Poverty Mapping in Yemen

Preliminary Results, Subject to Change

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March 15, 2007

1. Introduction

In this report, I describe the work I did from February 4, 2007 to March 14, 2007 to implement the poverty mapping method developed in Elbers, Lanjouw and Lanjouw (2002a), abbreviated with ELL. The idea is to measure consumption-based poverty at the disaggregated regional level by combing the information from the General Population, Housing, and Establishment Census in 2004 and the Household Budget Survey (HBS) in 2005-06 from Yemen.

Yemen has 21 governorates and 313 districts. The aim of this mission is to produce a poverty map at district level using the ELL method. The following tasks have been done to achieve this aim:

1. Select a set of variables that are common to the Census and the HBS,
2. Estimate models of household consumption per capita using HBS data for all the rural areas,
3. Predict household consumption per capita using the Census data for all the rural areas and estimate poverty indicators at district level.

In this report, section 2 is a brief summary of the ELL method. Section 3 describes the data used. In section 4 I will describe the three tasks which have been implemented on the data and present the preliminary results of the poverty estimates. The results are still under revision. Section 5 lists the remaining concerns with the results and discusses the necessary improvements.

2. Methodology

The basic idea of the ELL method is to first estimate the joint distribution of y_h, a variable on which the indicators of poverty are based, and a vector of variables x_h using a smaller and richer sample (e.g. data from a survey). By restricting x_h to be the variables on which a larger sample (e.g. data from a census) also provides information, the distribution of y_h for any sub-sample of the large sample can be generated by using the estimated distribution and the observed x_h in the larger sample. This generated distribution of y_h can then be used to generate the poverty indicators[1]. I present a brief summary of the method here.

(1). Consumption model

Consumption per capita is often used to measure poverty. An estimated joint distribution of consumption per capita y_h and a vector of observed variables x_h is obtained using the ELL method by developing a linear model of y_h on x_h:

$$\ln y_{ch} = \mathbf{x}'_{ch}\boldsymbol{\beta} + u_{ch},$$

where y_{ch} is the household consumption per capita for household h in location c, x_{ch} is the vector of explanatory variables, and u_{ch} is an error term. It should be noted here that this model is only used for predicting y_{ch} but not to measure the direct effect of x_{ch} on y_{ch}, so the endogeneity of the explanatory variables is not a concern here. As the results of this model are going to be used to predict y_h in the census, it is preferred that the model fits most closely to the observations that represent a large part of the census population. Therefore population expansion factors are used as weights in this regression.

The residual term u_{ch} is defined as:

$$u_{ch} = \eta_c + \varepsilon_{ch},$$

where η_c is a location component, and ε_{ch} is a household component of the residual. The location component η_c is used to capture the part of the error term which is due

[1] This paragraph is drawn from Elbers et. al. (2002b).

to the location characteristics common to all households in the location. The household component of the residual ε_{ch} reflects unobserved household characteristics which are not correlated with the location effect.

The variances of these two components of the error term reflect how much the household's predicted consumption deviates from its actual consumption. This deviation is one of the sources of the prediction error of the poverty indicators. The idiosyncratic component ε_{ch} falls approximately proportionately in sample size (Elbers et. al. 2002a), so for a large enough sample the idiosyncratic component of the error term does not cause serious problem to the precision of the estimates of poverty indicators. The location component η_c does not fall in sample size, so it is important to capture as much the effect of the location in the consumption model as possible. The means of the observed variables calculated at certain location level (e.g. enumeration area) using the census data can be inserted into the survey data and used as regressors in the consumption model. They can usually do a good job in reducing the location effect.

This consumption model is estimated using GLS. An OLS estimation is first performed to obtain the variance-covariance matrix of the error term. The residuals $\hat{u}_{ch}$ from the OLS estimation can be decomposed into two parts:

$$\hat{u}_{ch} = \hat{u}_{c.} + (\hat{u}_{ch} - \hat{u}_{c.}) = \hat{\eta}_c + e_{ch},$$

where a subscript "." indicates an average over that index.

The variance of the location component $\hat{\sigma}_\eta^2$ can be estimated nonparametrically.

The component e_{ch} can be used to estimate the variances of ε_{ch}. A logistic form is used in this estimation:

$$\ln[\frac{e_{ch}^2}{A - e_{ch}^2}] = z_{ch}^T \hat{\alpha} + r_{ch},$$

where $\mathbf{z}_{ch}$ are the variables which best explain variation in e_{ch}^2. In this way the prediction is bounded between zero and a maximum *A*. If A is set equal to $(1.05) * \max\{e_{ch}^2\}$ and $B = \exp\{z_{ch}^T \hat{\alpha}\}$, using the delta method the variance of ε_{ch} is estimated as:

$$\hat{\sigma}_{\varepsilon,ch}^2 = [\frac{AB}{1+B}] + \frac{1}{2} Var(r)[\frac{AB(1-B)}{(1+B)^3}].$$

Once these two variances are calculated, they can be filled into the variance-covariance matrix of the error term and the model can be estimated by GLS.

(2). Poverty indicators

The second set of tasks in the ELL method is to apply the estimates from the regression of the consumption model to the census data, predict the consumption from the census data and calculate the poverty indicators.

This task is done by simulation. For each simulation a vector of the parameters $\tilde{\boldsymbol{\beta}}$ is drawn from the multivariate normal distribution described by the GLS estimation of the consumption model and the associated variance-covariance matrix. The location component of the error term $\tilde{\eta}_c$ is drawn randomly with replacement from the set of $\hat{\eta}_c$. To draw the household component $\tilde{\varepsilon}_{ch}$, $\tilde{\varepsilon}^*_{ch}$ is first drawn for each household with replacement from the set of all standardized residuals[2], or from the standard residuals that correspond to the cluster from which the household's location effect is derived. The household component is then set to be $\tilde{\varepsilon}^*_{ch} \times \hat{\sigma}_{\varepsilon,ch}$. With the results from each draw values of $\tilde{\boldsymbol{\beta}}$, $\tilde{\eta}_c$, and $\tilde{\varepsilon}_{ch}$, the value of per capita consumption $\hat{y}_{ch}$ is estimated for each simulation as:

$$\hat{y}_{ch} = \exp\left(\mathbf{x}'_{ch}\tilde{\boldsymbol{\beta}} + \tilde{\eta}_c + \tilde{\varepsilon}_{ch}\right).$$

Finally, the full vector of simulated per capita consumption $\hat{y}_{ch}$, is used to calculate the mean and standard deviation of each poverty indicator.

3. Data

(1). Census data

The General Population, Housing, and Establishment Census was conducted by Central Statistical Organization, Ministry of Planning & International Cooperation,

[2] Standardized residuals are calculated using the formula:

$$e^* = \frac{e_{ch}}{\hat{\sigma}_{\varepsilon,ch}} - \left[\frac{1}{H}\sum_{ch}\frac{e_{ch}}{\hat{\sigma}_{\varepsilon,ch}}\right].$$

Republic of Yemen in December 2004. The total number of households covered in the census is 2,831,929[3]. For urban households, the administration contains six levels: governorate, district, sub-district, city, zone and neighborhood. The administration for rural households contains five levels: governorate, district, sub-district, village and sub-village. Table 1 lists the number of the administrative levels in each governorate. All the administrative areas are then divided into 21,582 enumeration areas (EA). Table 1 also lists the number of EAs in each governorate. We can see from Table 1 that for urban areas, the number of EAs is in between of the number of zones and neighborhoods for some governorates and smaller than the number of neighborhoods for some governorates. For rural areas the number of EAs is between the number of subdistricts and the number of villages.

Two kinds of questionnaires are used in the census: the short questionnaire and the long questionnaire. The short questionnaire has seven components: housing unit properties, transport vehicles and durable goods, general & social data, data of disabled household members, married status and educational data. The long questionnaire is used for 10% of the households and it contains all the sections in the short one plus three sections: economic data, fertility data and mortality data. The long questionnaire provides richer information, but since it is only used by 10% of the households using the household level data from the long questionnaire can often increase the standard errors of the estimates of the poverty indicators. In the case of Yemen the three extra sections covered in the long questionnaire provide little common information compared to the survey data. Therefore they are not used in the later analysis.

(2). Survey data[4]

The Household Budget Survey 2005-06 was also conducted by Central Statistical Organization of Yemen. The sample frame for the HBS was the 2004 General Population, Housing, and Establishment Census. Yemen consists of 21 governorates. The study population was sorted into 38 strata. 17 governorates were represented by

[3] Among these households, 231,565 households only contain data on dwelling because the houses were not occupied or the household does not have a household head. These households are dropped from later analysis.

[4] The description of the design of the HBS is drawn from Godoy and Muñoz (2006).

two strata (urban and rural), whereas Sana'a City and Aden are only urban and Remah and Sana'a Region are only rural. This resulted in 19 urban strata and 19 rural strata.

Within each stratum, the sample was selected in two stages. In the first stage, a certain number of Census Enumeration Areas (EAs) were selected with probability proportional to size (using as a measure of size the number of households according to the pre-census estimates available in January 2005). In the second stage, 12 households were picked from each EA by systematic equal probability sampling.

In order to produce estimates of consumption in all governorates of both rural and urban populations, the total sample of 1,200 EAs was distributed across strata by a combination of allocation proportional to size and equal allocation. The final sample allocation is as shown in Table 2.

The HBS data contain information on household roster, activities, dwelling conditions, health, education, anthropometrics, income, durable goods and consumption. Among these, information on household roster, dwelling conditions, education, durable goods is also available in the census.

4. Implementation

4.1 Select a set of variables that are common to the Census and the HBS

Table 3 lists all the variables generated using the common information in the census and the survey. The variables are in four categories: dwelling, durables, demography and education. Variables from these four categories are all very likely to be correlated to household consumption and can be good predictors of it. The high degree of comparability of selected variables is crucial for getting accurate estimates of poverty indicators. It has been checked that these variables have the same meaning in the census and in the survey. The distributions of these variables are compared in each stratum to make sure that a variable has the same distribution in the census and the survey.

As mentioned in section 2, unlike the idiosyncratic component the variance of the location component in the error term does not fall with the sample size. Thus it is

essential to capture the location effect as much as possible in the consumption model. This is currently done by generating means of the observed variables at the zone level for the urban areas and at the subdistrict level for the rural areas using the census data. Table 4 lists all the census means generated. It should be noted that these census means can be generated not only for the variables which are common to both census and survey but also for the variables which only appear in the census but not in the survey. These census means are then inserted into the survey data as candidates, which then can be used as regressor in consumption models.

4.2 Estimate models of household consumption per capita using HBS data for all the rural areas

Consumption models are estimated for each stratum. Two criteria are used to evaluate the consumption models: the R square of the model and the ratio of the variance of the location effect to the variance of the error term. Table 5.1 to Table 5.19 show all the results of the regressions of the consumption models. For the 19 rural strata, the R squares vary from 0.33 to 0.76. The census means calculated at subdistrict level seem to capture the location effect well except for governorate 28, which also has the lowest R square.

4.3 Predict household consumption per capita using the census data for all the rural areas

The results of the consumption models shown in Table 5 are applied to predict household consumption per capita using the census data. The estimates of poverty indicators FGT0 and FGT1 based on 100 simulations are listed in Table 6.

5. Problems with current results and further work

There are two main points of improvement.

First, the census means need to be generated at EA level and the method needs to be implemented on a revised version of the consumption data. Due to the data constrains in this stage of the work, the census means are generated at zone level for urban areas and subdistrict level for rural areas. It turns out that for urban areas the census means

at zone level do not capture the location effect very well. As we can see from Table 1, the number of zones and the number of subdistricts are very different from the numbers of EAs in each governorate. Census means generated at EA level may do a better job in improving the R squares of the consumption regressions and capturing the location effect. The consumption models are required to be revised using the final version of the consumption data.

Second, the reliability of the estimates of the poverty indicators needs to be checked. There are still two serious problems. First of all, when applying the models listed in Table 5 and measuring the poverty at governorate level, I get estimates which are much higher than the estimates calculated using the survey data directly for some of the governorates. Since the HBS is representative at the governorate level, it is worrying that the estimates calculated in these two ways are different. The reason is not clear at this point. Second, the estimates are not stable over different specifications of consumption models. I noticed that for some districts the estimates of poverty indicators are very sensitive to the selection of the variables in the consumption model. One reason for this can be that some variables included in the consumption model do not exhibit the same underlying distributions across the data sources and these were not detected in the early stage. It requires checking the distributions of the candidate variables more carefully to detect the problematic variables.

6. References

Elbers C., Lanjouw J. O., Lanjouw P. 2002a. "Micro-level Estimation of Welfare." Working Paper No. 2911, The World Bank, Washington, D.C.

Elbers, Chris, Jean O. Lanjouw, and Peter Lanjouw. 2002b. "Micro-Level Estimation of Poverty and Inequality", *Econometrica,* 71*(1)*: 355-64.

Godoy, B. and Juan Muñoz. 2006. "Preparation of the Household Budget Survey 2005-2006 databases for tabulation and analysis." Notes on Mission to Sana'a, Yemen October 30 to November 8, 2006, The World Bank, Washington, D.C.

Table 1: Number of households, administrative areas and EAs in each governorate in census data

Governorate	Urban							Rural					
	households	districts	subdistricts	cities	zones	neighb.	EAs	households	districts	subdistricts	villages	subvillages	EAs
11 Ibb	54,126	17	19	19	23	356	371	259,492	20	251	2,717	17,208	2,054
12 Abyan	15,524	7	7	11	27	89	106	43,446	11	11	2,978	2,979	356
13 Sana'a City	260,825	12	12	12	89	791	1,637	4,971	1	3	52	172	41
14 Al-Baida	14,023	9	9	10	10	105	91	55,774	19	109	1,478	3,171	441
15 Taiz	88,474	16	17	17	17	317	621	304,262	20	233	1,983	16,407	2,286
16 Al-Jawf	7,236	11	11	11	11	121	44	49,230	12	47	481	2,466	293
17 Hajja	17,275	19	19	20	20	216	135	169,586	31	161	3,780	13,830	1,503
18 Al-Hodeida	120,603	24	33	34	34	283	803	246,919	24	135	2,298	5,796	1,878
19 Hadramout	66,375	24	25	30	82	149	428	75,605	30	37	3,837	3,847	550
20 Dhamar	25,879	8	8	8	8	134	183	173,069	12	312	3,373	13,419	1,416
21 Shabwah	9,637	11	11	11	19	43	74	43,412	17	24	3,337	3,540	398
22 Sa'adah	12,924	11	13	13	13	157	91	68,529	15	121	1,194	6,438	606
23 Sana'a Reg.	3,653	9	10	10	10	67	29	112,119	16	145	2,156	7,218	913
24 Aden	97,289	8	8	8	44	242	633	0	0	0	0	0	0
25 Laheg	9,720	9	9	10	10	110	65	104,882	14	40	4,124	5,840	757
26 Mareb	3,962	5	5	5	5	29	29	24,029	14	59	467	2,162	208
27 Al-Mahweet	4,674	6	6	6	6	71	35	60,849	9	114	1,213	4,647	531
28 Al-Maharh	5,220	6	6	6	18	51	40	7,636	9	12	367	369	75
29 Amran	18,728	15	16	16	16	179	152	80,408	20	125	1,629	5,707	753
30 Al-Dhale	8,445	8	8	8	8	140	62	52,640	9	41	1,688	2,900	409
31 Remah	617	3	3	3	3	31	5	49,862	6	89	737	6,679	480

Table 2: HBS final sample allocation

	No. of clusters			No. of households		
Governorate	Urban	Rural	Total	Urban	Rural	Total
11 Ibb	43	41	84	516	492	1,008
12 Abyan	30	18	48	360	216	576
13 Sana'a City	156	0	156	1,872	0	1872
14 Al-Baida	29	19	48	348	228	576
15 Taiz	56	40	96	672	480	1152
16 Al-Jawf	22	14	36	264	168	432
17 Hajja	30	30	60	360	360	720
18 Al-Hodeida	75	33	108	900	396	1,296
19 Hadramout	41	19	60	492	228	720
20 Dhamar	31	29	60	372	348	720
21 Shabwah	21	15	36	252	180	432
22 Sa'adah	28	20	48	336	240	576
23 Sana'a Region	0	24	24	0	288	288
24 Aden	72	0	72	864	0	864
25 Laheg	25	23	48	300	276	576
26 Mareb	22	14	36	264	168	432
27 Al-Mahweet	27	21	48	324	252	576
28 Al-Maharh	12	12	24	144	144	288
29 Amran	27	21	48	324	252	576
30 Al-Dhale	22	14	36	264	168	432
31 Remah	0	24	24	0	288	288
Total	769	431	1,200	9,228	5,172	14,400

Source: Figure 3, Godoy and Muñoz (2006)

Table 3: Variables generated using information common in both the census and the survey

Variable name	Definition
housetype1	The type of the house of the household is house/villa
housetype2	The type of the house of the household is apartment
housetype3	The type of the house of the household is hut
housetype4	The type of the house of the household is tent
housetype5	The type of the house of the household is habitable establishment
water1	The main source water supply is public network
water2	The main source water supply is private network
water3	The main source water supply is cooperative network
sewage1	The type of sewage disposal system is public network
sewage2	The type of sewage disposal system is close pot
sewage3	The type of sewage disposal system is open pot

Table 3: Variables generated using information common in both the census and the survey (continued)

Variable name	Definition
LIGHT1	The main source of lighting is public network
LIGHT2	The main source of lighting is cooperative network
LIGHT3	The main source of lighting is private network
LIGHT4	The main source of lighting is private generator
LIGHT5	The main source of lighting is kerosene
LIGHT6	The main source of lighting is gas
COOK1	The main source used for cooking is electricity
COOK2	The main source used for cooking is kerosene
OWNHOUSE1	The household owns the house
OWNHOUSE2	The household rents the house
DURABLE1	No. of private cars owned by the household
DURABLE2	No. of taxi's owned by the household
DURABLE3	No. of buses owned by the household
DURABLE4	No. of small trucks owned by the household
DURABLE5	No. of large trucks owned by the household
DURABLE6	No. of motor bikes owned by the household
DURABLE7*	No. of mixers owned by the household
DURABLE8	No. of phones owned by the household
DURABLE9	No. of mobiles owned by the household
DURABLE10	No. of refrigerators owned by the household
DURABLE11	No. of washing machines owned by the household
DURABLE12	No. of TVs owned by the household
DURABLE13*	No. of radios owned by the household
DURABLE14*	No. of water heaters owned by the household
DURABLE15	No. of sewing machines owned by the household
DURABLE16	No. of PCs owned by the household
DURABLE17	No. of satellite dish owned by the household
DURABLE18	No. of air conditioner owned by the household
HEADAGE	Age of the head
SPOUSEAGE	Mean age of spouses of the head
ADULT	No. of adult (age>=16)
MALE	No. of male in the household
FEMALE	No. of female in the household
ADULTMALE	No. of adult male in the household
ADULTFEMALE	No. of adult female in the household
MARRIED	No. of married people in the household
SINGLE	No. of single people in the household
DIVORCED	No. of divorced people in the household
WIDOW	No. of widows in the household
YEMENIS	No. of people who are Yemenis in the household
DISABLED	No. of disabled people in the household
SPOUSENO	No. of spouses of the head
EDUHEAD	Education level of the head
EDUSPOUSE	Mean education level of spouses
EDUHIGH	Highest level of education in the household
UNIVERSITY	No. of people who finish university or higher education
PRIMARY	No. of people who finish primary school
HHSIZE	The size of the household

* The variable is detected to have different meanings in the census and the survey. The variable is dropped from later analysis.

Table 4: Census means

Variable name	Definition
HOUSETYPE1_D	The percentage of households whose type of the houses are house/villa
HOUSETYPE2_D	The percentage of households whose type of the houses are apartment
HOUSETYPE3_D	The percentage of households whose type of the houses are hut
HOUSETYPE4_D	The percentage of households whose type of the houses are tent
HOUSETYPE5_D	The percentage of households whose type of the houses are habitable establishment
WATER1_D	The percentage of households whose main source of water supply is public network
WATER2_D	The percentage of households whose main source of water supply is private network
WATER3_D	The percentage of households whose main source of water supply is cooperative network
SEWAGE1_D	The percentage of households whose type of sewage disposal system is public network
SEWAGE2_D	The percentage of households whose type of sewage disposal system is close pot
SEWAGE3_D	The percentage of households whose type of sewage disposal system is open pot
LIGHT1_D	The percentage of households whose main source of lighting is public network
LIGHT2_D	The percentage of households whose main source of lighting is cooperative network
LIGHT3_D	The percentage of households whose main source of lighting is private network
LIGHT4_D	The percentage of households whose main source of lighting is private generator
LIGHT5_D	The percentage of households whose main source of lighting is kerosene
LIGHT6_D	The percentage of households whose main source of lighting is gas
COOK1_D	The percentage of households whose main source used for cooking is electricity
COOK2_D	The percentage of households whose main source used for cooking is kerosene
OWNHOUSE1_D	The percentage of households who own their houses
OWNHOUSE2_D	The percentage of households who rent their houses
DURABLE1_D	Average No. of private cars owned by households
DURABLE2_D	Average No. of taxi's owned by households
DURABLE3_D	Average No. of buses owned by households
DURABLE4_D	Average No. of small trucks owned by households
DURABLE5_D	Average No. of large trucks owned by households
DURABLE6_D	Average No. of motor bikes owned by households
DURABLE8_D	Average No. of phones owned by households
DURABLE9_D	Average No. of mobiles owned by households
DURABLE10_D	Average No. of refrigerators owned by households
DURABLE11_D	Average No. of washing machines owned by households
DURABLE12_D	Average No. of TVs owned by households
DURABLE15_D	Average No. of sewing machines owned by households
DURABLE16_D	Average No. of PCs owned by households
DURABLE17_D	Average No. of satellite dish owned by households
DURABLE18_D	Average No. of air conditioner owned by households
HEADAGE_D	Average age of household heads
POPUL_D	Population
HHNO_D	No. of households
PRIMARY_D	Percentage of people who finish primary school
UNIVERSITY_D	Percentage of people who finish university

Table 5: Results of consumption regressions

Table 5.1: Rural Ibb

	Coefficient	Std. Err.
intercept	11.21	0.09
COOK2_D	-18.97	5.61
DURABLE1	0.33	0.10
DURABLE10_D	-1.47	0.41
DURABLE11_D	2.61	0.67
DURABLE17	0.31	0.08
DURABLE2_D	13.12	4.13
DURABLE8	0.28	0.08
DURABLE9_D	1.93	0.31
HOUSETYPE3_D	8.67	1.69
LIGHT6_D	0.80	0.22
PRIMARYP	0.68	0.16
SINGLEP	-0.45	0.13
SIZE	-0.03	0.01
WATER1_D	0.58	0.18
WATER2_D	-1.85	0.33
Obs.	463	
R square	0.41	

Table 5.2: Rural Abyan

	Coefficient	Std. Err.
intercept	11.10	0.13
ADULTP	0.56	0.13
DURABLE1	0.36	0.11
DURABLE12	0.12	0.06
DURABLE16	2.03	0.49
DURABLE17	0.42	0.13
DURABLE8	0.18	0.08
EDUHIGH	0.07	0.02
HOUSETYPE4	0.34	0.11
LIGHT3	-0.24	0.13
LIGHT5_D	-0.60	0.17
OWNHOUSE2	0.80	0.24
SEWAGE2	0.14	0.06
SINGLE	-0.07	0.01
WATER1_D	-1.52	0.27
Obs.	189	
R square	0.58	

Table 5.3: Rural Al-Baida

	Coefficient	Std. Err.
intercept	11.03	0.15
COOK2_D	-20.34	10.42
DURABLE14_D	-4.20	1.33
DURABLE15_D	-6.14	2.15
DURABLE17_D	5.88	1.09
DURABLE4	0.74	0.26
DURABLE8_D	1.19	0.22
DURABLE9	0.25	0.05
HOUSETYPE5_D	34.32	11.75
LIGHT1_1*	0.38	0.18
LIGHT4_D	-2.43	0.50
LIGHT5_0	0.23	0.09
MALE	-0.08	0.02
MALEP	0.87	0.23
SEWAGE3_D	1.01	0.28
SINGLEP	-0.92	0.17
Obs.	222	
R square	0.46	

* For dummy variables, variable_1=1 if variable=1, variable_1=0 if variable=0; variable_0=1 if variable=0, variable_0=0 if variable=1.

Table 5 (continued): Results of consumption regressions

Table 5.4: Rural Taiz

	Coefficient	Std. Err.
intercept	14.12	1.20
ADULTP	0.32	0.10
COOK2_1	-0.44	0.19
DURABLE10_D	-9.63	1.93
DURABLE12_D	-1.79	0.41
DURABLE13_D	-0.86	0.19
DURABLE15_D	7.82	1.56
DURABLE7_D	231.04	84.86
DURABLE9	0.21	0.05
HHNO_D	0.00	0.00
HOUSETYPE1_0	-0.33	0.13
HOUSETYPE5_D	-8.33	2.16
LIGHT1_1	-0.28	0.11
LIGHT1_D	2.05	0.35
LIGHT2_D	4.24	0.82
LIGHT4_D	15.82	2.11
LIGHT5_0	0.28	0.08
MALEP	0.28	0.12
OWNHOUSE1_D	-2.88	1.21
SEWAGE2_0	-0.14	0.05
SINGLE	-0.07	0.01
WATER1_0	-0.25	0.09
WATER2_1	0.44	0.10
WATER2_D	-1.48	0.31
WATER4_D	0.77	0.17
Obs.	450	
R square	0.4	

Table 5.5: Rural Al-Jawf

	Coefficient	Std. Err.
intercept	13.43	0.33
DIVORCEDP	-0.81	0.46
DURABLE18	0.92	0.45
HOUSETYPE3_D	-2.01	0.59
HOUSETYPE4_D	-0.64	0.30
LIGHT4_0	-0.42	0.20
LIGHT6_D	-0.97	0.41
MALEP	-0.83	0.28
SEWAGE3_D	-1.04	0.29
SINGLEP	-0.82	0.24
SIZE	-0.07	0.02
Obs.	148	
R square	0.41	

Table 5.6: Rural Hajja

	Coefficient	Std. Err.
intercept	11.27	0.19
ADULT	-0.09	0.01
ADULTP	0.72	0.14
COOK1_D	-20.91	7.47
COOK2_D	-1.59	0.37
DURABLE1	0.47	0.09
DURABLE15_D	-3.15	0.95
DURABLE18_D	31.30	11.30
DURABLE4_D	10.32	1.57
DURABLE5	0.80	0.25
DURABLE6	0.37	0.15
DURABLE6_D	6.58	0.80
HHNO_D	0.00	0.00
LIGHT2_D	5.73	1.78
LIGHT5_0	0.16	0.06
SEWAGE2_0	-0.22	0.08
SINGLEP	-0.64	0.14
WATER1_D	-0.91	0.20
Obs.	346	
R square	0.61	

Table 5 (continued): Results of consumption regressions

Table 5.7: Rural Al-Hodeida

	Coefficient	Std. Err.
intercept	11.07	0.35
ADULT	-0.08	0.01
ADULTP	1.07	0.09
DURABLE10_D	-19.76	3.64
DURABLE15_D	15.89	3.27
DURABLE5_D	22.56	5.33
DURABLE6_D	-4.46	0.84
DURABLE8	0.85	0.38
HOUSETYPE3_0	0.15	0.05
HOUSETYPE3_D	0.32	0.14
LIGHT6_D	-5.50	1.03
OWNHOUSE2_0	-0.69	0.29
PRIMARYP	0.51	0.20
UNIVERSITY_D	127.44	29.39
WATER1_1	0.30	0.10
WATER5_D	-74.06	15.59
Obs.	377	
R square	0.47	

Table 5.8: Rural Hadramout

	Coefficient	Std. Err.
intercept	13.07	0.45
COOK1_D	-94.02	27.67
DIVORCED	-0.93	0.19
DIVORCEDP	5.32	1.02
DURABLE1	0.16	0.08
DURABLE13_D	-0.75	0.21
DURABLE17	0.21	0.07
DURABLE2_D	-7.33	2.93
DURABLE4	0.40	0.17
HOUSETYPE3_1	-1.13	0.29
LIGHT6_1	-1.08	0.25
OWNHOUSE1_0	0.34	0.14
OWNHOUSE2_0	0.63	0.38
SIZE	-0.03	0.01
WATER3_0	-1.39	0.20
WATER5_D	-340.43	152.58
Obs.	203	
R square	0.52	

Table 5.9: Rural Dhamar

	Coefficient	Std. Err.
intercept	15.28	0.76
ADULT	-0.14	0.02
ADULTP	1.13	0.10
COOK1_D	-34.64	5.91
DURABLE1	0.28	0.08
DURABLE10	0.41	0.12
DURABLE11	0.57	0.14
DURABLE1_D	-3.76	0.64
DURABLE2	0.65	0.16
DURABLE4	0.35	0.11
DURABLE8_D	-1.24	0.32
HOUSETYPE1_D	-4.57	0.80
LIGHT1_D	0.35	0.08
LIGHT4_D	5.04	0.98
LIGHT5_0	0.18	0.06
MARRIED	0.06	0.02
PRIMARY	0.08	0.03
UNIVERSITY	-1.00	0.29
UNIVERSITYP	9.20	2.10
WATER1_D	-0.71	0.16
WATER2_D	3.05	0.41
WATER3_1	-0.81	0.15
WATER4_D	0.31	0.10
WATER5_D	-87.30	16.39
Obs.	339	
R square	0.51	

Table 5 (continued): Results of consumption regressions

Table 5.10: Rural Shabwah

	Coefficient	Std. Err.
intercept	11.53	0.30
DIVORCED	-1.17	0.66
DIVORCEDP	10.08	5.09
DURABLE1	0.49	0.10
DURABLE15_D	-3.04	0.80
DURABLE16_D	20.02	8.71
DURABLE8_D	1.90	0.43
HEADAGE	-0.01	0.00
LIGHT2_1	0.50	0.19
MARRIED	-0.08	0.02
MARRIEDP	1.28	0.26
Obs.	159	
R square	0.48	

Table 5.11: Rural Sa'adah

	Coefficient	Std. Err.
intercept	10.74	0.11
ADULTP	0.94	0.11
DURABLE1	0.19	0.06
DURABLE4	0.18	0.07
DURABLE5	-0.21	0.11
DURABLE5_D	-17.46	2.69
DURABLE9	0.14	0.06
HEADAGE	0.00	0.00
HOUSETYPE4_D	-1.63	0.33
OWNHOUSE2_D	8.32	1.02
PRIMARY_D	3.66	0.93
SEWAGE3_0	0.17	0.06
SEWAGE3_D	-0.47	0.16
Obs.	217	
R square	0.49	

Table 5.12: rural Sana'a Region

	Coefficient	Std. Err.
intercept	10.36	0.08
ADULT	-0.07	0.01
ADULTMALEP	0.53	0.19
ADULTP	0.70	0.12
DURABLE1	0.20	0.04
DURABLE1_D	-2.55	0.40
DURABLE2_D	-7.66	1.11
DURABLE4	0.23	0.05
DURABLE5_D	13.91	1.89
DURABLE7_D	-144.96	45.40
DURABLE8	0.15	0.05
DURABLE9	0.22	0.04
HOUSETYPE3_D	2.35	0.93
HOUSETYPE5_D	25.70	6.16
PRIMARYP	0.67	0.15
PRIMARY_D	6.35	0.75
WATER5_D	-105.24	19.73
Obs.	273	
R square	0.71	

Table 5 (continued): Results of consumption regressions

Table 5.13: Rural Laheg

	Coefficient	Std. Err.
intercept	5.66	1.18
COOK2_D	16.16	3.09
DURABLE1	0.31	0.16
DURABLE11_1	-0.32	0.10
DURABLE12_D	1.09	0.22
DURABLE4	0.45	0.21
DURABLE9	0.28	0.06
LIGHT3_D	-4.89	0.76
MARRIED	-0.07	0.02
OWNHOUSE1_D	6.97	1.23
PRIMARY_D	-3.99	0.65
SINGLEP	-1.02	0.14
WATER2_D	-11.59	1.84
Obs.	246	
R square	0.42	

Table 5.14: Rural Mareb

	Coefficient	Std. Err.
intercept	10.96	0.12
ADULTMALE	-0.18	0.05
ADULTMALEP	0.87	0.44
DURABLE1	0.33	0.08
DURABLE15_D	-3.32	0.78
DURABLE4	0.55	0.18
EDUHIGH	0.10	0.03
LIGHT2_D	2.53	0.34
OWNHOUSE2_D	13.78	2.29
PRIMARYP	0.77	0.29
SEWAGE2_1	0.19	0.09
SINGLE	-0.03	0.01
Obs.	153	
R square	0.76	

Table 5.15: Rural Al-Mahweet

	Coefficient	Std. Err.
intercept	11.6	0.13
ADULTMALEP	0.5	0.14
COOK2_D	-9.9	3.14
DURABLE10	0.2	0.10
DURABLE13_D	-0.4	0.14
DURABLE15	0.2	0.09
DURABLE8	0.2	0.07
EDUHEAD	0.1	0.02
HHNO_D	0.0	0.00
HOUSETYPE4_D	-102.4	23.71
POPUL_D	0.0	0.00
PRIMARY_D	4.8	0.82
SINGLEP	-0.4	0.12
SIZE	-0.1	0.01
Obs.	244	
R square	0.52	

Table 5 (continued): Results of consumption regressions

Table 5.16: Rural Al-Maharh

	Coefficient	Std. Err.
intercept	12.59	0.17
ADULT	0.06	0.03
DURABLE1	0.19	0.09
DURABLE4	0.64	0.20
HOUSETYPE3_D	0.56	0.31
POPUL_D	0.00	0.00
SIZE	-0.09	0.02
WATER2_D	3.77	0.65
Obs.	144	
R square	0.33	

Table 5.17: Rural Amran

	Coefficient	Std. Err.
intercept	15.25	0.95
ADULTMALEP	0.34	0.18
DURABLE1	0.22	0.07
DURABLE10	0.49	0.14
DURABLE2_D	-8.44	1.44
DURABLE4	0.25	0.05
DURABLE5	0.22	0.12
DURABLE6_D	41.62	7.16
EDUHIGH	0.04	0.02
HOUSETYPE5_D	21.42	5.65
LIGHT2_D	-7.98	3.44
LIGHT3_0	-1.74	0.67
LIGHT6_1	0.16	0.06
MARRIED	-0.07	0.02
OWNHOUSE1_D	-2.41	0.55
SINGLEP	-0.82	0.11
WATER2_D	1.45	0.44
Obs.	235	
R square	0.5	

Table 5.18: Rural Al-Dhale

	Coefficient	Std. Err.
intercept	9.57	0.33
ADULTMALE	-0.20	0.03
ADULTMALEP	2.09	0.25
DIVORCED	0.55	0.25
DURABLE1	0.28	0.09
DURABLE16_D	-44.24	14.61
DURABLE17	0.17	0.08
DURABLE1_D	1.03	0.58
DURABLE4	0.34	0.12
EDUHIGH	0.05	0.03
HOUSETYPE1_1	0.38	0.21
LIGHT5_0	0.25	0.08
OWNHOUSE2_1	1.36	0.55
UNIVERSITY	0.20	0.12
WATER2_0	0.74	0.22
WATER2_D	1.25	0.41
Obs.	156	
R square	0.42	

Table 5 (continued): Results of consumption regressions

Table 5.19: Rural Remah

	Coefficient	Std. Err.
intercept	11.03	0.12
ADULTP	0.48	0.13
COOK1_D	-47.36	14.58
DIVORCEDP	0.76	0.23
DURABLE12_D	0.70	0.27
DURABLE4	0.62	0.15
DURABLE6_D	-57.26	9.29
HEADAGE	0.00	0.00
LIGHT4_1	0.43	0.14
LIGHT5_0	0.29	0.07
MARRIEDP	0.49	0.13
PRIMARY_D	2.91	0.74
SIZE	-0.02	0.01
SPOUSENO	-0.27	0.07
Obs.	266	
R square	0.59	

Table 6: Preliminary results of poverty indicators

District	nHHLDs	avg_FGT0	se_FGT0	avg_FGT1	se_FGT1
1101	15,082	0.662	0.0314	0.2154	0.0184
1102	16,414	0.2669	0.035	0.0542	0.0096
1103	8,609	0.1823	0.028	0.0458	0.0084
1104	7,866	0.2862	0.0327	0.0689	0.0098
1105	4,342	0.4323	0.0595	0.1332	0.0264
1106	10,265	0.3563	0.0353	0.1049	0.0158
1107	14,868	0.4217	0.0412	0.1094	0.0159
1108	14,518	0.3635	0.0258	0.0941	0.0108
1109	12,637	0.4307	0.027	0.1221	0.0112
1110	14,973	0.6011	0.0389	0.1627	0.018
1111	20,530	0.5007	0.0284	0.1428	0.0135
1112	12,857	0.3017	0.0331	0.0654	0.0109
1113	13,713	0.4031	0.0404	0.1016	0.0156
1114	9,137	0.5219	0.0315	0.1556	0.0153
1115	14,268	0.3375	0.0279	0.0831	0.0097
1116	15,931	0.5231	0.0344	0.1475	0.0158
1117	11,323	0.4612	0.0332	0.1757	0.0162
1118	1,947	0.6518	0.0685	0.1692	0.0298
1119	3,903	0.2894	0.0569	0.0532	0.0133
1120	18,701	0.4586	0.0279	0.1246	0.0129
1201	2,698	0.7831	0.0287	0.305	0.024
1202	3,092	0.4569	0.0258	0.1634	0.0124
1203	1,445	0.9753	0.0093	0.5952	0.0271
1204	8,775	0.5868	0.0287	0.2065	0.0141
1205	1,849	0.4688	0.0335	0.1619	0.0169
1206	5,481	0.3866	0.0289	0.1307	0.015
1207	2,084	0.598	0.0386	0.1767	0.0178
1208	2,939	0.5714	0.0284	0.1749	0.014
1209	2,634	0.674	0.029	0.2251	0.0185
1210	864	0.8526	0.0359	0.402	0.0366
1211	7,543	0.7234	0.0315	0.297	0.0198
1401	995	0.7103	0.0408	0.3343	0.0327
1402	1,566	0.849	0.0299	0.3747	0.0341
1403	675	0.7983	0.0352	0.3911	0.0315
1404	4,709	0.7261	0.031	0.3294	0.0205
1405	2,394	0.5376	0.0521	0.1935	0.0224
1406	2,313	0.5607	0.0493	0.1559	0.0234
1407	2,788	0.7402	0.0284	0.3597	0.0192
1408	4,763	0.9016	0.0201	0.4108	0.0278
1410	4,822	0.5862	0.0289	0.1945	0.0157
1411	2,404	0.7279	0.0288	0.3503	0.0216
1412	1,996	0.8148	0.026	0.3847	0.02
1413	556	0.8437	0.0274	0.3527	0.028
1414	3,277	0.5693	0.0391	0.1893	0.0219
1415	2,278	0.6453	0.0644	0.2245	0.051
1416	3,827	0.2036	0.044	0.0423	0.0129
1417	3,148	0.7218	0.0327	0.249	0.0264
1418	2,247	0.576	0.0447	0.191	0.0294
1419	3,463	0.7744	0.0301	0.2882	0.0305
1420	2,891	0.6866	0.0387	0.2635	0.0266
1501	19,826	0.3135	0.0228	0.0992	0.0105

Table 6: Preliminary results of poverty indicators (continued)

District	nHHLDs	avg_FGT0	se_FGT0	avg_FGT1	se_FGT1
1502	16,249	0.547	0.0279	0.1949	0.0164
1503	21,056	0.6281	0.0285	0.2393	0.0214
1504	28,117	0.4136	0.023	0.1441	0.0134
1505	8,957	0.4696	0.0464	0.1615	0.0271
1506	2,524	0.4728	0.0875	0.14	0.0393
1507	5,024	0.4521	0.0676	0.1388	0.0305
1508	16,905	0.3902	0.0369	0.1159	0.0168
1509	3,524	0.6226	0.0599	0.2417	0.0428
1510	15,161	0.4909	0.0416	0.242	0.0191
1511	12,809	0.4764	0.0579	0.1632	0.0236
1512	13,537	0.6489	0.0827	0.1992	0.0446
1513	7,213	0.5661	0.034	0.2467	0.0203
1514	23,080	0.5682	0.0369	0.2482	0.0258
1515	4,386	0.5003	0.0584	0.133	0.0251
1516	11,068	0.6365	0.0218	0.3406	0.0235
1520	29,573	0.5479	0.0222	0.2376	0.016
1521	16,448	0.5129	0.0379	0.1998	0.021
1522	15,878	0.5454	0.0418	0.2003	0.0249
1523	5,093	0.8149	0.0623	0.3113	0.0513
1601	9,672	0.6676	0.0315	0.1972	0.0241
1602	2,508	0.4368	0.0423	0.0945	0.0143
1603	3,498	0.6628	0.0365	0.2246	0.0312
1604	2,944	0.5351	0.0587	0.1099	0.0214
1605	2,220	0.4683	0.0564	0.1118	0.0159
1606	2,944	0.1474	0.0512	0.0167	0.0069
1607	1,199	0.4612	0.0574	0.1469	0.0227
1608	512	0.5843	0.104	0.1687	0.0462
1609	938	0.6102	0.1748	0.1091	0.0569
1610	7,131	0.5328	0.0547	0.1367	0.0212
1611	8,043	0.6411	0.0228	0.2149	0.0246
1612	7,357	0.6176	0.0263	0.2198	0.02
1701	3,055	0.6292	0.0351	0.2169	0.0174
1702	9,675	0.3984	0.059	0.1221	0.0222
1703	1,568	0.5206	0.0321	0.2373	0.0206
1704	14,587	0.3869	0.0327	0.1555	0.0151
1705	1,979	0.4273	0.0474	0.1496	0.0243
1706	6,054	0.4965	0.0338	0.1376	0.0129
1707	8,736	0.2698	0.0218	0.1028	0.0087
1708	4,318	0.746	0.0363	0.2838	0.0207
1709	4,342	0.3063	0.0277	0.0955	0.0122
1710	5,183	0.639	0.0401	0.2304	0.0209
1711	8,961	0.5452	0.0259	0.1932	0.0123
1712	7,774	0.2555	0.0235	0.0707	0.0085
1713	5,541	0.3648	0.0238	0.1364	0.011
1714	4,431	0.3091	0.0532	0.0784	0.0161
1715	3,518	0.4653	0.0658	0.2282	0.0329
1716	2,995	0.1894	0.0478	0.0515	0.0175
1717	6,408	0.7242	0.0383	0.2541	0.0183
1718	3,787	0.4505	0.0301	0.1575	0.0151
1719	1,788	0.5808	0.0545	0.2768	0.0216
1720	6,184	0.6554	0.0348	0.282	0.0226

Table 6: Preliminary results of poverty indicators (continued)

District	nHHLDs	avg_FGT0	se_FGT0	avg_FGT1	se_FGT1
1721	3,320	0.5248	0.0222	0.296	0.0204
1722	9,405	0.5496	0.0303	0.1888	0.0171
1723	1,201	0.9524	0.0095	0.6029	0.0298
1724	8,808	0.3081	0.0249	0.0757	0.0092
1725	6,193	0.5467	0.0298	0.1605	0.0123
1726	3,531	0.4944	0.0458	0.1791	0.0194
1727	4,911	0.8093	0.0291	0.3419	0.0229
1728	1,973	0.5633	0.0462	0.2778	0.0308
1729	3,439	0.6028	0.0249	0.2213	0.0168
1730	6,790	0.7478	0.0374	0.2685	0.0197
1731	3,087	0.6908	0.0418	0.2594	0.0218
1801	20,701	0.3952	0.026	0.1108	0.0111
1802	15,235	0.3945	0.0323	0.1122	0.014
1804	718	0.844	0.1008	0.4419	0.1116
1805	4,598	0.3789	0.0398	0.1001	0.0158
1806	10,727	0.2109	0.0285	0.0509	0.0085
1807	12,190	0.4835	0.0276	0.1467	0.0116
1808	5,391	0.4156	0.0403	0.1096	0.0165
1809	5,148	0.6093	0.0343	0.1977	0.0181
1810	19,748	0.6511	0.0313	0.2411	0.0201
1811	1,350	0.5236	0.0652	0.1652	0.0331
1812	6,726	0.2768	0.0352	0.0966	0.0155
1813	15,974	0.5486	0.035	0.1772	0.0192
1814	8,593	0.4414	0.0317	0.1386	0.0151
1815	10,087	0.2198	0.0374	0.0445	0.0119
1816	5,686	0.4199	0.0302	0.1065	0.0121
1817	30,703	0.5529	0.0358	0.1558	0.0182
1818	7,943	0.3809	0.0549	0.1243	0.0255
1819	4,739	0.6521	0.0467	0.2317	0.0263
1820	3,122	0.4056	0.0288	0.1414	0.0152
1821	447	0.8703	0.0739	0.3804	0.0751
1823	462	0.5021	0.0604	0.122	0.025
1824	18,257	0.5954	0.0357	0.2144	0.0195
1825	11,803	0.5563	0.0439	0.1858	0.0204
1826	8,891	0.7809	0.0436	0.3046	0.0277
1901	549	0.5039	0.2302	0.1416	0.099
1902	234	0.1821	0.1217	0.0452	0.0395
1903	273	0.036	0.0197	0.007	0.0042
1904	199	0.9829	0.0241	0.6905	0.1328
1905	301	0.9411	0.1027	0.4772	0.1601
1906	311	0.3384	0.1476	0.1403	0.0523
1907	4,806	0.2632	0.0287	0.0696	0.0118
1908	4,004	0.3849	0.0483	0.0951	0.0164
1909	1,672	0.4589	0.0813	0.1186	0.0276
1910	4,930	0.4584	0.0383	0.1192	0.0165
1911	4,199	0.4984	0.0431	0.14	0.0211
1912	1,151	0.4733	0.0968	0.1364	0.0396
1913	3,888	0.2526	0.0358	0.0584	0.0116
1914	1,304	0.131	0.0351	0.0306	0.0118
1915	1,787	0.215	0.0375	0.0539	0.013
1916	2,758	0.9804	0.0528	0.7371	0.1561
1917	1,625	0.5602	0.1042	0.1569	0.0407

Table 6: Preliminary results of poverty indicators (continued)

District	nHHLDs	avg_FGT0	se_FGT0	avg_FGT1	se_FGT1
1918	5,283	0.2031	0.0213	0.0508	0.0089
1919	2,762	0.2043	0.0304	0.0417	0.0087
1920	921	0.1002	0.0243	0.0238	0.0081
1921	2,293	0.1009	0.0203	0.0221	0.0063
1922	2,128	0.4683	0.0887	0.1324	0.0431
1923	1,008	0.9595	0.0603	0.5267	0.1167
1924	2,562	0.3972	0.0511	0.1049	0.0177
1925	1,672	0.5802	0.0448	0.1737	0.0276
1926	3,503	0.1221	0.0277	0.0198	0.0063
1927	545	0.6804	0.1251	0.2283	0.0824
1928	1,976	0.0569	0.0164	0.0096	0.003
1929	265	0.247	0.0609	0.0494	0.0144
1930	1,557	0.8309	0.0598	0.3286	0.0572
2001	16,498	0.4345	0.0377	0.135	0.0174
2002	7,841	0.273	0.0354	0.092	0.0209
2003	8,625	0.449	0.0184	0.1967	0.0087
2004	7,094	0.0989	0.0169	0.0229	0.0047
2005	21,324	0.5868	0.0288	0.2284	0.018
2006	23,437	0.5431	0.0234	0.1941	0.0154
2007	23,215	0.3427	0.0148	0.129	0.0086
2008	3,568	0.466	0.0345	0.1754	0.0234
2009	7,647	0.3603	0.0222	0.1293	0.0147
2010	15,195	0.3836	0.0244	0.2028	0.0145
2011	15,751	0.3564	0.0196	0.0958	0.0082
2012	7,002	0.261	0.0198	0.0592	0.0063
2101	861	0.8658	0.0164	0.4182	0.0391
2102	1,072	0.8597	0.0197	0.3865	0.0246
2103	1,438	0.9121	0.0129	0.5943	0.0281
2104	1,012	0.8844	0.0144	0.4633	0.027
2105	2,549	0.3076	0.033	0.0726	0.0148
2106	2,273	0.1487	0.056	0.0321	0.0135
2107	3,259	0.2573	0.0377	0.061	0.0156
2108	3,151	0.75	0.0329	0.3787	0.0255
2109	3,888	0.2698	0.047	0.0435	0.0103
2110	3,318	0.7178	0.0387	0.2115	0.0224
2111	1,155	0.1874	0.156	0.0284	0.028
2112	2,879	0.0499	0.0208	0.0116	0.0055
2113	1,475	0.1834	0.0919	0.0284	0.0185
2114	2,402	0.4777	0.0371	0.0937	0.0144
2115	1,864	0.7678	0.0344	0.2766	0.0222
2116	3,266	0.5114	0.0447	0.1024	0.0182
2117	2,177	0.2236	0.1424	0.0446	0.0282
2201	2,056	0.276	0.0264	0.0704	0.0113
2202	1,837	0.4346	0.0486	0.1207	0.0216
2203	5,473	0.351	0.0261	0.0849	0.0136
2204	2,102	0.1125	0.0202	0.0175	0.0057
2205	5,257	0.1063	0.0191	0.0176	0.0038
2206	1,221	0.234	0.0249	0.0598	0.0111
2207	2,731	0.2117	0.0198	0.0546	0.013
2208	6,511	0.2389	0.0197	0.0521	0.0082
2209	5,931	0.1964	0.0229	0.0427	0.0062
2210	5,516	0.2785	0.0404	0.0642	0.0122

Table 6: Preliminary results of poverty indicators (continued)

District	nHHLDs	avg_FGT0	se_FGT0	avg_FGT1	se_FGT1
2211	12,471	0.4461	0.0306	0.1503	0.0196
2212	5,968	0.3173	0.0302	0.0695	0.0108
2213	1,454	0.5107	0.0576	0.1265	0.0237
2214	4,541	0.6382	0.038	0.2361	0.0262
2215	717	0.0367	0.0269	0.0054	0.0036
2301	9,278	0.1675	0.0232	0.0263	0.0056
2302	8,990	0.3261	0.0139	0.1959	0.0069
2303	4,191	0.0545	0.0161	0.0083	0.0029
2304	8,062	0.1338	0.0207	0.0271	0.0063
2305	9,466	0.0995	0.0172	0.019	0.0039
2306	3,823	0.1359	0.0185	0.0311	0.0062
2307	10,474	0.3415	0.0159	0.0915	0.0091
2308	8,645	0.5524	0.0146	0.209	0.0116
2309	7,998	0.4318	0.0171	0.1874	0.0079
2310	9,390	0.422	0.0217	0.1271	0.0101
2311	4,887	0.7062	0.0242	0.3236	0.0188
2312	2,761	0.4568	0.027	0.1404	0.0142
2313	3,759	0.4094	0.0198	0.1344	0.011
2314	1,962	0.1874	0.0669	0.0269	0.0111
2315	3,506	0.1112	0.0385	0.0148	0.0063
2316	5,377	0.0644	0.0159	0.0097	0.0029
2501	4,743	0.6395	0.0508	0.2617	0.0396
2502	7,880	0.3509	0.0583	0.1222	0.0276
2503	4,356	0.4143	0.0821	0.1183	0.0306
2504	3,778	0.873	0.0314	0.5428	0.0299
2505	5,108	0.4717	0.0553	0.0926	0.0149
2506	2,849	0.6022	0.0366	0.146	0.0181
2507	4,529	0.7813	0.0273	0.3265	0.0221
2508	4,000	0.5358	0.0391	0.1692	0.0194
2509	3,640	0.5536	0.053	0.1176	0.02
2510	15,307	0.7084	0.0327	0.2151	0.02
2511	6,942	0.6724	0.0481	0.1797	0.0315
2512	8,725	0.5774	0.0181	0.358	0.0105
2513	7,629	0.8361	0.0435	0.3848	0.0355
2515	12,596	0.4341	0.0662	0.086	0.0194
2601	1,126	0.6088	0.0431	0.221	0.0254
2602	354	0.5327	0.0633	0.2149	0.0353
2603	1,068	0.4261	0.0535	0.1007	0.0199
2604	726	0.8755	0.0205	0.4352	0.0168
2605	2,377	0.767	0.0244	0.26	0.0171
2606	2,246	0.372	0.0285	0.1184	0.015
2607	1,970	0.5394	0.0356	0.1861	0.0187
2608	814	0.6421	0.0311	0.2383	0.018
2609	2,751	0.7535	0.0262	0.3004	0.0234
2610	960	0.666	0.0212	0.2729	0.0151
2611	1,320	0.794	0.0227	0.3336	0.0173
2612	1,877	0.0633	0.0258	0.017	0.0073
2613	3,844	0.3681	0.0265	0.1528	0.0178
2614	1,064	0.3093	0.0405	0.1082	0.0169
2701	3,589	0.6513	0.0467	0.3053	0.0261
2702	5,422	0.7254	0.0286	0.3552	0.021

Table 6: Preliminary results of poverty indicators (continued)

District	nHHLDs	avg_FGT0	se_FGT0	avg_FGT1	se_FGT1
2703	8,550	0.4933	0.0251	0.2098	0.0146
2704	8,826	0.4747	0.0317	0.1544	0.0129
2705	11,648	0.6896	0.0218	0.2816	0.015
2706	5,073	0.277	0.0303	0.0793	0.0117
2707	10,184	0.6068	0.0218	0.2663	0.0114
2708	729	0.3815	0.0406	0.1099	0.0172
2709	6,828	0.5694	0.0228	0.2129	0.0143
2801	511	0.0419	0.0359	0.0104	0.0112
2802	428	0.186	0.1122	0.0718	0.0533
2803	315	0.0242	0.0396	0.0041	0.0077
2804	1,651	0.0753	0.036	0.0188	0.0105
2805	710	0.04	0.0387	0.0086	0.008
2806	1,048	0.0485	0.0545	0.0087	0.0104
2807	694	0.0643	0.0494	0.0169	0.011
2808	655	0.0905	0.0336	0.0672	0.0071
2809	881	0.2235	0.1182	0.0828	0.0373
2901	4,624	0.7431	0.0346	0.1966	0.0139
2902	1,648	0.4944	0.0419	0.1595	0.0166
2903	4,852	0.7674	0.0245	0.2388	0.0142
2904	4,275	0.8378	0.0227	0.2503	0.0154
2905	4,885	0.7636	0.0246	0.2013	0.0129
2906	2,556	0.8527	0.019	0.2627	0.0168
2907	2,565	0.8093	0.0298	0.2675	0.0179
2908	4,019	0.8354	0.0233	0.2576	0.0164
2909	3,110	0.4058	0.0447	0.0945	0.0143
2910	4,546	0.4101	0.0324	0.0999	0.0123
2911	3,535	0.3515	0.0234	0.0903	0.009
2912	9,285	0.566	0.0186	0.1765	0.0113
2913	3,176	0.8118	0.0253	0.342	0.0405
2914	2,877	0.7457	0.0281	0.2327	0.0145
2915	2,212	0.5261	0.0252	0.1996	0.0299
2916	3,720	0.7157	0.0272	0.2609	0.0197
2917	2,855	0.7452	0.0266	0.3166	0.0487
2918	5,862	0.3381	0.0385	0.0694	0.0103
2919	6,325	0.4904	0.0226	0.1385	0.0092
2920	3,481	0.5523	0.0257	0.1576	0.0121
3001	3,952	0.4434	0.042	0.1307	0.0209
3002	5,442	0.3628	0.0264	0.1272	0.0123
3003	8,560	0.5074	0.0412	0.1385	0.0187
3004	3,801	0.4445	0.044	0.1225	0.0185
3005	3,556	0.4338	0.0514	0.116	0.0196
3006	7,446	0.5056	0.0496	0.1391	0.0214
3007	2,534	0.4382	0.047	0.111	0.0171
3008	5,583	0.5586	0.0555	0.1408	0.0261
3009	8,131	0.5593	0.0399	0.1455	0.0207
3101	4,935	0.4895	0.022	0.142	0.0115
3102	9,043	0.4616	0.0281	0.1208	0.0114
3103	9,583	0.4548	0.026	0.121	0.0114
3104	8,462	0.4875	0.0315	0.1142	0.0125
3105	7,010	0.4166	0.0281	0.1107	0.0117
3106	8,743	0.3994	0.0279	0.1134	0.0094