

Working Paper No. 32

Educational Outcomes And Poverty

Some findings from a household survey in
Rajasthan and Madhya Pradesh*

Collaborative Research and Dissemination

INDIA

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INTRODUCTION

RECOUP is a research programme which seeks to improve the outcomes of education for the poor and the disadvantaged. Economic and market outcomes are an important part of the study, but focus is on non-market outcomes as well. While there is ample evidence that education have many positive outcomes on earnings, skills, fertility, health and empowerment, the net impact depends on individual, household and community characteristics as well. So data on education attainments and its outcomes for youth and adults are generated through both quantitative and quantitative methods. Details of the households and their community characteristics have also been collected to understand the pathways through which education influences these outcomes. It is expected that the analysis will indicate policy directions for improving the outcomes.

This report is based on a quantitative survey of around 1000 households in rural and urban areas of three districts each in Rajasthan and Madhya Pradesh, conducted in 2007. In each household while information on all family members were collected, a detailed schedule was used for all members between 15 and 60 age group. A very similar survey was conducted in Pakistan in the year 2006. In the annexure some sections from the descriptive report for Pakistan is given – this gives a description of the type of data collected and key features of the questionnaires are given. The data generated from this survey is expected to serve two purposes. Firstly the detailed nature of the survey gives information on various aspects of the respondents' life and so allows analysis of determinants of various economic and social outcomes for the individual. Secondly, the data from the quantitative and the qualitative surveys allows triangulation to explore pathways of achieving different outcomes.

This is only a descriptive report and the analysis is limited to certain aspects of the respondents' life. Simple percentage and cross tabulations are used – to reveal some indicative trends. As the research is focused on poverty issues the outcomes are usually related to the respondents' consumption quintile groups and social castes. The latter is a unique feature of Indian society and though the correspondence between disadvantaged class and castes is not perfect, there is a significant overlap between them. Many other interesting aspects of the data set are not presented in this report. They are included in the more detailed analysis as presented in the various working papers using qualitative and quantitative data.

This report is divided into 9 sections. The first section describes the methodology and sampling design. Section 2 highlights the key features of the areas selected for survey. In this section the demographic, socioeconomic and infrastructural details of the surveyed areas are presented using primary and secondary data. Section 3 gives the profile of the surveyed households. In addition to their socio economic background, the poverty levels in the surveyed area are examined in the context of recent discussions on poverty measurement. Some analysis of consumption expenditures, asset ownership and sources of income are also presented. Section 4 describes the profile of the sample population – those who were in the 15 to 60 age group. Section 5 discusses in detail the insights emerging from educational attainment and access to schooling. Changes in education attainments and school quality are discussed in the context of different age groups. Immediate outcomes of learning in terms of board examination results and results of learning assessments taken during the survey are examined. Levels of skills acquired particularly the vocational and technical training is also related to levels of schooling. Section 6 discusses the economic activity and the related details of respondents. Education is related with types of employment as well as earnings of the respondents. Employment of skilled workers are discussed separately. Section 7 presents the findings of our survey in terms of health and nutrition of men, women and children as well as perceptions of disability. The analysis

focuses not only on their educational attainments but also the respondents' socioeconomic background. Section 8 discusses the findings on fertility rates, fertility preferences and family planning. This section is based on analysis of ever married women in 15 to 49 age group. A subsection focuses on both male and female in 15 to 60 age group to examine their preferences for ideal number of children and their sex. This is followed by the concluding section, followed by the annexure.

1. METHODOLOGY AND SAMPLING

The household survey was designed to examine whether there were positive returns to education for the poor (both market and non market returns) and analyse the possible pathways. As discussed, the survey is a part of a research programme where the same issues are explored through quantitative and qualitative methods. The findings from the different approaches were to be triangulated through a Q2 approach. This necessitated some overlap between the sites for qualitative and the quantitative survey. The sample selection was also guided by the need to make inter-country comparisons. So it was important to select a sample comparable to the Pakistan household survey (which had taken place a year earlier).

1.1 Sampling Design

Table 1.1: Sample Size and Design

	Sample selected	Sampling design
State/ province	Rajasthan and Madhya Pradesh	
Districts	3 and 3 = 6 districts	Proportional to size of state. Chosen from NSSO zones in which qualitative sites belong.
Villages	Villages divided into three groups according to rural female literacy. Then 1 chosen randomly from each group and so 3 in each district = 18 villages.	From each stratum very small and very large villages were removed in order to select villages of size similar to the sample in Pakistan. 3 villages were chosen randomly.
Urban sites	1 ward from district town of each district= 6 wards.	From 3 randomly selected wards, one ward with high proportion of poor was selected.
Households	360 rural, 150 urban in Rajasthan 357 rural, 150 urban in Madhya Pradesh	Circular systematically –using electoral rolls. Sample size of households was proportional to village population. 50 households chosen in a similar way from each urban site

A multistage sampling method was used and **Table 1.1** shows the sampling method used at different stages.

1.1.1 Selection of states.

A sample of 1000 households was chosen from the two states: Rajasthan and Madhya Pradesh. The survey was conducted between October 2007 and February 2008. Both these states were among the educationally less developed states and yet have been making rapid progress in school participation and schooling in the recent years. NFHS II showed that in the late nineties median level class completed among 15 to 19 year old boys was nearly class 8. So it was expected that there will be educated adults even among the poor households.[1]

1.1.2 Selection of districts.

[1] The choice of states were also influenced by practical considerations – familiarity of language (Hindi is the main language spoken in both states) and distance from Delhi (sample areas in both the states could be reached with 16 to 20 hours train journey)

The qualitative survey preceded the household survey and one district from each state was chosen for this purpose. The sample of three districts in each state for the household survey included the district chosen for the qualitative studies and two other randomly chosen districts from the same agro-economic zone. This was to allow triangulation of information from the quantitative and qualitative surveys. So the sample districts are not representative of the states, but of a specific agro-economic zone within the state. The districts chosen finally are Dhaulpur, Alwar and Pali in Rajasthan (North Eastern region) and Dewas, Ratlam and Shajapur in Madhya Pradesh (Malwa region).

1.1.3 Selection of villages and households.

Villages were chosen through stratified random sampling. Villages in each district were stratified by rural female literacy rates (census 2001) into three groups, and one village was chosen randomly from each stratum (after removing very small and very large villages). The village size was thus similar to the Pakistan sample villages (in the range of 1400 to 5000 population). From each village, households were chosen systematically from the electoral rolls. The sample size in each village was roughly proportional to population.

For the urban sample three wards were chosen randomly from each district capital and from them the one with highest proportion of poor households were selected for the survey. Using electoral rolls 50 households were chosen systematically from each ward.

During the survey data on consumption expenditure of the households were collected. The households in rural and urban areas have been divided into five quintiles according to per capita monthly consumption expenditure. In rural Rajasthan, nearly 45% of the households are in the lowest two quintiles, in contrast to 35% in rural MP. This indicates greater poverty levels in the Rajasthan sample. The urban situation is also similar. Secondary data suggests (next section) a much lower poverty level in Rajasthan as compared to Madhya Pradesh. Our sample differs from the general trend – part of the explanation lies in the choice of regions – a relatively prosperous region was chosen in Madhya Pradesh. Rajasthan had been reeling under successive years of drought at the time of the survey – that may also be the reason of higher poverty levels.

2. AREA PROFILE

The states Madhya Pradesh and Rajasthan are similar in the fact that they are both quite large and sparsely populated – Rajasthan is the larger of the two with a lower density of population. But they are quite different in other respects. Rajasthan is home to the Thar desert and Aravalli hills. It is a relatively dry and water-scarce state. It has a good deposit of minerals and recently has witnessed a lot of industrial activity. Tourism is a major source of livelihood. MP has nearly three-fourths of its population dependent on agriculture but also has some industries like textile chemicals, telecom, etc. MP has coal-based power generation facilities.

Both the states scored low in terms of socio economic development. Their literacy rates are similar - Rajasthan had a literacy rate of 61% while MP had a literacy rate of 64% in 2001. This similarity however hides the stark gender differences in literacy rates in Rajasthan. The sex ratio in the two states were also low - 922 and 920 females per 1000 males. In the below 6 age group sex ratio in Rajasthan was even lower at 902, while it was 922 in MP.

Both the states had low income - per capita NSDP was Rs. 23933/ in Rajasthan and Rs. 18051/ in MP as opposed to India average of Rs. 33283/ in 2006-7. Rajasthan with its higher per capita NSDP had a lower proportion of population below poverty line. The sectoral compositions of NSDP in the two states are quite similar – primary sector accounts for nearly a third while tertiary sector accounts for nearly half. A comparison between the two states shows relatively larger influence of primary and secondary sector in Rajasthan and primary and tertiary sector in Madhya Pradesh. The pattern is different from India as a whole where primary sector's contribution is lower and that of tertiary sector is higher.

Three districts have been chosen in each state for the survey. The districts for Rajasthan are: Alwar, Dhaulpur and Pali. While the first two districts are towards the eastern side of the state, with close proximity to Jaipur, Pali is more to the South. Alwar produces cereals and minerals and is better developed among the three districts. Dhaulpur produces oilseeds and slatestones and is ranked the lowest among these while Pali which produces mainly oilseeds and minerals comes somewhere in between.

The districts selected for the survey in Madhya Pradesh were: Dewas, Ratlam and Shajapur. While Dewas and Shajapur are close to the state capital Bhopal, Ratlam is towards the North-western border of the state. Dewas has a large number of industries like textile chemicals, automobiles, railway gears, etc. while Ratlam is dependent on both agriculture and industries. Shajapur is well known for its crops and vegetable mandis.

2.1 Demographic Profile

Tables 2.1a and 2.1 b shows the survey sites within each district along with some main characteristics. In each district, three villages are followed by an urban site.

These tables from census data indicate that literacy rates are higher on average for the MP villages – both for males and females. The tribal villages in MP (Malwa and Preetam Nagar) are the exceptions with very low literacy levels and large gender differences, but the literacy rates are much better in the other villages.

Table 2.1a Demographic characteristics and economic base of sample villages in Rajasthan from census 2001

District/village/urban site	Population	Literacy rates (%)		Proportion (%) of			
Alwar		male	Female	Cultivator	Agr labourer	HHold worker	Other worker
Karoli	4575	59	21	72	8	1	19
Kalipahari	2026	69	36	81	1	3	15
Momanpur	1675	85	55	81	4	1	14
Ward No. 34	11035	89	74	1	0	3	96
Dhaulpur							
Saumli	1587	65	33	90	5	4	1
Barauli	3498	81	44	37	1	3	59
Dandoli	1649	85	66	98	0	0	2
Ward No. 23	3590	58	42	0	1	3	96
Pali							
Deepawas	1556	67	17	71	9	0	20
Manda	4037	77	28	52	7	2	39
Vopari	3103	73	38	51	7	2	39
Ward No. 21	2627	97	87	1	1	29	69

Source: Census 2001

Table 2.1b Demographic characteristics and economic base of sample villages in MP from census 2001

District/village/urban site	Population	Literacy rates (%)		Proportion (%) of			
Dewas		Male	Female	Cultivators	Agr labourers	HHold workers	Other worker
Tonk Kala	4336	84	44	32	19	0	49
Kankund	1531	89	35	57	26	0	17
Mawada	1467	50	14	87	11	1	1
Ward No. 22	4032	86	70	0	1	3	96
Ratlam							
Pritam Nagar	2872	65	34	40	52	1	7
Badayala Chorasi	1758	85	51	73	18	1	8
Bargarh	1702	86	64	69	19	2	10
Ward No. 43	4011	92	78	9	3	3	85
Shajapur							
Sunera	4401	78	40	37	41	2	20
Siroliya	2188	90	77	51	35	2	11
Bhuriya Khajuriya	1556	86	59	70	22	0	8
Ward 5	3003	87	66	0	0	6	94

Source: Census 2001

Census data on occupational patterns show that Rajasthan has high proportion of cultivators, especially in plain districts like Alwar. But the “other worker” category has a much higher presence compared to MP indicating that proportionately more people in the state are working in non-agricultural sector. In MP, there is high proportion of cultivators and agricultural labourers, and not many “other workers”.

2.2 Socio- economic Profile

Table 2.2a Socio-economic characteristics of sample villages in Rajasthan, 2007

District/village/urban site	Population in 2007	Social groups	Livelihood options in village	Migration (in and out)
Alwar				
Karoli	5282	Meo Muslims, SCs, few OBCs	Jowar, bajra, wheat – main crops, agriculture, cattle breeding, wage labour	Outmigration in brickmaking kiln (Gurgaon), majdoori
Kalipahari	3000	OBC (Ahir, Mali, Jat), few SC	Jowar, bajra, wheat, mustard – main crops. agriculture, government service – army, teacher	Outmigration as driver, majdoori in mandi Migrate to Khairtal, Alwar, Delhi
Momanpur	2500	Mainly OBC and SC	Bajra, Jowar, arhar, wheat, mustard. Agriculture and labour	Outmigration for majdoori – Punjab, work as driver
Ward No. 34				
Dhaulpur				
Saumli	2500	General and SC	Jowar, bajra, sesame. Wheat, mustard, potato Halwai work is major option	outmigration for halwai work- Delhi and other states, majdoori. Inmigration for brick-kiln work
Barauli	4000	Many ST – Meena, OBC and some SC	Mostly in stone quarry work. Agriculture not so imp for successive drought years	Out migration for majdoori, Inmigration for stone quarry work
Dandoli	2000	Largely OBC and SC	Bajra, sesame, wheat, mustard. Mainly agriculture, cattle, but now distress migration	Out migration for shoe factory, to Chambal – work with sand
Ward No. 23	8000	Majority high caste, some OBCs and SCs	Salaried work, self employment	Out migration for private salaried work
Pali				
Deepawas	1500	Largely general, few OBC	maize, jwar, bajra, mustard, sesame, vegetables, wheat, lentil, cumin agriculture and nonagr labour	Outmigration as drivers, work in stone quarries, work in shops in Bangalore and Madras
Manda	5000	Many OBC and SC	jwar, wheat, mustard, sesame, mehandi (henna) – major producer, many in government service labour	Outmigration to work in shops – cloth, kirana
Vopari	3000	Largely OBC, few SC	jwar, bajra, lentil, cumin, sesame, wheat. Agr labour	Outmigration to work in shops, majdoori
Ward No. 21	2500	Largely Muslim, some Jains and SCs	Wage labour, petty retail and manufacturing	Outmigration in brickmaking kiln, majdoori

Source: Village survey 2007

Table 2.2b: Socio-economic characteristic of sample villages in Madhya Pradesh, 2007

District/village/urban site	Population in 2007	Social groups	Livelihood options in village	Migration (in and out)
Dewas				
Tonk Kala	4500	Mixed – large OBC group, and equal proportion of general and SC	Soyabean, maize, potato, garlic, onion, wheat, gram. Cattle breeding, government service	In-migration for harvesting soyabeen
Kankund	2000	Largely OBC, a few SC and ST	Soyabean, maize, jawar, potato, onion, wheat, gram. Cattle breeding, Cattle breedng and selling milk	In-migration for harvesting soyabeen, outmigration for factory work
Mawada	1451	ST	Soyabean, cotton, jwar, rice, maize, wheat. Cattle breeding	
Ward No. 22	5000	Muslim – large proportion. Maratha andothers	Wage labour, petty trade and manufacturing, work with decorators, drivers	Very few outmigration.
Ratlam				
Pritam Nagar	3000	ST majority, some general, few SC	Soyabean, corn, cotton, chilly, onion, garlic, wheat, gram. Agr labourere, attle breeding, construction	In-migration for soyabeen cultivation, as agricultural labourers
Badayala Chorasi	1900	Mixed – OBC, ST, SC and general	Garlic, soyabean, cotton, maize, gram, wheat, mustard, a few labour in drug company and railways, teachers	Outmigration for government jobs, to Jaora for labour work
Bargarh	1800	Majority patidar (OBC), some SC and few general	Soyabean, maize, wheat, gram, garlic and opium	In-migration for soyabeen and wheat cultivation, many out migrate for nonagr work
Ward No. 43		40% Muslims, rest are general caste	-	-
Shajapur				
Sunera	6000	Muslim majority, some Sc-chamars, and OBC – dhakars	Agriculture and orange plantation, teachers, shops, informal sector – orange collection centre and traded from here	Outmigration for majdoori, business

Siroliya	3000	SC- harijan majority, Patiidars (OBC) and Brahmins,	Onion, garlic, potato, wheat, maize, soyabean. Agriculture, cattle breeding, several dairies	In-migration for harvesting soyabeen, outmigration for factory work
Bhuriya Khajuriya	1726	largely OBC, some ST, SC	Soyabean, maize, gram wheat, agriculture, cattle breeding	No migration
Ward 5	-	-	-	-

Source: Village survey 2007

These tables present socioeconomic characteristics of the sample villages as collected during the survey. In Rajasthan, many of the sites are dominated by OBCs, while Karoli in Alwar has a majority of Meo Muslims. In fact, Muslims have a high presence in the urban sites of Dhaulpur and Pali. SC/STs are presents across most of the sites; STs have a significant presence in Dhaulpur. Some general caste respondents were also found, mainly in urban Alwar and in Saumli village in Dhaulpur. In Madhya Pradesh two villages (Mawada and Preetam Nagar) were largely tribal. But many villages had Patidar community (mostly large farmers). Here too the urban sites have a high presence of Muslims.

Crops cultivated in Rajasthan were mostly cereals and dependent on rain, whereas those in Madhya Pradesh were largely cash crops. Several years of drought preceded the survey period, and had adversely impacted agriculture in Rajasthan. So many villagers were seen to move out of the village in search of work – there were halwais (cooks in sweet shops) who migrated from Saumli, workers from villages in Pali migrated to work in shops in urban areas, and there were workers who migrated to work as labourers in brick kilns. The villages in Madhya Pradesh show greater diversity in cropping pattern – with soyabean, orange plantations, opium, cotton, onion and garlic. Cattle breeding were common to both the states but more people in MP villages took up dairying as a profession. Many of the MP villages saw an in-migration of labourers in harvesting time rather than out-migration.

2.3 Infrastructure and other Basic Facilities

The survey sites have different levels of development as is reflected in their access to infrastructural facilities (electricity, water and roads) as well as other facilities like bus service, health centre, schools, etc. (**Table 2.3a and 2.3b**). The type of the house prevailing in a site (kutcha, pucca or semi-pucca) usually reflects the state of development in that site. But it is not so useful an indicator to compare villages in different areas for housing patterns are also influenced by social norms.

The first three districts presented in **Table 2.3a** belong to Rajasthan, and these are followed by data for the districts in Madhya Pradesh. MP has more sites with kutcha houses compared to Rajasthan, but it fares better than the Rajasthan sites in terms of electrification and water. Though many villages had electricity, electricity supply was very irregular in several places. Madhya Pradesh villages had electricity in three phases – the one meant for irrigation purposes were given for pre-selected short intervals. Some villages complained of not having electricity in their homes except at night. Quite a few sites in rural Rajasthan suffer from acute water shortage. The water level has gone down. Some villages had a water tank under "Sajal Dhara Yojana" from which households could get piped water if they were prepared to pay for it. Telephones have reached nearly all the sites and the outreach of road transport is also fairly good. In Madhya Pradesh there was a government programme called "Nirmal Gram" which tried to encourage construction of personal toilets.

The urban areas were more similar – they were all district capitals, but none as developed as metro towns.. Alwar in Rajasthan and Dewas in Madhya Pradesh were relatively better developed and industrialised. The others were smaller. The wards chosen mostly had narrow roads and small plots. Residents were mixed ranging from casual labourers, petty traders to shopkeepers to professionals.

Table 2.3a: Access to infrastructure and basic facilities in sample areas in Rajasthan

Alwar	Type of house	Distance to bus stop	Facilities	Schools	Distance to health centre
Karoli	Semi-pucca	1.5 km	Electricity(10%), telephone (0 km) . water (15%, tap water)	1 pvt middle, 1 Govt. sec, 1 madrassa, 4 anganwadi	0 km
Kalipahari	Pucca	3 km	Electricity (100%), telephone (0 km), water (30% hand pump)	1 GPS, 1 GMS, 1 anganwadi	3 km
Momanpur	Pucca	5 km	All. Tank water. No water in summer	1 GMS, 3 anganwadi	
Ward no.34	Pucca	2 km	Electricity (100%), telephone (0 km) water (84% tap water)	1 GPS, 1 GSS, 4 orivate prim, 2 private UP, 1 private secondary	0 km
Dhaulpur					
Saumli	semi – pucca	1.5 km	Electricity (50%), telephone (0 km) water (50% hand pump), water level gone down	1 GPS, 1 GMS, 1 anganwadi	2 km
Barauli	Semi - Pucca	0 km	Electricity (100%- 6 – 7 hours), telephone (0 km) water shortage, tap water from river – paid for	1 GPS, 1 sr.sec, 1 Rajeev Gandhi school, 1 andganwadi, 3 pvt.	4 km
Dandoli	Semi - Pucca	0.5 km	Electricity (80% - 6 – 7 hours), telephone (0 km), water (few govt but many private hand pumps)	1 GMS, 1 anganwadi	0 km
Ward no.23	Pucca	2 km	All	1 madarsa in ward. GPS and GMS within half km. GSS around 1.5 kms. private sec school in ward.	0 km
Pali					
Deepawas	semi-pucca	5 km	Electricity (50%), telephone (0 km) water (25% tap water from one tank, 6 handpump where 4 needs repair)well irrigation	1 GPS, 1 GMS, 1 pvt	0 km
Manda	Pucca	0 km	Electricity (100%), telephone (0 km) water (90% tap water from tank, most gfamilies given water filter by exide)	5 GPS, 1 GMS (for girls), 1 GHS, 1 pvt primary, 1 anganwadi	0 km
Vopari	Kucha	0 km	Electricity (70%), telephone (0 km) water (40% tap water from tank)	3 GPS, 1 se.sec	
Ward no.21	Pucca	1 km	All	1 Govt. madarsa. Govt schools within 0.5 km. orivate prim, 2 UP, madarsa within ward	0 km

Source: Village survey 2007

Table 2.3b: Access to infrastructure and basic facilities in sample areas in Madhya Pradesh

District	House type	Distance to bus stop	Infrastructural facilities	Village schools	Health centre
Dewas					
TonkKalan	Semi-pucca	0 km	Electricity (50%), telephone(0 km), community toilet water(100%, tap water-paid, hand pump)	2GPS, 2pvt(P,UP)1govt.sec	0 km
Kankund	Semi-pucca	0 km	All. 180 wells – half dries up in summer	2 GPS,1 govt mid, 1 pvt UP	0 km
Mawada	Kucha	8 km`	Electricity (70%),telephone (0 km), water(20% hand pump) for irrigation wells and river	1 GPS, 1 UP, 3 EGS	4 km
Ward no.22	Pucca	0 km	Handpump and tubewells for drinking water	1 GPS,3 Pvt UP	0 km

Ratlam					
Pritam Nagar	Semi-pucca	1.5 km	All	2 GPS, 1 govt mid, 2 pvt prim	0 km
Badayala Chorasi	Pucca	1 km	All. Electricity 16 hours then – but sometimes only 4-5 hours. Many taps to be paid for. Bad road	1 GPS, 1 govt mid, 1 pvt prim.	0 km
Bargarh	Pucca	0 km	All- water level low	2 GPS, 1 GUP , 2 Anganwadi	0 km
Ward no.43	Pucca	3 km	All	4 pvt prim,pvt UP , 4 pvt mid	0 km
Shajapur					
Sunera	Kucha	0 km	Electricity (90% - 6-7 hours), telephone (0 km) water(50%)	3 GPS, 2 GUP , 1 govt mid, 2 pvt mid, 3 pvt madrassa	0 km
Siroliya	Kucha	7 km	Electricity (100%- 14 hours), telephone (0 km), water (50% tube well-low ground water)	1 GPS, 1 GUP, 1 govt mid, 1 PUP, 1 NGO	0 km
Bhuriya Khajuria	Kucha	0 km	Elec (100% but 4- 6 hours), telephone (6 km), water (90 %, hand pump many dysfunctional) no water shortage	1 GPS, 1 govt mid, 1 pvt, 2 anganwadi	6 km
Ward 5	Pucca	0 km	-	-	-

Source: village survey 2007
Note: GPS- government primary school, GMS – government middle school, GHS – government higher secondary school

Availability of schools appears to be better in MP, but few secondary schools are there. Mostly there are primary/upper primary school and some middle level ones. Almost all sites have good primary enrolment figures.

Health centre facilities are available in almost all the sites. However, the mere existence of a PHC does not always tell the whole story. For instance, at tribal-dominated Pritam Nagar (in Ratlam district in MP), less than 25% of the population make use of the PHC. Doctors are often not available. In Dhaulpur district in Rajasthan, too, some villages see limited use of existing health centres. Advanced facilities are usually available at a distance of 2-5 km from the village.

3. SURVEY HOUSEHOLD PROFILE

3. 1. Socio-economic Background

The households surveyed come from a diverse socio-economic background. In this section, we describe some of the basic characteristics of the households which give an indication about their economic status. There are 717 households in the rural areas and 300 households in the urban areas-distributed evenly across the two states, Rajasthan and Madhya Pradesh.

Among social groups, OBCs (other backward castes) are the largest, accounting for 40% of the total sample households. SC (scheduled castes) and STs (scheduled tribes) together account for around 27% of the total, followed by Muslims (20%) and Other Hindus (12%). The distribution of social groups in the rural and urban samples is shown below in **Charts 3.1** and 3**.2**.

Chart 3.1 Distribution of social groups

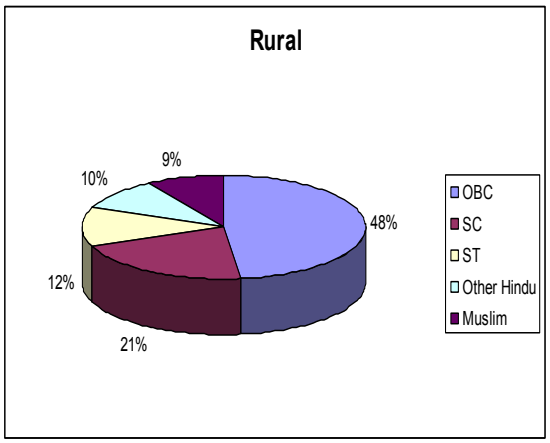


Chart 3.2 Distribution of social groups

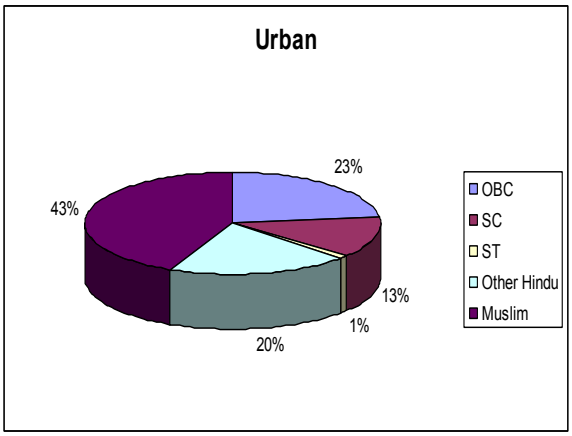


Table 3.1 shows the distribution of the households surveyed by social/religious categories for rural/urban sector for each state and for the entire sample.

Table 3.1 Distribution of households by social/religious groups

(Per cent)

	Rural	**Urban**	**All**
Rajasthan all (N)	**360**	**150**	**510**
SC	21.1	11.3	18.2
ST	8.1	1.3	6.1
OBC	48.1	26.0	41.6
Other Hindu	11.4	30.0	16.9
Muslims	11.4	31.3	17.3
All	100.0	100.0	100.0
MP All (N)	**357**	**150**	**507**
SC	21.9	14.0	19.5
ST	15.0	0.0	11.2
OBC	47.9	20.0	39.6
Other Hindu	8.7	10.7	9.3
Muslims	5.6	55.3	20.3
All	100.0	100.0	100.0

Overall, among caste and religious groups, OBCs account for the largest proportion of the households in both the states - 41.6% in Rajasthan and 39.6% in MP. In rural areas around a fifth are from SC and nearly half from OBCs. The urban sample contains a large proportion of Muslims; 31% in Rajasthan households and 55% in MP[2]. The share of OBC households is higher in the rural areas than in urban for both the states. More significantly, the share of the traditionally poorest castes, SC/STs, more than doubles as we move from urban to rural sector, for both states.

Another interesting demographic feature of the sample data is that household size varies considerably across quintiles but the difference is much lower between rural and urban areas. The trend is similar for the number of children in each household (**Table 3.2**).

[2] The sample has a higher than average Muslim population – could be a consequence of purposively selecting a ward with high poverty incidence.

Table 3.2 Household size and number of children in survey households

	Rural		Urban	
	Q1 (poorest)	Q5 (richest)	Q1 (poorest)	Q5 (richest)
Household size	7.2	5.6	7.3	4.4
No. of children	3.3	1.4	3.1	0.7

Note: The households in rural and urban areas were graded in ascending order separately, according to their per capita monthly consumption expenditure and divided into 5 equal groups (quintiles). Thus, 5th quintile (Q5) of the rural area is the group of richest 20% households in rural areas.

We do not observe any significant impact of family-planning measures by government in urban vis-à-vis rural areas. It may also be because there are more joint families in the urban sample as people migrate to towns and stay with relatives for some time. We found that the number of ever-married male for the urban sample declines slightly as we move from lower to higher quintiles, but in the rural areas it remains similar across the quintiles.

3.2. Poverty Levels

It has been mentioned at the outset that the sample households have been selected to represent disadvantaged communities. In this section there is an attempt to categorise them in terms of national poverty measures.

Official statistics indicate that there were 300 million poor people in India in 2004-05. Although the poverty ratio or the percentage of poor people has been declining over time, from 54.9 % in 1973 to 27.5 % in 2004, three decades of planning has been barely able to make a dent in terms of absolute numbers: from 321 million in 1973, the number of poor fell only slightly to 302 million in 2004-05 (11th Plan document).

Moreover, rural poverty has come to be identified with households where agricultural labourers and artisans are the main earners, while poverty is concentrated in households with casual labourers in the urban sector. At the national level, in the rural areas, the social groups of SC/ST/backward castes accounted for 80% of the poor. In the urban sector, too, SC and ST were the main social groups mired in poverty. This observation is supported by the present survey data as well.

In order to address the question, who are the poor, the concept of "poverty line" is often used. This is dependent on the idea that in any economy there is an absolute critical threshold of income, consumption, or more generally, access to goods and services, below which individuals are called poor (Ray 2008). This critical threshold is referred to as the "poverty line". The poverty line could be based on normative nutrient requirements for the citizens of a country or it could be a function of the minimum wages. Other bases can also be thought of and aggregate poverty lines can be replaced by more disaggregated ones, such as region-specific poverty lines, or food and non-food poverty lines.

We next take a look at the change, if any, in poverty for the two survey states from the 1970's till 2004-05, based on official government statistics.

Table 3.3 Percentage population below poverty line (combined rural + urban)
(in % persons)

Year	Rajasthan	MP
1973-74	46.14	61.78
1977-78	37.12	61.78
1983	34.46	49.78
1987-88	35.15	43.07
1993-94	27.41	42.52
1999-2000	15.28	37.43
2004-05 URP	22.10	38.30
2004-05 MRP	17.50	32.40

Source: Planning Commission
Note: URP: Uniform reference period, MRP: Mixed reference period

It is seen from **Table 3.3** that poverty has declined consistently in MP, while in Rajasthan there has been some reversal between 1983 and 1987-88 as well as between 1999-2000 and 2004-05. (MP shows reversal in 2004-05 only if URP is considered). However, Rajasthan has all along had lower poverty compared to MP[3].

Table 3.4 Percentage population below poverty line (in % persons) in 2004-05

	Uniform Reference Period		Mixed Reference Period	
	Rural	Urban	Rural	Urban
Rajasthan	18.7	32.9	14.3	28.1
MP	36.9	42.1	29.8	39.3

Source: Planning Commission

Considering rural and urban poverty separately as shown in **Table 3.4**, we see that regardless of reference period, poverty in Rajasthan was much less than that in MP in both rural and urban sectors in 2004-05. Urban poverty is seen to be much greater than rural poverty in **Table 3.4** for both states[4].

The inequality in the two states can be ascertained by observing the Gini coefficients (**Table 3.5**).

Table 3.5 Gini Coefficients for Rajasthan and MP

Year	Rajasthan		MP	
	Rural	Urban	Rural	Urban
1973-74	0.28	0.29	0.29	0.27
1977-78	0.46	0.30	0.33	0.38
1983	0.34	0.30	0.29	0.29
1993-94	0.26	0.29	0.28	0.33
1999-2000	0.21	0.28	0.24	0.32
2004-05 URP	0.25	0.37	0.27	0.39
2004-05 MRP	0.20	0.30	0.24	0.37

Source: Planning Commission

The official Gini coefficients estimates are show that the two states had fairly low and comparable levels of inequality in 1973-74. But there was a large rise in inequality in Rajasthan in 1977-78 in the rural sector, while for MP the rise in inequality was more in the urban sector. After 1983 till 2004-05, while urban inequality levels have remained more or less the same in Rajasthan (considering MRP for 2004-05), it has worsened for MP.

Coming back to the present survey data, in the following section we have carried out an analysis of poverty among the sample households in the present survey on the basis of consumption expenditure data. As mentioned earlier we used monthly per capita consumption expenditure (MPCE) data to separate rural and urban sample households into quintiles. The median MPCE(in Rs) is shown below for rural and urban areas for each quintile (**Table 3.6**):

[3] Madhya Pradesh has been divided into Chattisgarh and MP in year 2000.

[4] In this context, it may be mentioned that the construction of All-India as well as state poverty lines have come under a lot of criticism, which includes the increasing rural-urban price differential. (see Himanshu 2010, Patnaik, Deaton 2008)

Table 3.6 Quintile-wise median MPCE of survey households (Rs)

Quintiles	MPCE rural			MPCE urban		
	Rajasthan	MP	All	Rajasthan	MP	All
Q1 (poorest)	389.04	381.00	384.33	477.60	580.12	506.25
Q2	519.98	538.89	526.81	660.83	809.13	707.50
Q3	655.63	811.28	712.58	940.97	1134.94	1031.10
Q4	869.79	1086.00	982.29	1311.21	1474.00	1408.13
Q5 (richest)	1393.89	1703.51	1592.29	2184.31	3022.36	2520.28

The data indicate that the urban-rural inequality increases as we move from lower to higher quintiles, from around 30% for the poorest quintile to around 60% for the richest quintile. The inequality between lower and higher quintiles is more in urban sample compared to the rural one. The richest quintile in urban areas has an MPCE around 5 times the level for the poorest quintile. The corresponding figure for the rural households is around 4.

To arrive at an estimate of the number of poor, we have used State poverty lines. The following table gives the poverty lines for 2004-05 (the latest available official statistics) and our estimations for the same for 2006-07.

Table 3.7 Poverty lines in Madhya Pradesh and Rajasthan

	2004-5		2006-7	
	Rural	Urban	Rural	Urban
Madhya Pradesh	327.78	570.15	337.70	616.70
Rajasthan	374.57	559.63	385.90	605.30

Source: *Indiastat.com*

The Recoup survey data are for the year 2007, so the 2004-05 poverty lines must be adjusted by price indices. Comparing the state-wise poverty lines for MP and Rajasthan over the periods 1999-2000 and 2004-05, we find that the increase for rural areas have been 5.4% (for MP) and 8.9 % (for Rajasthan), while increase for urban areas have been 18.6% (for MP) and 20.1% (for Rajasthan) over this 5 year period. As a broad approximation if we use 1.5 % p.a. increase for rural areas and 4% p.a. for urban areas, then the state poverty line approximations for 2007 for MP and Rajasthan are (Rs per capita per month): 337.7 (rural) and 616.7 (urban) for MP and 385.9 (rural) and 605.3 (urban) fro Rajasthan.

Based on these poverty lines, we find the incidence of poverty (persons below poverty line) as follows:

Table 3.8 Incidence of Poverty in sample households with <u>State Poverty Lines</u> as Benchmark

(Per cent)

	Rajasthan	M.P
Rural	12.1	6.3
Urban	31.1	15.2

The table shows that for both rural and urban sectors, Rajasthan sites are more impoverished than MP sites. It is also interesting to note that in our sample population in both the states urban poverty higher than rural poverty[5]. The poverty is found to be the least in the rural MP site.

An analysis was attempted using minimum wages in the two states as an alternative poverty line. Minimum wages are expected to support a family comprising an adult male, spouse and two children. The daily minimum wage for unskilled labour for Rajasthan and MP (as on 31.3.2008) are as Rs 100

[5] The debate surrounding the estimation of poverty lines has already been mentioned and such estimation problems may be behind the over-estimation of urban poverty.

(for both rural and urban Rajasthan) and Rs 61.37 (rural M.P.) and Rs 93.11 (urban M.P.). Taking 26 working days in a month, the monthly minimum wage is Rs 2600 for Rajasthan (rural and urban) and Rs 1600 (rural) and Rs 2500 (urban) for MP.

Since a household size of four is expected to be supported by the minimum wages, we divide the minimum wages by 4 to get a income line (i.e a person with monthly per-capita expenditure below it is considered as poor) – Rs 400 for rural and Rs 625 for urban M.P, and Rs 650 for rural and urban Rajasthan.

Based on these income lines, we find the incidence of poverty as follows:

Table 3.9 Proportion of people with consumption expenditure below Minimum Wages

(Per cent)

	Rajasthan	M.P
Rural	57.4	11.9
Urban	36.2	17.0

The broad trend agrees with the earlier estimates – Madhya Pradesh households are better off than Rajasthan. But a very high proportion has consumption expenditure below minimum wages in rural Rajsathan. However, as indicated by the following report in an Indian newspaper, the problem lies perhaps in arbitrary fixation of minimum wages in different states.

…… "*States revise their minimum wages periodically, and as many as eight states increased their minimum wages substantially in 2007-08. Some, like Uttar Pradesh and Rajasthan, almost doubled it to Rs 100 a day from Rs 58. This had led to an escalation in the budget and also criticism that even households that were not really below poverty line (BPL) were queuing up for jobs under NREGA*."…..

http://www.indianexpress.com/news/no-trimming-of-wage-rates-under-nrega/461367/0

3.3. Composition of Consumption Expenditure

This section deals with the consumption expenditure pattern of the sample households. The broad item-wise shares in median per capita monthly consumption expenditure (MPCE)(in Rs) have been shown in **Table 3.10** and **Chart 3.3.** Food is the major expenditure item, followed by rent, fuel & electricity, health care, travel and clothes. The rural respondents spend more for these items relative to the urban counterparts except for rent and fuel & electricity where shares in urban sector are more.

Chart 3.3

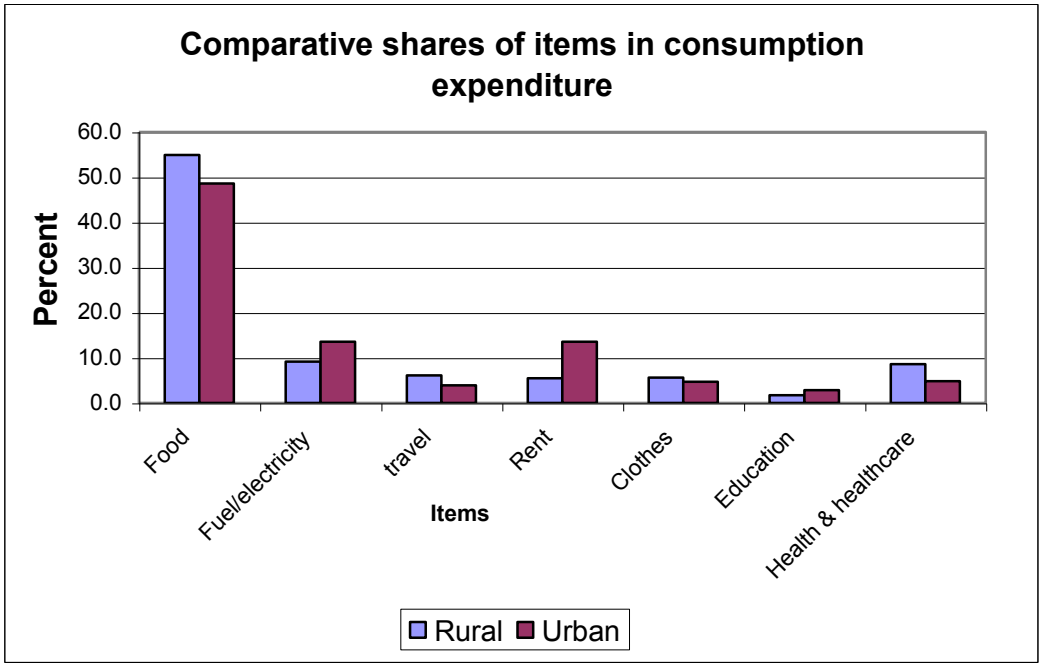


Table 3.10 shows the percentage share of individual items in median consumption expenditure for rural and urban areas, for overall rural and urban sectors along with the shares for the lowest and highest quintiles.

Table 3.10 Share of different consumption heads in consumption expenditure for Survey households

(Per cent)

	Rural			Urban		
	Q1 Poorest	Q5 Richest	All	Q1 Poorest	Q5 Richest	All
Food	59.9	49.6	54.9	53.9	42.2	48.6
Intoxicants	4.0	2.3	3.4	3.2	0.0	1.5
Fuel/electricity	8.6	9.3	9.2	14.4	11.3	13.5
Entertainment	0.0	0.0	0.0	1.6	1.8	1.7
Travel	5.0	9.3	6.1	3.1	7.7	3.9
Rent	4.3	2.8	5.5	6.7	17.1	13.5
Items of personal use	3.7	2.7	3.5	4.2	3.3	3.6
Clothes	5.5	5.5	5.6	3.9	4.4	4.7
Bedding	0.0	0.2	0.0	0.0	0.1	0.0
Footwear	1.5	1.4	1.5	1.3	1.1	1.4
Education	1.2	5.2	1.7	3.1	5.0	2.8
Health & healthcare	6.2	11.7	8.6	4.6	6.0	4.8
Tax	0.0	0.0	0.0	0.0	0.0	0.0
Consumer durables	0.0	0.0	0.0	0.0	0.1	0.0
Total	100.0	100.0	100.0	100.0	100.0	100.0

Food is clearly the largest item of expenditure in both the sectors, but forms a higher share of total expenses in the rural areas and a higher share for the poorer quintiles compared to their richer counterparts.

The urban Q5 spends only 42% on food, the next largest item being rent. Rent is a relatively smaller expenditure in rural areas, but fuel and electricity has a large share in both the sectors. It is interesting that rural respondents report a higher expenditure on health related matters vis-à-vis the urban respondents. Respondent households in both sectors report zero values for tax and for consumer durables. The latter may be due to under-reporting. A similar situation is possible for expenditure on intoxicants, where people may not want to reveal the actual expenditure.

Regarding education, we see that the topmost quintile in both sectors report 5% expenditure, but the lowest quintiles have much lower figures (1.2% and 3.1% for rural and urban areas respectively). These figures are likely to reflect the relatively greater expenditure on higher education that the richer segments of the sample households might be incurring. But it is an interesting feature that richer households in both rural and urban areas are spending similar proportions on education.

The national (urban) estimates for percentage shares of consumption expenditure items are presented below (2004-05) for Delhi and India (**Table 3.11**) for a comparison with the urban sector estimates obtained in the RECOUP-CORD survey.

Table 3.11 Percentage shares in consumption expenditure (2004-05)

	Delhi	All India (urban)	RECOUP-CORD urban
Food Items	34.8	40.0	48.6
Pan, tobacco, intoxicants	0.7	1.5	1.5
Clothing and bedding	4.9	5.5	4.7
Footwear	1.0	1.0	1.4
Misc Consumer goods	3.8	6.5	3.6
Misc Consumer services	21.3	13.6	5.6
Rent	8.6	5.7	13.5
Consumer taxes	0.8	0.8	0.0
Durable goods	8.8	4.0	0.0
Education	5.1	6.2	2.8
Medical-institutional	0.2	1.6	4.8
Medical-non institutional	1.7	4.5	
Non food total	65.2	60.0	51.2
Total food + non food	100.0	100.0	100.0

The present survey is based on disadvantaged sections of the society, as reflected in the higher food share (48.6%) compared to the figures of 35% and 40% shown in the table above. Other major differences are lower rent and higher durable goods figures. The Delhi and All-India (urban) estimates mention two categories “Miscellaneous consumer goods” and “Miscellaneous consumer services” which together account for around 20-24% of the total consumption expenditure. The comparative consumption items for the survey data were much smaller. As said earlier it could be possible under reporting, or because the sample is largely biased towards poorer households, expenditure on such consumer goods are lower.

The lower share of food for rural vis-à-vis urban sector and for higher quintiles vis-à-vis lower quintiles are in accordance with Engel’s observations that prices remaining the same, proportion of

consumers' budget spent on food falls as income rises. Even if the prices vary across rural-urban areas, the observation holds for the various quintiles within both rural as well as urban sector, since proportion of expenditure spent on food declines as we move from poorer to richer quintiles.

3.4. Asset Ownership

As the following discussion will show, poverty reflects deprivation at many levels, and thereby may not always be captured by the single dimension of income earned or consumption expenditure incurred. The capability approach[6] to poverty or "human poverty" involves multi-dimensional deprivation not only in terms of income, but also in terms of other attributes of a dignified human life such as education, health, infrastructure facilities, a safe & secure environment, etc. In the following sections, we take a look at the asset-position, access to civic amenities, indebtedness, etc. relating to the sample households, in order to get a more comprehensive picture regarding the deprivation of the survey households.

3.4.1 Ownership of houses

An overwhelming majority of the households own their house; 98% in rural areas and 85% in urban areas. However, if we look at the ownership of pucca houses, the rural households are way behind their urban counterpart, as can be seen from **Table 3.12**.

Table 3.12 House ownership of survey households

(per cent)

	Rural	Urban
Proportion of households which owns house	98	85
Proportion of house-owners who owns pucca hut/house	45	88

Type of dwelling is a good indicator of the economic status of a household within an area. Better off families are almost always likely to live in pucca rather than kutcha houses, especially in rural areas[7].

[6] Amartya Sen was the architect of this branch of welfare economics. His and other economists' research in this area eventually led to the formulation of the Human Development Index which encompasses health, education and gender equity as issues in development over and above the narrow income-based approach (wikipedia). A related approach is the Basic Needs approach to poverty formulated by Streeten et al (Streeten et al. cited in Clark year?), but the capability approach goes beyond the basic needs approach since it deals with general well-being rather than poverty and deprivation alone.

[7] In urban areas, this indicator may not capture the nuances of poverty so well since both houses and slums may be pucca.

Table 3.13 provides some information from the survey in this regard.

Table 3.13 Percentage of sample households living in kutcha house

	Rural	Urban
All	31.0	4.7
Rajasthan	13.3	0.7
MP	48.7	8.7
SC	37.7	13.2
ST*	58.1	0.0
OBC	23.3	4.4
Other Hindu	23.6	1.6
Muslim	27.9	3.9
Q1 (lowest)	46.2	10.0
Q2	29.4	5.0
Q3	31.9	3.4
Q4	30.8	3.3
Q5(highest)	16.7	1.7

* There are only 2 ST households in urban areas.

Overall, 31% of the sample households live in kutcha houses. The quintile-wise data show that the proportion of the households in quintiles 1 to 4 living in kutcha houses is around 30% or above in the rural sample. In rural MP, nearly half the sample households live in kutcha houses. Yet only 11-12% people of rural MP were found to be poor. In Rajasthan, percentage poor for state poverty-line based analysis was 12% while the percentage of rural households living in kutcha houses is also a comparable 13%. Among the class categories, SCs fare badly in both rural (37.7%) and urban areas (13%).[8] So very possibly housing norms in the two states are different, and many non-poor families in rural areas in MP did not live in pucca houses.

3.4.2. Ownership of agricultural land

Land is the most important asset for a rural household in India in view of the importance of agriculture as a means of livelihood. Landless people nearly always form the bottom rung of the agrarian society, making a livelihood out of low-paid agricultural labour. Some characteristics of agricultural land-holding in rural areas as found in the survey are discussed below.

Around 69% of the rural households in the sample have some amount of agricultural land. But there is a sharp contrast between the two states regarding the size of land holdings, with dry and rain-parched Rajasthan accounting for only 27.7% of the total agricultural land as shown in **Table 3.14** below[9].

Table 3.14 Ownership of agricultural land by households

	Total agricultural land owned (acres)	Per cent
Rajasthan	567.7	27.7
M.P	1482.3	72.3
Total	2050.0	100.0

Note: The data on land size was collected in local measure of bighas. The conversions of bighas to acres vary from state to state. In districts in rural M.P, 2 bighas equal 1 acre and in Rajasthan, 2.5

[8] Ignoring the ST, as there are only 2 ST households in urban areas.
[9] Non-agricultural livelihoods are a major source of income for Rajasthan

bighas equal 1 acre. The measurement in Mawada (a district in MP) is different – here a bigha is 7/8 of a bigha in other districts. The land measurements were adjusted accordingly.

Table 3.15 shows the situation regarding ownership of agricultural land in the two states according to consumption expenditure quintiles.

Table 3.15 Quintile-wise ownership of agricultural land

Rural Quintiles	% in total households	% landless	% of total land owned	Average size of holding (acres)
Rajasthan				
Q1 (lowest)	20.0	34.7	12.8	1.5
Q2	24.4	29.5	31.5	2.9
Q3	23.1	32.5	23.0	2.3
Q4	17.5	34.9	19.4	2.7
Q5(highest)	15.0	29.6	13.3	2.0
Total	100	32.2	100.0	2.3
M.P.				
Q1 (lowest)	19.9	40.8	7.4	2.7
Q2	15.4	29.1	7.3	2.9
Q3	17.1	34.4	12.5	4.7
Q4	22.4	32.5	23.6	6.5
Q5(highest)	25.2	17.8	49.3	10.0
Total	100	30.3	100.0	6.0

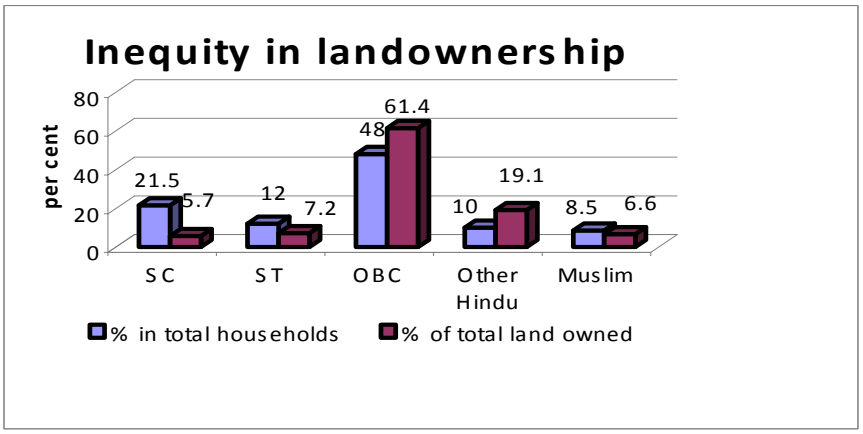
The proportion of landless households is high at nearly a third of the households surveyed in both states (32% in Rajasthan and 30% in MP). But there is a major difference in average size of landholdings of those who own land – just over 2 acres in Rajasthan as compared to 6 acres in Madhya Pradesh. As mentioned earlier, Rajasthan has desert conditions in many parts and is rain-deficit compared to MP.

The distribution of agricultural land for MP rural areas is skewed; poorest 19.9% household have 7.4% of the land, while the richest 25.2% household enjoy 49.3% of total agricultural land. The average size of land holdings of each quintile of rural MP increases as we move from lower to the higher expenditure quintiles. The distribution of land in rural Rajasthan appears to be more equitable than MP and there is hardly any change in the size of landholdings as we move across the quintiles of expenditure.

What comes through is a close correspondence in land holdings and expenditure quintile in Madhya Pradesh – indicating that it is a primarily agricultural economy. However in Rajasthan, except for the lowest quintile there is not much difference in land holding patterns of the others. Very possibly in these villages agriculture is not a profitable occupation and many depend on non-agricultural occupations.

We next take a look at the pattern of landholding by different social groups since that also gives an insight into the relative prosperity or poverty of these groups (**Chart 3.4** and **Table 3.16**).

Chart 3.4



The chart shows clearly that OBC and other Hindus are the privileged castes if we go by land ownership. Both these groups enjoy a greater share in total agricultural land owned compared to their representation among total households. The condition of the SC is the worst; share in total agricultural land in the rural areas is far less than their representation in total rural households.

Table 3.16 Ownership of rural agricultural land by social groups

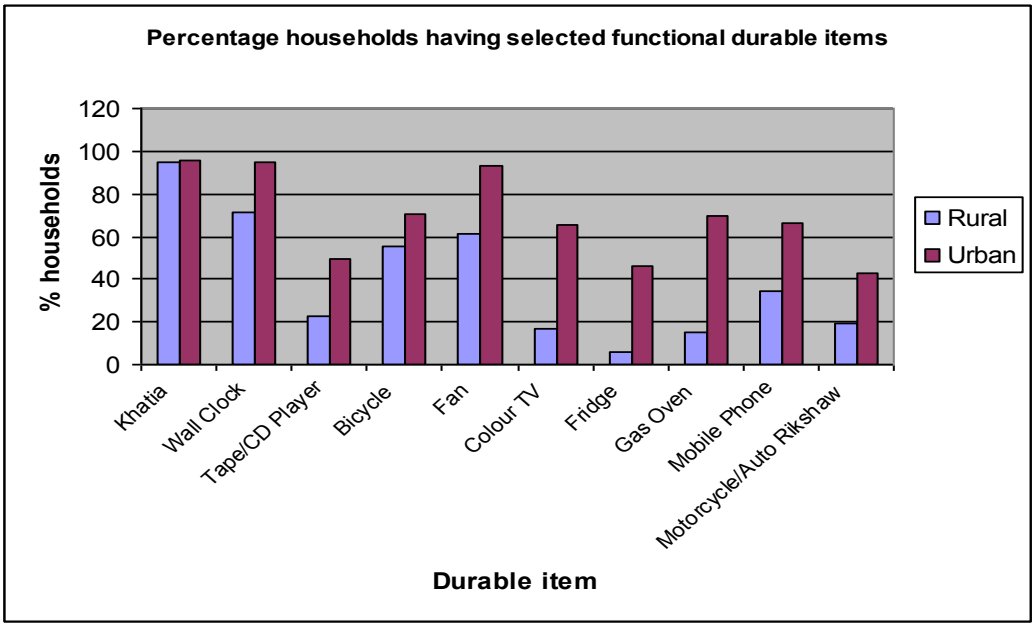
Caste/religion	% landless	Average size of land (acres)
SC	50.7	0.8
ST	23.5	1.7
OBC	26.7	3.7
Other Hindu	22.2	5.4
Muslim	29.5	2.2
Total	31.3	2.9

Proportion of landless and the average land-size owned follow a similar pattern - other Hindus and OBCs have few landless among them and size of the land owned by them is greater than the overall average size of agricultural land owned by all. SCs on the other hand have the smallest average size of agricultural land ownership and highest percentage of landlessness (more than half of SC households are landless). The Muslim household ranks second to SC in landlessness.

3.4.3 Ownership of functional durable goods

An account of the durable articles which are in a condition to be used often reveals the economic condition of the household and its members. **Chart 3.5** shows the distribution of households owning selected durable articles More detailed data are provided in the Annexure.

Chart 3.5 Ownership of major functional durable articles



Most households own a bed (khatia) and bedding. In rural areas more than half also own clock, bicycle and electric fan. There is a sharp rural-urban divide in pattern of ownership of functional durable articles, with the exception of basic items like beds. Bed and bedding are the most important and basic furniture items that are used by almost everybody. Among vehicles owned, bicycle is the most frequent one, followed by motorcycle. Cars are rarely used by the sample households, for both rural and urban areas.

Among the machineries owned, sewing machine has a noticeable presence, more prominently in the urban areas. There are indications that a significant proportion of those are used for commercial purpose.

Fans, coolers, fridge, land phone are all assets used a great deal by the urban sample. Cell phone is much more popular than landlines, both in rural and in urban areas. In rural areas, over one-third of households use cell phone. The proportion becomes almost double for the urban areas. TV has not yet found widespread use in villages. The scenario is opposite in the cities where a significant percentage of the population use colour TV and a far lower proportion use B&W TV. Tape/CD Players also find a significant space particularly in the urban households. Surprisingly, use of radio among the rural households is as low as use of TV. Other items like geyser, electric oven, computer and freezer have some minor presence in few urban households whereas they are almost absent in rural households.

Among other asset items, wall-clock and wrist watch are quite frequently used, while the use of the former is more than the latter. Many households use gas-oven in the cities, but the usage is little in the villages. Asset-use was much higher in the urban sample than the rural one for all items.

The above data is clearly in contrast to the consumption-expenditure based poverty analysis which showed the urban sites to be far poorer than the rural sites.

If we look at the use of assets by households with different types of dwelling (Annexure), we find a strong correspondence between house type and economic status, i.e. those living in pucca houses possess more assets. Because of the popularity of the colour TV, the B&W TV seems to behave as an "inferior good" for the urban areas. For the kutcha house-dwellers, the most frequent assets (apart from bed & bedding) appear to be: clock, watch, bicycle and fan. Although ownership of other assets is negligible, around 20% of these households have B&W TV.

3.4.4 Ownership of livestock and farming equipments

In rural India, agriculture and allied activities still form the core of people's livelihood. Thus an account of livestock and farming equipments households possess can be an effective indicator of their well being. **Table 3.17** shows the ownership of livestock and farming equipment for the two states under survey.

Table 3.17 Ownership of livestock and farming equipment

Percentage of households having livestock and farming equipments (Rural)		
Items	Rajasthan	M.P
cows	17.5	42.6
buffalo	54.2	38.9
goat	30.8	23.9
other livestock	26.6	32.9
tractor	6.7	8.2
plough	5.3	16.0
cart	0.6	18.5
thresher	0.8	11.5
trolley	3.1	7.0
generator	4.4	4.2
tube-well	18.3	19.1
other machine	5.6	18.8

In rural Rajasthan, buffaloes and goats are the main cattle owned by the households. But the poor economic status of the households becomes clear from the low level of ownership of tractors, ploughs and trolley (6.7%, 5.3% and 3.1%, respectively), while a very insignificant proportion of households have cart and thresher. Tubewell ownership is less than 20% of the households and a meager 4.4% of them have generators.

More than half the households possess cows, buffalos and goats- indicating heavy dependence on them as a source of livelihood. As will be seen in a later section, this is an important source of income in many rural households. In rural MP, cows and buffaloes form the major livestock. The ownership of farm machineries, although slightly better than rural Rajasthan, are still at quite low levels.

3.5. Access to Basic Infrastructure

Access to infrastructure is a key determinant of the quality of life. Outreach of public facilities like piped potable water, electricity, all-weather roads can improve the quality of life of the common citizen by a huge margin and mitigate daily hardships. Unfortunately, access to hygienic drinking water, toilets, reliable electric supply, etc. remains an unfulfilled dream for the average Indian even today. The type of fuel used for cooking is also an indicator of a household's economic status. The survey data indicate that access to these basic amenities is generally far better in the urban areas compared to the rural areas (**Table 3.18**).

Table 3.18 Accessibility Features of survey households

Proportion of households with	Rural	Urban
Distance of drinking water source from home		
Less than 20mtr	26.4	77.0
20-100 mtr	45.3	18.3
100-500 mtr	19.4	3.7
More than 500 mtr	8.9	1.0
Total	100.0	100.0
Source of drinking water		
Pipe line	28.2	83.3
Boring/hand-pump	54.1	14.7
Well/pond/river	14.8	0.7
Other	2.9	1.3
Total	100.0	100.0
Type of toilet used		
Pucca	14.4	78.0
Kutcha	2.1	11.3
Community	0.4	0.7
None	83.1	10.0
Total	100.0	100.0
Electricity availability		
Have electricity	77.9	97.0
Do not have electricity	22.0	3.0
Total	100.0	100.0
Type of cooking fuel used		
Wood	89.2	33.3
Kerosene	0.0	1.7
Coal	0.0	3.0
Gas	4.9	60.7
Cow dung cake	5.3	1.3
Other	0.6	0.0
Total	100.0	100.0

There is a remarkable contrast between villages and cities when it comes to accessing public amenities. Even the poor households have access to some basic infrastructure in an urban set-up, but the same cannot be said for the sample households in the rural sector. Nearly 30% of the rural households have to access drinking water from a source more than 100 mtrs away. Only 26% of the households have drinking water source in less than 20 meter radius. The corresponding figure for the urban areas is 77%. While 83% of urban households get water from pipeline, in rural areas, only 28% have access to this facility. A notable 15% of the rural households use drinking water from well, pond, or river, which can often be unhygienic.

The situation of sanitation in the rural areas is also very different. A staggering 83% of the rural households do not have any toilets. On the other hand, in the urban areas, only 10% of the households are without any toilet; 78% of households have pucca toilets and; 11% of the households have kutcha toilets.

As expected, a higher proportion of the urban households have electricity connection, as compared to the rural households (however there is a big state-wise disparity in this regard).

In the rural areas, 89% of the households still use wood as cooking fuel, compared to 33% of households in the urban areas. Use of gas as cooking fuel is quite rare in the rural areas; only 5% of rural households use gas as cooking fuel whereas this share is 61% for the urban households. There is some state-wise difference in usage of gas, with Rajasthan households using relatively more gas than MP, for both rural and urban sectors.

3.6 Sources of Income

An analysis of the sources of income can be useful because it helps to understand the stability/uncertainty of income in the lives of the sample families as well as the strategies they might be adopting to cope with uncertainties. **Table 3.19** shows that 80-90 % of the households in the villages (in both states) had multiple sources of income. This may reflect the strategy that many poor families adopt when unable to cope with unstable or erratic income from a single source. It is also possible that in rural areas where agriculture is rain fed the households members take up agricultural work in addition to other work. As discussed earlier, many families took up dairying as an additional income source. In the urban households around half or more report a single source of income. This may reflect more secure work opportunities in urban areas as well as lack of sources for extra income.

Table 3.19 Number of main sources of income for households

Number of main sources of income	Rajasthan		Madhya Pradesh	
	Number	Percent	Number	Percent
Rural				
1	71	19.7	35	9.8
2	189	52.5	184	51.5
3	100	27.8	138	38.7
Total	360	100.0	357	100.0
Urban				
1	82	54.7	72	48.0
2	57	38.0	63	42.0
3	11	7.3	15	10.0
Total	150	100.0	150	100.0

Table 3.20 shows the various sources of income for the sample households.

Table 3.20 Sources of income for households

(per cent)

Source of Income	Rajasthan		Madhya Pradesh	
	Rural	Urban	Rural	Urban
Cultivation (own land/share cropping)	65.8	3.3	69.5	6.0
Agricultural Labourer	12.2	0.7	55.5	4.7
Nonagricultural lab	35.0	20.7	19.3	36.7
Regular wage – agriculture	1.9	0	0.3	0.7
Regular wage non-agriculture	31.7	44.7	9.0	42.0
Petty self employment	45.0	54.7	68.9	50.7
Major self employment	0	1.3	0.6	3.3
Rental income	3.9	8.7	0.3	4.7
Pension etc. from government source	8.3	14.0	2.5	10.0
Remittance from private source	1.7	4.0	0.8	2.0
Total	360	150	357	150

Note: The column totals are more than hundred as the options are not mutually exclusive: households had up to 3 main sources of income.

Agriculture is still the main source of income as 65-70 % of the rural households are dependent on land. In rural MP 55.5% households derive income from agricultural labour, as opposed to only 12.2% in Rajasthan. More than a third in Rajasthan work as non-agricultural labourers, vis-à-vis 19% in MP[10].

It is difficult to determine whether Rural Rajasthan households were more prosperous and secure (than rural MP) - about a third earns regular wage from non-agricultural sources and 45% has some income from petty business – retail or manufacturing. Relatively more have some sort of remittance from government or private sources. Petty self-employment prevails more in rural MP. Details of individual earnings indicate that agriculture was very remunerative in MP – and the above table should be interpreted in that context.

In urban areas, Rajasthan appears better off as the sample there has relatively fewer wage labourers compared to MP. A similar proportion in both regions are regular wage earners and/or in petty business. There are also some with rental income as well as pension etc.

3.7 Coping with Economic Shocks

3.7.1 Change in household income

Households in disadvantaged communities are particularly vulnerable to extraneous shocks which can affect their economic status adversely. The survey therefore made enquiries regarding gains or losses made in asset/income during the previous year, as well as information about large unusual expenses incurred in the same period. Nearly 46% of households in rural Rajasthan and 30% of those in rural

[10] Rural Rajasthan has more non-agricultural activities than rural M.P. The observed difference in the pattern of economic activity between Rural Rajasthan and rural M.P seems to be emanating out from the difference in the pattern of agricultural land holding between the two states. For both the states, average size of rural agricultural land owned per household member (considering age group 15-60 yrs) increases, as we move from lower land owning size class to the higher ones, and the pattern is almost same for the two states. But only 7.8% of rural Rajasthan households own agricultural land of 5 acre or more, as compared to 25% for rural M.P. As it is this land class group who needs hired labour for agriculture, this could explain the fewer number of agricultural labourers in rural Rajasthan, compared to rural M.P.

MP experienced a decline in income in the previous year (**Table 3.21**). Rajasthan had experienced successive years of drought before the survey, which may be the reason why nearly half of the rural households suffered from a decrease in income. The decline in urban households was less.

Table 3.21 Change in household income during previous year

Sector	Household income in previous year	Rajasthan		Madhya Pradesh	
		Number	Percent	Number	Percent
Rural	Increased	25	6.9	46	12.9
	Decreased	165	45.8	105	29.5
	unchanged	170	47.2	205	57.6
	Total	360	100.0	356	100.0
Urban	Increased	20	13.3	19	12.7
	Decreased	33	22.0	43	28.7
	unchanged	97	64.7	88	58.7
	Total	150	100.0	150	100.0

As has already been mentioned the proportion of richer households is higher in MP compared to Rajasthan, and the table shows that more households in rural Rajasthan incurred a decrease in income the previous year. Households in urban Rajasthan fared somewhat better than urban MP as the percentage reporting a decline in income was 22% for the former, and 28.7% for the latter. Within Rajasthan, the cities fared better than the villages, although within MP, there was little difference between the two sectors.

3.7.2 Loss of assets

To cope with these extraneous shocks some respondents had lost or sold assets. The incidence of such losses was more for rural than urban areas and more in MP than in Rajasthan. Less than 70% of the households in urban Rajasthan reported loss in the previous year compared to much higher percentages in the other three sites. However, even 68.7% is a very high figure to be reporting losses.

Table 3.22 Loss reported by households (per cent) by state and sector

	Rajasthan		Madhya Pradesh	
	Rural	Urban	Rural	Urban
Proportion who have reported loss of assets in previous year	80.6	68.7	89.4	86.7
Loss of assets (in rupees)				
Mean	18050	14629	13978	10614
Median	7650	2500	5000	5000
For those who reported loss, reasons of loss	(per cent)			
medical reasons (illness or injury)	84.8	91.3	94.0	93.1
Drought	36.9	2.9	8.2	0
Flood	5.5	1.0	4.1	2.3
Loss of employment	6.9	11.7	0.9	3.1
Accident	11.7	8.7	6.0	1.5
Theft / fraud	1.4	6.8	3.4	4.6
Court proceedings	4.5	3.9	1.9	0

3.7.3 Loans and indebtedness**:**

A decline in income or an increase in expenditure can lead to loss of savings or assets. Households may also take resort to loans as many of the sample families do not have savings or assets as they belong to a poor economic status. Among our sample respondents nearly two-thirds took more loans in the previous year (**Table 3.23**) in rural areas. For the urban counterpart, this level was lower at one-third.

When we look at the source from which they have taken loan, we find that despite the expansion of banking services in the country the money lenders continue to account for a large part of the loans. Friends/relatives is also a major source of loans because of the ease and flexibility involved; nearly half of the households in rural Rajasthan, and around 40% in urban Rajasthan as well as urban MP took loans from this source. Formal sector has the maximum presence in rural MP and surprisingly low in urban MP. Perhaps this was due to the proportionately higher share of rich farmers and cultivation of cash crops in MP, or perhaps the lending network is more functional. In Rajasthan, formal sector has a stronger presence in the cities.

Table 3.23 Borrowings by households

(per cent)

Proportion of households	Rajasthan		Madhya Pradesh	
	Rural	Urban	Rural	Urban
who took loans in previous year	63.6	39.3	66.7	34.7
From the households who had taken loan the proportion who used the following sources*				
Bank/SHGs	20.5	33.9	45.4	25.0
Friends/relatives	48.9	39.0	29.2	40.4
Money lender	39.7	23.3	35.0	40.4
Loan in kind from shopkeeper	14.8	5.0	8.8	1.9

***** households reported multiple sources of loan – so the total is not equal to 100.

Indebtedness in rural areas was quite high in both the states – three fourths of the families surveyed had some outstanding debt (**Table 3.24)**. The average outstanding debt was higher in rural Rajasthan (Rs 20,000) than in rural MP (Rs 15,000)[11].

[11] The median values are considered as averages are influenced by outliers

Table 3.24 Main reason behind outstanding debt

	Rajasthan		Madhya Pradesh	
Rural mean outstanding debt median outstanding debt	52746 20000		39712 15000	
Reasons for debt	Number	Percent	Number	Percent
To cover current consumption	66	18.3	31	8.8
To buy property	21	5.8	26	7.4
To cover medical expenses	43	11.9	45	12.8
To cover marriage/funeral expenses	59	16.4	37	10.5
Agriculture/business related expense	75	20.8	122	34.7
No outstanding debt	90	25.0	89	25.3
Total	360	100.0	352	100.0
Urban Mean outstanding debt Median outstanding debt	91220 750		29746 0	
Reasons for debt	Number	Percent	Number	Percent
To cover current consumption	19	12.7	5	3.4
To buy property	14	9.3	7	4.8
To cover medical expenses	10	6.7	10	6.9
To cover marriage/funeral expenses	13	8.6	15	10.4
Business related expense	15	10.0	21	14.5
No outstanding debt	74	49.3	86	59.3
Total	150	100.0	145	100.0

The levels of debt were higher in Rajasthan where one-fifth of the households were in debt to meet agriculture/business expenditure and another one-fifth to cover current consumption. Marriage/funeral expenses were also an important reason. In MP more than a third was in debt to agriculture/business related reasons (which could explain higher presence of formal sector as source of loan). Although medical expenses due to illness has been cited as the single most reason for losses (refer to Table), it was not seen to be a major source of indebtedness - only around 12-13% mentioned it as a reason for taking loans.

Indebtedness in the cities was much less than in villages as the median values for outstanding debt indicate. It is lower than the proportion who took loans in the previous year, indicating that these people are able to pay of their debts quite early. Less than half of the households in Rajasthan and 40% in MP had any outstanding debt. Current consumption needs was an important reason for indebtedness in Rajasthan while in MP business related expense remained important as in the rural counterpart.

4. Sample Population Profile

There are 6260 individuals in the sample households, with 4482 (72%) individuals in the rural areas and 1778 (28%) in the urban areas (**Table 4.1**). The sample is evenly divided between Rajasthan and Madhya Pradesh. The gender-distribution is slightly biased towards men with 53% males compared to 47% females. The male-female ratio is higher in Rajasthan compared to MP.

Table 4.1 Demographic characteristics of sample population

	Total		Male		Female	
	N	per cent	N	per cent	N	per cent
All Sample	6,260		3,346	53.5	2,914	46.6
Rural	4,482		2,414	53.9	2,068	46.1
Urban	1,778		932	52.4	846	47.6
Rajasthan	3,160		1,710	54.1	1,450	45.9
M.P	3,100		1,636	52.8	1,464	47.2
0-5 yrs	749	12.0	412	12.0	337	11.6
6-14 yrs	1,430	22.8	779	23.0	651	22.0
15-24 yrs	1,262	20.2	714	21.0	548	19.0
25-34 yrs	826	13.2	421	12.6	405	13.9
35-44 yrs	762	12.2	393	11.8	369	12.7
45-60 yrs	738	11.8	392	11.7	346	11.9
Above 60 yrs	493	7.9	235	7.0	258	8.9
SC	1,148	18.3	623	18.6	525	18.0
ST	567	9.0	300	9.0	267	9.0
OBC	2,547	40.7	1,349	40.0	1,198	41.0
Other Hindu	734	11.7	421	12.6	313	10.7
Muslim	1,264	20.2	653	19.5	611	21.0
Never Married	3,056	48.8	1,811	54.0	1,245	43.0
Currently Married	2,812	44.9	1,404	42.0	1,408	48.3
Widowed	306	4.9	82	2.5	224	7.7
Divorced	11	0.2	5	0.2	6	0.2
Separated	10	0.2	4	0.1	6	0.2
Married, not Gauna	65	1.0	40	1.2	25	0.9

The sample has a youthful demographic profile. Children with age less than 6 years account for 12% of the population. Children in the age group 6 to 14 years, i.e. in the elementary school-going age, account for 22% of the population. Individuals in the age group 60 years and above, account for only 8% of the entire population. The remaining 58% of the household population, i.e. those in 15-60 years age group, form the target group in the present study. In the subsequent sections we have analysed education and its outcomes for this target group.

In the total population, 50% of the individuals are ever married (not accounting the "not Gauna" (non-cohabitation) cases). The proportion of ever married female (56%) is higher than the proportion of ever married male (45%).

We examine the sex ratio implied in the sample population in **Table 4.2**, sector-wise, state-wise, by age-groups and by social groups.

Table 4.2 Sex Ratio for the sample population

	Male	Female	Sex ratio
All age group	3,346	2,914	871
Rural	2,414	2,068	857
Urban	932	846	908
Rajasthan	1,710	1,450	848
M.P	1,636	1,464	895
0-5 yrs	412	337	818
6-14 yrs	779	651	836
15-24 yrs	714	548	768
25-34 yrs	421	405	962
35-44 yrs	393	369	939
45-60 yrs	392	346	883
Above 60 yrs	235	258	1098
SC	623	525	843
ST	300	267	890
OBC	1,349	1,198	888
Other Hindu	421	313	743
Muslim	653	611	936

Female male sex ratio is quite low, less than the national average (933 according to 2001 census). This is true for both urban and rural areas. Contrary to the usual pattern the ratio is lower in rural than in urban areas. This possibly is a result of relatively higher sex ratio among the Muslim families and higher Muslim population in urban areas. In Rajasthan the female-male ratio is less than 850 – much lower than in MP.

The sex ratio figures for different age groups reveal a disturbing pattern. The sex ratio is very low till the age group 15-24 years. For the lowest age group 0-6 years, the sex ratio is only 818, much lower than the sample average. This could reflect the preference for sons in India and also under reporting of younger girls. These statistics indicate that the girl child in India is still a second-best in early life. These statistics may also point at female foeticide, still reported in many parts of the country. Although the sex ratio improves slightly to 836 (still much lower than even the sample average) for the age group 6-14 years, it plunges to as low as 768 in the next age group of 15-24 years. Women's number (relative to men) improves in the higher age groups, i.e. mainly during the working years. At the highest age group, there is a reversal with the sex ratio at 1098. Thus, it appears that women are most vulnerable in their early years, despite various government schemes to improve the future of the "girl child".

Among social groups, Muslims have a very high sex ratio, much higher than the sample average. Other Hindus have the lowest at only 743 and are clearly responsible for some of the age group-wise low sex ratios discussed above. The backward castes (SC/ST), with poor sex ratios, possibly account for the rest. The largest group, the OBCs, have a sex ratio of 888, slightly higher than the sample average.

5. EDUCATION

5.1 Educational Attainment

Education has an intrinsic value and is seen as a desirable attribute for all sections of people in the society. Education can also be an important tool for the underprivileged since education is expected to provide more employment opportunities for them. Although the Indian constitution provides a right to education for all its citizens, the opportunities are not the same for everyone. The RECOUP CORD survey shows considerable gender-bias as well as rural-urban divide in educational attainment for the sample individuals (age group 15-60 years) (**Table 5.1**).

Table 5.1 Educational attainment by individuals (15-60 years)

(per cent)

	Rural			Urban		
	Male	Female	All	Male	Female	All
Illiterate	17.6	64.6	39.2	11.4	25.3	18.1
Below Primary	8.6	6.5	7.6	6.1	7.0	6.5
Primary, below 8	24.3	15.7	20.4	16.8	20.0	18.3
Middle, below 10	27.4	9.0	19.0	24.7	18.3	21.7
10, below 12	11.3	2.4	7.2	13.7	9.1	11.5
12 and above	10.8	1.9	6.7	27.3	20.4	24.0
Total N	1341	1136	2,477	578	530	1,108

Illiteracy is a major obstacle for rural women's development as can be seen from the fact that 64.6% of women in this category (age group 15-60 years) are illiterate. The level of illiteracy among women is quite high at one-fourth, even for the urban sample. Men are more educated than women in both cities and villages. The majority of the literate drop out before completing class 10 (the first board exams) and a very low percentage completes secondary level. A larger proportion of both men and women in the urban areas are seen to have completed higher levels of education than in rural areas.

5.1.1 Variations with social composition

If we look at the education attainments of the sample population in different social groups, Hindus from higher castes are found to have the highest education levels in both rural and urban areas (**Tables 5.2 and 5.3**)[12]. OBCs also show relatively good educational attainment in both rural and urban samples. In rural areas the Muslims have the highest incidence of illiteracy, followed closely by ST and SC. Education levels in urban areas are higher for al social groups. Muslim population show relatively better education levels compared to SCs – very different from rural areas.

Table 5.2 Educational attainment by social groups (rural)

(per cent)

	Social groups					
	SC	ST	OBC	Other Hindu	Muslims	All
Illiterate	45.4	50.8	34.1	25.7	53.3	39.2
Below Primary	7.7	9.2	8.2	3.2	7.6	7.6
Primary, below 8	18.8	16.5	21.5	20.6	22.9	20.4
Middle, below 10	16.5	10.2	22.2	24.5	11.9	19.0
10, below 12	5.2	7.6	7.8	11.5	2.4	7.2
12 and above	6.5	5.6	6.3	14.6	1.9	6.7
Total N	496	303	1,215	253	210	2,477

[12] The ST are ignored in the urban sample since they are only seven in number.

Table 5.3 Educational attainment by social groups (urban)

(per cent)

	Social groups (Urban)					
	SC	ST	OBC	Other Hindu	Muslims	All
Illiterate	31.6	0.0	15.2	4.1	22.4	18.1
Below Primary	9.0	0.0	3.9	1.4	9.6	6.5
Primary, below 8	18.1	0.0	17.5	8.6	23.4	18.3
Middle, below 10	23.3	14.3	26.5	18.6	20.2	21.7
10, below 12	8.3	14.3	12.8	17.3	9.0	11.5
12 and above	9.8	71.4	24.1	50.0	15.5	24.0
Total N	133	7	257	220	491	1,108

5.1.2 Variations with economic status

If we consider the link between education and economic status of a person, we see that the association can work at many levels; an individual from an economically better off family has better access to education opportunities. Again the access to education and thereby to a larger as well as better variety of jobs, can improve the economic status of an individual. While the direction of causality cannot be established from the following data on consumption expenditure and education levels, it is evident that there is indeed a very close association between education and economic status (**Tables 5.4 and 5.5**).

Table 5.4 Educational attainment and economic status of individuals

(per cent)

	Rural Quintiles			Urban quintiles		
	Q1 poorest	Q5 richest	All	Q1 poorest	Q5 richest	All
Below Primary	55.9	32.8	46.8	45.9	4.1	24.6
Primary, below 8	21.6	17.9	20.4	22.9	5.1	18.3
Middle, below 10	16.4	21.8	19.0	19.7	18.3	21.7
10, below 12	3.5	11.7	7.2	6.4	18.8	11.5
12 and above	2.7	15.8	6.7	5.1	53.8	24.0
Total N	487	537	2477	218	197	1108

For both rural and urban sectors, the proportion who have not completed primary is the highest for the poorest quintile and falls gradually as we move up the quintiles in rural areas and sharply in urban areas. Similarly, the proportion of those who have had higher education is least among the poorest and increases across quintiles to reach the highest level for the richest quintile. The association is sharper in urban areas. Interestingly education levels in the poorest quintile – both urban and rural – are quite similar. But a stark difference exists in the higher quintile - in rural areas there is a high proportion of illiterates among females of all caste groups.

5.1.3 Change in education attainments

In **Table 5.5** education levels of different age groups are given. This is an indicator of improvement in education levels over time. As may be expected, literacy rate is much higher in the younger generation as compared to the older generation. For example, the youngest group comprising people of 15-24 years has a literacy rate of 86.4% compared to 45% of the oldest age group of 45-60 years. The younger generation also pursues/pursued higher education more, as compared to the older ones. But the improvement is more marked in completing middle and secondary level.[13]

[13] The improvement is less marked at higher secondary level for many of the 15-24 year old are enrolled but not completed class 12.

Table 5.5 Educational attainment by age groups

(per cent)

	Age Groups				
	15-24	25-34	35-44	45-60	All
Illiterate	13.6	30.9	44.3	55.0	32.6
Below Primary	6.0	8.4	8.3	7.2	7.3
Primary, below 8	24.9	21.5	16.6	12.1	19.7
Middle, below 10	27.7	19.0	15.1	11.9	19.8
10, below 12	13.4	5.9	5.3	6.4	8.5
12 and above	14.3	14.3	10.4	7.5	12.1
Total N	1,262	825	760	738	3,585

The rapid change in education levels is confirmed if one compares proportion never enrolled in 11 to 14 age group with those in 15 to 24 age group (**Table 5.6**). While the participation rate is quite low in urban areas in the 15 -24 age group, and remains around the same level for the younger age group too, there has been a sharp increase in school participation rates in rural areas – particularly among females.

Table 5.6 Proportion never enrolled in different age groups

(per cent)

Proportion never enrolled	Rural		Urban	
	Male	Female	Male	Female
In 11 to 14 age group	3.6	11.3	8.6	6.7
In 15 to 24 age group	6.1	34.6	3.6	6.5

5.2 Access to Primary Schools

The respondents were asked some details about the infrastructural facilities of the primary or middle school they attended in the final year. For those who have completed class 8 this gave feedback about the school infrastructure in when they studied in class 8. For those who have dropped out earlier the questions applied to the last class they studied in. The survey data show that access to primary and/or middle schools (measured by average distance from home to school and walking time taken to reach school) and facilities available within the school premises are definitely superior in the urban areas. But even for rural areas, the situation has been improving, as seen from the **Table 5.7** below. The younger generation has to travel less distance and spend less time in reaching school.

Table 5.7 Access to primary schools

	Avg distance of home from primary schools (mtr)		Avg walking time from home to primary schools (min)	
Age groups	Rural	Urban	Rural	Urban
15-24	902.3	760.8	15.8	13.8
25-34	920.4	1079.6	16.9	18.7
35-44	1103.2	877.4	19.3	14.9
45-60	1378.0	836.4	22.8	15.5
All	1045.9	863.7	18.3	15.4

As seen from the **Table 5.1** 60% of respondents in rural areas and 82% in urban areas had been enrolled in school. These people were asked about their school infrastructure and facilities. Compared to older age groups a higher proportion of younger age groups have studied primary level in pucca school buildings with the passage of time as shown in **Table 5.8.** Since the sample under consideration deals with people from an underprivileged background, it is encouraging to note that 97-98% of the 15-24 years group have attended primary schools with a pucca building.

Table 5.8: Better school infrastructure for younger age groups: Schools with pucca building

(per cent)

Age groups	Proportion of ever-enrolled who attended schools with pucca building in	
	Rural areas	Urban areas
15-24	96.51	97.72
25-34	92.97	95.38
35-44	85.71	89.02
45-60	61.02	83.78
All	89.49	93.25

The next tables show that proportion with separate teachers for each class has been improving in schools over time. Also the school infrastructure is much better in urban areas, but the rural-urban gap has been decreasing over time as can be seen from **Table 5.9**. The situation is similar for physical infrastructure facilities like availability of chairs, drinking water, blackboard, functional toilets, etc. (**Tables 5.9a and 5.9b**). In the youngest age group functioning toilet and chairs for seating remains a problem. Other shortages have improved considerably.

Table 5.9a Better school infrastructure for younger age groups: Teaching and infrastructure facilities in rural areas

(per cent)

Age groups	Proportion of ever-enrolled who attended schools with				
	Separate teachers for each class	Chairs for seating	Blackboards in class room	Drinking water	Functioning toilet
15-24	84.4	16.5	97.7	82.3	51.8
25-34	77.6	14.1	96.4	70.6	28.7
35-44	64.9	6.5	94.7	54.3	17.1
45-60	58.8	3.4	92.7	37.3	6.8
All	76.2	12.6	96.2	69.1	34.5

The basic amenities in the urban area primary schools are better than those in rural areas. For both the rural and urban areas, the younger generation enjoys better basic amenities in primary schools, vis-à-vis the older generations.

Table 5.9 b Better school infrastructure for younger age groups: Teaching and infrastructure facilities in urban areas

(per cent)

Age groups	Proportion of ever-enrolled who attended schools with				
	Separate teachers for each class	Chairs for seating	Blackboards in class room	Drinking water	Functioning toilet
15-24	93.16	53.42	99.24	93.92	84.30
25-34	87.86	29.07	98.84	90.75	67.05
35-44	84.30	24.28	97.69	86.13	63.37
45-60	74.15	17.69	99.32	83.67	43.84
All	87.26	37.09	98.87	90.09	70.20

5.3 Access to Secondary Schools

As seen from **Table 5.1**, 33% of respondents in rural areas and 57% in urban areas had completed class 8 and had been enrolled in secondary stage. Even in 2007 only 3 out of 18 villages surveyed had a secondary school within it. The schools were more difficult to access for the older age groups and this partly explains why, in rural areas, fewer females studied in secondary schools (**Table 5.10a**). Compared to those educated in primary schools, a larger proportion of those with secondary schooling, accessed private tuition (**Table 5.10b**). More were also attending private schools – nearly one-third in urban areas and 18% in rural areas. But many of the older private schools were aided by government (teacher salaries were paid) and so were quite different from the recent unaided schools. The average monthly fees paid in these schools was around Rs.150/.

Table 5.10a Secondary Schools: Access problems

	Average distance from home to schools (mtr)		Average walking time from home to schools (min)	
	Rural	Urban	Rural	Urban
Primary schools	1046	864	18	15
Secondary schools	4604	1512	61	25

Table 5.10b Secondary Schools: Role of private management

	Proportion of students who			
	Availed of private tuition		went to government schools	
	Rural	Urban	Rural	Urban
Primary schools	15.4	18.1	92.4	70.7
Secondary schools	41.8	48.4	82.5	67.5

5.4 Learning Outcomes

During the survey we collected information on the grades achieved in class10 and class 12 board exams (**Table 5.11**). This is a good measure of learning outcomes for those who have studied till class 10 or 12. There is an alternative measurement in terms of simple literacy and numeracy tests which gives learning outcome for a larger number of respondents.

Table 5.11 Results of Class 10 Board exams

(per cent)

Grades achieved	Proportion of students who appeared for class 10 Boards				
	Male	Female	Rural	Urban	All
Division I (60% or higher)	17.9	26.7	14.1	26.4	20.1
Division II (50% to 60%)	43.0	47.1	41.8	46.2	44.0
Division III (33% to 50%)	18.7	14.6	20.0	15.3	17.7
Failed (less than 33%)	20.4	11.7	24.1	12.1	18.2
Number appeared	603	206	411	398	809

The data in **Table 5.11** are self reported and have a large error margin. The failure rates are usually much higher in exams even now – between 30 to 50%. But there is a clear trend of better results in urban areas and better results among females. Urban areas benefit from better education and economic development. The better results for females could be because females from advantaged families are allowed to and are able to study till class ten.

The following sets of tables **5.12a**, **5.12b** and **5.12c** give the proportion of respondents who could successfully complete short literacy, numeracy and English tests, by their education levels. The tests were very simple yet many who have completed primary levels could not complete these tests successfully. It appears that completion of class 8 has not guaranteed minimum literacy and numeracy skills. When assessing outcomes of education, quality of education becomes an important determinant. It is very interesting to note that though a slight female advantage is noticeable among those who have completed class 10, the urban advantage is minimal.

Table 5.12a Results of literacy tests by education levels

(per cent)

	Proportion of respondents who could answer 4 out of 5 simple literacy tests			
	Rural		Urban	
	Male	Female	Male	Female
Below Primary	40.0	30.2	20.8	53.9
Primary, below 8	77.0	69.7	80.3	71.4
Middle, below 10	88.6	87.7	91.0	91.4
10, below 12	95.4	95.0	98.2	97.8
12 and above	95.4	100.0	97.3	100.0
All	82.8	64.6	87.4	86.0

Table 5.12b: Results of numeracy tests by education levels

(per cent)

	Proportion of respondents who could answer 3 out of 5 simple numeracy tests			
	Rural		Urban	
	Male	Female	Male	Female
Below Primary	7.7	1.8	6.9	2.7
Primary, below 8	45.2	27.4	27.4	22.9
Middle, below 10	71.9	64.1	79.6	65.5
10, below 12	89.9	95.0	90.9	93.2
12 and above	96.3	100.0	95.5	97.9
All	55.4	19.7	65.5	50.4

Table 5.12c: Results of English tests by education levels

(per cent)

	Proportion of respondents who could answer 10 of 19 simple English Questions			
	Rural		Urban	
	Male	Female	Male	Female
Below Primary	1.9	1.7	8.3	0.0
Primary, below 8	18.0	7.8	32.4	25.0
Middle, below 10	51.5	49.1	68.8	56.7
10, below 12	81.4	75.0	77.4	85.0
12 and above	91.5	92.9	91.4	93.2
All	52.3	23.9	71.8	64.9

5.5 Education and Skill Training

One of the major outcomes of education had been better access to training and skills. A very broad definition of skills is adopted here –arising out of low presence of formal training institutes. Other than formal training institutes, the majority of our respondents got trained either through unpaid apprenticeship, or through learning on-the-job. Out of a sample size of 3588, the number of skilled people was found to be 584, a low proportion of 16%. The skilled people include many trainees who are not yet working. Out of a sample population of 3588, the rural share is around 70% and the rest is urban. But in skilled sample rural-urban share is nearly equal. This indicates that though overall share of skilled people is only around 16% of total, which is quite low (not even one-fifth), the skilled are more than proportionately represented in the urban areas.

The social profile of the skilled respondents shows that OBC in rural areas (55%) and Muslims in urban areas (49%) were among the major castes. The OBCs were also present in large numbers in the urban areas (28%), while SC/ST had some presence in the rural sample (25%). The main skills in rural areas included: tailors (26%), drivers (17%), computers (9%), teaching/nursing (9%), craft (8%). The urban sample is slightly different: tailor (24%), computer (18%), mechanic (12%), teaching/nursing (11%).

Among the skilled sample, the OBCs and other Hindus are from relatively better economic position. Among the rural skilled, these two social categories have 60% population in top two quintiles, SC/ST have around 50% in the same quintiles and Muslims much less at 30%. In fact, Muslims have 47% in lowest two quintiles. In the urban sample, OBCs have 44% in top two quintiles and only 17% in the lowest quintile. Other Hindus have 73% in top two quintiles. The very few SC/ST in the urban skilled sample also come from well-off families. Muslims, the major social group among the skilled, have, on

the other hand, widely varying income distribution; 40% in the top two quintiles and 40% in the bottom two quintiles.

The distribution of different categories of education status appears to be similar across rural and urban areas for skilled people (**Table 5.13**).

Table 5.13 Education status of the skilled

Age 15-60 years	Rural skilled		Urban skilled	
	%	Number	%	Number
Never enrolled	7.9	22	5.9	18
Completed school	79.3	222	83.2	253
Currently enrolled	12.9	36	10.9	33
Total	100	280	100	304

A large percentage has completed school – ie. had some schooling in addition to being skilled. Around 70-80% of those who have completed school belong to the top two quintiles in both rural and urban sectors. However the level of schooling and many have not completed even class 5, as seen from table 5.14. In our sample education does not appear tpo be a pre requisite to acquiring skills.

The never-enrolled percentage is slightly higher for rural than for urban areas. Another rural-urban contrast is that 44% of never enrolled in rural sector come from top two quintiles, which is only 11% in the urban counterpart. In the urban areas, 61% of never-enrolled are from the poorest quintile. So in rural areas, many better-off families are not sending their children to school.

Table 5.14 presents the status of grades completion of the skilled respondents in the sample.

Table 5.14 Status of grades completion of the skilled

Education status	Rural skilled		Urban skilled	
	%	Number	%	Number
Level<class 5	15	42	10.2	31
Level<class 8	21	59	16.5	50
Level<class 10	28.2	79	21.7	66
class 10& above	35.7	100	51.6	157
Total	100	280	100	304

Urban skilled are more educated than rural skilled (51.6% in class 10 and above in urban against 35.7% in rural areas). But in both areas, quite a large proportion of skilled workers have not completed even class 5. If we see those who have stopped studying before class 8, then the percentage is 36% in rural and 26.7% in urban areas.

6. EMPLOYMENT

The employment status and type of employment of the sample respondents provide important insights into their life. Employment patterns and economic status of households are usually closely linked and education levels, too, often impact the pattern of employment.

Two measures of work participation are considered in the survey– corresponding to the concepts used by the NSSO survey in their employment rounds. Here we look at usual status – which includes all people who have worked at least for a month in the past twelve months. So this participation rates include both principal and subsidiary workers. The other measure – weekly status – considers those who have worked, even for an hour, in the last 7 days as working. The work participation rates here reflect seasonal work situation and is typically lower than usual status work participation for all categories. In this analysis we have used usual status of workers.

The occupation status of the sample population is shown below for rural and urban areas in **Charts 6.1** and **6.2**. In this categorization those who are not working are separated into those who are out of labour force (no desire for work – housewives, students, aged, disabled) and unemployed (looking for work). The other categories include regular and casual workers – that is workers who get a wage or salary, and the categorization depends on regularity of payments (daily or monthly). Several family members may be working on their family farm or family business. We have categorized the one who takes work related decision and receives the revenue as the self employed. The rest are in the category of unpaid family labour – even if all their expenses are covered from the revenue of the work.

In the rural area, unpaid family labour constitutes the largest portion of the sample population, whereas casual workers and self employed constitutes 22% and 19% respectively. Only 15% of the rural sample population is out of labour force. The urban area shows us a different picture. Here, regular work and self employment are the major sources of livelihood. In contrast to the rural area, a large percentage (42%) of the urban population is out of labour force.

Chart 6.1

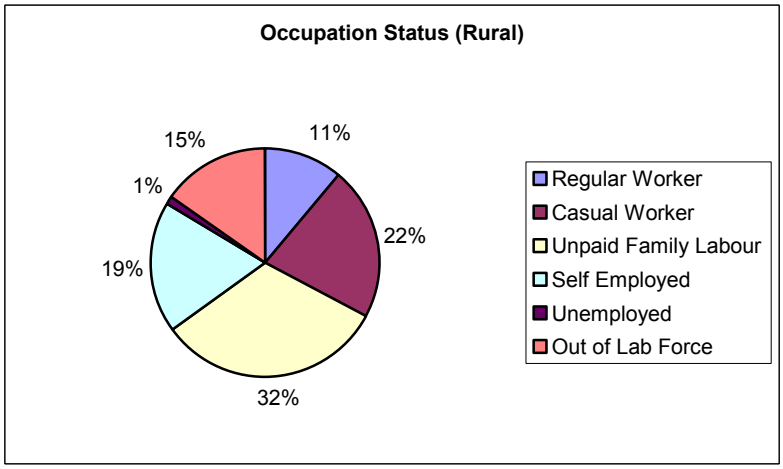
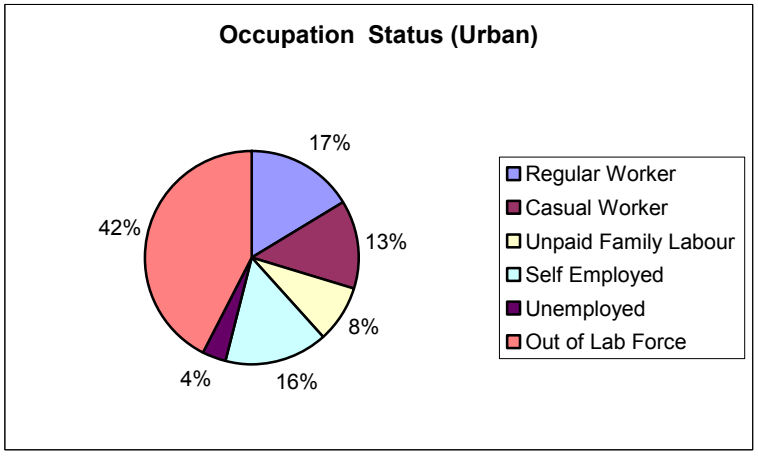
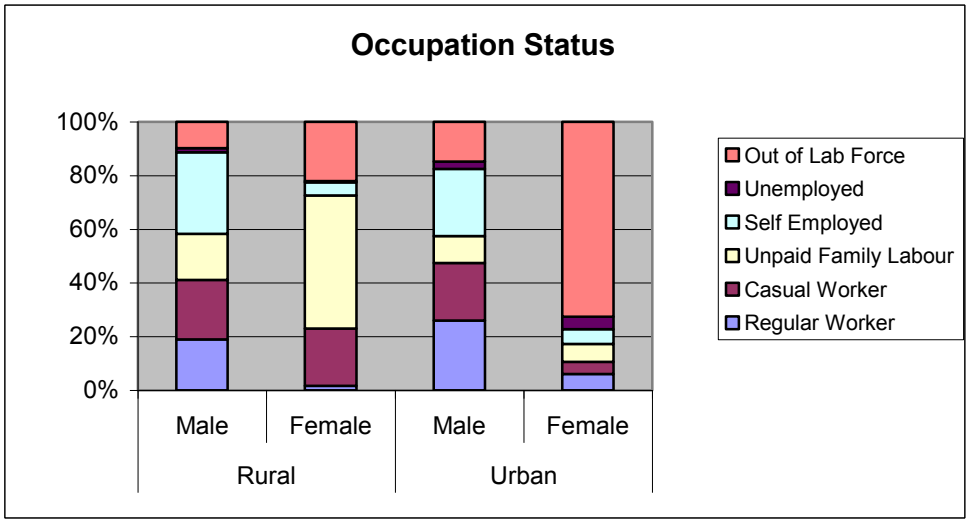


Chart 6.2



The reason of this difference is much clearer when we look at **Chart 6.3** which shows stacked bars for work status of males and females for rural and urban areas separately. The male-female comparison gives us an interesting picture. It shows that in the rural areas, a large section of the woman population works as unpaid family labour i.e. primarily doing agricultural activities in family owned land. On the other hand, a considerable section of rural males are self employed i.e. primarily doing cultivation on own land. This reflects the fact that in family based work though males and females both work, it is the males who take major decisions and collect the revenue. In the urban areas, family based self-employment opportunities are lower and so there is a high percentage of out of labour force. This is largely because more than 75% of the female population in the urban area is out of labour force. This is the outcome of the popular norm for women not to work outside home. The main livelihood option in rural areas is farming and it is acceptable for women to work in family farms, as it is seen as extension of home. No such work option is available in urban areas.

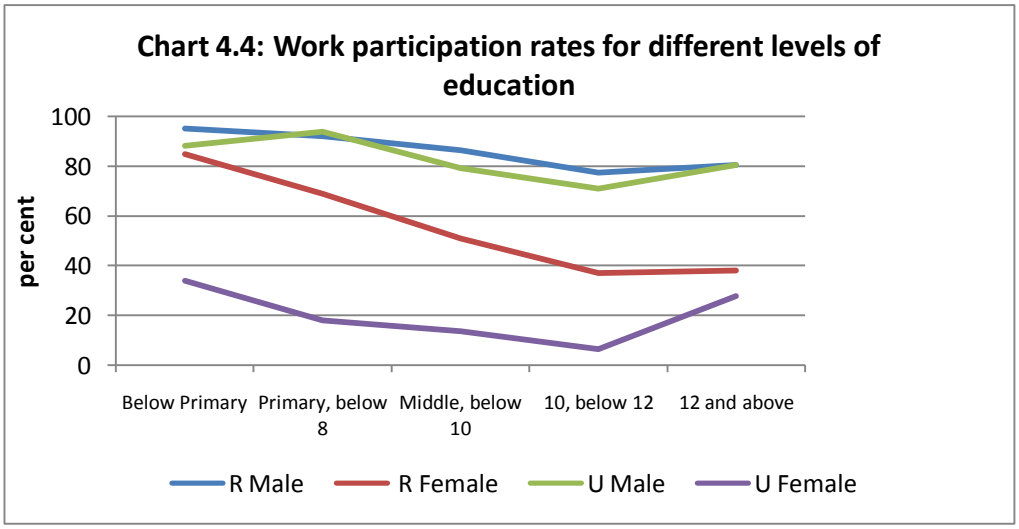
Chart 6.3



6.1 Employment and Education

In this section we first look at work participation levels at different levels of education, and next analyze variations in occupational patterns by education. The over-all employment situation of individuals in the sample is discussed first, taking into account the linkage between education and employment. The employment of sample individuals by usual status in rural and urban sectors is shown in **chart 6.4**.

Chart 6.4



The percentage employed figures for men are comparable for rural and urban areas, with slightly higher figure for the former. But for women, the percentage employed in urban areas is only 23.2% as opposed to 77.4% for rural areas. While the proportion of employed women declines with rising education in rural and urban sectors, there is a divergence in trend for higher levels of education. In the urban sector, the proportion of employed women declines as the level of education increases, but starts rising after education level of class 12 and above is attained. This is in keeping with the theory that the relation between education and paid work participation for women is not linear, but U-shaped. At lower levels of education, generally associated with poor families, women have high work participation, but with more education (and better economic status), they withdraw from the labour market. However, there is again a rise in work participation at much higher levels of education, when returns to education are much higher.

The work status by education level shows proportion of regular workers rising steadily across education level with minor fluctuations (**Table 6.1**). Among the poorly educated (below primary and primary, below 8), unpaid family labour and casual workers account for the lion's share. Self-employed have a relatively even distribution across the education levels.

Table 6.1 Occupation status by education level

(Per cent)

	Below Primary	Primary, below 8	Middle, below 10	10, below 12	12 and above	All
Regular Worker	6.0	15.0	13.7	15.1	27.4	12.7
Casual Worker	26.8	20.7	16.5	7.9	3.7	19.2
Unpaid Family Labour	33.2	22.5	20.0	16.7	13.5	24.7
Self Employed	15.6	17.3	19.9	21.3	20.9	17.9
Unemployed	0.7	1.8	3.1	3.0	3.3	1.9
Out of Lab Force	17.7	22.7	26.9	36.1	31.2	23.7
All	100	100	100	100	100	100
Total N	1430	706	710	305	430	3581

The proportion of unemployed is surprisingly little, ranging from 0.7% to 3.3%, with the least educated also having the lowest unemployment. This may be because, by and large, low level of education has a close positive association with economic status and the poor people cannot afford to pass by any employment opportunity, regardless of low wages.
The proportion of out of labour force, too is more among the higher educated, but lower for class 12 and above than class 10 and below 12.

There appears to be a queuing effect among individuals with higher education. The higher educated come from more advantaged families, and are willing to wait for the suitable job. In the waiting period they are either unemployed, or work as unpaid family labour in family owned business or continue studying. This pattern is better explained when we look at the male-female distribution of work status. We first take a look at the rural sample.

Table 6.2a Occupation status by education level (rural male)

	Below Primary	Primary, below 8	Middle, below 10	10, below 12	12 and above	All
Regular Worker	14.3	22.9	17.2	19.2	24.5	18.8
Casual Worker	33.9	24.2	21.3	9.3	4.9	22.2
Unpaid Family Labour	7.4	16.2	21.0	22.5	28.7	17.3
Self Employed	39.6	28.8	27.3	26.5	23.8	30.4
Unemployed	0.9	1.8	1.6	2.7	1.4	1.6
Out of Lab Force	4.0	6.1	11.7	19.9	16.8	9.8
All	100	100	100	100	100	100
Total N	351	327	367	151	143	1339

Table 6.2b Occupation status by education level (rural female)

	Below Primary	Primary, below 8	Middle, below 10	10, below 12	12 and above	All
Regular Worker	1.0	1.7	3.9	0.0	19.1	1.7
Casual Worker	25.8	14.7	5.9	7.4	0.0	21.3
Unpaid Family Labour	52.5	50.9	36.3	25.9	14.3	49.5
Self Employed	5.7	1.7	4.9	3.7	4.8	4.9
Unemployed	0.4	0.0	1.0	0.0	9.5	0.5
Out of Lab Force	14.6	31.1	48.0	63.0	52.4	22.1
All	100	100	100	100	100	100
Total N	807	177	102	27	21	1134

The occupation pattern of rural male hardly shows any trend by level of education, except a continuous decline in proportion of casual workers. The absence of a trend is more a reflection of lack of productive work opportunities for the educated in the rural areas. In the earlier section (**Table 2.2a and 2.2b)** the high out migration from villages were described. Respondents were willing to out migrate if they could earn a much higher income than what was available in the village. But those with higher education were usually the rural rich and they if they owned fertile land they often preferred to work in agriculture (as self employed or unpaid family labour) rather than migrate and work at "not-so-paying" jobs.

The above two tables also show that a larger proportion of poorly educated women (especially the first two education levels) work as unpaid family labour compared to men. Another distressing feature is that hardly any rural female has regular work (1.7%), and it is very low for all education levels except the highest education category.

How does the urban pattern vary from the rural one? **Tables 6.3a and 6.3b** show that there are considerable differences. Among urban males there is a clear trend among wage workers – the proportion in casual work decreases and regular work increases with education. The queuing effect is noticed here too, but decreases after completing class 12. The proportion in self employment does not show any trend – as it is a combination of petty production and trade and larger businesses. So though there is a shift between types of self – employment the data does not capture that.

More than 72% of the urban women are out of the labour force, as opposed to 22.1% for rural women. This is possibly due to better economic status of the urban sample households. For males, too, this percentage is higher in the urban areas (14.7%), but by a small margin. As we go across the levels of education, the proportion of out of labour force females rises, but falls between the last two categories by more than 20%. The pattern is somewhat dissimilar for men.

Table 6.3a Work status by education level (urban male)

	Below Primary	Primary, below 8	Middle, below 10	10, below 12	12 and above	All
Regular Worker	21.8	24.7	19.4	20.3	38.0	25.9
Casual Worker	40.6	36.1	22.2	10.1	4.4	21.2
Unpaid Family Labour	4.0	13.4	14.6	11.4	7.0	10.0
Self Employed	21.8	19.6	22.9	29.1	31.0	25.2
Unemployed	1.0	1.0	4.9	3.8	3.2	2.9
Out of Lab Force	10.9	5.2	16.0	25.3	16.5	14.7
All	100	100	100	100	100	100
Total N	101	97	144	79	158	579

Table 6.3b Work status by education level (urban female)

(per cent)

	Below Primary	Primary, below 8	Middle, below 10	10, below 12	12 and above	All
Regular Worker	3.5	3.8	2.1	2.1	17.6	6.1
Casual Worker	8.8	5.7	1.0	0.0	1.9	4.5
Unpaid Family Labour	12.3	2.9	7.2	2.1	2.8	6.6
Self Employed	9.4	5.7	3.1	2.1	5.6	6.1
Unemployed	1.8	5.7	8.3	4.2	4.6	4.5
Out of Lab Force	64.3	76.2	78.4	89.6	67.6	72.2
All	100	100	100	100	100	100
Total N	171	105	97	48	108	529

6.2 Employment and Economic Status

We next examine the work status by consumption quintiles. **Tables 6.4a** and **6.4b** present the status for rural and urban areas respectively.

Table 6.4a Work status by consumption quintiles (rural)

Work Status	Q1 (poorest)	Q2	Q3	Q4	Q5 (richest)	All
Regular Worker	13.4	14.3	11.2	10.5	6.2	11.0
Casual Worker	32.1	25.1	23.8	20.9	8.4	21.8
Unpaid Family Labour	25.9	27.7	31.2	32.2	42.0	32.0
Self Employed	14.8	16.0	18.2	20.9	23.0	18.7
Unemployed	1.0	1.3	1.0	1.5	0.8	1.1
Out of Lab Force	12.8	15.6	14.5	14.0	19.7	15.4

Table 6.4b Work status by consumption quintiles (urban)

Work Status	Q1 (poorest)	Q2	Q3	Q4	Q5 (richest)	All
Regular Worker	15.1	14.9	17.3	16.0	19.3	16.4
Casual Worker	21.6	17.7	13.6	9.3	2.5	13.3
Unpaid Family Labour	7.3	12.9	8.2	7.6	5.1	8.4
Self Employed	11.5	11.7	15.9	19.1	23.4	16.1
Unemployed	6.4	4.4	2.7	4.0	0.5	3.7
Out of Lab Force	38.1	38.3	42.3	44.0	49.2	42.2

Casual workers are the largest group for the poorest quintile in the rural sample. Casual workers and unpaid family labour together account for around half of the other three quintiles, reflecting poor earnings, while the share of self-employed improves steadily as we move from lower to higher quintiles. However, the richest quintile has 42% as unpaid family labour and nearly 20% as out of the labour force. This is unexpected and is largely to be accounted for by women's work participation norms. It also reflects the lack of availability of productive work for the educated in rural areas. As the better educated comes from better off and landed families (cultivating commercial crops), in the absence of work opportunities they tend to be involved in their farming activities. This is true more in Madhya Pradesh than in Rajasthan

The above conclusion applies to the urban sample to a greater degree, as we see the proportion of out of labour force ranges from 38% to 49%. Casual work is important for the lowest quintile in the urban area as well, followed by regular work. Unpaid family labour is not a major group in the urban sample, unlike the rural one. But the share of self-employed rises from lower to higher quintiles for the urban areas also.

6.3 Type of Employment

Information was collected from those employed on the sectors they work in. The categories follow NSSO categories. We take a look at the distribution of workers in different sectors of the economy by their different levels of education for rural and urban areas separately (**Table 6.5a and 6.5b**). In the rural area, agriculture accounts for employment of almost 70% of the sample respondents, but this sector's importance in providing employment diminishes as one move from lower to higher education levels. In the urban area, manufacturing activity and service sector jobs are the primary sources of livelihood for the people. As a matter of fact, in the urban area, the largest employment provider is public administration, education & community service jobs. And as expected, these service sector jobs are more available for higher education groups. Whereas, manufacturing activities concentrate more in the middle education group. In fact, nearly 40% and 30% of the two lowest educational categories of rural male are self-employed, which is accounted for largely by agriculture.[14].

[14] The relevant tables are not shown here.

Table 6.5a Industry-wise distribution of wage-workers by education level (rural)

(per cent)

Sector/Industry	Below Primary	Primary, below 8	Middle, below 10	10, below 12	12 and above	All
Agriculture	83.4	61.0	49.8	49.4	44.9	69.4
Mining & Quarrying	2.5	4.3	5.4	4.6	2.3	3.4
Manufacturing	2.7	8.0	10.3	6.9	7.9	5.6
Electricity, Gas & Water Supply	0.0	0.3	0.4	0.0	0.0	0.1
Construction	3.0	4.9	7.7	6.9	3.4	4.4
Trade, Hotels & Restaurants	0.7	8.0	8.8	4.6	5.6	4.0
Transport & Communication	1.0	3.7	6.1	10.3	3.4	3.0
Finance & Business Services	0.0	0.3	0.0	1.2	1.1	0.2
Public Admn, Education & Community Services	1.3	4.3	5.4	14.9	30.3	4.9
Not specified	5.4	5.2	6.1	1.2	1.1	5.0
Total	100.0	100.0	100.0	100.0	100.0	100.0
N (sample size)	839	326	261	87	89	1,602

Table 6.5b Industry-wise distribution of wage-workers by education level (urban)

(per cent)

Sector/Industry	Below Primary	Primary, below 8	Middle, below 10	10, below 12	12 and above	All
Agriculture	10.3	2.4	1.2	2.9	2.0	4.1
Mining & Quarrying	0.0	0.0	0.0	0.0	0.0	0.0
Manufacturing	19.6	23.5	29.8	28.6	17.7	22.8
Electricity, Gas & Water Supply	0.0	3.5	1.2	2.9	2.9	1.9
Construction	17.8	11.8	11.9	0.0	2.0	9.9
Trade, Hotels & Restaurants	10.3	18.8	22.6	17.1	12.8	15.7
Transport & Communication	7.5	8.2	3.6	5.7	12.8	8.0
Finance & Business Services	0.0	0.0	0.0	0.0	3.9	1.0
Public Admn, Education & Community Services	17.8	29.4	25.0	31.4	42.2	28.8
Not specified	16.8	2.4	4.8	11.4	3.9	7.8
Total	100.0	100.0	100.0	100.0	100.0	100.0
N (sample size)	107	85	84	35	102	413

6.4 Wages and Availability of Work

The average wage for regular workers is double that for the casual workers. The data on average daily wages for rural and urban areas for males as well as for females, reveal considerable gender-bias. The rural women get only Rs 37 as daily wage (on an average), while the men get Rs 91. In the urban areas, too, the wages for women are nearly half that of men. This could also reflect the fact that women are involved in different types of work as compared to males differences in intensity of work.

able 6.6 Average daily wage by location and sex

(Rs.)

		Casual Workers	Regular Workers	All Workers
Rural	Male	72	91	80
	Female	40	37	41
	Total	57	87	68
Urban	Male	79	206	152
	Female	37	133	95
	Total	72	193	142

The rural-urban divide comes out sharply from **Table 6.6** above as we see that the average urban wage is more than double the rural wage.

The average daily wage by social groups throws up interesting observations (**Table 6.7**). While the Other Hindu group gets the highest wages for regular workers, Muslims get the highest wages for the casual workers. In the casual workers category, ST workers are at the bottom of the rung, and SC workers are worst off in the regular workers category. The OBC, which comprise a high proportion of the sample, have wages around the overall average for the casual workers, but much below the average for the regular workers.

Table 6.7 Average daily wage by social group

(Rs)

Social Groups	Casual Workers	Regular Workers	All Workers
SC	56	87	66
ST	48	122	67
OBC	64	118	88
Other Hindu	65	199	163
Muslims	74	154	110
All	60	129	88

The wages of casual workers in the sample are far lower than the national average daily wage of 100 (**Table 6.8**). The wages are lowest for the least educated, who have little bargaining power.

Table 6.8 Average daily wage by education level

(Rs)

Education Level	Casual Workers	Regular Workers	All Workers
Below Primary	51	61	53
Primary, below 8	66	89	76
Middle, below 10	78	96	88
10, below 12	78	177	145
12 and above	86	224	210
All	60	129	88

Table 6.9 shows that the availability of work, too, is sparse for the sample population, with the lowest level being the 3.7 days per week for those who have studied below primary.

Table 6.9 Earnings of of casual workers

	Weekly average of working days	Average daily wages (Rs.)
Below Primary	3.7	51
Primary, below 8	4.0	66
Middle, below 10	4.5	78
10 and above	4.2	80

6. 5 Employment of Skilled Workers

Referring to the skilled respondents within the sample (section 5.5), we take a look at their employment status in **Table 6.10**[15] .

Table 6.10 Employment status of the skilled

Weekly status of employment	Rural skilled		Urban skilled	
	%	Number	%	Number
Wage/salaried	43	94	59	126
Self-employed	35	76	28	60
Unpaid family lab	22	47	13	26
Total	100	217	100	212

It has been observed in the qualitative study that rural skilled workers often work on land as well as in skilled work simultaneously. The table above also shows that 35% of rural skilled are self-employed (which should include those involved in farming own land). Unpaid family labour also has a large share, which is likely to include a number of people working on farms. Both the categories of self-employed and unpaid family labour are likely to hide underemployment. In the urban sector, however, wage/salaried workers account for nearly 60% of the total. The unemployment in urban areas is relatively more open, and seen at a higher level (30.2%) than its rural counterpart (22.5%).

The wages/salaried people are more or less uniformly distributed across quintiles in both rural and urban areas[16]. But 76% of rural skilled unpaid labour and 50% of urban skilled unpaid labour belong to the top two quintiles. The self-employed category, too, has relatively higher percentage of workers in higher quintiles.

The data presented in **Table 6.11** contain information on the livelihood source (first) which is the most important source for the household, livelihood source (second) which is the second most important source and so on. Here the analysis is shown for the most important source of livelihood for the households interviewed.

[15] It may be noted that the total number of rural and urban skilled respondent varies in **Table 6.10** from the figures in earlier tables primarily because there are unemployed skilled persons by the weekly status of employment for both urban and rural sectors. Since the number of current trainees is relatively small, the percentages of unemployed among skilled are 26.5% (total), 22.5% (rural) and 30.2% (urban).

[16] The relevant tables are not shown here.

Table 6.11 Source of livelihood for the skilled

Livelihood Source (first)	Rural skilled		Urban skilled	
	%	Number	%	Number
Self-agriculture	34.1	71	1.2	2
Casual labourer	19.7	41	19.2	33
Regular worker	19.7	41	37.2	64
Self-non agri	24.0	50	37.8	65
Rent & transfer	2.4	5	4.7	8
Total	100	208	100	172

The skilled in the rural sector have self-agriculture and self-non agriculture as the most important sources of livelihood, while those in urban sector have self-non agriculture and regular work as the most important sources. It may be mentioned here that self non-agriculture includes low-paying occupations like bidi-binding as well as big businesses and trades. So it is an important source of livelihood for both poor and rich.

The income-distribution data indicate that for the poorest quintile in both rural and urban areas, casual labour and self non-agriculture are the main sources of income[17]. For the rural skilled in top quintile, self-agriculture and self non-agriculture are the main sources. For the top quintile in the urban areas, regular work and self non-agriculture account for the major share of livelihood source.

The next table presents information about the source of skill training for the respondents.

Table 6.12 Source of skill training

	Rural skilled	Urban skilled
	%	%
Taken vocational training in tech school/college	33	44
Worked as apprentice	57	47
Received on the job training	7	7
If taken vocational training and also general education simultaneously	21	30

Apprenticeship is the preferred mode of skill-acquisition rather than formal training. This is supported by the qualitative study, albeit with a higher share of apprenticeship among respondents. Incidence of formal training is more in urban areas. In both the sectors, a very low proportion of skilled workers receive on the job training. The practice of pursuing general education along with skill-training is not very prevalent.

[17] The relevant tables are not shown here.

7. HEALTH AND DISABILITY

7.1 Health and Health Care

This section focuses on the individual's health problem and health care behavior for respondents in the age group 15-60 years. The survey respondents were questioned about episodes of illness/accidents *during the previous year* and the course of action taken by them (**Table 7.1**). The intention was to capture major illnesses which would usually require medical intervention. Episodes of illness/accident were defined as those which prevented the individual from carrying out normal activity for 5 days or more. The outcome based on this definition, of course, will be influenced by the individual's perception, and more important, will depend on the extent to which he/she can afford to miss working days. So there may be an inbuilt underestimation for poorer people.

Table 7.1 Health problems and injuries

(Per cent)

Proportion of respondents who reported episodes	All	Male			Female		
		All	Rural	Urban	All	Rural	Urban
Of illness	31.7	29.3	31.5	24.3	34.3	36.9	28.8
Total N	1072	515	386	129	557	408	149
Of Major Injury	2.7	3.7	4.3	2.5	1.7	2.1	0.8
Total N	92	65	52	13	27	23	4

Table 7.2 No. of episodes of illness/injury of individuals

(Per cent)

Proportion of respondents reporting illness/injury by number of episodes	All	Male			Female		
		All	Rural	Urban	All	Rural	Urban
Once	84.8	86.3	85.8	87.7	83.5	82.1	87.4
Twice	10.8	10.4	11.1	8.7	11.0	12.6	6.6
Thrice	1.0	1.1	1.2	0.7	0.9	1.0	0.7
More than Thrice	3.4	2.2	1.9	2.9	4.6	4.3	5.3
Total per cent	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Total N	1125	553	415	138	572	421	151

In the previous year, 31.7% of individuals in the age-group 15-60 years suffered from illness and 2.7% of individuals had accident/injury. For both the rural and urban sectors, incidence of illness is higher for females than males but the difference is not stark. However, the males are more prone to accident.

Rural-urban disparity can be observed regarding health problems. The incidence of both illness and accident are higher in the rural than in the urban areas, for both men and women. Among those with health problems, women have suffered more (than men) from multiple illness/accident. The incidence of multiple illness/accident is more in the rural areas than in the urban areas.

Examining the percentage of people who suffered from illness/injury last year by economic class gives us an interesting picture (**Table 7.3**).

Table 7.3 Illness/injury by economic status of individuals

(Per cent)

Quintiles	Percentage of people who suffered illness/injury last year	
	Rural	Urban
Quintile 1 (poorest)	32.2	24.4
Quintile 2	34.0	21.7
Quintile 3	36.7	28.6
Quintile 4	35.3	34.8
Quintile 5 (richest)	40.7	29.5
Total	35.9	27.6
Total N	836	289

The data indicate that in the rural areas, the poorer quintiles suffer less from illness/injury than their richer counterpart. This may appear quite contradictory to common logic. But this is likely to be due to the fact that the illness/injury of poorer people was underestimated, as has been discussed earlier. It is also possible that due to poorer access to medical services in rural (than in the urban) areas, people seek less medical treatment.

In the urban areas too, the percentage of people who suffered illness/injury increases as we move from lower to higher expenditure quintiles, up to the 4th quintile). In the 5th (richest) quintile, the percentage decreases relative to the 4th quintile, though it is well above the figure for the poorest quintile. This again may be the case of underestimation, up to the 4th quintile.

Table 7.4 Illness/injury by age groups of individuals

(Per cent)

Age group (years)	Percentage of people who suffered illness/injury last year	
	Rural	Urban
15-24	26.8	18.7
25-34	34.9	24.6
35-44	43.9	35.9
45-60	43.0	37.2
Total N	836	289

As may be expected, the older people are more prone to illness/injury than their younger counterparts in the 15-60 years age group (**Table 7.4**). In the rural areas, 43% of the people of age-group 45-60 years have suffered from illness/injury in the previous year, compared to 26.8% of those who are in the age-group 15-24 years. For the urban areas, the same figures are 37.2% and 18.7% respectively. Better health for younger age groups may also capture, partially, improved health facilities over time.

Table 7.5 shows that among the social groups, the other Hindus have the least incidence of illness/injury in both the rural and the urban areas. In the rural areas, the Muslims are the worst off and in the urban areas, the OBCs are the worst off. Backward castes like SC/ST have not fared very well in either sector. Overall, for all social groups, urban sector shows a better health performance than its rural counterpart.

Table 7.5 Illness/injury by social groups of individuals

(Per cent)

	Percentage of people who suffered illness/injury last year	
Social Group	Rural	Urban
SC	39.8	32.8
ST	32.4	25.0
OBC	36.6	33.2
Other_Hindu	24.5	20.6
Muslim	42.5	26.2
Total N	836	289

The nature of illness and injury are listed below in **Table 7.6**.

Table 7.6 Nature of last injury/illness

(Per cent)

Nature of Last Illness/Injury	Male	Female
Infection/fever	48.4	45.1
Respiratory	6.0	7.5
Digestive	19.2	14.3
Muscle/orthopedic	4.2	3.9
Urinary/reproductive	3.1	12.2
Injury/poison	8.9	3.2
Others	10.3	13.8
Total N	553*	572

* 1 male missing

Infection or fever constitutes nearly half the health problems, for both sexes. Digestive problem is the second largest one, which is more significant for males than females. For women, urinary/reproduction related problems are a major source of health troubles. On the other hand, problems related to injury/poison are more for males than the females.

How did the survey respondents cope with incidence of illness/injury? As **Table 7.7** shows, an overwhelming majority (92.6%) of the individuals who went for consultations due to last illness/injury, consulted a general doctor. Overall, 71.1% have consulted a private general doctor, whereas only 21.5% have consulted a government general doctor. The role of traditional/religious healers has been insignificant, even in rural areas, which is an encouraging feature. However it is possible that the respondents sometimes went to more than one doctors/ healers, and reported the one whom they consulted finally.

Table 7.7 Consultations by individual to tackle illness/injury

(Per cent)

Persons consulted to tackle last illness/injury	Rural	Urban	All
Only family and friends	0.4	0.7	0.5
Private doctor general	75.8	57.5	71.1
Private doctor homeopathic	0.4	0.7	0.5
Government doctor general	17.4	33.5	21.5
Government doctor homeopathic	0.5	0.4	0.5
Traditional healer	0.4	0.7	0.5
Religious healer	0.7	0.7	0.7
Self treatment	0.5	1.4	0.7
Multiple consultations	4.0	4.2	4.0
Other	0.1	0.4	0.2
Total N	834	287	1,121*

* 4 individuals are missing

In cities, a larger percentage of people (33.5%) go to the government doctor (general), compared to the villages (17.4%). This may be a pointer to the lack of expansion of the primary health centres (PHC) in the villages, or it can also point at the low quality of medical services provided by government doctors in rural areas. It is an irony that the very families for whom low-cost PHCs have been set up in villages are in all likelihood not availing of their services. Five individuals in the sample did not consult anyone despite suffering from illness/injury in the previous year.

Nearly half of those who suffered from illness/injury last year said that they could not work for 5-10 days due to these reasons. Almost 36% reported as having missed work for 11-30 days. 6.7% have said that they couldn't work for more than 2 months in the last year due to illness/injury.

7.2 Nutrition

The RECOUP-CORD survey has obtained rich insight into the status of nutrition in the adults (individuals above 18 years) in the sample population. The Body Mass Index (BMI) of an individual is calculated by the following formula:

$BMI = Weight/Height^2$

Here weight is expressed in kilograms and height in meter. The following **Tables 7.8** and **7.9** show the categorization of the sample population using the BMI index.

Table 7.8 Categorization of individuals according to BMI

Category	**BMI**
Severely thin	Less than 17
Thin	17 to less than 18.5
Normal	18.5-25
Overweight	25 and more upto 30
Obese	More than 30

Using the above criteria, we find that among the adults, only around half (53.4%) fall in the normal category. Almost 17% are severely thin, while another 20.1% are thin. Only 7.4% are overweight and a very low percentage (2.1%) comes under the category of obese.

Table 7.9 BMI Status of individuals

(Per cent)

BMI Status	Rural	Urban	Male	Female	Total
Severely thin	18.5	13.2	15.7	18.1	16.9
Thin	22.6	14.4	22.3	17.9	20.1
Normal	53.6	53.3	54.0	53.0	53.5
Overweight	4.3	14.7	6.5	8.3	7.4
Obese	1.1	4.4	1.4	2.7	2.1
Mean BMI	19.6	21.5	20.0	20.4	20.2

There are some noticeable and interesting male-female differences on this count. The percentage of females in the severely thin category is 18.1%, which is higher than the corresponding percentage for males (15.7%). Paradoxically, the percentage of females belonging to the overweight category and obese category are also higher than their male counterparts. However, if we club thin and severely thin categories together, men and women have nearly equal shares. It is a similar situation for the normal category.

The rural-urban difference is quite stark. 18.5% and 22.6% of rural adult individuals belong to the severely thin and thin categories, respectively, are much higher than the 13.2% and 14.4% of urban adult population, belonging to the same categories. On the other hand, percentage of urban adults belonging to the overweight and obese categories are 14.7% and 4.4%, respectively, which are significantly higher than 4.3% and 1.1% of rural adults belonging to the same categories. The percentages of adults belonging to the normal category are almost equal for the rural and urban areas. The mean BMI for urban areas is higher at 21.47 than that for rural areas (19.62). The mean BMI of the females is slightly higher than the males, in both the rural and urban areas.

Table 7.10 Mean BMI by economic status of individuals

	Rural		Urban	
Quintiles	Male	Female	Male	Female
Quintile 1 (poorest)	19.1	18.8	20.2	20.9
Quintile 2	19.3	19.5	20.5	20.5
Quintile 3	19.2	19.6	20.8	21.3
Quintile 4	19.9	20.3	21.2	22.7
Quintile 5 (richest)	19.9	20.5	23.4	23.9
Total	19.5	19.7	21.2	21.8

The mean BMI increases as we move from lower expenditure quintiles to higher expenditure ones as can be observed from **Table 7.10**. The gradual increase is the least for rural men, who have, on an average, the lowest values among all four categories. However, in the first quintile, women have even lower BMI than their male counterparts.

Table 7.11 BMI Status by economic status of individuals

(Per cent)

Quintiles	Severely thin	Thin	Normal	Overweight	Obese	Total
Rural Quintiles						
Quintile 1 (poorest)	22.8	25.7	49.3	2.0	0.3	100
Quintile 5 (richest)	17.0	19.0	55.7	7.0	1.3	100
Total	18.5	22.6	53.6	4.3	1.1	100
Urban Quintiles						
Quintile 1 (poorest)	21.4	14.5	49.7	12.7	1.7	100
Quintile 5 (richest)	5.3	8.8	53.5	22.4	10.0	100
Total	13.2	14.4	53.3	14.7	4.4	100

It can be seen that 48.5% of the individuals belonging to the poorest rural expenditure quintile are either thin or severely thin, compared to 36% of the individuals belonging to the richest rural expenditure quintile (**Table 7.11**). On the other hand, percentage of people in the overweight and obese category combined is 8.3% for the richest rural quintile as compared to 2.2% for the poorest rural quintile. The percentage of people belonging to the normal category is also less for the poorest rural quintile as compared to its richest counterpart.

Urban areas show a similar situation, though there the rich-poor disparity is sharper than in the rural areas. The percentage of poorest urban individuals belonging to thin and severely thin categories combined is 35.8% vis-à-vis only around 14% for the richest quintile.

Another striking aspect is the rural-urban disparity. The combined percentage of individuals in the thin and severely thin categories is 35.8% for the poorest urban quintile, which is even less than 36% of individuals of richest rural quintile belonging to the same combined categories. Or in other words, *malnutrition in adults of the richest rural quintile is even greater than the extent of malnutrition in the adults of poorest urban quintile.*

The BMI status by different social groups shows that in rural areas, the STs have the lowest mean BMI followed by the SCs (**Table 7.12**). The Other Hindus have the highest mean BMI. In the urban areas too, the Other Hindus have the highest mean BMI, followed by the Muslims. The SCs have the lowest mean BMI in this sector.

Table 7.12 Mean BMI by social groups

	Mean BMI	
	Rural	Urban
SC	19.1	20.2
ST*	18.9	20.4
OBC	19.8	21.0
Other Hindu	20.6	22.6
Muslim	19.4	21.6
Total	19.6	21.5

*Urban areas sample has only 4 ST individuals.

The above observations are brought into sharper focus as we look at the BMI categories by social groups (**Table 7.13**). The malnutrition among the backward castes like SC/STs is shockingly evident as we find that in rural areas, 50% of the SCs, 48.5% of the STs, and 47.9% of the Muslims, i.e. nearly half of these three groups are either thin or severely thin.

Table 7.13 BMI status by social groups

(Per cent)

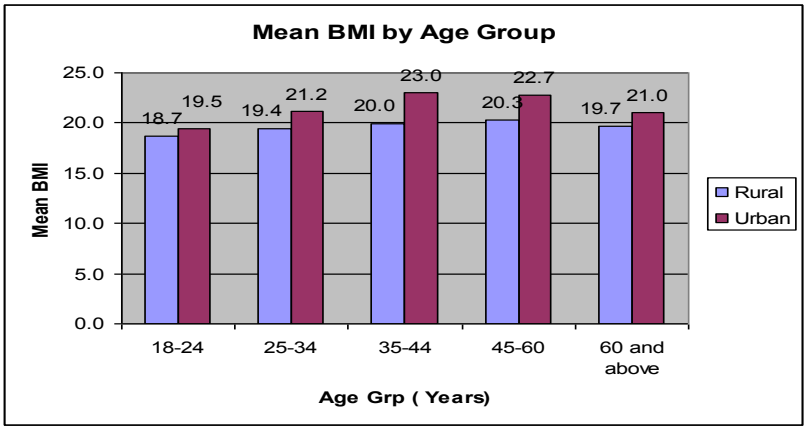
Social Groups	BMI Status (Rural)					
	Severely thin	Thin	Normal	Overweight	Obese	Total
SC	25.5	24.5	45.5	3.8	0.7	100
ST	23.5	25.0	48.1	3.5	0.0	100
OBC	15.3	21.4	58.2	3.4	1.6	100
Other Hindu	11.9	19.9	58.1	9.3	0.9	100
Muslim	22.4	25.5	46.7	4.9	0.6	100
Total	18.5	22.6	53.6	4.3	1.1	100
	BMI Status (Urban)					
SC	21.2	17.0	50.9	9.3	1.7	100
ST*	25.0	0.0	75.0	0.0	0.0	100
OBC	13.3	15.2	54.5	14.7	2.4	100
Other Hindu	8.0	8.6	57.2	17.1	9.1	100
Muslim	13.0	16.2	51.5	15.2	4.2	100
Total	13.2	14.4	53.3	14.7	4.4	100

* only 4 individuals.

Malnutrition in terms of BMI is least among the Other Hindus although even among them nearly one-third are either thin or severely thin. In the urban areas, too, Other Hindus are relatively best situated in terms of BMI. The SCs have the highest percentage of individuals who are either thin or severely thin. Nearly half of the Muslim adults are thin or severely thin in the rural sample, though the situation is slightly better in the urban sector.

Mean BMI is lower in the youngest age group as well as in the oldest age-group, compared to the other age groups (**Chart 7.1**). The BMI appears to follow a bell-shape (normal shaped curve) with age, as it rises from the adolescent years to the middle age and then again starts declining in old age.

Chart 7.1



7.3 Disability:

The survey questions involving disability included impairment affecting an individual's walking, seeing, hearing, speaking, learning or personal care. The individuals were also asked about the degree of their disability/disabilities, which was specified as mild, moderate or severe. The degrees of disability are self perceived.

In this section, we refer to a person as disabled if he/she has disability interfering with **at least one** of the above mentioned functions. The person is termed as severely disabled if he/she has severe disability in **at least one** sphere. A person is said to have mild disability if **he/she is disabled** and **does not** have moderate or severe disability in any sphere. A person is said to have multiple disability if

he/she has disability in **more than one** sphere[18]. **Table 7.14** shows the proportion of respondents (age 15-60 years) who have reported some form of disability.

Table 7.14 Disability of individuals

	Number	Percent
Disabled	604	17.0
Not Disabled	2,756	82.0
Total	3,360	100

Table 7.15 Degree of disability of disabled individuals

	Number	Percent
Severe Disability	42	7.0
Mild Disability	449	74.3
Multiple Disability	206	34.1

Among the individuals belonging to the age group 15-60 years, 18%, i.e. nearly one-fifth, have reported as being disabled. Among those, almost 7% have reported to be severely disabled while (74.3%) have only mild disability. There are 34.1% of the disabled individuals who have multiple disability.

Chart 7.2

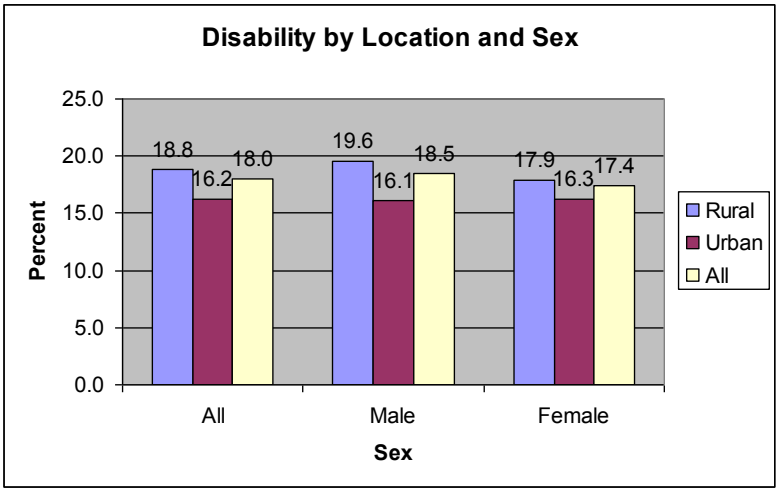


Chart 7.2 shows that there is a rural urban difference in terms of disability. The rural areas have larger percentage of disabled persons. Overall, males suffer from disability more than the females. The incidence of disability increases as we move from younger age groups to older ones (**Chart 7.3**) – an expected finding as certain disabilities would increase with age. The youngest age group of 15-24 years has 6.75% of individuals with disability, whereas for the oldest age group the corresponding figure is 39.08%. The situation was found to be similar for rural and urban areas.

[18] In cases of multiple disabilities which varied by degree, the individual has been characterized by the disability which was perceived to be higher.

Chart 7.3

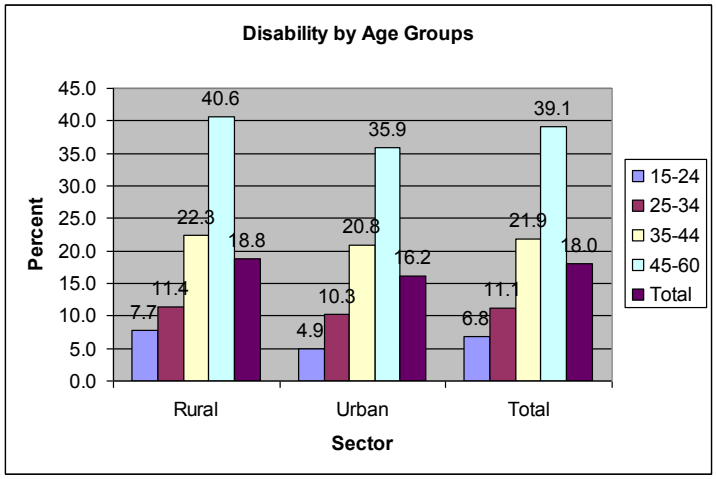
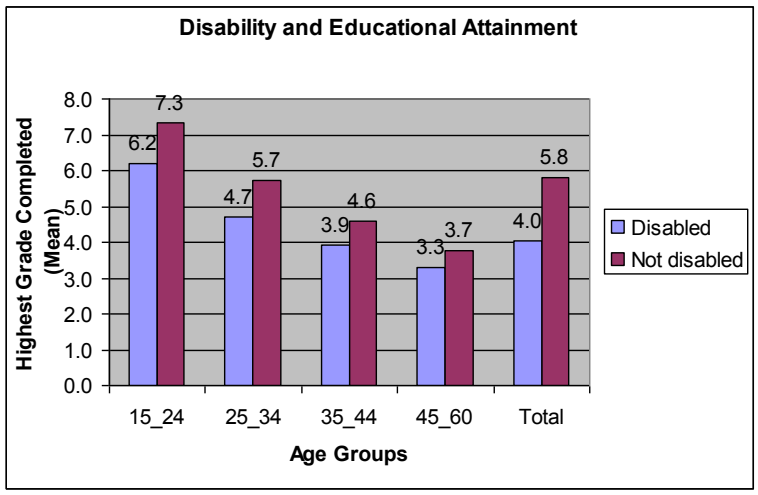


Chart 7.4



Disability is believed to have an adverse impact on attaining education. It hampers an individual's ability to attend schools and classes in a continuous and sustained manner. The mean level of education attained by disabled and non-disabled individuals by different age groups is presented above (**Chart 7.4**). We find that for each age-group, the mean level of education attained by disabled individuals is lower than that of non-disabled individuals, but the gap diminishes with age. This is very possibly because the disability among older respondents are more likely to be age related and so unlikely to impact their schooling attainment.

Table 7.16 Types of disabilities of individuals

(Per cent)

	Types of disability					
	Seeing	Hearing	Speaking	Walking	Learning	Personal care
Rural	12.2	3.0	0.8	5.5	1.1	0.9
Urban	12.3	1.0	0.5	4.5	0.9	0.8
All	12.2	2.4	0.7	5.2	1.0	0.8
Total N	408	79	23	174	34	28

Disability of vision is the most common disability, followed by disability in walking and hearing (**Table 7.16**). The other disabilities, viz. speaking, learning and personal care disabilities, are relatively un-common.

8. FERTILITY AND FAMILY PLANNING

8.1 Socio-economic Characteristics of Married Women (15 to 49 years):
Health and fertility of women provide key indicators regarding the well-being of one half of the population in a society. The present section deals with the conditions of women in their reproductive ages (15-49 years) and covers various important aspects of their life. **Table 8.1-8.6** presents some statistics on socio-economic variables for women in their reproductive age.

Table 8.1 Women respondents by location (15-49 years)

	Rural	Urban	Total
Number	977	473	1,450
Percent	67.4	32.6	100.0

Rural representation is more in the sample for women population in the age group of 15-49 years; 67.4% of women in this age group belong to the rural sector and remaining 32.6% belongs to the urban sector.

Table 8.2 Women respondents by education level (15-49 years)

(Per cent)

Education Level	Rural	Urban
Illiterate	59.7	20.9
Less than primary	7.2	7.0
Primary less upper primary	17.9	21.1
Upper primary less secondary	10.4	19.2
Secondary less HS	2.8	9.5
HS and more	2.2	22.2
Total N	977	473

In the rural sector, nearly 60% of women (15-49 years) are illiterate whereas the corresponding figure for the urban sector is only 20.9%. Urban women are relatively much more educated; 31.7% of the women (15-49 years) have attained education of secondary or above compared to only 4.9% of women in the rural areas.

Table 8.3 Women respondents by age group (15-49 years)

(Per cent)

Age (Years)	Rural	Urban
15-24	35.6	42.3
25-34	30.4	22.8
35-44	26.2	23.9
45-49	7.8	11.0
Total N	977	473

The age composition of the group under discussion is quite similar between the rural and the urban sector. Young women of age 15-24 years form a considerable proportion of the group under discussion.

Table 8.4 Women respondents by social group (15-49 years)

(Per cent)

Social Groups	Rural	Urban
SC	19.1	11.2
ST	12.6	0.2
OBC	50.6	23.3
Other Hindu	9.0	18.2
Muslim	8.7	47.2
Total N	977	473

From **Table 8.4**, it can be seen that OBCs form the largest community for this group in the villages whereas the Muslims are the smallest. In contrast, in the cities, 47.2% of women aged 15-49 years belong to the Muslim community, which is the largest among all social groups.

Table 8.5 Proportion of ever married Women (15-49 years)

(Per cent)

Marital Status	Rural	Urban
Never Married	14.3	30.2
Currently Married	81.2	66.6
Ever Married	85.7	69.8

Among the women aged 15-49 years, there is a stark rural-urban divide in marital status. In rural areas 85.7% of the women aged 15-49 years are ever married, vis-à-vis 69.8% of that in the urban areas. 81.2% of women aged 15-49 years are currently married in the rural areas as opposed to 66.6% in the urban areas. As will be seen in the following section, this is primarily due to the lower average age of marriage in the villages compared to the cities.

8.2 Marriage

8.2.1 Age of Marriage

We find that the average age of marriage of ever married women aged 15-49 years is more for the younger age groups as compared to the older age groups (**Chart 8.1**). This trend is more visible for the rural sector than the urban sector. The average age for marriage is higher in urban than in rural sector for all age-groups.

Chart 8.1

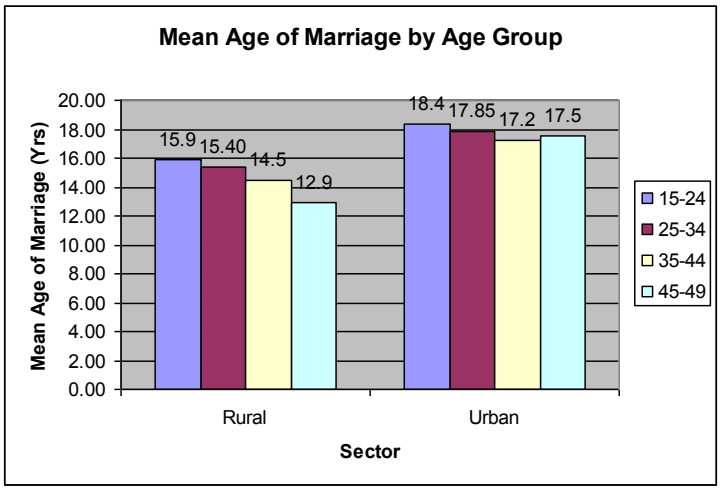
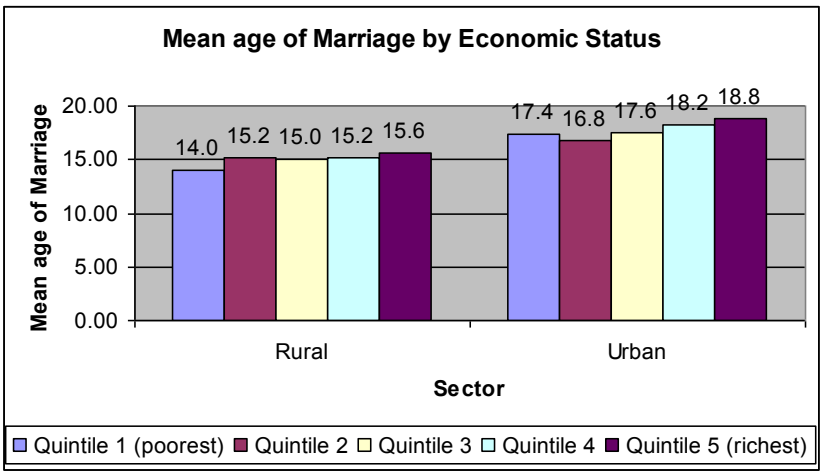


Chart 8.2



The mean age of marriage shows a slightly increasing trend, both for the rural and the urban sector, as we move from lower expenditure quintiles to the higher expenditure quintiles (**Chart 8.2**).

The impact of education on the age of marriage for women aged 15-49 years is very clear from the following chart (**Chart 8.3**). The mean age of marriage increases steadily as we move from less educated to more educated groups of women.

Chart 8.3

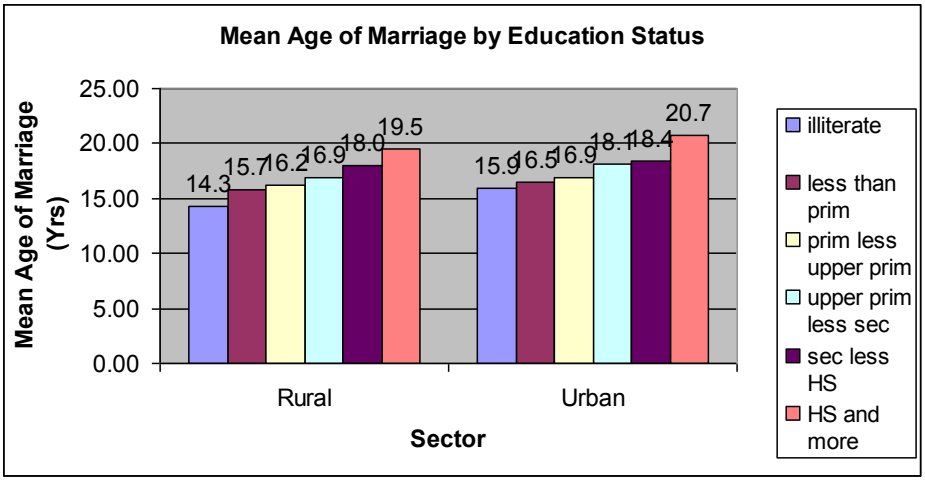
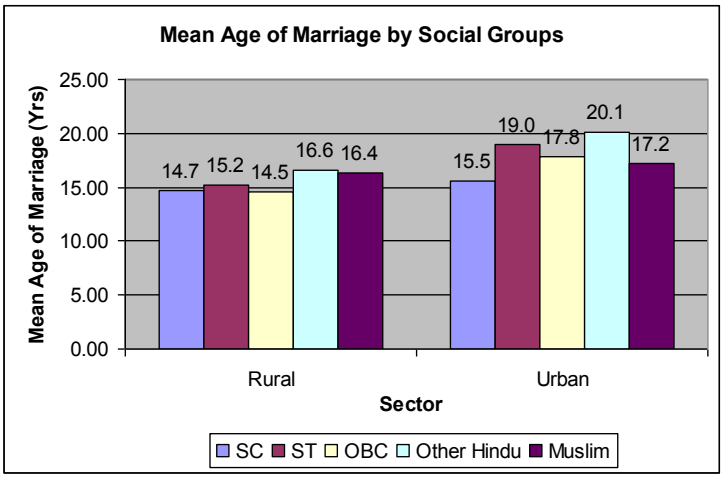


Chart 8.4



The Other Hindus followed by the Muslims have the highest mean age of marriage in the rural areas whereas the OBCs have the lowest mean age of marriage (**Chart 8.4**). In the urban areas the Other Hindus have the highest mean age of marriage, followed by the OBCs, whereas the SC's have the lowest[19]. For SCs, OBC's and Other Hindu category, there is a considerable rise in the marriage age as we move from rural to urban sector, but not for Muslims. For the latter, the economic status might be the more dominating factor than location in this context, since it has been seen from data presented earlier that the urban Muslims in the sample are by and large quite poor.

8.2.2 Choice of Spouse

Freedom in choosing one's own spouse could be an indicator which shows the level of empowerment a woman enjoys. In this sense few women respondents had any empowerment. As many as 85.5% of ever-married women of age 15-60 years reported that they had no freedom in choosing their spouse (**Table 8.6**). Only 13.6% said that their parents asked of their opinion but ultimately decided on their own. Only a meager 0.9% said that they decided on their own.

Table 8.6 Level of freedom in choosing own spouse

(Per cent)

	Total	Rural	Urban
No Freedom	85.5	87.5	80.2
Parents Asked Opinion But Decided Themselves	13.6	12.0	17.6
Own Decision	0.9	0.4	2.2
Total N	1,286	923	363

As may be expected, education has an empowering effect on women regarding the freedom to choose their spouse (**Table 8.7**). The better educated enjoy somewhat greater degree of freedom in this area.

[19] ST category has only 1 individual in urban areas from this group, so their figure is not relevant.

Table 8.7 Level of freedom in choosing spouse by education level of respondents

(Per cent)

Education Level	Rural*			Urban		
	No Freedom	Parents Asked But Decided Themselves	Own Decision	No Freedom	Parents Asked But Decided Themselves	Own Decision
Illiterate	89.4	10.3	0.3	88.5	10.7	0.8
Less than primary	86.2	13.8	0.0	88.5	11.5	0.0
Prim less than upper primary	85.0	14.2	0.9	91.0	9.0	0.0
Upper primary less than sec	81.6	18.4	0.0	84.2	14.0	1.8
Secondary less than HS	55.6	44.4	0.0	69.6	30.4	0.0
HS and more	66.7	26.7	6.7	51.5	39.7	8.8
Total	87.5	12.1	0.4	80.2	17.6	2.2
Total N	806	111	4	291	64	8

*Education levels of two individuals missing.

Women who were married off at relatively younger age enjoy less freedom than those whose marriage took place at a later age (**Table 8.8**).

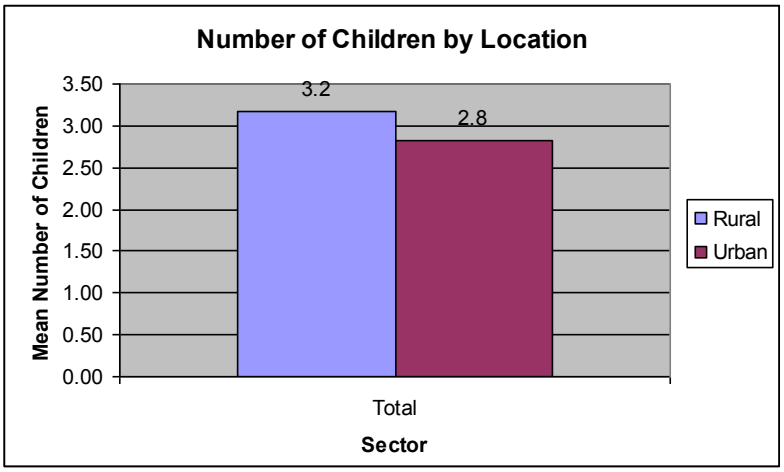
Table 8.8 Freedom in choosing own spouse by age of marriage of respondent

(Per cent)

Age of Marriage	Rural			Urban		
	No Freedom	Parents Asked But Decided Themselves	Own Decision	No Freedom	Parents Asked But Decided Themselves	Own Decision
14 or Less	90.3	9.7	0.0	85.5	14.5	0.0
15-19	86.4	13.2	0.4	83.0	15.6	1.4
20 or more	82.7	13.5	3.9	70.6	23.5	5.9
Total	87.5	12.0	0.4	80.2	17.6	2.2
Total N	808	111	4	291	64	8

8.3 Fertility

Chart 8.5



8.3.1 Number of Children

The focus group here is the ever-married women in the age group 15-49 years. There is a clear rural-urban divide in the fertility level of this group of women (**Chart 8.5**). The mean number of children born is higher in the rural areas than that in the urban areas.

Chart 8.6

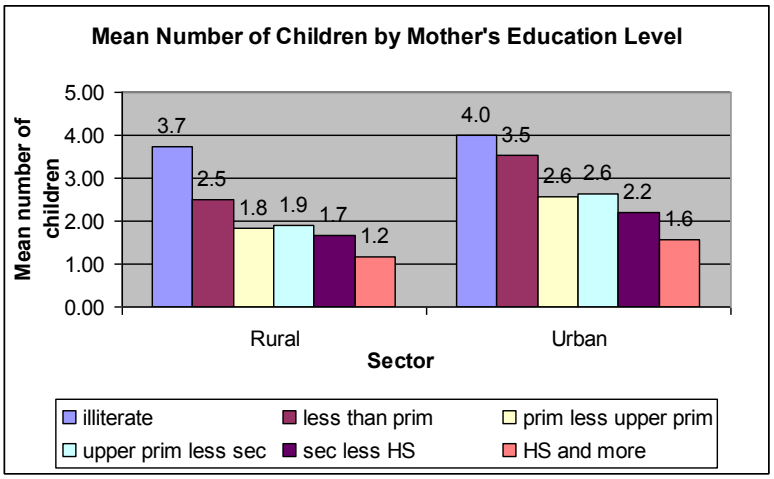
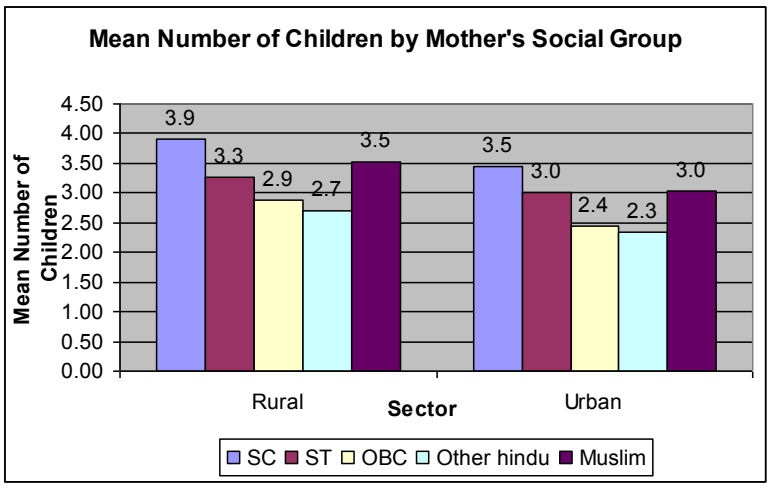


Chart 8.6 shows an interesting pattern. Women with higher education have lower mean number of children than those women with less education. This is true for both the urban and rural areas[20]. However it is quite paradoxical that for each educational group, mean number of children is higher in urban areas as compared to rural areas, while on aggregate mean number of children in urban areas is lower than in rural areas. This is very possibly because in urban areas women are significantly more educated than in rural areas – in rural areas most married women are illiterate or below primary. So in urban areas those from disadvantaged class and caste are also educated, and very possibly number of children are higher as their social norms have countered the effect of education. In rural areas social norms and education levels have worked in the same direction as those from disadvantaged background are largely illiterate.

Chart 8.7



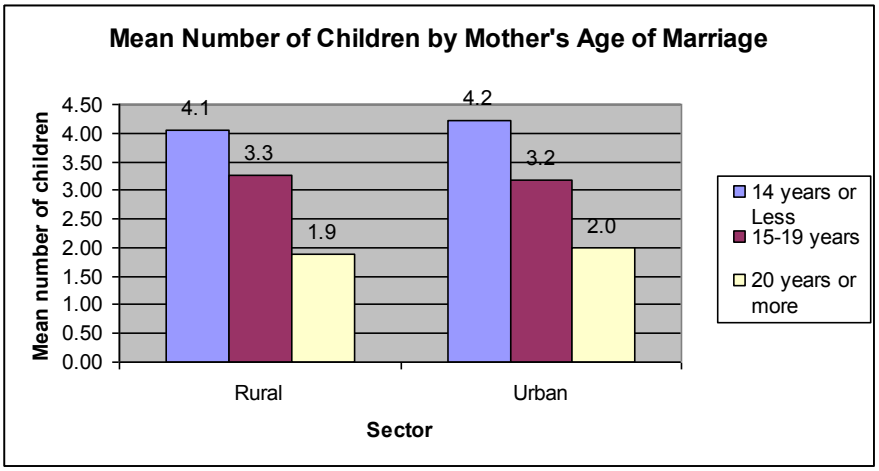
The mean number of children also varies with the socio-religious category of the mother (**Chart 8.7**). For both the rural and urban areas, the SCs have the highest mean number of children, followed by the

[20] We cannot conclusively deduce from this that more educated mothers have fewer children – mothers from 15 to 49 age group is considered here and while the younger mothers are relatively more educated – they may have more children in the future. The sample is not large enough to compare different age groups.

Muslims. On the other hand, the Other Hindus have the lowest mean number of children as social group, for both the rural and urban areas, followed by OBCs. For all categories, mean number of children is lower in cities than in the villages.

Age of marriage of the mother is a very important factor in determining the mean number of children as can be seen from **Chart 8.8**. With higher age of marriage, there is a lowering of the mean number of children. For the mothers who were married at the age of 20 or more, the mean number of children is as low as 2 or less. As education leads to later marriage, higher education of mothers may lead to fewer children through the increase in age of marriage.[21]

Chart 8.8



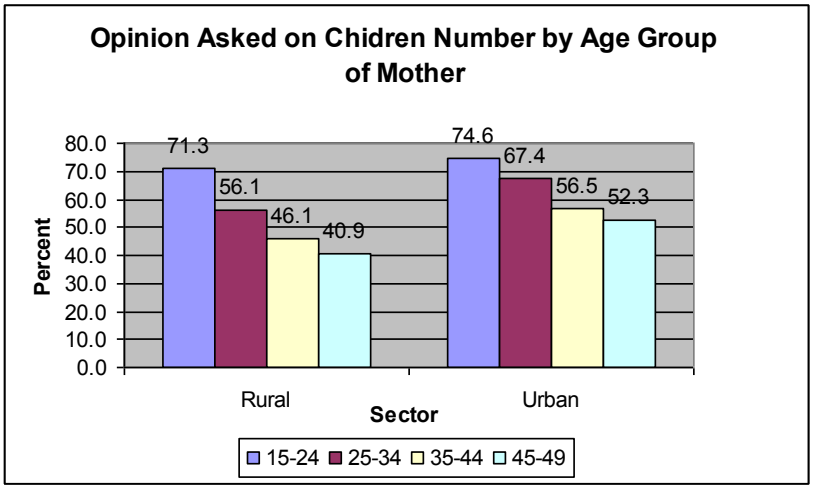
8.3.2 Participation in Decision making:

The ability to participate in decision-making about important issues like choosing one's partner, number of children, use of family planning instruments, etc. indicate the extent to which women are empowered in a patriarchy-dominated society like India. Ever married women were asked, as a part of the survey, about whether or not their opinion had been sought by he husband on the number of children they would like to have. In the rural areas, 54.6% of the ever married women in the age group 15-49 years and in the urban areas, 62.5% of women in the relevant age group had been asked about their opinion regarding the number of children.

In both rural and urban areas, a higher percentage of ever married women in lower age groups were asked about their opinion compared to higher age groups (**Chart 8.9**). Thus in the rural areas, 71.3% of ever married women of the age group 15-24 years were asked about their opinion on number of children as compared to 40.9% of ever married women of the age group 45-49 years. The corresponding figures for urban areas were 74.6% and 52.3% respectively.

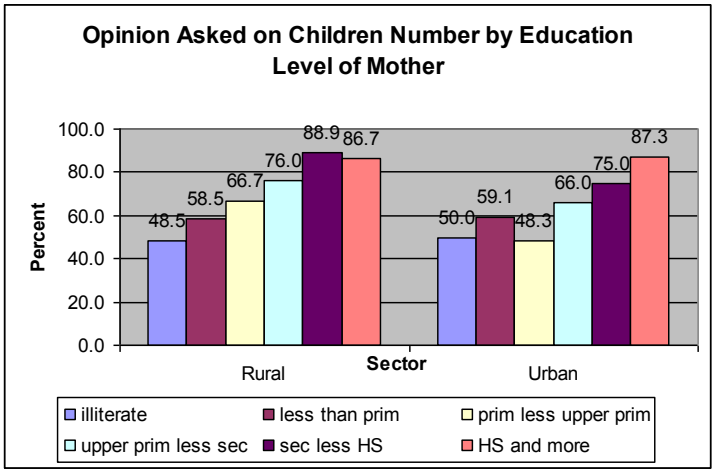
[21] Need to interpret carefully as the younger

Chart 8.9



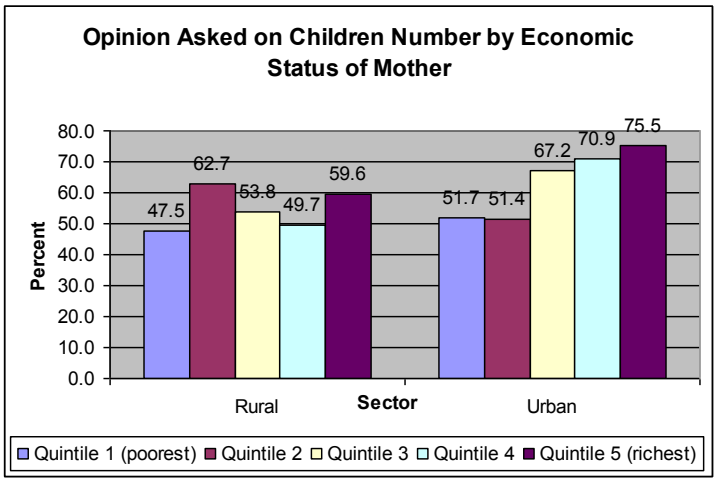
Similarly more educated women tend to be consulted regarding their opinion on number of children (**Chart 8.10**). The percentage of ever married women of age 15-49 years who were asked about their opinion is higher for the more educated than the less educated mothers.

Chart 8.10



In the rural areas, the expenditure quintiles do not show any definite impact upon the question of seeking opinion of the women regarding number of children as can be seen from **Chart 8.11**. However, in the urban areas, the higher quintiles have greater percentage of women (than the lower quintiles) who reported that their opinion regarding number of children has been sought.

Chart 8.11



The higher the age of marriage, the higher is the percentage of women who are asked about their opinion on the number of children (**Chart 8.12**). This phenomenon is more common in the urban areas compared to the rural areas.

Chart 8.12

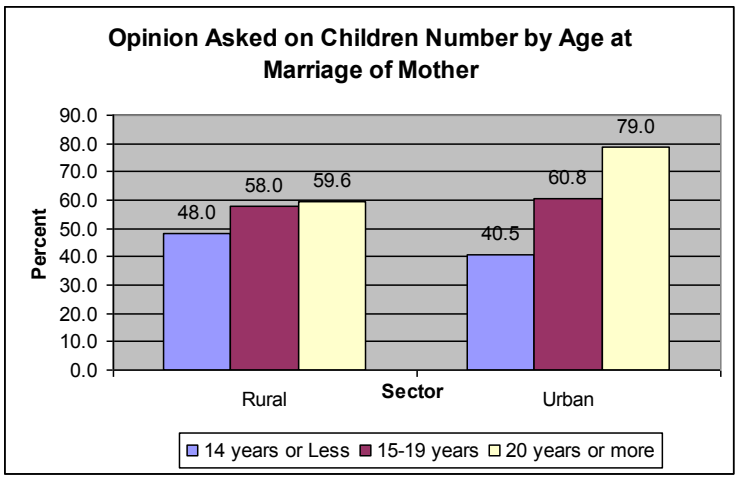
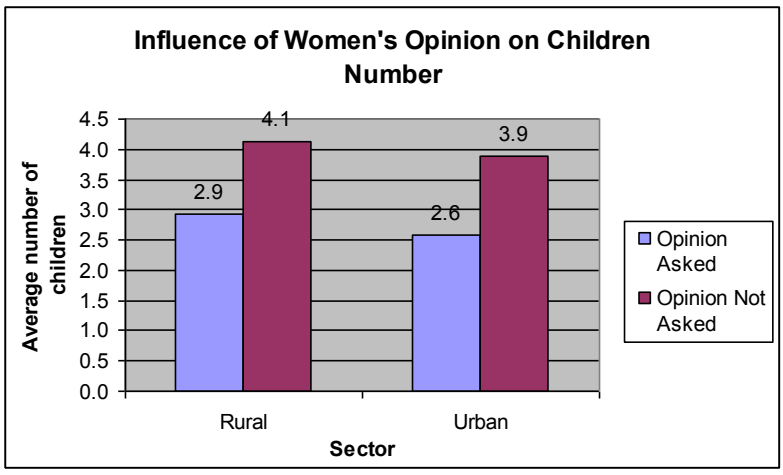


Chart 8.13



It is seen from **Chart 8.13** that those women who have been asked about their opinion on number of children have lower mean number of children compared to those who were not asked. It appears that those who are educated and are married at a higher age have a higher probability of being consulted about number of children, and also have fewer children on an average. Education levels are thus an important determinant, but not much can be said about the pathways through which it works.

One possible pathway could be that higher education led to more knowledge of family planning practices. It may also lead to better access to information or means for family planning. Education may also influence the preferences of respondents – they may prefer a smaller family. Often desire for a male child leads to many children – impact of education on gender preferences have also been explored. In the remaining three sections these aspects have been explored.

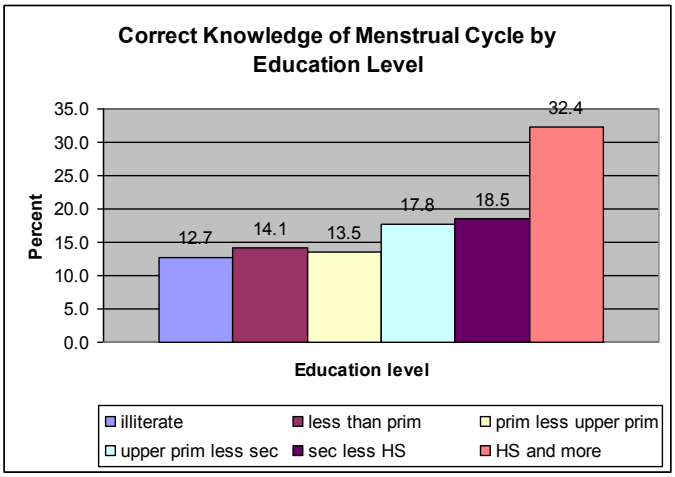
8.4 Knowledge of family planning practices:

8.4.1 Knowledge of menstrual cycle**:**

Correct knowledge regarding the menstrual cycle can act as a regulator of unwanted pregnancies. Knowing the most probable period for conception can be helpful in family planning and for using contraceptives. The level of awareness regarding menstrual cycle is appallingly low among ever married women in the 15-49 years age group, for both rural and urban areas. Urban women are relatively slightly more knowledgeable, with 19.1% women possessing correct knowledge about menstrual cycles. The corresponding figure for rural women is only 13.4%.

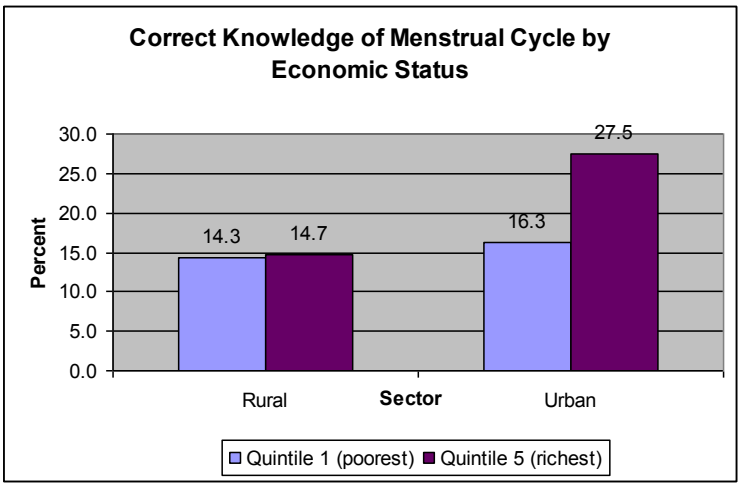
Education evidently has a positive effect on the level of awareness regarding menstrual cycle, but the awareness seems to increase only above a level of education of HS. Among illiterate ever married women of age 15-49 years, only 12.7% knows about the safe period in the menstrual cycle correctly, whereas for those who have attained education level of H.S or more, 32.4% knows about it correctly, although this proportion is also unexpectedly low (**Chart 8.14**). But for the education levels lower than HS, education makes very little difference in awareness.

Chart 8.14



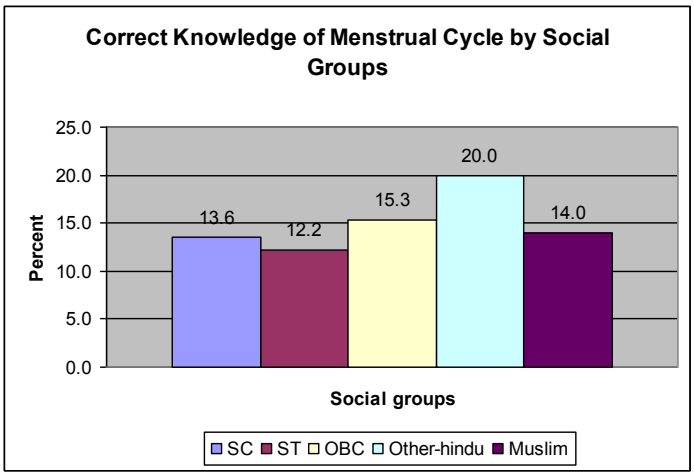
The urban sample shows evidence of economic class affecting the level of awareness regarding menstrual cycle (**Chart 8.15**). Percentage of ever married women of age 15-49 years having knowledge of menstrual cycle is higher for highest quintile compared to the lowest quintiles. For the rural sample there is hardly any impact of economic status of the respondent.

Chart 8.15



The level of awareness regarding the menstrual cycle also varies by socio-religious communities (**Chart 8.16**). The Other Hindus have a much higher percentage of women with correct knowledge about the menstrual cycle, vis-à-vis the other communities. However, the overall level of awareness is disturbingly low, with the highest percentage for Other Hindu group being only 20%.

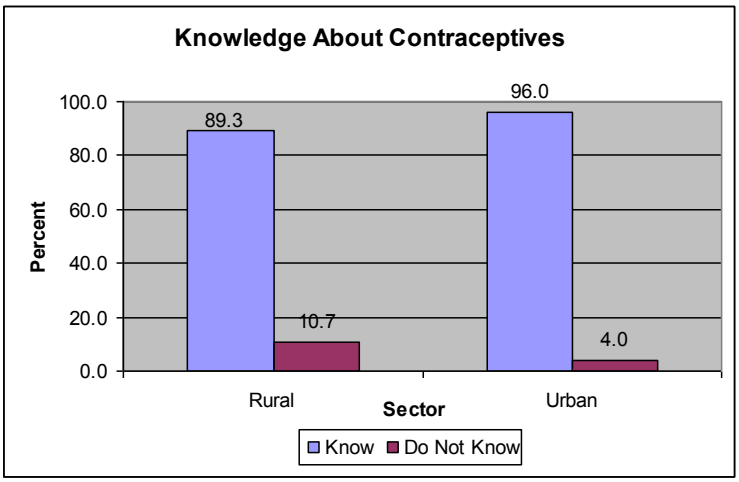
Chart 8.16



8.4.2 Knowledge of contraceptives:

During the survey, researchers collected data on the use of contraceptives by women. Though few women had correct knowledge of menstrual cycle and safe period, a huge majority of the sample women (15-49 years) have knowledge about contraceptives (**Chart 8.17**). The level of awareness is more in urban than in the rural areas.

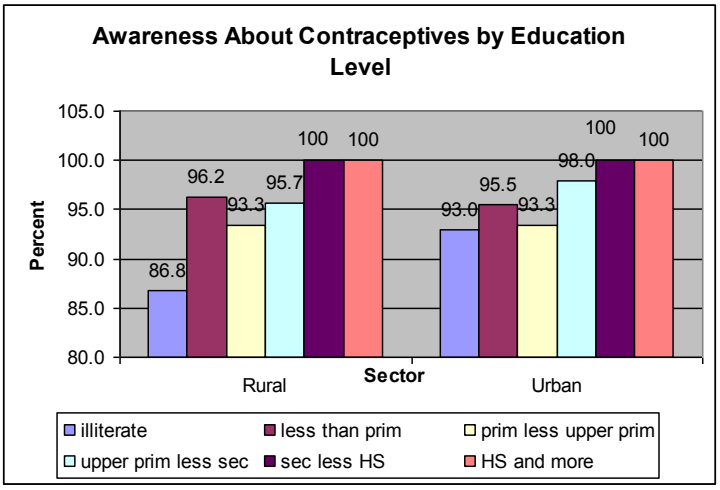
Chart 8.17



Education has a positive effect on the knowledge about contraceptives for the ever married women of age 15-49 years (**Chart 8.18**). This is true for both the urban and the rural areas.

Economic status also bears an effect on the awareness regarding contraceptive methods. Better economic condition is found to be associated with higher awareness regarding contraception.

Chart 8.18



8.4.3 Use of contraceptives:

Those respondents who were aware of contraceptive methods were further asked whether they have used contraceptives. Over 70% of ever married women of age 15-49 years have used contraceptive at some point of time, while almost 62% are using contraceptives currently (**Table 8.9**). Surprisingly, contraceptive usage is found to be lower in urban areas for current users.

Table 8.9 Contraceptive use among currently married women

(Per cent)

	Has ever used	Currently using
All	70.9	61.8
Rural	69.7	63.3
Urban	73.6	58.2

Proportion of ever married women currently using contraceptives peaked at the age group 35-44 years. This is possibly because at this age women are still fertile but might have attained the desired family size and would not like to expand their family. Women belonging to the lowest age group (15 – 24), who are in the process of expanding their family, are the lowest users of contraceptives.

Table 8.10 Contraceptive use among currently married women by age groups

(Per cent)

Age Groups (Years)	Has ever used	Currently using
15-24	43.7	34.3
25-34	75.0	68.7
35-44	82.5	72.4
45-49	72.0	57.0

The level of education does not show any definite effect on the use of contraceptives (**Table 8.11)**. This is possibly because the different types of contraceptives are aggregated in these tables. Disaggregation by types of contraceptive measures show that majority of these women have used sterilization as a method of birth control rather than any short term measures. Sterilization has been advocated by the State as a birth control measure for several decades and different studies suggest that among the less educated and the poor it is the preferred method. However use of other methods like condom, pills or safe timing are found to be positively correlated with education.

Table 8.11: Contraceptive use among currently married women by education level

(Per cent)

Education level	Has ever used	Currently using
Illiterate	67.8	59.6
Less than primary	77.9	66.2
Prim less than upper primary	73.6	68.8
Upper prim less than secondary	76.1	65.9
Secondary less than HS	69.0	62.1
HS and more	73.7	54.0

Economic status in the rural areas affects the use of contraceptives. However, in the urban areas, economic status does not show any definite effect.

Table 8.12 Contraceptive use among currently married women by economic status

(Per cent)

MPCE Quintiles	Has ever used	Currently using
Rural		
Quintile 1 (poorest)	62.2	56.7
Quintile 2	54.3	47.2
Quintile 3	71.2	65.6
Quintile 4	77.1	71.3
Quintile 5 (richest)	83.7	76.0
Urban		
Quintile 1 (poorest)	72.2	53.7
Quintile 2	85.3	72.1
Quintile 3	63.2	47.4
Quintile 4	70.6	60.8
Quintile 5 (richest)	76.0	56.0

Most of those who are aware of contraceptives came to know about it from multiple sources (**Table 8.13**). In the urban areas, a significant 17% of the women knew about contraception through television. But the effect of television is much less for the rural areas. Rather, sources such as health workers, or family institutions (e.g. husband, mother-in-law, friends/family, etc) play a much more important role there regarding knowledge about contraceptive methods.

Table 8.13 Source of knowledge regarding contraceptives among Currently married women

Source of Knowledge	Proportion of currently married women (percent)	
	Rural	Urban
Television	7.3	17.0
Radio	0.3	0.7
Newspaper	0.0	0.7
Health Worker	23.4	8.1
Hospital/clinic	5.3	7.0
Mother/mother-in-law	4.2	1.9
Husband	10.9	4.8
Books	0.3	0.7
Friends/family	14.8	11.8
More than one source	33.3	47.2
Other	0.2	0.0

Among those who are not using any contraceptive methods currently most said that they want more children (**Table 8.14**). Around 37% responded that contraceptives are not required for them for various reasons, eg. they are menopausal or pregnant or husband is away etc.

Table 8.14 Reasons for not using contraception by currently married women

(Per cent)

Reasons for not using contraception	Percentage of currently married women
Not Necessary	36.6
Wants more children	43.4
Lack of information	0.6
Difficulty in Acquiring	0.0
Difficulty in use/ side effects	3.4
More than one reason	6.8
Other Reasons	9.1

8.5 Preferred number of children

In these two sections all respondents – male and female, married and signal, were asked about their preferences regarding number of children and their gender.

When asked about their perception regarding the ideal number of children a family should have, around 75% of the respondents of age 15-60 years gave the ideal number as 1 to 2 . There are another 21% who say that the ideal number is 3 to 4. Only 0.7% of the respondents said that the ideal number of children for a couple is 5 or above. Among the respondents, 3.7% said that ideal number of children is 'up to God'. None of the respondents have said that the ideal number is zero.

More educated respondents were found to prefer fewer children as the ideal number (**Chart 8.19**). While even among those who are illiterate, 60% said that the ideal number of children for a couple would be 1 to 2, for those who have attained education of HS or above, almost 95% perceived the ideal number as 1 to 2.

The perception about ideal number of children also varies by economic status of the respondent (**Chart 8.20**). With minor fluctuations, a higher percentage of people who belongs to the higher quintiles believe that the ideal number of children for a couple is 1 to 2.

Chart 8.19

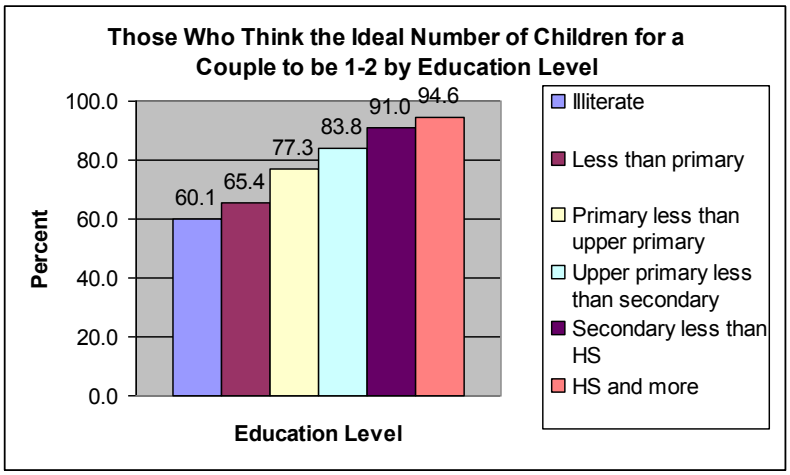
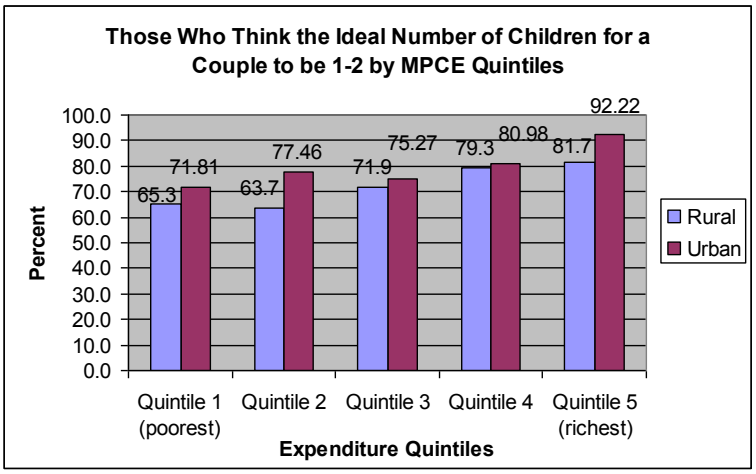
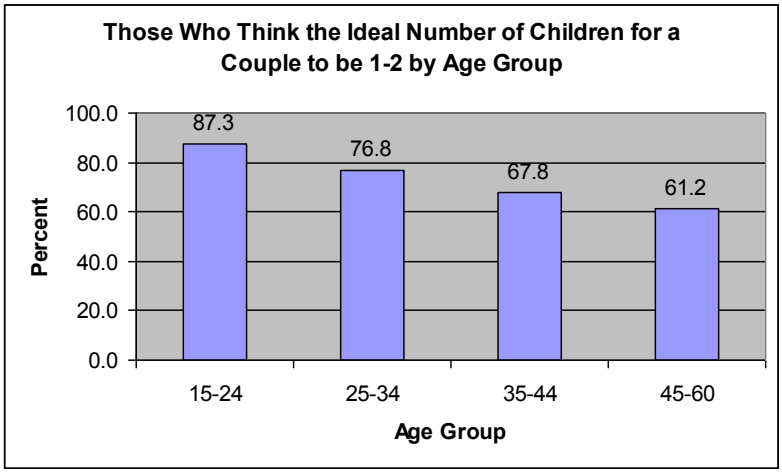


Chart 8.20



The younger people favor the idea of fewer children per couple more than their older counterparts as can be observed from **Chart 8.21**. 87.3% of the respondents of age 15-24 years have said that the ideal number of children per couple should be 1 to 2, while the same figure is only 61.2% for the respondents of age group 45-60 years.

Chart 8.21



8.6 Preference of Sex of Child

The respondents were asked whether they had any gender preference if they had only one child. In most of the cases, the respondents have preferred for a boy, or said that they are indifferent between a choice of a boy or a girl child (**Table 8.15**). Very few have said that they will prefer a girl child in a hypothetical single child case. There was a rural-urban difference. In the rural areas almost 50% of the respondents said that they would prefer a boy, while 37% were indifferent. Only 9.5% said that they will prefer a girl child. In the urban areas 36.4% of the respondents preferred for a boy child, while 46.6% said they are indifferent; 14% said that they would prefer a girl child.

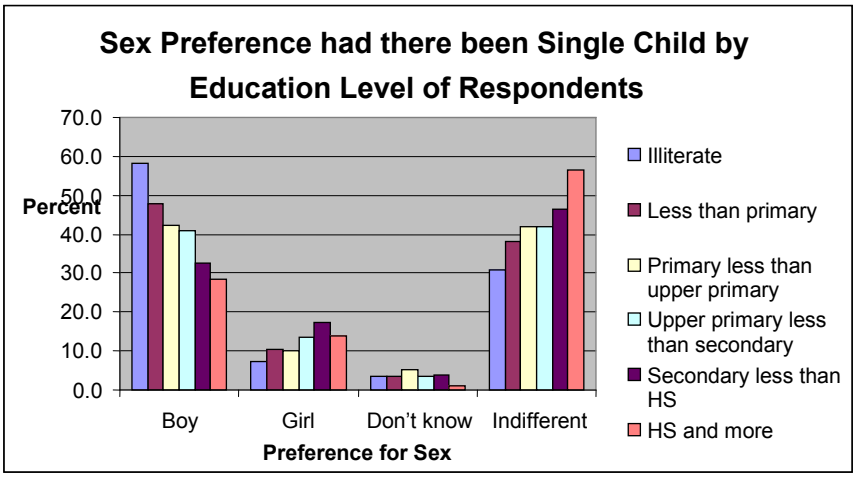
Table 8.15 Sex preference had there been single child

(Per cent)

	Total	Rural	Urban
Boy	45.6	49.8	36.4
Girl	10.9	9.5	14.1
Don't know	3.6	3.9	3.0
Indifferent	39.9	36.9	46.6
Total N	3,041	2,103	938

Examining this pattern of sex preference by the education level of the respondents shows us some interesting results (**Chart 8.22**). The traditional want for a boy child diminishes as we move along from lower to higher education levels.[22] On the other hand, neutrality of attitude regarding the sex of the child increases. Even preference for girl child shows an increasing trend as we move towards higher levels of education, albeit with some fluctuations.

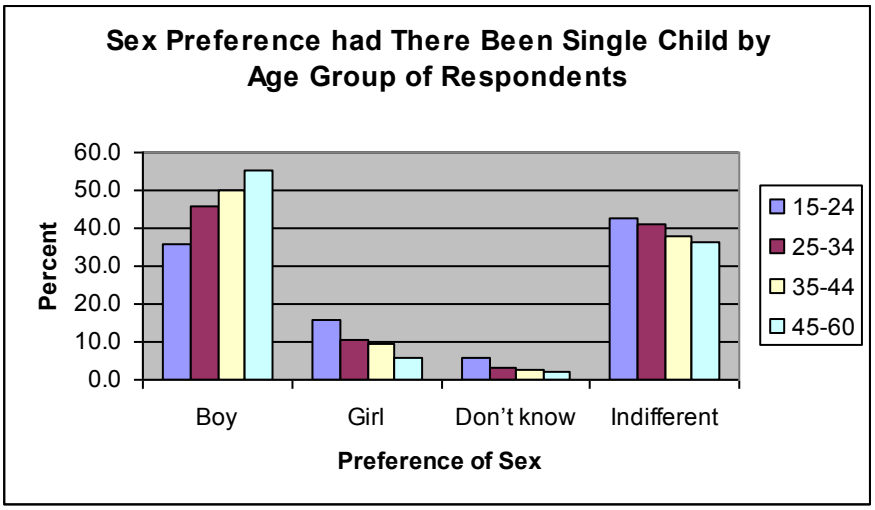
Chart 8.22



Apparently the bias towards a boy child has diminished over time. The desire for a boy child diminishes as we move along from older to younger age groups (**Chart 8.23**). On the other hand, indifference regarding the sex of the child increases. Even preference for the girl child shows an increasing trend as we move towards younger age groups.

[22] It is also possible that the more educated respondents had better idea what the question is trying to capture and so gave what answer they thought was 'right' rather than what they thought.

Chart 8.23



9. CONCLUSION

We find from this preliminary analysis that education is positively correlated with several social and economic outcomes. However both educational attainments and their outcomes are in turn influenced by socio economic background of the respondents.

Typically we find educational attainments lower in rural areas as compared to urban areas, for all socio economic groups. The market and non market outcomes too vary sharply in the two areas – indicating that environment and infrastructure play an important role in shaping outcomes.

Literacy rate was found to be much higher in the younger generation compared to the older generation. The pursuit of higher education has also improved over time, especially in completing middle and secondary level.

The study found a very sharp rural-urban divide in terms of land, house and asset ownership as well as composition of consumption expenditure and access to public utilities. The respondents from the rural areas, especially those belonging to the lower quintiles, are far worse off on all these counts compared to their urban counterparts. This brought into focus the inadequacy of assessing/understanding poverty by income or consumption expenditure alone, since poverty reflects multiple deprivations.

Occupation pattern shows more regular workers in urban areas and usually higher education levels are associated with less of 'casual workers' and more of 'regular workers'. Casual workers are among the lowest paid and are found more among respondents from lower consumption quintiles. There is also a huge wage differential between villages and cities with urban wages more than double that in rural areas.

Within these locations gender is a major factor in determining outcomes. The females in rural areas have a startling difference from the males in most areas. In urban areas the gender differences in education is lower – but again work participation levels of females are minimal and one hardly observes any market outcomes to education. In fact, the work participation of females usually declines with increase in education level and picks up only after higher secondary and above.
The rural-urban gulf is also brought out in issues like health and nutrition indices as well as in issues like mean age at marriage, fertility-related decisions, etc. In these contexts, education clearly plays an enabling role and more educated women tend to defer the age of marriage and make more informed decisions regarding contraception, family size, etc. In general education has a close association with women having a more decisive role in such matters.

Education outcomes also differ by socioeconomic background. Those from lowest consumption group, or from poorest caste and tribe are less likely to be highly educated. Even for the few who are, the market outcomes are usually inferior. But here too urban areas are more equitable, and disadvantaged groups like the SCs and Muslims are seen to acquire skills and productive work. Differences are there but less marked.

Different explanations can be offered for inferior outcomes for socioeconomic groups – starting from difference in access and infrastructure, patriarchal social norms, informal labour market and caste based stratified society. But the learning achievement tests also suggest the possibility that outcomes may differ because of variations in educational quality. Same number of years of education may not mean a similar quality of education attained and so the outcomes are lower. These issues need further investigations.

Not much can be said from the report on the role played by education in removal of poverty. There is a general correspondence between consumption expenditure and education levels. But it is not certain whether better income levels allow higher education attainments and better quality of education (allowing the respondent to take private tuition or the choice to shift to fee paying schools) or whether education comes first and leads to higher earnings for the educated respondents. But this report helps us to identify the important factors which influence educational outcomes and suggests directions for further analysis.

ANNEXURE

(from Descriptive report of Pakistan survey)

The RECOUP research investigates three inter-linked research themes, under which new policy-relevant knowledge will be produced:

Cognitive, attitudinal and behavioural outcomes: The most direct and fundamental outcomes of education are the cognitive and non-cognitive skills which it helps to create. These include literacy, numeracy, reasoning ability, and the behavioural traits, attitudes and values necessary to generate income earning abilities and to lead productive and effective lives in the community. The research will investigate the ways in which aspects of the structure and characteristics of school systems can improve these outcomes in pro-poor ways.

Social and life outcomes: of education include its impact upon health, nutrition, and fertility behaviour. Health and longevity are not only cherished human outcomes but they also affect the poverty level primarily through its impact on income generating abilities. The results of our survey show (that we report later) that medical expenditures are the foremost shocks in income of poor households often pushing them further down in poverty level. Any positive impact of education on these may be deemed of incalculable benefit. High fertility rates also limit the potential extent of poverty-reduction arising from economic growth and burden the environment. Although much is known about these relationships, but very important gaps remain particularly in terms of mechanisms that drive these relationships. As an example, consider the relationship between maternal education and child health. Although existing research on this subject has established the fact that maternal education improves child health significantly. But the precise channels through which maternal education improves child health are not adequately understood particularly in the case of Pakistan. For instance it is not clearly understood whether it is the increase in health knowledge (either gained through schooling or through intergenerational transfer of health knowledge); the increase in income through labor force participation of women; greater female empowerment; reduction in fertility rates and thereby more resources and care available per child; *or* greater exposure to media and thereby greater awareness of health and nutrition etc that maternal education produces in order to have its impact on child health outcomes. From a policy perspective, it is extremely important to understand these channels. A central objective of our proposed research will be to show how the *causal* impact of education on health, including HIV/AIDS, and on fertility can be improved, especially for the poor.

Economic and market outcomes: It is well known that education plays a central role in job allocation, and that in all societies, people having more education face wider job-choice and a likelihood of faster earnings growth. It is also known that these outcomes are influenced not only by the level of education attained but also by learning outcomes – for example by the depth of literacy and numeracy skills achieved. It is likely that the strength of both the allocative and the behavioural effects of education change as access to it widens. Yet, much of present knowledge is adduced from static contexts. Our research will focus upon dynamic dimensions which are much less known - upon how these educational outcomes have been changing, upon how they relate to broader patterns of social and economic development – including the changing role of the state in education - and upon how this has affected the poor.

Some of the questions the study was designed to answer were for example, have returns to education changed for men or women? Does maternal health knowledge impact the health outcomes for the child and how? Who is acquiring skills and why and what difference does skill acquisition make for earnings? How far does having any form or degree of disability limit a person's opportunity to acquire education and/or participate in the labour market? How does cognitive achievement differ for men and women, rural and urban areas, for those from private or public schools? No other study to our knowledge has tried to connect such a wide spectrum of outcomes. While correlations and links between education and various outcomes are well-known and acknowledged, this research focuses on identifying specific pathways that lead to improved social and economic outcomes. The ultimate

objective is to guide policy in the right direction so as to maximise its impact on pro-poor educational outcomes.

3. Key Features of the Questionnaire

Two sets of questionnaires were employed for the survey – the community questionnaire and the household questionnaire. The community questionnaire collected information about access to basic services, land holdings and migration in the communities. The household questionnaire that was a detailed 10 part document collected information at both the household as well as individual level. At the household level, data on household consumption; asset ownership; debt, borrowing and savings; sources of livelihood and earnings; sources of shocks to household income; land holdings; availability of basic facilities; and health indicators of all household members in terms of height, weight and upper-arm circumference were recorded. At the individual level information was collected for all individuals between ages 15 and 60 on the following categories:

a) Schooling for all individuals aged 15 to 60: This section captures information not only for those presently in schools but also for those who may have ever been enrolled in school. With a separate sub-section for each level of schooling acquired from grade 1 up to MA, details on learning achievements (what division was obtained at the Matric or FA/FSc level etc), available facilities, number of students per class, out of school tuition etc was recorded. This section also recorded information on the type of schooling (such as private, public or other) and the distance from school.

b) Vocational Training: Information in this section defines three separate pathways of skill acquisition to increase relevance to the local context in Pakistan. These pathways include:

- Formal enrolment in a technical/vocational school or college.
- Apprenticeship – if working in a firm where a formal or informal arrangement exists with the employer that teaches the individual certain skills regardless of whether any payment is involved.
- On the job training

c) Economic activities: This section classifies everyone in the working age population in specific categories of non labour force and labour force participants and further into employed, unemployed. The distinguishing feature of the questionnaire is that it classifies unpaid family workers as economically active rather than inactive. This allows us to capture labour that is working for economic gain but is not being paid, particularly women in rural households that work in fields and for family businesses and are not paid.

This section also collects information on self-employed individuals in both agricultural as well as non agricultural sector. Earnings for the self-employed in developing countries are generally hard to capture as their returns are not known and most times in very informally kept records. An attempt has been made to get self-employed individuals to reveal profits they make in their businesses.

The employment information collected is retrospective in nature in the sense that it captures labour market choices in the recent past to show transition. This is particularly important for those that are currently unemployed to identify reasons for their displacement from the labor force. This section has significance also because the study is planned as a panel study and the only other dataset with information on retrospective employment activities is the IFPRI dataset from the mid 80s.

d) Health, Disability and Fertility: This section accumulates data on episodes of sickness and injury, costs incurred and source of medical facilities sought. Questions on disability capture detailed information on levels and kinds of disability that hinder people's participation in economic and/or academic activities. Enumerators were trained to capture even the most basic level of impairment that is not usually considered disabling but does have implications for full participation of an individuals in economic or social activities. The definition of disability and questions related to it have been

designed by academic experts in the field thus ensuring their relevance to the objectives of the larger study.

This section also collects information on fertility which includes the age at marriage and first birth; whether or not the birth of children was attended by skilled health personnel; total number of children; the number of infant and under five deaths; and preferences in terms of desired number of children. This section also contains questions pertaining to the family planning and awareness and use among women.

e) Cognitive ability: The cognitive ability, that includes literacy and numeracy skills, is one pathway through which education impacts outcomes. This ability is captured by testing individuals between ages 15 and 60 for literacy and numeracy skills acquired in school through formal education. Tests were designed and administered for:

- Literacy (Short and Long tests for reading and comprehension skills in local languages).
- Numeracy (Short and Long Math tests for basic arithmetic skills: both test basic and higher order skills for math and language)
- Health Knowledge Test.
- English Language Test.
- Ravens Standard Progressive Matrices Test (of IQ) – this test allows one to control for inherent ability and isolate impact of schooling on learning abilities and other outcomes.

These tests were made part of the study as recent research has shown that years of schooling should not be the sole criteria for judging outcomes. Put differently, it is the quality rather quantity alone that really matters. One way of measuring quality is to test cognitive achievement once individuals have been to school. Cognitive ability also has implications for determining income generating abilities as well as health and fertility outcomes.

f) Subjective Wellbeing, Empowerment and Time Allocation: A separate section on subjective wellbeing, empowerment and time allocation include questions on notions of citizenship, access to the media and details of activities undertaken during a twenty-hour period respectively.