

# Poverty, Shared Prosperity and Subjective Well-Being in Iraq

## 2

Over the five year period spanning 2007 and 2012, Iraq's GDP grew at a cumulative rate of over 40 percent, averaging 7 percent per year between 2008 and 2012. At the same time, Iraq's population grew by approximately 4 million persons, or at an annual rate of 2.5 to 3 percent. However, per capita real consumption, the basis for measuring poverty, grew at a rate of around 1.75 percent per year, or in cumulative terms, by only 9 percent over the five year period. High rates of GDP growth did not translate into commensurate consumption growth, and the latter was also unevenly distributed across the population and across the regions of Iraq. Consumption of the highest quintiles, the top 60 percent of the consumption distribution, grew faster than that of the lowest; consumption growth was faster in rural areas than in urban areas; and consumption grew slower in Baghdad and Kurdistan relative to the rest of Iraq. Overall, poverty headcount poverty rates fell from 23.6 percent in 2007 to 19.8 percent in 2012, a 3.8 percentage point decline.

Poverty in Iraq is significantly higher among larger households, those with less educated heads, and varies by the employment sector of the head of household. Household size and composition, the education and sector of work (in general) of the head of household and the location of the household are all strong determinants of consumption and poverty. While public sector jobs are in general associated with a lower probability of poverty, households dependent on agriculture and construction are as likely to be poor compared to households with heads who are unemployed or out of the labor force.

Poverty reduction has been spatially uneven. Rural poverty fell by 8 percentage points, compared with the much smaller decline of 2.5 percentage points in urban areas. While there was little discernable improvement in poverty in Baghdad and Kurdistan, in the remaining 14 governorates of the country taken together, headcount rates fell significantly. 70 percent of those in the bottom 40 percent of the population live in these governorates, with Baghdad accounting for another 20 percent. The pattern of poverty reduction has been accompanied by a greater spatial concentration of poverty. In 2007, half of Iraq's poor lived in five governorates—Baghdad, Basra, Nineveh, Babylon and Thi-Qar. By 2012, while Baghdad's share of the poor remained unchanged at around 19 percent, Nineveh almost doubled its share to 15.7 percent. Three southern governorates, Thi-Qar, Qadisiya and Misan, now account for almost a quarter of the country's poor. In 2012, 58 percent of Iraq's poor lived in these five governorates, compared to 40 percent in 2007.

Subjective measures of wellbeing and welfare highlight the different elements that the Iraqi people take into account when evaluating their own welfare, elements that go beyond consumption and income. Overall, headcount rates based on consumption are fairly similar to those based on the minimum income question and on life satisfaction, while poverty as measured by subjective well-being is higher at 26 percent. In rural areas, 20 percent of individuals report being dissatisfied with their lives, 24 percent have lower per capita consumption than their estimated basic income needs, while more than 30 percent are poor based on the

consumption poverty line or assess that their household is poor or very poor. In urban areas, while consumption poverty headcount rates are relatively low, other measures of poverty are significantly higher.

In determining subjective self-assessments of poverty status, the largest weight is placed on lack of consumption or income, with smaller but relatively equal weight on educational deprivation or on place of residence. In contrast, dissatisfaction with life appears to be driven more by where an individual lives, reflecting the additional importance of location specific factors including security concerns, local labor market conditions and service delivery. Using these deprivations to construct a multidimensional index of deprivation; headcount rates would be higher than as measured by consumption poverty—25.6 percent if derived from the subjective poverty measure and 28.4 percent if the life (dis)satisfaction measure were used (compared to 19.8 percent consumption poverty) in 2012.

### GDP and Consumption Growth in Iraq: 2007–2012

Over the five year period spanning 2007 and 2012, Iraq's GDP grew at a cumulative rate of over 40 percent, and averaged an annual rate of 7 percent between 2008 and 2012 (Figure 9). At the same time, Iraq's population grew by approximately 4 million persons, or at an annual rate of 2.5 to 3 percent.<sup>13</sup> However, per capita real consumption, the basis for measuring poverty, grew at a rate of around 1.75 percent per year, or in cumulative terms, by only 9 percent over the five year period (Table 1).

Not only did these high rates of GDP growth not translate into commensurate consumption growth, the latter was also unevenly distributed across the population and across the regions of Iraq. Consumption of the highest quintiles, the top 60 percent of the consumption distribution, grew faster than that of the lowest (Table 1). For instance, the top 40 percent of the consumption distribution experienced annual growth in real per capita consumption of almost 2 percent, compared with 0.7 percent

FIGURE 9: Annual GDP Growth in Iraq, 2007–2012 (%)



Source: World Development Indicators, 2012.

TABLE 1: Mean Per Capita Consumption Expenditure

	2007	2012	Percentage change	Annual change
<b>Urban/Rural</b>				
Urban	191.1	207.7	8.6	1.67
Rural	133.7	152.9	14.4	2.72
<b>Region</b>				
1 Kurdistan	277.9	279.0	0.4	0.08
2 Baghdad	184.0	201.4	9.5	1.83
3 Rest of Iraq	150.2	167.8	11.7	2.24
<b>Quintiles</b>				
Lowest quintile	80.9	83.7	3.5	0.69
2	116.9	124.9	6.8	1.33
3	149.1	162.5	9.0	1.73
4	193.2	214.1	10.8	2.08
Highest quintile	332.7	366.5	10.2	1.95
<b>Total</b>	<b>174.6</b>	<b>190.4</b>	<b>9.0</b>	<b>1.75</b>

Source: Authors' calculations, IHSES 2007 and 2012.

for the bottom 20 percent. On the other hand, consumption grew faster where levels of consumption were lower to start with—outside Baghdad and Kurdistan, by 2.24 percent per annum; and in rural parts of the country, by 2.7 percent per year.

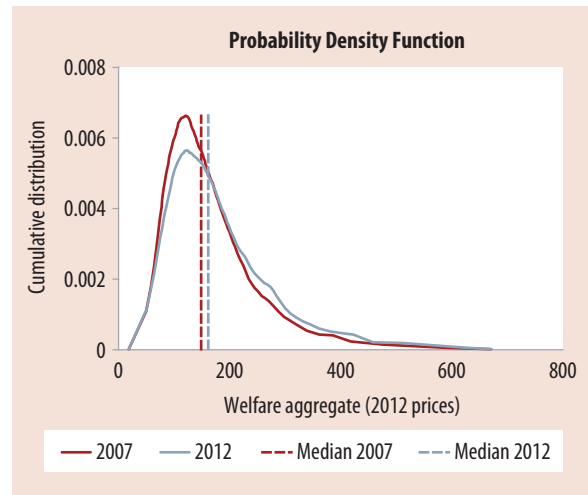
<sup>13</sup> Per capita GDP grew by 24 percent during 2007–2012.

The distribution of the welfare or consumption aggregate over time reveals improvements in welfare in line with the increase in mean per capita consumption expenditure. Figure 10 plots the poverty incidence curve, which is the cumulative distribution of the welfare or consumption aggregate for 2007 (in red) and 2012 (in blue). For any possible and reasonable value of the consumption aggregate chosen as the poverty line, the distribution of consumption in 2012 lies to the right of that of 2007, implying lower rates of poverty in 2012. Figure 11 on the right panel plots the probability density function of the welfare aggregate in the two years, and clearly shows, in line with Figure 10, the increase in median consumption over time.

### Measuring Poverty in Iraq

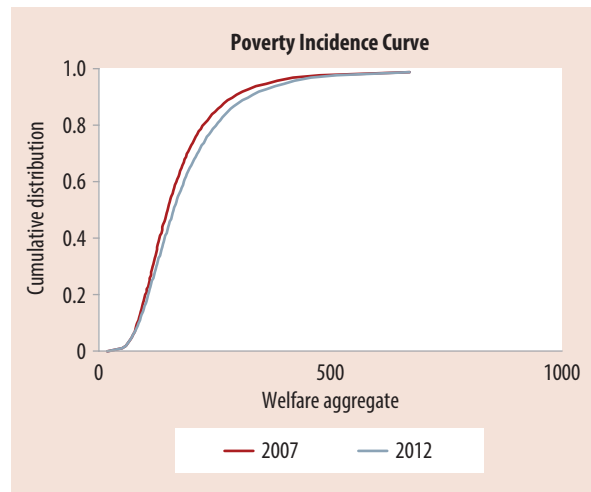
Iraq uses an “absolute” poverty line, which fixes a welfare threshold and is based on the Cost of Basic Needs approach (CBN). The CBN approach as applied in Iraq defines the poverty line as the level of expenditure that allows the households to spend just enough on food to meet a certain caloric threshold, and just enough to meet basic non-food needs. The total poverty line is therefore calculated by adding

**FIGURE 11:** Probability Density – Welfare Aggregate, 2007 and 2012



Source: Authors' calculations, IHSES 2007 and 2012.

**FIGURE 10:** Cumulative Distribution – Welfare Aggregate, 2007 and 2012



Source: Authors' calculations, IHSES 2007 and 2012.

up a food poverty line and a non-food poverty line (For more details, see Annex Chapter 2).

The food poverty line in Iraq was fixed at a level equivalent to the expenditures needed to meet a minimal nutritional intake of 2337 calories per person per day, or ID 50,473.26 per person per month in 2012. In order to better account for the increasingly important differences in consumption expenditure across space in terms of non-food items—for instance, clothing and shelter—we allow the non-food allowances to vary by three regions in Iraq—Baghdad, Kurdistan and the rest of Iraq. This implies that for a given national food poverty line, for each region, the corresponding non-food allowances are defined according to the distribution of consumption within that particular region.

The official poverty line in Iraq is defined at the national level, i.e., the non-food allowance is defined in accordance to the national non-food consumption patterns and distribution. In contrast to using a single national non-food allowance, in this report, and as agreed with the government, we allow for regional variation in defining the non-food allowances, so that in effect, we use three regional poverty lines. As a result, and as we show in the next section, the

primary implication of adopting regional poverty lines as opposed to a single national line is that the levels of poverty in Baghdad, and to a larger extent, Kurdistan, are higher; while there is little difference for the 14 governorates comprising the rest of Iraq. In addition, the choice of national or regional poverty lines does not alter the trends in poverty at the national, regional or governorate level; and for the parts of the country significant changes in poverty were experienced, the magnitude of these changes is similar irrespective of the approach adopted.

Table 2 shows the resulting food and total poverty lines, using the regional as well as the national approach. Both regional and national poverty lines include the same food poverty line. However, allowing for regional variation in the cost of basic non-food items implies higher poverty lines for Baghdad and especially for Kurdistan, relative to the national non-food allowance, while there is little difference for the Rest of Iraq.

In the next section, we explore levels and trends in poverty, and show that over and above level differences in headcount rates for Kurdistan and Baghdad, both approaches yield similar findings in patterns and trends of poverty. One consequence of the use of regional poverty lines is that the distribution of the poor across the consumption distribution is no longer equivalent to the bottom 2 deciles of the consumption distribution, or strictly speaking, the bottom 19.8 percent of the consumption distribution. This is because poverty when using the regional lines assumes a different threshold for each region, so that, for instance, someone in the third or

fourth consumption decile may still be counted as poor if their per capita real consumption expenditure fell below the cost of basic needs in the region where they live. Similarly, an individual belonging to the 41<sup>st</sup> percentile may be classified as poor because they live in Baghdad, whereas an individual living in the rest of Iraq belonging to the 40<sup>th</sup> percentile may not. In order to make appropriate comparisons across the consumption distribution, therefore, we use, where appropriate, an adjusted consumption aggregate, which rescales the welfare aggregate in each of the three regions, so that they are comparable under a single poverty threshold (which is a weighted average of the three regional poverty lines).<sup>14</sup> Thereafter, and throughout the rest of the report, the analysis uses only regional poverty lines, rather than the official lines as they better account for the important spatial differences in basic needs and welfare in Iraq.

## Poverty and Shared Prosperity in Iraq: 2007–2012

The improvement in the welfare distribution is reflected in the decline in poverty over the 2007 to 2012 period. Overall, headcount poverty rates, as measured using the regional poverty lines, fell from 23.6 percent in 2007 to 19.8 percent in 2012, a 3.8 percentage point decline. A similar trend is evident using the official poverty line, which records a decline in headcount rates from 22.4 percent in 2007 to 18.9 percent in 2012, a 3.5 percentage point decline.

In rural Iraq, poverty as measured by the regional lines declined by 8 percentage points, as compared with a much smaller decrease of 2.5 percentage points in urban areas. Given the presence of universal food subsidies delivered through the Public Distribution System (PDS), the low rates of food poverty are unsurprising (Table 3), although there has been little change in these rates, perhaps because of a decline

**TABLE 2: Poverty Lines (ID Per Person Per Month)**

	2007	2012
Food poverty line	35796.64	50473.26
Kurdistan poverty line	101000.50	142410.70
Baghdad poverty line	82223.19	115934.70
Rest of Iraq poverty line	72110.57	101675.90
National (Official) poverty line	74822.98	105500.40

<sup>14</sup> The adjusted consumption aggregate is used when comparisons across the consumption distribution are being made, for instance, in the analysis of inequality and consumption growth across different parts of the distribution.

TABLE 3: Overall Poverty (Regional Poverty Lines)

	Poverty Headcount Rate			Poverty Gap			Squared Poverty Gap		
	2007	2012	Change	2007	2012	Change	2007	2012	Change
<b>Total poverty line</b>									
Urban	17.4	14.8	-2.5	3.0	2.7	-0.2	0.8	0.8	0.0
Rural	38.9	30.6	-8.3	9.1	7.4	-1.7	3.1	2.6	-0.6
Total	23.6	19.8	-3.7	4.7	4.2	-0.5	1.5	1.3	-0.1
<b>Food poverty line</b>									
Urban	0.3	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rural	2.9	2.2	-0.6	0.4	0.3	-0.1	0.1	0.1	0.0
Total	1.0	0.9	-0.1	0.1	0.1	0.0	0.0	0.0	0.0

Source: Authors' calculations, IHSES 2007 and 2012.

in the number of items delivered through the PDS between 2007 and 2012. Other measures of poverty, such as the poverty gap and the squared poverty gap, did not change substantially over the 2007–2012 period (Figure 12). The poverty gap, which measures the average shortfall between the consumption of the poor and the poverty line, relative to the poverty line fell by only half a percentage point. The squared poverty gap, which is an average of the square of all consumption shortfalls, barely changed.

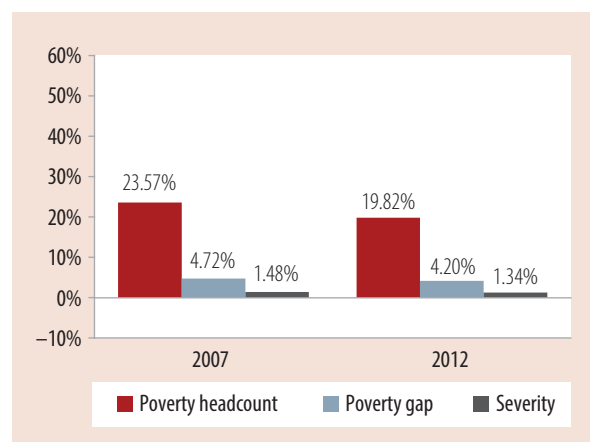
Poverty is shallow in Iraq: consumption is densely concentrated near the poverty line, and small

changes in the poverty line can lead to large changes in headcount rates (Table 4). In other words, a small increase or decrease in incomes and consumption can lead to large changes in the incidence of poverty. For instance, a five percent increase in the poverty line in 2012 would raise poverty by 16 percent, while a ten percent increase would raise poverty by more than 30 percent.

### Spatially Uneven Poverty Reduction

Although poverty has declined over the five year period, poverty reduction has been spatially uneven.

FIGURE 12: Poverty Headcount, Gap and Severity – Iraq: 2007–2012



Source: Authors' calculations, IHSES 2007 and 2012.

TABLE 4: Sensitivity of Headcount Poverty Rate with Respect to the Choice of Poverty Line

	2007		2012	
	Poverty Headcount Rate	Change from actual (%)	Poverty Headcount Rate	Change from actual (%)
Actual	23.6	0.0	19.8	0.0
+5%	26.6	12.6	23.0	16.0
+10%	30.8	30.8	26.1	31.5
+20%	38.5	63.1	32.6	64.6
-5%	19.6	-16.9	17.1	-13.7
-10%	15.9	-32.6	14.2	-28.5
-20%	10.0	-57.7	9.3	-53.3

Using the official (single national) poverty line, poverty in Baghdad shows little discernible change (12.6 percent in 2007 and 12 percent in 2012); while a small decline is recorded in Kurdistan (from 4.3 percent in 2007 to 3.5 percent in 2012). In the rest of Iraq, official headcount rates fell from 29.7 percent in 2007 to 24.4 percent in 2012.

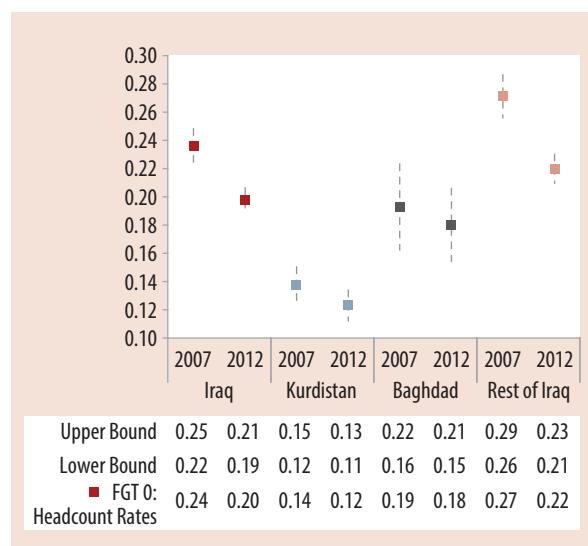
The same trend is evident when the regional lines are used. In Baghdad, by far the most populous governorate in the nation, poverty did not change significantly; and in the Kurdistan region, poverty declined, albeit at a small rate (Figure 13 and Table 5). In contrast, the rest of Iraq (RoI), comprising the 14 other governorates, registered a 5 percent decline in headcount rates. Recall that the national and regional poverty lines are very similar for the rest of Iraq; and consequently the levels and trends are almost identical irrespective of the line. For Baghdad and Kurdistan, the use of a regional non-food allowance takes into account higher expenditures required to fulfil basic non-food needs, and these higher poverty lines imply that the levels of poverty calculated using the regional lines are higher. However, using either approach, there is little perceptible change in

poverty in both regions. Thus, for the most part, significant changes in poverty were experienced in those governorates in Iraq where national and regional poverty lines are very similar.

Within the RoI, the poverty reduction record was very mixed. In the governorates south of Kurdistan and north of and around Baghdad—Diyala, Anbar, Babylon, Kerbala, Salahaddin, Najaf—poverty declined substantially, with the sole exception of Nineveh. In Nineveh and four of the southern governorates—Qadisiya, Muthanna, Thi-Qar and Missan, poverty increased significantly (Table A 2.1). Basra is the only southern governorate where poverty fell. Table A 2.2 shows estimates and trends of poverty at the governorate using the official national poverty line.

This pattern of poverty reduction has been accompanied by a greater spatial concentration of poverty. In 2007, half of Iraq's poor lived in five governorates—Baghdad, Basra, Nineveh, Babylon and Thi-Qar. By 2012, while Baghdad's share of the poor remained unchanged at around 19 percent, Nineveh almost doubled its share in the poor to 15.7 percent. Three southern governorates, Thi-Qar, Qadisiya and Missan, with 10 percent, 7 percent and 6.7 percent of the poor respectively, now account for almost a quarter of the country's poor. In 2012, 58 percent of Iraq's poor lived in these five governorates, compared to 40 percent in 2007.

**FIGURE 13:** Regional Poverty Headcount Rates, 2007–2012



Source: Authors' calculations, IHSES 2007 and 2012.

Although the rates of extreme poverty (the share of the population living on less than USD 1.25 a day, 2005 PPP) are low and have barely changed, hovering around 4 percent in 2007 and 2012, the spatial distribution of the extreme poor has altered considerably. In 2007, Nineveh, Diyala and Salahaddin together accounted for almost 35 percent of the extreme poor, with another 9 percent living in Muthanna. In 2012, Nineveh's share in the total population of Iraqis living below the \$1.25 a day line increased to 18 percent, while Qadisiya, Thi Qar, Muthanna and Missan together accounted for half of the extreme poor. Thus, the increase in poverty in Nineveh and the four southern governorates was accompanied by an increasing concentration of extreme poverty.

While some of these patterns and trends are due to increases in poverty within governorates, some part of the explanation also lies in changes in the distribution of the population. Despite its relatively lower poverty headcount rates, Baghdad contributes to a large share of Iraq's poor because it alone accounts for large share of the nation's population (Table 5). More than one in five Iraqis live in Baghdad, although in 2012, there appears to have been little population growth in Baghdad, which is reflected in a decline in the share of the population and the poor in urban areas relative to rural areas. In the three governorates of the Kurdistan region—Duhok, Suleimaniya and Erbil, small increases in the share of the poor have been accompanied by large increases in population in these governorates over the last five years. These changes in population are likely a result of population growth and voluntary and involuntary flows, a combination of return migration in response to improved local conditions and displacement as a result of deteriorating security and economic conditions in other parts of Iraq. In the absence of census data, it is difficult to disentangle these flows, yet it is notable that survey estimates suggest Kurdistan added 1 million additional persons between 2007 and 2012.

Breaking down poverty rates within regions by urban and rural areas, it becomes apparent that rural parts of Kurdistan and the RoI made significant gains in poverty reduction, relative to urban areas in the two regions, which saw small changes in headcount rates. In rural Kurdistan, which accounts for 20 percent of Kurdistan's population, poverty fell by 9 percentage points, from 32 percent to 23 percent. Poverty in rural parts of the rest of Iraq, where 40 percent of the region's population lives, fell by 10 percentage points. In contrast, in Baghdad, rural poverty increased by 15 percentage points, doubling to 33 percent by 2012. At the same time, the share of the rural population in Baghdad almost doubled to 13 percent.

Within the RoI, in the governorates where poverty increased, by and large, rural poverty rose faster than urban poverty. In contrast, in the governorates where poverty fell, rural areas witnessed larger reductions in poverty. Of the five governorates where headcount rates increased—Qadisiya, Thi Qar, Misan, Muthanna and Nineveh—in four, rural poverty increased at a higher rate than urban poverty over the 2007–2012 period. The exception was Muthanna, where increases in poverty came entirely from urban areas. Barring Nineveh, rural areas account

**TABLE 5:** Population and Poor Population, by Region, 2007–2012

	Population	Distribution of the Population	Poor population	Distribution of the Poor
<b>All Iraq</b>				
2007	29,752,018	100%	7,013,294	100.0%
2012	34,043,890	100%	6,748,588	100.0%
<b>Kurdistan</b>				
2007	3,839,102	13%	528,656	7.5%
2012	4,732,818	14%	584,394	8.7%
<b>Baghdad</b>				
2007	6,971,005	23%	1,345,808	19.2%
2012	7,213,046	21%	1,301,363	19.3%
<b>Rest of Iraq</b>				
2007	18,941,911	64%	5,138,751	73.3%
2012	22,098,026	65%	4,862,825	72.1%

Source: Authors' calculations, IHSES 2007 and 2012.

for more than half the population in these governorates. Five governorates rapidly reduced poverty, at rates of 14 percentage points or more—Basra, Salahaddin, Diyala, Babylon and Kerbala. In each of these, rural areas recorded faster rates of decline in headcount rates than urban areas.

### Unequal Consumption Growth and Shared Prosperity

Between 2007 and 2012, consumption grew faster for Iraq's relatively better off, amongst the highest quintiles. But it also grew where consumption levels were lower to start with: in rural Iraq and in the RoI. While the consumption Gini coefficient for Iraq is relatively low and has increased by almost 3 percent over this period, the ratio between the consumption of the 90<sup>th</sup> percentile and the 10<sup>th</sup> percentile increased at a higher rate (Table 6). In rural areas, where consumption grew the fastest, the latter ratio has increased by 12 percent.

Increasing inequality is also evident in growth-incidence curves, which graph the growth rate of per capita consumption expenditure for each percentile of the population. For a given percentile, the height of the curve represents the growth in per capita expenditure for that percentile of the population. These curves assess how incomes change across

quintiles over time: if the growth rates of the lower quintiles are higher than those of the upper, consumption growth was pro-poor. This is not the case in Iraq.

With the exception of Kurdistan, consumption per capita grew faster for the well-off than for the less-well off, as is evident in the growth-incidence curves for Iraq as a whole and for the three regions (Figure 14). The same pattern is also evident in urban and rural Iraq. In contrast, the growth-incidence curves for Kurdistan are relatively flat, indicating that consumption grew evenly across the distribution, albeit not at a high positive rate.

Overall, poverty reduction in Iraq over the 2007 to 2012 period was driven by lower headcount rates in rural areas and in the Rest of Iraq, and primarily explained by the growth in consumption. While redistributive effects were relatively smaller, changes in inequality hampered poverty reduction. If there had been no change in the distribution of consumption relative to 2007, national poverty would have declined by 6 percentage points, rural poverty by 12.21 percentage points and poverty in the RoI by 8 percentage points (Figure 15).

The preceding insights of increasing inequality and slower consumption growth for the lower quintiles

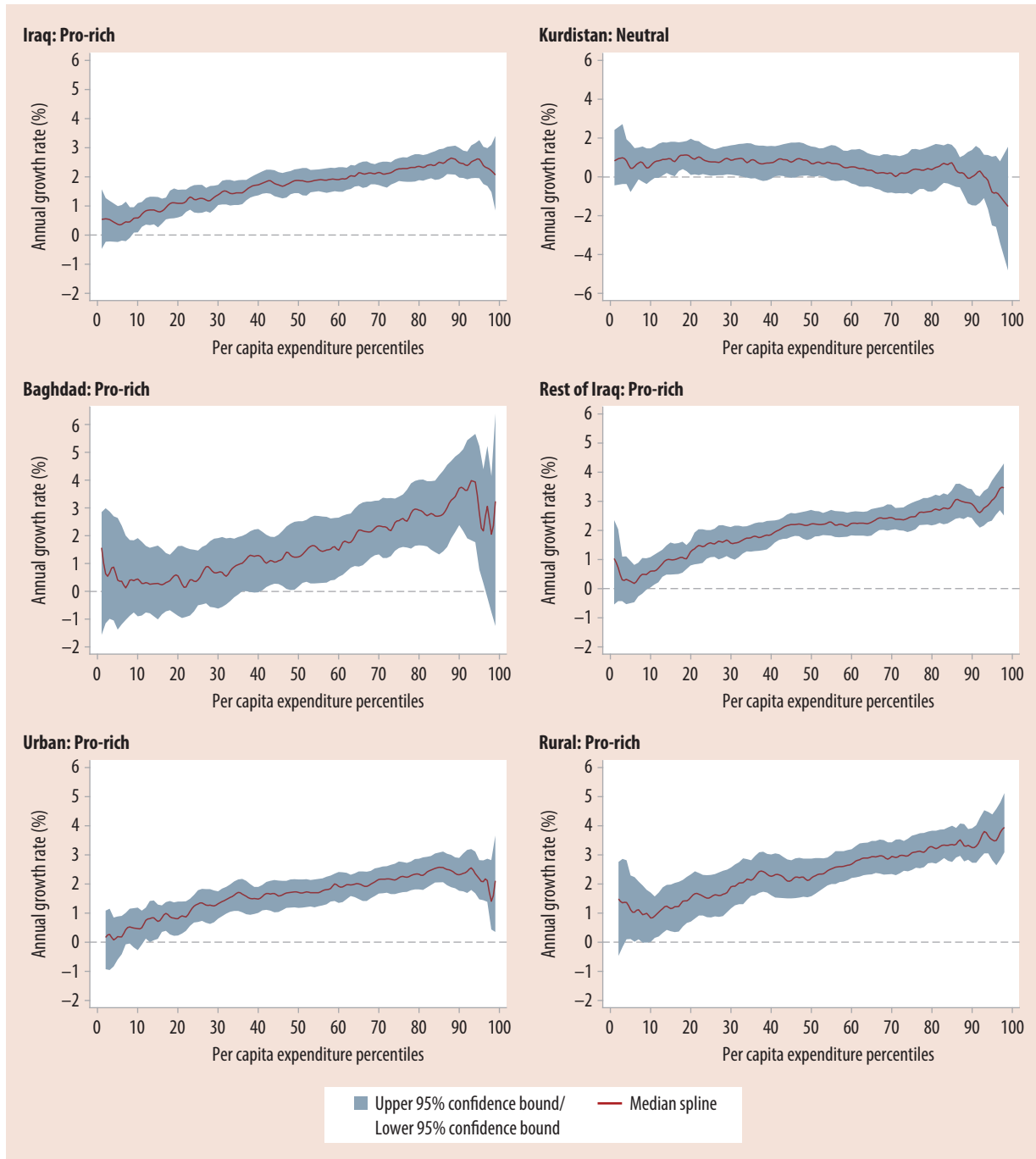
**TABLE 6:** Inequality in Per Capita Expenditure Distribution by Urban and Rural Areas

	Bottom Half of the Distribution		Upper Half of the Distribution		Interquartile Range p75/p25	Tails p90/p10	Gini
	p25/p10	p50/p25	p75/p50	p90/p75			
<b>Total</b>							
2007	1.28	1.33	1.36	1.36	1.81	3.15	26.49
2012	1.32	1.37	1.39	1.38	1.90	3.46	27.94
<b>Urban</b>							
2007	1.25	1.33	1.35	1.36	1.79	3.04	26.02
2012	1.30	1.36	1.38	1.36	1.87	3.33	27.39
<b>Rural</b>							
2007	1.28	1.33	1.31	1.33	1.75	2.97	24.23
2012	1.33	1.38	1.37	1.34	1.89	3.34	27.00

Source: Authors' calculations, IHSES 2007 and 2012.



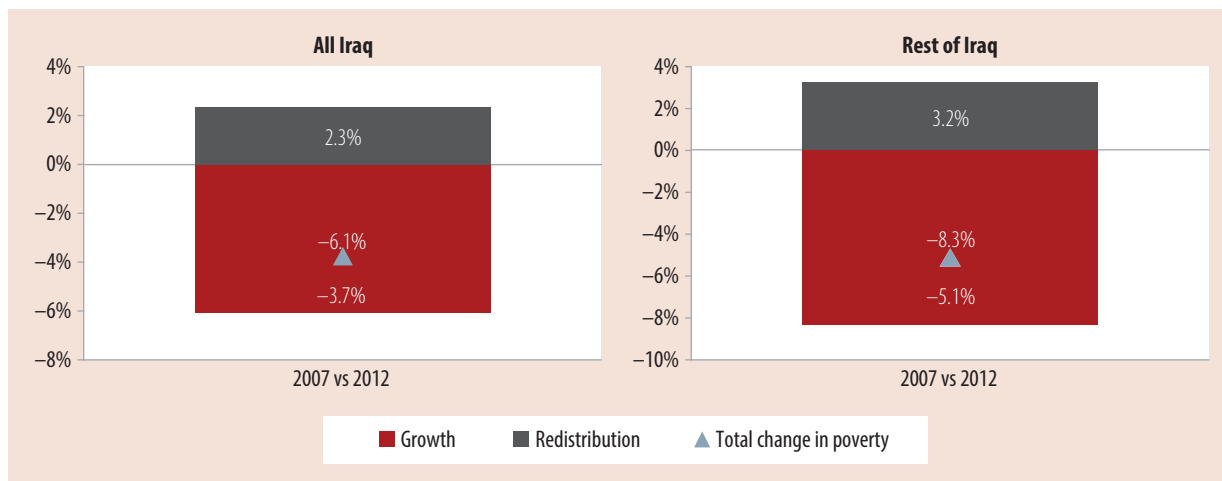
FIGURE 14: Growth Incidence Curves – National, Rural-Urban, Divisional



Source: Authors' calculations, IHSES 2007 and 2012.

can also be expressed in terms of ‘shared prosperity’. This measure tracks the consumption or income growth of the bottom 40 percent of the population relative to the consumption or income growth of the entire population.

The average consumption (in thousands of Iraqi dinar and in 2005 purchasing power parity adjusted Iraqi dinar) of the bottom 40 percent of the consumption distribution and of the population as a whole in 2007 and 2012 is shown in Table 7.

**FIGURE 15:** The Contribution of Growth and Redistribution to Poverty Reduction

Source: Authors' calculations, IHSES 2007 and 2012.

While consumption of the population as a whole grew at an average annual rate of 1.965 percent per annum, consumption for those in the bottom 4 deciles of the population grew slower, at 1.113 percent per year.<sup>15</sup>

Treating the per capita consumption of the 40<sup>th</sup> percentile as a relative poverty line, the population of Iraq can be divided into two categories: the bottom 40 and the top 60. Whereas nationally, the consumption of the total population grew by 9 percent over the 2007–2012 period, the consumption of the bottom 40 grew by a cumulative 5 percent, less than half the rate of growth of consumption of the top 60.

Where do the bottom 40 live? 70 percent of the population who are in the bottom 40 percent of distribution live in the rest of Iraq, with Baghdad accounting for 21 percent, and Kurdistan accounting

for close to 10 percent (Figure 16). However, a significant share of each region's population belongs to the national bottom 40 percent. 43 percent of the population of the rest of Iraq belongs to the bottom 40 percent, as does 39 percent of Baghdad's population and 29 percent of Kurdistan's.

### Who are the Poor? A Profile of Poverty, 2007 to 2012

Poverty in Iraq is significantly higher among larger households, those with less educated heads, and varies by the employment sector of the head of household. Table A 2.3 summarizes the mean characteristics of poor and non-poor households in 2007 and 2012.<sup>16</sup> In 2012, a typical poor Iraqi household had

**TABLE 7:** Shared Prosperity – Annual Consumption Growth of the Bottom 40

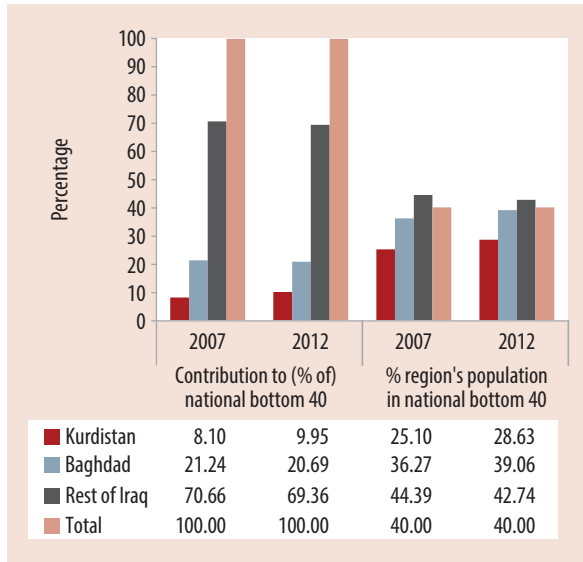
Year	Iraqi dinars (thousands, 2012 terms)	
	Bottom 40	Overall
2007	101.83	171.37
2012	107.63	188.88

Source: Authors' calculations, IHSES 2007 and 2012.

<sup>15</sup> If the national/official poverty line were used, it is consistent with the unscaled welfare aggregate, and the shared prosperity indicator is very similar, with the bottom 40 growing by 1.201 percent per annum, while overall consumption was 1.876 percent per year. These calculations assume a cumulative inflation rate between 2007 and 2012 of 40.1 percent, based on the official CPI series.

<sup>16</sup> There is a significant difference between the non-poor and the poor in all characteristics except for the number of household members who lived elsewhere for at least six months in 2007 and the proportion of household heads employed in electricity, gas and water supply in 2012.

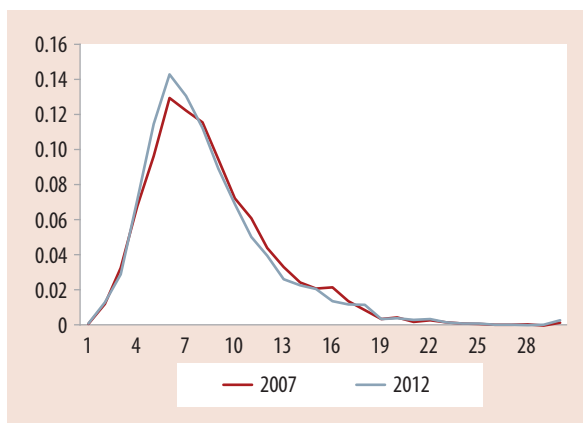
**FIGURE 16:** Shared Prosperity and the Distribution of the Bottom 40 Percent



Source: Authors' calculations, IHSES 2007 and 2012.

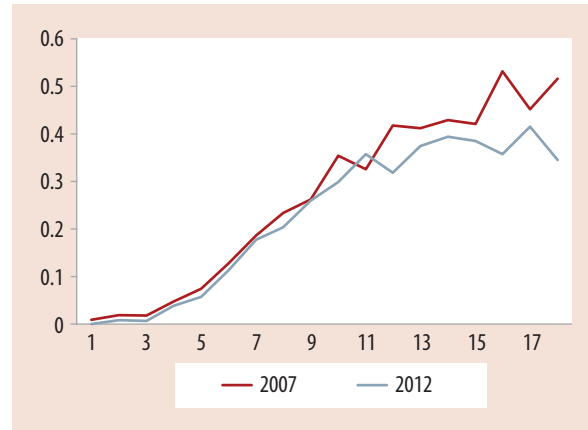
11 members, almost 6 children, and was equally likely to live in urban or rural areas. 52 percent of poor households' heads had less than primary education. Agriculture, construction and transport and storage constituted the three most likely sectors of employment for the head of household, accounting for almost half of all employed heads of poor households. A typical non-poor Iraqi household in 2012

**FIGURE 17:** Population Share by Size of Household



Source: Authors' calculations, IHSES 2007 and 2012.

**FIGURE 18:** Poverty Headcount Rates by Household Size, 2007 and 2012

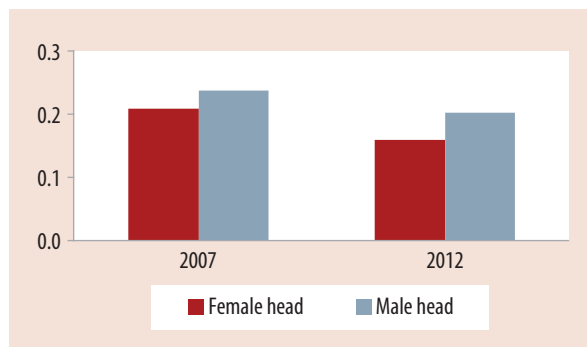


Source: Authors' calculations, IHSES 2007 and 2012.

had almost 8 members, with approximately 4 dependents (including children and the elderly), and likely lived in urban areas. Among non-poor households with employed heads, almost half were employed in commerce and retail; transport and storage; financial, insurance and professional services; or public administration, health and education. Almost 40 percent of heads of non-poor households had intermediate education or higher.

Poverty headcount rates are significantly higher for larger households (Figure 18). More than 90 percent of Iraq's population belongs to households of 14 or fewer members, with median household sizes of between 7 to 8 members (Figure 17). A majority of the poor belong to large households: less than 1 percent of the poor belonged to households with 4 or fewer members. In 2007, 78 percent of the poor belonged to households with 8 or more members, with about half of them being from families with more than 11 members. A similar pattern is apparent in 2012, where three-quarters of the poor belong to families with 8 or more members and almost a third belong to families with more than 11 members. Poverty in fact increases steeply with household size, from 4 percent among households with 4 or fewer members to around 40 percent among households with 13 or more members (Figure 18). Between 2007 and 2012, poverty among

**FIGURE 19: Poverty Headcount Rates for Female and Male Headed Households**



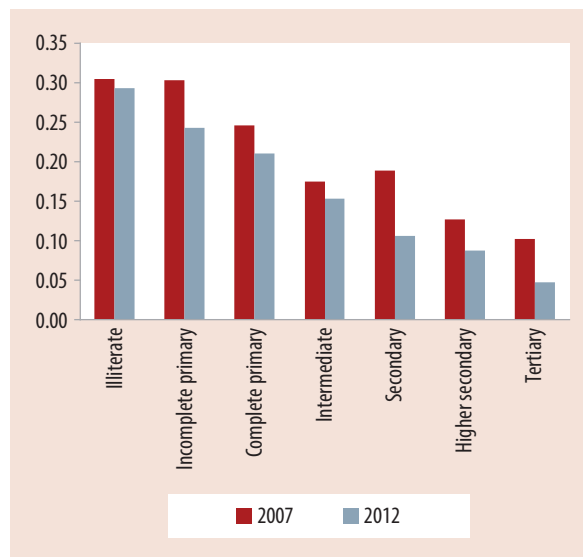
very large households with 13 or more members, who made up 13 percent of the population in 2012, appears to have come down.

A vast majority of Iraqi households, and 92 percent of poor Iraqi households (Table A 2.3), were headed by males in 2007 and 2012. In 2012, female headed households faced poverty rates of 16 percent, relative to 20 percent among male headed households (Figure 19). While poverty rates have come down for both male and female headed households between 2007 and 2012, the decline has been larger for female headed households.

One possible explanation for the decline in poverty rates among very large households and households headed by women is the Government of Iraq's social protection scheme. At the beginning of the 2003 war in Iraq, the government of Iraq announced the inclusion of households with unemployed heads in the social protection scheme. Starting in January of 2005, the government started distributing monthly grants to beneficiaries, based on the number of family members. The social protection scheme also included widows and divorced women, among others. Grants through the social protection are determined based on the size of the family, and increased with family size.<sup>17</sup> All the grants were raised by 25% in 2006.<sup>18</sup>

The relationship between poverty and the education of the household head is striking in Iraq. Between

**FIGURE 20: Poverty Headcount Rates by Education of the Head of Household**



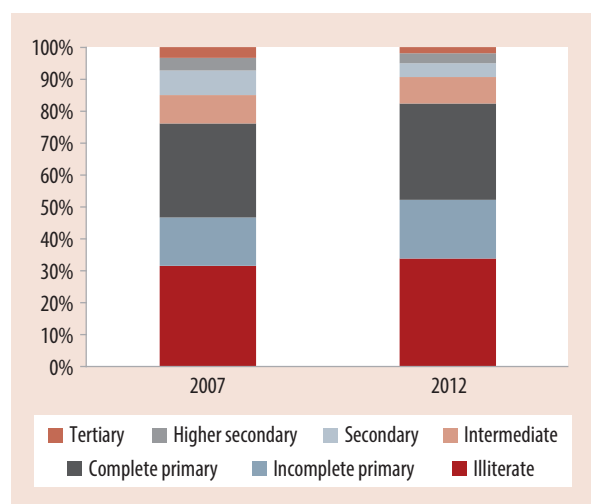
Source: Authors' calculations, IHSES 2007 and 2012.

2007 and 2012, there has been a secular decline in headcount rates among all education levels of household heads (Figure 20). While this is heartening, the share of the poor who belong to households whose heads have primary education or less has increased: these households account for more than 80 percent of the poor in 2012 and face poverty rates upwards of 20 percent (Figure 20 and Figure 21). More than

<sup>17</sup> Iraqi magazine for research on markets and social protection 2009, University of Baghdad, *Social Protection Networks in Iraq and the effect on consumer protection*, See page 116 for the numbers of families benefiting from the social protection scheme based on region <http://www.iasj.net/iasj?func=fulltext&aId=1782>.

<sup>18</sup> Ministry of Planning, 2008 [http://cosit.gov.iq/documents%5Cstatistics\\_ar%5Cpoverty%5Cstrategy%5CBackground%20papers/%D8%AF%D9%88%D8%B1%20%D8%B4%D8%A8%D9%83%D8%A9%20%D8%A7%D9%84%D8%AD%D9%85%D8%A7%D9%8A%D8%A9%20%D8%A7%D9%84%D8%A7%D8%AC%D8%AA%D9%85%D8%A7%D8%B9%D9%8A%D8%A9%20%D9%81%D9%8A%20%D8%A7%D9%84%D8%AA%D8%AE%D9%81%D9%8A%D9%81%20%D9%85%D9%86%20%D8%A7%D9%84%D9%81-%D9%82%D8%B1.pdf](http://cosit.gov.iq/documents%5Cstatistics_ar%5Cpoverty%5Cstrategy%5CBackground%20papers/%D8%AF%D9%88%D8%B1%20%D8%B4%D8%A8%D9%83%D8%A9%20%D8%A7%D9%84%D8%AD%D9%85%D8%A7%D9%8A%D8%A9%20%D8%A7%D9%84%D8%A7%D8%AC%D8%AA%D9%85%D8%A7%D8%B9%D9%8A%D8%A9%20%D9%81%D9%8A%20%D8%A7%D9%84%D8%AA%D8%AE%D9%81%D9%8A%D9%81%20%D9%85%D9%86%20%D8%A7%D9%84%D9%81-%D9%82%D8%B1.pdf).

**FIGURE 21:** Share of the Poor, by Education of the Head of Household



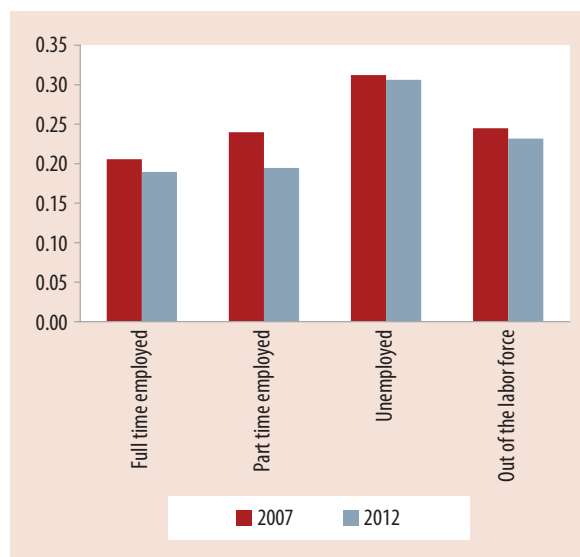
Source: Authors' calculations, IHSES 2007 and 2012.

half of poor households in 2012 had heads with less than primary education, among whom poverty rates are more than 25 percent. In contrast, in 2012 those whose heads have tertiary or higher secondary education face poverty rates of between 5 to 9 percent, and account for less than 5 percent of the poor.

Poverty does not vary as starkly by the labor force status of the household head, but rather by the sector of employment. As may be expected, poverty is lower in households where the head is employed, between 17 and 18 percent in 2007 and 2012, as compared to 20 percent among those where the household head is out of the labor force (Figure 22). Headcount rates are almost 30 percent among households where the head is unemployed, although these households comprise only 1 to 2 percent of all households (Figure 22 and Figure 23). Surprisingly, full time employment is not associated with much lower incidence of poverty; and in 2012, more than 42 percent of poor households had heads who were employed full time; an increase of 7 percentage points since 2007.

Figure 24 plots headcount rates by the household head's sector of employment, based on an annual reference period. Among households whose heads are employed in agriculture or in construction,

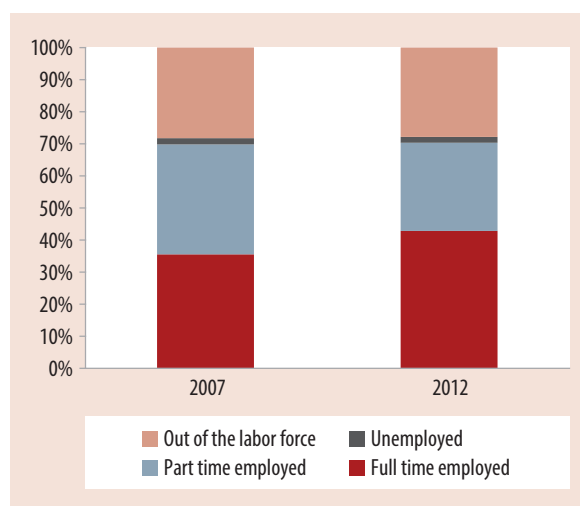
**FIGURE 22:** Poverty Headcount Rates by Labor Force Status of the Head of Household\*



Source: Authors' calculations, IHSES 2007 and 2012.

Note: \* Labor force outcomes are based on 7 day recall, ILO definitions.

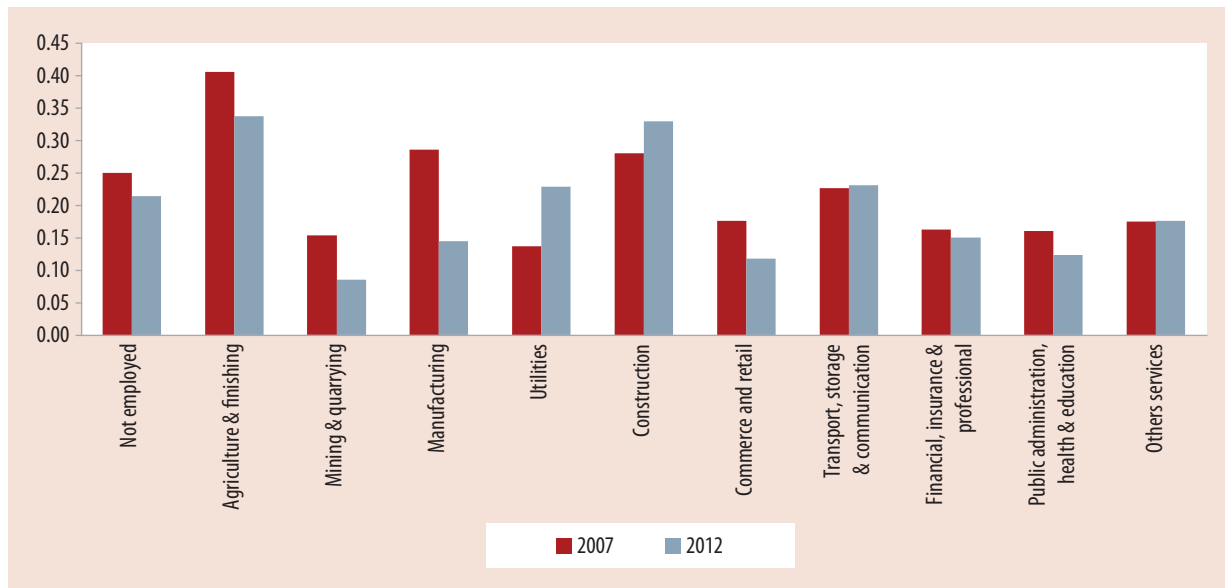
**FIGURE 23:** Share of the Poor, by Labor Force Status of the Head of Household



Source: Authors' calculations, IHSES 2007 and 2012.

poverty is 33 percent, higher than among households with heads who are not employed. This is a worrying pattern, as these two sectors alone account for 24 percent of all poor households, while non-employment accounts for almost another 30

FIGURE 24: Poverty Headcount Rates by Employment Sector of the Head of Household



Source: Authors' calculations, IHSES 2007 and 2012.

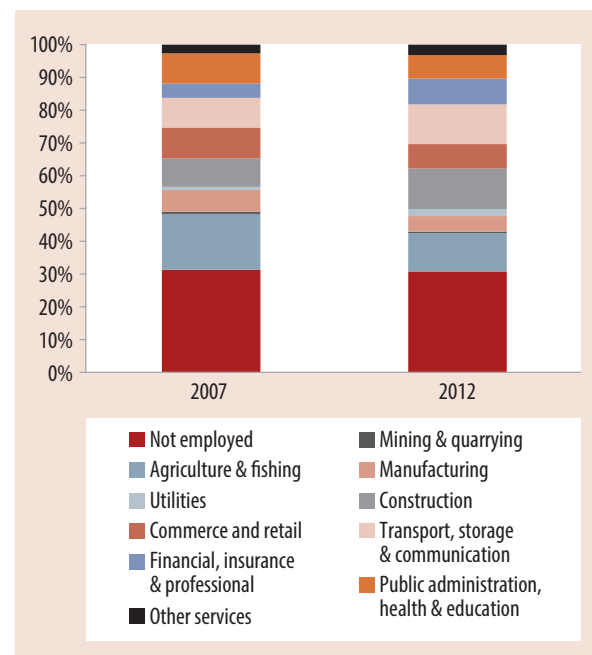
percent (Figure 25). In contrast, the sector with the lowest incidence of poverty, mining and quarrying, accounts for less than 1 percent of the poor.

In 2012, 5 sectors of employment of the household head had poverty headcount rates of 15 percent or less—Mining, Manufacturing, Commerce, Finance and Public Administration—and employed less than 30 percent of heads of poor households. In contrast, the 5 sectors with poverty rates of 20 percent or more included Agriculture, Construction, Utilities, Transport, and non-employment, and accounted for almost 70 percent of poor households.

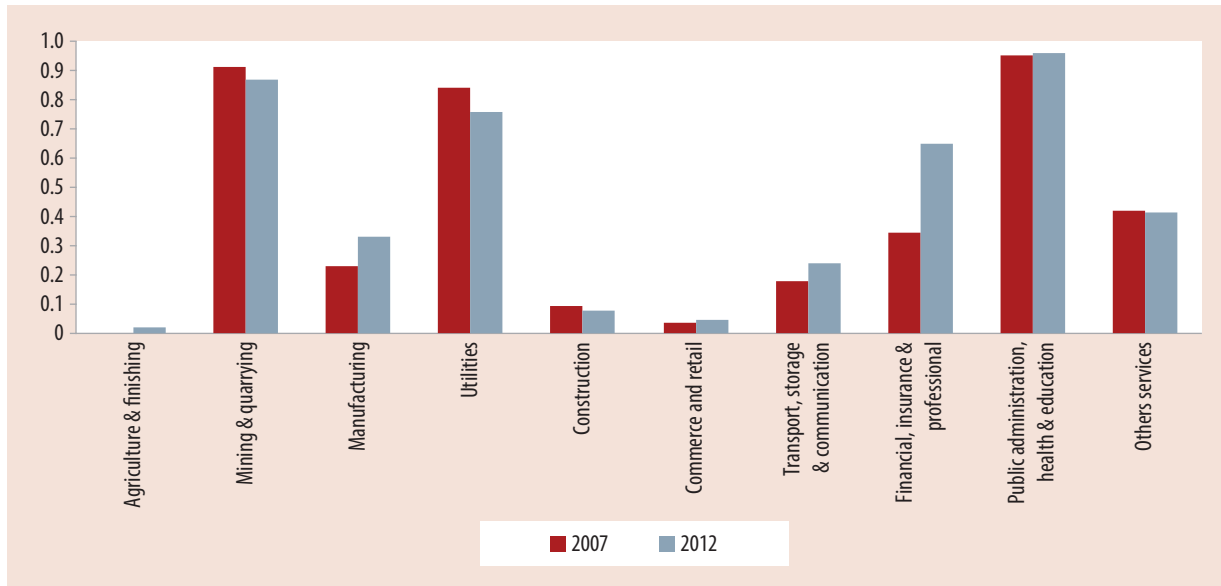
It should be noted that while almost all jobs in the public administration sector are public sector jobs, not all public sector jobs are in the public administration sector. The vast majority of the jobs in the mining and quarrying sector, and in the utilities (electricity, gas and water) sector are public sector jobs. In addition, there has been a significant increase in the share of public sector jobs in the financial, insurance and professional services sector, from 34 percent in 2007 to 65 percent in 2012 (Figure 26). Thus private sector activity in terms of employment in Iraq is concentrated in agriculture, manufacturing,

construction, transport, storage and communication and commerce and retail. In addition, employment in agriculture and commerce predominantly take the

FIGURE 25: Share of the Poor by Employment Sector of Head of Household



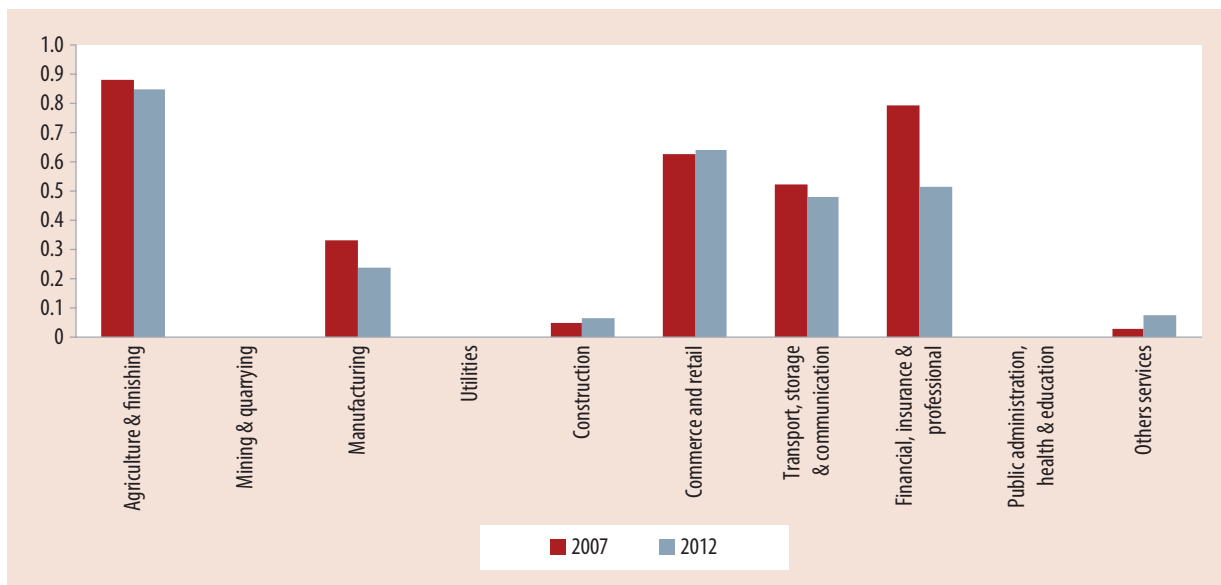
Source: Authors' calculations, IHSES 2007 and 2012.

**FIGURE 26:** Public Sector Employment as a Share of Employment in Each Sector, 2007–2012

Source: Authors' calculations, IHSES 2007 and 2012.

form of self-employment rather than wage work, and about half of the private sector jobs in financial, insurance and professional services and in the transport, storage and communications sector consist of self-employment rather than wage employment (Figure 27). Taken together these suggest that

many of the employment sectors that are associated with lower poverty rates and account for smaller shares of the poor are dominated by the public sector. In contrast, the private sector (and in particular, agriculture and construction), the engine of growth and job creation in a healthy economy, seems to be

**FIGURE 27:** Self-Employment in the Private Sector as a Share of All Employment in the Private Sector

Source: Authors' calculations, IHSES 2007 and 2012.

comprised of mostly self-employment opportunities (which may indeed be subsistence activities) rather than salaried wage employment.

### Correlates of Consumption Expenditure and Poverty

In this section, we explore how different factors come together to explain consumption expenditure, and attempt to measure the effect of each factor while holding others constant. We also identify their role in determining whether a household is poor (consumption below the poverty line) or belongs to the bottom 40 percent (consumption below the consumption of the 4<sup>th</sup> consumption decile). The advantage of the first approach is that it allows us to use information across the consumption distribution although it assumes that the influence of each factor is linear.<sup>19</sup> The latter approach, where the outcome is whether the household is poor or not, estimates the effect of each factor in determining whether household consumption is sufficiently low, i.e., below the poverty line; rather than the overall relationship with consumption.

Table A 2.4 presents the results of a regression of log per capita real consumption expenditure on a range of household and household head characteristics, as well as location variables. In 2007, consumption was lower for larger households and with more children and higher for households with elderly persons (likely the effect of pension income). It was also positively correlated with the number of employed working age males. Education was strongly associated with higher consumption. Almost all sectors of employment were correlated with higher per capita consumption (relative to households with non-employed heads), with the exception of construction, which was associated with lower consumption. The same relationship with household size and composition, education, and employment remains in 2012, except that households with heads employed in agriculture were not significantly different from households whose heads were not employed in terms of their predicted per capita consumption, when all other factors were controlled for.

Over the five year period, the correlation between consumption and location has altered in important ways. For one, the size of the correlation between living in an urban area and higher consumption has halved. For another, the effect of living in Nineveh has reversed, from a relative advantage to a significant disadvantage, while the three governorates of Kurdistan, Kirkuk, and Najaf continue to be associated with higher consumption relative to Baghdad in both years. In addition, households living in Anbar, Babylon, Salahadin and Basra tend to have higher consumption in 2012 compared to similar households in Baghdad. In both years, certain governorates were associated with lower consumption relative to Baghdad after controlling for the effect of household characteristics on consumption, including Diyala, Kerbala, Wasit, Qadisiya, Thi Qar, Muthanna and Missan.

In Table A 2.5, we present the results of a probit regression of the factors that predict poverty at the level of the household, including location, household demographics, education and work status of the head of household, and migration status. Living in an urban area reduced the likelihood of being poor by 11 percent in 2007 and 5 percent in 2012. Household demographics—household size, the number of children and elderly—are all correlated with poverty in 2007 and in 2012: larger households and households with higher dependency ratios are more likely to be poor.

Measures of employment status are also correlated with poverty. An additional employed working age male reduces the probability of poverty by about 2 percent. In addition, certain sectors of employment (relative to being unemployed or out of the labor force) are correlated with lower odds of poverty—in 2007, households with heads working in electricity, gas and water supply (utilities) and public administration, health and education were 8 and 4 percent

<sup>19</sup> Ravallion (1996) points out that the reason for which level regression should be preferred is that it depends on weaker assumption about the error term than the binary model of being poor or not.



less likely to be poor (Table A 2.5). In 2012, almost all sectors of employment except electricity, gas and water supply and agriculture lowered the odds of poverty. However, households with heads working in construction were 7 percent more likely to be poor.

Education of the head of household is strongly correlated with poverty: at higher levels of education, the odds of poverty fall, at an increasing rate. For instance, relative to a household with an illiterate head of household, households with primary educated heads face 7 to 8 percent lower probability of being poor, while those with higher secondary and tertiary educated heads face on average more than 16 percent lower odds of being poor.

How do the poor compare to the bottom 40 percent of the consumption distribution? By definition, in Iraq, all the poor belong to the bottom 40, but the reverse is not true. In line with the relative concentration of people around the poverty line, the average characteristics of the bottom 4 deciles are remarkably similar to those of the poor. Table A 2.6 compares the characteristics, on average of the poor, those in the bottom 40 percent, and the top 60 percent in 2007 and 2012. Just like the poor, the average household in the bottom 40 percent is almost equally likely to live in an urban or rural area and has more than 10 members, with almost 6 dependents. 4 out of 5 heads of bottom 40 households have primary or less education, and two-fifths are employed in agriculture, construction, commerce and transport (predominantly private sector jobs). In contrast, almost 80 percent of top 60 households are urban, with a typical household size of 7 members, almost 4 of which are dependents. 42 percent of top 60 households have heads with more than primary education, and almost two-fifths are employed in public administration, finance or commerce.

Probit analysis of the characteristics that predict being in the bottom 40 confirm these findings (Table A 2.7). In 2007, living in an urban area reduced the odds of being in the bottom 40 by approximately 13 percent, a relation that continues to hold in 2012, although the coefficient had

declined to 7 percent. Household size and dependency are strong correlates with belonging to the bottom 4 deciles: in 2012, each additional household member increased the probability of being in the bottom 40 by 8.6 percent, each child by approximately 6 percent. Belonging to a male headed household increases this probability by 9 percent in 2012.

Measures of employment and labor force are also very important. Each additional employed working age male lowers the risk of being in the bottom 40 by 4 percent. All employment sectors lower or do not alter the odds of being in the bottom 40 relative to the household head being unemployed or out of the labor force, with the exception of construction, which increased the risk of being in the bottom 40 by 8 percent in 2012. Employment for the household head in public administration, finance, and mining sectors, which are mostly public sector jobs, have large impacts, lowering the odds of being in the bottom 40 by 11, 9, and 16 percent respectively in 2012. Finally, higher education for the head of household starkly lowers the likelihood of being in the bottom 4 deciles of the consumption distribution.

## Poverty Across Space

In order to better understand the spatial dimensions of poverty, the analysis that follows will further subdivide the rest of Iraq into three parts, yielding five *divisions* of Iraq (Map 1), of relatively equal population size (Table 8):

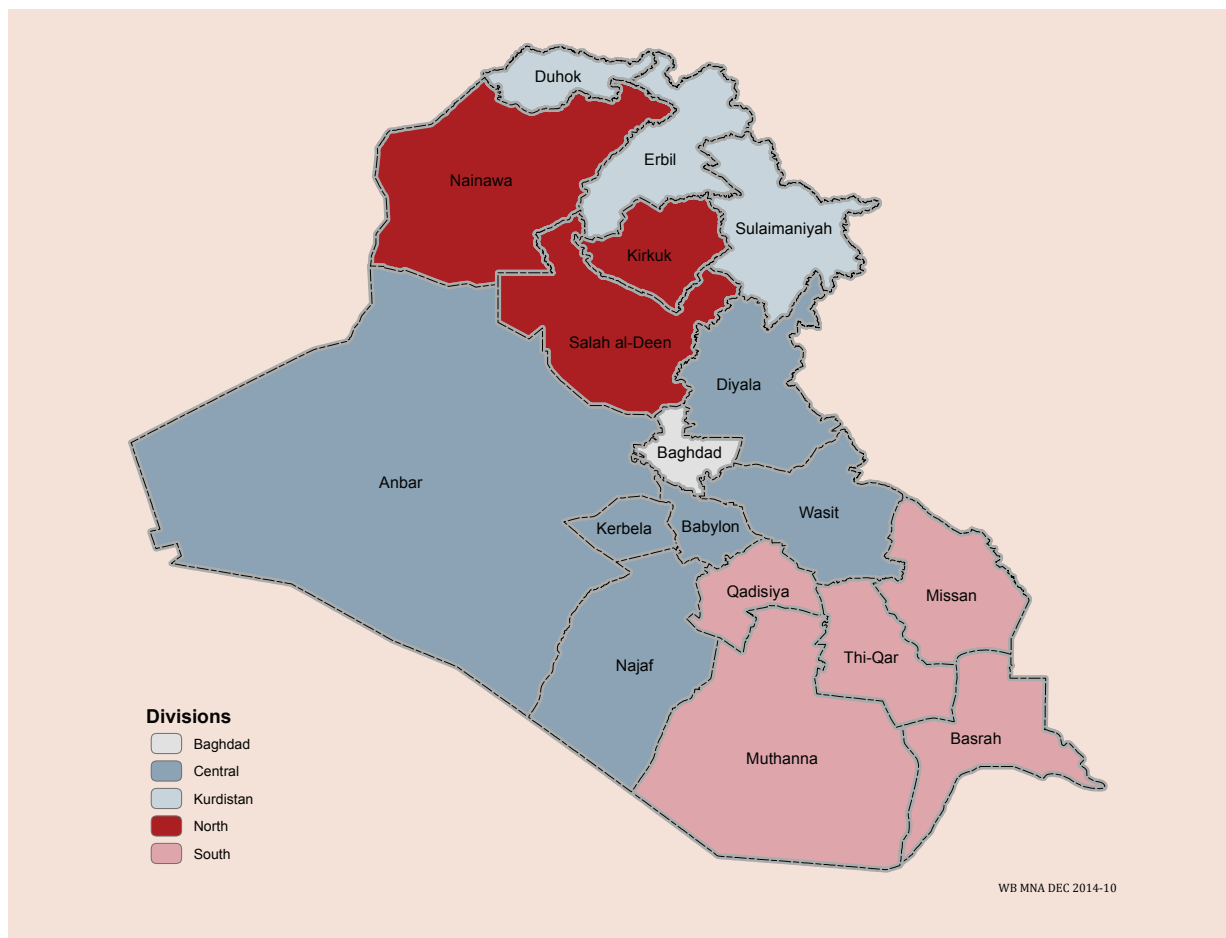
1. Kurdistan comprising the three governorates of the Kurdistan Regional governorate, Duhok, Erbil, and Sulaimaniya, making up around 15 percent of the Iraqi population
2. North comprising of the three governorates directly south of Kurdistan and to the North of Baghdad—Nineveh, Kirkuk, and Salahadin, accounting for 18 percent of the population
3. Baghdad comprising of the single governorate of Baghdad, the capital city, making up a fifth of the Iraqi population

4. Central comprising of the governorates to the east, west and immediately south of Baghdad—Anbar, Diyala, Najaf, Karbala, Wasit, and Babylon—accounting for a quarter of Iraq’s population
5. South comprising the five southern most governorates of Iraq—Qadisiya, Thi Qar, Muthanna, Missan, and Basra—making up almost 22 percent of the total population.

During the period from 2007 to 2012, three divisions witnessed larger than average population growth (including natural population growth as well as migration)—Kurdistan, the North and the Central division. On the other hand, Baghdad’s population barely grew, and population growth in the South was below the national average of 14 percent.

This divisional break-up shows the stark differences in welfare improvements within the 14 governorates that make up the Rest of Iraq. Figure 28 plots poverty head count rates in each division in 2007 and 2012, and the changes in poverty over the period (in percentage points). It is evident that poverty reduction was concentrated entirely in the Central division, where headcount rates fell by 14 percentage points between 2007 and 2012. In contrast, the South was the only division where headcount rates increased, albeit slightly, over the 2007–2012 period. The Central division, as a result, was the only division to witness a decline in its share of the poor, by 12 percentage points, while the South’s share of the poor increased by 6 percentage points, and the North’s by 4 percentage points, a rate significantly higher than the increase

MAP 1: Five Divisions of Iraq



**TABLE 8:** Survey Based Estimates of Population by Division\*

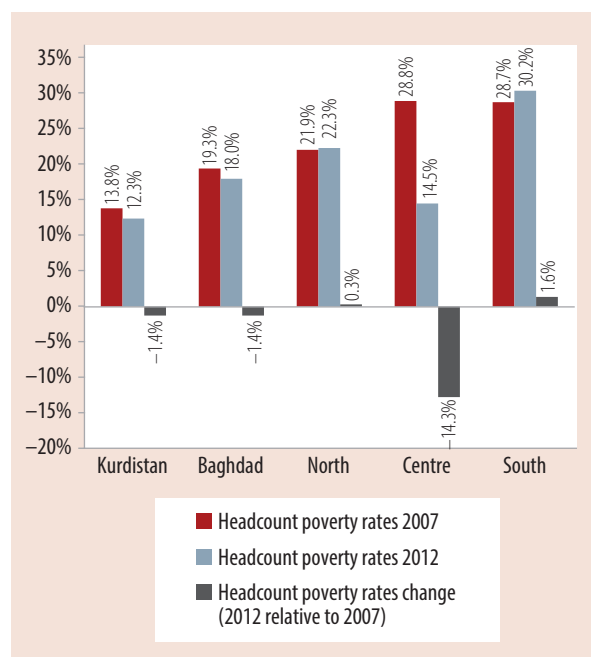
	2007	2012	% Change (cumulative): 2012 relative to 2007	% of 2012 population
Kurdistan	3,838,437	4,728,838	23.2	14.0
Baghdad	6,961,071	7,193,415	3.3	21.2
North	5,049,876	6,128,938	21.4	18.1
Centre	7,247,272	8,515,574	17.5	25.1
South	6,526,511	7,300,681	11.9	21.6
<b>Total</b>	<b>29,623,167</b>	<b>33,867,446</b>	<b>14.3</b>	<b>100.0</b>

Source: Authors' calculations, IHSES 2007 and 2012.

Note: \* While no recent population estimates based on census data is available, survey based estimates of population provide some indication of the size and share of each division, although these should be interpreted with caution.

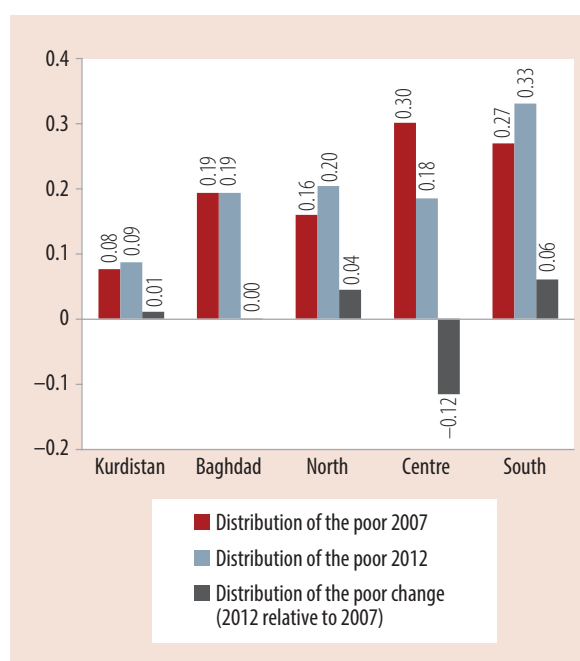
in headcount rates, because of their large populations (Figure 29).

**FIGURE 28:** Division Headcount Rates (Percent) and Changes (Percentage Point), 2007–2012



Source: Authors' calculations, IHSES 2007 and 2012.

**FIGURE 29:** Distribution of the Poor by Divisions, 2007–2012

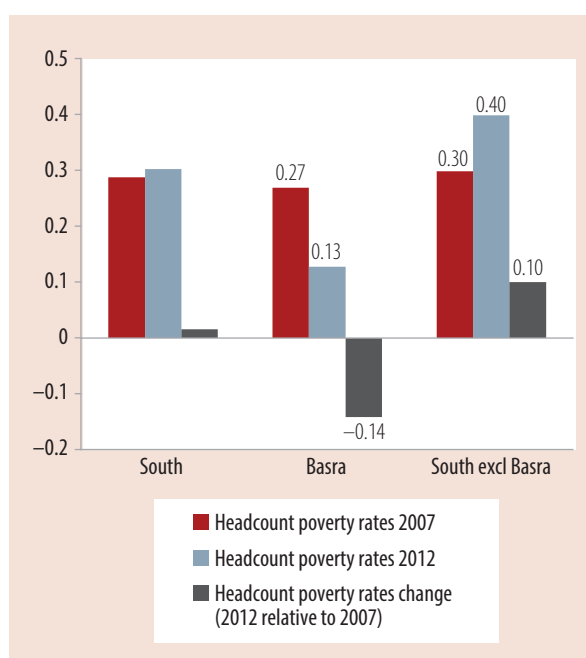


Source: Authors' calculations, IHSES 2007 and 2012.

Furthermore, the overall rates and trend for the South mask an increasingly divergent performance between Basra and the other governorates in the South (Figure 30). While poverty fell by 14 percentage points in Basra to 13 percent in 2012, in Thi Qar, Muthanna, Qadisiya and Missan, the four other governorates in the Southern division, headcount rates increased by 10 percentage points to a staggering 40 percent. Similarly, within the North, headcount rates increased sharply in Nineveh, from 20 percent in 2007 to 32 percent in 2012, while poverty fell in Salahaddin and Kirkuk, the two other Northern governorates.

### Poverty Beyond Consumption

Poverty in Iraq, as in the developing world, goes well beyond material deprivation—the inability to satisfy basic needs of food, shelter, clothing and other necessities that make up a minimum standard of living. Over and above the deprivation of many Iraqi households in human development—health,

**FIGURE 30:** Poverty in Basra and the Rest of the South, 2007–2012

Source: Authors' calculations, IHSES 2007 and 2012.

education and living standards (described in detail in the next chapter)—, household self-assessments of their welfare status incorporate a range of other measurable and unmeasurable dimensions of welfare. The 2012 IHSES surveys ask a series of questions to better understand subjective and relative wellbeing. This section uses these measures and their correlates to further our understanding of

welfare as perceived by Iraqis themselves, and how these relate to consumption poverty.

The first such question asks the main respondent: “In your view, what’s the minimum monthly income that your household needs to cover your basic needs?” For Iraq as a whole, the average minimum monthly income per capita reported by households as being adequate to cover their basic needs is ID 128900. On average, rural households report 32 percent lower minimum income requirements compared to urban households (Table 9). The highest reported minimum income needs are in Baghdad, 28 percent higher than the national average, with the lowest in the North, 21 percent lower. The largest differences between urban and rural households is in Kurdistan, with rural households reporting needing 38 percent lower incomes per capita per month; while Baghdad and the North have the lowest urban-rural differential of around 20 percent. It is interesting to note that despite the regional non-food adjustment that allows for a significantly higher consumption poverty line in Baghdad, perceived differences between minimum income requirements and the poverty line are substantial. Households in Baghdad report needing a minimum income that is on average 40 percent higher than the Baghdad poverty line. Similarly, in the Central province, where poverty has come down sharply in many governorates, households report minimum income needs almost 30 percent higher than the regional poverty lines.

**TABLE 9:** Average Minimum Per Capita Monthly Income (‘000s Iraqi Dinar) Required to Meet Basic Needs, 2012

	Rural	Urban	% Difference (Urban relative to rural)	Total	% Difference (Relative to National)	Consumption poverty line	% Difference (Relative to Regional poverty line)
Kurdistan	100.88	138.88	37.67	131.45	1.98	142.41	-7.69
Baghdad	140.42	168.69	20.13	165.13	28.10	115.93	42.43
North	91.29	109.23	19.65	101.81	-21.02	101.68	0.13
Central	113.95	145.46	27.65	131.16	1.75	101.68	29.00
South	96.12	119.90	24.74	111.90	-13.19	101.68	10.05
<b>All Iraq</b>	<b>105.57</b>	<b>139.68</b>	<b>32.30</b>	<b>128.90</b>			

Table 10 shows average minimum per capita monthly incomes reported by households in each governorate (rural and urban areas), as well for the nation. The largest differences between rural and urban areas in this measure is in Erbil, with urban households stating minimum income needs as being 50 percent higher than those in rural areas. The smallest differential is in Basra, where urban and rural households report needing very similar incomes. Minimum incomes required in rural and urban areas are relatively low in the governorates with high consumption poverty, and on relatively high in Erbil, Baghdad, Najaf, Basra, and Anbar. Relative to the national average, residents of Nineveh and Muthanna reported needing more than 30 percent lower incomes per month to meet their basic needs, whereas those in Najaf needed more than 40 percent more.

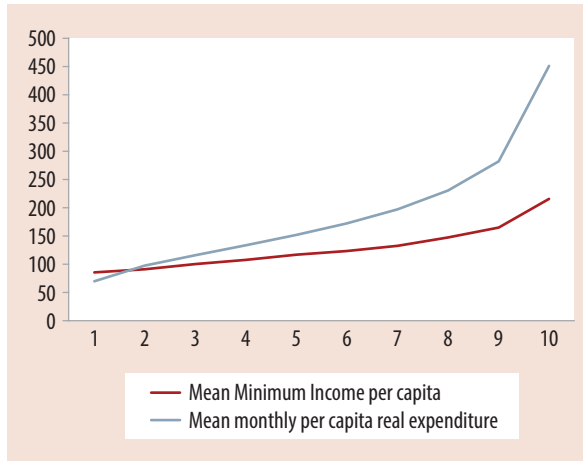
The concept of minimum income needs is not purely an absolute one, but also, one that appears to increase slowly with per capita consumption expenditures (Figure 31). For the bottom decile, mean per capita expenditures are below the reported monthly minimum income needs. Thereafter, minimum income needs increase slowly, at an average rate of 7 percent per decile, until the 7<sup>th</sup> decile. Thereafter, they increase more rapidly, by 11.6 percent for the 8<sup>th</sup> and 9<sup>th</sup> decile, and by 31 percent for the top decile (compared to the 9<sup>th</sup> decile).

The survey also solicits information on satisfaction along various dimensions; including food, housing, income, work, local security, and trust and acceptance within the community, and life overall. These are asked of all household members above the age of 15. For each of these elements and for the overall

**TABLE 10:** Average Minimum Per Capita Income Required (monthly, '000s Iraqi Dinar), Governorates

	Rural	Urban	% Difference (Urban relative to rural)	Total	% Difference (Relative to National)
NINEVEH	74.41	86.57	16.35	81.73	-36.59
MUTHANNA	75.17	100.36	33.51	86.22	-33.11
KERBALA	82.00	96.88	18.15	91.91	-28.70
QADISIYA	85.81	101.42	18.20	94.73	-26.51
THI-QAR	81.05	103.61	27.83	94.75	-26.50
MAYSAN	100.82	119.53	18.55	113.89	-11.65
SULAIMANIYA	93.18	119.41	28.15	115.01	-10.78
DIYALA	102.54	129.69	26.47	115.39	-10.48
SALAHADDIN	106.15	127.79	20.39	116.03	-9.99
WASIT	101.54	138.47	36.36	123.06	-4.53
BABYLON	108.84	148.32	36.27	127.13	-1.38
KIRKUK	114.83	143.43	24.91	134.28	4.17
DUHOK	106.15	148.82	40.20	137.10	6.35
BASRA	140.79	138.08	-1.92	138.63	7.55
ANBAR	135.62	141.96	4.68	138.71	7.61
ERBIL	103.80	155.71	50.01	146.73	13.83
BAGHDAD	140.42	168.69	20.13	165.13	28.10
NAJAF	148.43	203.18	36.89	185.80	44.14
<b>All Iraq</b>	<b>105.57</b>	<b>139.68</b>	<b>32.30</b>	<b>128.90</b>	<b>0.00</b>

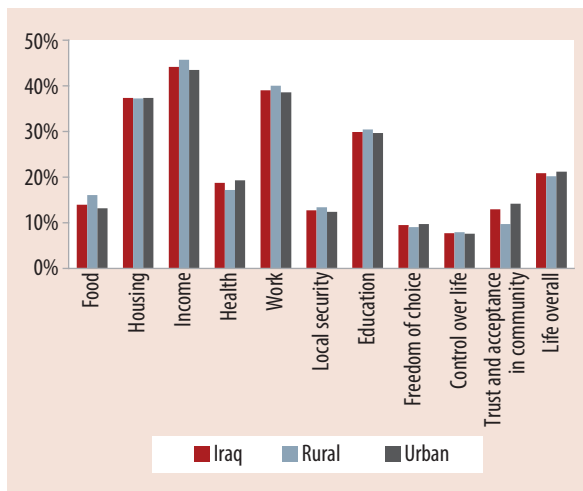
**FIGURE 31:** Comparing Minimum Monthly Income Needs Per Capita with Monthly Per Capita Expenditures, by Consumption Deciles



assessment of satisfaction, Figure 32 graphs the share of respondent who reported being dissatisfied across different elements. Across rural and urban areas, the highest rates of dissatisfaction are related to housing, income, work and education, with upwards of a third of respondents reporting dissatisfaction.

Rates of dissatisfaction across different elements vary across space (Figure 33). Rates of dissatisfaction

**FIGURE 32:** Dissatisfaction Across Different Dimensions, Iraq, Urban and Rural



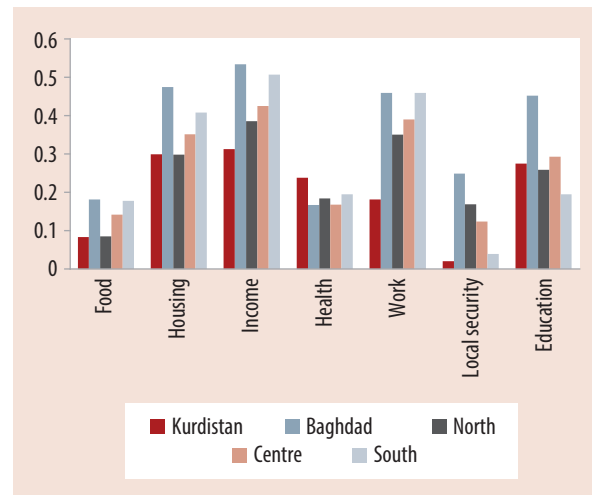
with food, housing, income and work are the highest in Baghdad and the South; while Baghdad also has the highest rates of dissatisfaction in terms of education and local security.

The series of questions on satisfaction are immediately followed by a subjective self-assessment of the household’s poverty status, asked of the same set of individuals. Based on these different measures, we construct three additional subjective and self-reported measures of welfare:

1. Minimum income poverty: A household is poor according to this measure if their stated minimum per capita monthly income needed to cover basic needs is higher than their per capita monthly expenditure
2. Satisfaction poverty: An individual aged 15 years and above is poor by this measure if they state that they are ‘not very satisfied’ or ‘not satisfied at all’ with life overall
3. Subjective poverty: An individual aged 15 years and above is poor by this measure if they answer that their household’s situation is ‘poor’ or ‘very poor’.

Figure 34 plots consumption poverty headcount rates and self-assessment of wellbeing according to

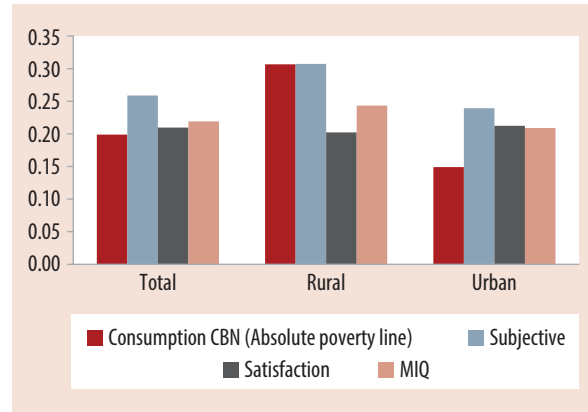
**FIGURE 33:** Rates of Dissatisfaction, Selected Dimensions, by Division



these measures for Iraq as a whole and for rural and urban areas. Overall, headcount rates based on consumption are fairly similar to those based on the minimum income question and on life satisfaction, while poverty as measured by subjective well-being is higher at 26 percent. In rural areas, 20 percent of individuals report being dissatisfied with their lives, 24 percent have lower per capita consumption than their estimated basic income needs, while more than 30 percent are poor based on the consumption poverty line or assess that their household is poor or very poor. In urban areas, while consumption poverty headcount rates are relatively low, other measures of poverty are significantly higher.

Looking across divisions (Figure 35), in line with consumption poverty rates, Kurdistan has the lowest rates of dissatisfaction, subjective poverty and minimum income poverty. In fact, only 5 percent of the population reported needing more income to fulfil basic needs than their current expenditure. In Baghdad, while consumption and subjective poverty are similar, other measures suggest lower levels of poverty. In the Centre, where consumption poverty rates fell the most since 2007, minimum income, subjective and satisfaction poverty are all much higher, with headcount rates above 30 percent. In the South in contrast, rates of dissatisfaction with life are relatively low, at 23 percent, compared to consumption poverty at 30 percent and subjective poverty at 34 percent. Annex Table 8.9 reports estimates at the governorate level. Across all measures, Sulaimaniya has the lowest headcount rates. While Muthanna has the highest rates of consumption poverty at 48 percent, Qadisiya has the highest rates of subjective poverty, with half the respondents considering that their household’s situation was poor or very poor. The lowest rates of life satisfaction are reported in Baghdad, with 36 percent stating that they were not very or not at all satisfied with life overall, likely reflecting the larger rates of dissatisfaction with the security situation. In contrast, in Najaf, where consumption poverty rates are only 10 percent, more than 40 percent have per capita

FIGURE 34: Headcount Rates, Different Measures of Wellbeing, Iraq, Urban and Rural, 2012



consumption expenditures that are below their reported minimum income requirements.

Comparing the incidence of poverty according to these different measures over consumption deciles reveals the extent to which these subjective measures combine both absolute and relative measures. We can see that minimum incomes, while referenced to minimum needs, appear to have a relative dimension, and increase with the wealth of households, the share of households consuming below their self-reported minimum income needs declines steadily as consumption increases; from 62 percent among the

FIGURE 35: Headcount Rates, Different Measures of Wellbeing, Divisions, 2012

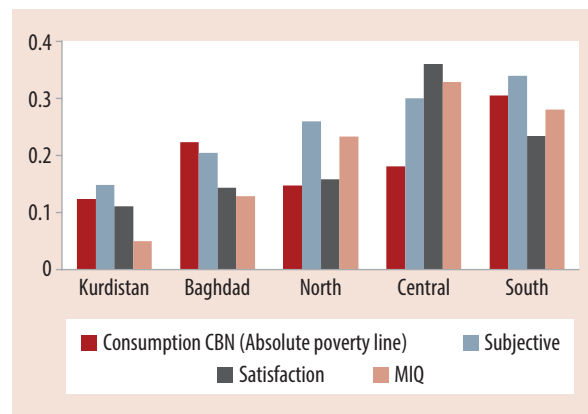
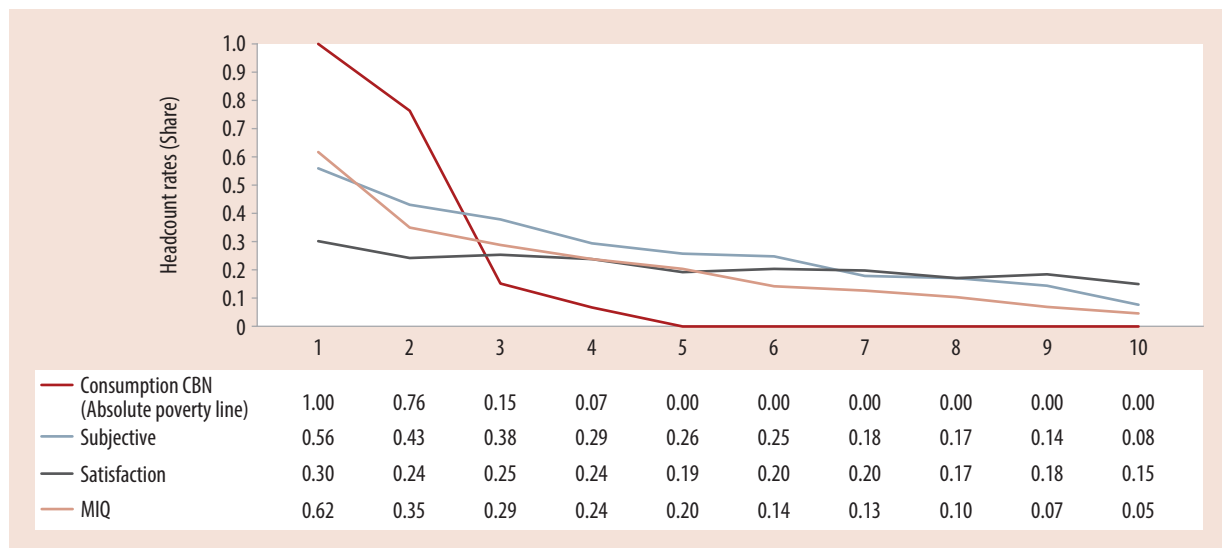


FIGURE 36: Poverty Measures Across Consumption Deciles



bottom consumption decile, to 20 percent among the 5<sup>th</sup> decile, to 5 percent among the top decile. Life satisfaction and subjective measures on the other hand, which go beyond consumption and income, do not decline as quickly with increases in consumption levels. Subjective self-assessed poverty levels, which are anchored to some notion of absolute welfare, fall from 56 percent among the bottom decile to 26 percent among the 5<sup>th</sup> decile and to 8 percent among the top decile. Dissatisfaction rates are the least responsive to improvements in income and consumption, remaining as high as 26 percent among the 5<sup>th</sup> decile and 15 percent among the top decile.

In line with the different aspects of absolute and relative deprivation captured by these different measures, and the elements taken into account in evaluating whether a household or an individual considers themselves as deprived; almost half of the consumption poor are also poor in terms of subjective poverty and minimum income poverty, while only 28 percent are dissatisfied with life overall (Figure 37). 45 percent of those who are poor in the sense that their consumption is lower than their perceived minimum income needs are also consumption poor, 32.5 percent of households who consider themselves poor or very poor are below

the consumption poverty line, while around a fifth of households who express dissatisfaction with their lives are also consumption poor (Figure 38).

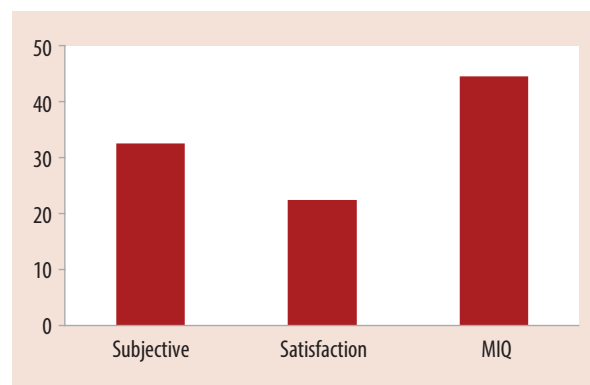
The correlates of subjective poverty and life (dis)satisfaction are therefore broader than those of consumption poverty (Annex table 8.10). For instance, larger household sizes, with more children and more elderly persons are associated with lower levels of subjective poverty and of dissatisfaction with life; as is being female. Other correlates are common:

FIGURE 37: Share of Consumption Poor Who are Poor According to other Measures





**FIGURE 38:** Share of Subjective, Satisfaction and Minimum Income Poor Who are Consumption Poor



non-employment, employment in the private sector, as well as fewer working age males employed are all associated with higher poverty according to these measures. Lower education levels also lower these indicators of well-being. Each division is associated with lower well-being relative to Kurdistan; and in addition, individuals belonging to households whose heads were born in a different governorate, or report having been forcibly displaced, are more likely to report lower subjective welfare and satisfaction. Finally, and as expected, the higher the individual's consumption level, the lower the rates of subjective poverty and dissatisfaction.

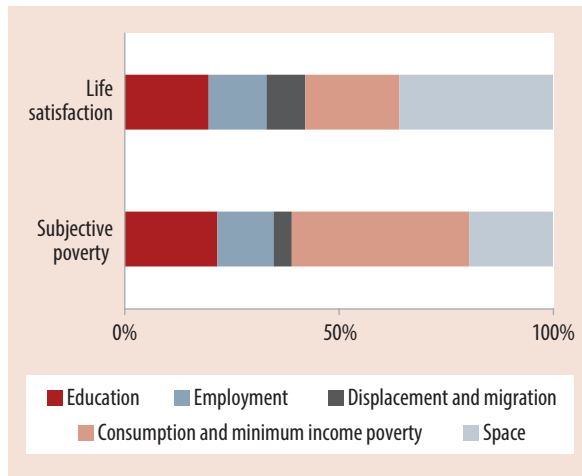
In order to further understand how Iraqis (in this case, Iraqis aged 15 and above) evaluate their household's welfare status as well as their own satisfaction or dissatisfaction with life, we restrict attention to dimensions of deprivation as revealed by the regressions described above—education, employment (or lack thereof), poverty in terms of low consumption expenditures, either relative to the consumption distribution, or relative to their own notions of minimum income needs, and the division of residence, which proxies for access to services, local security and rule of law, and the local environment and labor market. We exclude household size, composition and the gender of the individual, as we consider these as given rather than deprivations in themselves.

We define the following deprivations:

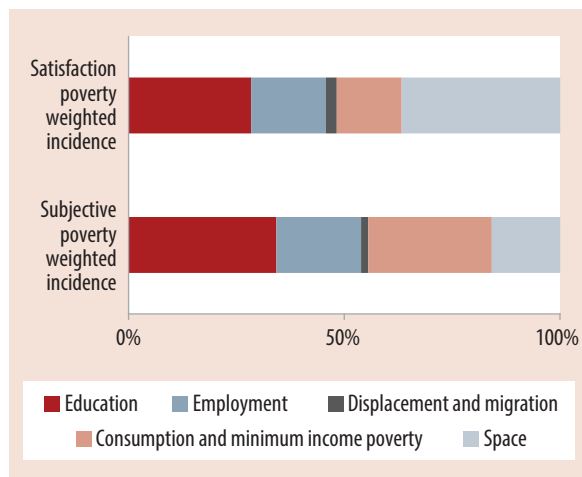
Education:	Illiterate and incomplete primary (relative to Higher secondary and Tertiary)
	Complete primary and lower secondary (relative to Higher secondary and Tertiary)
Employment:	Non employed (relative to Public sector employment)
	Private sector job (relative to Public sector employment)
	Lower than average share of working age men employed
Displacement and migration:	Forcibly displaced
	Head of household born elsewhere
Consumption and minimum income poverty:	Household per capita expenditure is lower than minimum income needs
	Quintile 1 (poorest) (relative to Quintile 5)
	Quintile 2 (relative to Quintile 5)
	Quintile 3 (relative to Quintile 5)
	Quintile 4 (relative to Quintile 5)
Space:	Subjective poverty: Division (relative to Kurdistan)
	Satisfaction: Division (relative to North)

By normalizing the coefficients of the regressions of these dimensions against the subjective poverty dummy and a dummy for whether an individual is dissatisfied with life, we can construct the relative weights of each of these dimensions (Annex Table 8.11, 8.12 and 8.13). These dimensions are aggregated up into categories: education, employment, displacement and migration, consumption or income poverty and place of residence; and are shown in Figure 39. Figure 40 shows the incidence of each of these deprivations, weighted appropriately.

**FIGURE 39:** Relative Weights of Different Dimensions of Deprivation in Determining Subjective Poverty and Dissatisfaction with Life



**FIGURE 40:** Weighted Incidence of Different Dimensions of Deprivation in Determining Subjective Poverty and Dissatisfaction with Life



When comparing the relative weights of different dimensions in Figure 39, it is apparent that in determining subjective self-assessments of poverty status, the largest weight is placed on lack of consumption or income, with smaller but relatively equal weight on educational deprivation or on place of residence. In contrast, dissatisfaction with life appears to be

driven more by where an individual lives, reflecting the additional importance of location specific factors including security concerns, local labor market conditions and service delivery. However, the incidence of these deprivations also varies: for instance, less than 6 percent of individuals report being forcibly displaced; while more than 60 percent of individuals are not employed.

Figure 26 shows how the incidence of these deprivations would change depending on which sets of weights were used. Given the pervasively low levels of education, the incidence of education deprivation is large, and is weighted more in subjective poverty assessments. Similarly, while employment outcomes have a relatively smaller weight; because so few individuals have access to public sector jobs, the weighted incidence of employment deprivations is also relatively large. In line with the relative importance of different dimensions, the incidence of consumption or income poverty is the largest when weighted according to subjective welfare assessments, while the incidence of spatial dimensions is more important when weighted according to the dimensions of satisfaction.

If we were to use these broader dimensions of deprivation, weighted according to their revealed importance in determining self-assessments of household welfare or life satisfaction, to construct a multidimensional index of deprivation, headcount rates would be higher than as measured by consumption poverty, 25.57 percent if subjective poverty weights and deprivations were used and 28.45 percent if life satisfaction weights and dimensions were used.

To conclude, the 2007 to 2012 period has been characterized by low rates of per capita consumption growth relative to the increase in per capita GDP. Consumption growth has been faster, and as a consequence, poverty reduction has been larger, in rural areas and in the 14 governorates outside of Kurdistan and Baghdad. In fact, poverty reduction has been almost entirely focused in the Central division, and a few other governorates, while poverty has increased from already high levels in the South. Consumption has also grown faster for the non-poor than the poor.

Household size and composition, the education and sector of work (in general) of the head of household and the location of the household are all strong determinants of consumption and poverty. But households dependent on agriculture and construction are no less likely to be poor relative to households with heads who are unemployed or out of the labor force; while public sector jobs are in general associated with a lower probability of poverty.

Recognizing that poverty has many facets, we also use subjective measures of wellbeing and welfare

to understand the different elements that the Iraqi people take into account when evaluating their own welfare, elements that go beyond consumption. These include concerns about the work and incomes, education, the ability to fulfil basic needs, as well as local economic and security conditions. Taken together, these findings highlight the importance for putting in place a set of broad based policy reforms to address the multidimensional deprivations faced by Iraqi households that both shape their perceptions of the present and their aspirations for the future.