff gave anecdotal evidence that there are some agricultural and other projects which are beginning to bear fruit in the Northern division.

Poverty Gaps and Required Poverty Alleviation Resources

437. Of interest to poverty stakeholders is the amount of poverty alleviation resources that would be needed to lift each Poor household to just above the Basic Needs Poverty Line. This depends on two variables: how far below the BNPL each household hold is; and how many poor households there are with their different poverty gaps. Thus if the BNPL is $41.15 per Adult Equivalent per week, and a particular household has an Income pAE pw of say $40, then the poverty gap is $1.15 per Adult Equivalent per week. The total resources required to shift this household up to the BNPL would be:

($1.15) * (the size of household in AEs) * 52.

438. Aggregating these amounts for all the poor households (using the HIES weights for each household) in the country then gives a rough estimate of the total amount of poverty alleviation resources that the country would theoretically require, if all the poor households were to be given a cash transfer to lift them to the BNPL. If necessary, these aggregates may be compared with what Government actually spends on the Poor households for poverty alleviation.

Table G.8 Poverty Gaps ($m) and Percentages

	2002-03	2008-09	% Ch.
	$ million		
Poverty Gap	120	152	26
GDP (cur.pr.)	*3465*	*4861*	*40*
Govt.Expend.	*1065*	*1499*	*41*
	Poverty Gap as Perc. of		
GDP	*3.5*	*3.1*	*-10*
Govt. Expend.	*11.3*	*10.2*	*-10*

439. Table 27 presents the positive news that between the 2002-03 HIES and the 2008-09 HIES, the value of the Poverty Gap rose by 26% from $120 million to $152 million in nominal terms. This increase was more than compensated by the 40% increase in GDP (current prices) and 41% increase in Government Expenditure (current prices).

Table G.9 Poverty Gaps ($m) and shares (%)

	2002	2008	% Ch.	% Real Ch.
Rural ($m)	74	108	46	15
Urban ($m)	47	44	-4	-25
All ($m)	120	152	27	0
Rural Share (%)	61	71		

440. Hence the Poverty Gap as a percentage of GDP fell by 10% from 3.5% to 3.1%. In normal times, this amount would represent the annual growth rate of Fiji's GDP in a good year. However, Fiji's average real growth rate of GDP over the last ten years has unfortunately been much less than that.

441. The Poverty Gap as a percentage of Government Expenditure also fell by 10% from 11.3% to 10.2%. While not a large percentage in normal times when Government Revenues are buoyant, this percentages poses a serious challenge when the economy is not performing well, and Government revenues are stagnant or declining in real terms.

442. While the total amount of poverty alleviation resources required for all Fiji increased by 27% in nominal terms, and 0% in real terms (allowing for 27.1% inflation in the CPI) that required for Rural Fiji increased by 15% while that required for Urban Fiji decreased by -25% (Table G.9).

443. With the incidence of poverty increasing relatively more in rural areas, it is not surprising that the rural areas also deserve a much larger share of poverty alleviation resources, increasing from 61% in 2002-03 to 71% in 2008-09 (last row Table G.9).

Table G.10 Divisional Share of Poverty Alleviation Resources (2008-09)

Division	Rural	Urban	All
Central	10	14	24
Eastern	4	1	6
Northern	23	6	28
Western	33	8	42
All	71	29	100

444. It is natural that urban poverty is more visible to poverty stakeholders, being concentrated in locations, in contrast to rural poverty which is dispersed widely. Nevertheless, the statistics in Table G.9 must drive home the message that poverty alleviation measures by Government, NSA/NGOs, donor agencies and international organisations, must focus on rural areas far more than on urban areas. If poverty alleviation measures and resources continue to be focused on urban areas, all the indications are that rural:urban migration will be exacerbated even more than indicated by the current trends.

445. Table G.10 indicates that for 2008-09, the Western Division would have required some 42% of all the poverty alleviation resources, with 33% due to Rural Western households. This is a considerable worsening from the situation in 2002-03, and is no doubt a reflection of the severe decline in the sugar industry.

446. It should be noted that the Northern Division is deserving to a higher percentage of total poverty alleviation resources (28%) than the Central Division (24%). In the Northern Division as well, of the 28% of total resources, 23% would need to be devoted to rural households.

Table G.11 Indicated Ethnic shares of Poverty Alleviation Resources

Ethnicity	Rural	Urban	All
iTaukei	44	13	57
Indo-F	24	14	38
Other	2	2	5
All	71	29	100

447. Table G.11 gives the ethnic shares of poverty alleviation resources indicated by the 2008-09 HIES data, with some 57% to iTaukei and 38% to Indo-Fijians.

448. It should be noted that these are virtually the population relativities at the time of the 2007 Census. Poverty alleviation resources, if allocated purely according to need, would be in almost exact proportion to the ethnic shares of population. Politicians need to take heed of this very fundamental conclusion arising out of the objective HIES data that poverty alleviation cannot be justified by reference to ethnic categories.

449. Again, not a surprise, the largest shares of all poverty alleviation resources (some 71%) should accrue to the Rural Groups with only 29% indicated for the urban areas.

Annex A Notes on the 2008-09 HIES methodology and processes

The 2008-09 HIES was planned and conducted by the Household Survey Unit of the FIBoS.[54]

A two-stage sampling strategy was used. In the first stage, the frame was divided into 7 strata (Table A2) and representative samples of Urban and Rural Enumeration Areas were then selected from these strata.

Within each stratum Enumeration Areas (EAs) or Primary Sampling Unit (PSU) from the frame were selected with probability proportional to size, measured in terms of the total households in the frame. Within each EA a fixed number of households (hh) were then selected by systematic random sampling. The final HIES sample then selected 10 households from each selected EA (example of selection process given in Table A3).

Table A.1 Sample Sizes (2002, 2008)

Area	2002-03	2008-09
	Households count	
Rural	2230	1911
Urban	3015	1662
FIJI	5245	3573
	Estim. Total Households	
Rural	83680	86523
Urban	73001	88724
FIJI	156681	175246
	Sampling Rate (%)	
Rural	2.7	2.2
Urban	4.1	1.9
FIJI	3.3	2.0

Because of budgetary constraints, FIBoS targeted a sample size of 2.0% in aggregate, with a higher 2.2% in rural areas compared to 1.9% in urban areas. These are somewhat lower than in 2002-03 (Table A1)

A pilot survey tested the questionnaire and the administrative arrangements in place, leading to improvements in questionnaire and fieldwork arrangements.

Table A.2 The Sample Strata

1	Central/Eastern Urban
2	Central Rural
3	Eastern Rural
4	Northern Urban
5	Northern Rural
6	Western Urban
7	Western Rural

The Bureau conducted training programmes for enumerators and supervisors at its four centres, followed by examinations to select those qualified. The training covered conduct of interviews, as well as the content of the questionnaires.[55]

Data collection was continuous over a 1-year period. For each survey, a sixth of the sample households was covered in a 2-month sub-round. In effect, there were six independent sub-samples for each survey. Each sub-round sample was distributed into lots to ensure data was collected continuously for the whole 1-year period.

[54] The unit was headed by Mr Epeli Waqavonovono (Chief Statistician), Mr Toga Raikoti (Principal Statistician) and Mr Serevi Baledrokadroka (Principal Statistician, Household Surveys).

[55] A total of 36 Enumerators, 12 Supervisors, 4 Coders and 3 Data Entry Operators and 4 drivers were distributed into our 4 regional offices, which are headed by a Field Superintendent.

The **household weight** for all the households in each selected EA was calculated as:

$$\frac{\text{(Population of Stratum i) * (Listing number of households in EA)}}{\text{(Frame population of EA) * (No of hh in sample) * (Number of EAs selected in stratum)}}.$$

Examples of the estimation of household weights for each EA are given in Table A4.

Publicity

The Bureau undertook considerable publicity through the media, including radio and the Ministry of Information's television programme Dateline. Publicity fliers' containing some background information on the survey and its importance were circulated to householders in the selected areas. Posters were also posted at public places such as hospitals, district offices, shops and schools. In iTaukei rural areas, proper protocol was followed with the Turaga-ni-Koro and church leaders, to ensure full cooperation from the community.

Table A.3 Selection of EAs and Households in Stratum i

	Frame		Listing		Selected
	Hh	Popn	hh	Popn	
EA 1*	120	600	128	625	10
EA 2	110	550			
EA 3	130	650			
EA 4	90	450			
EA 5*	125	625	130	650	10
EA 6	89	445			
EA 7	80	400			
EA 8	135	675			
EA 9	128	640			
EA 10*	78	400	70	350	10
Popn	1085	5435	328	1625	30

Field work arrangement

Fieldwork arrangements were delegated to 4 field superintendents who put together their work plans, assigned the supervisors and enumerators, and ensured the regular accountable financing of their required activities, including travel, subsistence and fees.

Table A.4 Calculation of household weights

EA	Calculation of hh weight	HH weight	Est. No of Hh
EA1	$\frac{(\ 5435 * 128\ )}{(\ 600 * 10 * 3\ )}$	38.65	386
EA2	$\frac{(\ 5435 * 130\ )}{(\ 625 * 10 * 3\ )}$	37.68	377
EA3	$\frac{(\ 5435 * 70\ )}{(\ 400 * 10 * 3\ )}$	31.70	317
		Total	1080

The arrangements for the interview depended on the availability of the householder. For the diary the enumerators were required to visit the household daily for two weeks, to try to minimise omissions due to weaknesses in the recall.

The Enumerators were instructed to complete work in a selected EA within a time frame of 3 weeks. The first week was spent on listing all households in the EA and the

following two weeks for gathering information on Schedule 2 (recurrent expenditure) Schedule 3 (2 week expenditure diary) and Schedule 4 (income).

While supervisors are normally required to check on enumerators on a daily basis by selecting households at random to confirm that the data recorded was actually reported by the householder, this was not generally possible for the 2008-09 survey, because of budgetary constraints. It should be emphasised for future surveys that such checks improve the data collection practice of the enumerators, and of the quality of the survey results in general.

Table A.5 Final Selection of EAs and households (2008-09)

	Central	Eastern	Northern	Western	Total
	Number of Households				
Urban	982	40	160	480	1662
Rural	481	290	440	700	1911
Total	1463	330	600	1180	3573
	Number of EAs				
Urban	98	4	16	48	166
Rural	48	29	44	70	191
Total	146	33	60	118	357

With expenditure usually being better reported than incomes, where the former exceeded the latter, enumerators were required to re-question the relevant households for possible omissions of incomes. Enumerators were also trained to probe further where they observed that households had income-earning assets but were not reporting any related incomes. Enumerators and Supervisors were also required to check the validity of any large incomes and expenditures reported.

Coding and data entry work was centralised to the 4 regional offices. Data was captured using CSPro and processed using SAS. Manually calculated subtotals and totals were used as control totals to check against data entry errors and consistency of the computer programmes.

Data Adjustments: Imputed Rents

In keeping with internationally accepted HIES methodology, the 2008-09 HIES estimated "imputed rents" – the estimated net value of owner-occupied dwellings which need to be added to the incomes (and expenditures) of all households <u>which do not pay rents</u> on the dwellings occupied.

Net Imputed Rent = Gross Imputed Values (estimated from the regressions) <u>less</u> the Imputed Cost of Owned Houses.

The "Imputed Cost of Owned Houses" was estimated as an aggregate percentage (21.9%)[56] of Gross Imputed Values, representing Actual Repairs and Maintenance plus Interest Component of Installment payments plus Property Rates on owner-occupied houses.[57]

[56] This percentage was used to maintain consistency with the 2002-03 HIES estimates of Imputed Rent.
[57] Net IR was estimated to = Gross IR – (0.219* Gross IR).

Concepts and Basic Definitions

The following International Labour Organisation definitions related to Household Income and Expenditure were used, as for the 2002-03 HIES:

(1) Household Income- consists of all receipts in cash, in kind or in services that are received by the household or by individual members of the household at annual or more frequent intervals, but excludes windfall gains and other such irregular and typically one-time receipts.

Household income receipts are available for current consumption and except for certain current transfers do not reduce the net worth of the household through a reduction of its cash, the disposal of its other financial or non-financial assets or an increase in its liabilities.

Operationally it maybe defined as in terms of; i) income from employment (both paid and self-employment); ii) property income; iii) income from the production of household services for own consumption; iv) transfers received.

Household income **excludes** holding gains, lottery prices, gambling winnings, non-life insurance claims, inheritances, lump sum retirement benefits, life insurance claims (except annuities), windfall gains, legal/injury compensation (except those in lieu of foregone earnings) and loan repayments.

Also excluded are other receipts that result in a reduction of net worth. These include sale of assets, withdrawals from savings and loans obtained.

(2) Household Expenditure- is defined as the sum of household consumption expenditure and the non-consumption expenditures of the household. Non-consumption expenditures incurred by a household that relate to compulsory and quasi-compulsory transfers made to government, non-profit institutions and other households, without acquiring any goods or services in return for the satisfaction of the needs of its members.

Household expenditure represents the total outlay that a household has to make to satisfy its needs and meet its "legal" commitments.

Consumer goods and services are those used by a household to directly satisfy the personal needs and wants of its members.

Household consumption expenditure is the value of consumer goods and services acquired, used or paid for by a household through direct monetary purchases, own-account production, barter or as income-in-kind for the satisfaction of the needs and wants of its members.

Individual items

(a) Consumption of Home Produced Commodities were treated as both income and equivalent expenditure

(b) Imputed Rent is treated as both income and expenditure

(c) Gifts Given is treated as non-consumption expenditure

(d) Gifts Received are treated as income, with non-monetary ones also treated as Household Consumption Expenditure.

Household Survey Unit
Fiji Islands Bureau of Statistics
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