

**THE UNFULFILLED PROMISE OF
OIL AND GROWTH**

ANNEXES AND REFERENCES

**POVERTY,
INCLUSION
AND
WELFARE IN
IRAQ**

2007 – 2012

Public Disclosure Authorized

Public Disclosure Authorized

Public Disclosure Authorized

Public Disclosure Authorized

Annexes

1.	Conflict, Growth and Development.....	5
2.	Poverty, Shared Prosperity and Subjective Well-Being in Iraq.....	7
	Measuring poverty in Iraq.....	7
3.	Poverty in Human Capital.....	21
4.	Conflict, Revival and Neglected: Understanding Spatial Disparities in Welfare.....	23
	Methodology: Decomposing welfare differences.....	42
	<i>Comparing Living Standards within and between Regions</i>	43
	<i>Decompositions Within and Between Regions</i>	45
5.	Understanding the Drivers of Poverty Reduction.....	47
	Decomposing the changes in poverty a la Barros et al (2006).....	47
	Measuring the contributions to poverty reduction.....	49
6.	The Growth-Employment Nexus.....	55
7.	The Labor Market for the Poor: The Rural-Urban divide.....	60
8.	Transfers, Safety Nets and Poverty.....	71
9.	Policy Implications: Learning from the past to build a better future.....	84
	Isopoverty curves: Methodology.....	84

References

1.	Conflict, Growth and Development.....	85
2.	Poverty, Shared Prosperity and Subjective Well-Being in Iraq.....	86
3.	Poverty in Human Capital.....	86
4.	Conflict, Revival and Neglect: Understanding Spatial Disparities in Welfare.....	87
5.	Understanding the Drivers of Poverty Reduction.....	88
6.	The Growth-Employment Nexus.....	89
7.	The Labor Market for the Poor: The Rural-Urban divide.....	89
8.	Transfers, Safety Nets and Poverty.....	90
9.	Policy Implications: Learning from the past to build a better future.....	90

LIST OF TABLES

Table A 1. 1: Quantifying the effect of violence and development efforts on growth: I	5
Table A 1. 2: Quantifying the effect of violence and development efforts on growth: II	6
Table A 2.1: Poverty by Governorates (Regional poverty lines).....	11
Table A 2.2: Poverty by Governorates (National poverty line)	12
Table A 2.3: Mean characteristics of the poor and non-poor, all Iraq, 2007 and 2012	13
Table A 2.4: Correlates of consumption expenditure, 2007 and 2012	14
Table A 2.5: Probability of being poor, marginal effects of different characteristics, 2007 and 2012	16
Table A 2.6: Mean characteristics of the poor, the bottom 40 and the top 60, 2007 and 2012	18
Table A 2.7: Probability of being in the bottom 40, marginal effects of characteristics, 2007 and 2012	19
Table A 3.1: Household with a stunted child (women aged 12-49), Marginal effects of characteristics	21
Table A 3.2: Completing primary school (individuals aged 12-25), Marginal effects of characteristics	22
Table A 4.1: Correlates of per capita consumption, Kurdistan.....	23
Table A 4.2: Correlates of per capita consumption, Baghdad	24
Table A 4.3: Correlates of per capita consumption, North	25
Table A 4.4: Correlates of per capita consumption, Centre	27
Table A 4.5: Correlates of per capita consumption, South	28
Table A 4.6 : Probability of being poor, Kurdistan	29
Table A 4.7: Probability of being poor, Baghdad.....	31
Table A 4.8: Probability of being poor, North	32
Table A 4.9: Probability of being poor, Centre	33
Table A 4.10: Probability of being poor, South	34
Table A 4.11: Probability of belonging to the bottom 40, Kurdistan.....	36
Table A 4.12: Probability of belonging to the bottom 40, Baghdad.....	37
Table A 4.13: Probability of belonging to the bottom 40, North	38
Table A 4.14: Probability of belonging to the bottom 40, Centre	39
Table A 4.15: Probability of belonging to the bottom 40, South	41
Table A 5. 1: Contribution to poverty reduction – Total Iraq.....	53
Table A 5. 2: Contribution to poverty reduction – by selected Governorates.....	54
Table A 6.1: Average Marginal Effects for Young individual (15 to 24 years old).....	55
Table A 6.2: Average Marginal Effects for Single Women (25 to 64 years old)	56
Table A 6.3: Average Marginal Effects for Married Women (25 to 64 years old)	57
Table A 6.4: Average Marginal Effects for Men (25 to 64 years old)	59
Table A 7.1 Mean characteristics of the poor and non-poor, in urban and rural Iraq, 2007 and 2012	60
Table A 7.2: Correlates of consumption expenditure, Urban-Rural, 2007 and 2012	61
Table A 7.3: Probability of being poor, marginal effects of characteristics, Urban-Rural, 2007 and 2012	63
Table A 7.4: Rural poverty across different types of households, governorate	65
Table A 7.5: Rural poverty across different types of households, governorate (Changes relative to 2007)	65
Table A 7.6a: Multinomial logit: Individual sector of employment , 2007	66
Table A 7.6b: Multinomial logit: Individual sector of employment , 2012	67
Table A 7.7a:Multinomial logit: Household occupation type, rural 2007	69
Table A 7.7b:Multinomial logit: Household occupation type, rural 2012	70
Table A 8. 1: International remittances.....	71
Table A 8. 2: Domestic remittances.....	72
Table A 8. 3: Zakat	73

Table A 8. 4:Pensions	74
Table A 8. 5: Social protection	75
Table A 8. 6: Rations (1).....	76
Table A 8. 7: Rations (2), 2012	77
Table A 8. 8: Marginal effects of being poor or in the Bottom 40 percent	79
Table A 8. 9: Governorate estimates, various poverty measures, 2012	80
Table A 8. 10: Determinants of subjective poverty and dissatisfaction - 2012	80
Table A 8. 11: Generating weights of different dimensions of subjective poverty and dissatisfaction	82
Table A 8. 12: Subjective poverty weights	83
Table A 8. 13: Life satisfaction weights	83

LIST OF FIGURES

Figure A 1: Spatial variations in consumption across Iraq.....	9
Figure A 2: Regional non-food allowances incorporate differences in consumption across regions	10

LIST OF BOXES

BOX 1: Decomposition of Consumption per Capita	48
BOX 2 Barros et al. (2006) Methodology	50
BOX 3 Proposed Methodology along One Possible Path	52

Annexes

1. Conflict, Growth and Development

Table A 1. 1: Quantifying the effect of violence and development efforts on growth: I

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	Log difference in mean night time lights (annual growth rate)								
Mean district night time lights (log)	-0.0173 (-1.03)	-0.0342* (-1.80)	-0.014 (-1.03)	-0.0643*** (-2.75)	-0.0159 (-0.88)	-0.0358* (-1.75)	-0.0157 (-0.99)	-0.0654*** (-2.73)	-0.023 (-1.30)
Average civilian casualties in the district per month (IBC)	-0.0435*** (-4.54)		-0.0284** (-2.25)	-0.0476*** (-3.14)	-0.0571** (-2.40)	-0.0357*** (-3.05)	-0.0304*** (-2.97)	-0.0517*** (-5.19)	-0.0334*** (-3.23)
Number of reconstruction projects (log)	0.0738*** (4.30)	0.0580*** (3.39)	0.0642*** (3.94)	0.0667*** (4.12)	0.0841*** (3.90)		0.0758*** (4.52)	0.0613*** (2.64)	0.0803*** (3.89)
North * IBC		-0.0175 (-0.34)							
Centre * IBC		-0.0217*** (-2.99)							
South * IBC		-0.00999 (-0.83)							
Fractionalization * IBC			0.00249 (0.15)						
Mean district night time lights (log) * IBC				0.0111* (1.67)					
% agricultural land in district * IBC					0.042 (0.91)				
North * Number of reconstruction projects (log)						0.0857*** (3.45)			
Centre * Number of reconstruction projects (log)						0.0720*** (3.77)			
South * Number of reconstruction projects (log)						0.0912*** (5.23)			
Fractionalization * Number of reconstruction projects (log)							-0.0504* (-1.91)		
Mean district night time lights (log) * Number of reconstruction projects (log)								0.0164** (2.08)	
% agricultural land in district * Number of reconstruction projects (log)									-0.0528 (-1.24)
Constant	0.191*** (6.97)	0.178*** (5.71)	0.162*** (6.03)	0.225*** (6.29)	0.189*** (6.05)	0.198*** (6.12)	0.168*** (5.86)	0.258*** (7.13)	0.182*** (6.35)
N	728	728	728	728	728	728	728	728	728
Hansen's P value	0.0192	0.00461	0.000419	0.00714	0.00549	0.000495	0.00138	0.0886	0.0118
Arellano Bond AR 1 p value	9.68E-08	5.14E-08	8.81E-08	8.22E-08	0.000000145	6.96E-08	9.71E-08	5.82E-08	0.000000104
Arellano Bond AR 1 p value	0.462	0.326	0.385	0.409	0.507	0.478	0.381	0.541	0.413
Number of instruments	37	37	37	37	37	37	37	37	37

Note: t statistics in parentheses * p<0.10 ** p<0.05 *** p<0.01

Source: Authors' estimations based on IHSES 2012

Table A 1. 2: Quantifying the effect of violence and development efforts on growth: II

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	Log difference in mean night time lights (annual growth rate)								
Mean district night time lights (log)	-0.0557* (-1.78)	-0.0917** (-2.47)	-0.0296 (-0.92)	-0.0998*** (-3.18)	-0.0562 (-1.61)	-0.0980** (-2.54)	-0.054 (-1.60)	-0.0807*** (-2.75)	-0.0536 (-1.62)
% of populated area within a district that has cellphone coverage	0.261*** (2.68)	0.255** (2.33)	0.103 (0.98)	0.158 (1.41)	0.264** (2.26)	0.309** (2.53)	0.216* (1.91)	0.227** (2.26)	0.246** (2.45)
Average civilian casualties in the district per month (IBC)	-0.0308*** (-3.24)		-0.0228* (-1.76)	-0.0574*** (-3.33)	-0.0390** (-2.22)	-0.0169 (-1.23)	-0.0154 (-1.14)	-0.0364*** (-3.16)	-0.0288*** (-2.69)
Number of reconstruction projects (log)	0.0510*** (4.38)	0.0498*** (3.54)	0.0516*** (4.39)	0.0417*** (3.46)	0.0540*** (4.28)		0.0646*** (3.45)	0.0535** (2.05)	0.0494*** (3.22)
Centre * IBC		-0.0201* (-1.99)							
South * IBC		-0.00491 (-0.28)							
Fractionalization * IBC			0.00452 (0.21)						
Mean district night time lights (log) * IBC				0.0158** (2.32)					
% agricultural land in district * IBC					0.0208 (0.73)				
Centre * Number of reconstruction projects (log)						0.0428** (2.48)			
South * Number of reconstruction projects (log)						0.0752*** (4.11)			
Fractionalization * Number of reconstruction projects (log)							-0.0623* (-1.84)		
Mean district night time lights (log) * Number of reconstruction projects (log)								0.0046 (0.47)	
% agricultural land in district * Number of reconstruction projects (log)									0.00906 (0.26)
Constant	0.221*** (6.33)	0.251*** (5.70)	0.179*** (4.26)	0.302*** (6.49)	0.226*** (7.07)	0.248*** (5.53)	0.185*** (4.16)	0.268*** (5.59)	0.215*** (5.99)
N	441	441	441	441	441	441	441	441	441
Hansen's P value	0.285	0.0986	0.0256	0.157	0.21	0.186	0.103	0.287	0.152
Arellano Bond AR 1 p value	0.000001	0.00000153	0.00000372	0.000000986	0.00000101	0.000000631	0.00000246	0.00000153	0.00000141
Arellano Bond AR 1 p value	0.399	0.319	0.321	0.31	0.431	0.543	0.405	0.373	0.376
Number of instruments	37	37	37	37	37	37	37	37	37

Note: t statistics in parentheses * p<0.10 ** p<0.05 *** p<0.01

Source: Authors' estimations based on IHSES 2012

2. Poverty, Shared Prosperity and Subjective Well-Being in Iraq

Measuring poverty in Iraq¹

There are two broad classes of methodologies for estimating a poverty line: a “relative” and “absolute” approach. The “relative” poverty line is defined in terms of some percentage cut-off point in a welfare distribution, such as the bottom three deciles of the distribution of per capita total consumption expenditure. The “absolute” poverty line is explicitly fixed at a specific welfare level. Based on the discussions following IHSES 2007, Iraq has chosen the “absolute” poverty line approach, and this line 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 up a food poverty line and a non-food poverty line.

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 (a threshold agreed upon in 2009). In Iraq, the food poverty line is defined in the following way:

- I. Households are ranked by real per-capita total consumption expenditure and those in the 2nd and 3rd deciles are chosen as the reference group;
- II. All food items for which information on expenditure, quantity and estimated calorie value are available are selected;
- III. The aggregates of food expenditures and calorie intakes in the reference group are calculated;
- IV. The cost per calorie is derived by dividing the total expenditures divided by the associated calories, for the reference group.

The national food poverty line is defined at ID 50,473.26 per person per month in 2012, based on the approach described above. This food poverty line obtained has to be translated into a poverty line that also incorporates the expenditure required to attain basic non-food needs. The accepted best practice methodology under the CBN methodology is to anchor the relevant nonfood expenditures that constitute basic needs to the food poverty line.

The “lower bound” of the non-food poverty line is therefore defined as the *average per capita non-food expenditure of households whose per capita total expenditure is close to the food poverty line*. The “upper bound” is defined as the *average per-capita non-food expenditure of households whose per-capita food expenditure is close to the food poverty line*. In the case of Iraq, the average of the lower and upper bounds was used to set the non-food allowance. Thus, the total poverty line for Iraq is the sum of the food poverty line and the corresponding non-food allowance.

¹ Further details of the methodology see World Bank (2013)

Important improvements in terms of measuring consumption expenditure and adjustments for price differences across time and space were implemented in 2012 and made consistent with 2007 data.

i. An appropriately defined consumption expenditure or welfare aggregate

The consumption aggregate used as the basis for measuring poverty in Iraq consists of the following elements (these same elements were included for 2007 data): Food (including rations) ; Liquor and tobacco; Rents and housing expenditures; Durables; Education; Transport; Recreation; Communication; Utilities; Clothing; Household goods; and Other.

All these elements were valued according to the same methodology applied in 2007 with the exceptions of two elements – estimating the consumption flow from durable goods, and the valuation of rations. In these two cases, improvements in survey design or in methodology necessitated the adoption of a different, improved strategy for estimating expenditures, which were also incorporated in revised aggregates for 2007.

ii. Adjustments for price differences across space and time

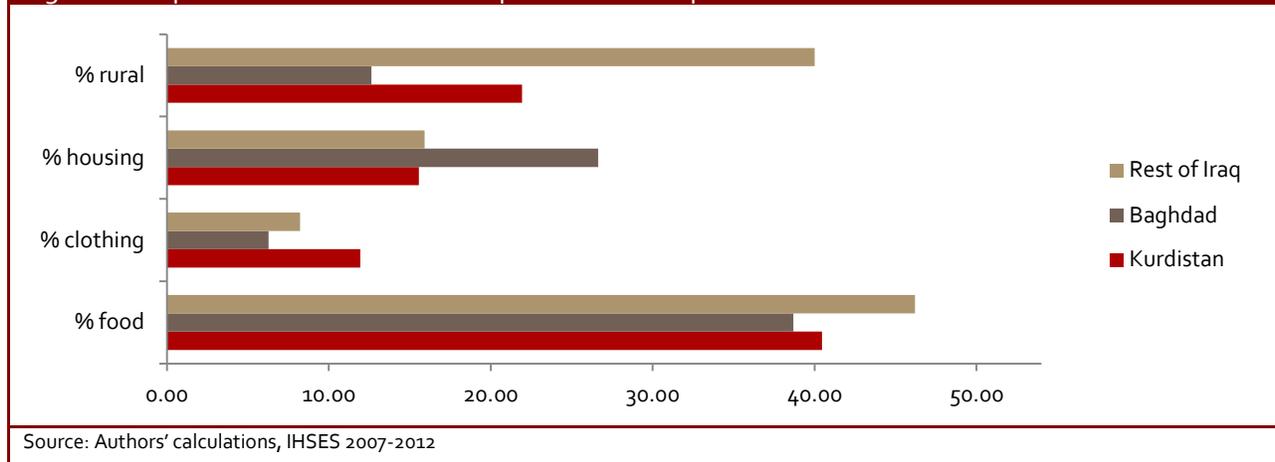
Prices vary across space and time, and it is important to adjust consumption accordingly to ensure comparability. These temporal price adjustments take two forms: (a) adjusting for differences in prices in survey months within a particular year, to make consumption expenditures measured in May comparable with expenditures measured in December for instance; (b) adjusting for differences in prices across survey years, to make 2012 consumption expenditures comparable to those measured in 2007, for instance. Spatial price adjustment is critical especially where there are important differences in prices for food and non-food items across urban and rural areas and in different governorates.

The previous methodology adopted a Fisher price index formula based on survey-based prices or unit values. One significant improvement that is now possible with the new survey in 2012 is the use of the CPI for temporal adjustments (as is common practice across the world) because of significant improvements in CPI methodology in Iraq. Another enhancement is the use of the Paasche price index for spatial adjustment of prices to address what is an increasing reality in Iraq- significant differences in prices faced by households across different parts of the country.

iii. National versus Regional poverty lines

One important trend that has become increasingly important in Iraq over the last six years is the significant differences in consumption patterns, in particular non-food consumption, across different regions of Iraq. Spatial price adjustments can only take into account the effect of differing prices faced by households who live in different regions. This still leaves the issue of differences in the pattern of consumption itself, i.e., the items that are typically consumed by households. The figure below plots the variation in the expenditure shares of basic needs- food, housing, and clothing- as well as the degree of urbanization, across Iraq, after taking into account spatial price differences.

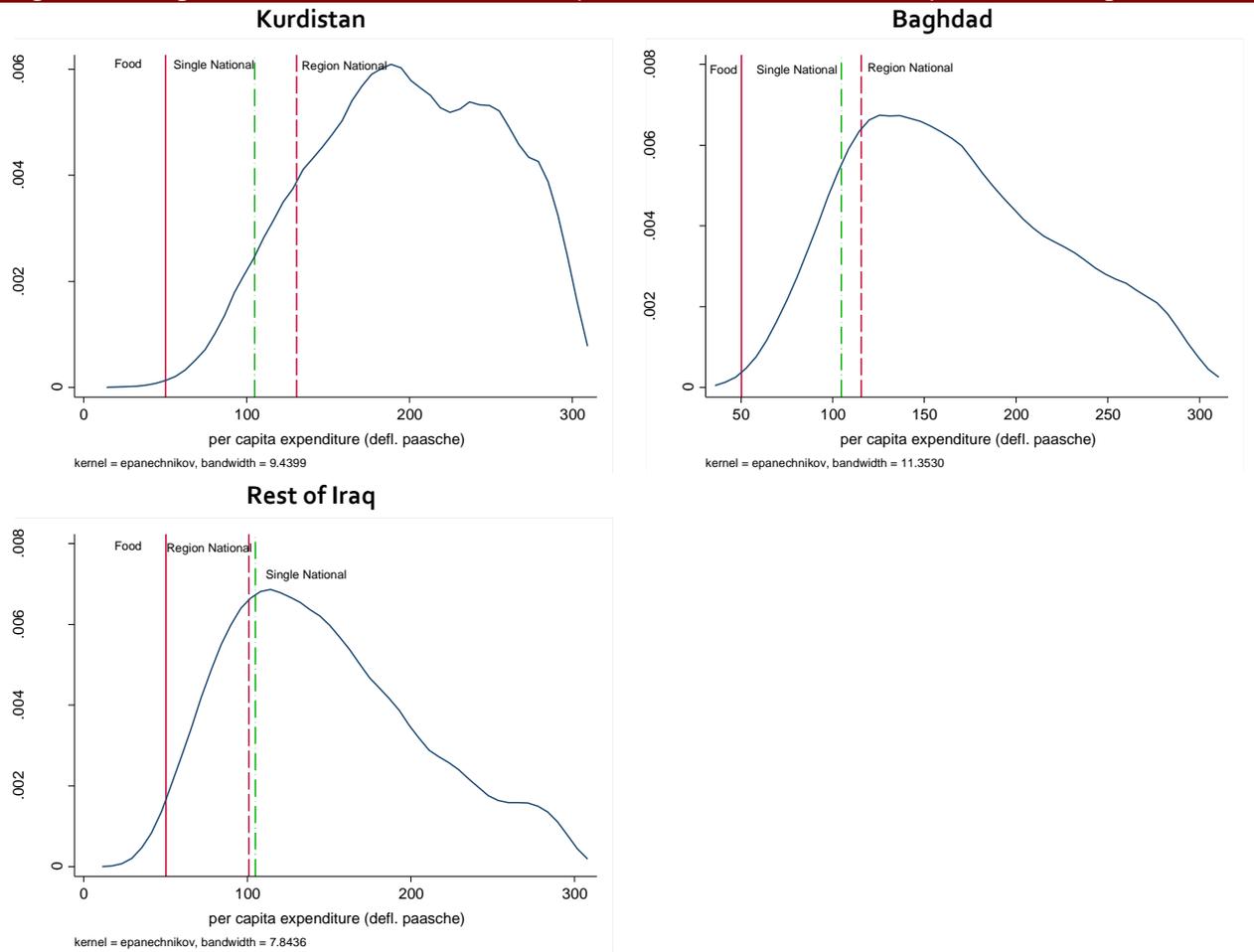
Figure A 1: Spatial variations in consumption across Iraq



Ravallion and Bidani (1994) highlight the approach to be followed to allow for differences in the basic non-food goods needed to achieve the same standard of living in the various sectors or regions. The non-food allowance, i.e., the identification of the upper and lower bounds used to define the magnitude of the non-food allowance be calculated separately by each region. Many countries currently implement this strategy to better account for spatial differences: countries that allow the non-food allowance to vary spatially include Indonesia, Egypt, Argentina, Bolivia, Afghanistan, Colombia, Costa Rica, Mexico, Paraguay, Tanzania, Peru and Uruguay.

To account for these increasingly important differences in consumption expenditure across space in terms of non-food items- for instance, clothing and shelter – we allow the regional 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. This approach takes into account that in certain regions in Iraq, households spend more on certain basic non-food needs, such as clothing, housing costs (rents), transportation, etc. In more urbanized regions, such as Kurdistan and Baghdad, the implied non-food allowance calculated at a regional level is higher than what would have been obtained at a national level (figure A.2). This implies that the cost of basic non-food items, such as clothing and shelter, which are faced by the reference food-poor household in these regions, is higher than the national average. In contrast, for the Rest of Iraq, there is very little difference between the two approaches in determining where the poverty line is fixed.

Figure A 2: Regional non-food allowances incorporate differences in consumption across regions



Source: Authors' calculations, IHSES 2007-2012

Table A 2.1: Poverty by Governorates (Regional poverty lines)

	Poverty Headcount Rate			Distribution of the Poor			Distribution of Population		
	2007	2012	Change	2007	2012	Change	2007	2012	Change
Urban/Rural									
Urban	17.4	14.8	-2.5	52.4	51.2	-1.2	71.2	68.4	-2.8
Rural	38.9	30.6	-8.3	47.6	48.8	1.2	28.8	31.6	2.8
Governorate									
Duhok	27.3	20.9	-6.4	3.4	3.6	0.2	2.9	3.4	0.4
Nineveh	20.5	31.9	11.4	8.1	15.7	7.6	9.4	9.8	0.4
Suleimaniya	7.6	7.4	-0.1	1.7	2.1	0.4	5.3	5.7	0.4
Karkouk	9.5	8.2	-1.3	1.5	1.7	0.2	3.8	4.2	0.4
Erbil	12.3	12.2	-0.1	2.4	3.0	0.5	4.7	4.9	0.2
Diyala	32.6	18.0	-14.6	6.1	3.9	-2.2	4.4	4.3	-0.1
Al-Anbar	26.4	13.7	-12.7	5.3	3.2	-2.1	4.8	4.7	-0.1
Baghdad	19.3	18.0	-1.3	19.2	19.3	0.1	23.4	21.2	-2.2
Babil	32.2	12.8	-19.4	7.1	3.5	-3.6	5.2	5.5	0.3
Kerbala	33.6	10.6	-23.1	4.3	1.7	-2.6	3.0	3.2	0.2
Wasit	32.6	23.7	-8.9	4.9	4.3	-0.5	3.5	3.6	0.1
Salahuddin	38.2	13.9	-24.3	6.3	3.0	-3.3	3.9	4.2	0.3
Al-Najaf	16.6	9.6	-7.0	2.6	1.9	-0.7	3.7	3.8	0.2
Al-Qadisiya	30.5	41.3	10.8	4.4	7.1	2.7	3.4	3.4	0.0
Al-Muthanna	43.5	48.4	4.9	3.9	5.3	1.3	2.1	2.2	0.0
Thi-Qar	27.7	36.8	9.1	6.6	10.2	3.7	5.6	5.5	-0.1
Missan	24.5	38.2	13.6	3.2	5.6	2.4	3.1	2.9	-0.2
Basrah	26.8	12.7	-14.1	8.9	4.9	-4.1	7.8	7.6	-0.3
Total	23.6	19.8	-3.7	100.0	100.0	0.0	100.0	100.0	0.0
Source: Authors' calculations, IHSES 2007-2012									

Table A 2.2: Poverty by Governorates (National poverty line)

	Poverty Headcount Rate			Distribution of the Poor			Distribution of Population		
	2007	2012	Change	2007	2012	Change	2007	2012	Change
Urban/Rural									
Urban	15.7	13.5	-2.2	49.8	48.7	-1.1	71.2	68.4	-2.8
Rural	39.0	30.7	-8.3	50.2	51.3	1.1	28.8	31.6	2.8
Governorate									
Duhouk	8.8	5.8	-3.0	1.2	1.0	-0.1	2.9	3.4	0.4
Nineveh	22.6	34.5	11.9	9.4	17.9	8.5	9.4	9.8	0.4
Suleimaniya	2.8	2.0	-0.8	0.7	0.6	-0.1	5.3	5.7	0.4
Karkouk	11.2	9.1	-2.1	1.9	2.0	0.1	3.8	4.2	0.4
Erbil	3.1	3.6	0.4	0.7	0.9	0.3	4.7	4.9	0.2
Diyala	34.4	20.5	-13.9	6.8	4.7	-2.1	4.4	4.3	-0.1
Al-Anbar	28.1	15.4	-12.7	6.0	3.8	-2.2	4.8	4.7	-0.1
Baghdad	12.6	12.0	-0.6	13.2	13.5	0.3	23.4	21.2	-2.2
Babil	35.7	14.5	-21.2	8.3	4.2	-4.1	5.2	5.5	0.3
Kerbala	36.0	12.4	-23.6	4.8	2.1	-2.7	3.0	3.2	0.2
Wasit	34.4	26.1	-8.3	5.4	5.0	-0.4	3.5	3.6	0.1
Salahuddin	40.9	16.6	-24.3	7.1	3.7	-3.4	3.9	4.2	0.3
Al-Najaf	20.4	10.8	-9.6	3.3	2.2	-1.1	3.7	3.8	0.2
Al-Qadisiya	35.1	44.1	9.0	5.3	7.9	2.6	3.4	3.4	0.0
Al-Muthanna	46.2	52.5	6.4	4.4	6.0	1.6	2.1	2.2	0.0
Thi-Qar	30.4	40.9	10.5	7.6	11.9	4.3	5.6	5.5	-0.1
Missan	27.1	42.3	15.2	3.8	6.5	2.8	3.1	2.9	-0.2
Basrah	29.2	14.9	-14.4	10.2	6.0	-4.3	7.8	7.6	-0.3
Total	22.4	18.9	-3.5	100.0	100.0	0.0	100.0	100.0	0.0

Source: Authors' calculations, IHSES 2007-2012

Table A 2.3: Mean characteristics of the poor and non-poor, all Iraq, 2007 and 2012

	2007		2012	
	Poor	Non Poor	Poor	Non Poor
Urban	0.52	0.77	0.51	0.73
Household size	10.92	7.92	10.58	7.88
Household size squared	138.63	77.74	131.61	78.06
Number of children age 0-6 years	2.58	1.52	2.63	1.64
Number of children age 7-17 years	3.29	2.12	3.39	2.07
Number of elderly	0.41	0.40	0.40	0.40
Number of working age males employed	1.83	1.57	1.60	1.52
Age of head of household	47.62	47.49	46.39	47.95
Household head age squared	2451.35	2436.74	2320.12	2474.12
Male household head	0.92	0.90	0.92	0.90
Dummy = 1 if head of hh born elsewhere	0.08	0.10	0.11	0.13
Household head lived elsewhere for at least 6 months	0.04	0.06	0.26	0.32
# Household members who lived elsewhere for at least 6 months	0.05	0.05	1.35	1.33
Non employed head	0.31	0.29	0.31	0.28
Head employed in agriculture and fishing	0.17	0.08	0.12	0.06
Head employed in mining and quarrying	0.01	0.01	0.00	0.01
Head employed in manufacturing	0.07	0.05	0.05	0.07
Head employed in electricity, gas and water supply	0.01	0.02	0.02	0.02
Head employed in construction	0.09	0.07	0.12	0.06
Head employed in commerce and retail	0.09	0.14	0.07	0.13
Head employed in transport, storage and communication	0.09	0.10	0.12	0.10
Head employed in financial, insurance and professional	0.04	0.07	0.08	0.11
Head employed in public administration, health and education	0.09	0.15	0.07	0.12
Head employed in other sector/services	0.03	0.04	0.03	0.04
Illiterate	0.30	0.21	0.34	0.20
Incomplete primary	0.15	0.10	0.18	0.14
Complete primary	0.28	0.27	0.30	0.28
Intermediate	0.08	0.12	0.08	0.11
Secondary	0.07	0.10	0.04	0.09
Higher secondary	0.04	0.08	0.03	0.08
Tertiary	0.03	0.09	0.02	0.09

Source: Authors' calculations, IHSES 2007-2012

Table A 2.4: Correlates of consumption expenditure, 2007 and 2012

Log per capita real expenditure	2007	2012
Urban household	0.14** [0.007]	0.072** [0.006]
Log of household size	-1.063** [0.034]	-1.21** [0.029]
Log of household size squared	0.185** [0.010]	0.212** [0.009]
Number of children aged 0-6 years	-0.038** [0.003]	-0.036** [0.002]
Number of children aged 7-17 years	-0.029** [0.002]	-0.035** [0.002]
Number of elderly	0.024** [0.006]	0.016** [0.005]
Number of working age males employed	0.025** [0.003]	0.037** [0.003]
Age of the head of household	0.004** [0.001]	0.011** [0.001]
Household head age squared	0 [0.000]	0** [0.000]
Male household head	-0.063** [0.011]	-0.047** [0.009]
Dummy = 1 if head of household born elsewhere	0.043** [0.010]	-0.033** [0.008]
Household head lived elsewhere for at least 6 months	0.076** [0.013]	0.015 [0.008]
# Household members who lived elsewhere for at least 6 months	-0.022** [0.007]	0.003 [0.001]
Sector of employment: Agriculture	0.031** [0.012]	0.006 [0.011]
Sector of employment: Mining and Quarrying	0.058* [0.027]	0.087** [0.027]
Sector of employment: Manufacturing	0.045** [0.014]	0.045** [0.011]
Sector of employment: Utilities	0.046* [0.023]	0.052** [0.018]
Sector of employment: Construction	-0.039** [0.013]	-0.071** [0.011]
Sector of employment: Commerce and retail	0.109** [0.010]	0.102** [0.009]
Sector of employment: Transport, storage and communication	0.057** [0.011]	0.019 [0.010]*
Sector of employment: Finance, insurance and professional services	0.12** [0.013]	0.062** [0.010]
Sector of employment: Public administration, health and education	0.048** [0.011]	0.073** [0.010]
Sector of employment: Other	0.031 [0.016]	-0.012 [0.014]
Incomplete primary	0.056** [0.010]	0.068** [0.008]
Complete primary	0.109** [0.008]	0.105** [0.007]

Intermediate	0.173** [0.011]	0.178** [0.009]
Secondary	0.222** [0.012]	0.27** [0.010]
Higher secondary	0.25** [0.013]	0.299** [0.011]
Tertiary	0.389** [0.013]	0.42** [0.011]
Governorate: Duhouk	0.334** [0.017]	0.328** [0.014]
Governorate: Nineveh	0.059** [0.011]	-0.131** [0.009]
Governorate: Sulaimaniya	0.542** [0.013]	0.347** [0.012]
Governorate: Kirkuk	0.11** [0.015]	0.139** [0.013]
Governorate: Erbil	0.461** [0.014]	0.313** [0.012]
Governorate: Diyala	-0.281** [0.015]	-0.089** [0.013]
Governorate: Anbar	-0.127** [0.014]	0.066** [0.012]
Governorate: Babylon	-0.053** [0.014]	0.073** [0.011]
Governorate: Karbala	-0.115** [0.017]	-0.038** [0.014]
Governorate: Wasit	-0.052** [0.016]	-0.031** [0.013]
Governorate: Salahadin	-0.166** [0.015]	0.072** [0.013]
Governorate: Najaf	0.087** [0.015]	0.186** [0.013]
Governorate: Qadisiya	-0.027 [0.016]	-0.294** [0.014]
Governorate: Muthanna	-0.072** [0.020]	-0.266** [0.017]
Governorate: Thi Qar	-0.023 [0.013]	-0.222** [0.011]
Governorate: Missan	0.001 [0.017]	-0.206** [0.015]
Governorate: Basra	-0.087** [0.012]	0.031** [0.010]
Constant	6.057** [0.046]	6.18** [0.041]
R^2	0.49	0.51
N	17,513	24,945

Note: Standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1
Source: Authors' calculations, IHSES 2007-2012

Table A 2.5: Probability of being poor, marginal effects of different characteristics, 2007 and 2012

Marginal probability effects: Partial effects of each explanatory variable (evaluated at mean values) on the probability that a household is poor	2007	2012
Urban household	-0.108*** (0.0104)	-0.0478*** (0.00794)
Log of household size	0.0617*** (0.00589)	0.0465*** (0.00456)
Log of household size squared	-0.00193*** (0.000216)	-0.00165*** (0.000145)
Number of children aged 0-6 years	0.0361*** (0.00558)	0.0321*** (0.00410)
Number of children aged 7-17 years	0.0281*** (0.00477)	0.0322*** (0.00359)
Number of elderly	-0.0298*** (0.0113)	-0.00802 (0.00804)
Number of working age males employed	-0.0186** (0.00781)	-0.0232*** (0.00556)
Age of the head of household	-0.00458* (0.00248)	-0.00194 (0.00171)
Household head age squared	3.38e-05 (2.50e-05)	-1.67e-07 (1.70e-05)
Male household head	0.0288 (0.0250)	0.0583*** (0.0168)
Dummy = 1 if head of household born elsewhere	-0.0370 (0.0231)	0.0181 (0.0137)
Household head lived elsewhere for at least 6 months	-0.0343 (0.0210)	-0.0222 (0.0154)
# Household members who lived elsewhere for at least 6 months	0.0183 (0.0193)	0.000785 (0.00326)
Sector of employment: Agriculture	0.00965 (0.0203)	-0.00583 (0.0169)
Sector of employment: Mining and Quarrying	-0.0414 (0.0501)	-0.0756*** (0.0279)
Sector of employment: Manufacturing	0.0540 (0.0427)	-0.0340* (0.0182)
Sector of employment: Utilities	-0.0800** (0.0323)	0.00575 (0.0317)
Sector of employment: Construction	0.0447* (0.0269)	0.0671*** (0.0206)
Sector of employment: Commerce and retail	-0.0358* (0.0217)	-0.0700*** (0.0142)
Sector of employment: Transport, storage and communication	-0.0284 (0.0224)	-0.0118 (0.0172)
Sector of employment: Finance, insurance and professional services	-0.0587 (0.0436)	-0.0462*** (0.0151)
Sector of employment: Public administration, health and education	-0.0376* (0.0195)	-0.0591*** (0.0148)
Sector of employment: Other	0.00434 (0.0277)	-0.0110 (0.0191)
Incomplete primary	-0.0184 (0.0225)	-0.0593*** (0.0108)
Complete primary	-0.0658*** (0.0170)	-0.0836*** (0.00992)
Intermediate	-0.126*** (0.0232)	-0.125*** (0.0155)

Secondary	-0.0982*** (0.0334)	-0.158*** (0.0172)
Higher secondary	-0.154*** (0.0258)	-0.162*** (0.0198)
Tertiary	-0.177*** (0.0251)	-0.240*** (0.0216)
Governorate: Duhouk	-0.0492* (0.0281)	-0.0653*** (0.0166)
Governorate: Nineveh	-0.161*** (0.0295)	0.0183 (0.0169)
Governorate: Sulaimaniya	-0.221*** (0.0298)	-0.0856*** (0.0155)
Governorate: Kirkuk	-0.199*** (0.0379)	-0.172*** (0.0277)
Governorate: Erbil	-0.163*** (0.0283)	-0.0541*** (0.0170)
Governorate: Diyala	0.102*** (0.0282)	-0.0234 (0.0161)
Governorate: Anbar	-0.0192 (0.0270)	-0.151*** (0.0190)
Governorate: Babylon	-0.0548* (0.0295)	-0.140*** (0.0191)
Governorate: Karbala	0.0335 (0.0443)	-0.111*** (0.0256)
Governorate: Wasit	-0.0136 (0.0255)	-0.0488*** (0.0177)
Governorate: Salahadin	0.0559** (0.0258)	-0.134*** (0.0164)
Governorate: Najaf	-0.163*** (0.0385)	-0.175*** (0.0231)
Governorate: Qadisiya	-0.0739*** (0.0277)	0.0904*** (0.0154)
Governorate: Muthanna	-0.0267 (0.0252)	0.0800*** (0.0176)
Governorate: Thi Qar	-0.0949*** (0.0273)	0.0618*** (0.0148)
Governorate: Missan	-0.103*** (0.0309)	0.0322* (0.0169)
Governorate: Basra	-0.0400 (0.0304)	-0.117*** (0.0188)
<i>N</i>	17,513	24,945

Note: Standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1
Source: Authors' calculations, IHSES 2007-2012

Table A 2.6: Mean characteristics of the poor, the bottom 40 and the top 60, 2007 and 2012

National	2007			2012		
	Poor	Bottom 40	Top 60	Poor	Bottom 40	Top 60
Urban	0.52	0.59	0.79	0.51	0.58	0.76
Household size	10.92	10.35	7.48	10.58	10.11	7.28
Household size squared	138.63	127.79	68.29	131.61	123.31	65.58
Number of children age 0-6 years	2.58	2.35	1.38	2.63	2.48	1.41
Number of children age 7-17 years	3.29	3.08	1.95	3.39	3.07	1.84
Number of elderly	0.41	0.41	0.40	0.4	0.40	0.40
Number of working age males employed	1.83	1.80	1.52	1.6	1.62	1.48
Age of head of household	47.62	47.75	47.37	46.39	46.76	48.23
Household head age squared	2451.35	2458.40	2428.04	2320.12	2358.93	2500.05
Male household head	0.92	0.91	0.90	0.92	0.91	0.90
Dummy = 1 if head of hh born elsewhere	0.08	0.08	0.11	0.11	0.13	0.12
Household head lived elsewhere for at least 6 months	0.04	0.04	0.06	0.26	0.28	0.32
# Household members who lived elsewhere for at least 6 months	0.05	0.05	0.05	1.35	1.36	1.32
Head not employed	0.31	0.33	0.27	0.32	0.31	0.27
Head employed in agriculture and fishing	0.17	0.15	0.07	0.12	0.10	0.05
Head employed in mining and quarrying	0.01	0.01	0.01	0	0.00	0.01
Head employed in manufacturing	0.07	0.05	0.06	0.05	0.05	0.07
Head employed in electricity, gas and water supply	0.01	0.01	0.02	0.02	0.02	0.02
Head employed in construction	0.09	0.09	0.06	0.12	0.10	0.05
Head employed in commerce and retail	0.09	0.09	0.15	0.07	0.10	0.14
Head employed in transport, storage and communication	0.09	0.09	0.09	0.12	0.11	0.10
Head employed in financial, insurance and professional	0.04	0.04	0.08	0.08	0.09	0.11
Head employed in public administration, health and education	0.09	0.10	0.16	0.07	0.08	0.14
Head employed in other sector/services	0.03	0.03	0.04	0.03	0.04	0.04
Illiterate	0.32	0.33	0.23	0.24	0.30	0.18
Incomplete primary	0.18	0.13	0.10	0.29	0.17	0.13
Complete primary	0.28	0.30	0.25	0.3	0.32	0.26
Intermediate	0.08	0.10	0.13	0.08	0.09	0.12
Secondary	0.07	0.07	0.11	0.04	0.05	0.10
Higher secondary	0.04	0.04	0.09	0.03	0.04	0.09
Tertiary	0.03	0.03	0.10	0.02	0.03	0.11

Source: Authors' calculations, IHSES 2007-2012

Table A 2.7: Probability of being in the bottom 40, marginal effects of characteristics, 2007 and 2012

Marginal probability effects: Partial effects of each explanatory variable (evaluated at mean values) on the probability that a household is in the bottom 40	Iraq	
	2007	2012
Urban	-0.129*** (0.0143)	-0.0658*** (0.0125)
Household size	0.0606*** (0.00727)	0.0864*** (0.00770)
Household size squared	-0.00173*** (0.000226)	-0.00278*** (0.000299)
Number of children age 0-6 years	0.0534*** (0.00751)	0.0639*** (0.00650)
Number of children age 7-17 years	0.0478*** (0.00686)	0.0584*** (0.00555)
Number of elderly	-0.0303* (0.0173)	-0.0191 (0.0130)
Number of working age males employed	-0.0176* (0.0104)	-0.0429*** (0.00861)
Age of head of household	0.000290 (0.00346)	-0.00729*** (0.00268)
Household head age squared	-2.50e-05 (3.55e-05)	3.41e-05 (2.67e-05)
Male household head	0.0573* (0.0331)	0.0859*** (0.0266)
Dummy = 1 if head of hh born elsewhere	-0.0554* (0.0313)	0.0640*** (0.0213)
Household head lived elsewhere for at least 6 months	-0.0606** (0.0303)	-0.00719 (0.0302)
# Household members who lived elsewhere for at least 6 months	0.0167 (0.0255)	-0.00587 (0.00712)
Head employed in agriculture and fishing	-0.0183 (0.0279)	-0.0426 (0.0301)
Head employed in mining and quarrying	-0.0150 (0.0935)	-0.160*** (0.0587)
Head employed in manufacturing	-0.0680 (0.0425)	-0.0559** (0.0281)
Head employed in electricity, gas and water supply	-0.126** (0.0510)	-0.0446 (0.0401)
Head employed in construction	0.0542 (0.0425)	0.0757*** (0.0282)
Head employed in commerce and retail	-0.137*** (0.0288)	-0.109*** (0.0235)
Head employed in transport, storage and communication	-0.0772** (0.0329)	-0.0441* (0.0249)
Head employed in financial, insurance and professional	-0.162*** (0.0492)	-0.0896*** (0.0240)
Head employed in public administration, health and education	-0.0764*** (0.0288)	-0.108*** (0.0244)
Head employed in other sector/services	-0.0667* (0.0361)	0.0164 (0.0319)
Incomplete primary	-0.0530* (0.0281)	-0.107*** (0.0187)
Complete primary	-0.0866*** (0.0256)	-0.116*** (0.0163)
Intermediate	-0.186*** (0.0328)	-0.213*** (0.0226)
Secondary	-0.224***	-0.294***

Higher secondary	(0.0391) -0.300*** (0.0320)	(0.0243) -0.303*** (0.0264)
Tertiary	-0.334*** (0.0324)	-0.420*** (0.0296)
Governorate: Duhouk	-0.114*** (0.0363)	-0.121*** (0.0258)
Governorate: Nineveh	-0.202*** (0.0364)	-0.00955 (0.0271)
Governorate: Sulaimaniya	-0.330*** (0.036)	-0.167*** (0.0243)
Governorate: Kirkuk	-0.271*** (0.0392)	-0.284*** (0.0382)
Governorate: Erbil	-0.256*** (0.0349)	-0.114*** (0.0273)
Governorate: Diyala	0.101*** (0.0386)	-0.0258 (0.0253)
Governorate: Anbar	-0.015 (0.0335)	-0.281*** (0.0273)
Governorate: Babylon	-0.0454 (0.0353)	-0.233*** (0.0273)
Governorate: Karbala	0.0172 (0.0518)	-0.120*** (0.0376)
Governorate: Wasit	-0.0948*** (0.0345)	-0.127*** (0.0275)
Governorate: Salahadin	0.0196 (0.0347)	-0.222*** (0.0234)
Governorate: Najaf	-0.193*** (0.0446)	-0.380*** (0.0342)
Governorate: Qadisiya	-0.111*** (0.0362)	0.166*** (0.0261)
Governorate: Muthanna	-0.0697** (0.034)	0.153*** (0.0294)
Governorate: Thi Qar	-0.0992*** (0.0342)	0.106*** (0.0251)
Governorate: Missan	-0.0957** (0.0409)	0.0495* (0.0272)
Governorate: Basra	-0.0181 (0.0446)	-0.218*** (0.0282)
<i>N</i>	17,513	24,945

Note: Standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1
Source: Authors' calculations, IHSES 2007-2012

3. Poverty in Human Capital

Table A 3.1: Household with a stunted child (women aged 12-49), Marginal effects of characteristics

Household with a stunted child	
Urban household	-0.0523*** (0.0153)
Size of the Household	0.00393 (0.00243)
Mother's education: Incomplete primary	-0.0124 (0.0200)
Mother's education: Complete primary	-0.0122 (0.0212)
Mother's education: Intermediate	-0.00593 (0.0315)
Mother's education: Secondary	-0.0513 (0.0440)
Mother's education: Higher Secondary	-0.0113 (0.0411)
Mother's education: Tertiary	0.0559 (0.0461)
Employed head of household	0.0290 (0.0684)
Head of household out of the labor force	-0.0119 (0.0724)
2nd consumption quintile	0.00335 (0.0219)
3rd consumption quintile	-0.0211 (0.0228)
4th consumption quintile	-0.0527** (0.0241)
5th consumption quintile	-0.103*** (0.0286)
Division: Baghdad	0.176*** (0.0283)
Division: North	0.113*** (0.0260)
Division: Centre	0.0610** (0.0238)
Division: South	0.204*** (0.0249)
Mother's age: 12-23	0.117*** (0.0254)
Mother's age: 24-30	0.0723*** (0.0162)
Food rations (1,000 ID/person/month)	0.00247 (0.00579)
Calorie intake from RATIONS (Kilocalories/person/day)	-1.58e-05 (3.80e-05)
<i>N</i>	10,929

Note: Standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1
Source: Authors' calculations, IHSES 2012

Table A 3.2: Completing primary school (individuals aged 12-25), Marginal effects of characteristics

Completed primary school (ages 12-25)	
Urban household	0.085** (11.64)
Mother's education: Intermediate/Secondary	0.204** (25.24)
Mother's education: Higher Secondary/Tertiary	0.279** (27.36)
Father's education: Intermediate/Secondary	0.147** (17.74)
Father's education: Higher Secondary/Tertiary	0.257** (29.77)
Employed head of household	0.048 (1.21)
Head of household out of the labor force	0.101** (2.84)
Female	-0.142** (5.87)
2nd consumption quintile	0.056** (3.85)
3rd consumption quintile	0.094** (6.56)
4th consumption quintile	0.136** (9.10)
5th consumption quintile	0.142** (8.45)
Female in 2nd consumption quintile	0.023 (1.11)
Female in 3rd consumption quintile	0.037 (1.78)
Female in 4th consumption quintile	0.028 (1.20)
Female in 5th consumption quintile	0.077** (3.27)
Division: Baghdad	-0.214** (8.90)
Division: North	-0.214** (9.72)
Division: Centre	-0.191** (10.31)
Division: South	-0.171** (8.62)
Female in Baghdad	0.075** (2.93)
Female in the North	0.006 (0.22)
Female in the Centre	0.017 (0.79)
Female in the South	-0.042 (1.72)
N	41,316

Note: t statistics in parentheses * p<0.10 ** p<0.05 *** p<0.01
Source: Authors' estimations based on IHSES 2012

4. Conflict, Revival and Neglected: Understanding Spatial Disparities in Welfare

Table A 4.1: Correlates of per capita consumption, Kurdistan

Log per capita real expenditure	Kurdistan	
	2007	2012
Urban household	0.205** [0.020]	0.098** [0.013]
Log of household size	-0.737** [0.087]	-0.96** [0.054]
Log of household size squared	0.143** [0.027]	0.201** [0.018]
Number of children aged 0-6 years	-0.086** [0.008]	-0.065** [0.006]
Number of children aged 7-17 years	-0.057** [0.007]	-0.078** [0.005]
Number of elderly	-0.003 [0.016]	-0.012 [0.010]
Number of working age males employed	0.006 [0.010]	0.033** [0.007]
Age of the head of household	0.007 [0.004]	0.026** [0.003]
Household head age squared	0 [0.000]	0** [0.000]
Male household head	-0.035 [0.030]	0.01 [0.020]
Dummy = 1 if head of household born elsewhere	-0.045 [0.025]	-0.057** [0.016]
Household head lived elsewhere for at least 6 months	0.057** [0.021]	0.008 [0.014]
# Household members who lived elsewhere for at least 6 months	-0.025 [0.017]	-0.006* [0.003]
Sector of employment: Agriculture	-0.024 [0.035]	-0.045* [0.022]
Sector of employment: Mining and Quarrying	-0.111 [0.125]	0.025 [0.121]
Sector of employment: Manufacturing	0.063 [0.048]	-0.055* [0.025]
Sector of employment: Utilities	-0.044 [0.064]	-0.112** [0.038]
Sector of employment: Construction	-0.098** [0.033]	-0.122** [0.024]
Sector of employment: Commerce and retail	0.125** [0.031]	0.091** [0.020]
Sector of employment: Transport, storage and communication	0.062 [0.034]	-0.009 [0.022]
Sector of employment: Finance, insurance and professional services	0.027 [0.039]	-0.032 [0.020]
Sector of employment: Public administration, health and education	-0.112** [0.030]	-0.069** [0.021]
Sector of employment: Other	-0.015 [0.033]	-0.089** [0.029]
Incomplete primary	0.126** [0.022]	0.066** [0.014]
Complete primary	0.133** [0.022]	0.111** [0.014]

Intermediate	0.253** [0.034]	0.175** [0.020]
Secondary	0.286** [0.032]	0.306** [0.022]
Higher secondary	0.363** [0.039]	0.279** [0.022]
Tertiary	0.646** [0.041]	0.367** [0.024]
Sulaimaniya	0.155** [0.021]	0.031* [0.014]
Erbil	0.1** [0.020]	-0.013 [0.014]
Constant	6.021** [0.116]	5.919** [0.075]
R^2	0.45	0.38
N	2796	6555

Note: Standard errors in parentheses *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$
Source: Authors' calculations, IHSES 2007-2012

Table A 4.2: Correlates of per capita consumption, Baghdad

Log per capita real expenditure	Baghdad	
	2007	2012
Urban household	-0.019 [0.039]	0.108** [0.025]
Log of household size	-1.31** [0.120]	-1.069** [0.095]
Log of household size squared	0.252** [0.035]	0.141** [0.030]
Number of children aged 0-6 years	-0.016 [0.010]	-0.035** [0.009]
Number of children aged 7-17 years	-0.024** [0.008]	-0.023** [0.007]
Number of elderly	0.006 [0.020]	0.042** [0.016]
Number of working age males employed	0.014 [0.012]	0.045** [0.011]
Age of the head of household	0.003 [0.005]	-0.001 [0.004]
Household head age squared	0 [0.000]	0 [0.000]
Male household head	-0.109** [0.031]	-0.081** [0.026]
Dummy = 1 if head of household born elsewhere	0.11** [0.025]	0.034 [0.026]
Household head lived elsewhere for at least 6 months	0.021 [0.049]	-0.119** [0.031]
# Household members who lived elsewhere for at least 6 months	-0.015 [0.016]	0.021** [0.005]
Sector of employment: Agriculture	0.174** [0.065]	0.133** [0.050]
Sector of employment: Mining and Quarrying	0.205 [0.130]	-0.046 [0.128]
Sector of employment: Manufacturing	0.038 [0.043]	0.068* [0.034]
Sector of employment: Utilities	0.031 [0.074]	0.108 [0.067]

Sector of employment: Construction	0.024 [0.044]	-0.041 [0.035]
Sector of employment: Commerce and retail	0.089** [0.033]	0.172** [0.028]
Sector of employment: Transport, storage and communication	0.113** [0.037]	-0.018 [0.029]
Sector of employment: Finance, insurance and professional services	0.111** [0.041]	0.041 [0.031]
Sector of employment: Public administration, health and education	0.129** [0.037]	0.054 [0.033]
Sector of employment: Other	0.112* [0.053]	0.01 [0.046]
Incomplete primary	-0.023 [0.042]	0.097** [0.029]
Complete primary	0.118** [0.030]	0.115** [0.026]
Intermediate	0.126** [0.035]	0.168** [0.029]
Secondary	0.183** [0.038]	0.301** [0.032]
Higher secondary	0.18** [0.045]	0.278** [0.037]
Tertiary	0.445** [0.042]	0.416** [0.032]
Constant	6.43** [0.157]	6.368** [0.137]
R^2	0.32	0.5
N	1585	2132

Note: Standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1
Source: Authors' calculations, IHSES 2007-2012

Table A 4.3: Correlates of per capita consumption, North

Log per capita real expenditure	North	
	2007	2012
Urban household	0.068** [0.016]	0.061** [0.013]
Log of household size	-1.168** [0.096]	-1.35** [0.072]
Log of household size squared	0.211** [0.027]	0.255** [0.021]
Number of children aged 0-6 years	-0.053** [0.007]	-0.035** [0.005]
Number of children aged 7-17 years	-0.023** [0.006]	-0.025** [0.005]
Number of elderly	0.031* [0.015]	0.003 [0.012]
Number of working age males employed	0.007 [0.008]	0.045** [0.008]
Age of the head of household	0.006 [0.004]	0.007* [0.003]
Household head age squared	0 [0.000]	0 [0.000]
Male household head	0.019 [0.027]	0.053* [0.026]
Dummy = 1 if head of household born elsewhere	0.035 [0.029]	-0.041 [0.024]

Household head lived elsewhere for at least 6 months	0.12*	0.125**
	[0.048]	[0.027]
# Household members who lived elsewhere for at least 6 months	0.003	-0.003
	[0.043]	[0.004]
Sector of employment: Agriculture	0.039	0.064*
	[0.025]	[0.026]
Sector of employment: Mining and Quarrying	0.13	0.144*
	[0.085]	[0.067]
Sector of employment: Manufacturing	0.033	0.004
	[0.035]	[0.028]
Sector of employment: Utilities	0.084	-0.097
	[0.068]	[0.057]
Sector of employment: Construction	-0.127**	-0.097**
	[0.033]	[0.030]
Sector of employment: Commerce and retail	0.054*	0.022
	[0.026]	[0.023]
Sector of employment: Transport, storage and communication	-0.017	-0.002
	[0.030]	[0.024]
Sector of employment: Finance, insurance and professional services	0.093**	0.07**
	[0.031]	[0.026]
Sector of employment: Public administration, health and education	0.028	0.059*
	[0.026]	[0.026]
Sector of employment: Other	-0.038	-0.008
	[0.041]	[0.030]
Incomplete primary	0.037	0.027
	[0.025]	[0.021]
Complete primary	0.047*	0.052**
	[0.021]	[0.018]
Intermediate	0.082**	0.151**
	[0.025]	[0.024]
Secondary	0.151**	0.211**
	[0.030]	[0.028]
Higher secondary	0.196**	0.25**
	[0.031]	[0.028]
Tertiary	0.243**	0.415**
	[0.030]	[0.027]
Nineveh	0.24**	-0.198**
	[0.018]	[0.016]
Kirkuk	0.297**	0.072**
	[0.020]	[0.019]
Constant	6.024**	6.365**
	[0.125]	[0.101]
R^2	0.39	0.39
N	2859	4379

Note: Standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1
Source: Authors' calculations, IHSES 2007-2012

Table A 4.4: Correlates of per capita consumption, Centre

Log per capita real expenditure	Centre	
	2007	2012
Urban household	0.218** [0.011]	0.024* [0.010]
Log of household size	-1.059** [0.055]	-1.224** [0.061]
Log of household size squared	0.154** [0.017]	0.222** [0.018]
Number of children aged 0-6 years	-0.022** [0.004]	-0.036** [0.005]
Number of children aged 7-17 years	-0.019** [0.004]	-0.039** [0.004]
Number of elderly	0.068** [0.010]	0.037** [0.010]
Number of working age males employed	0.063** [0.006]	0.029** [0.006]
Age of the head of household	0.009** [0.002]	0.015** [0.002]
Household head age squared	0* [0.000]	0** [0.000]
Male household head	-0.029 [0.020]	-0.036* [0.018]
Dummy = 1 if head of household born elsewhere	-0.057** [0.017]	-0.029 [0.016]
Household head lived elsewhere for at least 6 months	0.149** [0.023]	0.037* [0.019]
# Household members who lived elsewhere for at least 6 months	0.012 [0.018]	-0.001 [0.003]
Sector of employment: Agriculture	0.038* [0.018]	-0.049* [0.020]
Sector of employment: Mining and Quarrying	0.005 [0.081]	-0.073 [0.075]
Sector of employment: Manufacturing	0.073** [0.024]	0.056* [0.022]
Sector of employment: Utilities	0.085 [0.045]	0.072* [0.037]
Sector of employment: Construction	-0.038 [0.022]	-0.072** [0.021]
Sector of employment: Commerce and retail	0.137** [0.018]	0.108** [0.018]
Sector of employment: Transport, storage and communication	0.066** [0.020]	0.045* [0.019]
Sector of employment: Finance, insurance and professional services	0.167** [0.021]	0.091** [0.018]
Sector of employment: Public administration, health and education	0.078** [0.018]	0.094** [0.019]
Sector of employment: Other	0.006 [0.036]	-0.022 [0.028]
Incomplete primary	0.076** [0.018]	0.079** [0.016]
Complete primary	0.1** [0.015]	0.098** [0.014]
Intermediate	0.213** [0.020]	0.182** [0.018]
Secondary	0.25** [0.019]	0.27** [0.019]

Higher secondary	0.257** [0.021]	0.29** [0.020]
Tertiary	0.338** [0.021]	0.384** [0.021]
Diyla	-0.323** [0.018]	-0.281** [0.016]
Anbar	-0.186** [0.017]	-0.13** [0.016]
Babylon	-0.113** [0.017]	-0.118** [0.015]
Karbala	-0.168** [0.019]	-0.226** [0.017]
Wasit	-0.12** [0.018]	-0.219** [0.017]
Constant	5.914** [0.079]	6.29** [0.084]
R^2	0.45	0.4
N	5574	6356

Note: Standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1
Source: Authors' calculations, IHSES 2007-2012

Table A 4.5: Correlates of per capita consumption, South

Log per capita real expenditure	South	
	2007	2012
Urban household	0.139** [0.011]	0.118** [0.011]
Log of household size	-1.006** [0.065]	-1.381** [0.074]
Log of household size squared	0.158** [0.018]	0.25** [0.021]
Number of children aged 0-6 years	-0.035** [0.005]	-0.036** [0.005]
Number of children aged 7-17 years	-0.027** [0.004]	-0.045** [0.004]
Number of elderly	0.003 [0.009]	-0.019 [0.010]
Number of working age males employed	0.023** [0.006]	0.03** [0.007]
Age of the head of household	0 [0.002]	0.007** [0.002]
Household head age squared	0 [0.000]	0 [0.000]
Male household head	-0.035 [0.021]	-0.097** [0.019]
Dummy = 1 if head of household born elsewhere	0.057* [0.026]	0.001 [0.018]
Household head lived elsewhere for at least 6 months	0.167** [0.032]	0.047** [0.014]
# Household members who lived elsewhere for at least 6 months	-0.035 [0.028]	-0.007* [0.003]
Sector of employment: Agriculture	-0.027 [0.019]	-0.046* [0.022]
Sector of employment: Mining and Quarrying	0.026 [0.029]	0.138** [0.034]
Sector of employment: Manufacturing	0.033 [0.023]	0.096** [0.022]

Sector of employment: Utilities	0.039 [0.034]	0.148** [0.030]
Sector of employment: Construction	-0.026 [0.021]	-0.059** [0.021]
Sector of employment: Commerce and retail	0.098** [0.019]	0.08** [0.019]
Sector of employment: Transport, storage and communication	0.015 [0.020]	0.058** [0.020]
Sector of employment: Finance, insurance and professional services	0.141** [0.026]	0.101** [0.022]
Sector of employment: Public administration, health and education	0.046* [0.019]	0.133** [0.019]
Sector of employment: Other	0.043 [0.036]	-0.004 [0.031]
Incomplete primary	0.044** [0.017]	0.084** [0.016]
Complete primary	0.106** [0.015]	0.153** [0.014]
Intermediate	0.228** [0.019]	0.225** [0.019]
Secondary	0.242** [0.021]	0.262** [0.022]
Higher secondary	0.258** [0.022]	0.369** [0.021]
Tertiary	0.363** [0.025]	0.509** [0.024]
Qadisiya	0.06** [0.015]	-0.306** [0.015]
Muthanna	0.026 [0.018]	-0.253** [0.018]
Thi Qar	0.059** [0.013]	-0.235** [0.013]
Missan	0.077** [0.016]	-0.208** [0.016]
Constant	6.058** [0.084]	6.461** [0.094]
R^2	0.46	0.53
N	4699	5523

Note: Standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1
Source: Authors' calculations, IHSES 2007-2012

Marginal probability effects: Partial effects of each explanatory variable (evaluated at mean values) on the probability that a household is poor	Kurdistan	
	2007	2012
Urban household	-0.128** [0.019]	-0.047** [0.014]
Log of household size	0.02* [0.010]	0.016 [0.009]
Log of household size squared	-0.001* [0.000]	-0.001 [0.000]
Number of children aged 0-6 years	0.036** [0.006]	0.027** [0.006]
Number of children aged 7-17 years	0.025** [0.006]	0.027** [0.005]
Number of elderly	0.013 [0.013]	-0.001 [0.012]

Number of working age males employed	-0.004 [0.009]	-0.012 [0.007]
Age of the head of household	0.002 [0.003]	-0.005* [0.003]
Household head age squared	0 [0.000]	0 [0.000]
Male household head	0.033 [0.017]	0.027 [0.015]
Dummy = 1 if head of household born elsewhere	0.029 [0.025]	0.034* [0.017]
Household head lived elsewhere for at least 6 months	0.011 [0.018]	0 [0.013]
# Household members who lived elsewhere for at least 6 months	-0.004 [0.013]	0.002 [0.003]
Sector of employment: Agriculture	-0.01 [0.023]	0.048 [0.026]
Sector of employment: Mining and Quarrying	0.213 [0.192]	-0.04 [0.047]
Sector of employment: Manufacturing	-0.022 [0.032]	0.032 [0.029]
Sector of employment: Utilities	-0.05* [0.021]	0.068 [0.048]
Sector of employment: Construction	0.021 [0.030]	0.064* [0.031]
Sector of employment: Commerce and retail	-0.055** [0.017]	-0.013 [0.019]
Sector of employment: Transport, storage and communication	-0.041* [0.018]	0.015 [0.023]
Sector of employment: Finance, insurance and professional services	-0.025 [0.025]	0.016 [0.019]
Sector of employment: Public administration, health and education	-0.013 [0.021]	0.03 [0.023]
Sector of employment: Other	-0.038* [0.018]	0.071 [0.039]
Incomplete primary	-0.028* [0.013]	-0.035** [0.010]
Complete primary	-0.045** [0.013]	-0.05** [0.010]
Intermediate	-0.063** [0.012]	-0.051** [0.013]
Secondary	-0.051** [0.015]	-0.072** [0.007]
Higher secondary	-0.061** [0.013]	-0.079** [0.006]
Tertiary	-0.076** [0.009]	-0.08** [0.006]
Sulaimaniya	-0.082** [0.013]	-0.025* [0.011]
Erbil	-0.054** [0.012]	0.004 [0.012]
Observations	2,796	6,555

Note: Standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1
Source: Authors' calculations, IHSES 2007-2012

Table A 4.7: Probability of being poor, Baghdad

Marginal probability effects: Partial effects of each explanatory variable (evaluated at mean values) on the probability that a household is poor	Baghdad	
	2007	2012
Urban household	0.008 [0.034]	-0.043 [0.026]
Log of household size	0.124** [0.019]	0.056** [0.013]
Log of household size squared	-0.005** [0.001]	-0.002** [0.001]
Number of children aged 0-6 years	0.015 [0.013]	0.028* [0.011]
Number of children aged 7-17 years	0.02 [0.010]	0.025** [0.009]
Number of elderly	-0.04 [0.027]	-0.029 [0.019]
Number of working age males employed	-0.005 [0.016]	-0.026* [0.013]
Age of the head of household	-0.012* [0.006]	0.003 [0.005]
Household head age squared	0 [0.000]	0 [0.000]
Male household head	0.02 [0.045]	0.074** [0.021]
Dummy = 1 if head of household born elsewhere	-0.054 [0.028]	-0.036 [0.027]
Household head lived elsewhere for at least 6 months	0.015 [0.064]	0.068 [0.050]
# Household members who lived elsewhere for at least 6 months	0.023 [0.020]	-0.006 [0.007]
Sector of employment: Agriculture	-0.084 [0.044]	-0.046 [0.028]
Sector of employment: Manufacturing	0.07 [0.070]	-0.041 [0.028]
Sector of employment: Utilities	-0.072 [0.063]	0.129 [0.093]
Sector of employment: Construction	-0.02 [0.054]	0.082 [0.053]
Sector of employment: Commerce and retail	0.017 [0.048]	-0.082** [0.018]
Sector of employment: Transport, storage and communication	-0.054 [0.039]	0.003 [0.032]
Sector of employment: Finance, insurance and professional services	-0.006 [0.077]	-0.049* [0.023]
Sector of employment: Public administration, health and education	-0.07 [0.041]	-0.06* [0.025]
Sector of employment: Other	-0.045 [0.047]	-0.022 [0.034]
Incomplete primary	0.034 [0.062]	-0.077** [0.022]
Complete primary	-0.064 [0.043]	-0.09** [0.024]
Intermediate	-0.066 [0.045]	-0.102** [0.019]
Secondary	-0.015 [0.066]	-0.125** [0.012]
Higher secondary	-0.083 [0.043]	-0.092** [0.016]

Tertiary	-0.121** [0.028]	-0.124** [0.013]
Observations	1,576	2,127

Note: Standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1
Source: Authors' calculations, IHSES 2007-2012

Table A 4.8: Probability of being poor, North

Marginal probability effects: Partial effects of each explanatory variable (evaluated at mean values) on the probability that a household is poor	North	
	2007	2012
Urban household	-0.061* [0.028]	-0.062* [0.024]
Log of household size	0.072** [0.015]	0.054** [0.010]
Log of household size squared	-0.002** [0.001]	-0.002** [0.000]
Number of children aged 0-6 years	0.039** [0.011]	0.027** [0.010]
Number of children aged 7-17 years	0.008 [0.010]	0.026** [0.009]
Number of elderly	-0.042 [0.026]	-0.004 [0.021]
Number of working age males employed	-0.011 [0.016]	-0.039** [0.014]
Age of the head of household	-0.005 [0.006]	-0.003 [0.004]
Household head age squared	0 [0.000]	0 [0.000]
Male household head	-0.046 [0.052]	-0.003 [0.041]
Dummy = 1 if head of household born elsewhere	-0.035 [0.050]	-0.023 [0.045]
Household head lived elsewhere for at least 6 months	-0.058 [0.059]	-0.129** [0.032]
# Household members who lived elsewhere for at least 6 months	-0.099 [0.069]	0.016 [0.008]
Sector of employment: Agriculture	0.014 [0.046]	-0.033 [0.030]
Sector of employment: Mining and Quarrying		0.047 [0.104]
Sector of employment: Manufacturing	0.018 [0.057]	0.01 [0.056]
Sector of employment: Utilities		0.093 [0.119]
Sector of employment: Construction	0.158* [0.069]	0.098 [0.060]
Sector of employment: Commerce and retail	0.038 [0.048]	-0.03 [0.039]
Sector of employment: Transport, storage and communication	0.091 [0.061]	-0.003 [0.042]
Sector of employment: Finance, insurance and professional services	-0.003 [0.066]	-0.051 [0.037]
Sector of employment: Public administration, health and education	0.032 [0.048]	-0.051 [0.035]
Sector of employment: Other	0.172* [0.088]	-0.037 [0.039]
Incomplete primary	-0.051	-0.007

Complete primary	[0.035] -0.043	[0.031] -0.062*
Intermediate	[0.036] -0.078*	[0.028] -0.094**
Secondary	[0.031] -0.123**	[0.029] -0.054
Higher secondary	[0.025] -0.132**	[0.043] -0.093**
Tertiary	[0.025] -0.102**	[0.036] -0.135**
Nineveh	[0.031] -0.215**	[0.025] 0.162**
Kirkuk	[0.025] -0.193**	[0.023] -0.037
Observations	[0.017] 2,791	[0.026] 4,379

Note: Standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1
Source: Authors' calculations, IHSES 2007-2012

Table A 4.9: Probability of being poor, Centre

Marginal probability effects: Partial effects of each explanatory variable (evaluated at mean values) on the probability that a household is poor	Centre	
	2007	2012
Urban household	-0.188 [0.023]**	-0.003 [0.011]
Log of household size	0.076 [0.010]**	0.023 [0.006]**
Log of household size squared	-0.002 [0.000]**	-0.001 [0.000]**
Number of children aged 0-6 years	0.045 [0.011]**	0.028 [0.006]**
Number of children aged 7-17 years	0.038 [0.009]**	0.029 [0.005]**
Number of elderly	-0.053 [0.021]*	-0.02 [0.012]
Number of working age males employed	-0.065 [0.012]**	-0.021 [0.007]**
Age of the head of household	-0.002 [0.005]	-0.005 [0.003]
Household head age squared	0 [0.000]	0 [0.000]
Male household head	0.009 [0.053]	0.035 [0.017]*
Dummy = 1 if head of household born elsewhere	0.054 [0.051]	0.053 [0.024]*
Household head lived elsewhere for at least 6 months	-0.132 [0.030]**	-0.018 [0.021]
# Household members who lived elsewhere for at least 6 months	-0.02 [0.029]	-0.001 [0.004]
Sector of employment: Agriculture	-0.019 [0.033]	0.009 [0.021]
Sector of employment: Mining and Quarrying	-0.065 [0.092]	-0.075 [0.031]*
Sector of employment: Manufacturing	0.018 [0.050]	-0.024 [0.022]
Sector of employment: Utilities	-0.065 [0.063]	-0.031 [0.032]

Sector of employment: Construction	0.023 [0.053]	0.002 [0.022]
Sector of employment: Commerce and retail	-0.113 [0.034]**	-0.054 [0.015]**
Sector of employment: Transport, storage and communication	-0.071 [0.039]	-0.023 [0.019]
Sector of employment: Finance, insurance and professional services	-0.146 [0.028]**	-0.03 [0.018]
Sector of employment: Public administration, health and education	-0.103 [0.031]**	-0.058 [0.015]**
Sector of employment: Other	0.02 [0.050]	-0.024 [0.021]
Incomplete primary	-0.067 [0.035]	-0.046 [0.013]**
Complete primary	-0.058 [0.034]	-0.072 [0.013]**
Intermediate	-0.152 [0.026]**	-0.089 [0.009]**
Secondary	-0.145 [0.027]**	-0.09 [0.010]**
Higher secondary	-0.143 [0.032]**	-0.097 [0.009]**
Tertiary	-0.161 [0.026]**	-0.101 [0.008]**
Diyala	0.334 [0.053]**	0.166 [0.031]**
Anbar	0.176 [0.049]**	0.032 [0.022]
Babylon	0.114 [0.050]*	0.038 [0.023]
Karbala	0.245 [0.071]**	0.048 [0.029]
Wasit	0.188 [0.048]**	0.133 [0.030]**
Observations	5,574	6,356

Note: Standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1
Source: Authors' calculations, IHSES 2007-2012

Table A 4.10: Probability of being poor, South

Marginal probability effects: Partial effects of each explanatory variable (evaluated at mean values) on the probability that a household is poor	South	
	2007	2012
Urban household	-0.142 [0.022]**	-0.119 [0.019]**
Log of household size	0.082 [0.011]**	0.07 [0.011]**
Log of household size squared	-0.002 [0.000]**	-0.003 [0.000]**
Number of children aged 0-6 years	0.031 [0.010]**	0.049 [0.009]**
Number of children aged 7-17 years	0.029 [0.008]**	0.062 [0.008]**
Number of elderly	-0.008 [0.021]	0.043 [0.020]*
Number of working age males employed	-0.015 [0.017]	-0.014 [0.013]
Age of the head of household	-0.005	0

Household head age squared	[0.004] 0	[0.004] 0
Male household head	[0.000] 0.041	[0.000] 0.066
Dummy = 1 if head of household born elsewhere	[0.040] -0.051	[0.028]* -0.017
Household head lived elsewhere for at least 6 months	[0.047] -0.065	[0.041] -0.083
# Household members who lived elsewhere for at least 6 months	[0.052] 0.01	[0.026]** 0.013
Sector of employment: Agriculture	[0.043] 0.099	[0.006]* 0.045
Sector of employment: Mining and Quarrying	[0.041]* 0.006	[0.040] -0.129
Sector of employment: Manufacturing	[0.078] 0.13	[0.041]** -0.084
Sector of employment: Utilities	[0.106] -0.044	[0.032]** -0.109
Sector of employment: Construction	[0.051] 0.114	[0.038]** 0.102
Sector of employment: Commerce and retail	[0.051]* -0.031	[0.045]* -0.107
Sector of employment: Transport, storage and communication	[0.037] 0.035	[0.030]** -0.026
Sector of employment: Finance, insurance and professional services	[0.041] -0.15	[0.035] -0.071
Sector of employment: Public administration, health and education	[0.031]** 0.013	[0.036]* -0.093
Sector of employment: Other	[0.037] 0.022	[0.030]** 0.032
Incomplete primary	[0.068] -0.031	[0.050] -0.094
Complete primary	[0.036] -0.093	[0.025]** -0.152
Intermediate	[0.027]** -0.151	[0.023]** -0.159
Secondary	[0.024]** -0.141	[0.021]** -0.161
Higher secondary	[0.027]** -0.15	[0.022]** -0.188
Tertiary	[0.026]** -0.152	[0.018]** -0.24
Qadisiya	[0.030]** -0.039	[0.012]** 0.331
Muthanna	[0.029] 0.002	[0.035]** 0.3
Thi Qar	[0.030] -0.052	[0.039]** 0.26
Missan	[0.027] -0.057	[0.032]** 0.207
	[0.029]*	[0.036]**
Observations	4,699	5,523

Note: Standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1
Source: Authors' calculations, IHSES 2007-2012

Table A 4.11: Probability of belonging to the bottom 40, Kurdistan

Marginal probability effects: Partial effects of each explanatory variable (evaluated at mean values) on the probability that a household belongs to the bottom 40	Kurdistan	
	2007	2012
Urban household	-0.215 [0.028]**	-0.115 [0.027]**
Log of household size	0.074 [0.020]**	0.072 [0.020]**
Log of household size squared	-0.003 [0.001]**	-0.003 [0.001]**
Number of children aged 0-6 years	0.105 [0.015]**	0.072 [0.014]**
Number of children aged 7-17 years	0.072 [0.011]**	0.078 [0.011]**
Number of elderly	0.026 [0.027]	0.02 [0.026]
Number of working age males employed	0.011 [0.018]	-0.024 [0.017]
Age of the head of household	-0.01 [0.006]	-0.023 [0.006]**
Household head age squared	0 [0.000]	0 [0.000]**
Male household head	0.06 [0.050]	-0.029 [0.047]
Dummy = 1 if head of household born elsewhere	0.098 [0.043]*	0.06 [0.035]
Household head lived elsewhere for at least 6 months	-0.006 [0.034]	-0.05 [0.034]
# Household members who lived elsewhere for at least 6 months	-0.005 [0.029]	0.011 [0.007]
Sector of employment: Agriculture	0.072 [0.058]	0.047 [0.050]
Sector of employment: Mining and Quarrying	0.37 [0.109]**	0.063 [0.176]
Sector of employment: Manufacturing	-0.071 [0.083]	0.039 [0.057]
Sector of employment: Utilities	0.072 [0.107]	0.09 [0.082]
Sector of employment: Construction	0.116 [0.059]	0.14 [0.056]*
Sector of employment: Commerce and retail	-0.157 [0.047]**	-0.041 [0.049]
Sector of employment: Transport, storage and communication	-0.011 [0.057]	0.038 [0.057]
Sector of employment: Finance, insurance and professional services	-0.058 [0.064]	0.056 [0.047]
Sector of employment: Public administration, health and education	0.111 [0.052]*	0.076 [0.049]
Sector of employment: Other	-0.027 [0.057]	0.081 [0.062]
Incomplete primary	-0.123 [0.031]**	-0.084 [0.031]**
Complete primary	-0.099 [0.036]**	-0.161 [0.031]**
Intermediate	-0.198 [0.043]**	-0.167 [0.039]**
Secondary	-0.214 [0.040]**	-0.27 [0.029]**

Higher secondary	-0.29 [0.034]**	-0.229 [0.039]**
Tertiary	-0.336 [0.026]**	-0.285 [0.038]**
Sulaimaniya	-0.167 [0.030]**	-0.064 [0.028]*
Erbil	-0.09 [0.029]**	0.002 [0.030]
Observations	2,796	6,555

Note: Standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1
Source: Authors' calculations, IHSES 2007-2012

Table A 4.12: Probability of belonging to the bottom 40, Baghdad		
Marginal probability effects: Partial effects of each explanatory variable (evaluated at mean values) on the probability that a household belongs to the bottom 40	Baghdad	
	2007	2012
Urban household	-0.006 [0.052]	-0.112 [0.043]**
Log of household size	0.215 [0.030]**	0.171 [0.025]**
Log of household size squared	-0.009 [0.001]**	-0.005 [0.001]**
Number of children aged 0-6 years	0.017 [0.022]	0.062 [0.019]**
Number of children aged 7-17 years	0.037 [0.018]*	0.03 [0.016]
Number of elderly	0.019 [0.039]	-0.093 [0.036]**
Number of working age males employed	-0.017 [0.025]	-0.066 [0.024]**
Age of the head of household	0.01 [0.010]	0.005 [0.008]
Household head age squared	0 [0.000]	0 [0.000]
Male household head	0.086 [0.062]	0.16 [0.052]**
Dummy = 1 if head of household born elsewhere	-0.133 [0.049]**	-0.018 [0.055]
Household head lived elsewhere for at least 6 months	0.056 [0.111]	0.178 [0.079]*
# Household members who lived elsewhere for at least 6 months	0.007 [0.034]	-0.02 [0.015]
Sector of employment: Agriculture	-0.261 [0.054]**	-0.16 [0.070]*
Sector of employment: Mining and Quarrying		0.174 [0.274]
Sector of employment: Manufacturing	-0.095 [0.076]	-0.044 [0.069]
Sector of employment: Utilities	-0.097 [0.107]	-0.065 [0.111]
Sector of employment: Construction	-0.039 [0.119]	0.04 [0.075]
Sector of employment: Commerce and retail	-0.149 [0.059]*	-0.126 [0.052]*
Sector of employment: Transport, storage and communication	-0.235 [0.059]**	0.012 [0.058]

Sector of employment: Finance, insurance and professional services	-0.148 [0.090]	-0.077 [0.053]
Sector of employment: Public administration, health and education	-0.21 [0.062]**	-0.103 [0.065]
Sector of employment: Other	-0.186 [0.071]**	0.032 [0.085]
Incomplete primary	-0.036 [0.076]	-0.242 [0.051]**
Complete primary	-0.084 [0.066]	-0.21 [0.059]**
Intermediate	-0.136 [0.071]	-0.304 [0.045]**
Secondary	-0.132 [0.088]	-0.344 [0.035]**
Higher secondary	-0.26 [0.058]**	-0.3 [0.040]**
Tertiary	-0.352 [0.038]**	-0.357 [0.033]**
Observations	1,576	2,132

Note: Standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1
Source: Authors' calculations, IHSES 2007-2012

Table A 4.13: Probability of belonging to the bottom 40, North

Marginal probability effects: Partial effects of each explanatory variable (evaluated at mean values) on the probability that a household belongs to the bottom 40	North	
	2007	2012
Urban household	-0.065 [0.035]	-0.061 [0.030]*
Log of household size	0.102 [0.018]**	0.058 [0.013]**
Log of household size squared	-0.003 [0.001]**	-0.002 [0.000]**
Number of children aged 0-6 years	0.068 [0.016]**	0.064 [0.014]**
Number of children aged 7-17 years	0.022 [0.013]	0.05 [0.012]**
Number of elderly	-0.067 [0.034]*	0.016 [0.031]
Number of working age males employed	-0.014 [0.020]	-0.055 [0.019]**
Age of the head of household	-0.004 [0.009]	-0.004 [0.006]
Household head age squared	0 [0.000]	0 [0.000]
Male household head	-0.048 [0.059]	0.006 [0.056]
Dummy = 1 if head of household born elsewhere	-0.049 [0.067]	0.053 [0.055]
Household head lived elsewhere for at least 6 months	-0.121 [0.091]	-0.16 [0.062]**
# Household members who lived elsewhere for at least 6 months	0.061 [0.089]	0.011 [0.012]
Sector of employment: Agriculture	-0.011 [0.062]	-0.153 [0.040]**
Sector of employment: Mining and Quarrying	-0.292 [0.074]**	-0.089 [0.121]

Sector of employment: Manufacturing	-0.057 [0.073]	0.013 [0.072]
Sector of employment: Utilities	-0.227 [0.093]*	0.116 [0.122]
Sector of employment: Construction	0.21 [0.070]**	0.1 [0.074]
Sector of employment: Commerce and retail	-0.032 [0.059]	-0.079 [0.052]
Sector of employment: Transport, storage and communication	0.058 [0.070]	-0.043 [0.056]
Sector of employment: Finance, insurance and professional services	-0.145 [0.074]*	-0.113 [0.057]*
Sector of employment: Public administration, health and education	-0.019 [0.059]	-0.101 [0.049]*
Sector of employment: Other	0.111 [0.088]	-0.094 [0.055]
Incomplete primary	-0.106 [0.052]*	-0.062 [0.043]
Complete primary	-0.073 [0.048]	-0.09 [0.042]*
Intermediate	-0.122 [0.050]*	-0.173 [0.048]**
Secondary	-0.189 [0.049]**	-0.193 [0.050]**
Higher secondary	-0.285 [0.037]**	-0.237 [0.050]**
Tertiary	-0.148 [0.056]**	-0.309 [0.036]**
Nineveh	-0.235 [0.033]**	0.19 [0.028]**
Kirkuk	-0.271 [0.027]**	-0.09 [0.034]**
Observations	2,859	4,379

Note: Standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1
Source: Authors' calculations, IHSES 2007-2012

Table A 4.14: Probability of belonging to the bottom 40, Centre

Marginal probability effects: Partial effects of each explanatory variable (evaluated at mean values) on the probability that a household belongs to the bottom 40	Centre	
	2007	2012
Urban household	-0.195 [0.026]**	-0.014 [0.020]
Log of household size	0.081 [0.010]**	0.077 [0.010]**
Log of household size squared	-0.002 [0.000]**	-0.003 [0.000]**
Number of children aged 0-6 years	0.047 [0.013]**	0.062 [0.010]**
Number of children aged 7-17 years	0.037 [0.011]**	0.065 [0.008]**
Number of elderly	-0.061 [0.024]*	-0.026 [0.022]
Number of working age males employed	-0.087 [0.014]**	-0.039 [0.013]**
Age of the head of household	-0.003 [0.005]	-0.011 [0.005]*

Household head age squared	0	0
	[0.000]	[0.000]
Male household head	0.049	0.067
	[0.053]	[0.035]
Dummy = 1 if head of household born elsewhere	0.044	0.027
	[0.050]	[0.034]
Household head lived elsewhere for at least 6 months	-0.135	-0.043
	[0.061]*	[0.039]
# Household members who lived elsewhere for at least 6 months	-0.029	0.002
	[0.041]	[0.007]
Sector of employment: Agriculture	0.034	0.056
	[0.042]	[0.042]
Sector of employment: Mining and Quarrying	0.161	-0.013
	[0.133]	[0.123]
Sector of employment: Manufacturing	0.023	-0.085
	[0.053]	[0.039]*
Sector of employment: Utilities	0.078	-0.105
	[0.076]	[0.065]
Sector of employment: Construction	0.118	0.068
	[0.058]*	[0.044]
Sector of employment: Commerce and retail	-0.078	-0.133
	[0.048]	[0.035]**
Sector of employment: Transport, storage and communication	-0.001	-0.086
	[0.052]	[0.039]*
Sector of employment: Finance, insurance and professional services	-0.172	-0.128
	[0.044]**	[0.036]**
Sector of employment: Public administration, health and education	-0.086	-0.121
	[0.043]*	[0.035]**
Sector of employment: Other	0.094	0.007
	[0.059]	[0.055]
Incomplete primary	-0.11	-0.047
	[0.048]*	[0.035]
Complete primary	-0.12	-0.087
	[0.044]**	[0.034]*
Intermediate	-0.21	-0.16
	[0.039]**	[0.036]**
Secondary	-0.236	-0.238
	[0.037]**	[0.031]**
Higher secondary	-0.236	-0.214
	[0.041]**	[0.033]**
Tertiary	-0.274	-0.307
	[0.034]**	[0.025]**
Diyala	0.279	0.313
	[0.049]**	[0.035]**
Anbar	0.177	0.126
	[0.045]**	[0.035]**
Babylon	0.122	0.151
	[0.049]*	[0.035]**
Karbala	0.159	0.286
	[0.061]**	[0.043]**
Wasit	0.081	0.238
	[0.046]	[0.036]**
Observations	5,574	6,356

Note: Standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1
Source: Authors' calculations, IHSES 2007-2012

Table A 4.15: Probability of belonging to the bottom 40, South

Marginal probability effects: Partial effects of each explanatory variable (evaluated at mean values) on the probability that a household belongs to the bottom 40	South	
	2007	2012
Urban household	-0.121 [0.026]**	-0.12 [0.023]**
Log of household size	0.109 [0.013]**	0.094 [0.013]**
Log of household size squared	-0.003 [0.000]**	-0.003 [0.000]**
Number of children aged 0-6 years	0.037 [0.012]**	0.056 [0.011]**
Number of children aged 7-17 years	0.035 [0.010]**	0.069 [0.010]**
Number of elderly	-0.027 [0.025]	0.025 [0.024]
Number of working age males employed	-0.013 [0.022]	-0.021 [0.016]
Age of the head of household	-0.003 [0.005]	0 [0.005]
Household head age squared	0 [0.000]	0 [0.000]
Male household head	-0.02 [0.080]	0.129 [0.035]**
Dummy = 1 if head of household born elsewhere	-0.096 [0.054]	-0.028 [0.052]
Household head lived elsewhere for at least 6 months	-0.146 [0.060]*	-0.065 [0.033]
# Household members who lived elsewhere for at least 6 months	-0.04 [0.059]	0.009 [0.007]
Sector of employment: Agriculture	0.117 [0.046]*	0.022 [0.047]
Sector of employment: Mining and Quarrying	0.135 [0.152]	-0.217 [0.051]**
Sector of employment: Manufacturing	0.048 [0.097]	-0.114 [0.045]*
Sector of employment: Utilities	-0.041 [0.065]	-0.104 [0.060]
Sector of employment: Construction	0.16 [0.054]**	0.088 [0.051]
Sector of employment: Commerce and retail	-0.077 [0.043]	-0.114 [0.043]**
Sector of employment: Transport, storage and communication	0.03 [0.050]	-0.018 [0.046]
Sector of employment: Finance, insurance and professional services	-0.13 [0.049]**	-0.082 [0.046]
Sector of employment: Public administration, health and education	0.008 [0.045]	-0.124 [0.039]**
Sector of employment: Other	-0.071 [0.072]	0.026 [0.060]
Incomplete primary	-0.069 [0.044]	-0.118 [0.034]**
Complete primary	-0.145 [0.035]**	-0.195 [0.032]**
Intermediate	-0.265 [0.031]**	-0.246 [0.029]**
Secondary	-0.234 [0.035]**	-0.263 [0.028]**

Higher secondary	-0.249 [0.034]**	-0.285 [0.024]**
Tertiary	-0.304 [0.030]**	-0.357 [0.017]**
Qadisiya	-0.057 [0.038]	0.367 [0.033]**
Muthanna	-0.013 [0.039]	0.342 [0.036]**
Thi Qar	-0.067 [0.033]*	0.296 [0.033]**
Missan	-0.099 [0.035]**	0.248 [0.035]**
Observations	4,699	5,523

Note: Standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1
Source: Authors' calculations, IHSES 2007-2012

Methodology: Decomposing welfare differences

1. The welfare measure

For consistency with other studies in the field (Ravallion and Wodon, 1999; Skoufias and Katayama, 2011) the welfare measure used in this section of the report is the welfare ratio. The welfare ratio is the ratio of the household's expenditure to the contemporaneous poverty line in the region of residence of the household.² Specifically,

$$Wh(j, r, t) = \frac{PCE(j, r, t)}{PL(r, t)}$$

where $W(j, r, t)$ denotes the welfare ratio of household j in region r , in year t where $t = 2007$ and 2012 , $PCE(j, r, t)$ denotes nominal per capita expenditures of household j in region r , in year t , and $PL(r, t)$ is the poverty line in region r in year t . In calculating the welfare ratio, we use the officially estimated poverty lines. The welfare ratio as defined is a number that measures the standard of living as a multiple of the poverty line, i.e.

$$W(j, t, r) \in (0, \infty) = \begin{cases} 0 < W < 1 & \text{below the pov line} \\ W = 1 & \text{equal to the pov line} \\ W > 1 & \text{above the pov line} \end{cases}$$

2. The decomposition method

We employ the Oaxaca-Blinder methodology to explore differences in mean welfare in urban and rural areas within and between two geographic areas or regions (Ravallion and Wodon, 1999). The Oaxaca-

² The welfare ratio and its theoretical properties is discussed by Blackorby and Donaldson (1987). More practical applications of the welfare ratio in the measurement of poverty can be found in Ravallion (1998) and Deaton and Zaidi (2002).

Blinder decomposition allows us to estimate the relative contributions of differences in household characteristics and returns to these characteristics in accounting for differences in living standards.

Comparing Living Standards within and between Regions

The various determinants of welfare can be classified into two broad groups: (i) a set of “covariates” that summarize the portable or non-geographic attributes of the household, such as age, level of education, demographic composition, denoted by the vector X ; and (ii) and a set of structural parameters that summarize the marginal effects or “returns” of these household attributes, denoted by the constant term α and the parameter vector β .

Specifically the set of covariates summarized by the vector X , consists of variables characterizing the *demographic composition* of the household: number of infants, teenagers, adults, elderly in household, whether the head of household is married without spouse, single without spouse, married, with spouse; if household head is male, age of household head, and age squared; binary variables identifying *the education level of the household head and spouse*: primary incomplete; primary complete, low secondary, upper secondary and superior; and *economic sector of employment* (i.e. Agriculture & fishing, Mining & quarrying, Manufacturing, Utilities, Construction, Commerce, Transport, storage & communication, Financial, insurance & professional, Public administration and Other services).

Given any two locations A and B, we assume that logarithm of the welfare measure in each region, denoted here by $\ln C$, can be summarized by the linear regression:

$$\ln C_A = \beta_A X_A + \varepsilon_A, \text{ and} \tag{1}$$

$$\ln C_B = \beta_B X_B + \varepsilon_B \tag{2}$$

where ε is a random disturbance term with the usual properties for summarizing the influence of all other factors on the standard of living including individual effort.³

In this specification, the “returns” to characteristics β summarize the influence of a variety of factors on the standard of living in different regions. Basic infrastructure, ease of access to markets and other basic services are some of the most important of these factors. In addition, returns to characteristics are also affected by the role of institutions, social customs and other cultural factors that are typically too difficult to quantify.

³ Agglomeration effects are likely to influence both the X 's and the coefficients β .

Based on the specification above, and given that estimated regression lines always cross through the mean values of the sample, the mean difference in the standard of living between regions A and B can then be expressed as:

$$\overline{\ln C_A} - \overline{\ln C_B} = \beta_A \overline{X_A} - \beta_B \overline{X_B} \quad (3)$$

where the bar over the relevant variables denotes the sample mean values of the respective variables, and including the assumption that $E(\varepsilon_j) = 0$, for $j = \{A, B\}$.

After adding and subtracting the term $\beta_B \overline{X_A}$ we can express the difference above as:

$$\begin{aligned} \overline{\ln C_A} - \overline{\ln C_B} &= \beta_A \overline{X_A} - \beta_B \overline{X_B} - \beta_B \overline{X_A} \rightarrow \\ \overline{\ln C_A} - \overline{\ln C_B} &= (\overline{X_A} - \overline{X_B})\beta_B + (\beta_A - \beta_B)\overline{X_A} \quad \text{or} \end{aligned}$$

$$\Delta(\overline{\ln C}) = (\Delta\overline{X})\beta_B + (\Delta\beta)\overline{X_A} \quad (4)$$

Alternatively, if one were to add and subtract the term $\beta_A \overline{X_B}$, the difference in (3) could be expressed as:

$$\Delta(\overline{\ln C}) = (\Delta\overline{X})\beta_A + (\Delta\beta)\overline{X_B} \quad (5)$$

Both expressions (4) and (5) imply that the differential in the mean welfare ratios between regions A and B can be decomposed into two components: one that consists of the differences in average characteristics summarized by the term $\Delta\overline{X}$ and another due to the differences in the coefficients or returns to characteristics in different regions summarized by the term $\Delta\beta$. This is the decomposition method first proposed by Oaxaca (1973) and Blinder (1973).

The decompositions given by expressions (4) and (5) are equally valid. The only difference between them lies in how the differences in the characteristics $\Delta\overline{X}$ and the differences in coefficients $\Delta\beta$ are weighted. In expression (4) the differences in the characteristics $\Delta\overline{X}$ are weighted by the returns of the characteristics in region B, whereas the differences in the returns $\Delta\beta$ are weighted by the average

characteristics of households in region A. In contrast, in expression (5) the differences in the characteristics $\Delta\bar{X}$ are weighted by the returns of the characteristics in region A, whereas the differences in the returns $\Delta\beta$ are weighted by the average characteristics of households in region B.

Since the original decomposition by Oaxaca, numerous papers have extended the method by proposing alternative weights for the differences in the characteristics $\Delta\bar{X}$ and the differences in returns $\Delta\beta$ (e.g. Reimers, 1983, Cotton, 1988, and Neumark, 1988).⁴ We follow Jann (2008) and use a weighted average of the coefficients and a weighted average of the characteristics, as follows:

$$\overline{\ln C_A} - \overline{\ln C_B} = (\bar{X}_A - \bar{X}_B)[W\beta_A + (I - W_A)\beta_B] + (\beta_A - \beta_B)[(I - W)\bar{X}_A + WX_B] \quad (6)$$

where W is a matrix of relative weights given to the coefficients of Group A and I is the identity matrix. This is equivalent to using the coefficients from a pooled model over both groups as the reference coefficients (Jann, 2008).

The use and interpretation of the decomposition method discussed above involves a number of caveats. For a start, these decompositions are simple descriptive tools that provide a useful way of summarizing the role of endowments and returns in explaining existing welfare differentials. For this reason, we refrain from attributing causality to either endowments or returns in the welfare differences between or within regions. Our specification intentionally excludes infrastructure and access to basic services. The influence of infrastructure as well as other omitted variables is captured by default by the estimated coefficients of the portable characteristics of the household. As the formula for omitted variable bias suggests, the estimated coefficients of the household characteristics can be considered to include the direct effect of the omitted variables (such as infrastructure, local institutions and other household variables possible correlated with the location of the household) on welfare and their correlation with the included household characteristics. The decomposition formula in equation (6) holds only at the mean of the two regions being compared. The findings obtained from the decompositions at the mean may or may not hold at other deciles of the distribution of welfare. The decomposition results may be biased because of the presence of selection bias. To the extent there is free internal migration within and between different regions, the current place of residence may not be exogenous.

Decompositions Within and Between Regions

The bulk of our analysis consists of estimating equations (1) and (2) for the pair of areas or regions. For example, the *within-region* comparisons of the standard of living typically consists of estimating equation (1) based on household data from the urban areas in that region and equation (2) based on household data the rural areas of the same region. *Between region* comparison in the same country involves a number of comparisons, since the comparison could be performed between an urban area in

⁴ In our study, the decompositions employed are done using the Stata command "Oaxaca" written by Ben Jann (2008).

region A and a rural area in region B or an urban area in region B, and so on. To keep the number of comparisons to a manageable level, the comparisons between regions are limited to between the urban areas of the two different regions and between the rural areas of two different regions. Thus, for between-region comparisons of urban areas, equation (1) is estimated for the urban areas of region A and equation (2) is estimated separately for the urban areas of region B. An analogous approach is used in comparing and decomposing the differences in the standard of living between rural areas of region A and B.

Having estimates of equations (1) and (2) for any two areas or regions of interest, we then use the simple decomposition of the differential based on:

$$\Delta C = \Delta E + \Delta R \tag{7}$$

Equation (7) simply states that the differential in living standards ΔC can be decomposed into a component due to differences in endowments, ΔE , and a component due to differences in returns, ΔR . Equation (7) allows one also estimate the fraction of the differential that is due to differences in endowments, $\Delta E/\Delta C$, versus differences in returns, $\Delta R/\Delta C$.

As will become more apparent below, the ratios reported can occasionally be quite large positive or negative numbers. Typically, the fraction of the differential due to differences in endowments $\Delta E/\Delta C$ is a positive magnitude, and its size is driven by the size of the numerator relative to the denominator. For example, in explaining differences in the log welfare ratio between urban and rural areas, it is typically the case that the welfare ratio is higher in the urban areas than the rural areas, i.e., $\Delta C > 0$, and the average value of the vector of characteristics in the urban areas is higher than in rural areas, i.e., $\Delta E > 0$. In cases where the differences in characteristics are large and the differences in living standards are small, the reported ratio $\Delta E/\Delta C$ can be well over 100 percent. Given that the sum of the two ratios as to equal to 1 (or 100 percent), in cases where $\Delta E/\Delta C$ is over 100 percent, the fraction of the differential due to differences in returns $\Delta R/\Delta C$ is by default a large negative number.

5. Understanding the Drivers of Poverty Reduction

This annex is divided into two sections: the first one describes briefly from a theoretical viewpoint the equation used for modelling the welfare aggregate. We applied a similar model in the case of Iraq. The second part, explains how the decomposition method works and how to measure changes in any distributional indicator such as poverty headcount or Gini. It is worth mentioned that this Annex is based on Chapter 2 of Inchauste, G. and others (2014) "Understanding Changes in Poverty".

Decomposing the changes in poverty a la Barros et al (2006)

In order to decompose the contribution of each factor to poverty reduction, we need a framework that allows us to measure the contribution of each factor to the total change in poverty. We begin by following Barros et al. (2006), and model household per capita income as:

$$Y_{pc} = \frac{Y_h}{n} = \frac{1}{n} \sum_{i=1}^n y_i \quad (1)$$

Income per capita is the sum of each individual's income; it depends on the number of household members, n . If we recognize that only individuals older than 15 contribute to family income, income per capita depends on the number of adults in the family, n_A , so income per capita can be written as:

$$Y_{pc} = \frac{n_A}{n} \left(\frac{1}{n_A} \sum_{i=1}^n y_i \right) \quad (2)$$

Income per adult includes labor income, y_i^L , and non-labor income, y_i^L ; non-labor income includes public social transfers, pensions, remittances, and other private transfers:

$$Y_{pc} = \frac{n_A}{n} \left(\frac{1}{n_A} \sum_{i \in A} y_i^L + \frac{1}{n_A} \sum_{i \in A} y_i^{NL} \right) \quad (3)$$

Finally, not all adults in the household are occupied and household labor income per capita depends on the income of employed adults. Therefore we can decompose the labor income per occupied adult as:

$$Y_{pc} = \frac{n_A}{n} \left[\frac{n_o}{n_A} \left(\frac{1}{n_o} \sum_{i \in A} y_i^L \right) + \frac{1}{n_A} \sum_{i \in A} y_i^{NL} \right] \quad (4)$$

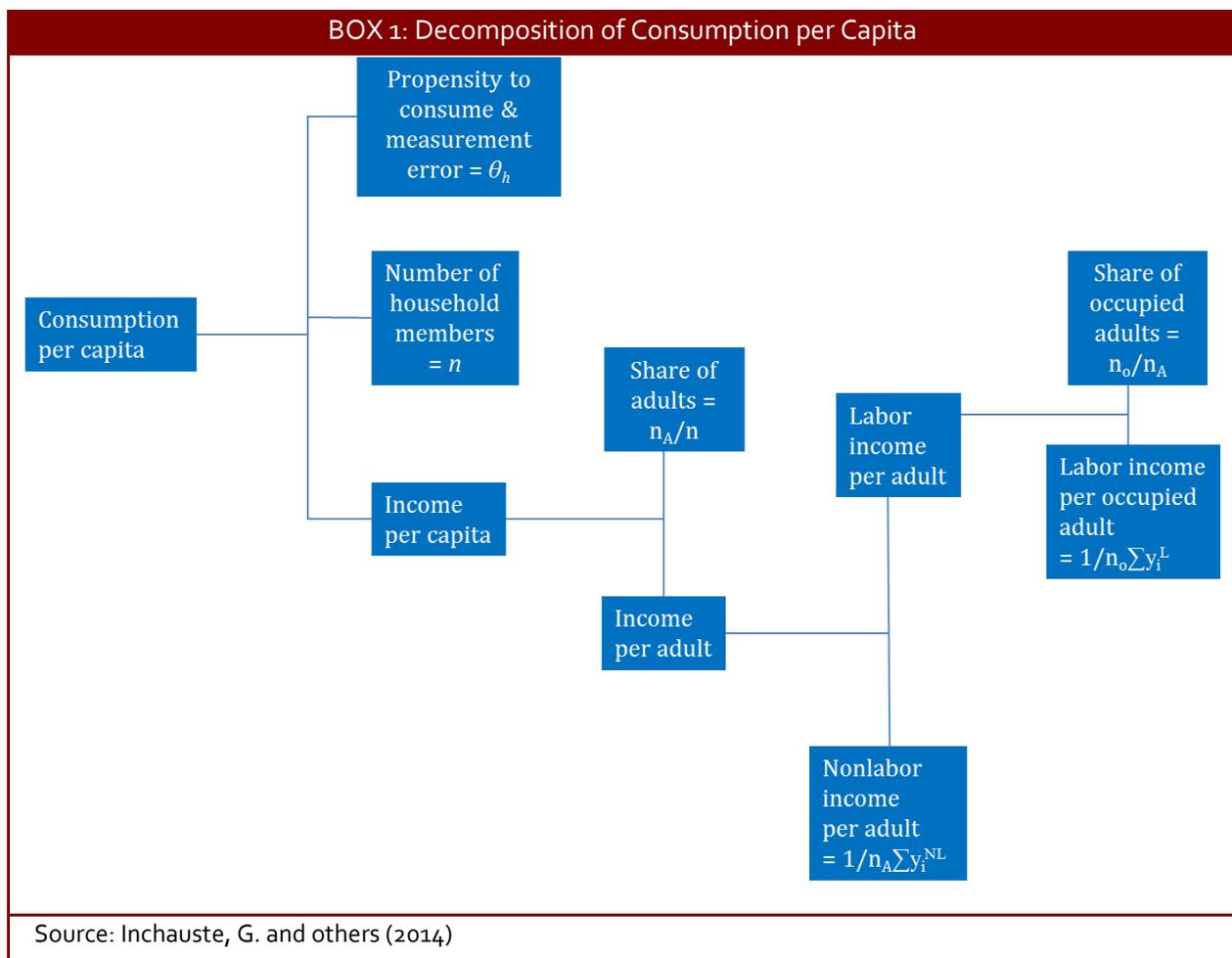
where n_o is the number of occupied adults.

Note that official poverty rates in some countries are calculated on the basis of household income. In these cases, equation (5) is sufficient to decompose the contribution of demographic factors, labor income, and non-labor income to observed poverty reduction. However, most countries measure the distribution of welfare, and poverty in particular using household consumption. Therefore, we modify the Barros et al. (2006) approach by mapping consumption to income. In particular, we refer to the

household consumption identity in (1). Combining (1) and (5) above, we can express household consumption per capita as:

$$C_{pc} = \theta_h \left[\frac{n_A}{n} \left[\frac{n_o}{n_A} \left(\frac{1}{n_o} \sum_{i \in A} y_i^L \right) + \frac{1}{n_A} \sum_{i \in A} y_i^{NL} \right] \right] \quad (5)$$

With this framework, whether countries measure welfare by per capita household income or consumption, we can separate the demographic, labor, and non-labor components discussed earlier. In addition, we can separate the contribution of changes in consumption patterns over time in poverty reduction. The determinants of per capita consumption are summarized in box 1.



Measuring the contributions to poverty reduction

Let $F(\cdot)$ be the cumulative density function of the distribution of welfare. Since poverty rates depend on $F(\cdot)$, then we can decompose household consumption in each household by the factors in equation (6). As a result, any poverty measure can be written as a function of each of these components. Therefore the contribution of each component towards changes in poverty or distribution can be expressed as a function of these indicators in the initial and end periods.

Following Barros et al. (2006), we can then simulate the distribution of welfare by changing each of these components one at a time, to calculate their contribution to the observed changes in poverty. In particular, let ϑ be a measure of poverty, inequality or any other distributional statistic. Then, this measure will be a function of the cumulative density function, $F(\cdot)$, which in turn depends on each of the factors above:

$$\vartheta = \Phi \left(F \left(C_{pc} \left(\theta_h, \frac{n_A}{n}, \frac{n_o}{n_A}, y_{PO}^L, y_{PA}^{NL} \right) \right) \right), \quad (6)$$

where

$$y_{PO}^L = \frac{1}{n_o} \sum_{i \in A} y_i^L$$

and

$$y_{PA}^{NL} = \frac{1}{n_A} \sum_{i \in A} y_i^{NL}$$

Given that the distribution of per capita consumption for period 0 and period 1 are known, we can construct counterfactual distributions for period 1 by substituting the observed level of the indicators in period 0, one at a time. For each counterfactual distribution, we can compute the poverty measures, and interpret those counterfactuals as the poverty that would have prevailed in the absence of a change in that indicator. For example, to see the impact of the change in the share of occupied adults, we can compute $\hat{\vartheta}$, where we substitute the value of $\frac{n_o}{n_A}$ observed in period 0 to the observed distribution in period 1. We can then compute:

$$\hat{\vartheta} = \Phi \left(F \left(C_{pc} \left(\theta_h, \frac{n_A}{n}, \frac{\hat{n}_o}{n_A}, y_{PO}^L, y_{PA}^{NL} \right) \right) \right) \quad (7)$$

such that the contribution of the share of occupied adults is the difference between the observed ϑ in period 1 and the estimated counterfactual, $\hat{\vartheta}$. Similarly, each of the other components in the consumption per capita distribution in period 1 can be substituted by their values in period 0 so that their contribution to changes in poverty can be computed.

Since we do not have panel data, we do not observe period 1 households in period 0. Therefore, we use a rank-preserving transformation to assign first-period characteristics to the second period. This method uses an idea first proposed by Juhn, Murphy, and Pierce (1993), who decomposed changes in wages by running Mincer-type Ordinary Least Squares (OLS) regressions that make it possible to decompose labor income inequality, using any measure of inequality, in three parts. The first are quantity effects, which refers to the distribution of observable workers' characteristics, such as education and labor market experience, and are included as regressors in the equation. The second are price effects, which captures changes in returns to observed characteristics through the regression's coefficients. The third is the regression residual (unobservables), which reflect changes in inequality within education and experience groups. While counterfactuals for the quantity effects can be created by assigning the mean observable characteristic from one period to the other, and the counterfactual for the price effects can be created by substituting regression coefficients from one period to another, to complete that analysis, the authors needed to assign a value to the residuals in each period. So they created a counterfactual by ordering households by their earnings in each period, and then taking the average residual value in each quantile from the first period and assigning it to all households in the same quantile in the second period.

BOX 2 Barros et al. (2006) Methodology		
1.	$\vartheta_0 = \Phi \left(F \left(Y_{pc} \left(\frac{n_A}{n}, \frac{n_o}{n_A}, y_{PO}^L, y_{PA}^{NL} \right) \right) \right)$	Initial poverty rate
2.	$\widehat{\vartheta}_{a1} = \Phi \left(F \left(Y_{pc} \left(\frac{\widehat{n}_A}{n}, \widehat{y}_{PA} \right) \right) \right)$	Contribution of the interaction between share of adults and income per adult is $\widehat{\vartheta}_{a1} - \vartheta_0$
3.	$\widehat{\vartheta}_{nA} = \Phi \left(F \left(Y_{pc} \left(\frac{\widehat{n}_A}{n}, y_{PA} \right) \right) \right)$	Contribution of share of household adults is $\widehat{\vartheta}_{nA} - \widehat{\vartheta}_{a1}$
4.	$\widehat{\vartheta}_{a2} = \Phi \left(F \left(Y_{pc} \left(\frac{n_A}{n}, \frac{n_o}{n_A}, \widehat{y}_{PO}^L, \widehat{y}_{PA}^{NL} \right) \right) \right)$	Contribution of the interaction between labor and non-labor income is $\widehat{\vartheta}_{a2} - \widehat{\vartheta}_{nA}$.
5.	$\widehat{\vartheta}_{NL} = \Phi \left(F \left(Y_{pc} \left(\frac{n_A}{n}, \frac{n_o}{n_A}, y_{PO}^L, y_{PA}^{NL} \right) \right) \right)$	Contribution of non-labor income is $\widehat{\vartheta}_{NL} - \widehat{\vartheta}_{a1}$.
6.	$\widehat{\vartheta}_{a3} = \Phi \left(F \left(Y_{pc} \left(\frac{n_A}{n}, \frac{\widehat{n}_o}{n_A}, \widehat{y}_{PO}^L, y_{PA}^{NL} \right) \right) \right)$	Contribution of the interaction between labor income and the share of occupied adults is $\widehat{\vartheta}_{a3} - \widehat{\vartheta}_{NL}$.
7.	$\widehat{\vartheta}_{no} = \Phi \left(F \left(Y_{pc} \left(\frac{n_A}{n}, \frac{\widehat{n}_o}{n_A}, y_{PO}^L, y_{PA}^{NL} \right) \right) \right)$	Contribution of the share of occupied adults is $\widehat{\vartheta}_{no} - \widehat{\vartheta}_{a3}$.
8.	$\vartheta_F = \Phi \left(F \left(Y_{pc} \left(\frac{n_A}{n}, \frac{n_o}{n_A}, y_{PO}^L, y_{PA}^{NL} \right) \right) \right)$	Final poverty rate, ϑ_F . The contribution of labor income, y_{PO}^L , is calculated as a residual: $\vartheta_F - \widehat{\vartheta}_{a3}$.

In this case, instead of running a Mincer model, we create counterfactuals by ordering households by their total household income, and then taking the average value of each characteristic in equation (5) for each quantile in period 0 and assigning it to each household in that same quantile in period 1. For example, if we are decomposing the effect of labor income, we order households into quantiles by their observed total household income in periods 0 and 1. Then for every quantile in period 1, we replace the

period 1 labor income with the average labor income in period 0 from households that were in the same quantile.

Barros et al. (2006) compute each counterfactual simulation in a nested fashion (box 2). They identify the contribution that interactions between variables have in poverty reduction by first computing the joint impact of a subset of variables, and then subtracting the marginal impact of each variable, one at a time. For instance, in step 2 in table 1, they first compute the joint impact of inserting both the share of adults and the income per adult from the first period into the distribution of the second period. They then compute the impact of changing only the share of adults, and take the difference of these two simulations to approximate the marginal impact that changing the share of adults had on the distribution. However, in step 4, instead of computing the impact of income per adult on its own, they compute the impact of changing both the labor and non-labor income per adult. This is done because, in principle, the sum of labor and non-labor income should be equivalent to changing total income per adult. The results of these two simulations are different, however, and the simulation of labor income is not done explicitly, but rather ends up being a “residual” in step 8 to ensure that the cumulative effect adds up to the total distributional change.

We modify the procedure in three ways: (1) we focus on consumption as a measure of welfare; (2) we compute a cumulative counterfactual distribution by adding one variable at a time; and (3) we compute Shapley-Shorrocks estimates of each component. First, the focus on consumption is because most developing countries use a consumption aggregate to measure poverty. Second, in contrast to the Barros et al. (2006) approach, this method does not separately identify the contribution of the interaction between variables in the observed distributional changes; doing so is partial at best, given that changing any variable can potentially affect all other variables. Instead, the impact of changes in each variable and its interactions with all other variables is calculated as the difference between the cumulative counterfactuals. Box 3 shows an example for one possible path, taking into account the fact that non-labor income is made up of pensions, transfers, capital income, and other income.

The third methodological change is to address the fact that this methodology suffers from path-dependence, as much of the micro-decomposition literature does. In other words, the order in which the cumulative effects are calculated matters.⁵ One of the major contributions of this paper is that we apply the best known remedy for path-dependence, which is to calculate the decomposition across all possible paths, and then take the average between them following the method proposed by Azevedo, Nguyen, and Sanfelice (2012).⁶ This involves calculating the cumulative decomposition in every possible order, and then averaging the results for each component. Because we have eight variables, this adds up to 40,320 potential decomposition paths (the result of 8!). The average effect for each variable is also known as the Shapley-Shorrocks estimate of each component.⁷

⁵ Path-dependence is common in the micro-decomposition literature. See Essama-Nssah 2012, Fortin et al. 2011, and Ferreira 2012 for recent reviews of the literature.

⁶ A Stata ado file by Azevedo, Sanfelice, and Nguyen implements this approach. To download it, within Stata type: “`ssc install adecomp`”

⁷ See Shapley 1953 and Shorrocks 1999.

There is one remaining caveat to this approach: The counterfactual income distributions on which these decompositions rely suffer from equilibrium-inconsistency. Because we are modifying only one element at a time, the counterfactuals are not the result of an economic equilibrium, but rather a fictitious exercise in which we assume that we can in fact modify one factor at a time and keep everything else constant.

BOX 3 Proposed Methodology along One Possible Path		
1.	$\vartheta_0 = \Phi \left(F \left(C_{pc} \left(\theta_h, \frac{n_A}{n}, \frac{n_o}{n_A}, y_{PO}^L, y_{PA}^{NL} \right) \right) \right)$	Initial poverty rate
2.	$\widehat{\vartheta}_1 = \Phi \left(F \left(C_{pc} \left(\theta_h, \frac{\widehat{n}_A}{n}, \frac{n_o}{n_A}, y_{PO}^L, y_{PA}^{NL} \right) \right) \right)$	Contribution of share of household adults is $\widehat{\vartheta}_1 - \vartheta_0$
3.	$\widehat{\vartheta}_2 = \Phi \left(F \left(C_{pc} \left(\theta_h, \frac{\widehat{n}_A}{n}, \frac{\widehat{n}_o}{n_A}, y_{PO}^L, y_{PA}^{NL} \right) \right) \right)$	Contribution of the share of occupied adults is $\widehat{\vartheta}_2 - \widehat{\vartheta}_1$
4.	$\widehat{\vartheta}_3 = \Phi \left(F \left(C_{pc} \left(\theta_h, \frac{\widehat{n}_A}{n}, \frac{\widehat{n}_o}{n_A}, y_{PO}^L, \widehat{y}_{PA}^{Pens}, \widehat{y}_{PA}^{Trans}, \widehat{y}_{PA}^{Cap}, \widehat{y}_{PA}^{Oth NL} \right) \right) \right)$	Contribution of pensions is $\widehat{\vartheta}_3 - \widehat{\vartheta}_2$
5.	$\widehat{\vartheta}_4 = \Phi \left(F \left(C_{pc} \left(\theta_h, \frac{\widehat{n}_A}{n}, \frac{\widehat{n}_o}{n_A}, y_{PO}^L, \widehat{y}_{PA}^{Pens}, \widehat{y}_{PA}^{Trans}, \widehat{y}_{PA}^{Cap}, \widehat{y}_{PA}^{Oth NL} \right) \right) \right)$	Contribution of transfers is $\widehat{\vartheta}_4 - \widehat{\vartheta}_3$
6.	$\widehat{\vartheta}_5 = \Phi \left(F \left(C_{pc} \left(\theta_h, \frac{\widehat{n}_A}{n}, \frac{\widehat{n}_o}{n_A}, y_{PO}^L, \widehat{y}_{PA}^{Pens}, \widehat{y}_{PA}^{Trans}, \widehat{y}_{PA}^{Cap}, \widehat{y}_{PA}^{Oth NL} \right) \right) \right)$	Contribution of capital income is $\widehat{\vartheta}_5 - \widehat{\vartheta}_4$
7.	$\widehat{\vartheta}_6 = \Phi \left(F \left(C_{pc} \left(\theta_h, \frac{\widehat{n}_A}{n}, \frac{\widehat{n}_o}{n_A}, y_{PO}^L, \widehat{y}_{PA}^{Pens}, \widehat{y}_{PA}^{Trans}, \widehat{y}_{PA}^{Cap}, \widehat{y}_{PA}^{Oth NL} \right) \right) \right)$	Contribution of other non-labor income is $\widehat{\vartheta}_6 - \widehat{\vartheta}_5$
8.	$\widehat{\vartheta}_7 = \Phi \left(F \left(C_{pc} \left(\theta_h, \frac{\widehat{n}_A}{n}, \frac{\widehat{n}_o}{n_A}, \widehat{y}_{PO}^L, \widehat{y}_{PA}^{Pens}, \widehat{y}_{PA}^{Trans}, \widehat{y}_{PA}^{Cap}, \widehat{y}_{PA}^{Oth NL} \right) \right) \right)$	Contribution of labor income is $\widehat{\vartheta}_7 - \widehat{\vartheta}_6$
9.	$\widehat{\vartheta}_8 = \Phi \left(F \left(C_{pc} \left(\widehat{\theta}_h, \frac{\widehat{n}_A}{n}, \frac{\widehat{n}_o}{n_A}, \widehat{y}_{PO}^L, \widehat{y}_{PA}^{Pens}, \widehat{y}_{PA}^{Trans}, \widehat{y}_{PA}^{Cap}, \widehat{y}_{PA}^{Oth NL} \right) \right) \right)$	Contribution of consumption-income ratio is $\widehat{\vartheta}_8 - \widehat{\vartheta}_7$
10.	$\vartheta_F = \Phi \left(F \left(C_{pc} \left(\theta_h, \frac{n_A}{n}, \frac{n_o}{n_A}, y_{PO}^L, y_{PA}^{NL} \right) \right) \right)$	Final poverty rate. Contribution of unexplained is $\widehat{\vartheta}_F - \widehat{\vartheta}_8$

Table A 5. 1: Contribution to poverty reduction – Total Iraq

	FGT0	FGT1	FGT2	%		
				Head count	Gap	Severity
Initial period	23.6	4.7	1.5			
Final period	19.8	4.2	1.3			
Total change	-3.74	-0.51	-0.13			
Consumption-to-income ratio	0.405	0.337	0.194	-10.9	-66.6	-150.4
Adult population	1.023	0.854	0.546	-27.4	-168.8	-423.3
Labor income (earnings+employment)	-4.737	-1.671	-0.857	127.1	330.2	664.3
Non-labor Income	0.964	0.398	0.197	-25.9	-78.7	-152.7
Imputed rent	-1.382	-0.424	-0.21	37.1	83.8	162.8
Total Change	-3.727	-0.506	-0.129	100.0	100.0	100.8
Consumption-to-income ratio	1.15	0.62	0.36	-30.6	-111.2	-211.2
Adult population	1.40	0.84	0.48	-37.4	-148.8	-285.2
Occupation share	0.08	0.14	0.06	-2.1	-24.1	-36.1
Labor income	-5.45	-2.08	-1.08	145.6	369.9	636.7
Pension	-0.71	-0.28	-0.15	18.9	49.4	88.8
Ration	1.60	0.76	0.44	-42.8	-134.9	-262.7
Other public transfers	-0.29	-0.09	-0.05	7.7	15.2	26.6
Capital	-0.03	0.03	0.02	0.7	-5.0	-12.4
Other Private transfers	-0.49	-0.19	-0.10	13.2	33.5	61.5
Imputed rent	-1.01	-0.32	-0.16	26.9	56.1	93.5
Total Change	-3.74	-0.56	-0.17	100.0	100.0	99.4

Source: Authors' calculations, IHSES 2007-2012

Table A 5. 2: Contribution to poverty reduction – by selected Governorates

	Iraq	Duhouk	North		Central		South	
			Ninevah	Salahuddin	Central 1	Central 2	Rest South	Basra
Change in FGTo	-3.74	-6.35	11.41	-24.30	-13.61	-14.81	9.89	-14.12
Consumption-to-income ratio	-10.9	-75.1	65.4	52.6	2.2	48.1	48.8	28.7
Adult population	-27.4	0.4	13.4	5.6	6.0	0.3	21.2	-4.5
Earnings+employment	127.1	142.3	-20.0	18.2	74.3	25.9	-15.4	47.6
Non-labor Income	-25.9	38.4	22.5	5.6	3.4	5.7	41.3	17.1
Imputed rent	37.1	-6.0	18.6	17.6	14.1	20.0	4.1	11.0
Total Change	100	100	100	100	100	100	100	100
Consumption-to-income ratio	-30.6	-101.8	60.8	37.3	-4.2	35.7	42.2	22.3
Adult population	-37.4	6.6	5.3	-4.7	-13.0	-4.4	16.3	0.3
Occupation share	-2.1	30.2	15.2	-0.1	10.4	-3.5	15.2	-4.7
Labor income	145.6	134.5	-51.7	22.8	65.8	21.6	-40.3	31.0
Pension	18.9	25.5	5.1	13.7	13.4	13.0	2.8	7.8
Ration	-42.8	-27.6	27.9	2.3	-0.3	-3.0	29.8	1.0
Other public transfers	7.7	33.2	10.7	8.1	7.6	9.8	10.3	15.7
Capital	0.7	5.6	9.9	6.2	7.5	10.4	12.4	9.4
Other Private transfers	13.2	15.1	5.7	6.4	9.6	12.4	13.2	14.2
Imputed rent	26.9	-21.2	11.2	8.2	3.1	8.0	-2.0	2.9
Total Change	100	100	100	100	100	100	100	100

Notes: Include only those divisions with significant change in poverty reduction. Central 1 = Diyala and Anbar; Central 2 = Kerbala, Wasit, Najaf, and Babil and Rest South: Qadisiya, Muthanna, Thi-Qar and Missan. "Capital" includes all incomes from property such as rent from land, non-residential buildings, equipments, shares and profits, interests, among others; "Other public transfers" refers to social protection network compensation and other public transfers in cash and in kind; and "Other private transfers" refers to domestic and international remittances, zakat and other private transfers in cash and in kind.

Source: Authors' calculations, IHSES 2007-2012

6. The Growth-Employment Nexus

Table A 6.1: Average Marginal Effects for Young individual (15 to 24 years old)

VARIABLES	2007	2012
Age	0.0464*** (0.0143)	0.0269** (0.0124)
Age squared	-0.000897** (0.000363)	-0.000388 (0.000311)
Nr. children < 6 years old	-0.00780** (0.00320)	-0.00263 (0.00245)
Nr. children >6 and <12	0.00181 (0.00276)	0.00410* (0.00212)
Elderly	0.00746 (0.00773)	-0.00823 (0.00677)
Other disable	0.00314 (0.00233)	0.00768*** (0.00189)
Other member in public job	-0.0168*** (0.00565)	-0.0253*** (0.00482)
Baghdad	-0.0332 (0.0237)	-0.0172 (0.0130)
North	-0.0902*** (0.0240)	-0.0472*** (0.0115)
Centre	-0.0458* (0.0251)	-0.0148 (0.0111)
South	-0.0199 (0.0260)	0.00273 (0.0136)
Urban	-0.0195*** (0.00570)	-0.0181*** (0.00443)
Head age	0.00144 (0.00124)	0.000623 (0.00104)
Head age squared	-1.83e-05 (1.22e-05)	-8.54e-06 (1.03e-05)
Per capita income (*)	-0.0211*** (0.00441)	-0.00621* (0.00331)
Incomplete primary	0.0390*** (0.00870)	0.0147** (0.00600)
Complete primary	0.0327*** (0.00809)	0.0205*** (0.00575)
Intermediate	0.0209* (0.0117)	-0.00315 (0.00897)
Secondary	0.0894*** (0.0216)	0.0609*** (0.0196)
Higher Secondary	0.275*** (0.0255)	0.194*** (0.0241)
Tertiary	0.214*** (0.0340)	0.178*** (0.0309)
Disable	-0.0880*** (0.0127)	-0.121*** (0.00985)
Public employment rate	-0.521*** (0.0485)	-0.425*** (0.0438)
Governorate welfare (**)	0.00637 (0.0287)	0.0804*** (0.0199)
Hhead complete prim & low second	-0.0203*** (0.00610)	-0.0127*** (0.00489)
Hhead higher second & tertiary	-0.0291** (0.0133)	0.01000 (0.0110)
Labor supply (***)	-0.265** (0.118)	0.324* (0.192)

Male	0.676*** (0.00575)	0.711*** (0.00488)
Observations	16950	21944

Notes: (*) Per capita income excluding labor income of the individual in logarithm
(**) Mean consumption per capita by governorate in logarithm
Standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1
Source: Authors' calculations, IHSES 2007-2012

Table A 6.2: Average Marginal Effects for Single Women (25 to 64 years old)

	Low educated		High educated	
	2007	2012	2007	2012
Age	0.00348 (0.00392)	0.00452 (0.00310)	0.0605*** (0.0107)	0.0591*** (0.0116)
Age squared	-5.37e-05 (4.65e-05)	-4.15e-05 (3.63e-05)	-0.000685*** (0.000137)	-0.000661*** (0.000146)
Nr. children < 6 years old	-0.00467 (0.00560)	0.00278 (0.00416)	-0.0269 (0.0174)	-0.0191 (0.0254)
Nr. children >6 and <12	-0.00126 (0.00587)	-0.000687 (0.00453)	-0.0250 (0.0212)	0.00121 (0.0233)
Elderly	0.0172 (0.0109)	-0.00175 (0.00939)	0.0459 (0.0308)	0.00864 (0.0333)
Other disable	0.00504 (0.00417)	-0.00424 (0.00392)	-0.0130 (0.0113)	-0.00692 (0.0130)
Baghdad	-0.0263 (0.0492)	-0.0402* (0.0228)	-0.296*** (0.0653)	-0.150** (0.0737)
North	-0.0719 (0.0455)	-0.0163 (0.0210)	-0.227*** (0.0750)	-0.0500 (0.0749)
Centre	-0.0428 (0.0501)	-0.0270 (0.0198)	-0.248*** (0.0777)	-0.169** (0.0694)
South	-0.0179 (0.0546)	0.00543 (0.0292)	-0.204** (0.0822)	-0.0858 (0.0863)
Urban	-0.0612*** (0.0106)	-0.0396*** (0.00859)	-0.0364 (0.0387)	0.0408 (0.0400)
Per capita income (*)	-0.0157* (0.00903)	-0.00758 (0.00641)	-0.0394* (0.0204)	-0.00980 (0.0253)
Other woman working	0.117*** (0.0102)	0.142*** (0.00870)	0.0204 (0.0247)	0.101*** (0.0295)
Other member in public job	-0.0188* (0.0112)	-0.00601 (0.00890)	0.0380 (0.0242)	0.0378 (0.0286)
Incomplete primary	0.0197 (0.0157)	0.00773 (0.0114)		
Complete primary	0.0298* (0.0153)	0.0308** (0.0122)		
Secondary			0.177*** (0.0402)	0.220*** (0.0531)
Higher Secondary			0.533*** (0.0340)	0.501*** (0.0379)
Tertiary			0.588*** (0.0329)	0.569*** (0.0359)
Disable	0.00167 (0.0159)	-0.0264*** (0.00952)	-0.0969* (0.0527)	-0.0679 (0.0530)
Public employment rate	-0.306*** (0.100)	-0.398*** (0.0764)	-0.0795 (0.214)	-0.662** (0.296)
Governorate welfare (**)	0.0554 (0.0535)	0.150*** (0.0331)	0.0644 (0.131)	0.00793 (0.136)
Head age	-0.00461** (0.00196)	-0.00495*** (0.00152)	0.00717 (0.00588)	0.000523 (0.00712)

Head age squared	4.15e-05** (1.91e-05)	4.89e-05*** (1.45e-05)	-6.60e-05 (5.74e-05)	-1.87e-06 (6.59e-05)
Head complete prim & low second	-0.00424 (0.0127)	-0.00464 (0.00991)	0.0167 (0.0307)	-0.0397 (0.0330)
Head higher second & tertiary	-0.0225 (0.0189)	-0.0459*** (0.0136)	0.0732* (0.0391)	-0.00541 (0.0411)
Labor supply (***)	0.0361 (0.273)	0.399 (0.373)	-0.185 (0.537)	-0.265 (1.164)
Observations	2913	4417	1169	984

Notes: (*) Per capita income excluding labor income of the individual in logarithm
(**) Mean consumption per capita by governorate in logarithm
(***) Governorate Activity rate
Standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1
Source: Authors' calculations, IHSES 2007-2012

Table A 6.3: Average Marginal Effects for Married Women (25 to 64 years old)

VARIABLES	Low educated		High educated	
	2007	2012	2007	2012
Age	0.0148*** (0.00245)	0.0110*** (0.00184)	0.0444*** (0.00729)	0.0472*** (0.00713)
Age squared	-0.000177*** (2.92e-05)	-0.000127*** (2.12e-05)	-0.000516*** (8.88e-05)	-0.000514*** (8.72e-05)
Nr. children < 6 years old	0.00373* (0.00206)	0.000368 (0.00164)	-0.0134** (0.00667)	0.00508 (0.00661)
Nr. children >6 and <12	-0.000849 (0.00211)	0.00254 (0.00158)	-0.0133* (0.00696)	-0.0237*** (0.00692)
Elderly	8.07e-05 (0.00598)	0.00150 (0.00496)	-0.0378* (0.0205)	-0.0325* (0.0188)
Other disable	-0.00474** (0.00225)	-0.00162 (0.00186)	-0.0109 (0.00757)	-0.0240*** (0.00773)
Baghdad	-0.0670** (0.0271)	-0.0377*** (0.0121)	-0.207*** (0.0445)	-0.279*** (0.0370)
North	-0.106*** (0.0265)	-0.0598*** (0.0102)	-0.169*** (0.0466)	-0.149*** (0.0369)
Centre	-0.0736*** (0.0284)	-0.0572*** (0.00998)	-0.158*** (0.0459)	-0.208*** (0.0349)
South	-0.0618** (0.0297)	-0.00886 (0.0150)	-0.101** (0.0470)	-0.163*** (0.0415)
Urban	-0.0712*** (0.00502)	-0.0661*** (0.00399)	0.00770 (0.0200)	-0.0312* (0.0165)
Husband age	0.00110 (0.00142)	0.000914 (0.00111)	-0.000161 (0.00535)	0.000402 (0.00465)
Husband age squared	-7.34e-06 (1.47e-05)	-1.36e-06 (1.11e-05)	2.29e-05 (5.87e-05)	-3.13e-06 (5.04e-05)
Per capita income (*)	-0.0155*** (0.00399)	-0.0227*** (0.00300)	-0.0164 (0.0106)	-0.0176 (0.0112)
Other woman employed	0.110*** (0.00608)	0.125*** (0.00538)	0.0642*** (0.0217)	0.0133 (0.0234)
Other member in public job	-0.0180*** (0.00518)	-0.0173*** (0.00405)	0.0439*** (0.0131)	0.0276** (0.0137)
Incomplete primary	0.00658 (0.00671)	-0.00379 (0.00514)		
Complete primary	0.0132* (0.00703)	0.00186 (0.00557)		
Secondary			0.185*** (0.0164)	0.105*** (0.0166)

Higher Secondary			0.558*** (0.0176)	0.543*** (0.0172)
Tertiary			0.583*** (0.0221)	0.539*** (0.0230)
Disable	-0.00859 (0.00633)	-0.00714 (0.00465)	0.0198 (0.0218)	-0.000545 (0.0190)
Husband complete prim & low second	-0.00401 (0.00584)	-0.00116 (0.00424)	0.0493 (0.0366)	0.0132 (0.0288)
Husband higher second & tertiary	-0.0191** (0.00962)	-0.0112 (0.00837)	0.0498 (0.0368)	0.0241 (0.0293)
Public employment rate	-0.325*** (0.0451)	-0.412*** (0.0358)	-0.227** (0.0999)	-0.162 (0.132)
Governorate welfare (**)	0.0231 (0.0239)	0.153*** (0.0159)	0.0110 (0.0602)	0.0860 (0.0565)
Labor supply (***)	-0.0935 (0.113)	0.316* (0.172)	-0.368 (0.258)	-1.414*** (0.531)
Observations	11565	19186	3899	3826
Notes: (*) Per capita income excluding labor income of the individual in logarithm (**) Mean consumption per capita by governorate in logarithm (***) Governorate Activity rate Standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1 Source: Authors' calculations, IHSES 2007-2012				

Table A 6.4: Average Marginal Effects for Men (25 to 64 years old)

	2007	2012
Age	0.0127*** (0.00180)	0.0111*** (0.00156)
Age squared	-0.000231*** (2.03e-05)	-0.000217*** (1.73e-05)
Nr. children < 6 years old	0.00115 (0.00246)	-0.00209 (0.00199)
Nr. children >6 and <12	-0.00152 (0.00230)	-0.00347* (0.00185)
Elderly	-0.000856 (0.00580)	-0.00729 (0.00503)
Other disable	0.00366 (0.00227)	0.00675*** (0.00197)
Baghdad	-0.0108 (0.0174)	-0.0211* (0.0108)
North	-0.0517*** (0.0183)	-0.0513*** (0.00989)
Centre	-0.0168 (0.0185)	-0.0307*** (0.00925)
South	0.0231 (0.0181)	-0.00110 (0.0109)
Urban	0.0216*** (0.00493)	0.0292*** (0.00389)
Per capita income (*)	-0.0381*** (0.00341)	-0.0329*** (0.00270)
Other member in public job	0.0130** (0.00581)	0.00544 (0.00549)
Disable	-0.104*** (0.00663)	-0.100*** (0.00533)
Public employment rate	-0.432*** (0.0370)	-0.287*** (0.0396)
Governorate welfare (**)	0.102*** (0.0227)	0.153*** (0.0180)
Labor supply (***)	0.222** (0.0991)	-0.0903 (0.165)
Household Head	0.104*** (0.00774)	0.108*** (0.00745)
Married	0.0418*** (0.0118)	0.0755*** (0.0146)
Prim. Complete + Intermediate	0.0231*** (0.00574)	0.0327*** (0.00455)
Secondary and above	0.0627*** (0.00661)	0.0939*** (0.00521)
Observations	20659	27703

Notes: (*) Per capita income excluding labor income of the individual in logarithm

(**) Mean consumption per capita by governorate in logarithm

(***) Governorate Activity rate

Standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1

Source: Authors' calculations, IHSES 2007-2012

7. The Labor Market for the Poor: The Rural-Urban divide

Table A 7.1 Mean characteristics of the poor and non-poor, in urban and rural Iraq, 2007 and 2012

	2007				2012			
	Urban		Rural		Urban		Rural	
	Poor	Non Poor						
Household size	10.55	7.72	11.33	8.59	10.21	7.36	10.98	9.25
Household size squared	126.7	72.8	151.8	94.2	120.6	66.0	143.2	110.2
Number of children age 0-6 years	2.42	1.43	2.76	1.83	2.48	1.45	2.80	2.15
Number of children age 7-17 years	3.00	1.97	3.62	2.62	3.11	1.85	3.69	2.67
Number of elderly	0.39	0.41	0.42	0.37	0.39	0.40	0.40	0.39
Number of working age males employed	1.90	1.58	1.76	1.52	1.63	1.48	1.56	1.64
Age of head of household	47.87	48.05	47.35	45.63	46.60	48.55	46.18	46.36
Household head age squared	2471	2488	2430	2264	2325	2528	2315	2332
Male household head	0.90	0.89	0.94	0.94	0.91	0.89	0.94	0.93
Dummy = 1 if head of hh born elsewhere	0.12	0.12	0.03	0.04	0.17	0.15	0.05	0.07
Household head lived elsewhere for at least 6 months	0.05	0.06	0.03	0.06	0.33	0.35	0.19	0.22
# Household members who lived elsewhere for at least 6 months	0.08	0.04	0.02	0.06	1.70	1.42	0.99	1.10
Head employed in agriculture and fishing	0.03	0.02	0.33	0.27	0.03	0.02	0.21	0.17
Head employed in mining and quarrying	0.01	0.01	0.00	0.01	0.00	0.01	0.00	0.01
Head employed in manufacturing	0.10	0.06	0.03	0.03	0.06	0.08	0.03	0.05
Head employed in electricity, gas and water supply	0.01	0.02	0.01	0.01	0.03	0.01	0.01	0.02
Head employed in construction	0.09	0.07	0.08	0.06	0.14	0.06	0.11	0.06
Head employed in commerce and retail	0.15	0.16	0.03	0.07	0.09	0.16	0.05	0.07
Head employed in transport, storage and communication	0.10	0.10	0.08	0.08	0.15	0.11	0.10	0.08
Head employed in financial, insurance and professional	0.06	0.08	0.03	0.05	0.09	0.11	0.07	0.11
Head employed in public administration, health and education	0.08	0.15	0.10	0.15	0.06	0.12	0.08	0.12
Head employed in other sector/services	0.03	0.04	0.02	0.02	0.03	0.04	0.03	0.04
Illiterate	0.26	0.19	0.33	0.26	0.30	0.19	0.36	0.26
Incomplete primary	0.15	0.10	0.14	0.13	0.20	0.13	0.19	0.15
Complete primary	0.32	0.26	0.30	0.29	0.32	0.26	0.30	0.32
Intermediate	0.10	0.14	0.09	0.11	0.09	0.12	0.07	0.08
Secondary	0.10	0.11	0.06	0.07	0.04	0.10	0.04	0.07
Higher secondary	0.04	0.09	0.04	0.08	0.04	0.10	0.03	0.06
Tertiary	0.03	0.11	0.04	0.07	0.02	0.11	0.02	0.07

Source: Authors' calculations, IHSES 2007-2012

Table A 7.2: Correlates of consumption expenditure, Urban-Rural, 2007 and 2012

Log per capita real expenditure	Urban		Rural	
	2007	2012	2007	2012
Log of household size	-1.047** [0.041]	-1.059** [0.037]	-1.059** [0.061]	-1.227** [0.052]
Log of household size squared	0.186** [0.012]	0.164** [0.011]	0.169** [0.018]	0.241** [0.015]
Number of children aged 0-6 years	-0.042** [0.003]	-0.041** [0.003]	-0.026** [0.004]	-0.036** [0.003]
Number of children aged 7-17 years	-0.036** [0.003]	-0.041** [0.003]	-0.015** [0.004]	-0.035** [0.003]
Number of elderly	0.019** [0.007]	0.018** [0.006]	0.036** [0.010]	0.01 [0.008]
Number of working age males employed	0.024** [0.004]	0.038** [0.004]	0.035** [0.006]	0.035** [0.005]
Age of the head of household	0.006** [0.002]	0.013** [0.002]	0 [0.002]	0.004* [0.002]
Household head age squared	0 [0.000]	0** [0.000]	0 [0.000]	0 [0.000]
Male household head	-0.09** [0.012]	-0.052** [0.011]	0.043 [0.022]	-0.028 [0.017]
Dummy = 1 if head of household born elsewhere	0.043** [0.010]	-0.036** [0.009]	0.051 [0.027]	0.004 [0.017]
Household head lived elsewhere for at least 6 months	0.09** [0.015]	0.001 [0.010]	0.018 [0.025]	0.043** [0.016]
# Household members who lived elsewhere for at least 6 months	-0.038** [0.008]	0.006** [0.002]	0.042** [0.016]	-0.001 [0.003]
Sector of employment: Agriculture	-0.022 [0.024]	0.067** [0.023]	0.036* [0.015]	-0.004 [0.013]
Sector of employment: Mining and Quarrying	0.041 [0.030]	0.103** [0.032]	0.197** [0.065]	0.046 [0.050]
Sector of employment: Manufacturing	0.045** [0.015]	0.027* [0.013]	0.083** [0.030]	0.111** [0.021]
Sector of employment: Utilities	0.057* [0.026]	0.01 [0.024]	0.014 [0.046]	0.148** [0.029]
Sector of employment: Construction	-0.023 [0.015]	-0.057** [0.014]	-0.085** [0.023]	-0.087** [0.018]
Sector of employment: Commerce and retail	0.111** [0.012]	0.101** [0.011]	0.137** [0.024]	0.097** [0.018]
Sector of employment: Transport, storage and communication	0.063** [0.013]	0.01 [0.012]	0.043* [0.021]	0.049** [0.017]
Sector of employment: Finance, insurance and professional services	0.13** [0.015]	0.047** [0.012]	0.101** [0.027]	0.096** [0.017]
Sector of employment: Public administration, health and education	0.05** [0.013]	0.072** [0.012]	0.048* [0.019]	0.088** [0.017]
Sector of employment: Other	0.048** [0.018]	-0.03 [0.017]	-0.014 [0.035]	0.022 [0.023]
Incomplete primary	0.037** [0.013]	0.079** [0.010]	0.062** [0.017]	0.042** [0.013]
Complete primary	0.119** [0.010]	0.107** [0.009]	0.051** [0.015]	0.085** [0.011]
Intermediate	0.183** [0.013]	0.182** [0.011]	0.124** [0.020]	0.158** [0.016]
Secondary	0.225**	0.284**	0.171**	0.21**

	[0.013]	[0.013]	[0.023]	[0.018]
Higher secondary	0.262**	0.319**	0.166**	0.191**
	[0.015]	[0.013]	[0.024]	[0.020]
Tertiary	0.428**	0.436**	0.185**	0.326**
	[0.015]	[0.013]	[0.025]	[0.020]
Governorate: Duhok	0.395**	0.347**	0.032	0.297**
	[0.020]	[0.017]	[0.036]	[0.027]
Governorate: Nineveh	0.002	-0.132**	-0.02	-0.107**
	[0.013]	[0.012]	[0.024]	[0.017]
Governorate: Sulaimaniya	0.578**	0.333**	0.28**	0.394**
	[0.015]	[0.014]	[0.033]	[0.027]
Governorate: Kirkuk	0.106**	0.1**	0	0.205**
	[0.017]	[0.015]	[0.032]	[0.023]
Governorate: Erbil	0.501**	0.322**	0.181**	0.25**
	[0.015]	[0.014]	[0.035]	[0.028]
Governorate: Diyala	-0.247**	-0.144**	-0.449**	-0.007
	[0.020]	[0.018]	[0.026]	[0.020]
Governorate: Anbar	-0.049**	0.045**	-0.379**	0.106**
	[0.017]	[0.017]	[0.027]	[0.019]
Governorate: Babylon	-0.009	0.079**	-0.265**	0.087**
	[0.018]	[0.016]	[0.026]	[0.018]
Governorate: Karbala	-0.109**	-0.087**	-0.247**	0.075**
	[0.019]	[0.017]	[0.035]	[0.025]
Governorate: Wasit	0.017	-0.063**	-0.347**	0.024
	[0.019]	[0.017]	[0.031]	[0.022]
Governorate: Salahadin	-0.111**	0.039*	-0.359**	0.118**
	[0.021]	[0.018]	[0.027]	[0.020]
Governorate: Najaf	0.104**	0.223**	-0.1**	0.126**
	[0.018]	[0.016]	[0.033]	[0.024]
Governorate: Qadisiya	0.025	-0.234**	-0.267**	-0.35**
	[0.020]	[0.018]	[0.030]	[0.022]
Governorate: Muthanna	0.082**	-0.257**	-0.401**	-0.28**
	[0.027]	[0.025]	[0.033]	[0.024]
Governorate: Thi Qar	0.004	-0.162**	-0.216**	-0.299**
	[0.016]	[0.014]	[0.027]	[0.020]
Governorate: Missan	0.004	-0.132**	-0.15**	-0.344**
	[0.021]	[0.018]	[0.031]	[0.027]
Governorate: Basra	-0.081**	0.024*	-0.194**	0.105**
	[0.013]	[0.012]	[0.029]	[0.022]
Constant	6.129**	6.096**	6.306**	6.247**
	[0.054]	[0.052]	[0.086]	[0.070]
R^2	0.47	0.52	0.41	0.39
N	12,069	14,836	5,444	10,109

Note: Standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1
Source: Authors' calculations, IHSES 2007-2012

Table A 7.3: Probability of being poor, marginal effects of characteristics, Urban-Rural, 2007 and 2012

Marginal probability effects: Partial effects of each explanatory variable (evaluated at mean values) on the probability that a household is poor	Urban		Rural	
	2007	2012	2007	2012
Log of household size	0.059 [0.007]**	0.044 [0.005]**	0.086 [0.011]**	0.044 [0.008]**
Log of household size squared	-0.002 [0.000]**	-0.001 [0.000]**	-0.002 [0.000]**	-0.002 [0.000]**
Number of children aged 0-6 years	0.031 [0.006]**	0.022 [0.004]**	0.039 [0.010]**	0.051 [0.009]**
Number of children aged 7-17 years	0.027 [0.005]**	0.023 [0.004]**	0.022 [0.009]*	0.049 [0.007]**
Number of elderly	-0.028 [0.012]*	-0.004 [0.008]	-0.025 [0.023]	-0.018 [0.016]
Number of working age males employed	-0.015 [0.008]	-0.02 [0.006]**	-0.032 [0.015]*	-0.028 [0.011]*
Age of the head of household	-0.006 [0.003]*	-0.002 [0.002]	0 [0.005]	-0.001 [0.003]
Household head age squared	0 [0.000]	0 [0.000]	0 [0.000]	0 [0.000]
Male household head	0.036 [0.020]	0.034 [0.012]**	-0.036 [0.053]	0.085 [0.026]**
Dummy = 1 if head of household born elsewhere	-0.025 [0.017]	0.02 [0.014]	-0.065 [0.050]	-0.03 [0.031]
Household head lived elsewhere for at least 6 months	-0.012 [0.019]	-0.014 [0.013]	-0.049 [0.041]	-0.04 [0.027]
# Household members who lived elsewhere for at least 6 months	0.027 [0.015]	0 [0.003]	-0.129 [0.038]**	0.001 [0.005]
Sector of employment: Agriculture	0.07 [0.036]	0.005 [0.031]	-0.019 [0.033]	-0.015 [0.024]
Sector of employment: Mining and Quarrying	-0.002 [0.048]	-0.055 [0.015]**	-0.307 [0.040]**	-0.077 [0.081]
Sector of employment: Manufacturing	0.045 [0.041]	-0.014 [0.015]	0.03 [0.065]	-0.083 [0.034]*
Sector of employment: Utilities	-0.073 [0.024]**	0.052 [0.035]	-0.043 [0.070]	-0.108 [0.041]**
Sector of employment: Construction	0.026 [0.027]	0.059 [0.023]*	0.094 [0.046]*	0.046 [0.032]
Sector of employment: Commerce and retail	-0.023 [0.018]	-0.047 [0.010]**	-0.143 [0.044]**	-0.08 [0.034]*
Sector of employment: Transport, storage and communication	-0.03 [0.020]	0 [0.016]	-0.008 [0.044]	-0.043 [0.031]
Sector of employment: Finance, insurance and professional services	-0.036 [0.034]	-0.022 [0.013]	-0.156 [0.054]**	-0.092 [0.026]**
Sector of employment: Public administration, health and education	-0.037 [0.017]*	-0.034 [0.012]**	-0.026 [0.042]	-0.11 [0.027]**
Sector of employment: Other	-0.02 [0.022]	0.002 [0.018]	0.098 [0.070]	-0.042 [0.033]
Incomplete primary	-0.009 [0.021]	-0.044 [0.009]**	-0.06 [0.034]	-0.063 [0.020]**
Complete primary	-0.054 [0.016]**	-0.064 [0.009]**	-0.059 [0.034]	-0.119 [0.020]**
Intermediate	-0.085 [0.015]**	-0.075 [0.007]**	-0.121 [0.038]**	-0.145 [0.022]**
Secondary	-0.06 [0.021]**	-0.084 [0.006]**	-0.154 [0.038]**	-0.151 [0.025]**
Higher secondary	-0.085 [0.013]**	-0.082 [0.006]**	-0.176 [0.041]**	-0.151 [0.036]**

Tertiary	-0.099 [0.011]**	-0.097 [0.005]**	-0.171 [0.041]**	-0.217 [0.020]**
Governorate: Duhok	-0.062 [0.015]**	-0.048 [0.009]**	0.262 [0.057]**	-0.051 [0.035]
Governorate: Nineveh	-0.062 [0.016]**	0.01 [0.018]	-0.118 [0.049]*	0.023 [0.038]
Governorate: Sulaimaniya	-0.115 [0.008]**	-0.044 [0.009]**	-0.022 [0.054]	-0.146 [0.024]**
Governorate: Kirkuk	-0.096 [0.011]**	-0.067 [0.010]**	-0.109 [0.081]	-0.206 [0.024]**
Governorate: Erbil	-0.101 [0.010]**	-0.039 [0.010]**	0.086 [0.058]	-0.035 [0.041]
Governorate: Diyala	0.073 [0.030]*	0.005 [0.017]	0.357 [0.055]**	-0.07 [0.030]*
Governorate: Anbar	-0.063 [0.016]**	-0.068 [0.007]**	0.277 [0.052]**	-0.184 [0.023]**
Governorate: Babylon	-0.065 [0.017]**	-0.056 [0.009]**	0.161 [0.061]**	-0.185 [0.023]**
Governorate: Karbala	0.042 [0.049]	-0.04 [0.014]**	0.138 [0.056]*	-0.189 [0.025]**
Governorate: Wasit	-0.046 [0.017]**	-0.013 [0.015]	0.29 [0.053]**	-0.107 [0.029]**
Governorate: Salahadin	0.007 [0.028]	-0.062 [0.007]**	0.319 [0.051]**	-0.169 [0.021]**
Governorate: Najaf	-0.092 [0.015]**	-0.077 [0.006]**	-0.031 [0.055]	-0.179 [0.026]**
Governorate: Qadisiya	-0.073 [0.014]**	0.058 [0.022]*	0.168 [0.056]**	0.192 [0.043]**
Governorate: Muthanna	-0.079 [0.012]**	0.053 [0.025]*	0.303 [0.053]**	0.163 [0.048]**
Governorate: Thi Qar	-0.065 [0.015]**	0.021 [0.017]	0.051 [0.055]	0.16 [0.042]**
Governorate: Missan	-0.074 [0.015]**	-0.019 [0.014]	0.069 [0.059]	0.225 [0.044]**
Governorate: Basra	-0.034 [0.022]	-0.062 [0.008]**	0.089 [0.060]	-0.16 [0.026]**
<i>N</i>	12,069	14,836	5,444	10,109

Note: Standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1
Source: Authors' calculations, IHSES 2007-2012

Table A 7.4: Rural poverty across different types of households, governorate

Headcount poverty rates, 2012 ⁸	Non-agricultural	Agricultural household	Diversified household	Non-employed
ANBAR	0.17	0.15	0.14	0.33
NAJAF	0.13	0.17	0.31	0.09
SULAIMANIYA	0.09	0.18	0.12	
KARBELA	0.10		0.18	
ERBIL	0.25	0.18	0.37	0.29
KIRKUK	0.18	0.19	0.08	
BABYLON	0.12	0.21	0.18	0.28
SALAHADIN	0.16	0.25	0.18	0.14
DIYALA	0.21	0.33	0.33	0.21
WASIT	0.30	0.37	0.23	0.35
NAINAWA	0.44	0.38	0.28	0.49
DUHOK	0.30	0.42	0.36	
BAGHDAD	0.30	0.44	0.34	0.30
BASRAH	0.15	0.51	0.20	0.32
QADISIYA	0.53	0.71	0.53	0.75
MAYSAN	0.69	0.78	0.57	0.66
THI-QAR	0.52	0.79	0.59	0.53
MUTHANNA	0.60	0.81	0.55	0.60

Source: Authors' calculations, IHSES 2012

Table A 7.5: Rural poverty across different types of households, governorate (Changes relative to 2007)

Percentage point change in headcount rates (2012 relative to 2007)	Non-agricultural households	Agricultural households	Diversified households	Non-employed households	Rural households
BASRAH	-15.58	14.22	-58.81	-4.39	-16.9
SALAH AL-DEEN	-30.25	-19.05	-54.98	-46.93	-33.6
WASIT	-10.82	-21.07	-48.67	-52.35	-26.9
ANBAR	-17.44	-33.38	-44.96		-28.9
BABYLON	-17.25	-37.75	-39.85		-32.7
KIRKUK	9.62	8.59	-39.35		-2.5
DUHOK	-16.63	2.89	-28.37		-15.1
KARBELA	-27.95		-26.62		-25.4
DIYALA	-10.91	-38.33	-25.38	-44.17	-20.1
MUTHANNA	-13.79	15.01	-17.56	-16.70	-11.3
SULAIMANIYA	-9.43	-6.64	-9.94		-9.9
NAJAF	-5.82	-14.27	-3.42		-10.2
QADISIYA	7.65	17.74	-0.73	17.12	5.2
ERBIL	-4.48	-12.81	5.04		-4.5
NAINAWA	14.91	12.88	11.04	30.06	16.7
MAYSAN	38.56	31.16	16.28		34.4
BAGHDAD	6.34		20.75		15.5
THI-QAR	6.64	38.81	24.69	9.13	15.1

Source: Authors' calculations, IHSES 2007-2012

⁸ Poverty rates are not reported for governorates with less than 30 survey observations in a category

Table A 7.6a: Multinomial logit: Individual sector of employment , 2007

Employed individuals, rural Iraq, 2007 (Relative to agriculture and fishing)	Manufacturing	Construction	Commerce and retail	Transport, storage and communication	Financial, insurance and professional services	Public administration, health and education	Other services
Household size	0.895 [0.067]	1 [0.045]	0.883 [0.062]	0.979 [0.056]	1.158 [0.079]*	1.094 [0.049]*	1.048 [0.105]
Household size squared	1.004 [0.002]	1.002 [0.001]*	1.004 [0.002]*	1.006 [0.002]**	1.003 [0.002]*	1.003 [0.001]**	1 [0.004]
Number of children age 0-6 years	0.927 [0.086]	0.807 [0.039]**	0.904 [0.063]	0.811 [0.044]**	0.672 [0.048]**	0.738 [0.034]**	0.687 [0.059]**
Number of children age 7-17 years	0.917 [0.092]	0.794 [0.032]**	0.908 [0.049]	0.844 [0.041]**	0.798 [0.049]**	0.731 [0.028]**	0.853 [0.055]*
Number of elderly	0.942 [0.137]	0.784 [0.062]**	0.631 [0.074]**	0.667 [0.081]**	0.649 [0.094]**	0.852 [0.073]	0.893 [0.146]
Number of working age males employed	0.858 [0.103]	1.069 [0.067]	1.055 [0.101]	0.788 [0.061]**	0.62 [0.057]**	0.719 [0.043]**	0.911 [0.091]
Age	1.138 [0.043]**	1.196 [0.029]**	1.097 [0.028]**	1.371 [0.046]**	1.265 [0.059]**	1.238 [0.027]**	1.175 [0.044]**
Age squared	0.999 [0.001]**	0.997 [0.000]**	0.999 [0.000]**	0.996 [0.000]**	0.997 [0.001]**	0.997 [0.000]**	0.998 [0.000]**
Male	3.83 [1.341]**	23.188 [6.373]**	5.512 [1.863]**	56.333 [31.419]**	4.192 [1.308]**	4.847 [0.739]**	16.286 [6.251]**
Head of household	0.519 [0.154]*	0.812 [0.139]	0.537 [0.154]*	0.574 [0.124]*	0.712 [0.184]	0.872 [0.161]	0.666 [0.218]
Spouse of head of household	0.209 [0.113]**	0.317 [0.147]*	0.257 [0.138]*	0.29 [0.267]	0.26 [0.149]*	0.927 [0.207]	0.207 [0.170]
Incomplete primary	1.893 [0.521]*	1.004 [0.133]	1.557 [0.339]*	1.087 [0.215]	1.069 [0.399]	1.665 [0.239]**	1.314 [0.320]
Complete primary	2.554 [0.665]**	0.966 [0.117]	1.868 [0.346]**	1.938 [0.344]**	1.78 [0.604]	2.57 [0.350]**	1.475 [0.364]
Intermediate	4.135 [1.250]**	1.113 [0.212]	3.226 [0.715]**	2.529 [0.541]**	2.75 [1.040]**	3.627 [0.671]**	1.138 [0.349]
Secondary	8.496 [2.600]**	1.063 [0.230]	4.631 [1.171]**	2.17 [0.541]**	3.189 [1.284]**	6.576 [1.246]**	1.585 [0.575]
Higher secondary	13.981 [6.431]**	0.907 [0.311]	7.848 [2.922]**	4.201 [1.382]**	5.015 [2.204]**	25.885 [5.840]**	3.519 [3.137]
Tertiary	8.667 [3.605]**	0.953 [0.353]	2.886 [1.299]*	1.823 [0.692]	4.347 [2.373]**	17.368 [4.488]**	1.531 [0.776]
Per capita land area	0.947 [0.054]	0.983 [0.027]	0.735 [0.097]*	0.919 [0.055]	0.844 [0.071]*	1.024 [0.021]	0.892 [0.051]*
Per capita cultivable area	1.024 [0.064]	0.771 [0.062]**	0.894 [0.202]	0.832 [0.088]	1.021 [0.157]	0.672 [0.058]**	0.913 [0.065]
Per capita public transfers	0.975 [0.008]**	0.999 [0.005]	1.006 [0.005]	1 [0.007]	0.98 [0.007]**	0.985 [0.005]**	0.987 [0.008]
Per capita private transfers	0.991 [0.006]	0.998 [0.003]	1 [0.004]	1.005 [0.002]*	1.009 [0.002]**	1.004 [0.002]*	0.994 [0.007]

Division: North	2.691 [0.978]**	1.529 [0.275]*	1.07 [0.278]	1.178 [0.278]	1.328 [0.467]	0.4 [0.070]**	0.52 [0.143]*
Division: Centre	2.749 [0.915]**	1.185 [0.205]	1.084 [0.263]	1.225 [0.243]	1.859 [0.641]	0.353 [0.053]**	0.191 [0.055]**
Division: South	5.017 [1.596]**	2.023 [0.311]**	1.063 [0.230]	1.72 [0.335]**	1.423 [0.428]	0.441 [0.066]**	0.424 [0.137]**
Interaction: North* Per capita cultivated area	0.606 [0.151]*	0.605 [0.100]**	0.72 [0.242]	0.81 [0.114]	0.83 [0.156]	0.946 [0.112]	0.682 [0.158]
Interaction: Centre* Per capita cultivated area	0.213 [0.094]**	0.447 [0.101]**	0.21 [0.110]**	0.491 [0.097]**	0.438 [0.118]**	0.535 [0.078]**	0.334 [0.134]**
Interaction: South* Per capita cultivated area	0.235 [0.115]**	0.769 [0.100]*	0.904 [0.259]	0.502 [0.114]**	0.783 [0.181]	0.817 [0.127]	0.011 [0.018]**

Note: Standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1
Source: Authors' calculations, IHSES 2007

Table A 7.7b: Multinomial logit: Individual sector of employment , 2012

Employed individuals, rural Iraq, 2012 (Relative to agriculture and fishing)	Manufacturing	Construction	Commerce and retail	Transport, storage and communication	Financial, insurance and professional services	Public administration, health and education	Other services
Household size	0.9* [0.046]	0.831** [0.035]	0.866** [0.038]	0.997 [0.044]	0.951 [0.040]	0.973 [0.043]	0.954 [0.046]
Household size squared	1 [0.001]	1.004** [0.001]	1.001 [0.001]	1.001 [0.001]	1.002 [0.001]	1.001 [0.001]	1.003 [0.001]*
Number of children age 0-6 years	1.002 [0.054]	1.036 [0.047]	1.094 [0.052]	0.937 [0.047]	0.963 [0.042]	0.982 [0.052]	0.952 [0.054]
Number of children age 7-17 years	0.974 [0.043]	0.968 [0.036]	1.021 [0.043]	0.891** [0.039]	0.879** [0.034]	0.846** [0.037]	0.797 [0.038]**
Number of elderly	0.971 [0.100]	1.029 [0.077]	0.925 [0.086]	0.775** [0.076]	0.919 [0.075]	0.829* [0.073]	0.668 [0.088]**
Number of working age males employed	1.081 [0.068]	1.132* [0.061]	1.095 [0.069]	0.916 [0.063]	1.022 [0.060]	0.955 [0.060]	0.813 [0.061]**
Age	1.09** [0.026]	1.162** [0.024]	1.056** [0.021]	1.284** [0.031]	1.199** [0.027]	1.299** [0.032]	1.078 [0.033]*
Age squared	0.999** [0.000]	0.998** [0.000]	0.999* [0.000]	0.997** [0.000]	0.998** [0.000]	0.997** [0.000]	0.999 [0.000]
Male	5.392** [1.389]	105.289** [43.326]	7.299** [1.803]	120.275** [71.972]	21.802** [5.244]	5.719** [1.453]	9.609** [2.367]
Head of household	0.668 [0.145]	0.471** [0.071]	0.681** [0.122]	0.816 [0.166]	0.668** [0.115]	0.56** [0.108]	0.58** [0.116]
Spouse of head of household	0.831 [0.326]	0.237 [0.161]*	1.107 [0.356]	0.819 [0.582]	1.71 [0.601]	0.791 [0.273]	0.792 [0.336]
Incomplete primary	1.371* [0.208]	1.007 [0.111]	1.409** [0.228]	1.407* [0.223]	1.174 [0.149]	1.351 [0.221]	1.021 [0.176]
Complete primary	1.629** [0.229]	1.279* [0.126]	1.488** [0.219]	1.535** [0.216]	1.632** [0.189]	3.055** [0.436]	1.529** [0.237]
Intermediate	1.522* [0.229]	1.24 [0.126]	1.87** [0.219]	1.427 [0.216]	1.7** [0.189]	3.807** [0.436]	0.849 [0.237]

	[0.296]	[0.188]	[0.358]	[0.283]	[0.293]	[0.669]	[0.203]
Secondary	3.296**	0.737	1.286	1.124	1.469*	4.653**	2.693**
	[0.665]	[0.144]	[0.314]	[0.259]	[0.281]	[0.923]	[0.722]
Higher secondary	6.688**	1.304	5.003**	2.729**	2.882**	33.401**	5.908**
	[1.863]	[0.403]	[1.498]	[0.927]	[0.799]	[8.115]	[1.667]
Tertiary	4.27**	0.612	3.448**	1.014	2.956**	30.17**	5.558**
	[1.244]	[0.188]	[1.090]	[0.328]	[0.717]	[6.819]	[1.528]
Per capita land area	0.935	0.782*	0.545**	0.918	0.855*	0.931	0.638*
	[0.044]	[0.084]	[0.096]	[0.051]	[0.061]	[0.045]	[0.129]
Per capita cultivable area	0.685**	0.96	1.701**	0.896	0.851	0.72**	1.277
	[0.094]	[0.122]	[0.318]	[0.130]	[0.082]	[0.055]	[0.282]
Per capita public transfers	1	0.995	1.008**	1.001	1	0.995	0.999
	[0.004]	[0.003]	[0.002]	[0.003]	[0.002]	[0.003]	[0.004]
Per capita private transfers	1.001	1.001	1.001	0.987**	0.989**	0.995	0.99*
	[0.001]	[0.001]	[0.001]	[0.005]	[0.003]	[0.003]	[0.005]
Division: North	1.09	1.462	1.683**	1.197	0.523**	0.584**	3.28**
	[0.255]	[0.294]	[0.327]	[0.262]	[0.079]	[0.094]	[0.716]
Division: Centre	1.386	2.403**	1.937**	1.656*	1.032	0.62**	1.531
	[0.296]	[0.404]	[0.336]	[0.327]	[0.139]	[0.089]	[0.376]
Division: South	1.975**	3.168**	1.638*	1.208	0.53**	0.933	1.863**
	[0.439]	[0.652]	[0.332]	[0.256]	[0.082]	[0.148]	[0.437]
Interaction: North* Per capita cultivated area	0.933	1.275*	0.745*	1.014	0.992	1.061	0.897
	[0.164]	[0.144]	[0.093]	[0.144]	[0.096]	[0.095]	[0.130]
Interaction: Centre* Per capita cultivated area	0.318**	0.369**	0.295**	0.505**	0.319**	0.434**	0.854
	[0.104]	[0.072]	[0.085]	[0.112]	[0.106]	[0.101]	[0.356]
Interaction: South* Per capita cultivated area	1.182	0.843	0.671	0.71	0.51*	0.509*	0.626
	[0.241]	[0.425]	[0.193]	[0.203]	[0.151]	[0.156]	[0.280]

Note: Standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1
Source: Authors' calculations, IHSES 2012

Table A 7.8a: Multinomial logit: Household occupation type, rural 2007

Rural households (Relative to agricultural households), 2007	Non-agricultural household	Diversified household	Non-employed household
Household size	1.195 [0.066]**	1.183 [0.073]**	0.709 [0.204]
Household size squared	1.001 [0.001]	1 [0.001]	1.032 [0.016]*
Number of children age 0-6 years	0.682 [0.044]**	0.744 [0.052]**	0.734 [0.130]
Number of children age 7-17 years	0.724 [0.042]**	0.836 [0.049]**	0.757 [0.108]
Number of elderly	0.694 [0.092]**	0.927 [0.117]	0.507 [0.158]*
Number of working age males employed	1.03 [0.099]	2.041 [0.189]**	0 [0.000]*
Age	0.926 [0.027]**	0.955 [0.032]	0.958 [0.077]
Age squared	1.001 [0.000]**	1 [0.000]	1 [0.001]
Male household head	0.8 [0.197]	0.902 [0.255]	3.614 [1.927]*
Incomplete primary	1.565 [0.288]*	0.887 [0.190]	1.014 [0.483]
Complete primary	2.345 [0.388]**	1.102 [0.227]	1.473 [0.824]
Intermediate	4.32 [0.988]**	1.494 [0.455]	13.273 [10.553]**
Secondary	5.94 [1.765]**	1.531 [0.533]	2.181 [1.597]
Higher secondary	6.692 [1.861]**	4.869 [1.936]**	2.076 [1.494]
Tertiary	8.757 [5.401]**	2.917 [1.349]*	4.279 [3.638]
Per capita land area	0.957 [0.039]	0.948 [0.022]*	0.882 [0.074]
Per capita cultivable area	0.685 [0.072]**	0.969 [0.044]	0.934 [0.141]
Per capita public transfers	0.983 [0.004]**	0.988 [0.006]	0.987 [0.006]*
Per capita private transfers	1.006 [0.003]	1.001 [0.002]	1.01 [0.005]*
Division: North	0.831 [0.191]	0.576 [0.143]*	2.128 [1.160]
Division: Centre	0.726 [0.142]	0.706 [0.173]	0.675 [0.305]
Division: South	0.812 [0.154]	0.987 [0.207]	1.313 [0.596]
Interaction: North* Per capita cultivated area	0.58 [0.208]	0.869 [0.065]	0.899 [0.138]
Interaction: Centre* Per capita cultivated area	0.061 [0.034]**	0.754 [0.087]*	0.563 [0.293]
Interaction: South* Per capita cultivated area	0.327 [0.128]**	0.97 [0.065]	0.579 [0.155]*

Note: Standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1

Source: Authors' calculations, IHSES 2007

Table A 7.gb: Multinomial logit: Household occupation type, rural 2012

Rural households (Relative to agricultural households), 2012	Non-agricultural household	Diversified household	Non-employed household
Household size	0.897* [0.042]	0.977 [0.053]	0.841 [0.104]
Household size squared	1.004** [0.001]	1.001 [0.001]	1.005 [0.003]
Number of children age 0-6 years	0.988 [0.051]	1.01 [0.064]	1.115 [0.160]
Number of children age 7-17 years	0.861** [0.036]	0.953 [0.049]	1.017 [0.110]
Number of elderly	0.872 [0.083]	1.063 [0.124]	1.008 [0.237]
Number of working age males employed	1.602** [0.139]	2.695** [0.247]	0* [0.000]
Age	0.988 [0.020]	0.992 [0.026]	0.887* [0.050]
Age squared	1 [0.000]	1 [0.000]	1.001 [0.000]
Male household head	0.842 [0.173]	0.89 [0.250]	1.234 [0.428]
Incomplete primary	1.55** [0.216]	1.429* [0.259]	1.304 [0.460]
Complete primary	1.947** [0.232]	1.575** [0.250]	1.283 [0.469]
Intermediate	2.558** [0.492]	1.515 [0.397]	5.3** [2.858]
Secondary	2.426** [0.503]	1.267 [0.393]	1.783 [1.158]
Higher secondary	5.321** [1.552]	2.489* [0.997]	2.031 [1.596]
Tertiary	11.071** [4.070]	7.691** [3.090]	2.518 [2.374]
Per capita land area	0.779* [0.079]	0.959 [0.023]	0.97 [0.064]
Per capita cultivable area	0.933 [0.137]	0.961 [0.040]	0.991 [0.098]
Per capita public transfers	1.001 [0.001]	0.998 [0.003]	1.018** [0.004]
Per capita private transfers	1 [0.000]	0.998 [0.003]	1.008 [0.005]
Division: North	1.002 [0.168]	0.342** [0.061]	12.726** [5.286]
Division: Centre	1.121 [0.222]	0.437** [0.081]	8.059** [3.307]
Division: South	1.322 [0.246]	0.323** [0.063]	4.989** [2.047]
Interaction: North* Per capita cultivated area	0.695 [0.154]	1.092** [0.037]	0.934 [0.077]
Interaction: Centre* Per capita cultivated area	0.246* [0.169]	0.952 [0.095]	0.511** [0.109]
Interaction: South* Per capita cultivated area	0.151* [0.117]	1.015 [0.060]	0.673* [0.125]

Note: Standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1
Source: Authors' calculations, IHSES 2012

8. Transfers, Safety Nets and Poverty

Table A 8. 1: International remittances

	Whether household receives international remittances		Log per capita international remittances	
	2007	2012	2007	2012
Dependency ratio	-0.0152 (0.0130)	0.00305 (0.00415)	0.164 (0.447)	-0.275 (0.552)
Household size: 5-8	0.00230 (0.00483)	-0.00249 (0.00210)	-0.453*** (0.173)	-0.306 (0.287)
Household size: 9-12	0.0121 (0.00870)	-0.00534* (0.00284)	-0.645*** (0.243)	-0.284 (0.356)
Household size: 13-16	-0.0185** (0.00925)	-0.00421 (0.00373)	-0.0687 (0.381)	-1.573*** (0.605)
Household size: 17-20	-0.00708 (0.0181)	-0.00608 (0.00516)	0.461 (0.402)	0.0514 (0.702)
Household size: >20	0.0197 (0.0351)	0.00862 (0.00955)	-3.008*** (0.469)	-0.228 (0.773)
Female head	0.0614** (0.0281)	0.00510 (0.00462)	0.0300 (0.304)	0.759* (0.421)
Head employed in the private sector	0.00509 (0.00496)	0.00297 (0.00225)	0.115 (0.182)	0.417 (0.282)
Head not employed	0.0174** (0.00765)	0.00448* (0.00257)	0.764*** (0.229)	1.063*** (0.335)
Education: Illiterate	-0.0362*** (0.0101)	-0.00123 (0.00309)	-0.0612 (0.314)	-0.639 (0.544)
Education: Incomplete primary	-0.0308*** (0.0101)	0.00428 (0.00424)	-0.282 (0.316)	-0.0911 (0.533)
Education: Primary	-0.00567 (0.0116)	0.00219 (0.00293)	-0.159 (0.277)	-0.463 (0.503)
Education: Intermediate	-0.0231** (0.0104)	-0.00198 (0.00314)	-0.0859 (0.297)	-0.268 (0.595)
Education: Secondary	-0.00470 (0.0122)	-0.000669 (0.00379)	0.214 (0.296)	-0.0151 (0.610)
Education: Higher Secondary	0.00686 (0.0135)	0.00171 (0.00377)	0.280 (0.353)	-0.430 (0.548)
Rural household	-0.00480 (0.00438)	-0.00498*** (0.00159)	-0.114 (0.184)	0.513* (0.261)
Baghdad	-0.0355*** (0.00683)	-0.0279*** (0.00297)	0.263 (0.225)	0.398 (0.451)
North	-0.0449*** (0.00663)	-0.00762*** (0.00238)	-0.360 (0.241)	0.340 (0.292)
Centre	-0.0519*** (0.00614)	-0.0176*** (0.00245)	0.765*** (0.215)	-0.653* (0.387)
South	-0.0372*** (0.00595)	-0.00969*** (0.00216)	0.358 (0.231)	0.762** (0.342)
Consumption Quintile 1 (poorest)	-0.0233*** (0.00846)	-0.0114*** (0.00333)	-1.206*** (0.341)	-0.921 (0.589)
Consumption Quintile 2	-0.0331*** (0.00664)	-0.00918*** (0.00318)	-1.411*** (0.264)	-0.625 (0.388)
Consumption Quintile 3	-0.0123 (0.0100)	-0.00893*** (0.00295)	-1.395*** (0.221)	-0.733* (0.390)
Consumption Quintile 4	-0.0180*** (0.00658)	-0.00652** (0.00290)	-0.587*** (0.214)	-0.105 (0.279)
Widow in household	-0.0262*** (0.00915)	0.00150 (0.00277)	-0.227 (0.233)	-0.142 (0.310)
Eligible pensioner in household	0.00526 (0.00530)	0.00269 (0.00209)	-0.174 (0.182)	-0.400 (0.279)

Constant			2.271*** (0.352)	2.186*** (0.513)
Observations	16,909	24,936	751	494
R-squared			0.248	0.225
Note: Robust standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1				
Source: Authors' calculations, IHSES 2007-2012				

Table A 8. 2: Domestic remittances

	Whether household receives domestic remittances		Log per capita domestic remittances	
	2007	2012	2007	2012
Dependency ratio	0.146*** (0.0309)	0.169*** (0.0281)	0.334* (0.181)	0.266 (0.168)
Household size: 5-8	-0.0895*** (0.0136)	-0.0822*** (0.0131)	-0.742*** (0.0786)	-0.744*** (0.0761)
Household size: 9-12	-0.108*** (0.0201)	-0.115*** (0.0167)	-1.330*** (0.129)	-1.184*** (0.0991)
Household size: 13-16	-0.203*** (0.0254)	-0.136*** (0.0239)	-1.399*** (0.161)	-1.250*** (0.158)
Household size: 17-20	-0.186*** (0.0343)	-0.168*** (0.0342)	-1.678*** (0.280)	-1.922*** (0.206)
Household size: >20	-0.236*** (0.0761)	-0.0935 (0.102)	-3.324*** (0.436)	-1.390*** (0.326)
Female head	0.0988*** (0.0284)	0.0624*** (0.0226)	0.255** (0.125)	0.482*** (0.106)
Head employed in the private sector	0.00464 (0.0126)	0.0540*** (0.0118)	0.0765 (0.0788)	0.213*** (0.0749)
Head not employed	0.0683*** (0.0181)	0.106*** (0.0151)	0.439*** (0.0986)	0.695*** (0.0941)
Education: Illiterate	0.0116 (0.0237)	0.0946*** (0.0211)	0.0577 (0.162)	0.272* (0.144)
Education: Incomplete primary	0.0169 (0.0241)	0.0726*** (0.0218)	0.171 (0.165)	0.180 (0.147)
Education: Primary	0.00842 (0.0218)	0.0542*** (0.0192)	0.00386 (0.150)	0.431*** (0.136)
Education: Intermediate	-0.00286 (0.0231)	0.0508** (0.0231)	0.320** (0.156)	0.271* (0.154)
Education: Secondary	-0.0117 (0.0232)	0.0338 (0.0230)	0.0545 (0.158)	0.262 (0.161)
Education: Higher Secondary	0.00326 (0.0243)	0.0259 (0.0233)	0.0192 (0.167)	0.197 (0.158)
Rural household	0.000552 (0.0114)	-0.0382*** (0.00984)	-0.115 (0.0710)	-0.0235 (0.0601)
Baghdad	-0.134*** (0.0194)	0.0134 (0.0164)	0.783*** (0.137)	0.179* (0.0997)
North	-0.0895*** (0.0157)	-0.0192 (0.0171)	0.689*** (0.118)	0.451*** (0.103)
Centre	0.123*** (0.0154)	0.0681*** (0.0138)	0.440*** (0.103)	0.285*** (0.0831)
South	-0.0786*** (0.0153)	-0.0870*** (0.0153)	1.240*** (0.121)	0.723*** (0.0959)
Consumption Quintile 1 (poorest)	0.0199 (0.0184)	7.96e-05 (0.0189)	-0.375*** (0.132)	-0.742*** (0.113)
Consumption Quintile 2	0.0321* (0.0175)	-0.00565 (0.0172)	-0.294** (0.118)	-0.582*** (0.105)

Consumption Quintile 3	0.0310* (0.0186)	0.0187 (0.0163)	-0.325** (0.129)	-0.358*** (0.0989)
Consumption Quintile 4	0.0169 (0.0135)	0.00455 (0.0149)	-0.237** (0.0973)	-0.355*** (0.0889)
Widow in household	-0.0134 (0.0185)	0.00789 (0.0159)	-0.0549 (0.108)	-0.0156 (0.0886)
Eligible pensioner in household	-0.0123 (0.0141)	-0.0457*** (0.0130)	-0.114 (0.0807)	-0.0721 (0.0789)
Constant			1.585*** (0.158)	1.666*** (0.161)
Observations	16,909	24,936	4,652	7,607
R-squared			0.211	0.166

Note: Robust standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1
Source: Authors' calculations, IHSES 2007-2012

Table A 8. 3: Zakat

	Whether household receives zakat		Log per capita zakat receipts	
	2007	2012	2007	2012
Dependency ratio	0.00480*** (0.00183)	0.00462** (0.00206)	-0.158 (0.641)	-0.242 (0.373)
Household size: 5-8	-0.000982 (0.000693)	0.00174* (0.000960)	-0.886*** (0.244)	-0.397** (0.189)
Household size: 9-12	-0.00358*** (0.00108)	0.000390 (0.00109)	-1.376*** (0.396)	-0.993*** (0.230)
Household size: 13-16	-0.00565*** (0.00215)	0.00233* (0.00142)	-2.020*** (0.522)	-1.128*** (0.264)
Household size: 17-20	0.00366 (0.00338)	-0.00212 (0.00244)	0.137 (0.366)	-1.327*** (0.458)
Household size: >20	-2.37e-05 (0.000737)	0.00407 (0.00268)	0.214 (0.289)	0.458** (0.227)
Female head	0.00249*** (0.000922)	0.00129* (0.000739)	0.384 (0.302)	0.333** (0.146)
Head employed in the private sector	0.00150 (0.000981)	0.00171 (0.00113)	-0.371 (0.554)	0.626*** (0.198)
Head not employed	0.000318 (0.000802)	0.00600*** (0.00139)	-0.859 (0.548)	-1.254** (0.535)
Education: Illiterate	0.00128 (0.000831)	0.00475*** (0.00145)	-0.213 (0.480)	-1.340** (0.532)
Education: Incomplete primary	0.00164 (0.00157)	0.00299*** (0.000936)	0.0843 (0.539)	-1.111** (0.547)
Education: Primary	-0.000207 (0.000755)	0.00223* (0.00122)	0.480 (0.588)	-0.949 (0.608)
Education: Intermediate	0.000835 (0.00113)	0.00388** (0.00196)	-0.212 (0.506)	-0.557 (0.538)
Education: Secondary	0.000230 (0.000627)	-0.000236 (0.000616)	-0.290 (0.229)	-0.527 (0.607)
Education: Higher Secondary	-0.00843*** (0.00166)	-0.000271 (0.000665)	0.974** (0.394)	0.0240 (0.135)
Rural household	-0.000882 (0.000770)	-0.0189*** (0.00209)	0.213 (0.332)	-1.198*** (0.273)
Baghdad	-0.00445*** (0.00126)	-0.00953*** (0.00169)	0.131 (0.312)	-0.681*** (0.210)
North	-0.00783*** (0.00188)	-0.0130*** (0.00193)	-0.0499 (0.629)	-0.221 (0.233)
Centre	0.00347** (0.00144)	-0.0211*** (0.00271)	-0.172 (0.403)	-0.369 (0.426)

South	0.00211** (0.000877)	0.00820*** (0.00235)	0.117 (0.375)	-0.0529 (0.221)
Consumption Quintile 1 (poorest)	0.00188* (0.000964)	0.00316*** (0.00114)	-0.223 (0.296)	-0.175 (0.215)
Consumption Quintile 2	0.00116* (0.000609)	0.00166** (0.000773)	-0.125 (0.312)	0.132 (0.188)
Consumption Quintile 3	0.000697 (0.00133)	0.000648 (0.000602)	0.240 (0.322)	0.0175 (0.187)
Consumption Quintile 4	-0.000220 (0.000858)	0.00134 (0.00123)	-0.0515 (0.280)	-0.109 (0.196)
Widow in household		-0.000965 (0.00107)	1.300** (0.628)	0.0139 (0.168)
Eligible pensioner in household				2.018*** (0.551)
Observations	16,551	24,868	155	694
R-squared			0.315	0.236

Note: Robust standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1
Source: Authors' calculations, IHSES 2007-2012

Table A 8. 4:Pensions

	Whether household receives pension		Log per capita pension	
	2007	2012	2007	2012
Dependency ratio	-0.171*** (0.0350)	-0.127*** (0.0253)	-0.185 (0.119)	-0.271** (0.114)
Household size: 5-8	0.0369** (0.0150)	0.0203* (0.0122)	-0.524*** (0.0558)	-0.653*** (0.0452)
Household size: 9-12	0.0779*** (0.0195)	0.0326** (0.0156)	-0.965*** (0.0641)	-1.057*** (0.0547)
Household size: 13-16	0.0923*** (0.0258)	0.0522** (0.0227)	-1.268*** (0.0892)	-1.420*** (0.0792)
Household size: 17-20	0.117*** (0.0346)	0.0415 (0.0271)	-1.479*** (0.108)	-1.905*** (0.210)
Household size: >20	-0.0450 (0.0745)	-0.0298 (0.0619)	-1.919*** (0.166)	-2.076*** (0.0984)
Female head	-0.0337 (0.0255)	-0.0365** (0.0163)	-0.0500 (0.0698)	-0.0651 (0.0524)
Head employed in the private sector	0.133*** (0.0156)	0.165*** (0.0127)	0.106* (0.0593)	0.219*** (0.0544)
Head not employed	0.363*** (0.0184)	0.378*** (0.0144)	0.283*** (0.0580)	0.313*** (0.0568)
Education: Illiterate	-0.163*** (0.0269)	-0.149*** (0.0235)	-0.354*** (0.0799)	-0.454*** (0.0643)
Education: Incomplete primary	-0.110*** (0.0276)	-0.109*** (0.0248)	-0.246*** (0.0806)	-0.389*** (0.0683)
Education: Primary	-0.0710*** (0.0260)	-0.0618*** (0.0237)	-0.284*** (0.0692)	-0.408*** (0.0720)
Education: Intermediate	-0.0332 (0.0283)	-0.0235 (0.0280)	-0.277*** (0.0845)	-0.303*** (0.0612)
Education: Secondary	-0.0265 (0.0282)	-0.0157 (0.0294)	-0.109 (0.0800)	-0.195*** (0.0752)
Education: Higher Secondary	-0.0488* (0.0288)	-0.00152 (0.0281)	0.108 (0.0813)	-0.147* (0.0866)
Rural household	-0.0687*** (0.0119)	-0.0475*** (0.00939)	-0.00318 (0.0381)	0.0116 (0.0394)
Baghdad	-0.0897*** (0.0215)	-0.118*** (0.0154)	0.513*** (0.0729)	-0.0280 (0.0528)

North	-0.0256 (0.0175)	-0.0884*** (0.0160)	0.431*** (0.0659)	-0.0590 (0.0545)
Centre	-0.0305* (0.0163)	-0.0657*** (0.0133)	0.419*** (0.0684)	-0.0558 (0.0479)
South	-0.0596*** (0.0167)	-0.0939*** (0.0144)	0.417*** (0.0705)	-0.172** (0.0681)
Consumption Quintile 1 (poorest)	-0.0695*** (0.0191)	-0.0693*** (0.0170)	-0.152** (0.0657)	-0.140* (0.0780)
Consumption Quintile 2	-0.0212 (0.0228)	-0.0405** (0.0165)	-0.186*** (0.0622)	-0.0506 (0.0660)
Consumption Quintile 3	-0.0151 (0.0197)	-0.0237 (0.0156)	-0.193*** (0.0534)	-0.192*** (0.0602)
Consumption Quintile 4	0.0113 (0.0156)	-0.00710 (0.0150)	-0.0849* (0.0514)	-0.0589 (0.0471)
Widow in household	0.116*** (0.0166)	0.136*** (0.0127)	-0.206*** (0.0418)	0.0359 (0.0430)
Eligible pensioner in household	0.227*** (0.0151)	0.212*** (0.0118)	0.125** (0.0513)	0.00769 (0.0470)
Constant			3.249*** (0.112)	4.184*** (0.0978)
Observations	16,909	24,936	4,084	5,642
R-squared			0.329	0.371

Note: Robust standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1
Source: Authors' calculations, IHSES 2007-2012

Table A 8. 5: Social protection

	Whether household receives social protection		Log per capita social protection	
	2007	2012	2007	2012
Dependency ratio	-9.09e-05 (0.00804)	-0.0396*** (0.0141)	0.565** (0.272)	0.00802 (0.121)
Household size: 5-8	-0.00214 (0.00374)	0.0173** (0.00734)	-0.885*** (0.148)	-0.630*** (0.0617)
Household size: 9-12	-0.0102** (0.00423)	0.0251*** (0.00913)	-1.200*** (0.163)	-0.898*** (0.0678)
Household size: 13-16	0.00236 (0.00694)	0.0150 (0.0110)	-1.412*** (0.171)	-1.181*** (0.0778)
Household size: 17-20	-0.000805 (0.00650)	0.0382** (0.0164)	-2.080*** (0.280)	-1.635*** (0.0953)
Household size: >20	0.0256 (0.0182)	0.0227 (0.0285)	-2.199*** (0.237)	-1.423*** (0.234)
Female head	-0.00204 (0.00503)	-0.0196*** (0.00758)	0.220 (0.168)	0.0197 (0.0734)
Head employed in the private sector	0.0109*** (0.00344)	0.0447*** (0.00678)	0.499*** (0.158)	0.190*** (0.0681)
Head not employed	0.0173*** (0.00462)	0.0537*** (0.00802)	0.259 (0.167)	0.260*** (0.0727)
Education: Illiterate	0.0146*** (0.00310)	0.0699*** (0.00899)	0.522 (0.339)	0.377** (0.166)
Education: Incomplete primary	0.0230*** (0.00742)	0.0579*** (0.00983)	0.365 (0.336)	0.357** (0.168)
Education: Primary	0.0183*** (0.00345)	0.0346*** (0.00757)	0.600* (0.333)	0.378** (0.166)
Education: Intermediate	0.0171*** (0.00476)	0.0223** (0.00901)	0.814** (0.350)	0.311* (0.170)
Education: Secondary	0.00707**	0.0290***	0.267	0.222

	(0.00288)	(0.0105)	(0.360)	(0.172)
Education: Higher Secondary	0.00680*	0.0205*	0.157	0.124
	(0.00351)	(0.0111)	(0.418)	(0.194)
Rural household	-0.000187	-0.00393	0.115	-0.0453
	(0.00238)	(0.00489)	(0.110)	(0.0408)
Baghdad	0.0409***	-0.0507***	2.769***	0.290***
	(0.00726)	(0.00847)	(0.686)	(0.0976)
North	0.0358***	-0.0206**	2.505***	0.0886
	(0.00705)	(0.00852)	(0.690)	(0.0837)
Centre	0.0475***	-0.0102	2.527***	0.278***
	(0.00650)	(0.00675)	(0.682)	(0.0653)
South	0.0466***	-0.0238***	2.759***	0.285***
	(0.00614)	(0.00733)	(0.682)	(0.0727)
Consumption Quintile 1 (poorest)	0.00838	0.0402***	-0.577***	-0.206**
	(0.00510)	(0.00915)	(0.205)	(0.0951)
Consumption Quintile 2	0.00717	0.0406***	-0.448**	-0.204**
	(0.00488)	(0.00869)	(0.195)	(0.0864)
Consumption Quintile 3	0.00796	0.0261***	-0.389**	-0.175**
	(0.00537)	(0.00750)	(0.173)	(0.0839)
Consumption Quintile 4	0.00398	0.0154**	-0.282*	-0.109
	(0.00401)	(0.00650)	(0.167)	(0.0889)
Widow in household	0.0106***	0.0620***	0.0641	0.0971**
	(0.00389)	(0.00684)	(0.112)	(0.0478)
Eligible pensioner in household	0.00212	0.0122*	-0.00650	-0.237***
	(0.00407)	(0.00656)	(0.112)	(0.0457)
Constant			-0.547	2.425***
			(0.766)	(0.178)
Observations	16,909	24,936	530	2,046
R-squared			0.425	0.362

Note: Robust standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1
Source: Authors' calculations, IHSES 2007-2012

Table A 8. 6: Rations (1)

Log per capita ration receipts (HH size)	2007	2012
Dependency ratio	-0.00610 (0.0165)	-0.0134 (0.0158)
Household size: 5-8	-0.00431 (0.00782)	-0.0457*** (0.00820)
Household size: 9-12	-0.0348*** (0.0101)	-0.0723*** (0.00977)
Household size: 13-16	-0.0601*** (0.0152)	-0.0916*** (0.0140)
Household size: 17-20	-0.0813*** (0.0190)	-0.0824*** (0.0191)
Household size: >20	-0.0990** (0.0406)	-0.0325 (0.0271)
Female head	-0.000285 (0.0136)	-0.0314** (0.0133)
Head employed in the private sector	-0.00759 (0.00668)	0.0106 (0.00664)
Head not employed	0.00329 (0.00849)	0.0209** (0.00874)
Education: Illiterate	0.0604*** (0.0123)	0.0809*** (0.0141)
Education: Incomplete primary	0.0294** (0.0137)	0.0807*** (0.0141)

Education: Primary	0.0439*** (0.0110)	0.0687*** (0.0131)
Education: Intermediate	0.0424*** (0.0121)	0.0447*** (0.0151)
Education: Secondary	0.0281** (0.0116)	0.0464*** (0.0148)
Education: Higher Secondary	0.0274** (0.0132)	0.0466*** (0.0157)
Rural household	0.0581*** (0.00652)	0.0634*** (0.00585)
Baghdad	0.258*** (0.00972)	0.396*** (0.00995)
North	0.148*** (0.00946)	0.366*** (0.00976)
Centre	0.246*** (0.00953)	0.397*** (0.00835)
South	0.248*** (0.00850)	0.516*** (0.00886)
Consumption Quintile 1 (poorest)	0.0335*** (0.0110)	-0.0485*** (0.0108)
Consumption Quintile 2	0.0370*** (0.00964)	-0.0151 (0.00993)
Consumption Quintile 3	-0.00279 (0.00945)	-0.00780 (0.00930)
Consumption Quintile 4	0.00928 (0.00827)	-0.0227** (0.00915)
Widow in household	-0.000593 (0.0101)	0.00876 (0.00938)
Eligible pensioner in household	-0.00630 (0.00841)	0.000945 (0.00745)
Constant	2.208*** (0.0140)	1.776*** (0.0155)
Observations	16,817	24,578
R-squared	0.139	0.267

Note: Robust standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1
Source: Authors' calculations, IHSES 2007-2012

Table A 8. 7: Rations (2), 2012

VARIABLES	Ration size = household size	With interactions
Dependency ratio	0.0162 (0.0153)	0.0144 (0.0152)
Female head	-0.0383** (0.0152)	-0.0393*** (0.0151)
Head employed in the private sector	0.00274 (0.00588)	0.00259 (0.00587)
Head not employed	0.00639 (0.00821)	0.00667 (0.00820)
Education: Illiterate	0.0748*** (0.0120)	0.0733*** (0.0120)
Education: Incomplete primary	0.0788*** (0.0121)	0.0764*** (0.0120)
Education: Primary	0.0634*** (0.0113)	0.0619*** (0.0112)
Education: Intermediate	0.0593*** (0.0128)	0.0578*** (0.0128)
Education: Secondary	0.0372***	0.0366***

	(0.0138)	(0.0137)
Education: Higher Secondary	0.0238*	0.0239*
	(0.0136)	(0.0136)
Rural household	0.0541***	0.0545***
	(0.00543)	(0.00541)
Baghdad	0.429***	0.428***
	(0.00936)	(0.00940)
North	0.380***	0.379***
	(0.00935)	(0.00935)
Centre	0.422***	0.420***
	(0.00765)	(0.00772)
South	0.524***	0.524***
	(0.00784)	(0.00782)
Size <=8	-0.0343***	-0.132*
	(0.00770)	(0.0724)
Size <=12	-0.0364***	-0.298***
	(0.00934)	(0.0837)
Size <=16	-0.0542***	-0.333***
	(0.0135)	(0.108)
Size <=24	-0.0496**	-0.297
	(0.0221)	(0.212)
Size >24	-0.0837**	-0.283
	(0.0415)	(0.484)
Widow in household	0.0214**	0.0229**
	(0.0103)	(0.0102)
Eligible pensioner in household	-0.00404	-0.00457
	(0.00701)	(0.00699)
lnpcep	0.0238***	-0.00241
	(0.00702)	(0.0124)
8.ration_size#c.lnpcep		0.0179
		(0.0144)
12.ration_size#c.lnpcep		0.0534***
		(0.0173)
16.ration_size#c.lnpcep		0.0578**
		(0.0233)
24.ration_size#c.lnpcep		0.0509
		(0.0473)
51.ration_size#c.lnpcep		0.0404
		(0.113)
Constant	1.642***	1.782***
	(0.0436)	(0.0687)
Observations	17,216	17,216
R-squared	0.385	0.387
Note: Standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1		
Source: Authors' calculations, IHSES 2012		

Table A 8. 8: Marginal effects of being poor or in the Bottom 40 percent

VARIABLES	Poor 2007	Poor 2012	2007 Bottom40	2012 Bottom40
Dependency ratio	0.309*** (0.0337)	0.324*** (0.0202)	0.379*** (0.0371)	0.506*** (0.0267)
Household size: 5-8	0.166*** (0.0201)	0.149*** (0.0151)	0.241*** (0.0214)	0.240*** (0.0176)
Household size: 9-12	0.314*** (0.0215)	0.274*** (0.0160)	0.428*** (0.0232)	0.422*** (0.0193)
Household size: 13-16	0.398*** (0.0309)	0.309*** (0.0195)	0.508*** (0.0317)	0.464*** (0.0248)
Household size: 17-20	0.399*** (0.0329)	0.267*** (0.0279)	0.487*** (0.0372)	0.455*** (0.0374)
Household size: >20	0.254*** (0.0703)	0.253*** (0.0604)	0.497*** (0.0851)	0.553*** (0.0675)
Female head	-0.0318 (0.0215)	-0.0532*** (0.0134)	-0.0217 (0.0277)	-0.0819*** (0.0188)
Head employed in the private sector	0.0152 (0.0220)	0.0397*** (0.00956)	0.0149 (0.0236)	0.0565*** (0.0125)
Head not employed	0.0400* (0.0237)	0.0512*** (0.0127)	0.0402 (0.0260)	0.0884*** (0.0170)
Education: Illiterate	0.154*** (0.0212)	0.202*** (0.0136)	0.214*** (0.0235)	0.288*** (0.0178)
Education: Incomplete primary	0.135*** (0.0286)	0.136*** (0.0133)	0.203*** (0.0285)	0.205*** (0.0183)
Education: Primary	0.0956*** (0.0166)	0.110*** (0.0106)	0.145*** (0.0184)	0.194*** (0.0153)
Education: Intermediate	0.0413** (0.0183)	0.0740*** (0.0144)	0.0819*** (0.0210)	0.128*** (0.0198)
Education: Secondary	0.0676* (0.0387)	0.0425*** (0.0125)	0.0900** (0.0415)	0.0686*** (0.0181)
Education: Higher Secondary	0.0141 (0.0196)	0.0390*** (0.0139)	0.0182 (0.0205)	0.0608*** (0.0187)
Rural household	0.140*** (0.0129)	0.0862*** (0.00860)	0.149*** (0.0134)	0.0980*** (0.0106)
Baghdad	0.111*** (0.0264)	0.111*** (0.0150)	0.293*** (0.0331)	0.330*** (0.0217)
North	0.0214 (0.0181)	0.0615*** (0.0146)	0.317*** (0.0228)	0.350*** (0.0195)
Centre	0.109*** (0.0171)	-0.00235 (0.0125)	0.408*** (0.0213)	0.287*** (0.0176)
South	0.0716*** (0.0176)	0.139*** (0.0127)	0.392*** (0.0220)	0.468*** (0.0183)
Household receives pensions	-0.0547*** (0.0145)	-0.0355*** (0.0100)	-0.0552*** (0.0166)	-0.0311** (0.0137)
Household receives soc protection transfers	0.00129 (0.0276)	0.0125 (0.0129)	0.0100 (0.0333)	0.0436** (0.0183)
Household receives international remittances	-0.0702** (0.0311)	-0.0792*** (0.0295)	-0.116*** (0.0346)	-0.131*** (0.0392)
Household receives domestic remittances	-0.00628 (0.0132)	0.00104 (0.00850)	0.00819 (0.0146)	-0.00953 (0.0114)
Household receives zakat	0.149*** (0.0448)	0.0970*** (0.0210)	0.143*** (0.0543)	0.159*** (0.0306)
Log per capita ration receipts	0.0547** (0.0232)	-0.0605*** (0.0142)	0.104*** (0.0263)	-0.0733*** (0.0192)
Observations	16,817	24,578	16,817	24,578

Note: Standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1

Source: Authors' calculations, IHSES 2007-2012

Table A 8. 9: Governorate estimates, various poverty measures, 2012

	Consumption CBN (Absolute poverty line)	Subjective	Satisfaction	MIQ	Average
SULAIMANIYA	0.07	0.08	0.09	0.01	0.06
KARBELA	0.11	0.17	0.15	0.03	0.12
KIRKUK	0.08	0.12	0.11	0.16	0.12
ERBIL	0.12	0.24	0.14	0.06	0.14
DUHOK	0.21	0.14	0.10	0.11	0.14
BABYLON	0.13	0.22	0.10	0.16	0.16
DIYALA	0.18	0.21	0.09	0.19	0.17
SALAHADIN	0.14	0.21	0.20	0.15	0.18
NAINAWA	0.32	0.24	0.13	0.11	0.20
WASIT	0.24	0.30	0.09	0.30	0.23
BASRAH	0.13	0.31	0.25	0.28	0.24
NAJAF	0.10	0.31	0.21	0.40	0.25
ANBAR	0.14	0.34	0.29	0.30	0.27
THI-QAR	0.37	0.29	0.25	0.21	0.28
BAGHDAD	0.18	0.30	0.36	0.33	0.29
MUTHANNA	0.48	0.29	0.14	0.27	0.30
MAYSAN	0.38	0.36	0.21	0.38	0.33
QADISIYA	0.41	0.50	0.24	0.31	0.36

Source: Authors' calculations, IHSES 2012

Table A 8. 10: Determinants of subjective poverty and dissatisfaction - 2012

	Subjective poverty (=1 if poor or very poor)	Life satisfaction (=1 if dissatisfied)
Household size: 5-8	-0.119*** (0.00772)	-0.0126* (0.00753)
Household size: 9-12	-0.185*** (0.0102)	-0.0438*** (0.00983)
Household size: 13-16	-0.195*** (0.0143)	-0.0199 (0.0135)
Household size: 17-24	-0.207*** (0.0186)	0.00761 (0.0182)
Household size: >=25	-0.240*** (0.0343)	0.109*** (0.0306)
Number of children age 0-6 years	-0.00403** (0.00187)	-0.0108*** (0.00177)
Number of children age 7-17 years	0.00128 (0.00161)	-0.000542 (0.00150)
Number of elderly	-0.0310*** (0.00329)	-0.0213*** (0.00328)
Female	-0.0302*** (0.00537)	-0.0185*** (0.00523)
Non employed individual	0.0869*** (0.00656)	0.0382*** (0.00683)
Individual employed in the private sector	0.110*** (0.00705)	0.0515*** (0.00713)
Illiterate	0.232*** (0.00827)	0.106*** (0.00904)

Incomplete primary	0.171*** (0.00872)	0.0626*** (0.00928)
Primary	0.141*** (0.00780)	0.0697*** (0.00877)
Intermediate	0.101*** (0.00878)	0.0463*** (0.00966)
Secondary	0.0517*** (0.00857)	0.0227** (0.00981)
Higher secondary	0.0172* (0.00987)	0.0105 (0.0114)
Rural household	0.00411 (0.00416)	0.00408 (0.00389)
Baghdad	0.111*** (0.00818)	0.232*** (0.00785)
North	-0.0391*** (0.00822)	0.0198** (0.00777)
Centre	0.0624*** (0.00676)	0.0496*** (0.00657)
South	0.0791*** (0.00714)	0.110*** (0.00688)
Consumption quintile 1 (Poorest)	0.416*** (0.00810)	0.105*** (0.00800)
Consumption quintile 2	0.250*** (0.00698)	0.0749*** (0.00744)
Consumption quintile 3	0.162*** (0.00598)	0.0290*** (0.00674)
Consumption quintile 4	0.0717*** (0.00508)	0.0134** (0.00646)
Number of working age males employed	-0.0398*** (0.00245)	-0.0132*** (0.00236)
Dummy = 1 if head of hh born elsewhere	0.0644*** (0.00651)	0.0249*** (0.00636)
Forcibly displaced	0.0121 (0.00872)	0.0373*** (0.00865)
Observations	100,220	99,838

Note: Standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1
Source: Authors' calculations, IHSES 2007-2012

Table A 8. 11: Generating weights of different dimensions of subjective poverty and dissatisfaction

VARIABLES	Subjective Poverty (1)	Satisfaction (2)
Illiterate & Incomplete primary	0.230*** (0.00908)	0.0867*** (0.00799)
Complete primary - Complete Lower secondary	0.144*** (0.00903)	0.0556*** (0.00782)
Non employed individual	0.0826*** (0.00746)	0.0367*** (0.00681)
Private sector employment	0.119*** (0.00807)	0.0610*** (0.00751)
Lower than average share of working age men employed	0.0251*** (0.00436)	0.00567 (0.00421)
Forcibly displaced	0.0236*** (0.00886)	0.0447*** (0.00864)
Head of household born elsewhere	0.0500*** (0.00647)	0.0223*** (0.00625)
Dummy =1 if household pcep < MIQ	0.0874*** (0.00543)	0.127*** (0.00513)
Quintile 1 (poorest)	0.269*** (0.00781)	0.0127* (0.00741)
Quintile 2	0.175*** (0.00754)	0.0196*** (0.00698)
Quintile 3	0.124*** (0.00746)	-0.00692 (0.00694)
Quintile 4	0.0610*** (0.00772)	-0.00485 (0.00697)
Kurdistan	0.0343*** (0.00796)	
Baghdad	0.131*** (0.00796)	0.204*** (0.00777)
Centre	0.0734*** (0.00638)	0.0312*** (0.00655)
South	0.102*** (0.00662)	0.0992*** (0.00691)
North		0.0255*** (0.00766)
Observations	100,349	99,967

Note: Standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1
Source: Authors' calculations, IHSES 2007-2012

Table A 8. 12: Subjective poverty weights

		Subjective poverty Coefficients (Significant)	Normalized weights
Education	Illiterate and incomplete primary (relative to Higher secondary and Tertiary)	0.23	13.28
	Complete primary and lower secondary (relative to Higher secondary and Tertiary)	0.144	8.32
Employment	Non employed (relative to Public sector employment)	0.0826	4.77
	Private sector job (relative to Public sector employment)	0.119	6.87
	Lower than average share of working age men employed	0.0251	1.45
Displacement and migration	Forcibly displaced	0.0236	1.36
	Head of household born elsewhere	0.05	2.89
Consumption and minimum income poverty	Dummy =1 if household pcep < MIQ	0.0874	5.05
	Quintile 1 (poorest) (relative to Quintile 5)	0.269	15.54
	Quintile 2 (relative to Quintile 5)	0.175	10.11
	Quintile 3 (relative to Quintile 5)	0.124	7.16
Space	Quintile 4 (relative to Quintile 5)	0.061	3.52
	Kurdistan (relative to the North)	0.0343	1.98
	Baghdad (relative to the North)	0.131	7.57
	North (relative to the North)		0.00
	Centre (relative to the North)	0.0734	4.24
	South (relative to the North)	0.102	5.89

Source: Authors' calculations, IHSES 2012

Table A 8. 13: Life satisfaction weights

	Life Satisfaction	Normalized weights
Illiterate and incomplete primary (relative to Higher secondary and Tertiary)	0.0867	10.49
Complete primary and lower secondary (relative to Higher secondary and Tertiary)	0.0556	6.73
Non employed (relative to Public sector employment)	0.0367	4.44
Private sector job (relative to Public sector employment)	0.061	7.38
Lower than average share of working age men employed		0.00
Forcibly displaced	0.0447	5.41
Head of household born elsewhere	0.0223	2.70
Dummy =1 if household pcep < MIQ	0.127	15.37
Quintile 1 (poorest) (relative to Quintile 5)	0.0127	1.54
Quintile 2 (relative to Quintile 5)	0.0196	2.37
Quintile 3 (relative to Quintile 5)		0.00
Quintile 4 (relative to Quintile 5)		0.00
Kurdistan (relative to Kurdistan)		0.00
Baghdad (relative to Kurdistan)	0.204	24.69
North (relative to Kurdistan)	0.0255	3.09
Centre (relative to Kurdistan)	0.0312	3.78
South (relative to Kurdistan)	0.0992	12.01

Source: Authors' calculations, IHSES 2012

9. Policy Implications: Learning from the past to build a better future

Isopoverty curves: Methodology

We model growth by multiplying household consumption by a constant, thus assuming neutral growth. This exercise tells us at what rate household consumption should grow, with an unchanged Lorenz curve, to meet a given poverty target. Note that the growth channel in these micro-simulations may also imply some redistribution dimension. We assume neutral growth, and so that incomes from all sources are multiplied by the same factor.

We model two alternative distributive policies. In the first, we tax all consumption at the same rate and allocate the revenues in equal amounts per capita.⁹ It can be shown that the fall in the Gini coefficient after this exercise is similar to the tax rate. This simple redistributive policy, although not targeted to the poor, is not far from those fiscal systems where taxes are approximately proportional and public expenditures per capita do not substantially vary with consumption.¹⁰

Another way to reduce poverty is by transfers from the non-poor people to the poor people. The *targeted* transfers minimize the fiscal cost of a given level of poverty reduction, as measured by the headcount ratio. Only the poor people who are closer to the poverty line receive the transfer (i.e. those that need a smaller transfer to escape out of poverty), and they receive only the minimum amount needed to reach the poverty line. Although this policy is probably undesirable (as the very poorest do not receive transfers), and difficult to implement (as it is perfectly targeted, with transfers depending on consumption), it is theoretically interesting as a lower bound for the fiscal effort to meet the poverty goal.

It is important to stress that the simulation of counterfactual income distributions through the mechanisms described above is a simple arithmetic exercise.¹¹ There is no guarantee that it would be consistent either with (i) household behavior and (ii) a general equilibrium of the markets in the economy.

⁹ See ECLAC (2002) and Ferreira and Leite (2003)

¹⁰ Several countries in LAC are examples of this kind

¹¹ See Ferreira and Leite (2003)

References

1. Conflict, Growth and Development

- Abadie, A. and Gardeazabal, J. (2003) "The economic costs of conflict: A case study of the Basque country", *American Economic Review*, 93(1), pp113-132
- Ahrens, A. (2013) "Understanding conflict in Africa: The role of economic shocks and spill-over effects", mimeo
- Berman, E., Shapiro, J. and J. Felter (2011) "Can hearts and minds be bought? The economics of counterinsurgency in Iraq", *Journal of Political Economy*, 119(4), pp766-819
- Dreze, J. and Gazdar H. (1992) "Hunger and Poverty in Iraq, 1991", *World Development* Vol 20, No 7, pp 921-945
- Elvidge, Christopher C, Feng-Chi Hsu, Kimberly E. Baugh, and Tilottama Ghosh. (2013) "National Trends in Satellite Observed Lighting: 1992-2012" In *Global Urban Monitoring and Assessment Through Earth Observation*, edited by O. Weng: CRC Press
- ESOC database <http://esoc.princeton.edu/subfiles/codebook-iraq-civil-war-dataset-v3> (accessed 2014-05-06).
- Fritz, Steffen, Liangzhi You, Andriy Bun, Linda See, Ian McCallum, Christian Schill, Christoph Perger, Junguo Liu, Matt Hansen, and Michael Obersteiner. (2011) Cropland for sub-Saharan Africa: A synergistic approach using five land cover data sets. *GEOPHYSICAL RESEARCH LETTERS* 38 (4):n/a-n/a
- Henderson, V., Storeygard, A. and D. Weil (2012), Measuring economic growth from outer space, *American Economic Review*, 102(2), pp994-1028
- Iraq Body Count, (2013) May estimates (www.iraqbodycount.org)
- Landscan can be found at: http://web.ornl.gov/sci/landscan/landscan_documentation.shtml (accessed 2014-05-12)
- Miguel, E., Satyanath, S. and E. Sergenti (2004), Economic shocks and civil conflict: An instrumental variables approach, *Journal of Political Economy*, 112(4), pp725-753
- Murdoch, J. and Sandler (2002), Economic growth, civil wars, and spatial spillovers, *Journal of Conflict Resolution*, 46(1), pp91-110
- NOAA DMPS-OLS (The National Oceanic and Atmospheric Administration's Defense Meteorological Satellite Program)
- Shapiro, J. and Weidmann, N. (2011) Is the Phone Mightier than the Sword? Cell Phones and Insurgent Violence in Iraq. Working paper, Princeton University.
- World Bank (2011). *World Development Report 2011: Conflict, Security and Development*. Washington, DC, World Bank.
- World Bank (2012). *World Development Indicators 2012*. Washington DC, World Bank

Zhu, Z., Jian Bi, Yaozhong Pan, Sangram Ganguly, Alessandro Anav, Liang Xu, Arindam Samanta, Shilong Piao, Ramakrishna Nemani, and Ranga Myneni (2013) Global Data Sets of Vegetation Leaf Area Index (LAI) and Fraction of Photosynthetically Active Radiation (FPAR) Derived from Global Inventory Modeling and Mapping Studies (GIMMS) Normalized Difference Vegetation Index (NDVI) for the Period 1981 to 2011. *Remote Sensing* 5 (2):927-948.

2. Poverty, Shared Prosperity and Subjective Well-Being in Iraq

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&ald=1782>

Ravallion, M. and Bidani, B. (1994) "How robust is a poverty profile?", *The World Bank Economic Review*, Vol. 8, No 1: 75-102, World Bank, Washington, DC.

Ravallion, Martin (1996). Issues in Measuring and Modeling Poverty, *The Economic Journal*, 106 (438), 1328-1343.

World Bank (2013), Poverty in Iraq 2007-2013, Methodological Note, Washington DC.

3. Poverty in Human Capital

Alderman, H., Hoddinott, J. and Kinsey, B (2006) "Long Term Consequences of Early Childhood Malnutrition" *Oxford Economic Papers*, Vol. 58, Issue 3, pp. 450-474.

Center on the Developing Child (2010) "The Foundations of Lifelong Health Are Built in Early Childhood", Harvard University.

Francesconi, M. (2008) "Adult Outcomes for Children of Teenage Mothers" *Scandinavian Journal of Economics*, Wiley Blackwell, vol. 110(1), pages 93-117, 03.

Geronimus, A. T. (1992) "The weathering hypothesis and the health of African-American women and infants: Evidence and speculations" *Ethnicity and Disease*, 2, 207-221.

Glewwe, P., Jacoby, H., and King. E. (2001) "Early Childhood Nutrition and Academic Achievement: A Longitudinal Analysis." *Journal of Public Economics* 81, no. 3:345-68

Hoddinott, J., Maluccio, J.A., Behrman, J., Flores, R and Martorell, R. (2008) "Effect of a nutrition intervention during early childhood on economic productivity in Guatemalan adults". *The Lancet* - 2 (Vol. 371, Issue 9610, Pages 411-416)

Kreisel, W (2001) Health situation in Iraq. " At the hearing "Iraq and the International Community" of the Committee on Foreign Affairs, Human Rights, Common Security and Defence Policy, World Health Organization, European Union, Brussels www.who.int/disasters/repo/6386.doc

Levine, J.A., Pollack, H. and Comfort, M. (2001) Academic and Behavioral Outcomes Among the Children of Young Mothers. *Journal of Marriage and Family*, Volume 63, Issue 2, pages 355-369.

Martorell, R. (1997) Under-nutrition during pregnancy and early childhood and its consequences for cognitive and behavioral development. In *Early child development: Investing in our children's future*, ed. M. E. Young, 39-83. Amsterdam: Elsevier.

- Paes de Barros, R., Ferreira, F., Molinas Vega, J and Saavedra Chanduvi, J., (2009) Measuring Inequality of Opportunities in Latin America and the Caribbean, World Bank, Washington, DC.
- Rao, K., Balakrishna, N. Arlappa ,N., Laxmaiah, A. and Brahmam, G.N.V. (2010) Diet and Nutritional Status of Women in India, *Journal of Human Ecology*, 29(3): 165-170
- Super, Ch., Herrera, M. G., and Mora, J. (1990) "Long-Term Effects of Food Supplementation and Psychosocial Intervention on the Physical Growth of Colombian Infants at Risk of Malnutrition" *Child Development*, Vol. 61, No. 1, pp. 29-49
- UNICEF (2014) Multiple Indicator Cluster Surveys (MICS)
- World Bank (2006) "World Development Report 2006: Equity and Development"; Washington, DC, World Bank.
- World Bank (2012). *World Development Indicators 2012*. Washington DC, World Bank
- World Bank (2008) *Africa's Future, Africa's Challenge Early Childhood Care and Development in Sub-Saharan Africa*
- World Health Organization (2007) "The Lancet child development in developing countries series", *The Lancet*, Vol 369.
- World Health Organization (2013). *Global Database on Child growth and Malnutrition* <http://www.who.int/nutgrowthdb/database/en/>

4. Conflict, Revival and Neglect: Understanding Spatial Disparities in Welfare

- Cotton, J. 1988. "On the Decomposition of Wage Differentials." *The Review of Economics and Statistics*, 70: pp. 236-243.
- ILO (1982) "Resolution concerning statistics of the economically active population, employment, unemployment and underemployment, adopted by the Thirteenth International Conference of Labour Statisticians", October
- Iraq Body Count, (2013) May estimates (www.iraqbodycount.org)
- Jann, B. (2008), "A Stata implementation of the Blinder-Oaxaca decomposition," *Stata Journal*, Vol. 8 No 4.
- Neumark, D. (1988). "Employers' Discriminatory Behavior and the Estimation of Wage Discrimination," *Journal of Human Resources* 23: pp. 279-295.
- Oaxaca, R. and Ransom, R. (1994). "On Discrimination and the Decomposition of Wage Differentials," *Journal of Econometrics*, vol. 61. pp. 2-21.
- Oaxaca, R. (1973). "Male-Female Wage Differentials in Urban Labor Markets," *International Economic Review*, vol. 14, pp. 693-709.
- Ravallion, M., and Q. Wodon. (1999). "Poor Areas, or Only Poor People?" *Journal of Regional Science*, vol. 39, no. 4, pp. 689-711.
- Reimers, C. W. (1993). "Labor Market Discrimination against Hispanic and Black Men." *Review of Economics and Statistics*, 65(4), pp. 570-579.

- Skoufias, E., and Katayama, R. (2011). "The Sources of Welfare Disparities Between and Within Regions of Brazil: Evidence from the 2002-03 Household Budget Survey (POF)," *Journal of Economic Geography*, Vol. 11, No. 5 (September), pp. 897-918.
- Skoufias, E., and Olivieri, S. (2013). "Geographic disparities in well-being and fiscal expenditures in Thailand: 2000 vs 2009," *Journal of the Asia Pacific Economy*, Vol. 18, Issue. 3, pp. 359-381.
- Skoufias, E., and Olivieri, S. (2013). "Sources of spatial welfare disparities in Indonesia: Household endowments or returns?," *Journal of Asian Economics*, Vol. 29, pp. 62-79.
- UNHCR (2014), Population Statistics Reference Database, United Nations High Commissioner for Refugees, year 2013; retrieved 29 July
- United Nations High Commissioner for Refugees (2014), Statistical Online Population Database, UN (<http://www.unhcr.org/pages/4a013e06.html>)
- World Bank (2012). World Development Indicators 2012. Washington DC, World Bank
- World Bank. (2009). World Development Report 2009: "Reshaping Economic Geography", Washington, D.C.: The World Bank.
- World Food Program (2007) Comprehensive Food Security and Vulnerability Analysis: Iraq

5. Understanding the Drivers of Poverty Reduction

- Azevedo, J.P., Inchauste, G., Olivieri, S., Saavedra, J. and Winkler, H. (2013) "Is Labor Income Responsible for Poverty Reduction? A Decomposition Approach." Policy Research Working Paper 6414, World Bank, Washington, DC.
- Azevedo, J.P., Essama-Nssah, B., Inchauste, G., and Olivieri, S. (2014). "A Simple Approach to Understanding Changes in Poverty and Inequality" in "Understanding Changes in Poverty" Inchauste, G., Azevedo, J.P., Essama-Nssah, B., Olivieri, Sergio, Van Nguyen, T., Saavedra-Chanduvi, J., and Winkler, H., *Direction in Development: Poverty*, The World Bank Group, Washington DC.
- Azevedo, J.P., Cong Nguyen, M. and Sanfelice, V. (2012). "Adecomp: Stata Module to Estimate Shapley Decomposition by Components of a Welfare Measure." Statistical Software Components S457562, Boston College Department of Economics.
- Barros, R.P, Mirela de Carvalho, Samuel Franco, and Rosane Mendonça. (2006). "Uma Análise das Principais Causas da Queda Recente na Desigualdade de Renda Brasileira." *Revista Econômica* 8 (1): 117-47.
- Essama-Nssah, B. (2012). "Identification of Sources of Variation in Poverty Outcomes." Policy Research Working Paper 5954, World Bank, Washington, DC.
- Fortin, N., T. Lemieux, and S. Firpo. (2011). "Decomposition Methods in Economics." In *Handbook of Labor Economics*, Vol. 4A, edited by Orley Ashenfelter and David Card, 1-102. Amsterdam, the Netherlands: North-Holland.
- Ferreira, F. H. G. (2012). "Distributions in Motion: Economic Growth, Inequality, and Poverty Dynamics." In *The Oxford Handbook of the Economics of Poverty*, edited by Philip N. Jefferson, 427-62. New York: Oxford University Press.

Inchauste, G., Azevedo, J.P., Essama-Nssah, B., Olivieri, Sergio, Van Nguyen, T., Saavedra-Chanduvi, J., and Winkler, H., (2014). "Understanding Changes in Poverty" Direction in Development: Poverty, The World Bank Group, Washington DC

Shapley, L. S. (1953). "A Value for n-Person Games." In Contributions to the Theory of Games, Vol. 2, edited by H. W. Kuhn and A. W. Tucker, 307–17. Princeton, NJ: Princeton University Press.

Shorrocks, A. F. (1999) 2013. "Decomposition Procedures for Distributional Analysis: A Unified Framework Based on Shapley Value." Journal of Economic Inequality 11 (1): 1–28. doi: 10.1007/s10888-011-9214-z.

6. The Growth-Employment Nexus

Asaad, R (2013) "Making Sense of Arab Labor Markets: The Enduring Legacy of Dualism", IZA Discussion paper No 7573, Bonn.

Nopo, H. (2008) "Matching as a tool to decompose wage gaps", *The Review of Economics and Statistics*, May, 90(2): 290-299.

World Bank (2012) "IRAQ: Investment Climate Assessment" Washington, DC.

World Bank (2012) Iraq Enterprise Survey, Washington, DC.

World Bank (2013) "Opening doors: Gender Equality and Development in the Middle East and North Africa" Washington, DC.

World Bank. 2013. "Jobs for Shared Prosperity: Time for Action in the Middle East and North Africa" Washington, DC.

7. The Labor Market for the Poor: The Rural-Urban divide

World Bank (1974) "Current Economic Position and Prospects of Iraq", Report No. 419a-IRQ, Washington, DC.

World Bank FAO Agriculture Sector Note, 2011

Fritz, Steffen, Liangzhi You, Andriy Bun, Linda See, Ian McCallum, Christian Schill, Christoph Perger, Junguo Liu, Matt Hansen, and Michael Obersteiner. (2011) Cropland for sub-Saharan Africa: A synergistic approach using five land cover data sets. *GEOPHYSICAL RESEARCH LETTERS* 38 (4):n/a-n/a

Zhu, Z., Jian Bi, Yaozhong Pan, Sangram Ganguly, Alessandro Anav, Liang Xu, Arindam Samanta, Shilong Piao, Ramakrishna Nemani, and Ranga Myneni (2013) Global Data Sets of Vegetation Leaf Area Index (LAI)_{3g} and Fraction of Photosynthetically Active Radiation (FPAR)_{3g} Derived from Global Inventory Modeling and Mapping Studies (GIMMS) Normalized Difference Vegetation Index (NDVI)_{3g} for the Period 1981 to 2011. *Remote Sensing* 5 (2):927-948.

http://digital.library.unt.edu/ark:/67531/metacrs7073/m1/1/high_res_d/RS21516_2003May13.pdf

8. Transfers, Safety Nets and Poverty

- Ahmed, A, Bouis, H., Gutner, T. and Lofgren, H. (2001) "The Egyptian Food Subsidy System. Structure, Performance, and Options for Reform" Research Report 119, International Food Policy Research Institute, Washington, DC.
- Deaton, A. (1997) "The analysis of Household Surveys. A Microeconometric Approach to Development Policy", World Bank, Washington, DC.
- Deaton, A. and Muellbauer, J. (1980), Economics and consumer behavior, Cambridge University Press, Cambridge, UK.
- Moschini, G. C. and Rizzi, P.L. (2007) "Deriving a flexible mixed demand system: The normalized Quadratic Model". American Journal of Agricultural Economics, 89 (4), 1034-1045.
- Ramadan, R., and Thomas, A. (2011) "Evaluating the impact of reforming the food subsidy program in Egypt: A Mixed Demand approach". Food Policy 01/2011; 36(5):637-645. DOI:10.1016/j.foodpol.2011.06.006
- Ramadan, R., Krishnan, N. and Olivieri, S. (2014), Re-thinking the Iraq Public Distribution System: A Mixed Demand Approach, mimeo
- World Bank (2013), Poverty in Iraq 2007-2013, Methodological Note, Washington DC.

9. Policy Implications: Learning from the past to build a better future

- Devarajan, S and Giugale, M (2013), The Case for Direct Transfers of Resource Revenues in Africa, Centre for Global Development, Working Paper 333, July
- ECLAC (2002), Meeting the Millennium Poverty Reduction Targets in Latin America and the Caribbean, Santiago, Chile.
- Ferreira, F. and Leite, P. (2003) Policy Options for Meeting the Millennium Development Goals in Brazil, Can Micro-simulations Help?, Policy Research Working Paper 2975, World Bank, Washington, DC.
- World Bank (2012) Investment Climate Assessment – Iraq, Washington DC
- World Bank (2012) Rents to Riches? The Political Economy of Natural-Resource Led Development. Washington DC
- World Bank (2013) "Public Expenditure Review: Towards more efficient spending for better services delivery in Iraq", Washington DC