

## Appendix A: Consumption quintiles

Consumption quintiles are used to distinguish the population according to their welfare: poorest households are grouped together into the 1st quintile, those with higher consumption into the 2nd quintile, and so on. Five quintiles rank the population from the poorest 20% to the richest 20%. The main aim of quintile is to analyse how social and economic indicators change in relation to people's welfare. For instance, the government wants to know whether poorer households have access to basic services (immunization, schools, safe water etc.) or whether there are significant differences between the poor and the rich. Furthermore, policy makers are interested to know how consumption patterns and income sources of poorer households are different from those of richer households. Estimates by quintiles describe distributional differences, thus representing an important tool of analysis.

Quintiles are calculated for the four provinces together (Punjab, Sindh, NWFP and Balochistan) so that the first quintile contains in it households from all provinces with the same welfare. However, if one province is relatively richer than others its population will not be evenly distributed in each quintile, but mostly concentrated in the higher quintiles. In fact, only at the overall level each quintile contains 20% of the population, but in urban areas, where people usually are richer, upper quintiles contain higher population percentages, and the opposite is true in rural areas (see table 2 and 3).

Consumption expenditure is used as a proxy to assess people's welfare. Expenditure is calculated at the household level but it is adjusted by household size( see table 4) and its composition. This adjustment is necessary to assess a proper ranking of households. Reasons can become clear with some examples. Imagine two households both with a monthly consumption expenditure of Rs. 3000. However, it would be wrong to say that both households enjoy the same welfare without considering their household size and composition. For instance, one household may be composed of one single individual whereas the other of five people.

**TABLE 1:-RANGES OF PER CAPITA CONSUMPTION EXPENDITURE FOR CONSUMPTION QUINTILES**

Quintiles	1 <sup>ST</sup>	2 <sup>ND</sup>	3 <sup>RD</sup>	4 <sup>TH</sup>	5 <sup>TH</sup>
<b>Ranges of Per Capita Consumption Expenditure</b>	Upto Rs.1067	Rs. 1068 To Rs. 1358	Rs. 1359 To Rs. 1724	Rs. 1725 To Rs 2398	Rs. 2399 And above

The following tables summarise some important information about quintiles:-

**TABLE 2. DISTRIBUTION OF NUMBER OF HOUSEHOLDS BY PROVINCE, REGION AND QUINTILES**

REGION AND PROVINCE	1 <sup>st</sup> QUINTILE	2 <sup>nd</sup> QUINTILE	3 <sup>rd</sup> QUINTILE	4 <sup>th</sup> QUINTILE	5 <sup>th</sup> QUINTILE	OVERALL
<b>URBAN AREAS</b>	<b>545</b>	<b>813</b>	<b>1,054</b>	<b>1,380</b>	<b>2,463</b>	<b>6,255</b>
Punjab	218	293	419	597	1,241	2,768
Sindh	102	207	275	384	704	1,672
NWFP	90	150	195	263	351	1,049
Balochistan	135	163	165	136	167	766
<b>RURAL AREAS</b>	<b>2,032</b>	<b>2,025</b>	<b>2,014</b>	<b>1,863</b>	<b>1,323</b>	<b>9,257</b>
Punjab	736	687	769	894	782	3,868
Sindh	517	550	493	369	164	2,093
NWFP	291	415	467	410	305	1,888
Balochistan	488	373	285	190	72	1,408
<b>OVERALL</b>	<b>2,577</b>	<b>2,838</b>	<b>3,068</b>	<b>3,243</b>	<b>3,786</b>	<b>15,512</b>
Punjab	954	980	1,188	1,491	2,023	6,636
Sindh	619	757	768	753	868	3,765
NWFP	381	565	662	673	656	2,937
Balochistan	623	536	450	326	239	2,174

**TABLE 3. PERCENTAGE OF POPULATION BY PROVINCE, REGION AND QUINTILES**

REGION AND PROVINCE	1 <sup>st</sup> QUINTILE	2 <sup>nd</sup> QUINTILE	3 <sup>rd</sup> QUINTILE	4 <sup>th</sup> QUINTILE	5 <sup>th</sup> QUINTILE	OVERALL
<b>URBAN AREAS</b>	<b>10.20</b>	<b>15.23</b>	<b>18.12</b>	<b>23.12</b>	<b>33.34</b>	<b>100</b>
Punjab	10.43	13.63	17.15	23.65	35.14	100
Sindh	7.96	16.26	18.85	23.07	33.86	100
NWFP	11.19	19.21	20.35	23.73	25.52	100
Balochistan	23.70	21.59	21.62	15.26	17.83	100
<b>RURAL AREAS</b>	<b>24.89</b>	<b>22.26</b>	<b>20.83</b>	<b>18.41</b>	<b>13.61</b>	<b>100</b>
Punjab	23.20	18.86	20.13	20.34	17.47	100
Sindh	31.85	28.64	20.82	13.63	5.06	100
NWFP	18.01	25.05	24.21	19.75	12.97	100
Balochistan	42.09	28.78	17.42	9.15	2.55	100
<b>OVERALL</b>	<b>20.07</b>	<b>19.95</b>	<b>19.94</b>	<b>19.96</b>	<b>20.09</b>	<b>100</b>
Punjab	19.18	17.21	19.20	21.38	23.03	100
Sindh	20.70	22.86	19.90	18.03	18.50	100
NWFP	16.88	24.09	23.58	20.41	15.04	100
Balochistan	36.93	26.76	18.60	10.87	6.84	100

**TABLE 4. AVERAGE HOUSEHOLD SIZE BY PROVINCE, REGION AND QUINTILES**

<b>REGION AND PROVINCE</b>	<b>1<sup>st</sup> QUINTILE</b>	<b>2<sup>nd</sup> QUINTILE</b>	<b>3<sup>rd</sup> QUINTILE</b>	<b>4<sup>th</sup> QUINTILE</b>	<b>5<sup>th</sup> QUINTILE</b>	<b>OVERALL</b>
<b>URBAN AREAS</b>	<b>9.11</b>	<b>8.26</b>	<b>7.30</b>	<b>6.37</b>	<b>4.93</b>	<b>6.31</b>
Punjab	8.27	7.64	7.13	6.47	5.15	6.28
Sindh	10.36	8.94	7.33	6.05	4.46	6.04
NWFP	9.86	9.04	8.02	7.04	5.48	7.23
Balochistan	11.58	9.03	8.00	6.80	6.25	8.17
<b>RURAL AREAS</b>	<b>8.46</b>	<b>7.41</b>	<b>6.65</b>	<b>5.92</b>	<b>5.06</b>	<b>6.72</b>
Punjab	7.94	6.80	6.44	5.88	5.05	6.35
Sindh	9.11	7.67	6.30	5.10	4.41	6.97
NWFP	9.96	9.01	7.76	6.91	5.41	7.71
Balochistan	8.56	7.80	6.69	6.05	5.72	7.59
<b>OVERALL</b>	<b>8.57</b>	<b>7.61</b>	<b>6.83</b>	<b>6.08</b>	<b>4.99</b>	<b>6.58</b>
Punjab	7.98	6.98	6.61	6.06	5.09	6.32
Sindh	9.31	8.05	6.72	5.63	4.46	6.50
NWFP	9.94	9.01	7.79	6.94	5.43	7.63
Balochistan	8.98	8.05	7.06	6.33	6.10	7.75

### **Data quality**

After data collection, all questionnaires were analyzed at the headquarters of the Federal Bureau of Statistics in Islamabad. In order to reduce measurement errors, data entry programs used included a number of in built consistency checks, which alerted the data entry operators of inconsistencies, allowing the operators to immediately correct data entry mistakes.