

Multidimensional Poverty in India: Insights from NSSO data.

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Motivation

- We compute MPI considering a series of thick rounds of NSSO data. One of our objective is to find out the discrepancy between income and multidimensional poverty. Income poverty is sensitive to changes in many variables, some of the prominent examples are household size, GDP and MPCE recall error. One of the objective is also see how these variables effect multidimensional Poverty.

Outline of the Talk

- 1) We first provide a brief review of AF methodology
- 2) Sample size for different NSSO rounds and comparability issues.
- 3) A brief review of different types of recall periods in collection of expenditure data by NSSO.
- 4) Problems with income poverty line and our choice of Poverty line.
- 5) Multidimensional Poverty and weights assigned to different indicators.
- 6) Indicator along with cut off.
- 7) Correlation among indicators for all the rounds.

Outline of the Talk

- 8) Justification for the choice of Second Stage Cut Off.
- 9) Raw and censored Head Count Ratio for different Rounds.
- 10) MPI, H and A for different rounds.
- 11) Composition of MPI for different Rounds.
- 12) **Comparison of Income Poor and MPI poor** for different choice of Poverty Cut off followed by different Social groups, income quintile and household size.
- 13) Recall error and Multidimensional Poverty.
- 14) GDP and multidimensional Poverty.

Methodology

- use Alkire Foster Adjusted Headcount Ratio to build a Multidimensional Poverty Index (MPI):

$$\text{Formula: } MPI = M_0 = H \times A$$

- H is the percent of people who are identified as poor, it shows the *incidence* of multidimensional poverty.
- A is the average proportion of weighted deprivations people suffer at the same time. It shows the *intensity* of people's poverty – the *joint distribution* of their deprivations.

Data

Dataset : We use Rural NSSO Quinquennial (thick) Rounds for the following round.

Rounds	Year
43	June 1986 - July 1987
50	June 1993 - July 1994
55	June 1999 - July 2000
61	June 2004 - July 2005
66	June 2009 - July 2010

Sample Size

- Sample Size for different NSSO Rounds

Round	Sample (Rural)	Households	No of Individuals
43	82,661		4,45,397
50	69,206		3,56,289
55	71,385		3,74,856
61	79,298		4,03,207
66	59,119		2,87,139

Comparability Issues

- Data is comparable in terms of survey design.
- Recall Period for MPCE changed over time. In particular for the 55th round.

Expenditure data

- NSSO does not collect data on Income. Monthly Per-Capita Expenditure(MPCE) is considered as a proxy.
- Estimation of Income Poverty rates depends on the recall Period of MPCE.
- Government estimates of Poverty rates are usually based on Mixed Recall Period.
- However MPCE_MRP is not available for all the rounds we consider Uniform recall period for 30 days for all the items, with an exception for the 55th round.

Income Poverty Line

- The poverty line is the minimum amount of money required for existence & survival of a person with physical efficiency. Any person earning less than the prescribed would be considered to be deprived in this dimension.
- Before publication of Tendulkar Committee Report, Poverty line in India was based on the recommendation of Task Force(1979).

Income Poverty Line Contd...

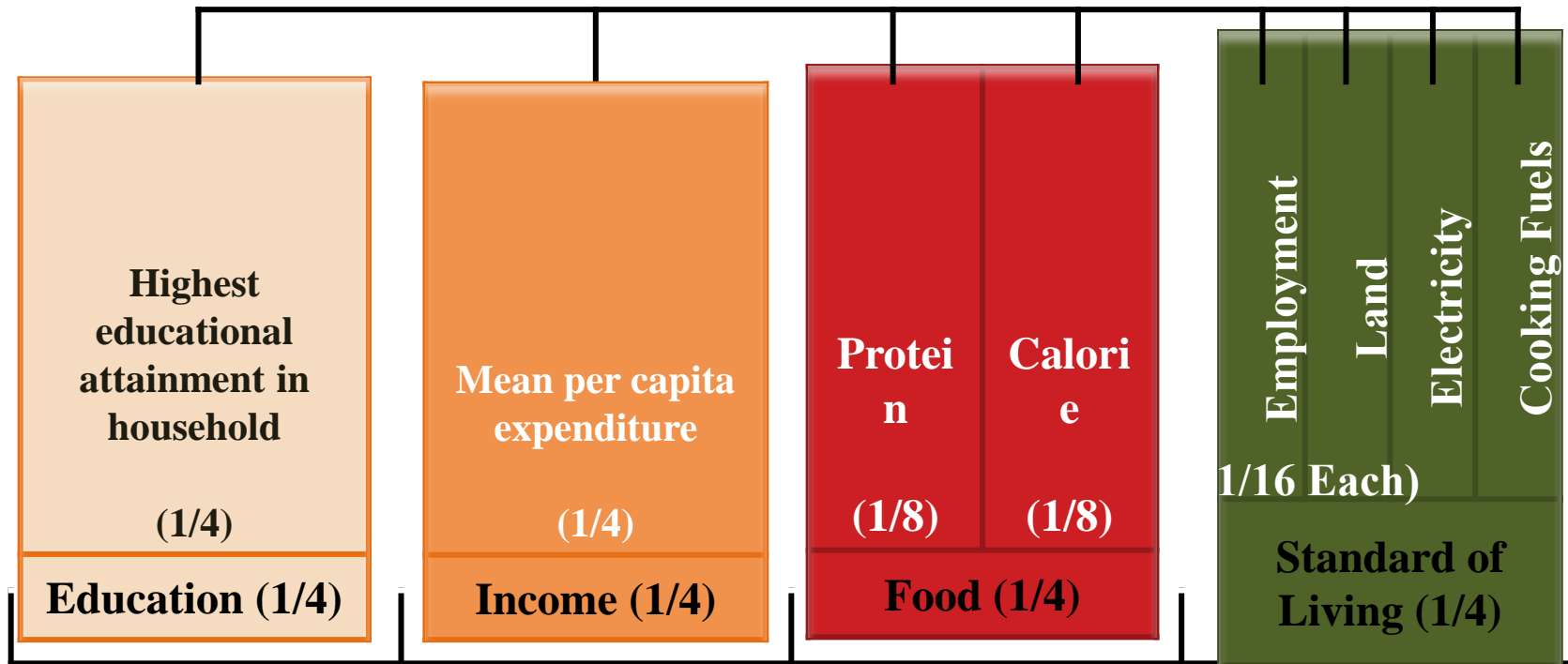
- The Poverty line as proposed by Task Force corresponds to a minimum calorie requirement of 2400 kcal and 2100 kcal for Rural and Urban India respectively.
- Poverty line for the next 35 years was obtained inflating the poverty line using Consumer Price Index for Agricultural Labour for Rural India and Consumer Price Index for Industrial workers for Urban India.

Income Poverty Line Contd...

- Tendulkar Committee report (2005) : Planning Commission accepted the Poverty Line as suggested by Tendulkar Committee.
- Due to a change in methodology between Tendulkar committee and Task force, poverty would not be comparable.
- We merge this two methods by considering recent (for 61st round) Tendulkar Committee report poverty line and inflating using Consumer Price Index for Agricultural Labor.

Multidimensional Poverty: Dimensions, Indicators and Weights

8 Indicators



4 Dimensions

Indicators and cutoffs

Dimensions	Indicators	Cut off
Education	Highest educational attainment in household	Primary Schooling
Income	Monthly Per Capita Expenditure	National Poverty Line
Food Consumption	Calorie Consumption.	2400 K cal
	Protein Consumption.	58.4 gms
Living Standard	Employment	Labourers
	Land	1 acre agricultural Land and /or 0.5 acre irrigated Land
	Electricity	No access to Electricity
	Cooking Fuels	Firewood and Chips Coke and Coal Dung Cake Charcoal

Correlation Analysis: Round 43

Round 43	Income	Nutrition		Living Standards				Education
Attributes	Expenditure	Calorie	Protein	Electricity	Cooking	Employment	Land	Education
Expenditure	1							
Calorie	0.47	1						
Protein	0.38	0.66	1					
Electricity	0.25	0.09	0.06	1				
Cooking	0.10	0.03	0.01	0.13	1			
Employment	0.23	0.19	0.21	0.17	0.02	1		
Land	0.12	0.2	0.22	0.08	- 0.04	0.45		
Education	0.22	0.10	0.08	0.26	0.08	0.27	0.17	1

Correlation Analysis :Round 50

Round 50	Income	Nutrition		Living Standards				Educati on
Attributes	Expend iture	Calorie	Prote in	Electric ity	Cooki ng	Employm ent	Land	Educati on
Expenditure	1							
Calorie	0.45	1						
Protein	0.40	0.64	1					
Electricity	0.28	0.08	0.06	1				
Cooking	0.10	0.02	.003	0.11	1			
Employment	0.24	0.19	0.23	0.17	0.04	1		
Land	0.13	0.20	0.24	0.12	-0.08	0.4615	1	
Education	0.22	0.10	0.09	0.27	0.07	0.26	0.18	1

Correlation Analysis : Round 55

Round 55	Income	Nutrition		Living Standards				Education
Attributes	Expenditure	Calorie	Protein	Electricity	Cooking	Employment	Land	Education
Expenditure	1							
Calorie	0.41	1						
Protein	0.41	0.62	1					
Electricity	0.28	0.03	0.04	1				
Cooking	0.16	0.04	0.04	0.20	1			
Employment	0.23	0.17	0.20	0.12	0.1	1		
Land	0.13	0.17	0.2078	0.11	-0.04	0.43	1	
Education	0.26	0.07	0.08	0.25	0.12	0.24	0.16	1

Correlation Analysis : Round 61

Round 61	Income	Nutrition		Living Standards				Education
Attributes	Expenditure	Calorie	Protein	Electricity	Cooking	Employment	Land	Education
Expenditure	1							
Calorie	0.38	1						
Protein	0.39	0.60	1					
Electricity	0.27	0.05	0.02	1				
Cooking	0.17	0.07	0.04	0.17	1			
Employment	0.23	0.15	0.20	0.08	0.10	1		
Land	0.12	0.14	0.20	0.06	-0.07	0.41	1	
Education	0.20	0.07	0.08	0.24	0.09	0.18	0.15	1

Correlation Analysis : Round 66

Round 66	Income	Nutrition		Living Standards				Education
Attributes	Expenditure	Calorie	Protein	Electricity	Cooking	Employment	Land	Education
Expenditure	1							
Calorie	0.29	1						
Protein	0.34	0.62	1					
Electricity	0.28	0.06	0.04	1				
Cooking	0.20	0.06	0.05	0.19	1			
Employment	0.21	0.11	0.16	0.07	0.14	1		
Land	0.13	0.10	0.17	0.07	-0.01	0.41	1	
Education	0.15	0.03	0.04	0.21	0.11	0.16	0.12	1

Poverty Cutoff

A person is identified as poor if the household is deprived in **50%** of all weighted indicators.

Justification : We propose two cutoffs a lower bound and an upper bound chosen in a way that government estimates lies in between the two bounds. Upper bound is 50% of all weighted indicators. Since poverty rates in India is a debatable issue particularly the number of poor's, to remain in safe side we choose 50% as the poverty cut off.

Alternative cutoff(s) in **60%** of all weighted indicators. This is the lower bound.

Raw and Censored Headcounts (Round 43)

Indicator	Raw Headcounts	Censored Headcounts
Highest educational attainment in household	0.43	0.37
Monthly Per Capita Expenditure	0.59	0.54
Calorie Consumption.	0.63	0.52
Protein Consumption.	0.46	0.40
Employment	0.36	0.30
Land	0.55	0.40
Electricity	0.75	0.53
Cooking Fuels	0.96	0.60

Raw and Censored Headcounts (Round 50)

Indicator	Raw Headcounts	Censored Headcounts
Highest educational attainment in household	0.39	0.34
Monthly Per Capita Expenditure	0.57	0.53
Calorie Consumption.	0.71	0.55
Protein Consumption.	0.54	0.45
Employment	0.36	0.31
Land	0.60	0.43
Electricity	0.61	0.46
Cooking Fuels	0.92	0.58

Raw and Censored Headcounts (Round 55)

Indicator	Raw Headcounts	Censored Headcounts
Highest educational attainment in household	0.32	0.27
Monthly Per Capita Expenditure	0.46	0.44
Calorie Consumption.	0.73	0.49
Protein Consumption.	0.55	0.41
Employment	0.39	0.29
Land	0.65	0.4
Electricity	0.53	0.37
Cooking Fuels	0.89	0.5

Raw and Censored Headcounts (Round 61)

Indicator	Raw Headcounts	Censored Headcounts
Highest educational attainment in household	0.22	0.19
Monthly Per Capita Expenditure	0.48	0.45
Calorie Consumption.	0.76	0.49
Protein Consumption.	0.58	0.41
Employment	0.35	0.26
Land	0.64	0.38
Electricity	0.44	0.31
Cooking Fuels	0.87	0.48

Raw and Censored Headcounts (Round 66)

Indicator	Raw Headcounts	Censored Headcounts
Highest educational attainment in household	0.17	0.15
Monthly Per Capita Expenditure	0.38	0.37
Calorie Consumption.	0.78	0.42
Protein Consumption.	0.64	0.38
Employment	0.40	0.25
Land	0.68	0.34
Electricity	0.33	0.23
Cooking Fuels	0.85	0.41

MPI results NSSO 43

Poverty Cutoff	Measure	
Union	M ₀	0.55
	H	0.99
	A	0.56
Cutoff 50 %	M ₀	0.46
	H	0.61
	A	0.75
Cut off 60 %	M ₀	0.40
	H	0.50
	A	0.80
Intersection	M ₀	0.09
	H	0.09
	A	1

MPI results NSSO 50

Poverty Cutoff Measure

Union	M ₀	0.55
	H	0.99
	A	0.56
Cutoff 50 %	M ₀	0.45
	H	0.61
	A	0.75
Cut off 60 %	M ₀	0.39
	H	0.49
	A	0.80
Intersection	M ₀	0.09
	H	0.09
	A	1

MPI results NSSO 55

Poverty Cutoff Measure

Union	M_0	0.51
	H	0.99
	A	0.51
Cutoff 50 %	M_0	0.39
	H	0.53
	A	0.73
Cut off 60 %	M_0	0.33
	H	0.41
	A	0.79
Intersection	M_0	0.07
	H	0.07
	A	1

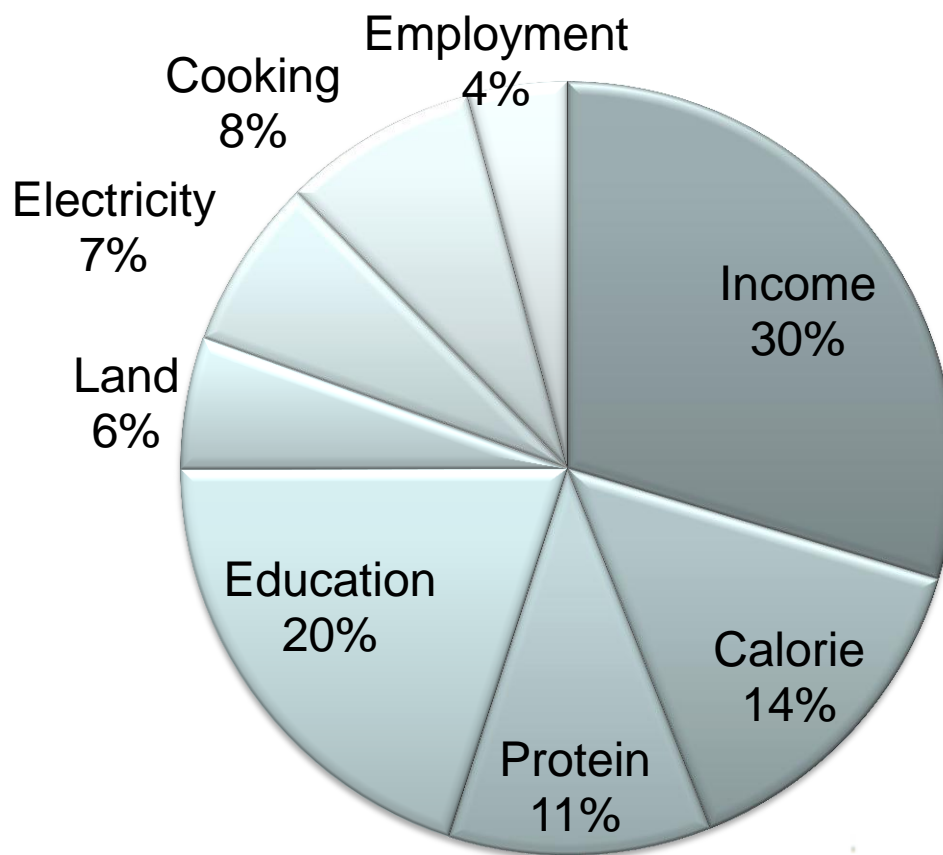
MPI results NSSO 61

Poverty Cutoff		Measure
Union	M_0	0.49
	H	0.99
	A	0.49
Cutoff 50 %	M_0	0.36
	H	0.51
	A	0.71
Cut off 60 %	M_0	0.30
	H	0.40
	A	0.76
Intersection	M_0	0.04
	H	0.04
	A	1

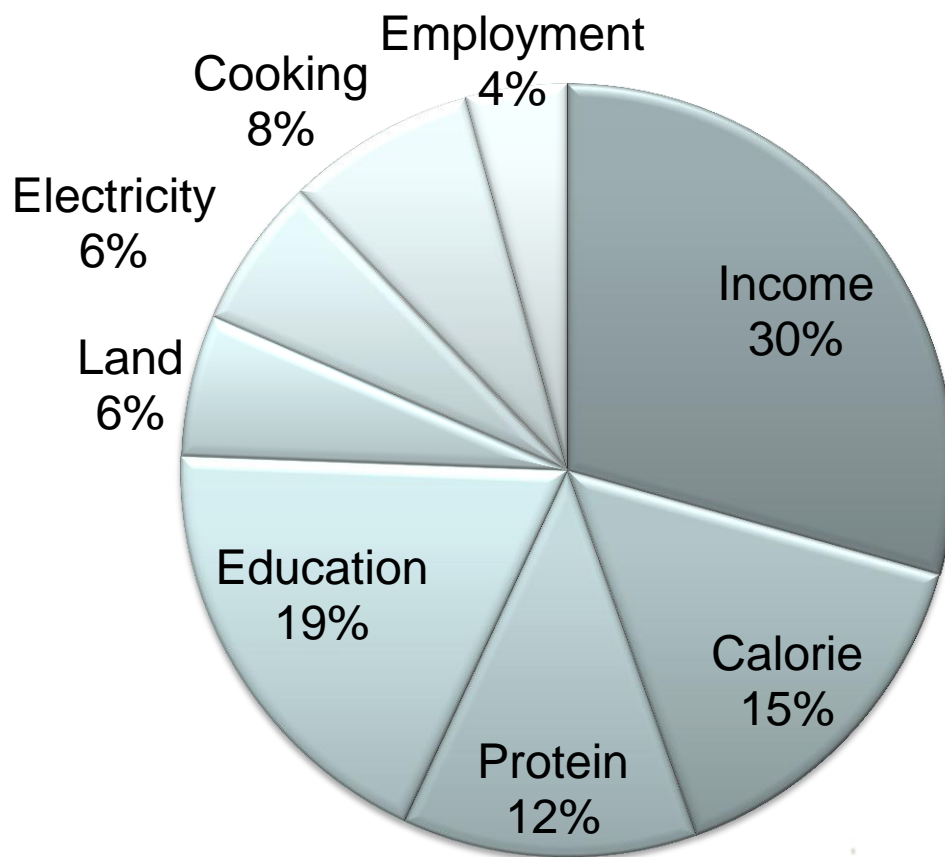
MPI results NSSO 66

Poverty Cutoff	Measure	
Union	M ₀	0.46
	H	0.99
	A	0.47
Cutoff 50 %	M ₀	0.31
	H	0.44
	A	0.70
Cut off 60 %	M ₀	0.26
	H	0.34
	A	0.74
Intersection	M ₀	0.03
	H	0.27
	A	1

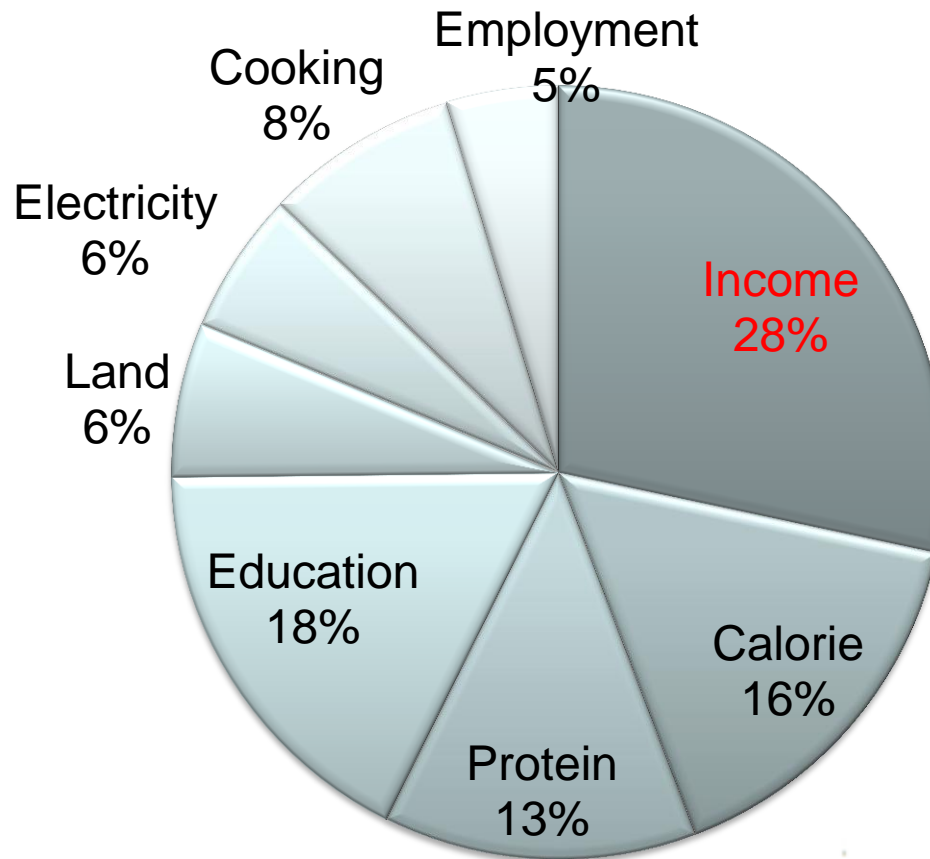
Composition of MPI : 43rd Round



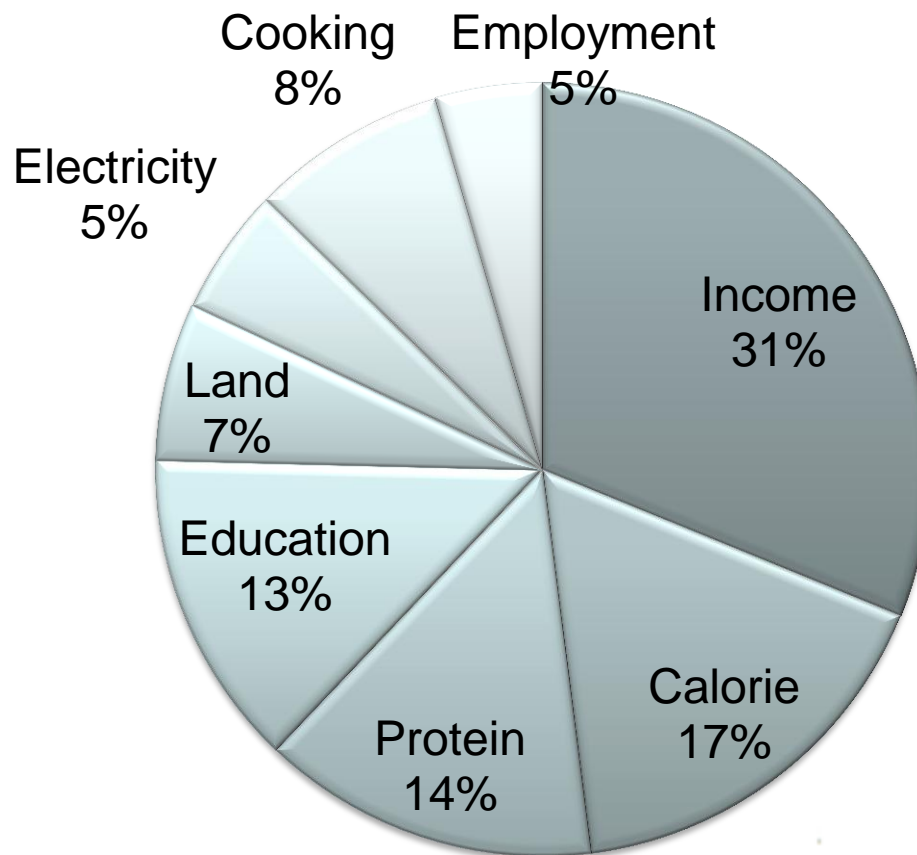
Composition of MPI : 50th Round



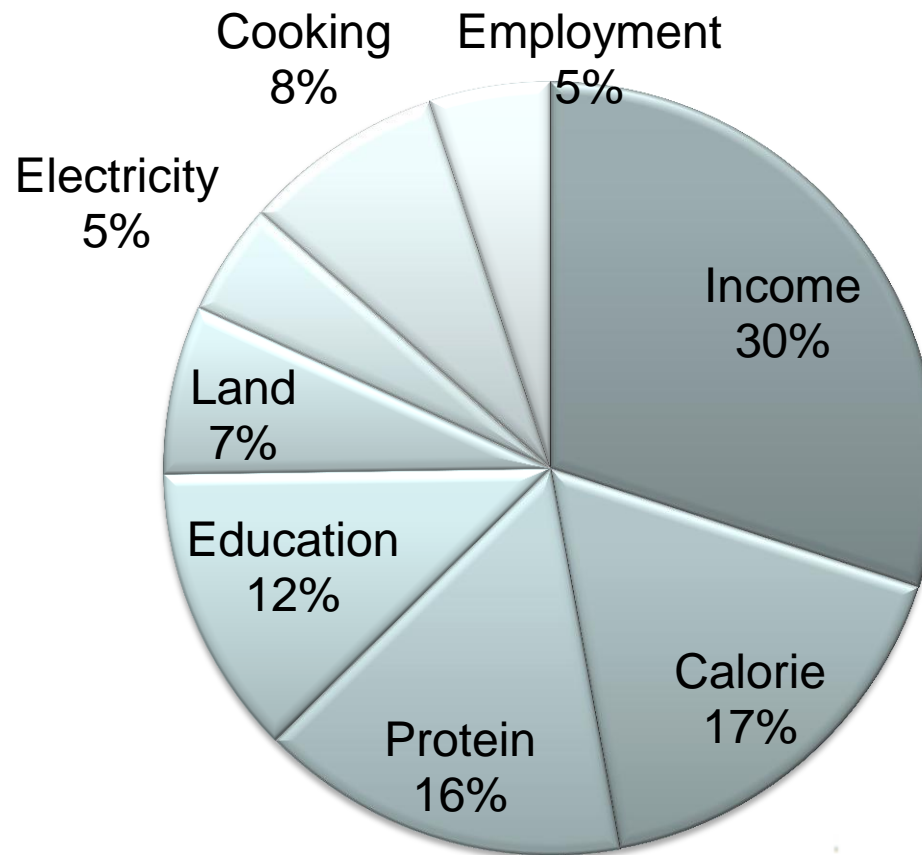
Composition of MPI : 55th Round



Composition of MPI : 61st Round



Composition of MPI : 66th Round



Comparison of Income POOR and MPI Poor : Round 43

Cut Off	MPI Poor Income non Poor	MPI non poor Income Poor	Both Poor
10 %	0.35	0	0.59
20 %	0.23	0	0.59
30 %	0.20	0	0.59
40%	0.11	0.03	0.56
50 %	0.07	0.05	0.54
60 %	0.03	0.12	0.47
70 %	0.01	0.28	0.31
80 %	0	0.36	0.23
90 %	0	0.44	0.14
100 %	0	0.5	0.09

Comparison of Income POOR and MPI Poor : Round 50

Cut Off	MPI Poor Income non Poor	MPI non poor Income Poor	Both Poor
10 %	0.36	0	0.57
20 %	0.25	0	0.57
30 %	0.22	0	0.57
40%	0.12	0.02	0.55
50 %	0.07	0.04	0.53
60 %	0.03	0.11	0.46
70 %	0.01	0.27	0.3
80 %	0	0.34	0.23
90 %	0	0.42	0.15
100 %	0	0.48	0.09

Comparison of Income POOR and MPI Poor : Round 55

Cut Off	MPI Poor Income non Poor	MPI non poor Income Poor	Both Poor
10 %	0.47	0	0.46
20 %	0.34	0	0.46
30 %	0.29	0	0.46
40%	0.15	0.01	0.45
50 %	0.09	0.02	0.44
60 %	0.04	0.09	0.37
70 %	0.01	0.23	0.23
80 %	0	0.29	0.17
90 %	0	0.34	0.12
100 %	0	0.39	0.07

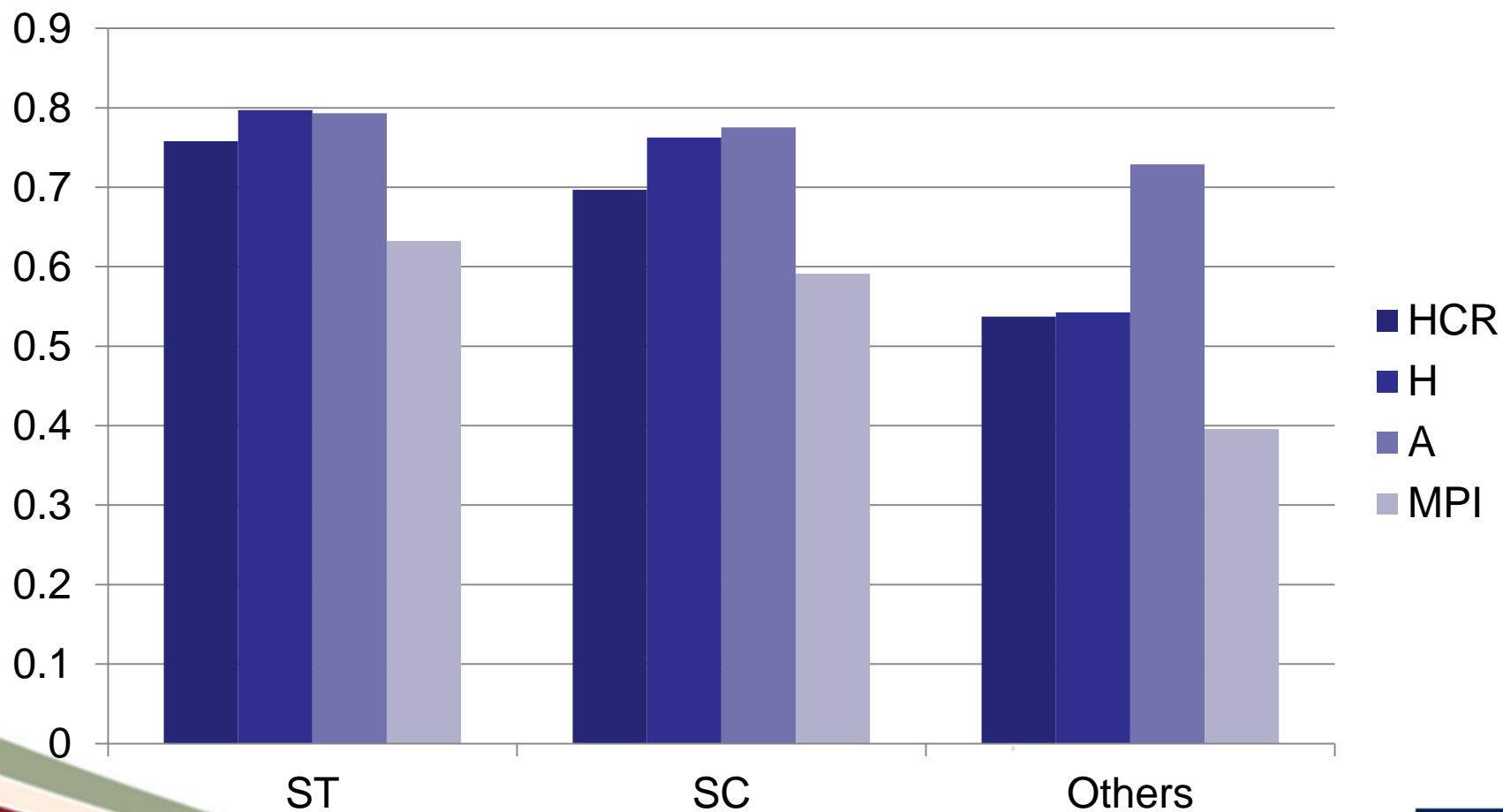
Comparison of Income POOR and MPI Poor : Round 61

Cut Off	MPI Poor Income non Poor	MPI non poor Income Poor	Both Poor
10 %	0.44	0	0.48
20 %	0.31	0	0.48
30 %	0.26	0	0.48
40%	0.11	0.01	0.47
50 %	0.06	0.03	0.45
60 %	0.03	0.11	0.37
70 %	0.01	0.29	0.19
80 %	0	0.35	0.13
90 %	0	0.39	0.09
100 %	0	0.44	0.04

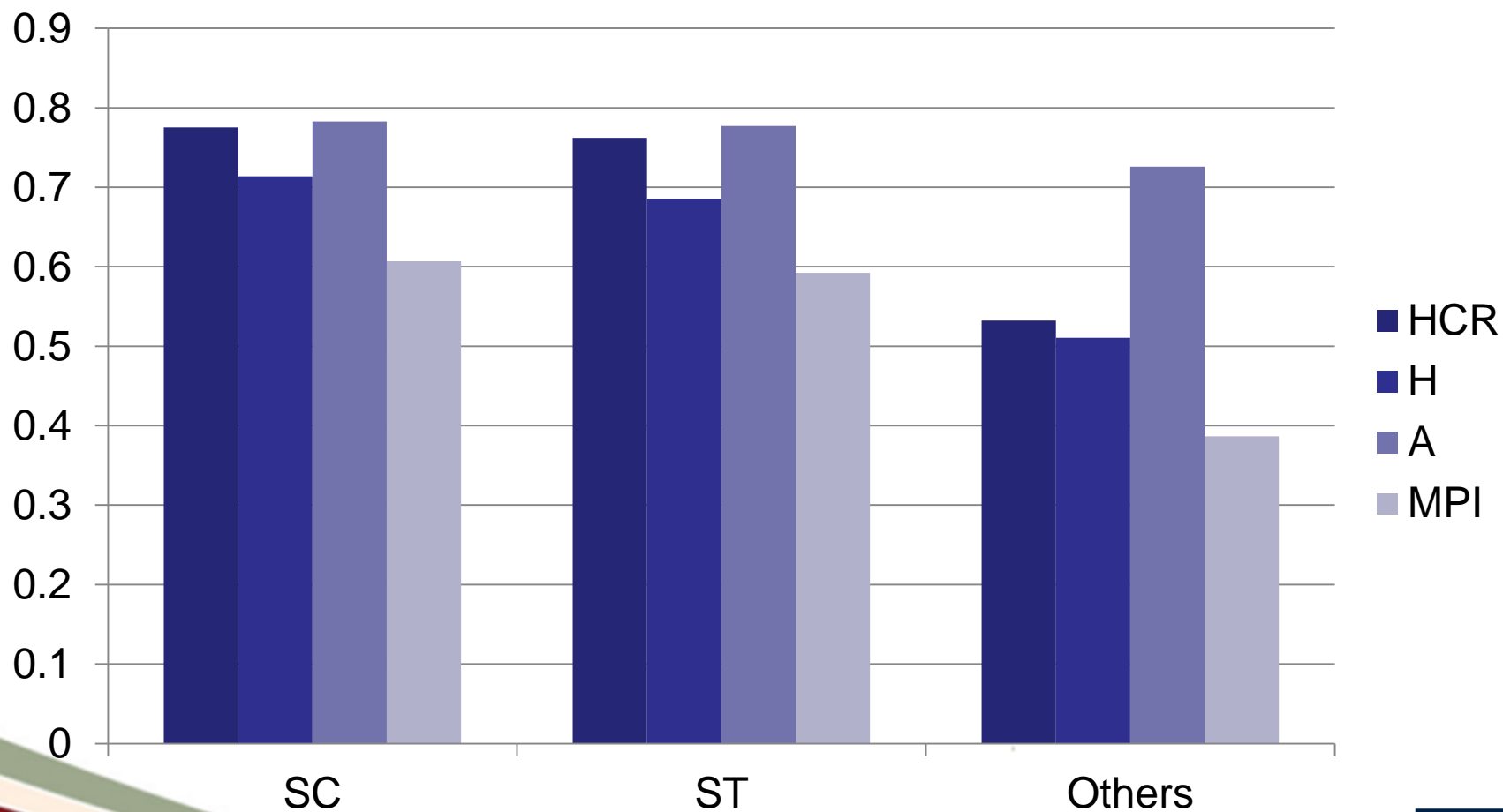
Comparison of Income POOR and MPI Poor : Round 66

Cut Off	MPI Poor Income non Poor	MPI non poor Income Poor	Both Poor
10 %	0.55	0	0.38
20 %	0.42	0	0.38
30 %	0.36	0	0.38
40%	0.16	0.01	0.38
50 %	0.07	0.02	0.37
60 %	0.04	0.08	0.31
70 %	0.01	0.25	0.14
80 %	0	0.3	0.09
90 %	0	0.32	0.06
100 %	0	0.36	0.03

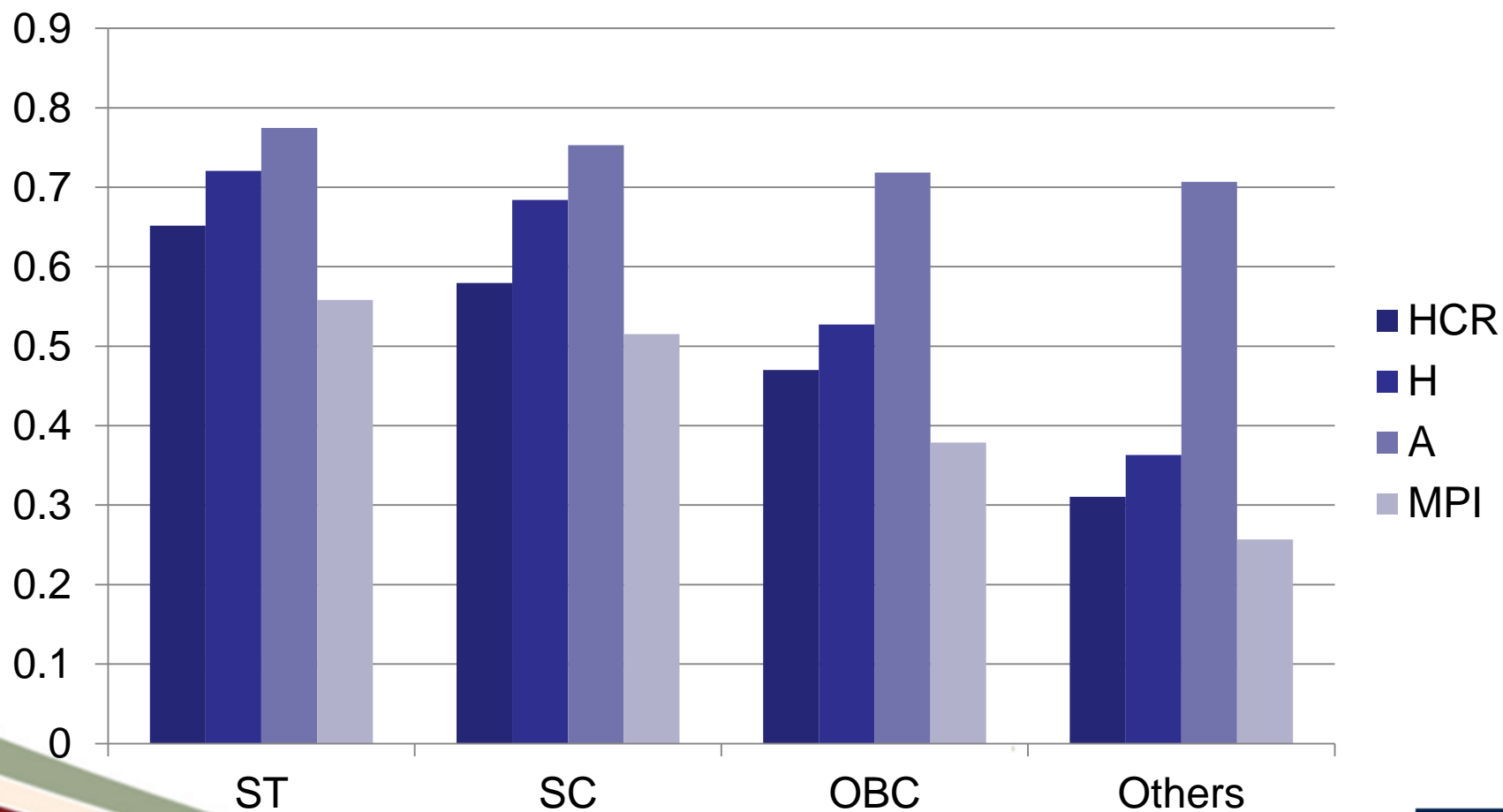
Poverty Across Social Groups : Round 43



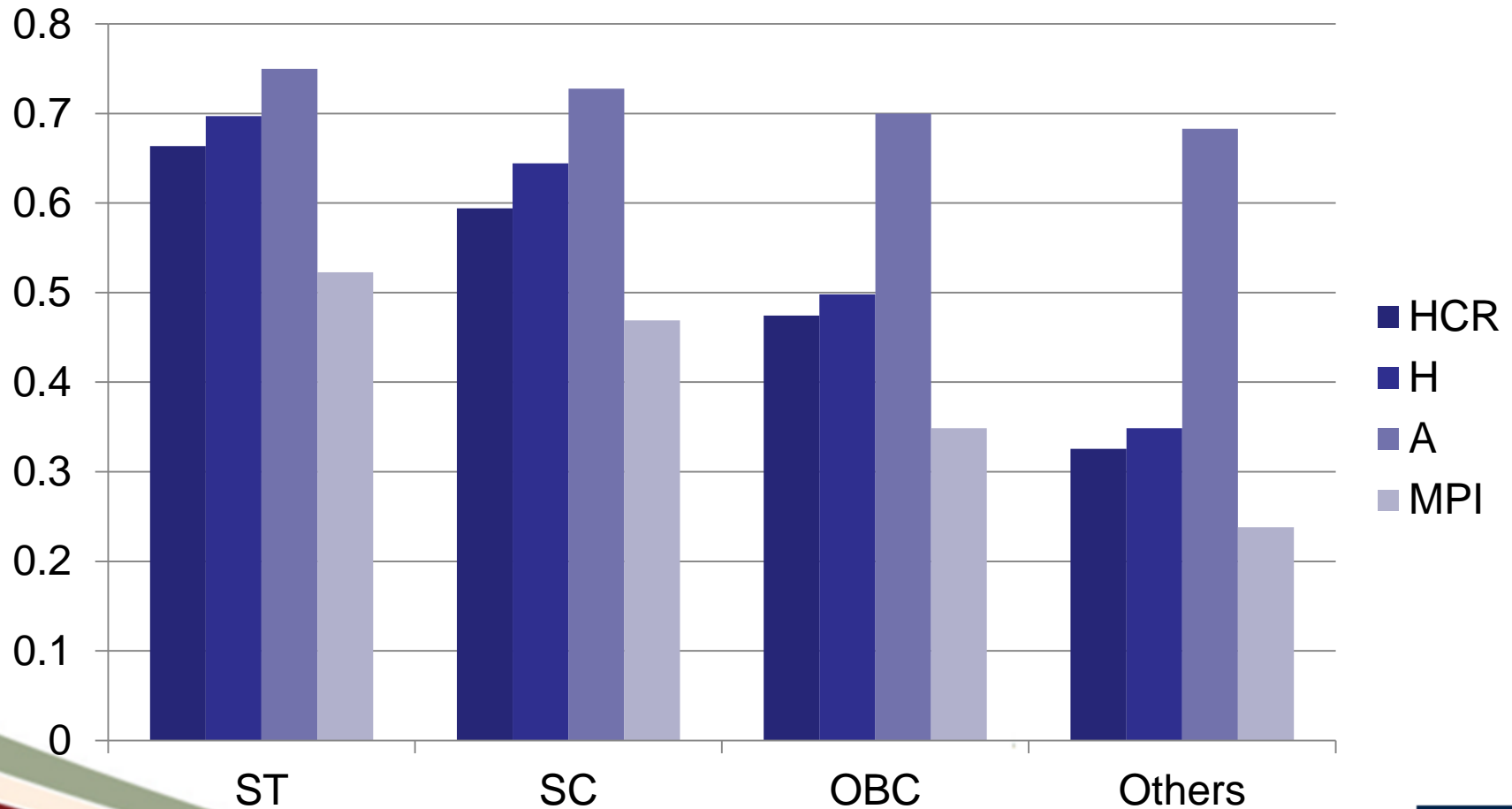
Poverty Across Social Groups : Round 50



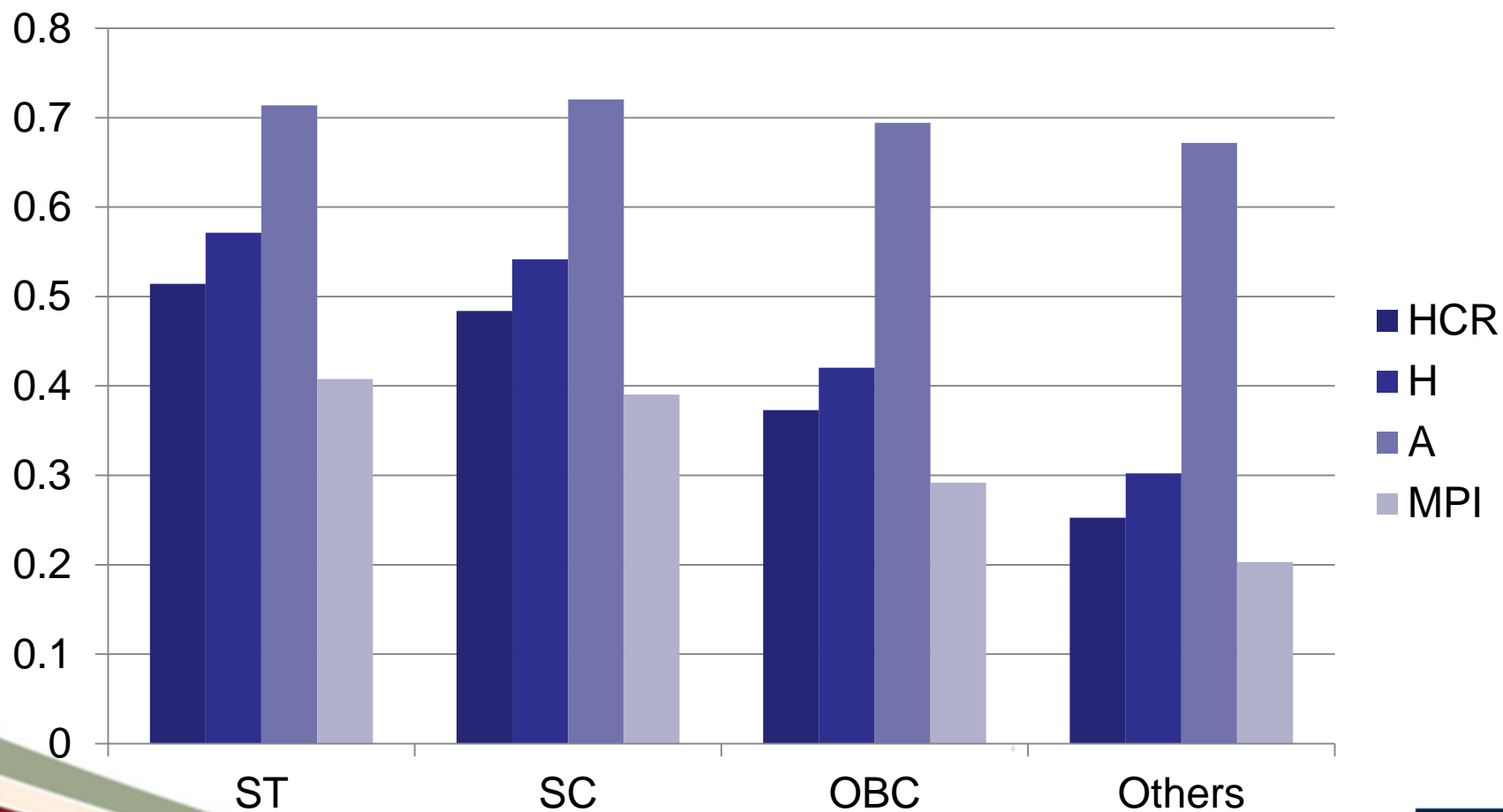
Poverty Across Social Groups : Round 55



Poverty Across Social Groups : Round 61



Poverty Across Social Groups : Round 66



MPI poor and income poverty by quintile : Round 43

Real PC Consumption Quintile	MPI Poor	Income Poor	MPI poor Income Non Poor	MPI non Poor Income Poor	Both Poor	Population Share
First Poorest)	0.98	1	0	0.02	0.98	20
Second	0.93	1	0	0.07	0.93	20
Third	0.81	0.95	0.01	0.15	0.79	20
Fourth	0.23	0	0.23	0	0	20
Fifth (Richest)	0.1	0	0.1	0	0	20
National	0.61	0.59	0.07	0.05	0.54	100

MPI poor and income poverty by quintile : Round 50

Real PC Consumption Quintile	MPI Poor	Income Poor	MPI poor Income Non Poor	MPI non Poor Income Poor	Both Poor	Population Share
First Poorest)	0.99	1	0	0.01	0.99	20
Second	0.94	1	0	0.06	0.94	20
Third	0.77	0.85	0.04	0.12	0.73	20
Fourth	0.22	0	0.22	0	0	20
Fifth (Richest)	0.11	0	0.11	0	0	20
National	0.61	0.57	0.07	0.04	0.53	100

MPI poor and income poverty by quintile : Round 55

Real PC Consumption Quintile	MPI Poor	Income Poor	MPI poor Income Non Poor	MPI non Poor Income Poor	Both Poor	Population Share
First Poorest)	0.99	1	0	0.01	0.99	20
Second	0.93	1	0	0.07	0.93	20
Third	0.46	0.3	0.2	0.03	0.26	20
Fourth	0.19	0	0.19	0	0	20
Fifth (Richest)	0.06	0	0.06	0	0	20
National	0.53	0.46	0.09	0.02	0.44	100

MPI poor and income poverty by quintile : Round 61

Real PC Consumption Quintile	MPI Poor	Income Poor	MPI poor Income Non Poor	MPI non Poor Income Poor	Both Poor	Population Share
First Poorest)	0.98	1	0	0.02	0.984965	20
Second	0.93	1	0	0.07	0.929451	20
Third	0.47	0.41	0.11	0.05	0.352748	20
Fourth	0.13	0	0.13	0	0	20
Fifth (Richest)	0.04	0	0.04	0	0	20
National	0.51	0.48	0.06	0.03	0.453507	100

MPI poor and income poverty by quintile : Round 66

Real PC Consumption Quintile	MPI Poor	Income Poor	MPI poor Income Non Poor	MPI non Poor Income Poor	Both Poor	Population Share
First Poorest)	0.97	1	0	0.03	0.97	20
Second	0.87	0.92	0.02	0.07	0.85	20
Third	0.18	0	0.18	0	0	20
Fourth	0.11	0	0.11	0	0	20
Fifth (Richest)	0.04	0	0.04	0	0	20
National	0.44	0.38	0.07	0.02	0.37	100

M₀ and income poverty by household size

NSSO 43rd Round

Household Size	MPI Poor	Income Poor	MPI Poor Income Nonpoor	Income Poor MPI Nonpoor	Both Poor	Population Share
1	0.48	0.27	0.21	0.01	0.26	0.97
2	0.57	0.35	0.23	0.01	0.34	3.55
3	0.60	0.47	0.15	0.02	0.45	7.10
4	0.61	0.53	0.11	0.02	0.50	13.08
5	0.63	0.60	0.07	0.04	0.56	17.21
6	0.63	0.62	0.05	0.05	0.58	16.52
>=7	0.60	0.64	0.03	0.07	0.57	41.56
National	0.61	0.59	0.07	0.05	0.54	100

M₀ and income poverty by household size NSSO 50th Round

Household Size	MPI Poor	Income Poor	MPI Poor Income Nonpoor	Income Poor MPI Nonpoor	Both Poor	Population Share
1	0.52	0.30	0.23	0.003	0.29	0.98
2	0.58	0.36	0.23	0.008	0.36	4.19
3	0.57	0.43	0.16	0.013	0.41	7.91
4	0.59	0.50	0.11	0.021	0.48	15.10
5	0.62	0.57	0.08	0.028	0.54	19.03
6	0.64	0.62	0.06	0.035	0.59	16.96
>=7	0.61	0.64	0.03	0.058	0.58	35.84
National	0.61	0.57	0.07	0.037	0.53	100

M₀ and income poverty by household size NSSO 55th Round

Household Size	MPI Poor	Income Poor	MPI Poor Income Nonpoor	Income Poor MPI Nonpoor	Both Poor	Population Share
1	0.45	0.17	0.29	0.001	0.16	0.82
2	0.48	0.21	0.27	0.002	0.21	3.55
3	0.46	0.28	0.18	0.006	0.28	7.19
4	0.47	0.35	0.13	0.008	0.34	14.76
5	0.53	0.44	0.10	0.015	0.43	18.80
6	0.57	0.52	0.07	0.020	0.50	16.64
>=7	0.55	0.55	0.04	0.039	0.51	38.24
National	0.53	0.46	0.09	0.023	0.44	100

M₀ and income poverty by household size NSSO 61st Round

Household Size	MPI Poor	Income Poor	MPI Poor Income Nonpoor	Income Poor MPI Nonpoor	Both Poor	Population Share
1	0.42	0.24	0.21	0.019	0.22	1.00
2	0.45	0.25	0.20	0.007	0.25	4.07
3	0.43	0.33	0.12	0.010	0.32	7.76
4	0.44	0.38	0.08	0.018	0.36	16.46
5	0.50	0.46	0.05	0.022	0.44	19.38
6	0.55	0.53	0.04	0.028	0.51	16.62
>=7	0.56	0.58	0.02	0.042	0.54	34.71
National	0.51	0.48	0.06	0.028	0.45	100

M₀ and income poverty by household size NSSO 66th Round

Household Size	MPI Poor	Income Poor	MPI Poor Income Nonpoor	Income Poor MPI Nonpoor	Both Poor	Population Share
1	0.40	0.17	0.25	0.018	0.15	1.00
2	0.41	0.17	0.25	0.004	0.17	4.56
3	0.33	0.20	0.13	0.008	0.20	8.67
4	0.36	0.28	0.09	0.008	0.27	18.74
5	0.42	0.38	0.05	0.019	0.36	20.49
6	0.47	0.44	0.05	0.021	0.42	16.53
>=7	0.51	0.51	0.03	0.028	0.48	30.01
National	0.44	0.38	0.07	0.018	0.37	100

Recall error and MPI

- We would like to check the effects of recall error on Head Count Ratio (Income Poverty), H and A for 61st and 66th rounds.
- We consider MPCE for mixed recall period and MPCE for uniform recall period of 30 days.

Recall Type	HCR Round 61	HCR Round 66
MRP	0.418	0.340
URP	0.482	0.384

Recall Error and MPI : Round 61

Cut Off	H_MRP	H_URP	diff_H	M0_MRP	M0_URP	diff_M0
1 %	0.99	0.99	-6E-05	0.47	0.49	-0.01601
11 %	0.92	0.93	-0.001	0.47	0.48	-0.01606
21 %	0.78	0.79	-0.009	0.45	0.46	-0.01741
31 %	0.73	0.74	-0.0165	0.43	0.45	-0.01927
41 %	0.55	0.59	-0.0355	0.37	0.4	-0.02571
51 %	0.42	0.46	-0.0386	0.31	0.34	-0.02689
61 %	0.37	0.4	-0.0286	0.28	0.3	-0.02127
71 %	0.18	0.19	-0.0121	0.16	0.17	-0.01045
81 %	0.12	0.13	-0.0089	0.11	0.12	-0.00808
91 %	0.08	0.09	-0.0046	0.08	0.08	-0.0044

Recall Error and MPI : Round 66

Cut Off	H_MRP	H_URP	diff_H	M0_MRP	M0_URP	diff_M0
1 %	0.99	0.99	0	0.45	0.46	-0.01124
11 %	0.93	0.93	-0.0009	0.44	0.46	-0.0113
21 %	0.8	0.8	-0.0058	0.42	0.44	-0.01215
31 %	0.74	0.75	-0.0101	0.41	0.42	-0.01321
41 %	0.51	0.53	-0.0264	0.33	0.35	-0.01888
51 %	0.37	0.4	-0.0307	0.27	0.29	-0.02064
61 %	0.32	0.34	-0.0234	0.24	0.26	-0.01655
71 %	0.14	0.14	-0.0066	0.12	0.12	-0.00556
81 %	0.08	0.09	-0.0042	0.08	0.08	-0.00378
91 %	0.06	0.06	-0.0022	0.06	0.06	-0.00207

Multidimensional Poverty And GDP

- Consider the following Panel Data regression equation
- $\log(\text{MPI}_{it}) = \alpha_{1i} + \beta_1 \times \log(\text{GDP}_{it}) + u_{it} \dots (1)$
- $\log(\text{H}_{it}) = \alpha_{2i} + \beta_2 \times \log(\text{GDP}_{it}) + u_{it} \dots (2)$
- $\log(\text{A}_{it}) = \alpha_{3i} + \beta_3 \times \log(\text{GDP}_{it}) + u_{it} \dots (3)$
- $\log(\text{HCR}_{it}) = \alpha_{4i} + \beta_4 \times \log(\text{GDP}_{it}) + u_{it} \dots (4)$

where MPI, H, A follows usual notation and for i th state and for the t th round.

Poverty Elasticity w.r.t GDP

- β_k in the above equation represents elasticity of poverty w.r.t GDP. It is expected that β for multidimensional poverty indices would vary as a result of choice of Poverty Cut off.

Elasticity Coefficients

- Dependent Variable is MPI

Coefficient	Cut Off=30%	Cut Off=40%	Cut Off=50%	Cut Off=60%
β	-0.29	-0.46	-0.63	-0.65
intercept	5.92	7.07	8.18	4.01

- Dependent Variable is H

Coefficient	Cut Off=30%	Cut Off=40%	Cut Off=50%	Cut Off=60%
β	-0.09	-0.34	-0.56	-0.57
intercept	4.96	6.51	8.00	7.8

Elasticity Coefficients Contd

- Dependent Variable is A

Coefficient	Cut Off=30%	Cut Off=40%	Cut Off=50%	Cut Off=60%
β	-0.20	-0.13	-0.07	-0.09
Intercept	5.60	5.17	4.80	4.98

- NB: All coefficients are at significant 1% level. R square between and over all is also reasonable.

Conclusion

- Poverty in Rural India from different NSSO rounds has decreased over time.
- Correlation among different dimensions remained almost same for all the rounds.
- Contributions of different indicators also did not varied much.
- Poverty is highest among the SC ST groups for all the rounds. This is similar to income Poverty findings.

Conclusion Contd

- Economies of scale plays an important role in the analysis of income poverty. Income Poverty increases with the increase of household size. This phenomenon is not always observed in the case of multidimensional Poverty.
- Effects of Recall error is not so high for MPI but for H it is almost similar to HCR.

Conclusion Contd

- Multidimensional poverty and GDP are inversely related however effect of GDP on multidimensional poverty decreases with increase of Poverty cut off.