## Appendix 1: Detailed Description of Child Money Program

## Historical Background

In June 2004, the election for the Mongolian State Great Hural (Mongolian Parliament) was held. The Motherland-Democracy Coalition (Liberal party) promised to provide a monthly allowance of 10,000 MNT for every child in Mongolia. Many agree that this promise was one of the decisive factors that brought the Coalition 34 seats in the Parliament, giving the Motherland-Democracy Coalition nearly equal power as the Mongolian People's Revolutionary Party, which won 36 sits. The two parties agreed to form the "Grand Coalition Government" after both failed to win enough seats in the elections to form a government on their own.

This new government disappointed its citizens by passing a resolution stating that children of large families (with 3 or more children) with living standard below the minimum level ( 25,400 MNT per person per month in 2004) shall receive a monthly allowance of 3,000 MNT per month. People criticized the Government severely for providing an amount smaller than promised and limiting the coverage to only poor and large families. A number of complaints have been made at the khoroo level and criticisms were published in the media. The Government of Mongolia decided to give Child Money for every child of poor households, without setting any condition about household size. The Child Money Program started covering all poor households with children from July $1^{\text {st }}, 2005$.

## Description of Actual Implementation and Data

The Child Money Program (CMP) began in January 2005. One of the features of this program that differs from other cash transfer programs is that the process of application and qualification is very decentralized. At the district and province levels ${ }^{1}$, the program officer in charge of the registration of beneficiaries in the CMP and their monthly certification of payments is a staff member of the Social Welfare and Labor Office (i.e. Labor and Welfare Service Division). I refer to this person as the program officer. Program officers received training about the CMP and were asked to inform the governors of the smallest administrative units (baghs in rural areas and khoroos in Ulaanbaatar). The program officers are not only responsible for the CMP, but for all other assistance programs at the district.

The application and implementation process is described as follows:

1. Applicant completes the application form requesting the disbursement of the benefit along with the subsistence level determination questionnaire and delivers them with a copy of child's birth certificate, reference letters from family (bagh),physician, school administration, and mother's (or father, legal custodian, or other caregiver) citizen's ID to the bagh or khoroo governor.
2. Bagh or khoroo governor receives, reviews and acknowledges application materials of citizens.
3. Soum or khoroo social worker evaluates the living standard of the household using an Excel macro sheet provided from the Ministry of Social Welfare and Labor (MOSWL). If a household's living standard is evaluated as poor or severely poor, social worker sends materials to soum or khoroo governor.
4. Soum or khoroo governor reviews the proposal prepared by social worker and discusses the case by soum or khoroo councils consisting of representatives from community members.
5. When a decision to provide child money to a household is reached by the council, it is approved by the soum/ khoroo governor. Based on this decision, social worker opens a personal file for every household to receive the benefit, and delivers the list to aimag or district's Labor and Welfare Service Division (LWSD).
6. Aimag/district's LWSD reviews the documents, opens a personal file for every household to receive the benefit, and makes a final decision.
[^0]Families can be registered as beneficiaries of the CMP if they fall below a level of the score and if they can provide the program officers with the following documents:

- National identification of the parents.
- Birth certificates of all children.
- Marriage certificate of the parents.
- Vaccination certificates of all children.
- Certificates of school enrollment of all children ages 8-18.
- A questionnaire form

The whole process should be finalized within 14 days, including the khoroo/soum council discussion period. If a household is not satisfied with the living standard evaluation result, it can request reconsideration from the khoroo/ soum council. The council may or may not change its decision after carefully considering the household's situation. If the household remains unsatisfied with the decision made by the council, it can appeal to aimag or district's LWSD.

Once the household is registered in the program, the program officer keeps a file with paper copies of all the documentation of the family. In addition, the aimag/district LWSD opens a benefit book for every household and delivers the list to respective banking organizations. The benefit is disbursed through respective banks on the $30^{\text {th }}$ day of each month. Every month, the beneficiary needs to bring this notebook to the program officer for his/her signature. The program officer also reports the date, the number of children the beneficiary has, and the total amount to which he/she is entitled from the CMP. With this, the beneficiary can go to the local Agricultural Bank to collect his/her money. Families do not have to collect their payment every month and can opt to do it less frequently and let their allowance accumulate.

In rural areas, the Agricultural Bank is located in the government building, or the same building where the program officers sit. Banks report on a monthly basis to the program officers on the total amount paid to beneficiaries of the CMP. This implies that the MOSWL has no individual-level register that tracks which beneficiaries collected the benefit and when they did it. Such a register constitutes not only an "invoice" of the transaction but would also follow-up payment histories.

Benefit disbursement will be halted if any of the following occur: (1) child reached the age of 18; (2) child is adopted; (3) child is deceased; (4) child started serving a detention sentence by court decision; (5) child fled from home; (6) child has dropped out of school; (7) child has not received mandatory immunization; (8) child is engaged in unlawful forms of child labor; (9) household's living standard improved to average level. Parents (custodians, supporters) are expected to provide information regarding children who are no longer eligible for the benefit to soum and khoroo social workers. The aimag and district's LWSD is responsible for annually evaluating the state of the benefit disbursement and changes in a household's living standard.

As for the actual disbursement of the benefit, a pre-survey was conducted to determine the number of eligible households and children. Before the program started, the program officers requested each of the governors of the smallest administrative units of the country to provide the total number of households (and children) in their unit that could qualify for the program. The local officials produced lists with the names of those households in their localities that would be eligible for the program, based on two criteria: (1) poverty and (2) having three or more children between the aged 17 or younger. Local officials prepared these lists using records that identified the registered households in their localities and other information about them, especially demographics and self-reported income. It is unclear whether uniform guidelines were provided as to the criteria that would qualify one household as poor. These lists were provided to the program officers and the total numbers of potential beneficiaries were sent to their counterpart at the province level. With this information, the central office of the MOSWL estimated that the program would have a total of 410,000 child beneficiaries. However, the result of the new method of living standard evaluation differed greatly from the estimated number of beneficiaries.

Households that submitted benefit applications during the $1^{\text {st }}$ quarter of 2005 began receiving benefits retroactively from January 1, 2005. For households that submitted benefit applications after April 1, the benefit was disbursed retroactively to the date of application. By May 2005, the CMP had reached 339,810 children from 95,526 households. Among those households incorporated in the program until May 2005, the average payment was of 10,672 MNT (or $\$ 9.1$ U.S.). As a reference, the poverty line in the 2002 Mongolia LSMS was at 24,700 MNT per capita per month. Figures on the estimated and actual number of beneficiaries by province on May $1^{\text {st }} 2005$ are included in Table A.1.3. According to the Director of the Implementation Agency of the MOSWL, the CMP coverage turned out to be lower than expected in Ulaanbaatar because migrants with no documents and/or papers of migration did not register. As of July $1^{\text {st }}, 2005$ poor families with less than three children were allowed to apply for the program. The government estimated that this will increase the program's coverage by 171,000 families and 261,867 children.

Table A.1.3: Beneficiaries of the Child Money Program Number of children, May 2005

| Aimag | Estimated, 1-2 children |  | Actual, 3 or more children |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Households | Children | Households | Children |
| Arhangai | 8,143 | 12,726 | 5,361 | 19,075 |
| Bayanhongor | 6,090 | 8,605 | 4,721 | 16,797 |
| Bayan-Ulgii | 8,261 | 12,889 | 8,073 | 29,285 |
| Bulgan | 5,512 | 8,673 | 2,416 | 8,698 |
| Govi-Altai | 5,825 | 9,071 | 3,500 | 12,450 |
| Govi-Sumber | 694 | 1,084 | 435 | 1,658 |
| Darhan-Uul | 7,691 | 11,818 | 2,337 | 10,697 |
| Dornogovi | 1,937 | 3,038 | 1,448 | 5,188 |
| Dornod | 8,224 | 12,363 | 2,457 | 8,760 |
| Dundgovi | 3,295 | 5,161 | 2,268 | 8,201 |
| Zavhan | 5,901 | 9,144 | 4,000 | 14,222 |
| Orhon | 5,144 | 7,977 | 2,641 | 8,094 |
| Uvurhangai | 8,527 | 13,132 | 5,479 | 19,274 |
| Umnugovi | 3,025 | 4,907 | 2,123 | 7,555 |
| Suhbaatar | 3,266 | 5,098 | 2,433 | 8,656 |
| Selenge | 8,754 | 13,063 | 3,947 | 15,003 |
| Tuv | 6,043 | 9,114 | 2,612 | 9,301 |
| Uvs | 5,628 | 8,539 | 5,560 | 22,118 |
| Hovd | 4,846 | 7,533 | 6,073 | 24,578 |
| Huvsgul | 9,792 | 15,528 | 5,866 | 20,871 |
| Hentii | 4,224 | 6,370 | 2,684 | 9,721 |
| Total of aimags | 120,822 | 185,833 | 76,434 | 280,202 |
| Baganuur District | 1,715 | 2,535 | 1,005 | 2,882 |
| Bayanzurh District | 8,470 | 12,979 | 3,496 | 12,777 |
| Bayangol District | 6,674 | 10,104 | 2,094 | 4,875 |
| Bagahangai District | 238 | 352 | 168 | 585 |
| Nalaih District | 2,257 | 3,378 | 895 | 3,184 |
| Suhbaatar District | 5,369 | 8,025 | 1,309 | 4,827 |
| Songinohairhan |  |  |  |  |
| District | 14,716 | 22,471 | 6,970 | 16,662 |
| Han-Uul District | 2,991 | 4,600 | 1,690 | 6,096 |
| Chingeltei District | 7,906 | 11,890 | 1,444 | 7,817 |
| Ulaanbaatar | 50,336 | 76,334 | 19,071 | 59,705 |
| TOTAL | 171,158 | 262,167 | 95,505 | 339,907 |

## Issues associated with the Child Money Program

Analytical and qualitative assessment of the CMP found several shortcomings in the program. First of all, the new methodology for evaluating a household's living standard is questionable. The second problem lies with the eligibility criteria for applicants. The final problem is associated with the actual implementation, monitoring and evaluation of the program. We will consider each problem separately.

## Problem 1. Issues with the new methodology (PRR method) for evaluating each household's living standard.

The new methodology used to determine whether households are eligible for child money was introduced to make targeting easier and cost effective. Its aim was also to identify a household's living standard without biases from related officials who used to determine the household income and eventually reduce the number of people who are covered by the social assistance programs. The research team that produced the method used data from variety of surveys to choose appropriate proxy indicators and the estimated weight coefficient for each indicator. But it is unclear how the set of indicators are chosen. The research team noted the importance of certain chosen indicators from the point of whether the indicator has a negative or positive influence on a household's living standard. However, the reasoning for choosing is not well grounded. Their most powerful argument is that these indicators are easy to find and monitor.

The PRR method is equivalent to running single linear regressions for each indicator and then transforming the estimated coefficients into weights. The problem with this method is that it takes into account only the contribution of individual poverty indicators instead of considering how the indicators interact with each other to explain poverty. The coefficients calculated through single regression, rather than multiple regression, may underestimate or overestimate the true contribution of the indicators, as they measure the contribution to poverty of that indicator as well as that of other indicators that are correlated with this indicator.

Another problem with the method is the way weights for each indicator were computed. The research team used the result of LSMS when computing the weight for indicators such as location (urban or rural), settlement (Ulaanbaatar, aimag center, soum center or countryside), household size, education level, and employment status. When calculating weights for these indicators only the head-of-household's education level and employment status were used. However, when evaluating a given household's living standard, the education level and employment situation of every member of the household of working age are considered. This may cause underestimation or overestimation of household's true living standard. For other indicators such as housing condition, assets, vehicle ownership, receipt status of assistance and support, and social vulnerability, the method of calculating the weights is not mentioned. It appears the weights for these indicators were chosen casually based on pure assumptions without any sound justification.

## Problem 2. Problem with the Eligibility Criteria

As for the eligibility criteria, it is not clear whether the program is targeted at poverty reduction or traditional support for large families. This causes confusion among the applicants and results in many disputes regarding the fairness of the program. Through the implementation of a single program, the government appears to have the multiple objectives of reducing poverty, the number of school dropouts, the number of homeless children, and the incidence of child labor. Moreover, the program also seeks to provide support to large families and to improve children's health. If the program is for poverty reduction, it is not appropriate to set family size as an eligibility condition.

Another criterion for eligibility is that the children's parents or legal custodians should have a valid citizen's ID card, with an updated place of residence. Citizen's ID cards are relatively new in Mongolia, and the process to get one (or to change the place of residence) is costly in terms of both time and money. Household survey and statements of people responsible for the implementation of the social
assistance programs suggest that there are many households who cannot apply for benefits because they lacked the ID card or, having one, they have migrated to UB and they still have not changed their place of residence. The people who cannot receive the benefit are the poorest and the neediest ones whom the program should target. Most of the people who are excluded from the program have document and/or registration-related problems or are members of vulnerable groups such as half/full orphans and single-parent households who are the ones who really need assistance. There is a need for elaborating a better way to cover these vulnerable groups. The real poor and vulnerable people are victimized as the new method requires documents and registration that are very costly for the poor.

## Problem 3. Issues Related to Implementation, Monitoring and Evaluation

Implementation of the program suffers from some structural flaws. The Ministry of Social Welfare and Labor (MOSWL) is the state administrative body responsible for monitoring program implementation. The aimag/district governor's office is responsible for identifying eligible households and monitoring qualifying criteria of the program through the soum/khoroo governor's office. The aimag/district Labor and Welfare Service Division (LWSD) handle the disbursement of the benefit and monitor changes in a household's living standard. Communication between the implementing agents is complicated, as most bag/ khoroo/ soum are isolated from the LWSD and internet or telephone connectivity is poor. There is no proper database for beneficiaries, nor any official system to monitor if a household still meets the eligibility criteria. Whether children attend school or live with their parents (custodians, caretakers) is checked only at the time of application. It is very unlikely for khoroo officials to monitor whether these conditions are met during the year unless the beneficiaries themselves or a third party provides information. Beneficiaries certainly have no incentive to self-report and the possibility of a third person reporting is small. At a khoroo level, mainly only one person-social worker-works with large number of applicants with limited office supplies and out-of-date computers. Work-load for poor areas where many beneficiaries reside is much heavier than other areas with fewer eligible households.

Monitoring of the program is far from satisfactory. Most social workers claim that it is almost impossible to monitor for all eligibility criteria. The main eligibility conditions such as child's school attendance, immunization against common deceases, non-involvement in illegal child labor, inhabitance with the parents are checked only at the time of application and not monitored afterwards. Monitoring of these criteria is supposed to be done through self-report of applicants and other related parties. Unfortunately, considering all the circumstances, this task is unlikely to be accomplished. Three points are worth mentioning. First, none of the applicants needed to prove that their children were not involved in illegal child labor. If a child brought a certificate from a school, he/she was assumed to be not involved in child labor. Second, in most cases khoroo workers did not check housing conditions, asset ownership and vehicle ownership within a household. Third, several alterations were made to a household's living standard information in order to qualify them for the child money. The issues of personnel and resource constraints may be seen as a general problem of proxy means tests which require large body of literate and probably computer-trained staff, moderate-to-high levels of information and technology.

It appears that many households are well-informed about the indicators and weights used in the proxy means test, which reduced the effectiveness of targeting methodology. For intentional reasons or due to the lack of proper training, many households already know the rules of the game so they can use them to their advantage. Sometimes, they can do it with the help of the social worker in charge of entering their data into the excel sheet that produces their score. A potential suggestion to avoid this program would be to produce a different type of software interface in which the social workers enter the household data but do not have access to or knowledge.

## Problem 4. Issues Related to the Impact of the Program in Alleviating Poverty

For the program to have an impact on poverty and human capital, the benefit has to be sufficient to lift households out of poverty and to induce positive behavior. The 3,000 MNT benefit per child is only about one-eighth of the 2002-3 poverty line. However, among poor children, the average cost of education is around 3,000 MNT per child for all school grades up to grade 9 where costs get close to

4,000 MNT and, particularly, grade 10 where costs increase significantly to about $6,000 \mathrm{MNT}$. Thus in terms of direct costs, the CMP benefit compares well in all school grades except upper secondary. To get a complete picture of total costs of education, indirect costs should also be factored in. As noted earlier, the incidence of child work increases significantly around the same upper secondary school ages. However it is difficult to give an estimate of the value of the opportunity costs from work as very few children work for wages. Most children who appear to be working according to the survey data participate in family labor (herding, agriculture, household chores, or household enterprises). However, there is not sufficient information on the time spent in these activities and their value to the household.

## Appendix 2: Detailed Description of Household Survey

## Description of the Questionnaire

The survey covered 415 households, drawn from 6 districts of Ulaanbaatar. Survey design followed the style of a standard LSMS survey and was conducted in April of 2005. While focusing on welfare programs, particularly the newly initiated Child Money Program and land privatization process, the questionnaire collected a lot of information about each household's background and living standard such as household compositions, education levels of household members, labor and remittance income, consumption, and asset ownership. Description of modules contained in the questionnaire is provided in the Table A.2.1.

| Table A.2.1 Modules of a Household Survey |  |
| :--- | :--- |
| Modules | lontents |
| Module 1. General Information | Address, dates and time of interviews and codes of the <br> enumerators. |
| Module 2. Household Roster | Age, sex, employment status, marital status of each members and <br> his/her relationship with the household head |
| Module 3. Education and Political <br> Participation | Education level completed, schooling period, current schooling <br> status, literacy level of each members 8 years old and older. <br> Political participation of those who are 18 years old and older. |
| Module 4. Labor Income and Remittances | Labor income, income from private business, pensions from <br> social insurance and capital income and remittances for each <br> member. |
| Module 5. General Questions | Type and quantity of dwelling, registration status and origin of <br> the household. |
| Module 6. Social opinions | People's opinions about the social status of Mongolia, <br> preferences for dwelling type and location. |
| Module 7. Consumption and Durable Goods | Food expenditure per month, consumption data on basic and <br> relatively luxurious food items, frequencies of bathing, internet <br> and telephone usage. |
| Module 8. Land | Existence and ownership of fence around the residential lot, land <br> permit and land ownership status. |
| Module 9. Social welfare and assistance | Social assistance recipient situation of each individual within last <br> 12 months, people's opinions and evaluations of social assistance <br> programs, ways households cope with liquidity constraints, <br> borrowing sources. |
| Module 10. Child Money Program | Questions regarding application process and attitudes of related <br> officials, costs, and overall evaluation of applicants. |

Potential responses to almost all questions are given numbered codes and the enumerator recorded the response code on the questionnaire. But some questions required additional manual coding, as many responses could not be categorized into codes prepared in advance. Skip codes were used frequently in the questionnaire so that only applicable questions are asked to a respondent. A skip code is an indication to the interviewer to proceed to the next appropriate question. For more detailed information on standard LSMS type questionnaire, see Grosh and Munoz (1996) and Grosh and Glewwe (2000).

## Description of the Sampling Methods

Primary aims of the survey were to assess poverty situation in Ulaanbaatar, evaluate child money program from the households' point of view and gather information on land privatization process and its impacts on households. We limited our focus to the capital city due to financial and time constraints. Before describing sampling methods, it is useful to be aware of the types of residential areas and administrative structure in Ulaanbaatar. Ulaanbaatar has nine districts, of which three are remote districts. Three remote districts, i.e., Nalaikh, Baganuur and Bagakhangai, are located 80 to 100 kilometers far away from the city centre. The non-remote districts are as follows: Sukhbaatar (SB), Bayangol (BG), Bayanzurkh (BZ), Songinokairkhan (SK), Khan-Uul (KU) and Chingeltei (CH). Each district consists of two to 21 khoroos, which are the smallest administrative units in the city. Khoroos are formally subdivided into khesegs (household groups) of 50-150 households.

Ulaanbaatar has three main types of residential areas: "apartment area", "ger area" and "mixed area". The "apartment area" consists of 5-9 floor apartments built mostly during the socialist period. The "ger area" consists of fenced residential lots, where a traditional felt and wooden shelter (ger) and/or a simple house (baishin) without water supply and sewage are located. "Mixed area" consists of both apartments, and gers and simple houses, located close to each other. Recently, due to rapid migration from rural area to Ulaanbaatar, a new type of residential area is being formed-so called "newly formed ger area" SK and BZ are located in the outskirts of the city and consist of apartment areas as well as ger areas, while CH and SB are located in the center of city. BG mainly consists of apartment areas, whereas, KU consists of industrial zones, some apartment areas and ger areas.

The design of our sampling is a multi-stage mixture of stratified sampling and random sampling. Households were chosen according to a four-step process of : (1) defining strata and units for sampling frame; (2) choosing specific khoroos (primary sampling units) from each strata; (3) choosing one or two specific khesegs (clusters) from within each selected khoroo; and (4) randomly selecting households from within those khesegs to interview. This method was chosen to obtain a complete picture of (chosen) community characteristics while achieving cost efficiency and controllability of the survey given the limited time and resources.

The three remote districts were excluded from the sample due to resource constraints. There are total of 88 khoroos in the remaining six districts. Since the survey aimed to gather information on child money program and land privatization process, stratification that is highly correlated with both poverty and land ownership was preferred to be chosen. When defining strata we used residential area classification. Each khoroo is classified as one of the following four types: newly formed ger area, long-standing ger area, apartment area, and mixed area. Table A. 2.5 provides the data used for this classification and the classification of each khoroo. These four categories were used as strata (or domains of estimation).

Firstly, we determined the number of Primary Sampling Units (PSU) to sample from each stratum. As a commonly known fact, residents in ger areas are generally poorer than residents in apartment areas. Furthermore, most residents of the newly formed ger areas are new migrants from rural areas. In view of our interest in the poor and recent migrants, the proportion of types shown in Table A.2.3 was considered appropriate.

Table A.2.2: Number of PSUs to select by type

| Type of segment | Number of PSUs to select |
| :--- | :---: |
| Newly formed ger area | 3 |
| Long-standing ger area | 2 |
| Apartment area | 1 |
| Mixed area | 2 |

## Appendix 2. Detailed Description of Household Survey

When identifying units to be selected as PSUs, we considered geographical location on top of the classification by area types. Each district was treated as an independent segment. Then, khoroos with the same classification by area type in the same district are taken together as one unit. Thus, the sampling frame for the first stage consists of at most 24 segments. When selecting PSUs, population and poverty status of the districts were taken into account. SK and BZ districts should be represented more as they are the most populous and poorest districts in Ulaanbaatar. Moreover, the majority of new migrants have settled in these districts as can be seen from Table A.2.5. Since BG is a relatively rich district and mainly consists of apartment areas, no PSU was chosen from this district. We preferred to include units located in ger areas of both outskirts of the city and close to city centre. Considering these factors, we have selected segments described in the Table A.2.3.to be PSUs for the survey.

Table A.2.3: Primary Sampling Units

| District | Area Type |
| :--- | :--- |
| Songino Khairkhan | Newly formed ger area |
|  | Long-standing ger area |
|  | Apartment area |
|  | Mixed area |
| Chingeltei | Newly formed ger area |
| Chingeltei or Sukhbaatar | Long-standing ger area |
| Bayanzurkh | Newly formed ger area |
|  | Mixed area |

Thirdly, one khoroo was selected from each PSU. We wished to select a khoroo that represents the PSU with respect to poverty. Since poverty data at khoroo level was not available, we used the proportion of beneficiaries of the newly initiated Child Money Program to the total number of population as a proxy of poverty measurement. Therefore, khoroos with a median proportion of Child Money beneficiaries were chosen from each PSU. Table A. 2.5 provides data on beneficiaries of child allowance by each khoroo of each selected segment. A list of selected khoroos is provided in Table A.2.4.

Table A.2.4: Selected Khoroos

| Strata | Distrist | Khoroo No. |
| :--- | :--- | :---: |
| Apartment area | Songino Khairkhan | 17 |
| Mixed area | Songino Khairkhan | 20 |
|  | Bayanzurkh | 8 |
| Long-standing ger area | Songino Khairkhan | 8 |
|  | Sukhbaatar | 12 |
|  | Chingeltei | 18 |
| Newly formed ger area | Songino hairkhan | 4 |
|  | Bayanzurkh | 2 |

Then a kheseg that was representative of the selected khoroo with respect to dwelling type was selected as a survey site (cluster) from each PSU except for in mixed areas. For a selected khoroo in ger area, a kheseg that is located in ger area was chosen, even though the khoroo may have some khesegs that are located in apartment area. On the other hand, a kheseg located in apartment area was selected for khoroo in apartment area. For khoroos in mixed area, two khesegs were chosen: one representing apartment area and another representing ger area. Brief description of the survey sites is provided in the next section.

Finally, 40 households were randomly chosen from each kheseg that are located in apartment
area or ger area. Twenty households were randomly chosen from each kheseg in mixed area. In total, 320 households from 10 khesegs were chosen and interviewed according to this sampling method.

However, the number of Child Money beneficiaries and/or eligible households selected according to this stratified random sampling method was not large enough to be analyzed. Because one of our main objectives was to assess properties of the Child Money Program, additional households needed to be selected. Therefore, additional 155 households were selected randomly from households eligible for receiving Child Money who reside in the same 10 khesegs chosen through the initial sampling method. It enabled us to obtain better information regarding application and implementation process of the Child Money Program. Also, additional 40 homeless households were interviewed at the "Soup Kitchen"-a charity restaurant located in SK district. In total, 415 households were interviewed and analyzed for the purpose of this paper.

Table A.2.5 illustrates the necessary information for our sampling scheme. We can see that population of ger areas has dynamically increased between 1999 and 2004. For example, BZ district, $2^{\text {nd }}$ khoroo is the most rapidly populated khoroo; it has increased its population almost two and half times in 4 years. On the other hand the population of apartment areas where relatively wealthy people live has been mildly constant. This fact reflects massive migration of poor herders from rural area into the cities due to recent successively harsh winters.

Table A.2.5: Residential Type and Populations by Khoroos

| $\begin{gathered} \text { Distri } \\ \mathrm{ct} \end{gathered}$ | Khoroo Number | Population |  | Population Growth 1999-2004 | HHs by Living Area |  | Share in Total HHs |  | Class |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 1999 | 2004 |  | Apartment Area | Ger Area | HHs live in Ger Area | HHs receive Child Money |  |
| BZ | 1 | 1,305 | 1,332 | 2.1\% | 1,332 | 0 | 0.0\% | 1.3\% | A |
|  | 2 | 2,245 | 5,412 | 141.1\% | 0 | 5,412 | 100.0\% | 9.5\% | D |
|  | 3 | 1,279 | 1,324 | 3.5\% | 1,324 | 0 | 0.0\% | 1.1\% | A |
|  | 4 | 2,065 | 2,301 | 11.4\% | 2,245 | 56 | 2.0\% | 2.9\% | A |
|  | 5 | 2,146 | 4,256 | 98.3\% | 1,916 | 2,340 | 55.0\% | 8.2\% | B |
|  | 6 | 1,690 | 2,088 | 23.6\% | 2,088 | 0 | 0.0\% | 3.3\% | A |
|  | 7 | 1,817 | 1,620 | -10.8\% | 1,620 | 0 | 0.0\% | 2.5\% | A |
|  | 8 | 1,787 | 2,200 | 23.1\% | 578 | 1,622 | 74.0\% | 11.7\% | B |
|  | 9 | 1,490 | 2,332 | 56.5\% | 0 | 2,332 | 100.0\% | 12.0\% | D |
|  | 10 | 1,729 | 3,400 | 96.7\% | 198 | 3,202 | 94.0\% | 10.4\% | D |
|  | 11 | 570 | 1,030 | 80.7\% | 27 | 1,003 | 97.0\% | 9.5\% | D |
|  | 12 | 1,798 | 2,100 | 16.8\% | 0 | 2,100 | 100.0\% | 12.1\% | C |
|  | 13 | 1,233 | 2,069 | 67.8\% | 17 | 2,052 | 99.0\% | 6.8\% | D |
|  | 14 | 1,245 | 1,936 | 55.5\% | 200 | 1,736 | 90.0\% | 7.5\% | D |
|  | 15 | 1,090 | 1,224 | 12.3\% | 1,224 | 0 | 0.0\% | 1.6\% | A |
|  | 16 | 2,122 | 2,200 | 3.7\% | 2,006 | 194 | 9.0\% | 2.4\% | A |
|  | 17 | 1,680 | 1,824 | 8.6\% | 0 | 1,824 | 100.0\% | 13.1\% | C |
|  | 18 | 1,748 | 1,848 | 5.7\% | 1,848 | 0 | 0.0\% | 1.4\% | A |
|  | 19 | 1,552 | 2,180 | 40.5\% | 315 | 1,865 | 86.0\% | 12.1\% | D |
|  | 20 | 943 | 1,732 | 83.7\% | 0 | 1,732 | 100.0\% | 9.8\% | D |
|  | Total | 31,534 | 44,408 | 40.8\% | 16,938 | 27,470 | 62.0\% |  |  |

Appendix 2. Detailed Description of Household Survey

| $\begin{gathered} \text { Distri } \\ \text { ct } \end{gathered}$ | Khoroo <br> Number | Population |  | Population Growth 1999-2004 | HHs by Living Area |  | Share in Total HHs |  | Class |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 1999 | 2004 |  | Apartment Area | Ger Area | HHs live in Ger Area | HHs receive Child Money |  |
| KU | 1 | 1,656 | 1,956 | 18.1\% | 1,956 | 0 | 0.0\% | 3.2\% | A |
|  | 2 | 1,668 | 1,685 | 1.0\% | 1,670 | 15 | 1.0\% | 4.0\% | A |
|  | 3 | 1,302 | 1,381 | 6.1\% | 1,252 | 129 | 9.0\% | 7.1\% | A |
|  | 4 | 975 | 1,300 | 33.3\% | 0 | 1,300 | 100.0\% | 12.5\% | C |
|  | 5 | 1,033 | 1,089 | 5.4\% | 0 | 1,089 | 100.0\% | 13.8\% | C |
|  | 6 | 1,138 | 1,433 | 25.9\% | 0 | 1,433 | 100.0\% | 12.9\% | C |
|  | 7 | 880 | 1,100 | 25.0\% | 0 | 1,100 | 100.0\% | 8.8\% | C |
|  | 8 | 1,161 | 1,620 | 39.5\% | 0 | 1,620 | 100.0\% | 15.4\% | D |
|  | 9 | 1,762 | 2,674 | 51.8\% | 0 | 2,674 | 100.0\% | 10.0\% | D |
|  | 10 | 1,035 | 1,342 | 29.7\% | 584 | 758 | 56.0\% | 6.9\% | B |
|  | 11 | 641 | 635 | -0.9\% | 410 | 225 | 35.0\% | 9.9\% | B |
|  | 12 | 833 | 1,065 | 27.9\% | 226 | 839 | 79.0\% | 10.5\% | C |
|  | 13 | 571 | 588 | 3.0\% | 128 | 460 | 78.0\% | 15.0\% | C |
|  | 14 |  | 427 | 0.0\% | 0 | 427 | 100.0\% | 12.9\% | C |
|  | Total | 14,655 | 18,295 | 24.8\% | 6,226 | 12,069 | 66.0\% | 0.0\% |  |
| SB | 1 | 768 | 830 | 8.1\% | 830 | 0 | 0.0\% | 2.4\% | A |
|  | 2 | 1,139 | 1,310 | 15.0\% | 1,310 | 0 | 0.0\% | 1.2\% | A |
|  | 3 | 1,280 | 1,265 | -1.2\% | 1,265 | 0 | 0.0\% | 2.1\% | A |
|  | 4 | 756 | 860 | 13.8\% | 860 | 0 | 0.0\% | 0.5\% | A |
|  | 5 | 1,029 | 1,079 | 4.9\% | 1,079 | 0 | 0.0\% | 1.3\% | A |
|  | 6 | 776 | 810 | 4.4\% | 810 | 0 | 0.0\% | 4.6\% | A |
|  | 7 | 1,446 | 1,524 | 5.4\% | 1,524 | 0 | 0.0\% | 1.8\% | A |
|  | 8 | 1,359 | 2,130 | 56.7\% | 2,130 | 0 | 0.0\% | 1.5\% | A |
|  | 9 | 1,806 | 2,035 | 12.7\% | 294 | 1,741 | 86.0\% | 6.5\% | C |
|  | 10 | 1,314 | 1,450 | 10.4\% | 1,450 | 0 | 0.0\% | 2.7\% | A |
|  | 11 | 1,731 | 2,112 | 22.0\% | 0 | 2,112 | 100.0\% | 8.5\% | C |
|  | 12 | 1,443 | 1,268 | -12.1\% | 0 | 1,268 | 100.0\% | 7.1\% | C |
|  | 13 | 987 | 1,610 | 63.1\% | 0 | 1,610 | 100.0\% | 10.5\% | D |
|  | 14 | 896 | 1,185 | 32.3\% | 0 | 1,185 | 100.0\% | 10.3\% | C |
|  | 15 | 1,730 | 2,400 | 38.7\% | 0 | 2,400 | 100.0\% | 8.5\% | D |
|  | 16 | 1,547 | 2,700 | 74.5\% | 0 | 2,700 | 100.0\% | 8.9\% | D |
|  | Total | 20,007 | 24,568 | 22.8\% | 11,552 | 13,016 | 53.0\% |  |  |

Appendix 2. Detailed Description of Household Survey

| $\begin{aligned} & \text { Distri } \\ & \text { ct } \end{aligned}$ | Khoroo <br> Number | Population |  | Population Growth 1999-2004 | HHs by Living Area |  | Share in Total HHs |  | Class |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 1999 | 2004 |  | Apartment Area | Ger Area | HHs live in Ger Area | HHs receive Child Money |  |
| BG | 1 | 1,661 | 1,878 | 13.1\% | 1,864 | 14 | 1.0\% | 3.5\% | A |
|  | 2 | 1,009 | 1,220 | 20.9\% | 1,220 | 0 | 0.0\% | 3.9\% | A |
|  | 3 | 1,620 | 2,010 | 24.1\% | 1,970 | 40 | 2.0\% | 2.7\% | A |
|  | 4 | 2,280 | 2,402 | 5.4\% | 2,402 | 0 | 0.0\% | 2.3\% | A |
|  | 5 | 1,991 | 1,745 | -12.4\% | 1,745 | 0 | 0.0\% | 1.6\% | A |
|  | 6 | 1,433 | 2,186 | 52.6\% | 2,164 | 22 | 1.0\% | 2.6\% | A |
|  | 7 | 1,592 | 1,661 | 4.3\% | 1,545 | 116 | 7.0\% | 2.3\% | A |
|  | 8 | 1,532 | 1,679 | 9.6\% | 1,679 | 0 | 0.0\% | 1.9\% | A |
|  | 9 | 1,635 | 2,460 | 50.5\% | 504 | 1,956 | 80.0\% | 9.4\% | D |
|  | 10 | 1,601 | 2,694 | 68.3\% | 293 | 2,401 | 89.0\% | 8.0\% | D |
|  | 11 | 1,955 | 2,201 | 12.6\% | 63 | 2,138 | 97.0\% | 8.7\% | C |
|  | 12 | 2,192 | 2,210 | 0.8\% | 2,210 | 0 | 0.0\% | 1.1\% | A |
|  | 13 | 1,038 | 1,250 | 20.4\% | 1,250 | 0 | 0.0\% | 2.0\% | A |
|  | 14 | 1,177 | 1,330 | 13.0\% | 1,330 | 0 | 0.0\% | 1.4\% | A |
|  | 15 | 1,182 | 1,310 | 10.8\% | 1,310 | 0 | 0.0\% | 1.4\% | A |
|  | 16 | 1,045 | 1,478 | 41.4\% | 123 | 1,355 | 92.0\% | 7.2\% | D |
|  | 17 | 1,102 | 1,256 | 14.0\% | 1,256 | 0 | 0.0\% | 2.0\% | A |
|  | 18 | 1,732 | 1,872 | 8.1\% | 1,872 | 0 | 0.0\% | 1.2\% | A |
|  | 19 | 1,454 | 1,517 | 4.3\% | 1,517 | 0 | 0.0\% | 1.1\% | A |
|  | 20 |  | 604 | 0.0\% | 286 | 318 | 53.0\% | 8.4\% | B |
|  | Total | 29,231 | 34,963 | 19.6\% | 26,603 | 8,360 | 24.0\% |  |  |
| CH | 1 | 875 | 955 | 9.1\% | 955 | 0 | 0.0\% | 0.1\% | A |
|  | 2 | 780 | 760 | -2.6\% | 760 | 0 | 0.0\% | 0.4\% | A |
|  | 3 | 978 | 1,122 | 14.7\% | 1,122 | 0 | 0.0\% | 0.0\% | A |
|  | 4 | 1,041 | 1,135 | 9.0\% | 1,135 | 0 | 0.0\% | 0.3\% | A |
|  | 5 | 986 | 1,095 | 11.1\% | 1,095 | 0 | 0.0\% | 0.2\% | A |
|  | 6 | 1,192 | 1,168 | -2.0\% | 1,168 | 0 | 0.0\% | 0.2\% | A |
|  | 7 | 1,112 | 2,103 | 89.1\% | 0 | 2,103 | 100.0\% | 1.0\% | D |
|  | 8 | 984 | 1,312 | 33.3\% | 0 | 1,312 | 100.0\% | 1.3\% | C |
|  | 9 | 1,270 | 1,332 | 4.9\% | 0 | 1,332 | 100.0\% | 0.8\% | C |
|  | 10 | 1,206 | 1,423 | 18.0\% | 0 | 1,423 | 100.0\% | 0.7\% | C |
|  | 11 | 1,185 | 1,396 | 17.8\% | 0 | 1,396 | 100.0\% | 1.7\% | C |
|  | 12 | 1,656 | 1,980 | 19.6\% | 0 | 1,980 | 100.0\% | 1.6\% | C |
|  | 13 | 1,494 | 1,718 | 15.0\% | 0 | 1,718 | 100.0\% | 1.8\% | C |
|  | 14 | 1,265 | 1,614 | 27.6\% | 0 | 1,614 | 100.0\% | 1.7\% | C |
|  | 15 | 1,460 | 1,496 | 2.5\% | 0 | 1,496 | 100.0\% | 1.8\% | C |
|  | 16 | 1,465 | 2,032 | 38.7\% | 0 | 2,032 | 100.0\% | 0.6\% | D |
|  | 17 | 1,541 | 1,931 | 25.3\% | 0 | 1,931 | 100.0\% | 3.7\% | C |
|  | 18 | 1,847 | 2,981 | 61.4\% | 0 | 2,981 | 100.0\% | 0.6\% | D |
|  | Total | 22,337 | 27,553 | 23.4\% | 6,235 | 21,318 | 77.0\% |  | C |

Appendix 2. Detailed Description of Household Survey

| $\begin{gathered} \text { Distri } \\ \text { ct } \end{gathered}$ | Khoroo Number | Population |  | $\begin{aligned} & \text { Population } \\ & \text { Growth } \\ & 1999-2004 \end{aligned}$ | HHs by Living Area |  | Share in Total HHs |  | Class |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 1999 | 2004 |  | Apartment Area | Ger Area | HHs live in Ger Area | HHs receive Child Money |  |
| SK | 1 | 1,546 | 3,745 | 142.2\% | 82 | 3,663 | 98.0\% | 8.0\% | D |
|  | 2 | 911 | 1,110 | 21.8\% | 0 | 1,110 | 100.0\% | 12.4\% | C |
|  | 3 | 1,779 | 2,137 | 20.1\% | 0 | 2,137 | 100.0\% | 18.3\% | C |
|  | 4 | 1,279 | 1,911 | 49.4\% | 0 | 1,911 | 100.0\% | 16.2\% | D |
|  | 5 | 1,790 | 2,301 | 28.6\% | 395 | 1,906 | 83.0\% | 10.2\% | C |
|  | 6 | 2,156 | 3,096 | 43.6\% | 523 | 2,573 | 83.0\% | 14.1\% | D |
|  | 7 | 1,531 | 2,749 | 79.6\% | 0 | 2,749 | 100.0\% | 10.3\% | D |
|  | 8 | 1,264 | 1,472 | 16.5\% | 0 | 1,472 | 100.0\% | 12.3\% | C |
|  | 9 | 2,076 | 3,340 | 60.9\% | 0 | 3,340 | 100.0\% | 10.2\% | D |
|  | 10 | 1,501 | 2,238 | 49.1\% | 209 | 2,029 | 91.0\% | 11.5\% | D |
|  | 11 | 1,901 | 2,222 | 16.9\% | 0 | 2,222 | 100.0\% | 6.8\% | C |
|  | 12 | 1,000 | 1,685 | 68.5\% | 952 | 733 | 44.0\% | 4.0\% | B |
|  | 13 | 1,280 | 1,639 | 28.1\% | 1,289 | 350 | 21.0\% | 3.8\% | A |
|  | 14 | 1,364 | 1,672 | 22.6\% | 1,236 | 436 | 26.0\% | 15.7\% | B |
|  | 15 | 1,345 | 1,668 | 24.0\% | 1,517 | 151 | 9.0\% | 3.6\% | A |
|  | 16 | 1,247 | 1,494 | 19.8\% | 1,314 | 180 | 12.0\% | 3.6\% | A |
|  | 17 | 1,276 | 1,380 | 8.2\% | 1,212 | 168 | 12.0\% | 4.0\% | A |
|  | 18 | 1,903 | 1,929 | 1.4\% | 1,775 | 154 | 8.0\% | 3.3\% | A |
|  | 19 | 1,838 | 1,878 | 2.2\% | 1,592 | 286 | 15.0\% | 3.7\% | A |
|  | 20 | 1,495 | 1,856 | 24.2\% | 804 | 1,052 | 57.0\% | 15.4\% | B |
|  | 21 | 893 | 1,360 | 52.3\% | 0 | 1,360 | 100.0\% | 9.6\% | D |
|  | Total | 31,375 | 42,882 | 36.7\% | 12,900 | 29,982 | 70.0\% |  |  |
| Grand Total |  | 149,139 | 192,669 | 29.2\% | 80,454 | 112,215 | 58.0\% |  |  |

Notes: Classifications are: A-apartment area, B-mixed area, C-long-standing ger area, D- newly formed ger area. If the share of HHs live in ger area (SG) $>0.75$ then the khoroo is classified as ger area, if $0.75>=\mathrm{SG}>=0.25$ then mixed area, if $\mathrm{SG}<0.25$ then apartment area, if population growth $>0.35$ then newly formed area.
Sources: The Ulaanbaatar City Administration; Labor and Social Services Office of each district, phone inquiry to each khoroo.

## Description of Survey Sites

Brief description of khesegs selected as result of these considerations is provided below.

## Chingeltei district

## $18^{\text {th }}$ Khoroo

This khoroo is located in the farthest suburb of Ulaanbaatar city and has a relatively big territory. Therefore, many migrants from rural area settle here and have formed a place called "Zadgai"-meaning an "open space". Thus, many residents do not have land permit and do not own fence around the dwelling. Most of the residents want to obtain ownership of land. They get information regarding land privatization and social welfare mostly through khoroo social workers and kheseg chiefs. Due to the location of the district, a considerable percentage of the residents are unfamiliar with modern technology and have poor general knowledge. Also, the hygienic level in this area is very low.

## Songino Khairhan district

$4^{\text {th }}$ Khoroo
This khoroo is located in the suburbs of Ulaanbaatar and most of the residents have migrated from rural areas. Due to the location, residents are isolated from information network as well as social infrastructures and are unable to utilize welfare services that are provided. Many residents have issues with registration and identification. Living conditions are relatively poor.

## $8^{\text {th }}$ Khoroo

Majority of the residents of this khoroo have either sold their own apartments or recently migrated from rural areas. Most of the households have only one or two wage earners and their income is barely enough to cover food expenses. The percentage of elderly, retired and unemployed is high. Moreover, living conditions of the residents do not satisfy the sanitary standards and has harmful effects on the environment.

## $17^{\text {th }}$ Khoroo

Households that live in apartments in this khoroo have relatively high living standard. They were not willing to report the actual amount of income, in order to be eligible for various welfare benefits. Income of people who run their own business such as cafeteria management, covers only food expenses. There are many households whose children or relatives live and work abroad, mainly in South Korea. Also, many homeless people live in this district and eat their meals at "Soup kitchen", which operates five days a week. Homeless people occasionally take a bath at Yaarmag Care Center or Enerel Clinic. Main factors that pushed them to a homeless life are alcohol addiction and domestic violence.

## $20^{\text {th }}$ Khoroo, $3^{\text {rd }}$ kheseg

This kheseg is located in a ger area. Territory of the khoroo covers the western border of the city. People claimed that a bad smell comes to the area during summer time, due to its proximity to the central sewage sanitization system. Some of residents in this kheseg live in communal houses. These communal houses were built as military housing during the communism. Although these buildings are connected to central heating system, Residential Housing Unit shuts down heating around March due to large number of payment failure. Communal houses do not have a sewage system and residents use a wooden toilet outside. Living standards of people who live in gers seemed considerably better than those who live in communal houses.

## $20^{\text {th }}$ Khoroo, $5^{\text {th }}$ kheseg

Kheseg 5 only consists of 3 five-store residential buildings. In general, livelihood of households living in there is much better than the living standard of ger area residents. Most of the residents were students, as rents are much cheaper than in the center of town. Owners of small shops claimed that their daily income is about 200.000 MNT every day. This suggests that consumers around this area have a high purchasing power. There were no other unique characteristics in households around this area.

## Sukhbaatar district

## $\mathbf{1 2}^{\text {th }}$ khoroo

Most of the households in this khoroo have migrated from the countryside in the 1990`s because this area was very popular at the time because of being close to the Denjiin Myanga Market. Old residents who have lived here for a long time are mainly poor and have a little desire to work. The migrants are more willing to work and interested in improving their living conditions, but their income is unstable as
they are registered as temporary residents. Main causes of poverty here are: lack of information, low educational level of the residents and a high unemployment. Many households have problems with dwelling and some of them receive assistance from international organizations.

## Bayanzurh district

## $8^{\text {th }}$ Khoroo, $\mathbf{3}^{\text {rd }}$ kheseg

This kheseg is located in a hilly area called "Ulaan ovoo". Parts of this district are sloping and rocky which makes farming difficult. Some households are isolated from the center of the town and have low knowledge about the outside world. Poverty and unemployment is high and the residents are low-spirited and pessimistic. There are several severely poor people who cannot get welfare benefits and child money due to lack of proper registration and identification. Some residents are incapable of improving their living conditions due to lack of education. Young people have no intention to work and are socially inactive, but old people are able to make a living on their small pensions. The residents get information mainly through TV news. Most people run their own businesses such as small shops and kiosks, and local stores do not sell some brand or type of food that are common in the center of Ulaanbaatar.

## $8^{\text {th }}$ Khoroo, $6^{\text {th }}$ kheseg

This kheseg is located in an apartment area. It consists of a few five-story apartment complexes, where employees of Mongolian Railroad Company reside. Through the first to the fourth floors have apartments with two or three rooms while the fifth floor has only single rooms with common kitchen and bathroom. Mongolian Railroad is a Mongolian-Russian joint company and their employees have better living standard than ger area residents. At least one or two members of households are employed or receive retirement pension or remittance from relatives. Residents on the fifth floor (public residence) have relatively low living standard as they are usually single elderly or large families.

## $2^{\text {nd }}$ Khoroo

Territory of this ger area is in the middle of the city and is close to the road network. The households who participated in the questionnaire were located in various locations such as close to a roadway or on a hill far from the roadway. Most of the households who resided close to a roadway were native residents of Dari-Ekh, and had been living for a long time in Ulaanbaatar. On the other hand, the households who resided on a mountain had recently migrated from the rural area. Only three to five households had fair living conditions and the others were poor. House furniture was old, they did not have electronic devices, and the clothing was bad. Dari-Ekh is a mountainous and rocky area which makes it difficult for residents to farm. The residents have strong desire to privatize the land and they are content with having even one which is on a slope. Streets are in a low sanitary condition. There were many disabled or injured people and residents had strong desire to be involved in benefit programs and some people were complaining that there was no support from Khoroo. The residents who had been living there for a long time did not know much about the city. There were several households with dwelling problem.

In the next page, a map of Ulaanbaatar, which shows locations of our survey sites, is provided.


## Survey Implementation and Data Quality

Field surveys were conducted to gather information exclusively for assessing Child Money Program and Land Privatization in Mongolia. Draft versions of the questionnaire were tested through pilot surveys in the field. Pilot surveys helped to verify the flow of skip patterns and the adequacy of sequence of questions as well as wording of the questions. The pre-tests for the household-level questionnaires were conducted between the $16^{\text {th }}$ and $25^{\text {th }}$ of March 2005. After selecting the survey sites by using the stratified random sampling schemes described earlier, the survey team carried out interviews with 415 households, drawn from 6 districts of Ulaanbaatar. The survey was conducted between $4^{\text {th }}$ and $15^{\text {th }}$ of April 2005. A total of eight survey teams, which were composed of two enumerators, a team leader and an assistant, administered interviews by visiting respondents at home. The leaders were individuals with previous experience in household survey and assistants were mostly college students. Before initiating surveys, we organized a half-day on-site training sessions and a half-day classroom training sessions for enumerators on April 3, 2005. Data entry process continued between $5^{\text {th }}$ and $28^{\text {th }}$ of April 2005. Data entry operators were trained on the job.

These questionnaires seemed to work well in the field. Households were cooperative in talking about their socio-economic situations. In general, each household interview lasted approximately a half to one hour, depending on household's participation status of the child money program and land ownership status. Usually, one visit was sufficient. In some cases, enumerator had to visit the household again to complete some of unanswered questions or to correct inconsistencies. The respondents were cooperative and willing, as a small amount of incentive was provided.

All the questionnaires were checked upon receipt. When information was incomplete or appeared inconsistent, the questionnaire was sent back to the team of enumerators who completed the questionnaire. The team visited and interviewed the concerning household once more. Once collected, the information was compiled into an Excel data base and converted into Stata data file. Range checks for quantitative variables were performed at the time of the data entry. Some questions required additional manual coding, as many responses could not be categorized into codes prepared in advance. Verbal answers were translated from Mongolian into English. After converting the collected data into Stata file, ranges checks for possible errors were performed once again by tabulating each variable. Consistency checks using logical structure of the questionnaire were performed. At the analysis stage, the dataset was also checked for internal inconsistency, and whenever an inconsistency was found, the values were checked against the paper questionnaire and were corrected.

Appendix 3. Comparison of Variables Included and Excluded from PRR Replica
Appendix 3: Comparison of Variables Included and Excluded from PRR Replica

| Variables in Child Money Program Poverty Risk Ratio Method |  | Not included in replication |
| :---: | :---: | :---: |
| 1 | Location |  |
|  | Ulaanbaatar |  |
|  | Aimag ${ }^{2}$ center | $X$ |
|  | Soum center | $X$ |
|  | Countryside | $X$ |
| 2 | Number of Household members |  |
|  | 1 |  |
|  | 2 |  |
|  | 3 |  |
|  | 4 |  |
|  | 5 |  |
|  | 6 |  |
|  | 7 |  |
|  | 8 or more |  |
| 3 | Education level |  |
|  | Tertiary |  |
|  | Diploma level higher education (technical college) |  |
|  | Vocational |  |
|  | Complete secondary (10 ${ }^{\text {th }}$ grade) |  |
|  | Incomplete secondary (8th grade) |  |
|  | Primary |  |
|  | No education |  |
| 4 | Employment status |  |
|  | State-budget organization | State organization or |
|  | State-owned enterprise | enterprise |
|  | Owner of private business or company | Employed in private |
|  | Employee at private company | company |
|  | Herder | $X$ |
|  | Farmer, agricultural laborer | $X$ |
|  | Informal sector worker | $X$ |
|  | International organizations | $X$ |
|  | NGOs | $X$ |
|  | Temporary or seasonal worker |  |
|  | Military person | $X$ |
|  | Pensioner |  |
|  | Unemployed |  |
|  | Incapable of working | X |
| 5 | Housing condition |  |
|  | Ger |  |
|  | Comfortable residence | House |
|  | Apartment |  |
|  | Public house | $X$ |
|  | Renting | $X$ |
|  | Places not for inhabitance purposes | Other |
|  | Manholes, entrance halls of apartment |  |
| 6 | Assets |  |
|  | Monetary asset | $X$ |
|  | Livestock - (more than 4 livestock measured in large animal) | $X$ |
|  | Land /(income generating) | $X$ |
|  | Shop, Kiosk | $X$ |

[^1]Appendix 4. Full Tables and Graphs for Inclusion and Exclusion Errors


Notes: Variables that are not included in the replica of PRR is marked with X.

Appendix 4: Full Tables and Graphs for Inclusion and Exclusion Errors
Table A.4.1: Comparison of Poverty Status Based on "True" Welfare and Child Money Receipt Status
Food poverty line: 17,639 MNT a month; Poverty line $=30,337$ MNT (National poverty line)

|  |  | All households |  |  | Households with 3 or more children Receive Child Money? |  |  | Households with a child Receive Child Money? |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |  |  |  |
|  |  | NO | YES | Total | NO | YES | Total | NO | YES | Total |
| $\begin{aligned} & \text { స } \\ & \text { 0 } \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \end{aligned}$ | Non-poor | 95 | 6 | 101 | 11 | 5 | 16 | 55 | 6 | 61 |
|  |  | 30.55\% | 6.52\% | 25.06\% | 28.95\% | 5.62\% | 12.60\% | 23.91\% | 6.67\% | 19.06\% |
|  |  | 94.06\% | 5.94\% | 100.00\% | 68.75\% | 31.25\% | $\underline{100.00 \%}$ | 90.16\% | 9.84\% | 100.00\% |
|  | Poor | 216 | 86 | 302 | 27 | 84 | 111 | 175 | 84 | 259 |
|  |  | 69.45\% | 93.48\% | 74.94\% | 71.05\% | 94.38\% | 87.40\% | 76.09\% | 93.33\% | 80.94\% |
|  |  | 71.52\% | 28.48\% | 100.00\% | 24.32\% | 75.68\% | 100.00\% | 67.57\% | 32.43\% | 100.00\% |
|  | Total | 311 | 92 | 403 | 38 | 89 | 127 | 230 | 90 | 320 |
|  |  | $100 \%$ $77.17 \%$ | 100\% |  | 100\% | 100\% |  | 100\% | 100\% |  |
|  |  | 77.17\% | 22.83\% |  | 29.92\% | 70.08\% |  | 71.88\% | 28.13\% |  |
| $\begin{gathered} \text { PC food expense for core } \\ \text { members } \end{gathered}$ | Non-poor | 86 | 5 | 91 | 10 | 4 | 14 | 51 | 5 | 56 |
|  |  | 27.65\% | 5.43\% | 22.58\% | 26.32\% | 4.49\% | 11.02\% | 22.17\% | 5.56\% | 17.50\% |
|  |  | $\underline{94.51 \%}$ | 5.49\% | $\underline{100.00 \%}$ | 71.43\% | 28.57\% | $\underline{100.00 \%}$ | 91.07\% | 8.93\% | 100.00\% |
|  | Poor | 225 | 87 | 312 | 28 | 85 | 113 | 179 | 85 | 264 |
|  |  | 72.35\% | 94.57\% | 77.42\% | 73.68\% | 95.51\% | 88.98\% | 77.83\% | 94.44\% | 82.50\% |
|  |  | $\underline{\mathbf{7 2 . 1 2 \%}}$ | 27.88\% | 100.00\% | 24.78\% | 75.22\% | $\underline{100.00 \%}$ | 67.80\% | 32.20\% | 100.00\% |
|  | Total | 311 | 92 | 403 | 38 | 89 | 127 | 230 | 90 | 320 |
|  |  | 100\% | 100\% |  | 100\% | 100\% |  | 100\% | 100\% |  |
|  |  | 77.17\% | 22.83\% |  | 29.92\% | 70.08\% |  | 71.88\% | 28.13\% |  |
| 0 <br> 0.0 <br> 0 <br> 0 <br> 0 <br> 0 <br> 0 <br> 0 <br> 0 <br> 0 <br> 0 <br> 0 <br> 0 <br> 0 <br> 0 <br> 0 <br> 0 <br> 0 <br> 0 <br> $~ W$ | Non-poor | 149 | 22 | 171 | 20 | 21 | 41 | 108 | 22 | 130 |
|  |  | 48.06\% | 24.18\% | 42.64\% | 52.63\% | 23.60\% | 32.28\% | 46.96\% | 24.44\% | 40.63\% |
|  |  | 87.13\% | 12.87\% | 100.00\% | 48.78\% | 51.22\% | 100.00\% | 83.08\% | 16.92\% | 100.00\% |
|  | Poor | 161 | 69 | 230 | 18 | 68 | 86 | 122 | 68 | 190 |
|  |  | 51.94\% | 75.82\% | 57.36\% | 47.37\% | 76.40\% | 67.72\% | 53.04\% | 75.56\% | 59.38\% |
|  |  | 70.00\% | 30.00\% | 100.00\% | 20.93\% | 79.07\% | 100.00\% | 64.21\% | 35.79\% | 100.00\% |
|  | Total | 310 | 91 | 401 | 38 | 89 | 127 | 230 | 90 | 320 |
|  |  | 100\% | 100\% |  | 100\% | 100\% |  | 100\% | 100\% |  |
|  |  | $77.31 \%$ | 22.69\% |  | 29.92\% | 70.08\% |  | 71.88\% | 28.13\% |  |
|  | Non-poor | 137 | 22 | 159 | 19 | 21 | 40 | 100 | 22 | 122 |
|  |  | 44.19\% | 24.18\% | 39.65\% | 50.00\% | 23.60\% | 31.50\% | 43.48\% | 24.44\% | 38.13\% |
|  |  | 86.16\% | 13.84\% | $\underline{100.00 \%}$ | 47.50\% | 52.50\% | 100.00\% | 81.97\% | 18.03\% | 100.00\% |
|  | Poor | 173 | 69 | 242 | 19 | 68 | 87 | 130 | 68 | 198 |
|  |  | 55.81\% | 75.82\% | 60.35\% | 50.00\% | 76.40\% | 68.50\% | 56.52\% | 75.56\% | 61.88\% |
|  |  | 71.49\% | 28.51\% | 100.00\% | 21.84\% | 78.16\% | 100.00\% | 65.66\% | 34.34\% | 100.00\% |
|  | Total | 310 | 91 | 401 | 38 | 89 | 127 | 230 | 90 | 320 |
|  |  | 100\% | 100\% |  | 100\% | 100\% |  | 100\% | 100\% |  |
|  |  | $77.31 \%$ | 22.69\% |  | 29.92\% | 70.08\% |  | 71.88\% | 28.13\% |  |
| $\begin{aligned} & 0.0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & . \\ & . \\ & 0 \\ & 0 \end{aligned}$ | Non-poor | 106 | 3 | 109 | 7 | 3 | 10 | 62 | 3 | 65 |
|  |  | 34.64\% | 3.23\% | 27.32\% | 18.42\% | 3.33\% | 7.81\% | 27.80\% | 3.30\% | 20.70\% |
|  |  | 97.25\% | 2.75\% | $\underline{100.00 \%}$ | 70.00\% | 30.00\% | 100.00\% | 95.38\% | 4.62\% | 100.00\% |
|  |  | 200 | 90 | 290 | 31 | 87 | 118 | 161 | 88 | 249 |
|  | Poor | 65.36\% | 96.77\% | 72.68\% | 81.58\% | 96.67\% | 92.19\% | 72.20\% | 96.70\% | 79.30\% |
|  |  | 68.97\% | 31.03\% | $\underline{100.00 \%}$ | 26.27\% | 73.73\% | 100.00\% | 64.66\% | 35.34\% | 100.00\% |
|  | Total | 306 | 93 | 399 | 38 | 90 | 128 | 223 | 91 | 314 |
|  |  | 100\% | 100\% |  | 100\% | 100\% |  | 100\% | 100\% |  |
|  |  | 76.69\% | 23.31\% |  | 29.69\% | 70.31\% |  | 71.02\% | 28.98\% |  |
|  | Non-poor | 102 | 3 | 105 | 8 | 3 | 11 | 62 | 3 | 65 |
|  |  | 33.33\% | 3.23\% | 26.32\% | 21.05\% | 3.33\% | 8.59\% | 27.80\% | 3.30\% | 20.70\% |
|  |  | 97.14\% | 2.86\% | 100.00\% | 72.73\% | 27.27\% | 100.00\% | 95.38\% | 4.62\% | 100.00\% |
|  | Poor | 204 | 90 | 294 | 30 | 87 | 117 | 161 | 88 | 249 |
|  |  | 66.67\% | 96.77\% | 73.68\% | 78.95\% | 96.67\% | 91.41\% | 72.20\% | 96.70\% | 79.30\% |
|  |  | 69.39\% | 30.61\% | 100.00\% | 25.64\% | 74.36\% | 100.00\% | 64.66\% | 35.34\% | 100.00\% |
|  | Total | 306 | 93 | 399 | 38 | 90 | 128 | 223 | 91 | 314 |
|  |  | 100\% | 100\% |  | 100\% | 100\% |  | 100\% | 100\% |  |
|  |  | 76.69\% | 23.31\% |  | 29.69\% | 70.31\% |  | 71.02\% | 28.98\% |  |

Notes: Column percentage is in Italic; row percentage is underlined. Undercoverage rate is in bold and highlighted with pink background; leakage is in bold and highlighted with yellow background.

Appendix 4. Full Tables and Graphs for Inclusion and Exclusion Errors
Table A.4.2: Comparison of Poverty Status Based on "True" Welfare and PRR Method
Food poverty line: 17,639 MNT a month; Poverty line $=30,337$ MNT (National poverty line)

|  |  | Living standard according to Poverty Risk Ratio method |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Affordable | Average | Poor | Extremely | Total | Non poor | Poor |
|  | Non-poor | 9 | 67 | 25 | 0 | 101 | 76 | 25 |
|  |  | 90.00\% | 34.18\% | 12.89\% | 0.00\% | 25.06\% | 36.89\% | 12.69\% |
|  |  | 8.91\% | 66.34\% | 24.75\% | 0.00\% | 100.00\% | 75.25\% | 24.75\% |
|  | Poor | 1 | 129 | 169 | 3 | 302 | 130 | 172 |
|  |  | 10.00\% | 65.82\% | 87.11\% | 100.00\% | 74.94\% | 63.11\% | 87.31\% |
|  |  | 0.33\% | 42.72\% | 55.96\% | 0.99\% | 100.00\% | 43.05\% | 56.95\% |
|  | Total | 10 | 196 | 194 | 3 | 403 | 206 | 197 |
|  |  | 100\% | 100\% | 100\% | 100\% |  | 100\% | 100\% |
|  |  | 2.48\% | 48.64\% | 48.14\% | 0.74\% |  | 51.12\% | 48.88\% |
|  | Non-poor | 8 | 59 | 24 | 0 | 91 | 67 | 24 |
|  |  | 88.89\% | 31.22\% | 11.88\% | 0.00\% | 22.58\% | 33.84\% | 11.71\% |
|  |  | 8.79\% | 64.84\% | $\underline{26.37 \%}$ | 0.00\% | $\underline{100.00 \%}$ | 73.63\% | 26.37\% |
|  | Poor | 1 | 130 | 178 | 3 | 312 | 131 | 181 |
|  |  | 11.11\% | 68.78\% | 88.12\% | 100.00\% | 77.42\% | 66.16\% | 88.29\% |
|  |  | 0.32\% | 41.67\% | 57.05\% | 0.96\% | $\underline{100.00 \%}$ | 41.99\% | 58.01\% |
|  | Total | 9 | 189 | 202 | 3 | 403 | 198 | 205 |
|  |  | 100\% | 100\% | 100\% | 100\% |  | 100\% | 100\% |
|  |  | 2.23\% | 46.90\% | 50.12\% | 0.74\% |  | 49.13\% | 50.87\% |
|  | Non-poor | 9 | 104 | 58 | 0 | 171 | 113 | 58 |
|  |  | 90.00\% | 53.33\% | 30.05\% | 0.00\% | 42.64\% | 55.12\% | 29.59\% |
|  |  | 5.26\% | 60.82\% | 33.92\% | 0.00\% | 100.00\% | 66.08\% | 33.92\% |
|  | Poor | 1 | 91 | 135 | 3 | 230 | 92 | 138 |
|  |  | 10.00\% | 46.67\% | 69.95\% | 100.00\% | 57.36\% | 44.88\% | 70.41\% |
|  |  | 0.43\% | 39.57\% | 58.70\% | 1.30\% | $\underline{100.00 \%}$ | 40.00\% | 60.00\% |
|  | Total | 10 | 195 | 193 | 3 | 401 | 205 | 196 |
|  |  | 100\% | 100\% | 100\% | 100\% |  | 100\% | 100\% |
|  |  | 2.49\% | 48.63\% | 48.13\% | 0.75\% |  | 51.12\% | 48.88\% |
|  | Non-poor | 8 | 92 | 59 | 0 | 159 | 100 | 59 |
|  |  | 88.89\% | 48.94\% | 29.35\% | 0.00\% | 39.65\% | 50.76\% | 28.92\% |
|  |  | 5.03\% | 57.86\% | 37.11\% | 0.00\% | $\underline{100.00 \%}$ | 62.89\% | 37.11\% |
|  | Poor | , | 96 | 142 | 3 | 242 | 97 | 145 |
|  |  | 11.11\% | 51.06\% | 70.65\% | 100.00\% | 60.35\% | 49.24\% | 71.08\% |
|  |  | 0.41\% | 39.67\% | 58.68\% | 1.24\% | 100.00\% | 40.08\% | 59.92\% |
|  | Total | 9 | 188 | 201 | 3 | 401 | 197 | 204 |
|  |  | 100\% | 100\% | 100\% | 100\% |  | 100\% | 100\% |
|  |  | 2.24\% | 46.88\% | 50.12\% | 0.75\% |  | 49.13\% | 50.87\% |
| $\begin{aligned} & 0 \\ & 0.0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & . \\ & . \\ & \vdots \\ & \vdots \\ & 0 \end{aligned}$ | Non-poor | 10 | 74 | 25 | 0 | 109 | 84 | 25 |
|  |  | 100.00\% | 37.95\% | 13.09\% | 0.00\% | 27.32\% | 40.98\% | 12.89\% |
|  |  | $\underline{9.17 \%}$ | 67.89\% | $\underline{22.94 \%}$ | 0.00\% | $\underline{100.00 \%}$ | 77.06\% | $\underline{22.94 \%}$ |
|  | Poor | 0 | 121 | 166 | 3 | 290 | 121 | 169 |
|  |  | 0.00\% | 62.05\% | 86.91\% | 100.00\% | 72.68\% | 59.02\% | 87.11\% |
|  |  | 0.00\% | 41.72\% | 57.24\% | 1.03\% | $\underline{100.00 \%}$ | 41.72\% | 58.28\% |
|  | Total | 10 | 195 | 191 | 3 | 399 | 205 | 194 |
|  |  | 100\% | 100\% | 100\% | 100\% |  | 100\% | 100\% |
|  |  | 2.51\% | 48.87\% | 47.87\% | 0.75\% |  | 51.38\% | 48.62\% |
| $\begin{array}{\|c} 0 \\ 0.0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \end{array}$ | Non-poor | 9 | 68 | 28 | 0 | 105 | 77 | 28 |
|  |  | 100.00\% | 36.17\% | 14.07\% | 0.00\% | 26.32\% | 39.09\% | 13.86\% |
|  |  | 8.57\% | 64.76\% | $\underline{26.67 \%}$ | 0.00\% | 100.00\% | 73.33\% | 26.67\% |
|  | Poor | 0 | 120 | 171 | 3 | 294 | 120 | 174 |
|  |  | 0.00\% | 63.83\% | 85.93\% | 100.00\% | 73.68\% | 60.91\% | 86.14\% |
|  |  | 0.00\% | 40.82\% | 58.16\% | 1.02\% | 100.00\% | 40.82\% | 59.18\% |
|  | Total | 9 | 188 | 199 | 3 | 399 | 197 | 202 |
|  |  | 100\% | 100\% | 100\% | 100\% |  | 100\% | 100\% |
|  |  | 2.26\% | 47.12\% | 49.87\% | 0.75\% |  | 49.37\% | 50.63\% |

Notes: Column percentage is in Italic; row percentage is underlined. Undercoverage rate is in bold and highlighted with pink background; leakage is in bold and highlighted with yellow background.

Table A.4.3: Comparison of Poverty Status Based on PRR Method and Child Money Receipt Status
Food poverty line: 17,639 MNT a month; Poverty line= 30,337 MNT (National poverty line)

|  |  | All households |  |  | Households with 3 or more children |  |  | Households with 1 or more children |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Receive Child Money? |  |  | Receive Child Money? |  |  | Receive Child Money? |  |  |
|  |  | N0 | YES | Total | N0 | YES | Total | N0 | YES | Total |
| $\approx$000000$\vdots$00$\vdots$$\vdots$$\vdots$ | Non-poor | 185 | 24 | 209 | 9 | 22 | 31 | 121 | 23 | 144 |
|  |  | 57.45\% | 25.81\% | 50.36\% | 23.08\% | 24.44\% | 24.03\% | 51.49\% | 25.27\% | 44.17\% |
|  |  | 88.52\% | 11.48\% | 100.00\% | 29.03\% | 70.97\% | 100.00\% | 84.03\% | 15.97\% | 100.00\% |
|  | Poor | 137 | 69 | 206 | 30 | 68 | 98 | 114 | 68 | 182 |
|  |  | 42.55\% | 74.19\% | 49.64\% | 76.92\% | 75.56\% | 75.97\% | 48.51\% | 74.73\% | 55.83\% |
|  |  | 66.50\% | 33.50\% | 100.00\% | 30.61\% | 69.39\% | 100.00\% | 62.64\% | 37.36\% | 100.00\% |
|  | Total | 322 | 93 | 415 | 39 | 90 | 129 | 235 | 91 | 326 |
|  |  | 100\% | 100\% |  | 100\% | 100\% |  | 100\% | 100\% |  |
|  |  | 77.59\% | 22.41\% |  | 30.23\% | 69.77\% |  | 72.09\% | 27.91\% |  |
| $\begin{aligned} & \approx \\ & 0 \\ & 0 \\ & 00 \\ & 0 \\ & 00 \\ & \vdots 0 \\ & 0 \\ & \vdots 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \end{aligned}$ | Non-poor | 179 | 22 | 201 | 9 | 20 | 29 | 116 | 21 | 137 |
|  |  | 55.59\% | 23.66\% | 48.43\% | 23.08\% | 22.22\% | 22.48\% | 49.36\% | 23.08\% | 42.02\% |
|  |  | 89.05\% | 10.95\% | 100.00\% | 31.03\% | 68.97\% | 100.00\% | 84.67\% | 15.33\% | 100.00\% |
|  | Poor | 143 | 71 | 214 | 30 | 70 | 100 | 119 | 70 | 189 |
|  |  | 44.41\% | 76.34\% | 51.57\% | 76.92\% | 77.78\% | 77.52\% | 50.64\% | 76.92\% | 57.98\% |
|  |  | 66.82\% | 33.18\% | 100.00\% | 30.00\% | 70.00\% | 100.00\% | 62.96\% | 37.04\% | 100.00\% |
|  | Total | 322 | 93 | 415 | 39 | 90 | 129 | 235 | 91 | 326 |
|  |  | 100\% | 100\% |  | 100\% | 100\% |  | 100\% | 100\% |  |
|  |  | 77.59\% | 22.41\% |  | 30.23\% | 69.77\% |  | 72.09\% | 27.91\% |  |

Notes: Column percentage is in Italic; row percentage is underlined. Undercoverage rate is in bold and highlighted with pink background; leakage is in bold and highlighted with yellow background.

Appendix 4. Full Tables and Graphs for Inclusion and Exclusion Errors

|  |  | Model 0 |  |  | Model 1 |  |  | Model 2 |  |  | Model 3 |  |  | Model 4 |  |  | Model 5 |  |  | Model 6 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Non-poor | Poor | Total | Non-poor | Poor | Total | Non-poor | Poor | Total | Non-poor | Poor | Total | Non-poor | Poor | Total | Non-poor | Poor | Total | Non-poor | Poor | Tota |
|  | Non-poor | 41 | 59 | 100 | 41 | 58 | 99 | 45 | 54 | 99 | 46 | 52 | 98 | 46 | 52 | 98 | 46 | 53 | 99 | 42 | 58 | 100 |
|  |  | 65.08\% | 15\% | 25.77\% | 66.13\% | 17.90\% | 25.65\% | 71.43\% | .77\% | 25.71\% | 8.66\% | .46\% | 25.59\% | 75.41\% | 16.15\% | 25.59\% | 67.65\% | 6.72\% | 25.71\% | 68.85\% | 17.74\% | 5.77\% |
|  |  | 41.00\% | 59.00\% | 100.00\% | 41.41\% | 58.59\% | 100.00\% | 45.45\% | 54.55\% | 100.00\% | 46.94\% | 53.06\% | 100.00\% | 46.94\% | 53.06\% | 100.00\% | 46.46\% | 53.54\% | 100.00\% | 42.00\% | 58.00\% | 100.00\% |
|  | Poor | 22 | 266 | 288 | 21 | 266 | 287 | 18 | 268 | 286 | 21 | 264 | 285 | 15 | 270 | 285 | 22 | 264 | 286 | 19 | 269 | 288 |
|  |  | 34.92\% | 85\% | 74.23\% | 33.87\% | 2.10\% | 74.35\% | 28.57\% | 3.23\% | 74.29\% | 31.34\% | 3.54\% | 74.41\% | 24.59\% | 3.85\% | $74.41 \%$ | 32.35\% | 3.28\% | 74.29\% | 31.15\% | 82.26\% | 7.23\% |
|  |  | 7.64\% | 2.36\% | 100.00\% | 7.32\% | 92.68\% | 100.00\% | 6.29\% | 93.71\% | 100.00\% | 7.37\% | 92.63\% | 100.00\% | 5.26\% | 94.74\% | 100.00\% | 7.69\% | 92.31\% | 100.00\% | 6.60\% | 93.40\% | 100.00\% |
|  | Total | 63 | 32 | 388 | 62 | 324 | 386 | 63 | 322 | 385 | 67 | 316 | 383 | 61 | 322 | 383 | 68 | 317 | 385 | 61 | 32 | 388 |
|  |  | 16.24\% | 83.76\% | 100.00\% | 16.06\% | 83.94\% | 100.00\% | 16.36\% | 83.64\% | 100.00\% | 17.49\% | 82.51\% | 100.00\% | 15.93\% | 84.07\% | 100.00\% | 17.66\% | 82.34\% | 100.00\% | 15.72\% | 84.28\% | 00.00\% |
|  | Non-poor | 35 | 55 | 90 | 39 | 50 | 89 | 40 | 49 | 89 | 42 | 47 | 89 | 41 | 48 | 89 | 41 | 48 | 89 | 37 | 53 | 90 |
|  |  | 62.50\% | 57\% | 23.20\% | 72.22\% | .11\% | 23.12\% | 70.18\% | 94\% | 23.12\% | 71.19\% | 4.51\% | 23.24\% | 71.93\% | 14.72\% | 23.24\% | 69.49\% | 4.77\% | 23.18\% | 64.91\% | 16.01\% | 23.20\% |
|  | Poor | 38.89\% | 11\% | 0.00\% | 43.82\% | 18\% | 0.00\% | 44.94\% | .06\% | 100.00\% | 47.19\% | .81\% | 100.00\% | 46.07\% | 3.93\% | 100.00\% | 46.07\% | 3.93\% | 100.00\% | 41.11\% | 58.89\% | 00.00\% |
|  |  | 21 | 277 | 298 | 15 | 281 | 296 | 17 | 279 | 296 | 17 | 277 | 294 | 16 | 278 | 294 | 18 | 277 | 295 | 20 | 278 | 298 |
|  |  | 37.50\% | 3.43\% | 76.80\% | 27.78\% | 4.89\% | 76.88\% | 29.82\% | 85.06\% | 76.88\% | 28.81\% | 85.49\% | 76.76\% | 28.07\% | 85.28\% | 76.76\% | $30.51 \%$ | 85.23\% | 76.82\% | 35.09\% | 83.99\% | 76.80\% |
|  |  | 7.05\% | 92.95\% | 100.00\% | 5.07\% | 94.93\% | 100.00\% | 5.74\% | 94.26\% | 100.00\% | 5.78\% | 94.22\% | 100.00\% | 5.44\% | 94.56\% | 100.00\% | 6.10\% | 93.90\% | 100.00\% | $6.71 \%$ | 93.29\% | 100.00\% |
|  | Total | 56 | 332 | 388 | 54 | 331 | 385 | 57 | 328 | 385 | 59 | 324 | 383 | 57 | 326 | 383 | 59 | 325 | 38 | 57 | 331 | 388 |
|  |  | 14.43\% | 85.57\% | 100.00\% | 14.03\% | 85.97\% | 100.00\% | 14.81\% | 85.19\% | 100.00\% | 15.40\% | 84.60\% | 100.00\% | 14.88\% | 85.12\% | 100.00\% | 15.36\% | 84.64\% | 100.00\% | 14.69\% | 85.31\% | 100.00\% |
|  | Non-poor | 105 | 62 | 167 | 95 | 72 | 167 | 101 | 64 | 165 | 101 | 62 | 163 | 107 | 58 | 16 | 107 | 58 | 16 | 106 | 61 | 167 |
|  |  | 68.18\% | 50\% | .04\% | 65.07\% | 29.75\% | 3.04\% | 7.33\% | 27.12\% | 42.75\% | 68.24\% | 26.38\% | 42.56\% | 0.39\% | 24.89\% | 42.86\% | 68.59\% | 25.22\% | 42.75\% | 67.52\% | 26.41\% | 43.04\% |
|  |  | 62.87\% | 13\% | .00\% | 56.89\% | 11\% | 0.00\% | 61.21\% | .79\% | 00.00\% | 61.96\% | .04\% | 100.00\% | 64.85\% | 5.15\% | 00.00\% | 64.85\% | 5.15\% | 100.00\% | 63.47\% | 36.53\% | 100.00\% |
|  | Poor | 49 | 172 | 221 | 51 | 170 | 221 | 49 | 172 | 221 | 47 | 173 | 220 | 45 | 175 | 220 | 49 | 172 | 221 | 51 | 170 | 221 |
|  |  | 31.82\% | . $50 \%$ | 56.96\% | .93\% | 25\% | 56.96\% | 32.67\% | 72.88\% | 57.25\% | 31.76\% | 3.62\% | 7.44\% | 29.61\% | 75.11\% | 57.14\% | 31.41\% | 4.78\% | 57.25\% | 32.48\% | 73.59\% | 56.96\% |
|  |  | 22.17\% | 77.83\% | 100.00\% | 23.08\% | 76.92\% | 100.00\% | 22.17\% | 77.83\% | 100.00\% | 21.36\% | 78.64\% | 100.00\% | 20.45\% | 79.55\% | 100.00\% | 22.17\% | 77.83\% | 100.00\% | 23.08\% | 76.92\% | 100.00\% |
|  | Total | 154 | 234 | 388 | 146 | 242 | 388 | 150 | 236 | 386 | 148 | 235 | 38 | 152 | 233 | 38 | 156 | 230 | 386 | 157 | 231 | 388 |
|  |  | 39.69\% | 60.31\% | 100.00\% | 37.63\% | 62.37\% | 100.00\% | 38.86\% | 61.14\% | 100.00\% | 38.64\% | 61.36\% |  | 39.48\% | 60.52\% |  | 40.41\% | 59.59\% | 100.00\% | 40.46\% | 59.54\% | 100.00\% |
|  | Non-poor | 93 | 63 | 156 | 95 | 59 | 154 | 98 | 56 | 154 | 94 | 59 | 153 | 96 | 57 | 15 | 101 | 53 | 15 | 91 | 65 | 156 |
|  |  | 67.39\% | 5.20\% | 40.21\% | 68.84\% | 3.89\% | 40.00\% | .00\% | 22.86\% | 40.00\% | 69.63\% | 23.69\% | 39.84\% | 71.11\% | 22.98\% | 39.95\% | 73.19\% | 21.46\% | 40.00\% | 67.91\% | 25.59\% | 40.21\% |
|  | Poor | $\underline{59.62 \%}$ | 38\% | 100.00\% | 61.69\% | . $31 \%$ | 0.00\% | 63.64\% | 36.36\% | 0.00\% | 61.44\% | .56\% | 100.00\% | 62.75\% | 3.25\% | 100.00\% | 65.58\% | 4.42\% | 100.00\% | 58.33\% | 4.67\% | 100.00\% |
|  |  | 45 | 187 | 59.79\% | ${ }_{4}^{43}$ | 188 | 231 | 422 | 189 $77.14 \%$ | 231 | 41 $30.37 \%$ | 190 | 231 | 39 | 191 | 230 | 37 | 194 | 231 | 43 | 189 | 232 |
|  |  | .61\% | 4.80\% | 59.79\% | 31.16\% | 6.11\% | 60.00\% | 30.00\% | 77.14\% | 60.00\% | 30.37\% | 76.31\% | 60.16\% | 28.89\% | 77.02\% | 60.05\% | 26.81\% | 78.54\% | 60.00\% | 32.09\% | 74.41\% | 59.79\% |
|  |  | 19.40\% | 0.60\% | $\underline{100.00 \%}$ | 18.61\% | 81.39\% | 100.00 | 18.18\% | 81.82\% | 100.00\% | 17.75\% | 82.25\% | 100.00\% | 16.96\% | 83.0 | 100.00\% | 16.02\% | 3.98\% | 100.00\% | 18.53\% | 81.47\% | 100.00\% |
|  | Total | 138 | 250 | 388 | 138 | 247 | 385 | 140 | 245 | 385 | 135 | 249 | 384 | 135 | 248 | 38 | 138 | 247 | 38 | 134 | 254 | 388 |
|  |  | 35.57\% | 4.43\% | 100.00\% | 35.84\% | .16\% | 100.00\% | 36.36\% | 63.64\% |  | 35.16\% | 64.84\% |  | 35.25\% | 64.75\% |  | 35.84\% | 64.16\% | 100.00\% | 34.54\% | 65.46\% | 100.00\% |
| $\begin{aligned} & 0.0 \\ & 0 \\ & 0.0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & \ddot{U} \\ & \ddot{B} \\ & 0 \end{aligned}$ | Non-poor | 65 | 41 | 106 | 67 | 39 | 106 | 69 | 36 | 105 | 71 | 34 | 105 | 74 | 31 | 105 | 74 | 32 | 10 | 64 | 42 | 106 |
|  |  | 73.86\% | 67\% | 27.32\% | 81.71\% | 2.79\% | 27.39\% | 0.23\% | .16\% | 27.49\% | 1.61\% | .60\% | 27.63\% | 4.09\% | 10.62\% | 27.63\% | 83.15\% | 10.74\% | 27.39\% | 7.11\% | 13.77\% | 27.32\% |
|  |  | 61.32\% | 68\% | 100.00\% | 63.21\% | .79\% | 100.00\% | 65.71\% | .29\% | 100.00\% | 67.62\% | 32.38\% | 100.00\% | 70.48\% | 29.52\% | 100.00\% | 69.81\% | 0.19\% | 00.00\% | 60.38\% | 39.62\% | 100.00\% |
|  | Poor | 23 | 259 | 282 | 15 | 266 | 281 | 17 | 260 | 277 | 16 | 259 | 275 | 14 | 261 | 27 | 15 | 266 | 281 | 19 | 26 | 2 |
|  |  | 26.14\% | 33\% | 68\% | 18.29\% | 21\% | .61\% | 19.77\% | 84\% | 2.51\% | 18.39\% | . $40 \%$ | 2.37\% | 15.91\% | 99.38\% | 72.37\% | 16.85\% | 99.26\% | 72.61\% | 22.89\% | 86.23\% | 72.68\% |
|  |  | 8.16\% | 91.84\% | 100.00\% | 5.34\% | 94.66\% | 100.00\% | 6.14\% | 93.86\% | 100.00\% | 5.82\% | 94.18\% | 100.00\% | 5.09\% | 94.91\% | 100.00\% | 5.34\% | 94.66\% | 100.00\% | 6.74\% | 93.26\% | 100.00\% |
|  | Total | 88 | 300 | 388 | 82 | 305 | 387 | 86 | 296 | 382 | 87 | 293 | 380 | 88 | 292 | 380 | 89 | 298 | 387 | 83 | 305 | 38 |
|  |  | 22.68\% | 77.32\% | 100.00\% | 21.19\% | 78.81\% | 100.00\% | 22.51\% | 77.49\% | 100.00\% | 22.89\% | 77.11\% | 100.00\% | 23.16\% | 76.84\% | 100.00\% | 23.00\% | 77.00\% | 100.00\% | 21.39\% | 78.61\% | 00.00\% |
|  | Non-poor | 62 | 40 | 102 | 72 | 30 | 102 | 71 | 31 | 102 | 65 | 35 | 100 | 71 | 29 | 100 | 70 | 32 | 102 | 59 | 43 | 102 |
|  |  | 76.54\% | . $03 \%$ | 26.29\% | 0.00\% | 10.07\% | 26.29\% | 80.68\% | 10.37\% | 26.36\% | 79.27\% | 11.71\% | 26.25\% | 81.61\% | 9.86\% | 26.25\% | 81.40\% | 10.63\% | 26.36\% | 74.68\% | 13.92\% | 26.29\% |
|  |  | 60.78\% | 922\% | 100.00\% | 70.59\% | .41\% | 100.00\% | 69.61\% | 30.39\% | 100.00\% | 65.00\% | 35.00\% | 100.00\% | 71.00\% | 29.00\% | 100.00\% | 68.63\% | 31.37\% | 100.00\% | 57.84\% | 42.16\% | 100.00\% |
|  | Poor | 19 | 267 | 286 | 18 | 268 | 286 | 17 | 268 | 285 | 17 | 264 | 281 | 16 | 265 | 281 | 16 | 269 | 285 | 20 | 266 | 286 |
|  |  | 23.46\% | 86.97\% | $73.71 \%$ | 20.00\% | 89.93\% | 73.71\% | 19.32\% | 89.63\% | 73.64\% | 20.73\% | 88.29\% | 73.75\% | 18.39\% | 90.14\% | 73.75\% | 18.60\% | 89.37\% | 73.64\% | 25.32\% | 86.08\% | 73.71\% |
|  |  | 6.64\% | 93.36\% | 100.00\% | 6.29\% | 93.71\% | 100.00\% | 5.96\% | 94.04\% | 100.00\% | 6.05\% | 93.95\% | 100.00\% | 5.69\% | 94.31\% | 100.00\% | 5.61\% | 94.39\% | 100.00\% | 6.99\% | $\underline{93.01 \%}$ | 100.00\% |
|  | Total | 81 | $307$ | $38$ | $\overline{90}$ | 298 | $38$ | 88 | 299 | $387$ | 82 | $\overline{299}$ | $381$ | 87 | $294$ | 381 | 86 | 301 | 387 | 79 | 309 | 388 |

Notes: Column percentage is in Italic; row percentage is underlined. Undercoverage rate is in bold and highlighted with pink background; leakage is in bold and highlighted with yellow background.

Appendix 4. Full Tables and Graphs for Inclusion and Exclusion Errors

|  |  | Model 0A |  |  | Model 1A |  |  | Model 2A |  |  | Model 3A |  |  | Model 4A |  |  | Model 5A |  |  | Model 6A |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Non-poor | Poor | Total | Non-poor | Poor | Total | Non-poor | Poor | Total | Non-poor | Poor | Total | Non-poor | Poor | Total | Non-poor | Poor | Total | Non-poor | Poor | Total |
|  | Non-poor | 40 | 57 | 97 | 44 | 55 | 99 | 53 | 46 | 99 | 53 | 45 | 98 | 51 | 47 | 98 | 50 | 49 | 99 | 46 | 54 |  |
|  |  | 67.80\% | 8.21\% | 26.08\% | 69.84\% | 17.03\% | 25.65\% | 70.67\% | 14.84\% | 25.71\% | 71.62\% | 14.61\% | 25.65\% | 71.83\% | 15.06\% | 25.59\% | 70.42\% | 15.56\% | 25.65\% | 67.65\% | 16.88\% | $25.77 \%$ |
|  |  | 41.24\% | 58.76\% | $\underline{100.00 \%}$ | 44.44\% | 55.56\% | 100.00\% | 53.54\% | 46.46\% | 100.00\% | 54.08\% | 45.92\% | 100.00\% | 52.04\% | 47.96\% | 100.00\% | 50.51\% | 49.49\% | 100.00\% | 46.00\% | 54.00\% | 100.00\% |
|  | Poor | 19 | 256 | 275 | 19 | 268 | 287 | 22 | 264 | 286 | 21 | 263 | 284 | 20 | 5 | 285 | 21 | 266 | 287 | 22 | 266 | 288 |
|  |  | 32.20\% | .79\% | 73.92\% | 30.16\% | 2.97\% | 74.35\% | 29.33\% | 5.16\% | 74.29\% | 28.38\% | 5.39\% | 74.35\% | 28.17\% | .94\% | 74.41\% | 29.58\% | .44\% | 4.35\% | 32.35\% | 8.13\% | 4.23\% |
|  |  | 6.91\% | 93.09\% | 100.00\% | 6.62\% | 93.38\% | 100.00\% | 7.69\% | 92.31\% | 100.00\% | 7.39\% | 92.61\% | 100.00\% | 7.02\% | 92.98\% | 100.00\% | 7.32\% | 92.68\% | 100.00\% | 7.64\% | 92.36\% | 100.00\% |
|  | Total | 59 | 313 | 372 | 63 | 323 | 386 | 75 | 310 | 385 | 74 | 308 | 382 | 71 | 312 | 383 | 71 | 315 | 38 | 68 | 320 | 388 |
|  |  | 15.86\% | 84.14\% | 100.00\% | 16.32\% | 83.68\% | 100.00\% | 19.48\% | 80.52\% | 100.00\% | 19.37\% | 80.63\% | 100.00\% | 18.54\% | 81.46\% | 100.00\% | 18.39\% | 81.61\% | 100.00\% | 17.53\% | 82.47\% | $100.00 \%$ |
|  | Non-poor | 36 | 51 | 87 | 42 | 47 | 89 | 42 | 46 | 88 | 53 | 36 | 89 | 52 | 37 | 89 | 46 | 42 | 88 | 39 | 51 |  |
|  |  | 66.67\% | . $04 \%$ | 23.39\% | 65.63\% | 4.60\% | 23.06\% | 62.69\% | 4.51\% | 22.92\% | 72.60\% | 11.65\% | 23.30\% | 71.23\% | 1.94\% | 23.24\% | 73.02\% | 13.08\% | 22.92\% | 69.64\% | 15.36\% | 23.20\% |
|  |  | 41.38\% | 62\% | 100.00\% | 47.19\% | 52.81\% | 100.00\% | 47.73\% | 52.27\% | 100.00\% | 59.55\% | 40.45\% | 100.00\% | 58.43\% | 41.57\% | 100.00\% | 52.27\% | 47.73\% | 100.00\% | 43.33\% | 56.67\% | 100.00\% |
|  |  | 18 | 267 | 285 | 22 | 275 | 297 | 25 | 271 | 296 | 20 | 273 | 293 | 21 | 273 | 294 | 17 | 279 | 296 | 17 | 281 | 29 |
|  | Poor | 33.33\% | 83.96\% | 76.61\% | 34.38\% | 85.40\% | 76.94\% | 37.31\% | 85.49\% | 77.08\% | 27.40\% | 88.35\% | 76.70\% | 28.77\% | 88.06\% | 76.76\% | 26.98\% | 86.92\% | 77.08\% | 30.36\% | 84.64\% | 76.80\% |
|  |  | 6.32\% | 93.68\% | 100.00\% | 7.41\% | 92.59\% | 100.00\% | 8.45\% | 91.55\% | 100.00\% | 6.83\% | 93.17\% | 100.00\% | 7.14\% | 92.86\% | 100.00\% | 5.74\% | 94.26\% | 100.00\% | 5.70\% | 94.30\% | 100.00\% |
|  | Total | 54 | 318 | 372 | 64 | 322 | 386 | 67 | 317 | 38 | 73 | 309 | 382 | 73 | 310 | 38 | 63 | 321 | 38 | 56 | 332 | 388 |
|  |  | 14.52\% | 85.48\% | 100.00\% | 16.58\% | 3.42\% | 100.00\% | 17.45\% | 2.55\% | 100.00\% | 19.11\% | 80.89\% | 100.00\% | 19.06\% | 80.94\% | 100.00\% | 16.41\% | 83.59\% | 100.00\% | 14.43\% | 85.57\% | 00.00\% |
|  | Non-poor | 103 | 61 | 164 | 104 | 61 | 165 | 102 | 63 | 16 | 103 | 60 | 16 | 114 | 49 | 16 | 112 | 53 | 16 | 107 | 60 | 16 |
|  |  | 55\% | .52\% | 42.60\% | 69.80\% | 25.74\% | 42.75\% | 68.92\% | 26.58\% | 42.86\% | 4.64\% | 24.49\% | 42.56\% | 76.51\% | 20.94\% | 42.56\% | 72.73\% | 22.94\% | 42.86\% | 69.48\% | 25.64\% | 43.04\% |
|  |  | 62.80\% | 37.20\% | 100.00\% | 63.03\% | .97\% | 100.00\% | 61.82\% | 38.18\% | 100.00\% | 63.19\% | 36.81\% | 100.00\% | 69.94\% | 30.06\% | 100.00\% | 67.88\% | 32.12\% | 100.00\% | 64.07\% | 35.93\% | 100.00\% |
|  |  | 43 | 178 | 221 | 45 | 176 | 221 | 46 | 174 | 220 | 35 | 185 | 220 | 35 | 185 | 220 | 42 | 178 | 220 | 47 | 174 | 22 |
|  | Poor | 29.45\% | 74.48\% | 57.40\% | 30.20\% | 74.26\% | 57.25\% | 31.08\% | 3.42\% | 57.14\% | 25.36\% | 75.51\% | 57.44\% | 23.49\% | 79.06\% | 57.44\% | 27.27\% | 77.06\% | 57.14\% | 30.52\% | 74.36\% | 56.96\% |
|  |  | 19.46\% | 80.54\% | 100.00\% | 20.36\% | 79.64\% | 100.00\% | 20.91\% | 79.09\% | 100.00\% | 15.91\% | 84.09\% | 100.00\% | 15.91\% | 84.09\% | 100.00\% | 19.09\% | 80.91\% | 100.00\% | 21.27\% | 78.73\% | 100.00\% |
|  | Total | 146 | 239 | 385 | 149 | 237 | 386 | 148 | 237 | 38 | 138 | 245 | 38 | 149 | 234 | 38 | 154 | 231 | 38 | 154 | 234 | 388 |
|  |  | 37.92\% | 62.08\% | 100.00\% | 38.60\% | 61.40\% | 100.00\% | 38.44\% | 61.56\% | 100.00\% | 36.03\% | 63.97\% |  | 38.90\% | 61.10\% |  | 40.00\% | 60.00\% | 100.00\% | 39.69\% | 60.31\% | $100.00 \%$ |
|  | Non-poor | 89 | 64 | 153 | 97 | 57 | 15 | 95 | 59 | 154 | 100 | 53 | 153 | 101 | 52 | 153 | 100 | 54 | 15 | 91 | 65 | 15 |
|  |  | 66.92\% | 25.40\% | 39.74\% | 71.32\% | 22.80\% | 39.90\% | 70.90\% | 23.51\% | 40.00\% | 74.07\% | 21.37\% | 39.95\% | 74.26\% | 21.05\% | 39.95\% | 72.46\% | 21.86\% | 40.00\% | 66.91\% | 25.79\% | 40.21\% |
|  |  | 58.17\% | 41.83\% | 100.00\% | 62.99\% | 37.01\% | 100.00\% | 61.69\% | 38.31\% | 100.00\% | 65.36\% | 34.64\% | 100.00\% | 66.01\% | 33.99\% | 100.00\% | 64.94\% | 35.06\% | 100.00\% | 58.33\% | 41.67\% | 100.00\% |
|  | Poor | 44 | 188 | 232 | 39 | 193 | 232 | 39 | 192 | 231 | 35 | 195 | 230 | 35 | 195 | 230 | 38 | 193 | 231 | 45 | 187 | 232 |
|  |  | 33.08\% | 74.60\% | 60.26\% | 28.68\% | 77.20\% | 60.10\% | 29.10\% | 76.49\% | 60.00\% | 25.93\% | 78.63\% | 60.05\% | 25.74\% | 78.95\% | 60.05\% | 27.54\% | 78.14\% | 60.00\% | 33.09\% | 74.21\% | 59.79\% |
|  |  | 18.97\% | 81.03\% | 100.00\% | 16.81\% | 83.19\% | 100.00\% | 16.88\% | 83.12\% | 100.00\% | 15.22\% | 84.78\% | 100.00\% | 15.22\% | 84.78\% | 100.00\% | 16.45\% | 83.55\% | 100.00\% | 19.40\% | 80.60\% | 100.00\% |
|  | Total | 133 | 252 | 385 | 136 | 250 | 386 | 134 | 251 | 385 | 135 | 248 | 383 | 136 | 247 | 383 | 138 | 247 | 38 | 136 | 252 | 388 |
|  |  | 34.55\% | 65.45\% | 100.00\% | 35.23\% | 64.77\% | 100.00\% | 34.81\% | 65.19\% |  | 35.25\% | 64.75\% |  | 35.51\% | 64.49\% |  | 35.84\% | 64.16\% | 100.00\% | 35.05\% | 64.95\% | 100.00\% |
|  | Non-poor | 74 | 32 | 106 | 70 | 36 | 106 | 70 | 36 | 106 | 76 | 29 | 105 | 79 | 26 | 10 | 79 | 26 | 10 | 67 | 39 | 106 |
|  |  | 80.43\% | 10.92\% | 27.53\% | .65\% | 12.04\% | 27.32\% | 78.65\% | 12.04\% | 27.32\% | 81.72\% | 10.07\% | 27.56\% | 79.00\% | 9.25\% | 27.56\% | 82.29\% | 9.12\% | 27.56\% | 77.01\% | 12.96\% | 27.32\% |
|  |  | 69.81\% | 30.19\% | 100.00\% | 66.04\% | 33.96\% | 100.00\% | 66.04\% | 33.96\% | 100.00\% | 72.38\% | 27.62\% | 100.00\% | 75.24\% | 24.76\% | 100.00\% | 75.24\% | 24.76\% | 100.00\% | 63.21\% | 36.79\% | 100.00\% |
|  | Poor | 18 | 261 | 279 | 19 | 263 | 282 | 19 | 263 | 282 | 17 | 259 | 276 | 21 | 255 | 27 | 17 | 259 | 276 | 20 | 262 | 282 |
|  |  | 19.57\% | .08\% | $72.47 \%$ | 21.35\% | 87.96\% | 72.68\% | 21.35\% | 87.96\% | 72.68\% | 18.28\% | 89.93\% | 72.44\% | 21.00\% | 90.75\% | 72.44\% | 17.71\% | 90.88\% | $72.44 \%$ | 22.99\% | 87.04\% | $72.68 \%$ |
|  |  | 6.45\% | 93.55\% | 100.00\% | 6.74\% | 93.26\% | 100.00\% | 6.74\% | 93.26\% | 100.00\% | 6.16\% | 93.84\% | 100.00\% | 7.61\% | 92.39\% | $\underline{100.00 \%}$ | 6.16\% | 93.84\% | $\underline{100.00 \%}$ | 7.09\% | 92.91\% | 100.00\% |
|  | Total | 92 | 293 | 385 | 89 | 299 | 388 | 89 | 299 | 388 | 93 | 288 | 381 | 100 | 281 | 381 | 96 | 285 | 381 | 87 | 301 | 388 |
|  |  | 23.90\% | 76.10\% | 100.00\% | 22.94\% | 77.06\% | 100.00\% | 22.94\% | 77.06\% | 100.00\% | $\underline{24.41 \%}$ | 75.59\% | 100.00\% | 26.25\% | 73.75\% | $\underline{\text { 100.00\% }}$ | 25.20\% | 74.80\% | $\underline{100.00 \%}$ | 22.42\% | 77.58\% | 100.00\% |
|  | Non-poor | 59 | 43 | 102 | 72 | 30 | 102 | 71 | 31 | 102 | 68 | 32 | 100 | 72 | 29 | 101 | 73 | 29 | 102 | 59 | 43 | 102 |
|  |  | 77.63\% | 3.92\% | 26.49\% | . $00 \%$ | 10.07\% | 26.29\% | .68\% | 10.37\% | 26.36\% | 9.07\% | 10.85\% | 26.25\% | 82.76\% | 9.80\% | 26.37\% | 80.22\% | 9.80\% | 26.36\% | 7.63\% | 13.78\% | 26.29\% |
|  |  | $\frac{57.84 \%}{17}$ | 2.16\% | 100.00\% | 70.59\% | . $41 \%$ | 100.00\% | 69.61\% | . $39 \%$ | 0.00\% | .00\% | . $00 \%$ | 100.00\% | 71.29\% | 28.71\% | 100.00\% | 71.57\% | 8.43\% | 100.00\% | 57.84\% | 42.16\% | 100.00\% |
|  | Poor | 17 | 266 | 283 | 18 | 268 | 286 | 17 | 268 | 285 | 18 | 263 | 281 | 15 | 267 | 282 | 18 | 267 | 285 | 17 | 269 | 28 |
|  |  | 22.37\% | 86.08\% | 73.51\% | 20.00\% | 89.93\% | 73.71\% | 19.32\% | 89.63\% | 73.64\% | 20.93\% | 89.15\% | 73.75\% | 17.24\% | 90.20\% | 73.63\% | 19.78\% | 90.20\% | 73.64\% | 22.37\% | 86.22\% | 73.71\% |
|  |  | 6.01\% | 93.99\% | 100.00\% | 6.29\% | 93.71\% | 100.00\% | 5.96\% | 94.04\% | 100.00\% | 6.41\% | 93.59\% | 100.00\% | 5.32\% | 94.68\% | 100.00\% | 6.32\% | 93.68\% | 100.00\% | 5.94\% | 94.06\% | 100.00\% |
|  | Total | 76 | 309 | 385 | 90 | 298 | 388 | 88 | 299 | 387 | 86 | 295 | 381 | 87 | 296 | 383 | 91 | 296 | 387 | 76 | 312 | 388 |
|  |  | 19.74\% | 80.26\% | 100.00\% | 23.20\% | 76.80\% | 100.00\% | 22.74\% | 77.26\% | 100.00\% | 22.57\% | 77.43\% | 100.00\% | 22.72\% | 77.28\% | 100.00\% | 23.51\% | 76.49\% | 100.00\% | 19.59\% | 80.41\% | 100.00 |

[^2]Appendix 4. Full Tables and Graphs for Inclusion and Exclusion Errors

|  |  | Model 0B |  |  | Model 1B |  |  | Model 2B |  |  | Model 3B |  |  | Model 4B |  |  | Model 5B |  |  | Model 6B |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Non-poor | Poor | Total | Non-poor | Poor | Total | Non-poor | Poor | Total | Non-poor | Poor | Total | Non-poor | Poor | Total | Non-poor | Poor | Total | Non-poor | Poor | Tot |
|  | Non-poor | 42 | 55 | 97 | 44 | 55 | 99 | 54 | 45 | 99 | 59 | 39 | 98 | 52 | 46 | 98 | 58 | 41 | 99 | 44 | 56 | 10 |
|  |  | 70.00\% | 17.63\% | 26.08\% | 69.84\% | 17.03\% | 25.65\% | 72.97\% | 14.47\% | 25.71\% | 75.64\% | 12.83\% | 25.65\% | 74.29\% | 14.70\% | 25.59\% | 4.36\% | 13.36\% | 25.71\% | 68.75\% | 17.28\% | 25.77\% |
|  |  | 43.30\% | 56.70\% | 100.00\% | 44.44\% | 55.56\% | $\underline{100.00 \%}$ | 54.55\% | 45.45\% | 100.00\% | 60.20\% | 39.80\% | 100.00\% | 53.06\% | 46.94\% | 100.00\% | 58.59\% | 41.41\% | 100.00\% | 44.00\% | 56.00\% | 100.00\% |
|  | Poor | 18 | 257 | 275 | 19 | 268 | 287 | 20 | 266 | 286 | 19 | 265 | 284 | 18 | 267 | 285 | 20 | 266 | 286 | 20 | 268 | 288 |
|  |  | 30.00\% | 2.37\% | 73.92\% | 30.16\% | 82.97\% | 74.35\% | 27.03\% | 85.53\% | 74.29\% | 24.36\% | 87.17\% | 74.35\% | 25.71\% | 85.30\% | 74.41\% | 25.64\% | 86.64\% | 74.29\% | 31.25\% | 82.72\% | 74.23\% |
|  |  | 6.55\% | 93.45\% | 100.00\% | 6.62\% | 93.38\% | 100.00\% | 6.99\% | 93.01\% | 100.00\% | 6.69\% | 93.31\% | 100.00\% | 6.32\% | 93.68\% | $\underline{100.00 \%}$ | 6.99\% | 93.01\% | $\underline{100.00 \%}$ | 6.94\% | 93.06\% | 100.00\% |
|  | Total | 60 | 312 | 372 | 63 | 323 | 386 | 74 | 311 | 385 | 78 | 304 | 382 | 70 | 313 | 383 | 78 | 307 | 385 | 64 | 324 | 388 |
|  |  | 16.13\% | 83.87\% | 100.00\% | 16.32\% | 83.68\% | $\underline{100.00 \%}$ | 19.22\% | 80.78\% | $\underline{100.00 \%}$ | 20.42\% | 79.58\% | 100.00\% | 18.28\% | 81.72\% | 100.00\% | 20.26\% | 79.74\% | 100.00\% | 16.49\% | 83.51\% | 100.00\% |
| $\begin{aligned} & \text { す } \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \end{aligned}$ | Non-poor | 38 | 49 | 87 | 41 | 48 | 89 | 47 | 41 | 88 | 52 | 37 | 89 | 53 | 35 | 88 | 51 | 37 | 88 | 40 | 50 | 90 |
|  |  | 70.37\% | .41\% | 23.39\% | 68.33\% | 14.72\% | 23.06\% | 66.20\% | 13.10\% | 22.92\% | 75.36\% | 11.78\% | 23.24\% | 73.61\% | 11.33\% | 23.10\% | 73.91\% | 11.75\% | 22.92\% | 68.97\% | 15.15\% | 3.20\% |
|  |  | 43.68\% | 32\% | 100.00\% | .07\% | 53.93\% | $\underline{100.00 \%}$ | . $41 \%$ | 6.59\% | 100.00\% | 58.43\% | 41.57\% | 100.00\% | 60.23\% | 9.77\% | $\underline{100.00 \%}$ | 57.95\% | 2.05\% | 00.00\% | 44.44\% | 55.56\% | 00.00\% |
|  |  | 16 | 269 | 285 | 19 | 278 | 297 |  | 272 | 296 | 17 | 277 | 294 | 19 | 274 | 293 | 18 | 278 | 296 | 18 | 280 | 298 |
|  | Poor | 29.63\% | .59\% | 76.61\% | 31.67\% | 85.28\% | 76.94\% | 33.80\% | 86.90\% | 77.08\% | 24.64\% | 88.22\% | 76.76\% | 26.39\% | 88.67\% | 76.90\% | 26.09\% | 88.25\% | 77.08\% | 31.03\% | 84.85\% | 76.80\% |
|  |  | 5.61\% | 94.39\% | 100.00\% | 6.40\% | 93.60\% | 100.00\% | 8.11\% | 91.89\% | 100.00\% | 5.78\% | 94.22\% | 100.00\% | 6.48\% | 93.52\% | 100.00\% | 6.08\% | 93.92\% | 100.00\% | 6.04\% | 93.96\% | 100.00\% |
|  | Total | 54 | 318 | 372 | 60 | 326 | 386 | 71 | 313 | 384 | 69 | 314 | 383 | 72 | 309 | 38 | 69 | 315 | 38 | 58 | 330 | 388 |
|  |  | 14.52\% | 85.48\% | 100.00\% | 15.54\% | 84.46\% | 100.00\% | 18.49\% | 81.51\% | 100.00\% | 18.02\% | 81.98\% | 100.00\% | 18.90\% | 81.10\% | 100.00\% | 17.97\% | 82.03\% | 100.00\% | 14.95\% | 85.05\% | 100.00\% |
|  | Non-poor | 104 | 60 | 164 | 102 | 63 | 165 | 100 | 65 | 165 | 103 | 60 | 16 | 115 | 48 | 16 | 110 | 55 | 165 | 109 | 58 | 16 |
|  |  | 71.23\% | .10\% | 42.60\% | 70.34\% | 26.14\% | 42.75\% | 69.44\% | 26.97\% | 42.86\% | 73.57\% | 24.69\% | 42.56\% | 76.67\% | 20.60\% | 42.56\% | 74.83\% | 23.11\% | 42.86\% | 68.55\% | 25.33\% | 3.04\% |
|  |  | 63.41\% | .59\% | 100.00\% | 61.82\% | 38.18\% | 100.00\% | 60.61\% | 39.39\% | 100.00\% | 63.19\% | 36.81\% | 100.00\% | 70.55\% | 29.45\% | 100.00\% | 66.67\% | 33.33\% | 100.00\% | 65.27\% | 34.73\% | 100.00\% |
|  | Poor | 42 | 179 | 221 | 43 | 178 | 221 | 44 | 176 | 220 | 37 | 183 | 220 | 35 | 185 | 220 | 37 | 183 | 220 | 50 | 171 | 221 |
|  |  | 28.77\% | .90\% | 57.40\% | 29.66\% | .86\% | 57.25\% | 30.56\% | 3.03\% | 57.14\% | 26.43\% | 75.31\% | 57.44\% | 23.33\% | 79.40\% | 57.44\% | 25.17\% | 76.89\% | 57.14\% | 31.45\% | 74.67\% | 6.96\% |
|  |  | 19.00\% | 81.00\% | 100.00\% | 19.46\% | 80.54\% | 100.00\% | 20.00\% | 80.00\% | 100.00\% | 16.82\% | 83.18\% | 100.00\% | 15.91\% | 84.09\% | 100.00\% | 16.82\% | 83.18\% | 100.00\% | 22.62\% | 77.38\% | 100.00\% |
|  | Total | 146 | 239 | 385 | 145 | 241 | 386 | 144 | 241 | 385 | 140 | 243 | 38 | 150 | 233 | 38 | 147 | 238 | 38 | 159 | 229 | 388 |
|  |  | 37.92\% | 62.08\% | 100.00\% | 37.56\% | 62.44\% | 100.00\% | 37.40\% | 62.60\% | 100.00\% | 36.55\% | 63.45\% |  | 39.16\% | 60.84\% |  | 38.18\% | 61.82\% | 100.00\% | 40.98\% | 59.02\% | 100.00\% |
|  | Non-poor | 91 | 62 | 153 | 97 | 57 | 154 | 95 | 59 | 15 | 100 | 53 | 153 | 102 | 51 | 15 | 102 | 52 | 15 | 90 | 66 | 15 |
|  |  | 67.41\% | 24.80\% | 74\% | 80\% | 22.89\% | 39.90\% | .37\% | 23.60\% | 40.00\% | 2.46\% | 21.72\% | . $05 \%$ | .69\% | 20.40\% | 39.95\% | 3.91\% | 21.05\% | 40.00\% | 7.16\% | 25.98\% | 40.21\% |
|  |  | 59.48\% | 40.52\% | $\underline{100.00 \%}$ | $\underline{62.99 \%}$ | 37.01\% | 100.00\% | 61.69\% | 38.31\% | 100.00\% | 65.36\% | 34.64\% | 100.00\% | 66.67\% | 33.33\% | 100.00\% | 66.23\% | 33.77\% | 100.00\% | 57.69\% | 42.31\% | 100.00\% |
|  | Poor | 44 | 188 | 232 | 40 | 192 | 232 $60.10 \%$ | 40 | 191 | 231 | 38 | 191 | 229 | 31 | 199 | 230 | 36 | 195 | 231 | 44 | 188 | 232 |
|  |  | 32.59\% | .20\% | 60.26\% | 29.20\% | 7.11\% | 60.10\% | 29.63\% | 76.40\% | 60.00\% | 27.54\% | 78.28\% | 59.95\% | 23.31\% | 79.60\% | 60.05\% | 26.09\% | 8.95\% | 60.00\% | 32.84\% | 74.02\% | 59.79\% |
|  |  | 18.97\% | 81.03\% | $100.00 \%$ | 17.24\% | 82.76\% | 100.00\% | 17.32\% | 82.68\% | 100.00\% | 16.59\% | 83.41\% | 100.00\% | 13.48\% | 86.52\% | 100.00\% | 15.58\% | 84.42\% | 100.00\% | 18.97\% | 81.03\% | 100.00\% |
|  | Total | 135 | 250 | 385 $100.00 \%$ | 137 $3549 \%$ | 249 | 386 | 135 | 250 | 385 | 138 $3613 \%$ | 244 6387 | 382 | 133 $3473 \%$ | 250 | 38 | 138 | 247 | 385 | 134 | 254 | 388 |
|  |  | 35.06\% | 64.94\% | 100.00\% | 5.49\% | 64.51\% | $\underline{100.00 \%}$ | 5.06\% | 64.94\% |  | 36.13\% | 63.87\% |  | 34.73\% | 65.27\% |  | 35.84\% | 64.16\% | 100.00\% | 34.54\% | 65.46\% | $\underline{100.00 \%}$ |
|  | Non-poor | 67 | 39 | 106 | 78 | 28 | 106 | 78 | 28 | 106 | 81 | 24 | 105 | 81 | 24 | 10 | 81 | 24 | 10 | 67 | 39 | 106 |
|  |  | 78.82\% | 3.00\% | 27.53\% | 83.87\% | 9.49\% | 27.32\% | 83.87\% | 9.49\% | 27.32\% | 82.65\% | 8.54\% | 27.70\% | 82.65\% | 8.48\% | 27.56\% | 82.65\% | 8.42\% | 27.42\% | 77.01\% | 12.96\% | 27.32\% |
|  |  | $\underline{63.21 \%}$ | 36.79\% | 100.00\% | 73.58\% | 26.42\% | 100.00\% | 73.58\% | 26.42\% | 100.00\% | 77.14\% | 22.86\% | 100.00\% | 77.14\% | 22.86\% | 100.00\% | 77.14\% | 22.86\% | 100.00\% | 63.21\% | 36.79\% | 00.00\% |
|  |  | 18 | 261 | 279 | 15 | 267 | 282 | 15 | 267 | 282 | 17 | 257 | 274 | 17 | 259 | 276 | 17 | 261 | 278 | 20 | 262 | 282 |
|  | Poor | 21.18\% | . $00 \%$ | 72.47\% | 16.13\% | 90.51\% | 72.68\% | 16.13\% | 90.51\% | 72.68\% | 17.35\% | 91.46\% | 72.30\% | 17.35\% | 91.52\% | 72.44\% | 17.35\% | 91.58\% | 72.58\% | 22.99\% | 87.04\% | 72.68\% |
|  |  | 6.45\% | 93.55\% | 100.00\% | 5.32\% | 94.68\% | 100.00\% | 5.32\% | 94.68\% | 100.00\% | 6.20\% | 93.80\% | 100.00\% | 6.16\% | 93.84\% | 100.00\% | 6.12\% | 93.88\% | 100.00\% | 7.09\% | 92.91\% | 100.00\% |
|  | Total |  | 300 | 385 | 93 | 295 | 388 | 93 | 295 | 388 | 98 | 281 | 379 | 98 | 283 | 38 | 98 | 285 | 38 | 87 | 301 | 388 |
|  |  | 22.08\% | 77.92\% | 100.00\% | 23.97\% | 76.03\% | 100.00\% | 23.97\% | 76.03\% | 100.00\% | 25.86\% | 74.14\% | 100.00\% | 25.72\% | 74.28\% | $\underline{100.00 \%}$ | 25.59\% | 74.41\% | 100.00\% | 22.42\% | 77.58\% | 00.00\% |
|  | Non-poor | 60 | 42 | 102 | 72 | 30 | 102 | 74 | 28 | 102 | 68 | 32 | 100 | 75 | 26 | 10 | 73 | 28 | 101 | 58 | 44 | 10 |
|  |  | 77.92\% | 13.64\% | 26.49\% | 80.90\% | 10.03\% | 26.29\% | 83.15\% | 9.40\% | 26.36\% | 82.93\% | 10.70\% | 26.25\% | 81.52\% | 8.93\% | 26.37\% | 82.95\% | 9.52\% | 26.44\% | 80.56\% | 13.92\% | 26.29\% |
|  |  | 58.82\% | $\frac{41.18 \%}{266}$ | $\underline{100.00 \%}$ | $\frac{70.59 \%}{17}$ | $\underline{29.41 \%}$ | 100.00\% | 72.55\% | 27.45\% | $\frac{100.00 \%}{285}$ | 68.00\% | 32.00\% | 100.00\% | $\frac{74.26 \%}{17}$ | 25.74\% | 100.00\% | $\frac{72.28 \%}{15}$ | 27.72\% | $\frac{100.00 \%}{281}$ | 56.86\% | 43.14\% | $\underline{100.00 \%}$ |
|  | Poor | 17 | 266 | 283 | 17 | 269 | 286 | 15 | 270 | 285 | 14 | 267 | 281 | 17 | 265 | 282 | 15 | 266 | 281 | 14 | 272 | 286 |
|  |  | 22.08\% | 86.36\% | 73.51\% | 19.10\% | 89.97\% | 73.71\% | 16.85\% | 90.60\% | 73.64\% | 17.07\% | 89.30\% | 73.75\% | 18.48\% | 91.07\% | 73.63\% | 17.05\% | 90.48\% | 73.56\% | 19.44\% | 86.08\% | 73.71\% |
|  |  | 6.01\% | $\underline{93.99 \%}$ | $\underline{100.00 \%}$ | 5.94\% | 94.06\% | 100.00\% | 5.26\% | 94.74\% | 100.00\% | 4.98\% | 95.02\% | 100.00\% | 6.03\% | 93.97\% | 100.00\% | 5.34\% | 94.66\% | 100.00\% | 4.90\% | 95.10\% | 100.00\% |
|  | Total |  | 308 | 385 |  | 299 | 388 | 89 | 298 | 387 | 82 | 299 | 381 | 92 | 291 | 383 | 88 | 294 | 382 | 72 | 316 | 388 $100.00 \%$ |
|  |  | 20.00\% | 80.00\% | 100.00\% | 22.94\% | 77.06\% | 100.00\% | 23.00\% | 77.00\% | 100.00\% | 21.52\% | 78.48\% | 100.00\% | 24.02\% | 75.98\% | 100.00\% | 23.04\% | 76.96\% | 100.00\% | 18.56\% | 81.44\% | 100.00\% |



Appendix 4. Inclusion and Exclusion Errors Welfare Indicator: Per Capita Food Consumption for All Members


Appendix 4. Inclusion and Exclusion Errors Welfare Indicator: Per Capita Food Consumption for Core Members


Appendix 4. Inclusion and Exclusion Errors Welfare Indicator: Per Capita Food Consumption for Core Members


Appendix 4. Inclusion and Exclusion Errors. Welfare Indicator: Adult Equivalent Food Consumption for All Members

Poverty Risk Ratio vs Observed Adult Equivalent Consumption



Appendix 4. Inclusion and Exclusion Errors. Welfare Indicator: Adult Equivalent Food Consumption for All Members


Appendix 4. Inclusion and Exclusion Errors. Welfare Indicator: Adult Equivalent Food Consumption for Core Members


Appendix 4. Inclusion and Exclusion Errors. Welfare Indicator: Adult Equivalent Food Consumption for Core Members


Appendix 4. Inclusion and Exclusion Errors. Welfare Indicator: Per Capita Income for All Members








Appendix 4. Inclusion and Exclusion Errors. Welfare Indicator: Per Capita Income for All Members


Appendix 4. Inclusion and Exclusion Errors. Welfare Indicator: Per Capita Income for Core Members



Appendix 4. Inclusion and Exclusion Errors. Welfare Indicator: Per Capita Income for Core Members


Appendix 5. Regression Results
Table A.5.1: Full Regression Results; OLS estimation; Dependant variable: Log of per capita monthly food expense for all members


|  | Model 0 | Model 1 | Model 2 | Model 3 | Model 4 | Model 5 | Model 6 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Adjusted R-squared | 0.356 | 0.417 | 0.423 | 0.453 | 0.457 | 0.433 | 0.373 |
| Dwelling=Ger | $0.414^{* * *}$ |  |  |  |  |  | 0.385*** |
|  | (0.141) |  |  |  |  |  | (0.111) |
| Dwelling=House (Baishin) | $\begin{aligned} & 0.564 * * * \\ & (0.140) \end{aligned}$ | $\begin{array}{r} 0.093 \\ (0.061) \end{array}$ | $\begin{array}{r} 0.09 \\ (0.062) \end{array}$ | $\begin{aligned} & 0.105^{*} \\ & \quad(0.060) \end{aligned}$ | $\begin{array}{r} 0.083 \\ (0.061) \end{array}$ |  | $\begin{aligned} & 0.552 * * * \\ & (0.108) \end{aligned}$ |
| Dwelling=Apartment | $0.607 * * *$ | $0.275 * *$ | 0.393*** | 0.326*** | 0.284** | 0.322*** | 0.574*** |
|  | (0.153) | (0.121) | (0.115) | (0.112) | (0.120) | (0.122) | (0.125) |
| Household size $=2$ | -0.065 |  | -0.302* | -0.370** | -0.377** | -0.227 |  |
|  | (0.180) |  | (0.161) | (0.159) | (0.160) | (0.161) |  |
| Household size=3 | -0.101 |  | $-0.343^{*}$ | $-0.374^{* *}$ | -0.447*** | -0.316* |  |
|  | (0.187) |  | (0.177) | (0.174) | (0.173) | (0.176) |  |
| Household size=4 | $\begin{aligned} & -0.542^{* * *} \\ & (0.180) \end{aligned}$ | $\begin{array}{r} -0.462 * * * \\ (0.088) \end{array}$ | $\begin{aligned} & -0.789 * * * \\ & (0.176) \end{aligned}$ | $\begin{array}{r} -0.831^{* * *} \\ (0.173) \end{array}$ | $\begin{aligned} & -0.912 * * * \\ & (0.169) \end{aligned}$ | $\begin{array}{r} -0.776^{* * *} \\ (0.173) \end{array}$ | $\begin{array}{r} -0.464 * * * \\ (0.089) \end{array}$ |
| Household size=5 | $-0.773 * * *$ $(0.180)$ | $-0.641^{* * *}$ $(0.086)$ | $-1.001^{* * *}$ $(0.185)$ | $\begin{aligned} & -1.006 * * * \\ & (0.180) \end{aligned}$ | $-1.129 * * *$ $(0.175)$ | $\begin{array}{r} -1.018 * * * \\ (0.182) \end{array}$ | $-0.689 * * *$ <br> (0.086) |
| Household size=6 | $-0.761^{* * *}$ <br> (0.188) | $-0.675^{* * *}$ (0.099) | $\begin{aligned} & -1.030^{* * *} \\ & (0.195) \end{aligned}$ | $\begin{aligned} & -1.049 * * * \\ & (0.190) \end{aligned}$ | $\begin{aligned} & -1.151^{* * *} \\ & (0.186) \end{aligned}$ | $\begin{array}{r} -1.036^{* * *} \\ (0.192) \end{array}$ | $-0.670^{* * *}$ <br> (0.099) |
| Household size=7 | $\begin{aligned} & -0.929^{* * *} \\ & (0.210) \end{aligned}$ | $\begin{array}{r} -0.802 * * * \\ (0.123) \end{array}$ | $\begin{array}{r} -1.211^{* * *} \\ (0.216) \end{array}$ | $\begin{array}{r} -1.181^{* * *} \\ (0.209) \end{array}$ | $\begin{aligned} & -1.325 * * * \\ & (0.199) \end{aligned}$ | $\begin{array}{r} -1.256^{* * *} \\ (0.207) \end{array}$ | $\begin{array}{r} -0.808 * * * \\ (0.124) \end{array}$ |
| Household size $=8$ or more | $\begin{array}{r} -0.972^{* * *} \\ (0.215) \\ \hline \end{array}$ | $\begin{array}{r} -0.788 * * * \\ (0.123) \\ \hline \end{array}$ | $\begin{array}{r} -1.193^{* * *} \\ (0.219) \\ \hline \end{array}$ | $\begin{aligned} & -1.253^{* * *} \\ & (0.214) \end{aligned}$ | $\begin{array}{r} -1.410^{* * * *} \\ (0.200) \end{array}$ | $\begin{array}{r} -1.247 * * * \\ (0.208) \end{array}$ | $\begin{aligned} & -0.855^{* * *} \\ & (0.125) \\ & \hline \end{aligned}$ |
| Working members with Secondary education | $\begin{aligned} & \hline-0.052 \\ & (0.047) \end{aligned}$ |  |  |  | $\begin{array}{r} \hline-0.092 * * * \\ (0.030) \end{array}$ | $\begin{array}{r} \hline-0.104^{* * *} \\ (0.032) \end{array}$ |  |
| Working members with Upper Secondary education | $\begin{gathered} -0.024 \\ (0.041) \end{gathered}$ |  |  |  | $\begin{array}{r} -0.043 \\ (0.027) \end{array}$ | $\begin{array}{r} -0.072^{* *} \\ (0.029) \end{array}$ |  |
| Working members with Vocational education | $\begin{array}{r} 0.049 \\ (0.054) \end{array}$ |  |  |  |  |  | $\begin{aligned} & 0.085 * * \\ & \quad(0.039) \end{aligned}$ |
| Working members with Higher Education Diploma | $\begin{array}{r} 0.067 \\ (0.059) \end{array}$ |  |  |  |  |  | $\begin{aligned} & 0.101 * * \\ & (0.047) \end{aligned}$ |
| Education of the household head=Postgraduate |  |  | $\begin{aligned} & 0.410^{*} \\ & \quad(0.228) \\ & \hline \end{aligned}$ |  |  | $\begin{aligned} & 0.579 * * \\ & (0.260) \end{aligned}$ |  |
| Working age members who are unemployed | $\begin{gathered} -0.058 \\ (0.043) \end{gathered}$ | $\begin{array}{r} -0.101^{* * *} \\ (0.030) \end{array}$ | $\begin{gathered} -0.082^{*} * * \\ (0.031) \end{gathered}$ | $\begin{aligned} & -0.081^{* *} \\ & \quad(0.031) \end{aligned}$ |  |  | $\begin{array}{r} -0.108^{* * *} \\ (0.029) \end{array}$ |
| Working age members who are self-employed | $\begin{array}{r} 0.09 \\ (0.058) \end{array}$ |  |  |  | $\begin{aligned} & 0.078^{*} \\ & \quad(0.047) \end{aligned}$ | $\begin{aligned} & 0.117 * * \\ & \quad(0.048) \end{aligned}$ |  |
| Working age members who are employed in public sector | $\begin{array}{r} 0.083 \\ (0.063) \end{array}$ |  |  |  | $\begin{array}{r} 0.065 \\ (0.050) \end{array}$ | $\begin{aligned} & 0.119 * * \\ & (0.052) \end{aligned}$ |  |
| Working age members who are employed in private companies | $\begin{array}{r} 0.078 \\ (0.062) \end{array}$ |  |  |  | $\begin{aligned} & 0.101 * * \\ & (0.048) \end{aligned}$ | $\begin{aligned} & 0.117 * * \\ & (0.050) \end{aligned}$ |  |
| Working age members who are part-time employees | $\begin{array}{r} -0.242 \\ (0.157) \end{array}$ | $\begin{array}{r} -0.232 \\ (0.151) \end{array}$ |  |  |  |  | $\begin{aligned} & -0.317 * * \\ & (0.150) \end{aligned}$ |
| Household members who are retired | $\begin{array}{r} 0.059 \\ (0.058) \\ \hline \end{array}$ |  | $\begin{array}{r} 0.088 \\ (0.054) \\ \hline \end{array}$ |  | $\begin{array}{r} 0.093 \\ (0.059) \\ \hline \end{array}$ | $\begin{aligned} & 0.137 * * \\ & (0.059) \end{aligned}$ |  |
| Members with income $=2$ | $\begin{aligned} & \hline 0.345^{* *} \\ & (0.158) \end{aligned}$ | $\begin{gathered} \hline 0.157 * * \\ (0.063) \end{gathered}$ | $\begin{aligned} & \hline 0.157 * * \\ & (0.067) \end{aligned}$ | $\begin{aligned} & \hline 0.152^{* *} \\ & (0.066) \end{aligned}$ | $\begin{gathered} \hline 0.156 * * \\ (0.067) \end{gathered}$ | $\begin{gathered} \hline 0.155 * * \\ (0.068) \end{gathered}$ | $\begin{array}{r} \hline 0.221^{* * * *} \\ (0.062) \end{array}$ |
| Members with income $=3$ | 0.426** | $0.271 * * *$ | 0.282*** | 0.298*** | 0.297*** | 0.257** | 0.324*** |
|  | (0.178) | (0.085) | (0.096) | (0.092) | (0.100) | (0.102) | (0.086) |
| Members with income $=4$ | 0.344 | 0.229* | 0.236* | 0.310** | 0.250* | 0.23 | 0.284** |
|  | (0.212) | (0.117) | (0.131) | (0.123) | (0.136) | (0.140) | (0.117) |
| Share of elderly members |  | 0.740*** | $0.736^{* * *}$ | 0.734*** | $0.744^{* * *}$ | $0.731^{* * *}$ |  |
|  |  | (0.204) | (0.224) | (0.219) | (0.219) | (0.223) |  |
| Single parent |  | $\begin{aligned} & -0.155^{* *} \\ & (0.061) \end{aligned}$ | $\begin{array}{r} -0.200^{* * *} \\ (0.062) \end{array}$ | $\begin{gathered} -0.126 \\ (0.078) \end{gathered}$ | $\begin{array}{r} -0.119 \\ (0.079) \end{array}$ | $\begin{gathered} -0.118 \\ (0.081) \end{gathered}$ |  |
| Share of working age members |  | $0.302 * *$ <br> (0.119) | $\begin{aligned} & 0.418^{* * *} \\ & (0.153) \end{aligned}$ | $\begin{aligned} & 0.370 * * * \\ & (0.134) \end{aligned}$ | $0.479 * * *$ <br> (0.150) | $\begin{aligned} & 0.470^{* * *} \\ & (0.155) \end{aligned}$ |  |
| Share of male members |  | $\begin{aligned} & 0.220^{*} \\ & (0.122) \end{aligned}$ |  |  |  |  |  |
| Share of non adult members |  |  | $0.295$ | 0.27 | 0.522*** | 0.409* |  |
| Female head of a household |  |  |  | $\begin{gathered} -0.116 \\ (0.087) \end{gathered}$ | $\begin{array}{r} (0.200) \\ -0.144 \\ (0.088) \end{array}$ | $\begin{gathered} (0.212) \\ -0.129 \\ (0.090) \end{gathered}$ |  |
| Migrated to UB within last 5 years |  | -0.11 | -0.129* | -0.135** | -0.124* | -0.136** |  |
|  |  | (0.070) | (0.069) | (0.068) | (0.069) | (0.068) |  |
| Water source |  | $\begin{array}{r} -0.05 \\ (0.036) \\ \hline \end{array}$ |  |  | $\begin{array}{r} -0.054 \\ (0.035) \\ \hline \end{array}$ | $\begin{array}{r} -0.056 \\ (0.036) \\ \hline \end{array}$ |  |
| Single head of a large household | $\begin{array}{r} 0.246 \\ (0.335) \end{array}$ |  | $\begin{array}{r} 0.459 \\ (0.295) \end{array}$ | $\begin{aligned} & \hline 0.487^{*} \\ & (0.291) \end{aligned}$ | $\begin{array}{r} 0.405 \\ (0.289) \end{array}$ | $\begin{array}{r} 0.437 \\ (0.295) \end{array}$ |  |
| Two vulnerable members | $\begin{array}{r} 0.235 \\ (0.230) \end{array}$ |  |  |  |  |  | $\begin{aligned} & 0.447 * * * \\ & (0.170) \end{aligned}$ |
| Owns vehicle (car or truck) | $\begin{array}{r} 0.131 \\ (0.093) \end{array}$ |  |  |  |  | $\begin{array}{r} 0.204 \\ (0.157) \end{array}$ | $\begin{aligned} & 0.153^{*} \\ & \quad(0.088) \end{aligned}$ |
| Receives assistance from NGOs | $\begin{array}{r} -0.09 \\ (0.128) \end{array}$ |  |  |  |  |  | $\begin{array}{r} -0.141^{* *} \\ (0.066) \end{array}$ |
| Does not receive assistance | $\begin{array}{r} 0.022 \\ (0.144) \\ \hline \end{array}$ |  | $\begin{aligned} & 0.105 * \\ & \quad(0.055) \end{aligned}$ | $\begin{aligned} & 0.092 * \\ & (0.054) \\ & \hline \end{aligned}$ | $\begin{array}{r} 0.083 \\ (0.054) \\ \hline \end{array}$ | $\begin{aligned} & 0.091 * \\ & (0.055) \\ & \hline \end{aligned}$ |  |
| Owns electric stove |  | $\begin{gathered} \hline 0.121^{* *} \\ (0.059) \end{gathered}$ | $\begin{aligned} & \hline 0.119 * * \\ & (0.059) \end{aligned}$ |  |  | $\begin{aligned} & \hline 0.101^{*} \\ & \quad(0.059) \end{aligned}$ |  |
| Owns cell phone |  | 0.198*** | 0.205*** | $0.107$ | 0.121** | 0.174*** |  |
| Owns video player |  | (0.058) 0.109 $(0.069)$ | $(0.058)$ 0.104 $(0.069)$ |  | (0.061) | $(0.059)$ 0.102 $(0.068)$ |  |
| Has fence around the dwelling (and live in ger area) |  | ${ }_{0.314 * * *}^{(0.069)}$ | ${ }_{0.407 * * *}^{(0.069)}$ |  |  | ${ }_{0.433 * * *}^{(0.068)}$ |  |
|  |  | (0.080) | (0.096) | (0.099) | (0.098) | (0.097) |  |
| Has land permit |  |  | $\begin{array}{r} 0.122 \\ (0.076) \end{array}$ | $\begin{array}{r} 0.106 \\ (0.072) \end{array}$ | $\begin{array}{r} 0.106 \\ (0.073) \end{array}$ | $\begin{array}{r} 0.117 \\ (0.076) \end{array}$ |  |
| Frequency of milk tea consumption |  |  |  | $\begin{array}{r} -0.058^{* * *} \\ (0.022) \end{array}$ | $\begin{array}{r} -0.060 * * * \\ (0.022) \end{array}$ |  |  |
| Frequency of ham consumption |  |  |  | $\begin{aligned} & -0.102 * * * \\ & (0.027) \end{aligned}$ | $\begin{aligned} & -0.102 * * * \\ & (0.027) \end{aligned}$ |  |  |
| Frequency of fruit consumption |  |  |  | $\begin{aligned} & 0.039 * \\ & (0.022) \\ & \hline \end{aligned}$ | $\begin{array}{r} 0.031 \\ (0.022) \\ \hline \end{array}$ |  |  |
| Observations | 388 | 379 | 378 | 374 | 374 | 378 | 388 |

Appendix 5. Regression Results
Table A.5.3: Full Regression Results; OLS estimation; Dependant variable: Log of adult equivalent monthly food expense for all members

|  | Model 0 | Model 1 | Model 2 | Model 3 | Model 4 | Model 5 | Model 6 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Adjusted R-squared | 0.265 | 0.336 | 0.337 | 0.38 | 0.39 | 0.346 | 0.276 |
| Dwelling=Ger | $\begin{aligned} & \hline 0.266^{*} \\ & (0.149) \end{aligned}$ |  |  |  |  |  | $\begin{aligned} & \hline 0.279 * * \\ & (0.110) \end{aligned}$ |
| Dwelling=House (Baishin) | $\begin{aligned} & 0.389 * * * \\ & \quad(0.149) \end{aligned}$ | $\begin{array}{r} 0.094 \\ (0.060) \end{array}$ | $\begin{array}{r} 0.1 \\ (0.063) \end{array}$ | $\begin{array}{r} 0.092 \\ (0.061) \end{array}$ | $\begin{aligned} & 0.106^{*} \\ & \quad(0.059) \end{aligned}$ |  | $\begin{aligned} & 0.418 \text { *** } \\ & (0.107) \end{aligned}$ |
| Dwelling $=$ Apartment | $\begin{array}{r} 0.426 * * * \\ (0.160) \\ \hline \end{array}$ | $\begin{array}{r} 0.342^{* * *} \\ (0.109) \\ \hline \end{array}$ | $\begin{array}{r} 0.387 * * * \\ (0.117) \\ \hline \end{array}$ | $\begin{array}{r} 0.311 \text { *** } \\ (0.116) \\ \hline \end{array}$ | $\begin{aligned} & 0.236^{*} \\ & \quad(0.123) \\ & \hline \end{aligned}$ | $\begin{gathered} 0.324^{* * *} \\ (0.108) \\ \hline \end{gathered}$ | $\begin{aligned} & 0.442^{* * *} \\ & (0.126) \\ & \hline \end{aligned}$ |
| Household size $=2$ | $\begin{array}{r} 0.191 \\ (0.184) \end{array}$ |  | $\begin{gathered} -0.221 \\ (0.161) \end{gathered}$ | $\begin{aligned} & -0.396^{* *} \\ & (0.158) \end{aligned}$ | $\begin{array}{r} \hline-0.316^{* *} \\ (0.157) \end{array}$ |  |  |
| Household size=3 | $\begin{array}{r} 0.295 \\ (0.195) \end{array}$ |  | $\begin{array}{r} -0.239 \\ (0.181) \end{array}$ | $\begin{array}{r} -0.403^{* *} \\ (0.176) \end{array}$ | $\begin{array}{r} -0.323^{*} \\ (0.173) \end{array}$ |  | $\begin{aligned} & 0.227 * * \\ & (0.098) \end{aligned}$ |
| Household size=4 | $\begin{array}{r} 0.029 \\ (0.183) \end{array}$ | $\begin{array}{r} -0.342 * * * \\ (0.091) \end{array}$ | $\begin{array}{r} -0.559 * * * \\ (0.182) \end{array}$ | $\begin{array}{r} -0.746 * * * \\ (0.178) \end{array}$ | $\begin{array}{r} -0.674^{* * *} \\ (0.173) \end{array}$ | $\begin{gathered} -0.406^{* * *} \\ (0.090) \end{gathered}$ |  |
| Household size=5 | $\begin{gathered} -0.177 \\ (0.185) \end{gathered}$ | $\begin{aligned} & -0.555^{* * *} \\ & \quad(0.099) \end{aligned}$ | $\begin{array}{r} -0.792 * * * \\ \quad(0.189) \end{array}$ | $\begin{array}{r} -0.937 * * * \\ (0.183) \end{array}$ | $\begin{array}{r} -0.816^{* * *} \\ (0.175) \end{array}$ | $\begin{array}{r} -0.628 * * * \\ (0.096) \end{array}$ | $\begin{array}{r} -0.228^{* * *} \\ (0.077) \end{array}$ |
| Household size=6 | $\begin{gathered} -0.129 \\ (0.199) \end{gathered}$ | $\begin{aligned} & -0.547 * * * \\ & (0.114) \end{aligned}$ | $\begin{array}{r} -0.807 \text { *** } \\ (0.203) \end{array}$ | $\begin{array}{r} -0.965 * * * \\ (0.197) \end{array}$ | $\begin{array}{r} -0.860^{* * *} \\ (0.190) \end{array}$ | $\begin{array}{r} -0.620^{* * *} \\ (0.112) \end{array}$ | $\begin{aligned} & -0.173^{*} \\ & \quad(0.093) \end{aligned}$ |
| Household size=7 | $\begin{array}{r} -0.276 \\ (0.211) \end{array}$ | $\begin{array}{r} -0.698 * * * \\ (0.132) \end{array}$ | $\begin{aligned} & -0.956^{* * *} \\ & (0.219) \end{aligned}$ | $\begin{array}{r} -1.122 * * * \\ (0.210) \end{array}$ | $\begin{array}{r} -0.999 * * * \\ (0.201) \end{array}$ | $\begin{array}{r} -0.819^{* * *} \\ (0.122) \end{array}$ | $\begin{array}{r} -0.277 * * * \\ (0.104) \end{array}$ |
| Household size $=8$ or more | $\begin{array}{r} -0.201 \\ (0.227) \\ \hline \end{array}$ | $\begin{array}{r} -0.607 * * * \\ (0.144) \\ \hline \end{array}$ | $\begin{array}{r} -0.880^{* * *} \\ (0.225) \\ \hline \end{array}$ | $\begin{array}{r} -1.143 * * * \\ (0.219) \\ \hline \end{array}$ | $\begin{array}{r} -0.975 * * * \\ (0.201) \\ \hline \end{array}$ | $\begin{array}{r} -0.781^{* * *} \\ (0.131) \\ \hline \end{array}$ | $\begin{aligned} & -0.190^{*} \\ & (0.108) \\ & \hline \end{aligned}$ |
| Working members with Secondary education | $\begin{gathered} -0.099 * * \\ (0.049) \end{gathered}$ |  |  |  | $\begin{aligned} & \hline-0.054^{*} \\ & (0.032) \end{aligned}$ | $\begin{array}{r} -0.116^{* * *} \\ (0.031) \end{array}$ | $\begin{aligned} & \hline-0.057 * \\ & (0.032) \end{aligned}$ |
| Working members with Vocational education | $\begin{array}{r} 0.007 \\ (0.055) \end{array}$ |  |  |  | $\begin{array}{r} 0.130^{* *} \\ (0.054) \end{array}$ |  |  |
| Education of the household head=Vocational |  |  |  |  | $\begin{array}{r} -0.192^{* *} \\ (0.088) \end{array}$ |  |  |
| Education of the household head=Lower Secondary |  | $\begin{aligned} & -0.114^{*} \\ & \quad(0.066) \end{aligned}$ |  |  |  |  |  |
| Education of the household head=Postgraduate |  | $\begin{aligned} & 0.400^{*} \\ & (0.232) \\ & \hline \end{aligned}$ |  |  |  | $\begin{aligned} & 0.439 * \\ & (0.232) \end{aligned}$ |  |
| Working age members who are unemployed | $\begin{array}{r} -0.092 * * \\ (0.045) \end{array}$ | $\begin{array}{r} \hline-0.099^{* * *} \\ (0.033) \end{array}$ | $\begin{array}{r} -0.101 * * * \\ (0.033) \end{array}$ | $\begin{array}{r} \hline-0.080^{* *} \\ (0.033) \end{array}$ | $\begin{array}{r} \hline-0.067^{* *} \\ (0.033) \end{array}$ |  | $\begin{array}{r} \hline-0.142 \text { *** } \\ (0.031) \end{array}$ |
| Working age members who are self-employed | $\begin{array}{r} 0.066 \\ (0.060) \end{array}$ |  |  |  |  | $\begin{aligned} & 0.098 * * \\ & \quad(0.044) \end{aligned}$ |  |
| Working age members who are employed in public sector | $\begin{array}{r} 0.035 \\ (0.065) \end{array}$ |  |  |  |  | $\begin{aligned} & 0.088^{*} \\ & \quad(0.050) \end{aligned}$ |  |
| Working age members who are employed in private companies | $\begin{array}{r} 0.066 \\ (0.062) \end{array}$ |  |  |  | $\begin{array}{r} 0.067 \\ (0.041) \end{array}$ | $\begin{aligned} & 0.105^{* *} \\ & (0.047) \end{aligned}$ |  |
| Working age members who are part-time employees | $\begin{aligned} & -0.267 * \\ & (0.159) \\ & \hline \end{aligned}$ | $\begin{array}{r} -0.217 \\ (0.152) \\ \hline \end{array}$ | $\begin{array}{r} -0.2 \\ (0.155) \\ \hline \end{array}$ |  | $\begin{array}{r} -0.264 * \\ (0.147) \\ \hline \end{array}$ |  | $\begin{array}{r} -0.288^{*} \\ (0.152) \\ \hline \end{array}$ |
| Members with income $=2$ | $\begin{aligned} & \hline 0.310^{*} \\ & (0.161) \end{aligned}$ | $\begin{gathered} 0.156^{* *} \\ (0.063) \end{gathered}$ | $\begin{array}{r} 0.158 * * \\ (0.068) \end{array}$ | $\begin{array}{r} \hline 0.124^{*} \\ (0.067) \end{array}$ | $\begin{array}{r} 0.126^{* *} \\ (0.060) \end{array}$ | $\begin{aligned} & \hline 0.136^{* *} \\ & (0.064) \end{aligned}$ | $\begin{aligned} & \hline 0.138^{* *} \\ & (0.060) \end{aligned}$ |
| Members with income $=3$ | $\begin{aligned} & 0.407 * * \\ & \quad(0.183) \end{aligned}$ | $\begin{aligned} & 0.329 * * * \\ & \quad(0.096) \end{aligned}$ | $\begin{aligned} & 0.313 * * * \\ & \quad(0.099) \end{aligned}$ | $\begin{aligned} & 0.296 * * * \\ & (0.095) \end{aligned}$ | $\begin{aligned} & 0.281 \text { *** } \\ & (0.087) \end{aligned}$ | $\begin{aligned} & 0.325^{* * *} \\ & \quad(0.098) \end{aligned}$ | $\begin{aligned} & 0.220^{* *} \\ & (0.088) \end{aligned}$ |
| Members with income $=4$ | $\begin{array}{r} 0.316 \\ (0.224) \\ \hline \end{array}$ | $\begin{array}{r} 0.17 \\ (0.133) \\ \hline \end{array}$ | $\begin{array}{r} 0.206 \\ (0.135) \\ \hline \end{array}$ | $\begin{array}{r} 0.209 \\ (0.131) \\ \hline \end{array}$ |  | $\begin{aligned} & 0.237 * \\ & (0.134) \\ & \hline \end{aligned}$ |  |
| Single parent |  |  | $\begin{array}{r} -0.176^{* * *} \\ (0.064) \end{array}$ | $\begin{array}{r} \hline-0.185^{* * *} \\ (0.061) \end{array}$ |  |  |  |
| Share of school age members |  | $\begin{aligned} & -0.533^{* * *} \\ & (0.182) \end{aligned}$ | $\begin{array}{r} -0.537 * * * \\ (0.187) \end{array}$ | $\begin{array}{r} -0.515^{* * *} \\ (0.184) \end{array}$ | $\begin{array}{r} -0.526^{* * *} \\ (0.183) \end{array}$ | $\begin{array}{r} -0.396^{* *} \\ (0.177) \end{array}$ |  |
| Share of elderly members |  | $\begin{aligned} & 0.692^{* * *} \\ & (0.226) \end{aligned}$ | $\begin{aligned} & 0.660 * * * \\ & (0.229) \end{aligned}$ | $\begin{aligned} & 0.607 * * * \\ & (0.224) \end{aligned}$ | $\begin{aligned} & 0.683 * * * \\ & \quad(0.221) \end{aligned}$ | $\begin{aligned} & 0.556^{* * *} \\ & \quad(0.189) \end{aligned}$ |  |
| Share of working age members |  | $\begin{array}{r} 0.23 \\ (0.145) \end{array}$ | $\begin{array}{r} 0.236 \\ (0.146) \end{array}$ | $\begin{aligned} & 0.240^{*} \\ & (0.142) \end{aligned}$ | $\begin{aligned} & 0.264^{*} \\ & (0.142) \end{aligned}$ |  |  |
| Share of non adult members |  | $\begin{aligned} & 1.047 * * * \\ & (0.235) \end{aligned}$ | $\begin{aligned} & 1.049 * * * \\ & (0.263) \end{aligned}$ | $\begin{aligned} & 1.162 * * * \\ & (0.261) \end{aligned}$ | $\begin{aligned} & 1.199 * * * \\ & (0.246) \end{aligned}$ | $\begin{aligned} & 0.861^{* * *} \\ & (0.195) \end{aligned}$ |  |
| Migrated to UB within last 5 years |  |  | $\begin{gathered} -0.096 \\ (0.070) \end{gathered}$ | $\begin{gathered} -0.096 \\ (0.069) \end{gathered}$ |  | $\begin{aligned} & -0.126^{*} \\ & (0.069) \end{aligned}$ |  |
| Female head of a household |  | $\begin{array}{r} -0.173 * * \\ (0.069) \\ \hline \end{array}$ |  |  | $\begin{array}{r} -0.195 * * * \\ (0.068) \\ \hline \end{array}$ | $\begin{array}{r} -0.189 * * * \\ (0.070) \\ \hline \end{array}$ |  |
| Single head of a large household | $\begin{array}{r} 0.412 \\ (0.340) \end{array}$ |  | $\begin{array}{r} 0.481 \\ (0.301) \end{array}$ | $\begin{array}{r} 0.43 \\ (0.292) \end{array}$ | $\begin{array}{r} 0.4 \\ (0.294) \end{array}$ | $\begin{array}{r} 0.457 \\ (0.300) \end{array}$ | $\begin{array}{r} 0.458 \\ (0.308) \end{array}$ |
| Two vulnurable members | $\begin{array}{r} 0.247 \\ (0.234) \end{array}$ |  |  |  |  |  | $\begin{aligned} & 0.408 * * \\ & (0.171) \end{aligned}$ |
| Does not receive assistance | $\begin{array}{r} 0.081 \\ (0.146) \end{array}$ |  | $\begin{array}{r} 0.088 \\ (0.056) \end{array}$ | $\begin{array}{r} 0.078 \\ (0.054) \end{array}$ |  |  | $\begin{aligned} & 0.156^{* *} \\ & (0.077) \end{aligned}$ |
| Receives assistance from relatives | $\begin{array}{r} 0.122 \\ (0.131) \\ \hline \end{array}$ |  |  |  |  |  | $\begin{aligned} & 0.191^{* *} \\ & (0.093) \\ & \hline \end{aligned}$ |
| Has fence around the dwelling (and live in ger area) |  | 0.326*** | 0.418*** | 0.364*** | 0.314*** | 0.394*** |  |
| Owns cellphone |  | $\begin{gathered} (0.079) \\ 0.188^{* * *} \\ (0.059) \end{gathered}$ | $\begin{array}{r} (0.104) \\ 0.205 * * * \\ (0.060) \end{array}$ | $\begin{array}{r} (0.101) \\ 0.152^{* *} \\ (0.061) \end{array}$ | $\begin{gathered} (0.085) \\ 0.123^{* *} \\ (0.061) \end{gathered}$ | $\begin{array}{r} (0.096) \\ 0.162^{* * *} \\ (0.059) \end{array}$ |  |
| Owns electric stove |  | $\begin{array}{r} 0.113^{*} \\ (0.059) \end{array}$ | $\begin{aligned} & 0.107 * \\ & (0.060) \end{aligned}$ |  |  | $\begin{array}{r} 0.09 \\ (0.059) \end{array}$ |  |
| Owns Black \& White TV |  | $\begin{aligned} & -0.129^{*} \\ & (0.066) \end{aligned}$ | $\begin{array}{r} -0.093 \\ (0.068) \end{array}$ |  | $\begin{gathered} -0.101 \\ (0.064) \end{gathered}$ | $\begin{array}{r} -0.11 \\ (0.067) \end{array}$ |  |
| Has land permit |  |  | $\begin{array}{r} 0.105 \\ (0.077) \end{array}$ | $\begin{aligned} & 0.128^{*} \\ & (0.073) \end{aligned}$ |  | $\begin{array}{r} 0.118 \\ (0.076) \end{array}$ |  |
| Owns the fence around the ger (and live in ger area) |  |  | $\begin{array}{r} -0.161 * \\ (0.092) \\ \hline \end{array}$ | $\begin{array}{r} -0.156^{*} \\ (0.089) \\ \hline \end{array}$ |  | $\begin{array}{r} -0.127 \\ (0.091) \\ \hline \end{array}$ |  |
| Frequency of milk tea consumption |  |  |  | $\begin{array}{r} \hline-0.068 * * * \\ (0.023) \end{array}$ | $\begin{array}{r} \hline-0.072 * * * \\ (0.022) \end{array}$ |  |  |
| Frequency of ham consumption |  |  |  | $\begin{array}{r} -0.105^{* * *} \\ (0.027) \end{array}$ | $\begin{array}{r} -0.105^{* * *} \\ (0.027) \end{array}$ |  |  |
| Frequency of fruit consumption |  |  |  | $\begin{aligned} & 0.038 * \\ & \quad(0.022) \end{aligned}$ | $\begin{array}{r} 0.031 \\ (0.022) \end{array}$ |  |  |
| Frequency of internet usage |  |  |  | $\begin{array}{r} -0.061 \\ (0.041) \\ \hline \end{array}$ | $\begin{array}{r} -0.074 * \\ \quad(0.041) \\ \hline \end{array}$ |  |  |
| Observations | 388 | 379 | 378 | 374 | 374 | 378 | 388 |

Appendix 5. Regression Results
Table A.5.4: Full Regression Results; OLS estimation; Dependant variable: Log of adult equivalent monthly food expense for core members

|  | Model 0 | Model 1 | Model 2 | Model 3 | Model 4 | Model 5 | Model 6 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Adjusted R-squared | 0.275 | 0.352 | 0.362 | 0.396 | 0.4 | 0.368 | 0.292 |
| Dwelling=Ger | $\begin{aligned} & 0.364 * * \\ & (0.143) \end{aligned}$ |  |  |  |  |  | $\begin{gathered} 0.324^{* * *} \\ (0.111) \end{gathered}$ |
| Dwelling=House (Baishin) | $\begin{aligned} & 0.495 * * * \\ & (0.142) \end{aligned}$ | $\begin{array}{r} 0.087 \\ (0.062) \end{array}$ | $\begin{array}{r} 0.083 \\ (0.062) \end{array}$ | $\begin{aligned} & 0.100^{*} \\ & \quad(0.061) \end{aligned}$ | $\begin{array}{r} 0.094 \\ (0.061) \end{array}$ |  | $\begin{aligned} & 0.465^{* * *} \\ & \quad(0.106) \end{aligned}$ |
| Dwelling=Apartment | $\begin{aligned} & 0.520^{* * *} \\ & (0.155) \\ & \hline \end{aligned}$ | $\begin{array}{r} 0.298 * * \\ (0.122) \\ \hline \end{array}$ | $\begin{array}{r} 0.296 * * \\ (0.122) \\ \hline \end{array}$ | $\begin{array}{r} 0.349 * * * \\ (0.113) \\ \hline \end{array}$ | $\begin{aligned} & 0.285 * * \\ & (0.122) \\ & \hline \end{aligned}$ | $\begin{aligned} & 0.283 * * \\ & (0.118) \\ & \hline \end{aligned}$ | $\begin{aligned} & 0.498 * * * \\ & (0.126) \\ & \hline \end{aligned}$ |
| Household size=2 | $\begin{array}{r} 0.199 \\ (0.183) \end{array}$ |  |  | $\begin{array}{r} \hline-0.339 * * \\ (0.160) \end{array}$ | $\begin{array}{r} \hline-0.284^{*} \\ (0.164) \end{array}$ |  | $\begin{aligned} & 0.224^{* *} \\ & (0.111) \end{aligned}$ |
| Household size=3 | $\begin{array}{r} 0.304 \\ (0.190) \end{array}$ |  |  | $\begin{aligned} & -0.320^{*} \\ & (0.176) \end{aligned}$ | $\begin{aligned} & -0.296^{*} \\ & (0.178) \end{aligned}$ |  | $\begin{aligned} & 0.357 * * * \\ & \quad(0.107) \end{aligned}$ |
| Household size=4 | $\begin{gathered} -0.054 \\ (0.183) \end{gathered}$ | $\begin{array}{r} -0.490^{* * *} \\ (0.096) \end{array}$ | $\begin{aligned} & -0.489 * * * \\ & (0.095) \end{aligned}$ | $\begin{array}{r} -0.753 * * * \\ (0.175) \end{array}$ | $\begin{array}{r} -0.720 * * * \\ (0.178) \end{array}$ | $\begin{array}{r} -0.504 * * * \\ (0.093) \end{array}$ |  |
| Household size=5 | $\begin{gathered} -0.233 \\ (0.182) \end{gathered}$ | $\begin{aligned} & -0.670^{* * *} \\ & (0.101) \end{aligned}$ | $\begin{aligned} & -0.669^{* * *} \\ & \quad(0.101) \end{aligned}$ | $\begin{array}{r} -0.919 * * * \\ (0.182) \end{array}$ | $\begin{array}{r} -0.894 * * * \\ (0.186) \end{array}$ | $\begin{array}{r} -0.697 * * * \\ (0.096) \end{array}$ | $\begin{aligned} & -0.196 * * \\ & (0.081) \end{aligned}$ |
| Household size=6 | $\begin{gathered} -0.213 \\ (0.191) \end{gathered}$ | $\begin{aligned} & -0.713 * * * * \\ & (0.116) \end{aligned}$ | $\begin{array}{r} -0.702 * * * \\ (0.115) \end{array}$ | $\begin{array}{r} -0.947 * * * \\ (0.191) \end{array}$ | $\begin{array}{r} -0.905 * * * \\ (0.194) \end{array}$ | $\begin{array}{r} -0.731 * * * \\ (0.110) \end{array}$ | $\begin{aligned} & -0.160^{*} \\ & \quad(0.093) \end{aligned}$ |
| Household size=7 | $\begin{gathered} -0.332 \\ (0.213) \end{gathered}$ | $\begin{array}{r} -0.837 * * * \\ (0.137) \end{array}$ | $\begin{aligned} & -0.838 * * * \\ & (0.136) \end{aligned}$ | $\begin{array}{r} -1.079 * * * \\ (0.210) \end{array}$ | $\begin{aligned} & -1.030 * * * \\ & (0.214) \end{aligned}$ | $\begin{array}{r} -0.861 * * * \\ (0.126) \end{array}$ | $\begin{aligned} & -0.245 * * \\ & \quad(0.115) \end{aligned}$ |
| Household size=8 or more | $\begin{array}{r} -0.289 \\ (0.218) \\ \hline \end{array}$ | $\begin{aligned} & -0.856^{* * *} \\ & (0.150) \\ & \hline \end{aligned}$ | $\begin{array}{r} -0.847 * * * \\ (0.149) \\ \hline \end{array}$ | $\begin{array}{r} -1.142 * * * \\ (0.215) \\ \hline \end{array}$ | $\begin{array}{r} -1.087 * * * \\ (0.219) \\ \hline \end{array}$ | $\begin{array}{r} -0.873 * * * \\ (0.127) \\ \hline \end{array}$ | $\begin{aligned} & -0.216^{*} \\ & (0.117) \\ & \hline \end{aligned}$ |
| Working members with Secondary education | $\begin{aligned} & -0.087^{*} \\ & (0.048) \end{aligned}$ |  |  |  | $\begin{aligned} & \hline-0.053 * \\ & (0.030) \end{aligned}$ | $\begin{array}{r} \hline-0.104 * * * \\ (0.031) \end{array}$ | $\begin{array}{r} -0.095^{* * *} \\ (0.035) \end{array}$ |
| Working members with Upper Secondary education | $\begin{array}{r} -0.053 \\ (0.042) \end{array}$ |  |  |  |  | $\begin{aligned} & -0.065 * * \\ & (0.028) \end{aligned}$ | $\begin{aligned} & -0.062 * * \\ & \quad(0.030) \end{aligned}$ |
| Education of the household head=Postgraduate |  |  | $\begin{aligned} & 0.395^{*} \\ & (0.230) \\ & \hline \end{aligned}$ |  |  | $\begin{aligned} & 0.382^{*} \\ & (0.229) \\ & \hline \end{aligned}$ |  |
| Working age members who are unemployed | $\begin{array}{r} \hline-0.094^{* *} \\ (0.043) \end{array}$ | $\begin{aligned} & \hline-0.080^{* *} \\ & (0.034) \end{aligned}$ | $\begin{array}{r} \hline-0.079 * * \\ (0.033) \end{array}$ | $\begin{array}{r} \hline-0.087 * * * \\ (0.031) \end{array}$ | $\begin{array}{r} \hline-0.070^{* *} \\ (0.033) \end{array}$ |  | $\begin{array}{r} \hline-0.096^{* * *} \\ (0.035) \end{array}$ |
| Working age members who are self-employed | $\begin{array}{r} 0.077 \\ (0.059) \end{array}$ | $\begin{aligned} & 0.081 * \\ & \quad(0.049) \end{aligned}$ | $\begin{array}{r} 0.069 \\ (0.049) \end{array}$ |  |  | $\begin{aligned} & 0.129 * * * \\ & (0.045) \end{aligned}$ | $\begin{aligned} & 0.108 * * \\ & \quad(0.048) \end{aligned}$ |
| Working age members who are employed in public sector | $\begin{array}{r} 0.05 \\ (0.064) \end{array}$ | $\begin{array}{r} 0.071 \\ (0.051) \end{array}$ | $\begin{array}{r} 0.076 \\ (0.051) \end{array}$ |  |  | $\begin{aligned} & 0.137 * * * \\ & (0.047) \end{aligned}$ | $\begin{aligned} & 0.089 * \\ & \quad(0.051) \end{aligned}$ |
| Working age members who are employed in private companies | $\begin{array}{r} 0.072 \\ (0.062) \end{array}$ | $\begin{aligned} & 0.080^{*} \\ & (0.047) \end{aligned}$ | $\begin{array}{r} 0.078 \\ (0.047) \end{array}$ |  |  | $\begin{aligned} & 0.156^{* * *} \\ & (0.045) \end{aligned}$ | $\begin{aligned} & 0.110^{* *} \\ & \quad(0.050) \end{aligned}$ |
| Working age members who are part-time employees | $\begin{gathered} -0.257 \\ (0.160) \end{gathered}$ |  |  |  |  |  | $\begin{aligned} & -0.254^{*} \\ & \quad(0.152) \end{aligned}$ |
| Household members who are retired | $\begin{array}{r} -0.026 \\ (0.058) \\ \hline \end{array}$ | $\begin{array}{r} 0.083 \\ (0.055) \\ \hline \end{array}$ | $\begin{array}{r} 0.081 \\ (0.054) \\ \hline \end{array}$ |  |  | $\begin{aligned} & 0.101^{*} \\ & (0.052) \\ & \hline \end{aligned}$ |  |
| Share of elderly members |  | $\begin{aligned} & \hline 0.690^{* * *} \\ & (0.228) \end{aligned}$ | $\begin{gathered} 0.712 * * * \\ (0.228) \end{gathered}$ | $\begin{array}{r} \hline 0.647 * * * \\ (0.224) \end{array}$ | $\begin{array}{r} \hline 0.665 * * * \\ (0.224) \end{array}$ | $\begin{array}{r} \hline 0.742 * * * \\ (0.226) \end{array}$ |  |
| Single parent |  | $\begin{array}{r} -0.147 * * \\ (0.063) \end{array}$ | $\begin{aligned} & -0.163 * * \\ & (0.063) \end{aligned}$ | $\begin{array}{r} -0.196 * * * \\ (0.061) \end{array}$ | $\begin{array}{r} -0.193 * * * \\ (0.061) \end{array}$ | $\begin{array}{r} -0.154 * * \\ (0.062) \end{array}$ |  |
| Share of school age members |  | $\begin{array}{r} -0.529 * * * \\ \quad(0.187) \end{array}$ | $\begin{array}{r} -0.551^{* * *} \\ (0.187) \end{array}$ | $\begin{array}{r} -0.548 * * * \\ (0.185) \end{array}$ | $\begin{array}{r} -0.543 * * * \\ (0.185) \end{array}$ | $\begin{array}{r} -0.590^{* * *} \\ (0.187) \end{array}$ |  |
| Share of male members |  | $\begin{aligned} & 0.230^{*} \\ & \quad(0.125) \end{aligned}$ | $\begin{aligned} & 0.226^{*} \\ & \quad(0.125) \end{aligned}$ |  | $\begin{array}{r} 0.159 \\ (0.124) \end{array}$ | $\begin{aligned} & 0.229^{*} \\ & (0.124) \end{aligned}$ |  |
| Share of non adult members |  | $\begin{aligned} & 1.190^{* * *} \\ & (0.260) \end{aligned}$ | $\begin{aligned} & 1.194 * * * \\ & \quad(0.261) \end{aligned}$ | $\begin{aligned} & 1.189 * * * \\ & (0.259) \end{aligned}$ | $\begin{aligned} & 1.239 * * * \\ & \quad(0.260) \end{aligned}$ | $\begin{aligned} & 1.306 * * * \\ & (0.257) \end{aligned}$ |  |
| Share of working age members |  | $\begin{aligned} & 0.285^{*} \\ & \quad(0.161) \end{aligned}$ | $\begin{array}{r} 0.258 \\ (0.160) \end{array}$ | $\begin{aligned} & 0.273 * \\ & \quad(0.141) \end{aligned}$ | $\begin{aligned} & 0.306 * * \\ & (0.142) \end{aligned}$ | $\begin{aligned} & 0.313^{*} \\ & (0.160) \end{aligned}$ |  |
| Water source |  | $\begin{array}{r} -0.049 \\ (0.036) \end{array}$ | $\begin{array}{r} -0.048 \\ (0.036) \end{array}$ |  | $\begin{array}{r} -0.048 \\ (0.035) \end{array}$ | $\begin{aligned} & -0.059 * \\ & (0.036) \end{aligned}$ |  |
| Migrated to UB within last 5 years |  | $\begin{array}{r} -0.108 \\ (0.070) \\ \hline \end{array}$ | $\begin{array}{r} -0.115^{*} \\ (0.069) \\ \hline \end{array}$ | $\begin{array}{r} -0.127 * \\ (0.069) \\ \hline \end{array}$ | $\begin{array}{r} -0.125^{*} \\ (0.069) \\ \hline \end{array}$ | $\begin{array}{r} -0.134 * \\ (0.068) \\ \hline \end{array}$ |  |
| Members with income $=2$ | $\begin{array}{r} \hline 0.289^{*} \\ \quad(0.161) \end{array}$ | $\begin{aligned} & \hline 0.106^{*} \\ & (0.059) \end{aligned}$ | $\begin{aligned} & \hline 0.101^{*} \\ & (0.059) \end{aligned}$ | $\begin{array}{r} \hline 0.129 * \\ (0.067) \end{array}$ | $\begin{array}{r} \hline 0.147 * * \\ (0.067) \end{array}$ | $\begin{array}{r} \hline 0.101^{*} \\ (0.059) \end{array}$ | $\begin{aligned} & 0.100^{*} \\ & (0.060) \end{aligned}$ |
| Members with income $=3$ | $\begin{aligned} & 0.346^{*} \\ & \quad(0.181) \end{aligned}$ | $\begin{aligned} & 0.167 * \\ & \quad(0.085) \end{aligned}$ | $\begin{aligned} & 0.162 * \\ & \quad(0.085) \end{aligned}$ | $\begin{aligned} & 0.256 * * * \\ & (0.092) \end{aligned}$ | $\begin{aligned} & 0.301 * * * \\ & (0.096) \end{aligned}$ | $\begin{aligned} & 0.173 * * \\ & (0.086) \end{aligned}$ | $\begin{array}{r} 0.137 \\ (0.086) \end{array}$ |
| Members with income=4 | $\begin{array}{r} 0.299 \\ (0.215) \\ \hline \end{array}$ |  |  | $\begin{aligned} & 0.239 * \\ & (0.123) \\ & \hline \end{aligned}$ | $\begin{aligned} & 0.262 * * \\ & (0.124) \\ & \hline \end{aligned}$ |  |  |
| Two vulnurable members | $\begin{array}{r} 0.253 \\ (0.234) \end{array}$ |  |  |  |  |  | $\begin{aligned} & \hline 0.398^{* *} \\ & (0.173) \end{aligned}$ |
| Receives assistance from NGOs | $\begin{array}{r} -0.071 \\ (0.130) \end{array}$ |  |  |  |  |  | $\begin{aligned} & -0.114 * \\ & (0.067) \end{aligned}$ |
| Does not receive assistance | $\begin{array}{r} 0.033 \\ (0.146) \\ \hline \end{array}$ |  | $\begin{aligned} & 0.096^{*} \\ & (0.055) \\ & \hline \end{aligned}$ | $\begin{aligned} & 0.093 * \\ & (0.054) \\ & \hline \end{aligned}$ | $\begin{array}{r} 0.088 \\ (0.054) \\ \hline \end{array}$ | $\begin{array}{r} 0.084 \\ (0.055) \\ \hline \end{array}$ |  |
| Has fence around the dwelling (and live in ger area) |  | $\begin{array}{r} \hline 0.309^{* * *} \\ (0.082) \end{array}$ | $\begin{array}{r} \hline 0.334^{* * *} \\ (0.083) \end{array}$ | $\begin{array}{r} \hline 0.375 * * * \\ (0.099) \end{array}$ | $\begin{array}{r} \hline 0.387 * * * \\ (0.099) \end{array}$ | $\begin{array}{r} \hline 0.376 * * * \\ (0.081) \end{array}$ |  |
| Owns Black \& White TV |  | $\begin{array}{r} -0.095 \\ (0.067) \end{array}$ | $\begin{array}{r} -0.104 \\ (0.066) \end{array}$ |  |  | $\begin{array}{r} -0.092 \\ (0.066) \end{array}$ |  |
| Owns cellphone |  | $\begin{aligned} & 0.198 * * * \\ & (0.059) \end{aligned}$ | $\begin{aligned} & 0.199 * * * \\ & (0.059) \end{aligned}$ | $\begin{aligned} & 0.163 * * * \\ & (0.060) \end{aligned}$ | $\begin{aligned} & 0.148 * * \\ & (0.061) \end{aligned}$ | $\begin{array}{r} 0.180^{* * *} \\ (0.059) \end{array}$ |  |
| Owns electric stove |  | $\begin{aligned} & 0.101 * \\ & (0.059) \\ & \hline \end{aligned}$ | $\begin{array}{r} 0.095 \\ (0.058) \\ \hline \end{array}$ |  |  | $\begin{array}{r} 0.081 \\ (0.058) \\ \hline \end{array}$ |  |
| Frequency of milk tea consumption |  |  |  | $\begin{array}{r} \hline-0.060 * * * \\ (0.022) \end{array}$ | $\begin{array}{r} \hline-0.059 * * * \\ (0.022) \end{array}$ |  |  |
| Frequency of ham consumption |  |  |  | $\begin{array}{r} -0.105 * * * \\ (0.027) \end{array}$ | $\begin{array}{r} -0.106 * * * \\ (0.027) \end{array}$ |  |  |
| Frequency of fruit consumption |  |  |  | $\begin{array}{r} 0.035 \\ (0.022) \\ \hline \end{array}$ | $\begin{aligned} & 0.037 * \\ & (0.022) \\ & \hline \end{aligned}$ |  |  |
| Observations | 388 | 379 | 378 | 374 | 374 | 378 | 388 |

Appendix 5. Regression Results
Table A.5.5: Full Regression Results; OLS estimation; Dependant variable: Log of per capita monthly income for all members

|  | Model 0 | Model 1 | Model 2 | Model 3 | Model 4 | Model 5 | Model 6 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Adjusted R-squared | 0.579 | 0.606 | 0.6 | 0.621 | 0.66 | 0.64 | 0.586 |
| Dwelling=Ger | 0.264* | 0.287* | 0.409*** | 0.388** | 0.442*** | 0.475*** | 0.294** |
|  | (0.136) | (0.159) | (0.154) | (0.151) | (0.149) | (0.150) | (0.128) |
| Dwelling=House (Baishin) | 0.343** | 0.346** | 0.486*** | 0.455*** | 0.481*** | 0.512*** | 0.383*** |
|  | (0.136) | (0.159) | (0.155) | (0.152) | (0.151) | (0.151) | (0.127) |
| Dwelling=Apartment | 0.570*** | 0.273* | $0.373^{* *}$ | 0.346** | 0.341** | $0.439^{* * *}$ | $0.611^{* * *}$ |
|  | (0.146) | (0.153) | (0.155) | (0.155) | (0.153) | (0.151) | (0.140) |
| Household size $=2$ | -0.224 | -0.420*** | -0.441*** | -0.539*** | -0.476*** | -0.456*** | -0.273* |
|  | (0.168) | (0.161) | (0.160) | (0.157) | (0.149) | (0.156) | (0.155) |
| Household size=3 | -0.624*** | -0.831 *** | -0.918*** | -0.997*** | $-0.964^{* * *}$ | $-0.881^{* * *}$ | -0.664*** |
|  | (0.178) | (0.167) | (0.169) | (0.164) | (0.157) | (0.163) | (0.164) |
| Household size=4 | $\begin{array}{r} -0.854^{* * *} \\ (0.167) \end{array}$ | $\begin{array}{r} -1.068 * * * \\ (0.161) \end{array}$ | $\begin{array}{r} -1.104 * * * \\ (0.160) \end{array}$ | $\begin{array}{r} -1.188 * * * \\ (0.154) \end{array}$ | $\begin{aligned} & -1.174^{* * *} \\ & (0.147) \end{aligned}$ | $\begin{array}{r} -1.079 * * * \\ (0.158) \end{array}$ | $\begin{array}{r} -0.887 * * * \\ (0.151) \end{array}$ |
| Household size=5 | -1.079*** | $-1.301 * * *$ | $-1.358 * * *$ | $-1.442^{* * *}$ | $-1.409 * * *$ | $-1.340 * * *$ | $-1.117^{* * *}$ |
|  | (0.169) | (0.164) | (0.164) | (0.154) | (0.149) | (0.161) | (0.154) |
| Household size=6 | -1.043*** | -1.257*** | $-1.339 * * *$ | $-1.395^{* * *}$ | -1.319*** | $-1.238^{* * *}$ | $-1.061^{* * *}$ |
|  | (0.181) | (0.179) | (0.179) | (0.169) | (0.162) | (0.177) | (0.165) |
| Household size=7 | $-1.402^{* * *}$ | -1.572*** | $-1.637 * * *$ | $-1.695 * * *$ | $-1.648^{* * *}$ | $-1.589 * * *$ | $-1.406^{* * *}$ |
|  | (0.192) | (0.181) | (0.181) | (0.171) | (0.167) | (0.184) | (0.173) |
| Household size $=8$ or more | -1.476*** | -1.784*** | -1.839*** | -1.933*** | -1.797*** | -1.671*** | -1.467*** |
|  | (0.207) | (0.178) | (0.178) | (0.168) | (0.174) | (0.192) | (0.178) |
| Working members with Primary education | 0.132* |  |  |  | 0.258*** | 0.274*** | 0.118* |
|  | (0.073) |  |  |  | (0.073) | (0.075) | (0.066) |
| Working members with Secondary education | -0.080* |  |  |  | -0.066** | -0.076** | $-0.088 * * *$ |
|  | (0.044) |  |  |  | (0.030) | (0.030) | (0.028) |
| Working members with Upper Secondary education | $-0.058$ |  |  |  | $-0.039$ | $-0.066 * *$ | $-0.076 * * *$ <br> (0.027) |
|  | $\begin{array}{r} (0.039) \\ 0.07 \end{array}$ |  |  |  | ${ }^{(0.029)}$ |  | (0.027) |
| Working members with Bachelor degree | $\begin{array}{r} 0.07 \\ (0.062) \end{array}$ |  |  |  | $\begin{aligned} & 0.108 * * \\ & \quad(0.051) \end{aligned}$ |  |  |
| Education of the household head=Higher Education Diploma |  | 0.246*** |  |  | 0.184** | 0.224*** |  |
|  |  | (0.080) |  |  | (0.082) | (0.080) |  |
| Education of the household head=Postgraduate |  | $0.671^{* * *}$ |  |  | 0.764*** | 0.853*** |  |
|  |  | (0.219) |  |  | (0.230) | (0.240) |  |
| Education of the household head=Vocational |  | 0.129** |  |  | 0.083 | 0.187** |  |
|  |  | (0.062) |  |  | (0.064) | (0.084) |  |
| Working age members who are self-employed | 0.132** | $0.091^{* *}$ | 0.099** | 0.075* | 0.070* | 0.113*** | 0.131*** |
|  | (0.055) | (0.042) | (0.042) | (0.042) | (0.041) | (0.041) | (0.042) |
| Working age members who are employed in public sector | 0.230*** | 0.194*** | 0.198*** | 0.196*** | 0.199*** | 0.235*** | 0.246*** |
|  | (0.059) | (0.047) | (0.047) | (0.046) | (0.046) | (0.046) | (0.047) |
| Working age members who are employed in private companies | 0.276*** | 0.200*** | 0.222*** | 0.233*** | $0.241^{* * *}$ | 0.238*** | 0.286*** |
|  | (0.057) | (0.043) | (0.042) | (0.042) | (0.043) | (0.043) | (0.044) |
| Share of male members |  | -0.230* |  |  |  | -0.196* |  |
|  |  | (0.121) |  |  |  | (0.116) |  |
| Share of school age members |  | -0.184 | -0.177 |  |  | -0.186 |  |
|  |  | (0.129) | (0.132) |  |  | (0.125) |  |
| Single parent |  | -0.105* | -0.235*** | $-0.240^{* * *}$ | $-0.174^{* * *}$ | $-0.142 * *$ |  |
|  |  | (0.061) | (0.079) | (0.077) | (0.058) | (0.059) |  |
| Female head of a household |  |  | 0.192** | 0.147* |  |  |  |
|  |  |  | (0.085) | (0.082) |  |  |  |
| Distance to drinking water |  |  | -0.000* | -0.000* | 0 |  |  |
|  |  |  | 0.000 | 0.000 | 0.000 |  |  |
| Water source |  | -0.072** | -0.05 | -0.047 | -0.069** | -0.085*** |  |
|  |  | (0.034) | (0.036) | (0.035) | (0.034) | (0.033) |  |
| Members with income $=1$ | 0.679*** | 0.605*** | 0.580*** | 0.540*** | 0.673*** | 0.622*** | 0.665*** |
|  | (0.142) | (0.141) | (0.143) | (0.139) | (0.138) | (0.138) | (0.139) |
| Members with income $=2$ | 1.227*** | $1.131^{* * *}$ | 1.126*** | 1.058*** | 1.185*** | $1.148 * * *$ | $1.221^{* * *}$ |
|  | (0.147) | (0.142) | (0.144) | (0.140) | (0.141) | (0.139) | (0.140) |
| Members with income $=3$ | 1.440*** | 1.400*** | 1.327*** | $1.281^{* * *}$ | 1.443*** | 1.405*** | 1.437*** |
|  | (0.167) | (0.155) | (0.158) | (0.153) | (0.153) | (0.152) | (0.153) |
| Members with income $=4$ | 1.408*** | 1.363*** | 1.332*** | 1.297*** | 1.386*** | 1.421*** | 1.414*** |
|  | (0.204) | (0.179) | (0.181) | (0.178) | (0.176) | (0.176) | (0.176) |
| Receives assistance from other | 0.304** |  | 0.226* | 0.264** | $0.325^{* * *}$ | 0.284** | 0.300** |
|  | (0.149) |  | (0.126) | (0.123) | (0.117) | (0.126) | (0.131) |
| Does not receive assistance | 0.243* |  | 0.111** | 0.117** | 0.099* | 0.169** | 0.207*** |
|  | (0.134) |  | (0.054) | (0.053) | (0.051) | (0.068) | (0.070) |
| Receives assistance from relatives | 0.188 |  |  |  |  | 0.116 | 0.172** |
|  | (0.119) |  |  |  |  | $(0.084)$ | $(0.086)$ |
| Owns Color TV |  | 0.187*** | 0.171** | 0.092 | 0.130* | 0.098 |  |
|  |  | (0.068) | (0.070) | (0.070) | (0.078) | (0.067) |  |
| Owns car |  | 0.178* | 0.155 |  | 0.511 |  |  |
|  |  | (0.095) | (0.094) |  | (0.350) |  |  |
| Owns land (and live in ger area) |  | -0.096 |  |  | -0.116 | -0.125* |  |
|  |  | (0.065) |  |  | (0.070) | (0.072) |  |
| Owns cellphone |  | 0.135** | 0.149** | 0.095 |  | $0.119^{* *}$ |  |
|  |  | (0.057) | (0.058) | (0.058) |  | (0.057) |  |
| Owns vehicle (car or truck) | 0.226*** |  |  |  | -0.495 |  | $0.241^{* * *}$ |
|  | (0.086) |  |  |  | (0.358) |  | (0.081) |
| Has fence around the dwelling (and live in ger area) |  | -0.211* | $-0.310^{* * *}$ | $-0.324^{* * *}$ | -0.305*** | $-0.197 * *$ |  |
|  |  | (0.111) | (0.103) | (0.100) | (0.097) | (0.086) |  |
| Has land permit |  |  | 0.577** | 0.592*** | 0.765*** | 0.798*** |  |
|  |  |  | (0.235) | (0.227) | (0.219) | (0.220) |  |
| Owns truck |  |  |  |  | 0.603* | 0.243* |  |
|  |  |  |  |  | (0.332) | (0.130) |  |
| Frequency of milk tea consumption |  |  |  | -0.049** | -0.039* |  |  |
|  |  |  |  | (0.021) | (0.020) |  |  |
| Frequency of ham consumption |  |  |  | -0.097*** | $-0.092 * * *$ |  |  |
|  |  |  |  | (0.024) | (0.023) |  |  |
| Observations | 388 | 379 | 378 | 374 | 374 | 378 | 388 |

Appendix 5. Regression Results
Table A.5.6: Full Regression Results; OLS estimation; Dependant variable: Log of per capita monthly income for core members

|  | Model 0 | Model 1 | Model 2 | Model 3 | Model 4 | Model 5 | Model 6 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Adjusted R-squared | 0.568 | 0.575 | 0.586 | 0.603 | 0.634 | 0.617 | 0.577 |
| Dwelling=Ger | 0.299** | 0.293* | 0.405** | $0.451^{* * *}$ | $0.422^{* * *}$ | 0.454*** | 0.322** |
|  | ${ }_{\text {cor }}^{(0.133)}$ | ${ }_{0.379 * *}^{(0.163)}$ | ${ }^{(0.159)}$ | ${ }_{0.529 * * *}^{(0.153)}$ | ${ }_{0.466 * * *}^{(0.156)}$ | ${ }_{0.521^{* * *}}^{(0.159)}$ | $\begin{aligned} & (0.125) \\ & 0.402^{* * *} \end{aligned}$ |
| Dwelling=House (Baishin) | (0.133) | (0.163) | (0.160) | (0.154) | (0.157) | (0.160) | (0.124) |
| Dwelling=Apartment | 0.585*** | 0.360** | 0.455*** | 0.482*** | 0.365** | $0.421^{* * *}$ | $0.621^{* * *}$ |
|  | (0.144) | (0.151) | (0.154) | (0.146) | (0.158) | (0.161) | (0.137) |
| Household size=2 | -0.254 | -0.512*** | -0.563*** | -0.619*** | -0.564*** | -0.483*** | -0.291* |
|  | (0.170) | (0.166) | (0.165) | (0.162) | (0.158) | (0.159) | (0.157) |
| Household size=3 | -0.643*** | -0.930*** | $-1.040 * * *$ | -1.067 *** | $-1.029 * * *$ | $-0.955^{* * *}$ | -0.685*** |
|  | (0.177) | (0.168) | (0.170) | (0.166) | (0.163) | (0.165) | (0.163) |
| Household size $=4$ | -0.873*** | $-1.200 * * *$ | $-1.262 * * *$ | $-1.270^{* * *}$ | $-1.224 * * *$ | $-1.162 * * *$ | -0.905*** |
|  | (0.170) | (0.162) | (0.162) | (0.158) | (0.155) | (0.157) | (0.154) |
| Household size=5 | -1.112*** | $-1.435 * * *$ | $-1.515 * * *$ | $-1.513^{* * *}$ | $-1.473^{* * *}$ | $-1.418^{* * *}$ | $-1.143^{* * *}$ |
|  | (0.170) | (0.161) | (0.162) | (0.157) | (0.155) | (0.158) | (0.153) |
| Household size=6 | -1.092*** | $-1.442 * * *$ | $-1.498 * * *$ | $-1.473 * * *$ | $-1.416 * * *$ | $-1.378^{* * *}$ | -1.116*** |
|  | (0.178) | (0.170) | (0.170) | (0.166) | (0.164) | (0.167) | (0.161) |
| Household size=7 | -1.411*** | $-1.749 * * *$ | -1.825*** | $-1.780^{* * *}$ | $-1.726^{* * *}$ | $-1.689 * * *$ | $-1.437 * * *$ |
|  | (0.198) | (0.182) | (0.182) | (0.178) | (0.177) | (0.181) | (0.177) |
| Household size $=8$ or more | -1.499*** | $-1.898 * * *$ | -1.968*** | -1.976*** | $-1.869 * * *$ | $-1.804 * * *$ | $-1.495 * * *$ |
|  | (0.203) | (0.172) | (0.172) | (0.168) | (0.174) | (0.178) | (0.175) |
| Working members with Primary education | 0.150 ** |  |  |  | 0.253*** | 0.265*** | 0.132** |
|  | (0.073) |  |  |  | (0.074) | (0.076) | (0.065) |
| Working members with Secondary education | -0.063 |  |  |  | -0.075** | -0.075** | -0.084*** |
|  | (0.045) |  |  |  | (0.030) | (0.030) | (0.029) |
| Working members with Upper Secondary education | -0.047 |  |  |  | -0.056* | -0.069** | -0.069** |
|  | (0.039) |  |  |  | (0.029) | (0.029) | (0.027) |
| Working members with Higher Education Diploma | 0.089 |  |  |  | 0.085* | 0.064 | 0.067 |
|  | (0.056) |  |  |  | (0.045) | (0.048) | (0.047) |
| Working members with Bachelor degree | 0.076 |  |  |  | 0.111** | 0.085 |  |
|  | (0.064) |  |  |  | (0.053) | (0.054) |  |
| Working age members who are self-employed | 0.121** | 0.095** | 0.087** | 0.064 | 0.092** | 0.111*** | 0.132*** |
|  | (0.055) | (0.043) | (0.043) | (0.043) | (0.043) | (0.043) | (0.043) |
| Working age members who are employed in public sector | 0.214*** | 0.180*** | 0.174*** | 0.166*** | 0.187*** | 0.201*** | $0.235 * * *$ |
|  | (0.060) | (0.048) | (0.048) | (0.048) | (0.048) | (0.049) | (0.048) |
| Working age members who are employed in private companies | $0.263 * * *$ | 0.203*** | 0.198*** | 0.207*** | 0.247*** | 0.248*** | 0.277*** |
|  | (0.058) | (0.044) | (0.044) | (0.044) | (0.045) | (0.046) | (0.046) |
| Members without registration with the local administration |  |  |  |  | -0.047* | -0.052** |  |
|  |  |  |  |  | (0.025) | (0.026) |  |
| Single parent |  | -0.216*** | -0.248*** | -0.317*** | $-0.281^{* * *}$ | $-0.243^{* * *}$ |  |
|  |  | (0.081) | (0.081) | (0.078) | (0.077) | (0.078) |  |
| Female head of a household |  | 0.143 | 0.175* | 0.202** | 0.125 | 0.144* |  |
|  |  | (0.091) | (0.091) | (0.084) | (0.083) | (0.085) |  |
| Water source |  |  |  |  | -0.053 | -0.076** |  |
|  |  |  |  |  | (0.035) | (0.034) |  |
| Distance to drinking water |  | -0.000* | -0.000* | -0.000** | 0 |  |  |
|  |  | 0.000 | 0.000 | 0.000 | 0.000 |  |  |
| Members with income $=1$ | 0.680*** | $0.567^{* * *}$ | 0.570*** | 0.514*** | 0.618*** | 0.675*** | 0.669*** |
|  | (0.145) | (0.146) | (0.145) | (0.141) | (0.141) | (0.146) | (0.141) |
| Members with income $=2$ | 1.220*** | $1.121^{* * *}$ | 1.143*** | $1.039 * * *$ | 1.137*** | 1.241*** | 1.222*** |
|  | (0.150) | (0.147) | (0.147) | (0.143) | (0.143) | (0.147) | (0.143) |
| Members with income $=3$ | 1.425*** | $1.360 * * *$ | 1.356*** | $1.251^{* * *}$ | $1.354^{* * *}$ | $1.458 * * *$ | $1.433 * * *$ |
|  | (0.169) | (0.160) | (0.158) | (0.156) | (0.155) | (0.158) | (0.155) |
| Members with income=4 | 1.333*** | 1.336*** | 1.382*** | 1.286*** | 1.333*** | 1.414*** | $1.363^{* * *}$ |
|  | (0.200) | (0.181) | (0.181) | (0.177) | (0.177) | (0.180) | (0.176) |
| Receives assistance from other | 0.311** |  | 0.251** | 0.304** | 0.335*** | 0.306** | 0.287** |
|  | (0.147) |  | (0.126) | (0.125) | (0.120) | (0.127) | (0.130) |
| Does not receive assistance | 0.272** |  | 0.131** | $0.146^{* * *}$ | $0.154^{* * *}$ | $0.215^{* * *}$ | $0.207^{* * *}$ |
|  | (0.136) |  | (0.056) | (0.055) | (0.053) | (0.072) | (0.071) |
| Receives assistance from relatives | 0.183 |  |  |  |  | 0.123 | 0.152* |
|  | $(0.120)$ |  |  |  |  | $(0.087)$ | $(0.086)$ |
| Owns cellphone |  | 0.157*** | 0.140** | 0.106* |  | 0.101* |  |
|  |  | (0.059) | (0.060) | (0.059) |  | (0.061) |  |
| Owns Color TV |  | 0.141** | 0.128* |  | 0.114 | 0.154* |  |
|  |  | (0.071) | (0.072) |  | (0.080) | (0.081) |  |
| Owns video player |  | 0.120* | 0.093 |  |  |  |  |
|  |  | (0.069) | (0.068) |  |  |  |  |
| Owns car |  | 0.221** | 0.172* |  |  | 0.580* |  |
|  |  | (0.097) | (0.097) |  |  | (0.322) |  |
| Has fence around the dwelling (and live in ger area) |  | -0.183* | -0.224** | $-0.243^{* * *}$ | $-0.270 * * *$ | -0.259*** |  |
|  |  | (0.102) | (0.092) | (0.091) | (0.088) | (0.090) |  |
| Owns truck |  |  | 0.204 |  | 0.195 | 0.685** |  |
|  |  |  | (0.138) |  | (0.138) | (0.299) |  |
| Has land permit |  |  | 0.583** | 0.610*** | 0.754*** | 0.767*** |  |
|  |  |  | (0.242) | (0.235) | (0.228) | (0.235) |  |
| Owns electric stove |  |  |  | -0.078 | -0.114** | -0.083 |  |
|  |  |  |  | (0.058) | (0.058) | (0.058) |  |
| Owns land (and live in ger area) |  |  |  |  | -0.133* | -0.143* |  |
|  |  |  |  |  | (0.073) | (0.075) |  |
| Owns Black \& White TV |  |  |  |  | 0.124* | 0.124* |  |
|  |  |  |  |  | (0.073) | (0.074) |  |
| Frequency of milk tea consumption |  |  |  | -0.052** | -0.035* |  |  |
|  |  |  |  | (0.022) | (0.021) |  |  |
| Frequency of ham consumption |  |  |  | -0.102*** | -0.099*** |  |  |
|  |  |  |  | (0.024) | (0.023) |  |  |
| Observations | 388 | 379 | 378 | 374 | 374 | 378 | 388 |

Standard errors in parentheses * significant at 10\%; ** significant at 5\%; *** significant at $1 \%$

Appendix 5. Regression Results
Table A.5.7: Full Regression Results; Probit Estimation; Dependant variable: Poverty status based on per capita monthly food expense for all members


Absolute value of z statistics in parentheses. * significant at 10\%; ** significant at 5\%; *** significant at $1 \%$

Appendix 5. Regression Results
Table A.5.8: Probit Estimation; Dependant variable: Poverty status based on per capita monthly food expense for core members


Appendix 5. Regression Results
Table A.5.9:Probit Estimation; Dependant variable: Poverty status based on adult equivalent monthly food expense for all members

|  | Model 0A | Model 1A | Model 2A | Model 3A | Model 4A | Model 5A | Model 6A |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Psuedo R square | 0.225 | 0.23 | 0.241 | 0.28 | 0.324 | 0.274 | 0.213 |
| Dwelling=Ger | 0.221 | 0.775** | 0.299 | 0.285 | 0.914** | 0.281 | 0.274* |
|  | (0.55) | (2.08) | (1.61) | (1.55) | (2.25) | (1.48) | (1.68) |
| Dwelling=House (Baishin) | -0.012 | 0.555 |  |  | 0.624 |  |  |
|  | (0.03) | (1.54) |  |  | (1.59) |  |  |
| Household size $=2$ | -0.676 |  |  |  |  |  | -0.584** |
|  | (1.43) |  |  |  |  |  | (2.05) |
| Household size=3 | -1.155** |  |  |  |  |  | -1.065*** |
|  | (2.22) |  |  |  |  |  | (3.77) |
| Household size=4 | -0.475 | 0.942*** | 0.874*** | $0.861^{* * *}$ | 1.001*** | 1.090*** | -0.336* |
|  | (0.99) | (3.59) | (3.34) | (3.19) | (3.55) | (4.03) | (1.76) |
| Household size=5 | 0.371 | $1.737^{* * *}$ | 1.806*** | $1.775^{* * *}$ | 1.950*** | $1.941^{* * *}$ | 0.417** |
|  | (0.76) | (5.99) | (6.13) | (5.86) | (6.22) | (6.43) | (2.07) |
| Household size=6 | -0.198 | 1.403*** | 1.399*** | $1.230^{* * *}$ | 1.412*** | $1.567^{* * *}$ |  |
|  | (0.38) | (4.24) | (4.19) | (3.70) | (3.97) | (4.55) |  |
| Household size=7 | 0.116 | $1.839 * * *$ | $1.745^{* * *}$ | 1.648*** | 1.927*** | $2.176 * * *$ |  |
|  | (0.20) | (4.88) | (4.56) | (4.25) | (4.81) | (5.46) |  |
| Household size $=8$ or more | -0.059 | $1.515^{* * *}$ | 1.438*** | $1.570^{* * *}$ | $1.864^{* * *}$ | $1.967^{* * *}$ |  |
|  | (0.09) | (4.09) | (3.91) | (4.01) | (4.66) | (5.08) |  |
| Working members with Secondary education | 0.309** |  |  |  | 0.420*** | 0.301 *** | 0.266*** |
|  | (2.22) |  |  |  | (3.34) | (2.76) | (2.60) |
| Working members with Vocational education | 0.028 |  |  |  | -0.362** | -0.318* |  |
|  | (0.20) |  |  |  | (2.03) | (1.87) |  |
| Working members with Bachelor degree | 0.360** |  |  |  | 0.275 |  | 0.290* |
|  | (1.97) |  |  |  | (1.60) |  | (1.95) |
| Education of the household head=Vocational |  |  |  |  | 0.834*** | 0.674** |  |
|  |  |  |  |  | (2.78) | (2.35) |  |
| Working age members who are unemployed | 0.233* | $0.207^{* *}$ | 0.263*** | $0.241^{* *}$ |  |  | $0.285^{* * *}$ |
|  | (1.75) | (2.08) | (2.69) | (2.31) |  |  | (3.10) |
| Working age members who are self-employed | -0.219 | -0.179 |  |  |  | -0.280** | -0.193* |
|  | (1.39) | (1.54) |  |  |  | (2.40) | (1.77) |
| Working age members who are employed in public sector | -0.19 | $-0.271^{* *}$ | -0.176 | -0.263* | -0.279* | -0.235* | -0.202 |
|  | (1.06) | (1.99) | (1.34) | (1.93) | (1.90) | (1.65) | (1.54) |
| Working age members who are part-time employees | 0.736 |  | 0.769 | 0.733 | 0.74 |  | 0.764* |
|  | (1.60) |  | (1.61) | (1.53) | (1.51) | (1.29) | (1.74) |
| Share of non adult members |  | $-2.090^{* * *}$ | $-2.156 * * *$ | $-2.400^{* * *}$ | $-2.782^{* * *}$ | $-2.257^{* * *}$ |  |
|  |  | (3.74) | (3.79) | (4.06) | (4.60) | (3.91) |  |
| Share of school age members |  | 0.950** | 1.020** | 0.799 | 0.772 | 0.732 |  |
|  |  | (2.00) | (2.12) | (1.61) | (1.52) | (1.48) |  |
| Share of elderly members |  | -1.684** | -1.372 | -1.255 | -1.620* | -1.614* |  |
|  |  | (2.33) | (1.58) | (1.43) | (1.69) | (1.77) |  |
| Single parent |  | 0.433** | 0.444** |  |  | 0.379** |  |
|  |  | (2.36) | (2.42) |  |  | (1.96) |  |
| Female head of a household |  |  |  | 0.518** | 0.544** |  |  |
|  |  |  |  | (2.50) | (2.46) |  |  |
| Migrated to UB within last 5 years |  | 0.355* | 0.370* | 0.301 | 0.332 | 0.500** |  |
|  |  | (1.76) | (1.80) | (1.43) | (1.53) | (2.35) |  |
| Members with income $=2$ | -0.616 | -0.360 ** | -0.359** | -0.294* | -0.348* | $-0.684^{* * *}$ | -0.312** |
|  | (1.25) | (2.16) | (2.12) | (1.67) | (1.92) | (3.57) | (1.99) |
| Members with income=3 | -0.865 | $-0.691^{* * *}$ | -0.729*** | $-0.805^{* * *}$ | $-1.083 * * *$ | $-1.137 * * *$ | -0.534** |
|  | (1.59) | (2.91) | (3.00) | (3.24) | (3.93) | (4.00) | (2.30) |
| Members with income=4 | -0.511 |  |  |  |  | -0.831** |  |
|  | (0.78) |  |  |  |  | (2.15) |  |
| Receives assistance from NGOs | 0.201 |  |  |  |  |  | 0.364** |
|  | (0.58) |  |  |  |  |  | (2.00) |
| Does not receive assistance | -0.178 |  | -0.414** | -0.375** | $-0.367^{* *}$ | $-0.651^{* * *}$ |  |
|  | (0.44) |  | (2.55) | (2.26) | (2.13) | (2.66) |  |
| Owns cellphone |  | -0.322** | -0.310* |  |  |  |  |
|  |  | (1.99) | (1.89) |  |  |  |  |
| Has fence around the dwelling (and live in ger area) |  | -0.482 | -0.586** |  | -0.685* | -0.397 |  |
|  |  | (1.49) | (2.13) |  | (1.94) | (1.53) |  |
| Owns refrigirator |  |  |  | 0.308* | 0.381** | 0.273 |  |
|  |  |  |  | (1.67) | (1.97) | (1.45) |  |
| Owns truck |  |  |  | 0.607 | 0.790* |  |  |
|  |  |  |  | (1.41) | (1.72) |  |  |
| Frequency of milk tea consumption |  |  |  | $0.206^{* * *}$ | $0.214^{* * *}$ |  |  |
|  |  |  |  | (3.09) | (3.11) |  |  |
| Frequency of ham consumption |  |  |  | $0.223 * * *$ | 0.239*** |  |  |
|  |  |  |  | (3.09) | (3.10) |  |  |
| Frequency of internet usage |  |  |  | 0.205* | 0.285 ** |  |  |
|  |  |  |  | (1.77) | (2.30) |  |  |
| Observations | 385 | 379 | 375 | 371 | 372 | 375 | 385 |

Absolute value of z statistics in parentheses. * significant at 10\%; ** significant at 5\%; *** significant at $1 \%$

Appendix 5. Regression Results
Table A.5.10:Probit Estimation; Dependant variable: Poverty status based on adult equivalent monthly food expense for core members

|  | Model 0A | Model 1A | Model 2A | Model 3A | Model 4A | Model 5A | Model 6A |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Psuedo R square | 0.226 | 0.278 | 0.283 | 0.303 | 0.336 | 0.303 | 0.219 |
| Dwelling=Ger | -0.178 | 0.691* | 0.795** |  | 0.824** | 0.871** |  |
|  | (0.46) | (1.75) | (2.06) |  | (1.98) | (2.23) |  |
| Dwelling=House (Baishin) | -0.363 |  | 0.649* |  | 0.669* | 0.780** | -0.235 |
|  | (0.93) | (1.44) | (1.75) |  | (1.68) | (2.07) | (1.43) |
| Household size=2 | -0.707 |  |  |  |  |  | -0.756*** |
|  | (1.46) |  |  |  |  |  | (2.59) |
| Household size=3 | -1.149** |  |  |  |  |  | -1.221*** |
|  | (2.23) |  |  |  |  |  | (4.11) |
| Household size=4 | -0.271 | 1.399*** | 1.195*** | 1.271*** | 1.317*** | $1.363 * * *$ | -0.346* |
|  | (0.55) | (4.75) | (4.07) | (4.24) | (4.31) | (4.56) | (1.75) |
| Household size=5 | 0.443 | 2.207*** | 1.863*** | 1.957*** | $2.032^{* * *}$ | $2.179 * * *$ | 0.318 |
|  | (0.90) | (6.99) | (5.95) | (6.12) | (6.19) | (6.67) | (1.62) |
| Household size=6 | 0.063 | 2.005*** | 1.630*** | 1.685*** | $1.687^{* * *}$ | $1.915^{* * *}$ |  |
|  | (0.12) | (5.73) | (4.69) | (4.79) | (4.66) | (5.33) |  |
| Household size=7 | 0.244 | 2.544*** | 2.039*** | 2.030*** | $2.074 * * *$ | $2.405^{* * *}$ |  |
|  | (0.42) | (6.21) | (4.96) | (4.82) | (4.88) | (5.66) |  |
| Household size $=8$ or more | 0.133 | 2.546*** | 1.742*** | 1.825*** | $1.981^{* * *}$ | 2.334*** |  |
|  | (0.22) | (6.58) | (4.38) | (4.63) | (4.95) | (5.69) |  |
| Working members with Secondary education | 0.261* |  |  |  | 0.421*** | 0.293** | 0.210** |
|  | (1.91) |  |  |  | (3.43) | (2.55) | (2.04) |
| Working members with Bachelor degree | 0.420** |  |  |  | 0.395** | 0.266 | 0.343** |
|  | (2.23) |  |  |  | (2.21) | (1.52) | (2.18) |
| Education of the household head=Vocational |  |  |  |  | 0.411** |  |  |
|  |  |  |  |  | (2.01) |  |  |
| Working age members who are unemployed | 0.258** |  | 0.231** | 0.241** |  |  | 0.325*** |
|  | (2.02) |  | (2.22) | (2.33) |  |  | (3.66) |
| Working age members who are self-employed | -0.280* | $-0.447^{* * *}$ | -0.245** |  | -0.253* | $-0.469 * * *$ | -0.216** |
|  | (1.81) | (3.49) | (1.99) |  | (1.84) | (3.51) | (1.97) |
| Working age members who are employed in public sector | -0.246 | $-0.472^{* * *}$ | $-0.332 * *$ | -0.281** | $-0.428 * * *$ | $-0.512 * * *$ | -0.208 |
|  | (1.41) | (3.50) | (2.33) | (2.06) | (2.85) | (3.56) | (1.60) |
| Working age members who are employed in private companies | -0.123 | -0.236* |  |  | -0.257* | $-0.307 * *$ |  |
|  | (0.73) | (1.86) |  |  | (1.88) | (2.28) |  |
| Household members who are retired | -0.026 | -0.271* |  |  |  | -0.235 |  |
|  | (0.16) | (1.87) |  |  |  | (1.54) |  |
| Single parent |  | 0.443** | 0.452** | 0.460** | 0.493** | 0.441** |  |
|  |  | (2.31) | (2.33) | (2.37) | (2.42) | (2.23) |  |
| Members without registration with the local administration |  | 0.229** | 0.224** | 0.200** | 0.247** | 0.265** |  |
|  |  | (2.31) | (2.19) | (1.98) | (2.18) | (2.57) |  |
| Share of school age members |  | 1.139** | 1.260** | 0.997* | 1.060** | 1.270** |  |
|  |  | (2.30) | (2.51) | (1.94) | (2.04) | (2.49) |  |
| Share of elderly members |  | -1.933** | -1.982* | -1.567 | -1.837 | -1.72 |  |
|  |  | (2.25) | (1.91) | (1.47) | (1.63) | (1.56) |  |
| Share of non adult members |  | -2.887*** | $-2.641^{* * *}$ | $-2.502^{* * *}$ | $-2.767^{* * *}$ | $-3.092 * * *$ |  |
|  |  | (4.71) | (4.28) | (4.05) | (4.39) | (4.85) |  |
| Migrated to UB within last 5 years |  | 0.445** | 0.477** | 0.508** | 0.478** | 0.508** |  |
|  |  | (2.05) | (2.19) | (2.28) | (2.09) | (2.28) |  |
| Members with income $=2$ | -0.47 | -0.302* | -0.346* | -0.235 | -0.302 | -0.317* | -0.236 |
|  | (0.96) | (1.68) | (1.93) | (1.29) | (1.59) | (1.73) | (1.47) |
| Members with income $=3$ | -0.593 | -0.517** | -0.589** | -0.619** | $-0.821^{* * *}$ | $-0.658 * *$ | -0.349 |
|  | (1.11) | (2.13) | (2.41) | (2.51) | (3.04) | (2.54) | (1.55) |
| Receives assistance from NGOs | 0.304 |  | 0.520** | 0.447** | 0.410* | 0.456** | 0.293 |
|  | (0.86) |  | (2.47) | (2.09) | (1.85) | (2.16) | (1.58) |
| Has fence around the dwelling (and live in ger area) |  | -0.637* | -0.865** | -0.259 | -0.695* | -0.808** |  |
|  |  | (1.83) | (2.39) | (1.37) | (1.93) | (2.22) |  |
| Owns truck |  |  |  | 0.683 | 0.934** | 0.631 |  |
|  |  |  |  | (1.50) | (1.98) | (1.37) |  |
| Owns refrigirator |  | 0.259 | 0.279 | 0.407** | 0.438** | 0.326* |  |
|  |  | (1.36) | (1.46) | (2.07) | (2.15) | (1.66) |  |
| Owns cellphone |  | -0.412** | -0.429** |  |  | -0.410** |  |
|  |  | (2.32) | (2.38) |  |  | (2.17) |  |
| Owns electric stove |  | -0.277 | -0.254 |  |  | -0.233 |  |
|  |  | (1.61) | (1.45) |  |  | (1.30) |  |
| Owns the fence around the ger (and live in ger area) |  |  | -1.232* |  |  | -1.313* |  |
|  |  |  | (1.80) |  |  | (1.85) |  |
| Frequency of milk tea consumption |  |  |  | 0.143** | 0.171** |  |  |
|  |  |  |  | (2.05) | (2.45) |  |  |
| Frequency of ham consumption |  |  |  | 0.182** | 0.221*** |  |  |
|  |  |  |  | (2.31) | (2.76) |  |  |
| Frequency of internet usage |  |  |  | 0.200* | 0.290** |  |  |
|  |  |  |  | (1.70) | (2.24) |  |  |
| Frequency of phone usage |  |  |  | 0.116* |  |  |  |
|  |  |  |  | (1.73) |  |  |  |
| Observations | 385 | 379 | 375 | 371 | 371 | 375 | 385 |

Appendix 5. Regression Results
Table A.5.11: Probit Estimation; Dependant variable: Poverty status based on per capita monthly income for all members

|  | Model 0A | Model 1A | Model 2A | Model 3A | Model 4A | Model 5A | Model 6A |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Psuedo R square | 0.501 | 0.461 | 0.461 | 0.495 | 0.563 | 0.566 | 0.412 |
| Dwelling=Ger | -1.350** | -0.831 | -0.831 | -1.805** | -1.407* | -1.741* | -0.813** |
|  | (2.45) | (1.37) | (1.37) | (2.26) | (1.71) | (1.83) | (2.12) |
| Dwelling=House (Baishin) | -1.610*** | -0.837 | -0.837 | $-1.791^{* *}$ | -1.523* | -1.869* | $-1.072^{* * *}$ |
|  | (2.90) | (1.39) | (1.39) | (2.25) | (1.85) | (1.93) | (2.83) |
| Dwelling=Apartment | -2.326*** | -1.189* | -1.189* | $-2.456 * * *$ | $-1.757 * *$ | -2.295** | $-1.761^{* * *}$ |
|  | (3.90) | (1.88) | (1.88) | (2.97) | (2.08) | (2.37) | (4.15) |
| Household size $=2$ | 0.599 | 1.677** | 1.677** | 2.062** | 2.687*** | $2.483 * * *$ |  |
|  | (0.97) | (2.56) | (2.56) | (2.29) | (2.89) | (2.69) |  |
| Household size=3 | 1.817*** | $2.625^{* * *}$ | 2.625*** | 2.762*** | 3.705*** | 3.418 *** | $0.861^{* *}$ |
|  | (2.71) | (3.75) | (3.75) | (3.07) | (3.77) | (3.46) | (2.29) |
| Household size=4 | 2.635*** | $3.535 * * *$ | 3.535*** | 3.286*** | 4.594*** | 4.228*** | $1.689^{* * *}$ |
|  | (3.84) | (4.82) | (4.82) | (3.53) | (4.39) | (4.03) | (4.74) |
| Household size=5 | 3.953*** | 4.292*** | 4.292*** | 4.380*** | 5.757*** | $5.485 * * *$ | $2.803^{* * *}$ |
|  | (5.24) | (5.57) | (5.57) | (4.51) | (5.24) | (4.96) | (6.62) |
| Household size=6 | 2.860*** | 3.778*** | 3.778*** | $3.785^{* * *}$ | 4.973*** | 4.645*** | 1.961*** |
|  | (3.90) | (4.84) | (4.84) | (3.82) | (4.50) | (4.14) | (4.73) |
| Household size=7 | $4.168^{* * *}$ | 4.539*** | 4.539*** | $4.315^{* * *}$ | 6.306*** | 6.005*** | $3.131^{* * *}$ |
|  | (4.96) | (5.55) | (5.55) | (4.25) | (5.34) | (5.04) | (6.43) |
| Household size=8 or more | 4.663*** | 4.520*** | 4.520*** | 4.859*** | 6.250*** | 6.021*** | 3.432*** |
|  | (4.80) | (5.64) | (5.64) | (4.77) | (5.42) | (5.17) | (6.71) |
| Working members with Secondary education | $0.519^{* * *}$ |  |  |  |  |  |  |
|  | (2.75) |  |  |  |  |  |  |
| Education of the household head=Lower Secondary |  | $0.541^{* *}$ | 0.541** |  | 0.816*** | 0.787*** |  |
|  |  | (2.03) | (2.03) |  | (2.65) | (2.58) |  |
| Working age members who are employed in public sector | -0.307 |  |  | -0.612*** |  |  |  |
|  | (1.35) |  |  | (3.75) |  |  |  |
| Working age members who are employed in private companies | -0.475** |  |  | -0.755*** |  |  |  |
|  | (2.07) |  |  | (4.94) |  |  |  |
| Single parent |  |  |  | 0.565* |  |  |  |
|  |  |  |  | (1.70) |  |  |  |
| Female head of a household |  |  |  | -0.584* |  |  |  |
|  |  |  |  | (1.66) |  |  |  |
| Share of male members |  | 1.072** | 1.072** |  | 1.152** | 1.195** |  |
|  |  | (2.31) | (2.31) |  | (2.14) | (2.27) |  |
| Share of working age members |  | -0.770* | -0.770* |  | -1.350** | -1.180* |  |
|  |  | (1.94) | (1.94) |  | (2.12) | (1.85) |  |
| Share of school age members |  | 1.403*** | 1.403*** | 1.654*** | $2.468^{* * *}$ | 2.235*** |  |
|  |  | (2.74) | (2.74) | (2.98) | (2.96) | (2.70) |  |
| Share of elderly members |  |  |  | -1.69 | $-5.745^{* *}$ | $-5.361 * *$ |  |
|  |  |  |  | (1.54) | (2.29) | (2.18) |  |
| Share of non adult members |  |  |  |  | -2.312** | -1.912* |  |
|  |  |  |  |  | (1.97) | (1.67) |  |
| Distance to drinking water source |  |  |  | 0.001*** | 0.001** | 0.001* |  |
|  |  |  |  | (3.87) | (2.06) | (1.91) |  |
| Members without registration with the local administration |  | $0.437^{* *}$ | 0.437** | 0.282 | 0.520** | 0.642** |  |
|  |  | (2.20) | (2.20) | (1.39) | (2.27) | (2.57) |  |
| Members with income $=1$ | -4.576*** | 1.480 *** | 1.480*** |  |  |  |  |
|  | (4.78) | (5.26) | (5.26) |  |  |  |  |
| Members with income $=2$ | -6.170*** |  |  |  | -1.755*** | $-1.743^{* * *}$ | $-1.492^{* * *}$ |
|  | (6.18) |  |  |  | (4.96) | (5.06) | (5.68) |
| Members with income $=3$ | -7.516*** | $-0.942^{* * *}$ | -0.942*** |  | -3.164*** | $-3.103^{* * *}$ | $-2.456 * * *$ |
|  | (7.03) | (3.41) | (3.41) |  | (6.28) | (6.43) | (7.43) |
| Members with income=4 | -7.314*** |  |  |  | -3.357*** | $-3.288^{* * *}$ | -2.880 *** |
|  | (6.56) |  |  |  | (5.80) | (5.84) | (6.82) |
| Single elderly | -1.7 |  |  |  |  |  | -2.126** |
|  | (1.42) |  |  |  |  |  | (2.01) |
| No vulnurable members | 0.161 |  |  |  | -1.306* | -1.204* |  |
|  | (0.45) |  |  |  | (1.86) | (1.75) |  |
| Two vulnurable members | 1.023 |  |  | 1.643 | 3.340* | 3.190* | 1.203* |
|  | (1.40) |  |  | (1.56) | (1.84) | (1.79) | (1.83) |
| Receives assistance from NGOs | 0.998 |  |  | 0.717* | 0.985** | 1.196*** | $1.130 * * *$ |
|  | (1.50) |  |  | (1.88) | (2.27) | (2.74) | (3.75) |
| Does not receive assistance | -0.323 |  |  | -0.396 | -0.531* | -0.398 |  |
|  | (0.42) |  |  | (1.50) | (1.75) | (1.36) |  |
| Owns vehicle (car or truck) | $-0.791^{* *}$ |  |  |  | -0.625* | -0.641* | $-0.811^{* * *}$ |
|  | (2.52) |  |  |  | (1.73) | (1.79) | (3.04) |
| Owns land (and live in ger area) |  | $0.497^{* *}$ | 0.497** | 0.509* | 0.424 | 0.653* |  |
|  |  | (2.09) | (2.09) | (1.71) | (1.52) | (1.94) |  |
| Owns cellphone |  | -0.773*** | -0.773*** | -0.727*** | -0.865*** | $-0.836^{* * *}$ |  |
|  |  | (3.35) | (3.35) | (2.98) | (3.22) | (3.16) |  |
| Owns car |  | -0.676** | $-0.676^{* *}$ |  |  |  |  |
|  |  | (2.14) | (2.14) |  |  |  |  |
| Owns refrigirator |  | -0.443* | -0.443* | -0.461* |  |  |  |
|  |  | (1.78) | (1.78) | (1.68) |  |  |  |
| Owns Color TV |  | $-0.888^{* * *}$ | $-0.888^{* * *}$ | -0.504 | $-1.201^{* * *}$ | $-1.120^{* * *}$ |  |
|  |  | (2.78) | (2.78) | (1.48) | (3.14) | (2.99) |  |
| Owns electric stove |  |  |  | 0.506** |  |  |  |
|  |  |  |  | (2.12) |  |  |  |
| Has land permit (and live in ger area) |  |  |  | -0.565* |  | -0.439 |  |
|  |  |  |  | (1.89) |  | (1.31) |  |
| Frequency of ham consumption |  |  |  | 0.228** | 0.207* |  |  |
|  |  |  |  | (2.45) | (1.70) |  |  |
| Frequency of fruit consumption |  |  |  |  | -0.166* |  |  |
|  |  |  |  |  | -1.67 |  |  |
| Observations | 385 | 388 | 388 | 372 | 372 | 376 | 385 |

Appendix 5. Regression Results
Table A.5.12:Probit Estimation; Dependant variable: Poverty status based on per capita monthly income for core members

|  | Model 0A | Model 1A | Model 2A | Model 3A | Model 4A | Model 5A | Model 6A |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Psuedo R square | 0.404 | 0.462 | 0.518 | 0.485 | 0.526 | 0.517 | 0.395 |
| Dwelling=Ger | -1.257** | -1.389** | -1.251* | $-2.328^{* * *}$ | -1.434* | -1.746** | -0.987** |
|  | (2.51) | (2.19) | (1.93) | (2.76) | (1.84) | (2.14) | (2.50) |
| Dwelling=House (Baishin) | -1.479*** | $-1.300^{* *}$ | $-1.315^{* *}$ | -1.998** | -1.331* | -1.833** | -1.187*** |
|  | (2.97) | (2.11) | (2.02) | (2.41) | (1.73) | (2.24) | (3.05) |
| Dwelling=Apartment | -2.059*** | $-1.961^{* * *}$ | -1.908*** | $-2.705 * * *$ | $-2.110^{* * *}$ | $-2.504^{* * *}$ | -1.797*** |
|  | (3.88) | (2.99) | (2.87) | (3.13) | (2.71) | (3.02) | (4.14) |
| Household size=2 | 0.543 | 1.183* | 1.375** | 2.080** | 1.693** | 1.983** |  |
|  | (0.92) | (1.89) | (2.06) | (2.22) | (2.01) | (2.31) |  |
| Household size=3 | 1.203* | 2.067*** | 2.104*** | 2.085** | 2.152** | 2.525*** | 0.822** |
|  | (1.93) | (3.03) | (2.80) | (2.28) | (2.52) | (2.88) | (2.13) |
| Household size=4 | 1.986*** | 2.853*** | 2.988*** | 3.003*** | 3.002*** | 3.414*** | 1.588*** |
|  | (3.19) | (4.17) | (3.95) | (3.10) | (3.43) | (3.77) | (4.50) |
| Household size=5 | 3.025*** | 3.806*** | 4.091*** | 3.957*** | 4.156*** | 4.561*** | $2.585^{* * *}$ |
|  | (4.62) | (5.23) | (5.04) | (3.95) | (4.53) | (4.81) | (6.50) |
| Household size=6 | 2.251*** | 3.055*** | 3.038*** | 3.270*** | 3.088*** | $3.479 * * *$ | 1.838*** |
|  | (3.55) | (4.25) | (3.84) | (3.26) | (3.39) | (3.72) | (4.82) |
| Household size=7 | 3.203*** | 4.103*** | 4.394*** | 3.741*** | 4.406*** | 4.843*** | 2.775*** |
|  | (4.56) | (5.16) | (4.98) | (3.63) | (4.48) | (4.75) | (5.95) |
| Household size $=8$ or more | 3.739*** | 4.443*** | 4.635*** | 4.479*** | 4.887*** | 5.093*** | $3.311^{* * *}$ |
|  | (5.20) | (5.60) | (5.21) | (4.27) | (4.89) | (5.00) | (6.80) |
| Education of the household head=Lower Secondary |  | 0.643** | 0.868*** | 0.468* | $0.886^{* * *}$ | 0.759** |  |
|  |  | (2.33) | (2.80) | (1.70) | (2.78) | (2.54) |  |
| Education of the household head=Postgraduate |  | -1.732 | -1.930* | -2.126* | -1.954* | -1.824 |  |
|  |  | (1.58) | (1.72) | (1.90) | (1.75) | (1.63) |  |
| Working age members who are employed in public sector |  |  |  | -0.551*** |  |  |  |
|  |  |  |  | (3.41) |  |  |  |
| Working age members who are employed in private companies |  |  |  | -0.715*** |  |  |  |
|  |  |  |  | (4.68) |  |  |  |
| Share of elderly members |  |  | -3.357* | -1.547 | -4.273* | -3.255* |  |
|  |  |  | (1.75) | (1.43) | (1.88) | (1.72) |  |
| Share of non adult members |  |  |  | 1.965*** |  |  |  |
|  |  |  |  | (3.06) |  |  |  |
| Share of school age members |  | 0.861* | 0.919 |  | 1.068* | 0.821 |  |
|  |  | (1.65) | (1.63) |  | (1.86) | (1.42) |  |
| Share of male members |  | 0.802* | 1.178** | 0.809 | 1.073** | 1.167** |  |
|  |  | (1.71) | (2.34) | (1.60) | (2.07) | (2.24) |  |
| Members without registration with the local administration |  | 0.271** | 0.263** | 0.380* | 0.446*** | 0.226* |  |
|  |  | (2.28) | (2.18) | (1.94) | (2.61) | (1.90) |  |
| Single elderly | -1.616 |  |  |  |  |  | -2.007* |
|  | (1.39) |  |  |  |  |  | (1.87) |
| Distance to drinking water |  |  |  | 0.001*** | 0 |  |  |
|  |  |  |  | (3.34) | (1.28) |  |  |
| Members with income $=1$ | -5.529*** |  |  |  |  |  |  |
|  | (13.50) |  |  |  |  |  |  |
| Members with income $=2$ | -6.881*** | $-1.327^{* * *}$ | $-1.568 * * *$ |  | -1.362*** | $-1.404^{* * *}$ | $-1.367^{* * *}$ |
|  | (20.32) | (4.73) | (5.06) |  | (4.48) | (4.50) | (5.30) |
| Members with income $=3$ | -7.862*** | $-2.462 * * *$ | $-2.917 * * *$ |  | -2.604*** | -2.760 *** | $-2.347^{* * *}$ |
|  | (23.04) | (6.82) | (6.98) |  | (6.28) | (6.74) | (7.42) |
| Members with income $=4$ | -8.078 | -2.353*** | -3.042*** |  | -2.913*** | -2.922*** | -2.541*** |
|  | (.) | (5.39) | (5.98) |  | (5.64) | (5.76) | (6.46) |
| No vulnurable members | -0.095 |  | -0.836 |  | -1.264* | -0.741 |  |
|  | (0.32) |  | (1.52) |  | (1.90) | (1.35) |  |
| Two vulnurable members | 0.865 |  | 2.404* | 1.48 | 2.750* | 2.471* | 1.04 |
|  | (1.24) |  | (1.72) | (1.44) | (1.65) | (1.81) | (1.59) |
| Receives assistance from NGOs | 0.906 |  |  |  |  | 0.917** | 1.120*** |
|  | (1.59) |  |  |  |  | (2.31) | (3.75) |
| Receives assistance from other | 0.037 |  | -0.93 | -0.893* | -0.912 |  |  |
|  | (0.05) |  | (1.63) | (1.78) | (1.64) |  |  |
| Does not receive assistance | -0.326 |  | -1.557*** | $-0.800 * * *$ | $-1.450 * * *$ | -0.462* |  |
|  | (0.51) |  | (3.84) | (3.17) | (3.63) | (1.67) |  |
| Receives assistance from relatives | -0.218 |  | -1.011** |  | -0.779* |  |  |
|  | (0.37) |  | (2.32) |  | (1.79) |  |  |
| Owns car |  | -0.635** | -0.705* |  |  |  |  |
|  |  | (1.97) | (1.94) |  |  |  |  |
| Owns truck |  | -0.843* | -1.315** |  |  | -0.81 |  |
|  |  | (1.76) | (2.44) |  |  | (1.32) |  |
| Owns Black \& White TV |  | 0.460* | 0.542* | 0.468 | 0.421 | 0.464 |  |
|  |  | (1.70) | (1.83) | (1.53) | (1.39) | (1.54) |  |
| Owns vehicle (car or truck) | $-0.929 * * *$ |  |  |  | -0.745** | -0.629* | $-0.858^{* * *}$ |
|  | (3.47) |  |  |  | (2.19) | (1.67) | (3.32) |
| Owns video player |  | -0.561** | -0.456* | -0.403 | -0.488** | -0.458* |  |
|  |  | (2.54) | (1.93) | (1.59) | (1.98) | (1.96) |  |
| Owns cell phone |  | -0.683*** | -0.625** | -0.745*** | -0.777*** | $-0.734^{* * *}$ |  |
|  |  | (3.02) | (2.55) | (3.00) | (3.06) | (3.00) |  |
| Has land permit (and live in ger area) |  |  | -0.740** | -0.465 | -0.538* | -0.790 ** |  |
|  |  |  | (2.16) | (1.57) | (1.69) | (2.29) |  |
| Owns refrigirator |  |  |  | -0.506* |  |  |  |
|  |  |  |  | (1.85) |  |  |  |
| Frequency of ham consumption |  |  |  | 0.249*** |  |  |  |
|  |  |  |  | (2.67) |  |  |  |
| Observations | 385 | 388 | 384 | 372 | 372 | 375 | 385 |

Appendix 5. Regression Results
Table A.5.13: Logit Estimation; Dependant variable: Poverty status based on per capita monthly food expense for all members


Appendix 5. Regression Results
Table A.5.14: Logit Estimation; Dependant variable: Poverty status based on per capita monthly food expense for coremembers



Appendix 5. Regression Results
Table A.5.16: Logit Estimation; Dependant variable: Poverty status based on adult equivalent monthly food expense for core members

|  | Model 0B | Model 1B | Model 2B | Model 3B | Model 4B | Model 5B | Model 6B |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Psuedo R square | 0.225 | 0.276 | 0.281 | 0.308 | 0.326 | 0.302 | 0.213 |
| Dwelling=Ger | -0.295 | 1.133* | 1.299** | 1.191* | 1.295* | 1.472** |  |
|  | (0.46) | (1.69) | (1.97) | (1.74) | (1.80) | (2.18) |  |
| Dwelling=House (Baishin) | -0.56 | 0.927 | 1.089* | 0.905 | 1.112 | 1.356** | -0.365 |
|  | (0.87) | (1.43) | (1.71) | (1.37) | (1.60) | (2.09) | (1.32) |
| Household size=2 | -1.145 |  |  |  |  |  | $-1.258 * * *$ |
|  | (1.45) |  |  |  |  |  | (2.66) |
| Household size=3 | -1.938** |  |  |  |  |  | -2.038*** |
|  | (2.25) |  |  |  |  |  | (4.00) |
| Household size=4 | -0.437 | 2.355*** | 1.994*** | 2.436*** | 2.215*** | 2.311*** | -0.529 |
|  | (0.54) | (4.58) | (3.92) | (4.49) | (4.21) | (4.42) | (1.59) |
| Household size=5 | 0.745 | $3.722^{* * *}$ | 3.136*** | 3.810*** | $3.547 * * *$ | $3.725^{* * *}$ | 0.558* |
|  | (0.91) | (6.60) | (5.65) | (6.25) | (5.99) | (6.34) | (1.68) |
| Household size=6 | 0.082 | $3.355^{* * *}$ | $2.717^{* * *}$ | $3.371 * * *$ | $2.868^{* * *}$ | $3.234^{* * *}$ |  |
|  | (0.10) | (5.50) | (4.53) | (5.18) | (4.61) | (5.13) |  |
| Household size=7 | 0.395 | 4.274*** | $3.443 * * *$ | 4.177*** | $3.519 * * *$ | 4.089*** |  |
|  | (0.41) | (5.82) | (4.72) | (5.34) | (4.69) | (5.40) |  |
| Household size=8 or more | 0.199 | 4.284*** | $2.975 * * *$ | 4.431*** | $3.468 * * *$ | 3.968*** |  |
|  | (0.19) | (6.22) | (4.27) | (6.03) | (5.02) | (5.49) |  |
| Working members with Secondary education | 0.452* |  |  |  | $0.711^{* * *}$ | 0.533*** | 0.384** |
|  | (1.94) |  |  |  | (3.39) | (2.60) | (2.14) |
| Working members with Bachelor degree | 0.697** |  |  |  | 0.607** | 0.441 | 0.577** |
|  | (2.18) |  |  |  | (1.99) | (1.45) | (2.19) |
| Education of the household head=Vocational |  |  |  |  | 0.618* |  |  |
|  |  |  |  |  | (1.77) |  |  |
| Working age members who are unemployed | 0.430** |  | 0.399** |  |  |  | 0.548*** |
|  | (1.96) |  | (2.19) |  |  |  | (3.60) |
| Working age members who are self-employed | -0.454* | $-0.754 * * *$ | -0.397* | -0.500** | -0.417* | $-0.800^{* * *}$ | -0.356* |
|  | (1.69) | (3.39) | (1.80) | (2.08) | (1.80) | (3.41) | (1.86) |
| Working age members who are employed in public sector | -0.4 | $-0.789 * * *$ | -0.552** | -0.802*** | -0.742*** | -0.861 *** | -0.368* |
|  | (1.38) | (3.42) | (2.29) | (3.33) | (2.96) | (3.52) | (1.72) |
| Working age members who are employed in private companies | -0.198 | -0.389* |  | -0.396* | -0.425* | -0.500** |  |
|  | (0.69) | (1.78) |  | (1.76) | (1.87) | (2.17) |  |
| Household members who are retired | -0.034 | -0.450* |  | -0.339 |  | -0.409 |  |
|  | (0.13) | (1.85) |  | (1.30) |  | (1.59) |  |
| Single parent |  | 0.796** | 0.817** | 0.767** | 0.925*** | 0.826** |  |
|  |  | (2.38) | (2.41) | (2.21) | (2.62) | (2.39) |  |
| Members without registration with the local administration |  | 0.377** | 0.391** | 0.413** | 0.435** | 0.446** |  |
|  |  | (2.20) | (2.15) | (2.23) | (2.28) | (2.47) |  |
| Share of elderly members |  | -3.142** | -3.217* | -2.766 | -3.037 | -2.772 |  |
|  |  | (2.14) | (1.83) | (1.47) | (1.60) | (1.49) |  |
| Share of school age members |  | 1.938** | $2.147^{* *}$ | 1.710* | $1.801^{* *}$ | 2.107** |  |
|  |  | (2.29) | (2.49) | (1.91) | (2.01) | (2.39) |  |
| Share of non adult members |  | -4.838*** | $-4.421^{* * *}$ | -5.276*** | -4.652*** | -5.223*** |  |
|  |  | (4.59) | (4.18) | (4.64) | (4.32) | (4.70) |  |
| Migrated to UB within last 5 years |  | 0.764** | 0.806** | 0.811** | 0.810** | 0.875** |  |
|  |  | (2.06) | (2.17) | (2.09) | (2.08) | (2.29) |  |
| Members with income=2 | -0.722 | -0.484 | -0.562* | -0.427 | -0.496 | -0.524* | -0.403 |
|  | (0.85) | (1.59) | (1.84) | (1.33) | (1.56) | (1.68) | (1.49) |
| Members with income $=3$ | -0.943 | -0.858** | -0.981 ** | -0.941** | $-1.375 * * *$ | -1.142** | -0.61 |
|  | (1.02) | (2.04) | (2.32) | (2.16) | (2.92) | (2.51) | (1.58) |
| Receives assistance from NGOs | 0.523 |  | 0.900** | 0.800** | 0.666* | 0.803** | 0.472 |
|  | (0.89) |  | (2.51) | (2.15) | (1.82) | (2.25) | (1.51) |
| Has fence around the dwelling (and live in ger area) |  | -1.071* | -1.458** | -1.011 | -1.157* | $-1.371^{* *}$ |  |
|  |  | (1.83) | (2.37) | (1.59) | (1.86) | (2.21) |  |
| Owns cellphone |  | -0.624** | $-0.651 * *$ |  |  | -0.628* |  |
|  |  | (2.06) | (2.13) |  |  | (1.94) |  |
| Owns refrigirator |  | 0.434 | 0.468 | 0.824** | 0.668** | 0.574* |  |
|  |  | (1.32) | (1.43) | (2.32) | (1.97) | (1.67) |  |
| Owns electric stove |  | -0.503* | -0.444 |  |  | -0.426 |  |
|  |  | (1.70) | (1.48) |  |  | (1.39) |  |
| Owns truck |  |  |  | 1.216 | 1.524* | 1.108 |  |
|  |  |  |  | (1.55) | (1.93) | (1.41) |  |
| Owns the fence around the ger |  |  | 2.323** | 1.703 |  | 2.376* |  |
|  |  |  | (1.96) | (1.39) |  | (1.94) |  |
| Owns the fence around the ger (and live in ger area) |  |  | -2.011* | -1.707 |  | -2.238* |  |
|  |  |  | (1.72) | (1.41) |  | (1.84) |  |
| Frequency of milk tea consumption |  |  |  | 0.216* | 0.267** |  |  |
|  |  |  |  | (1.81) | (2.29) |  |  |
| Frequency of ham consumption |  |  |  | 0.248* | 0.376*** |  |  |
|  |  |  |  | (1.81) | (2.79) |  |  |
| Frequency of internet usage |  |  |  | 0.362* | 0.437** |  |  |
|  |  |  |  | (1.69) | (2.03) |  |  |
| Frequency of phone usage |  |  |  | 0.204* |  |  |  |
|  |  |  |  | (1.73) |  |  |  |
| Observations | 385 | 379 | 375 | 371 | 371 | 375 | 385 |

Appendix 5. Regression Results
Table A.5.17: Full Regression Results; Logit Estimation; Dependant variable: Poverty status based on per capita monthly income for all members

|  | Model 0B | Model 1B | Model 2B | Model 3B | Model 4B | Model 5B | Model 6B |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Psuedo R square | 0.419 | 0.5 | 0.5 | 0.501 | 0.569 | 0.564 | 0.41 |
| Dwelling=Ger | -2.075** | -2.193* | -2.193* | -3.658** | -2.316 | -2.316* | -1.394** |
|  | (2.24) | (1.68) | (1.68) | (2.40) | (1.62) | (1.67) | (2.07) |
| Dwelling=House (Baishin) (Baishin) | -2.506*** | -2.178* | -2.178* | -3.610** | -2.462* | -2.413* | $-1.800 * * *$ |
|  | (2.69) | (1.70) | (1.70) | (2.35) | (1.71) | (1.73) | (2.69) |
| Dwelling=Apartment | -3.674*** | -2.245** | $-2.245 * *$ | $-4.901^{* * *}$ | $-2.959 * *$ | $-2.919^{* *}$ | -3.017*** |
|  | (3.69) | (1.97) | (1.97) | (3.10) | (1.99) | (2.02) | (3.98) |
| Household size=2 | 1.268 | 2.784** | 2.784** | 3.838** | 5.016*** | 4.616*** |  |
|  | (1.22) | (2.53) | (2.53) | (2.37) | (3.07) | (2.97) |  |
| Household size=3 | 2.515** | 4.775*** | 4.775*** | 5.042*** | 7.025*** | 6.724*** | 1.498** |
|  | (2.21) | (3.87) | (3.87) | (3.12) | (3.92) | (3.88) | (2.27) |
| Household size=4 | 3.948*** | 6.315*** | $6.315^{* * *}$ | 5.818*** | 8.652*** | 8.332*** | $2.945 * * *$ |
|  | (3.49) | (4.86) | (4.86) | (3.45) | (4.48) | (4.46) | (4.67) |
| Household size=5 | 5.936*** | 8.144*** | 8.144*** | 7.968*** | $10.820 * * *$ | $10.486 * * *$ | 4.889*** |
|  | (4.84) | (5.74) | (5.74) | (4.43) | (5.22) | (5.23) | (6.42) |
| Household size=6 | 4.526*** | 7.289*** | 7.289*** | $6.846 * * *$ | 9.523*** | 9.296*** | $3.437 * * *$ |
|  | (3.73) | (4.99) | (4.99) | (3.76) | (4.54) | (4.54) | (4.61) |
| Household size=7 | 6.468*** | $9.321^{* * *}$ | 9.321*** | $7.845^{* * *}$ | 11.918*** | 11.677*** | $5.449^{* * *}$ |
|  | (4.95) | (5.88) | (5.88) | (4.13) | (5.30) | (5.33) | (6.22) |
| Household size=8 or more | 7.122*** | 10.096*** | 10.096*** | 9.155*** | $12.385 * * *$ | $11.968 * * *$ | $6.078 * * *$ |
|  | (5.22) | (6.17) | (6.17) | (4.73) | (5.41) | (5.40) | (6.43) |
| Education of the household head=Lower Secondary |  | 1.081** | 1.081** |  | 1.438** | 1.330** |  |
|  |  | (2.08) | (2.08) |  | (2.50) | (2.34) |  |
| Working age members who are employed in public sector |  |  |  | $-1.171^{* * *}$ |  |  |  |
|  |  |  |  | (3.79) |  |  |  |
| Working age members who are employed in private companies |  |  |  | -1.428*** |  |  |  |
|  |  |  |  | (4.77) |  |  |  |
| Share of working age members |  | -1.425** | -1.425** |  | $-2.722^{* *}$ | -2.700 ** |  |
|  |  | (1.97) | (1.97) |  | (2.30) | (2.32) |  |
| Share of male members |  | 1.734** | 1.734** |  | 2.043** | 2.012** |  |
|  |  | (2.10) | (2.10) |  | (2.18) | (2.21) |  |
| Share of school age members |  | 2.260** | 2.260** | 2.943*** | 4.605*** | 4.503*** |  |
|  |  | (2.33) | (2.33) | (2.98) | (3.06) | (3.04) |  |
| Share of non adult members |  |  |  |  | -4.645** | -4.377** |  |
|  |  |  |  |  | (2.13) | (2.09) |  |
| Share of elderly members |  |  |  | -3.122 | -10.185** | -9.312** |  |
|  |  |  |  | (1.60) | (2.18) | (2.10) |  |
| Members without registration with the local administration |  | 0.872** | 0.872** | 0.730* | 0.951** | 0.920** |  |
|  |  | (2.50) | (2.50) | (1.71) | (2.17) | (2.38) |  |
| Distance to drinking water |  |  |  | 0.002*** | 0.001* | 0.001* |  |
|  |  |  |  | (3.41) | (1.89) | (1.72) |  |
| Members with income=2 | -19.851*** | $-2.717^{* * *}$ | -2.717*** |  | -3.126*** | $-3.230^{* * *}$ | $-2.617^{* * *}$ |
|  | (30.43) | (4.95) | (4.95) |  | (4.60) | (4.86) | (5.39) |
| Members with income=3 | -21.574*** | $-5.071^{* * *}$ | $-5.071 * * *$ |  | -5.965*** | $-5.852 * * *$ | $-4.320 * * *$ |
|  | (33.88) | (6.56) | (6.56) |  | (5.95) | (6.06) | (7.02) |
| Members with income=4 | -22.309 | $-5.100^{* * *}$ | $-5.100 * * *$ |  | $-6.458 * * *$ | $-6.194^{* * *}$ | -5.082*** |
|  | (.) | (5.79) | (5.79) |  | (5.71) | (5.80) | (6.53) |
| Single elderly | -2.65 |  |  |  |  |  | -3.540** |
|  | (1.40) |  |  |  |  |  | (2.08) |
| No vulnurable members | -0.112 |  |  |  | -2.334* | -2.097* |  |
|  | (0.21) |  |  |  | (1.77) | (1.67) |  |
| Two vulnurable members | 1.79 |  |  | 3.080* | 5.662* | 5.346* | 2.038* |
|  | (1.55) |  |  | (1.66) | (1.66) | (1.66) | (1.90) |
| Receives assistance from NGOs | 1.841* |  |  | 1.742*** | $1.647^{* *}$ | 1.890** | $1.980^{* * *}$ |
|  | (1.70) |  |  | (2.96) | (2.15) | (2.50) | (3.62) |
| Does not receive assistance | -0.209 |  |  |  | -0.968* | -0.708 |  |
|  | (0.17) |  |  |  | (1.80) | (1.37) |  |
| Receives assistance from relatives | -0.167 |  |  | 0.978* |  |  |  |
|  | (0.15) |  |  | (1.94) |  |  |  |
| Owns car |  | -1.254** | -1.254** |  |  |  |  |
|  |  | (2.03) | (2.03) |  |  |  |  |
| Owns vehicle (car or truck) | -1.588*** |  |  |  | -1.125* | -1.434** | $-1.500 * * *$ |
|  | (3.12) |  |  |  | (1.65) | (2.24) | (3.07) |
| Owns cell phone |  | $-1.586 * * *$ | $-1.586 * * *$ | $-1.321^{* * *}$ | $-1.704 * * *$ | $-1.547 * * *$ |  |
|  |  | (3.46) | (3.46) | (2.95) | (3.40) | (3.24) |  |
| Owns Color TV |  | $-1.681^{* * *}$ | $-1.681 * * *$ | -1.385** | $-2.444 * * *$ | $-2.338^{* * *}$ |  |
|  |  | (2.73) | (2.73) | (2.06) | (3.39) | (3.43) |  |
| Owns video player |  | -0.716* | -0.716* |  |  |  |  |
|  |  | (1.71) | (1.71) |  |  |  |  |
| Has land permit (and live in ger area) |  |  |  | -0.975* |  |  |  |
|  |  |  |  | (1.77) |  |  |  |
| Owns refrigirator |  |  |  | -0.962* |  |  |  |
|  |  |  |  | (1.91) |  |  |  |
| Owns electrric stove |  |  |  | 0.773* |  |  |  |
|  |  |  |  | (1.78) |  |  |  |
| Frequency of ham consumption |  |  |  | 0.407** | 0.394* |  |  |
|  |  |  |  | (2.42) | (1.81) |  |  |
| Observations | 385 | 388 | 388 | 372 | 372 | 376 | 385 |

Appendix 5. Regression Results
Table A.5.18: Full Regression Results; Logit Estimation; Dependant variable: Poverty status based on per capita monthly income for core members

|  | Model 0B | Model 1B | Model 2B | Model 3B | Model 4B | Model 5B | Model 6B |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Psuedo R square | 0.404 | 0.478 | 0.529 | 0.479 | 0.547 | 0.529 | 0.395 |
| Dwelling=Ger | -2.180** | -2.426** | -2.201* | -3.419*** | -2.511* | -2.638* | -1.663** |
|  | (2.36) | (2.16) | (1.90) | (2.62) | (1.77) | (1.81) | (2.35) |
| Dwelling=House (Baishin) | -2.557*** | -2.313** | $-2.406 * *$ | $-2.917^{* *}$ | -2.426* | -2.778* | $-2.000 * * *$ |
|  | (2.77) | (2.11) | (2.06) | (2.25) | (1.71) | (1.90) | (2.85) |
| Dwelling=Apartment | -3.565*** | $-3.637^{* * *}$ | $-3.481^{* * *}$ | $-3.858 * * *$ | -3.185** | $-3.289 * *$ | -3.067 *** |
|  | (3.62) | (3.07) | (2.89) | (2.81) | (2.14) | (2.21) | (3.91) |
| Household size=2 | 1.044 | 2.388** | 2.745** | 2.994** | 3.983*** | 4.045*** |  |
|  | (0.99) | (2.18) | (2.31) | (1.99) | (2.59) | (2.65) |  |
| Household size=3 | 2.261* | 4.141*** | $4.228^{* * *}$ | $3.342^{* *}$ | 5.778*** | 5.288*** | 1.471** |
|  | (1.95) | (3.39) | (3.10) | (2.25) | (3.36) | (3.37) | (2.14) |
| Household size=4 | 3.613*** | 5.630*** | 5.911*** | 4.607*** | 7.232*** | 6.914*** | $2.804^{* * *}$ |
|  | (3.16) | (4.46) | (4.17) | (2.94) | (4.00) | (4.18) | (4.46) |
| Household size=5 | 5.406*** | 7.422*** | 7.913*** | $6.271^{* * *}$ | 9.505*** | 9.169*** | 4.553*** |
|  | (4.49) | (5.40) | (5.13) | (3.77) | (4.86) | (5.20) | (6.32) |
| Household size=6 | 4.185*** | 6.305*** | 6.322*** | 5.285*** | 8.060*** | 7.730*** | $3.344^{* * *}$ |
|  | (3.57) | (4.61) | (4.13) | (3.11) | (4.09) | (4.37) | (4.76) |
| Household size=7 | 5.710*** | 8.239*** | 8.706*** | 5.831*** | 10.364*** | 9.902*** | 4.864*** |
|  | (4.45) | (5.34) | (5.05) | (3.28) | (4.87) | (5.15) | (5.84) |
| Household size=8 or more | 6.766*** | 9.241*** | 9.444*** | 7.545*** | 11.435*** | 10.434*** | 5.908*** |
|  | (5.05) | (5.81) | (5.31) | (3.98) | (5.21) | (5.37) | (6.55) |
| Education of the household head=Lower Secondary |  | 1.338** | 1.822*** |  | 1.704*** | 1.702*** |  |
|  |  | (2.49) | (2.97) |  | (2.78) | (2.83) |  |
| Education of the household head=Postgraduate |  | -3.189* | -3.435* | -2.826 |  |  |  |
|  |  | (1.69) | (1.79) | (1.41) |  |  |  |
| Working age members who are employed in public sector |  |  |  | $-0.930^{* * *}$ |  |  |  |
|  |  |  |  | (2.97) |  |  |  |
| Working age members who are employed in private companies |  |  |  | -1.220 *** |  |  |  |
|  |  |  |  | (4.14) |  |  |  |
| Working age members who are unemployed |  |  |  | 0.381* |  |  |  |
|  |  |  |  | (1.71) |  |  |  |
| Share of male members |  | 1.325 | 2.017** |  | 1.739* | 1.925** |  |
|  |  | (1.60) | (2.25) |  | (1.91) | (2.12) |  |
| Share of working age members |  | -1.053 |  |  | -2.333** | -1.446* |  |
|  |  | (1.52) |  |  | (2.05) | (1.69) |  |
| Share of school age members |  | 1.499 | 1.588 |  | 2.906** |  |  |
|  |  | (1.60) | (1.56) |  | (1.99) |  |  |
| Share of non adult members |  |  |  | 3.219*** | -3.021 |  |  |
|  |  |  |  | (2.91) | (1.44) |  |  |
| Share of elderly members |  |  | -5.486* |  | -9.517** | -6.596** |  |
|  |  |  | (1.66) |  | (2.10) | (2.09) |  |
| Members without registration with the local administration |  | 0.470** | 0.489** | 0.788** | 0.876*** | 0.442* |  |
|  |  | (2.21) | (2.22) | (2.37) | (2.71) | (1.91) |  |
| Distance to drinking water |  |  |  | 0.002*** | 0.001 | 0.001 |  |
|  |  |  |  | (3.32) | (1.60) | (1.52) |  |
| Members with income $=2$ | -19.946*** | -2.555*** | -3.007*** |  | -2.811*** | -2.692*** | -2.476 *** |
|  | (43.05) | (4.63) | (4.92) |  | (4.54) | (4.53) | (5.07) |
| Members with income=3 | -21.668 | -4.774*** | -5.622*** |  | -5.422*** | $-5.261^{* * *}$ | $-4.210 * * *$ |
|  | (.) | (6.57) | (6.56) |  | (5.84) | (6.30) | (7.01) |
| Members with income=4 | -22.074*** | $-4.876^{* * *}$ | $-5.947^{* * *}$ |  | -5.962*** | $-5.429 * * *$ | -4.550 *** |
|  | (38.02) | (5.65) | (5.94) |  | (5.72) | (5.80) | (6.27) |
| Single elderly | -2.616 |  |  |  |  |  | -3.383* |
|  | (1.37) |  |  |  |  |  | (1.95) |
| No vulnurable members | -0.13 |  | -1.29 |  | -2.602* | -1.523 |  |
|  | (0.25) |  | (1.32) |  | (1.95) | (1.53) |  |
| Two vulnurable members | 1.51 |  | 4.163* |  | 4.894 | 4.024* | 1.787* |
|  | (1.31) |  | (1.72) |  | (1.50) | (1.82) | (1.65) |
| Receives assistance from NGOs | 1.559 |  |  | 1.412** |  |  | $1.985^{* * *}$ |
|  | (1.51) |  |  | (2.48) |  |  | (3.66) |
| Receives assistance from other | -0.13 |  | -1.773* |  | -1.738* | -1.513 |  |
|  | (0.11) |  | (1.69) |  | (1.70) | (1.52) |  |
| Does not receive assistance | -0.591 |  | -2.727*** |  | -2.507*** | $-2.361^{* * *}$ |  |
|  | (0.51) |  | (3.62) |  | (3.47) | (3.41) |  |
| Receives assistance from relatives | -0.44 |  | -1.822** | 0.829 | -1.530* | -1.748** |  |
|  | (0.41) |  | (2.27) | (1.61) | (1.95) | (2.29) |  |
| Owns cell phone |  | $-1.526^{* * *}$ | -1.397*** | $-1.569^{* * *}$ | $-1.499^{* * *}$ | $-1.411^{* * *}$ |  |
|  |  | (3.48) | (3.01) | (3.40) | (3.07) | (3.02) |  |
| Owns vehicle (car or truck) | -1.698*** | -1.743* | $-2.535 * *$ |  | -1.396** | $-1.650 * * *$ | $-1.598 * * *$ |
|  | (3.48) | (1.82) | (2.46) |  | (2.21) | (2.75) | (3.40) |
| Owns Black \& White TV |  | 0.919* | 1.106** |  |  |  |  |
|  |  | (1.88) | (2.02) |  |  |  |  |
| Owns video player |  | -1.181*** | $-0.964 * *$ | -0.855* | -0.716 | $-1.078 * *$ |  |
|  |  | (2.94) | (2.25) | (1.91) | (1.49) | (2.34) |  |
| Owns color TV |  |  |  | -0.991 | $-1.762 * * *$ | -1.443 ** |  |
|  |  |  |  | (1.53) | (2.61) | (2.18) |  |
| Has land permit |  |  | -1.269** |  |  | -1.006 |  |
|  |  |  | (2.10) |  |  | (1.62) |  |
| Frequency of ham consumption |  |  |  | 0.375** |  |  |  |
|  |  |  |  | (2.31) |  |  |  |

## Appendix 6: Full Tables and Graphs for Inclusion and Exclusion Errors Under Different Poverty Lines.

Table A.6.1: Comparison of Living Standard Based on PRR method and 'True" Welfare
Food poverty line: 12472.1 MNT a month

|  |  | Living standard according to Poverty Risk Ratio method |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Affordable | Average | Poor | Extremely poor | Total | Non poor | Poor |
| जज0000000000000000 | Non-poor | 9125 |  | 62 | 0 | 196 |  | 62 |
|  |  | $\begin{array}{r} 90.00 \% \\ 4.59 \% \end{array}$ | 63.78\% | 31.96\% |  | 48.64\% |  | 31.47\% |
|  |  |  | 63.78\% 71 | 31.63\% | 0.00\% | 100.00\% | $\begin{aligned} & 65.05 \% \\ & 68.37 \% \\ & \hline \end{aligned}$ | 31.63\% |
|  | Poor | $\begin{array}{r} 1 \\ 10.00 \% \end{array}$ |  | 132$68.04 \%$ | $\begin{array}{r} 3 \\ 100.00 \% \end{array}$ | $\begin{array}{r} 207 \\ 51.36 \% \end{array}$ | $\frac{68.37 \%}{72}$ | $\begin{gathered} 135 \\ 68.53 \% \end{gathered}$ |
|  |  |  | 36.22\% |  |  |  | 34.95\% |  |
|  |  | 0.48\% | 34.30\% | 63.77\% | 1.45\% | 100.00\% | 34.78\% | 65.22\% |
|  | Total | 10 | 196 | 194 | 3 | 403 | 206 | 197 |
|  |  | 100\% | 100\% | 100\% | 100\% |  | 100\% | 100\% |
|  |  | 2.48\% | 48.64\% | 48.14\% | 0.74\% |  | 51.12\% | 48.88\% |
|  | Non-poor | 8 | 112 | 61 | 0 | 181 | 120 | 61 |
|  |  | 88.89\% | 59.26\% | 30.20\% | 0.00\% <br> $0.00 \%$ | $\begin{array}{r}44.91 \% \\ 100.00 \% \\ \hline\end{array}$ | $\begin{aligned} & 60.61 \% \\ & 66.30 \% \end{aligned}$ | 29.76\% |
|  |  | $\frac{4.42 \%}{1}$ | $\frac{61.88 \%}{77}$ | 33.70\% |  |  |  | $\frac{33.70 \%}{144}$ |
|  | Poor |  |  | 141$69.80 \%$ | $\begin{array}{r} 3 \\ 100.00 \% \end{array}$ | $\begin{array}{r} 222 \\ 55.09 \% \end{array}$ | $\begin{gathered} \frac{78}{78} \\ 39.39 \% \end{gathered}$ |  |
|  |  | $\begin{array}{r} 11.11 \% \\ 0.45 \% \\ \hline \end{array}$ | 40.74\% |  |  |  |  | 70.24\% |
|  |  |  | $\begin{array}{r} \frac{34.68 \%}{189} \\ 100 \% \\ 46.90 \% \\ \hline \end{array}$ | 63.51\% | 1.35\% | 100.00\% | 35.14\% | 64.86\% |
|  | Total | $\begin{array}{r} 9 \\ 100 \% \\ 2.23 \% \end{array}$ |  | 202 | 3 | 403 | 198 | 205 |
|  |  |  |  | 100\% | 100\% |  | 100\% | 100\% |
|  |  |  |  | 50.12\% | 0.74\% |  | 49.13\% | 50.87\% |
|  | Non-poor | $\begin{array}{r} 90.00 \% \\ 3.37 \% \end{array}$ | 154 | 103$53.37 \%$ | 1 | 267 | $\begin{gathered} 163 \\ 79.51 \% \end{gathered}$ | 104 |
|  |  |  | 78.97\% |  | 33.33\% |  |  | 53.06\% |
|  |  |  | $\frac{57.68 \%}{41}$ | 38.58\% | 0.37\% | 100.00\% | 61.05\% | 38.95\% |
|  | Poor | $\begin{array}{r} 1 \\ 10.00 \% \end{array}$ |  | $\begin{array}{r} 90 \\ 46.63 \% \end{array}$ | 26 | $\begin{array}{r} 134 \\ 33.42 \% \end{array}$ | $\begin{gathered} 42 \\ 20.49 \% \end{gathered}$ | $\begin{gathered} 92 \\ 46.94 \% \end{gathered}$ |
|  |  |  | $\begin{aligned} & 21.03 \% \\ & 30.60 \% \\ & \hline \end{aligned}$ |  |  |  |  |  |
|  |  | $\begin{array}{r} \frac{0.75 \%}{10} \\ 100 \% \\ 2.49 \% \\ \hline \end{array}$ |  |  | 1.49\% | $100.00 \%$ | 31.34\% | $68.66 \%$ |
|  | Total |  | 195 | 193 | 3 |  | $\begin{gathered} \hline 205 \\ 100 \% \\ 51.12 \% \\ \hline \end{gathered}$ | $\begin{gathered} 196 \\ 100 \% \\ 48.88 \% \\ \hline \end{gathered}$ |
|  |  |  | 100\% | 100\% | 100\% |  |  |  |
|  |  |  | 48.63\% | 48.13\% | 0.75\% |  |  |  |
| $\begin{aligned} & \ddot{0} \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & \text { x } \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \end{aligned}$ | Non-poor | 8 | 145 | 104 | 0 | 257 | $\begin{gathered} 153 \\ 77.66 \% \\ 59.53 \% \\ \hline \end{gathered}$ | 104 |
|  |  | $\begin{array}{r} 88.89 \% \\ 3.11 \% \\ \hline \end{array}$ | $\begin{aligned} & 77.13 \% \\ & 56.42 \% \\ & \hline \end{aligned}$ | $\begin{aligned} & 51.74 \% \\ & 40.47 \% \end{aligned}$ | $\begin{aligned} & 0.00 \% \\ & \underline{0.00 \%} \end{aligned}$ | 64.09\% |  | 50.98\% <br> $\mathbf{4 0 . 4 7 \%}$ |
|  |  |  |  |  |  | $\frac{100.00 \%}{144}$ |  |  |
|  | Poor | $\begin{array}{r} 1 \\ 11.11 \% \end{array}$ | $\begin{array}{r} 43 \\ 22.87 \% \end{array}$ | 97$48.26 \%$ | 3$100.00 \%$ |  | 44 | $\begin{aligned} & 100 \\ & 49.02 \% \\ & 69.44 \% \\ & \hline \end{aligned}$ |
|  |  |  |  |  |  | 35.91\% | 22.34\% |  |
|  |  | $\begin{array}{r} \frac{0.69 \%}{9} \\ 100 \% \\ 2.24 \% \\ \hline \end{array}$ | $\begin{array}{r} \frac{29.86 \%}{188} \\ 100 \% \\ 46.88 \% \\ \hline \end{array}$ | 67.36\% | $\frac{2.08 \%}{3}$ | 100.00\% | 30.56\% |  |
|  | Total |  |  | 201 |  | $\frac{401}{}$ | $\begin{gathered} 197 \\ 100 \% \\ 49.13 \% \\ \hline \end{gathered}$ | $\begin{gathered} \hline 204 \\ 100 \% \\ 50.87 \% \\ \hline \end{gathered}$ |
|  |  |  |  | 100\% | 100\% |  |  |  |
|  |  |  |  | 50.12\% | 0.75\% |  |  |  |

Notes: Food poverty line 12472.1 MNT is calculated using global poverty line of 1 dollar a day ( 32.04 dollars a month) and PPP of 1US\$=544.21 MNT and share of food in total consumption $70 \%$. Column percentage is in Italic; row percentage is underlined. Undercoverage rate is in bold and highlighted with pink background; leakage is in bold and highlighted with yellow background.

Appendix 6: Inclusion and Exclusion Errors Under Different Poverty Lines.
Table A.6.2: Comparison of Living Standard Based on PRR Method and "True" Welfare Food poverty line: 10690.4 MNT a month

|  |  | Living standard according to Poverty Risk Ratio method |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Affordable | Average | Poor | Extremely poor | Total | Non poor | Poor |
|  | Non-poor | 134 |  | 75 | 0 | 218 | $\begin{gathered} \hline 143 \\ 69.42 \% \\ 65.60 \% \\ \hline \end{gathered}$ | 75 |
|  |  | $\begin{array}{r} 90.00 \% \\ 4.13 \% \\ \hline \end{array}$ | 68.37\% | 38.66\% | 0.00\% | 54.09\% |  | 38.07\% |
|  |  |  | 61.47\% | 34.40\% | 0.00\% | $\underline{100.00 \%}$ |  | 34.40\% |
|  | Poor | $\begin{array}{r} 10.00 \% \\ 0.54 \% \end{array}$ | 62 | 119 | 100.00\% | 185 | $\begin{gathered} 63 \\ 30.58 \% \end{gathered}$ | 122 |
|  |  |  | 31.63\% | $61.34 \%$ <br> $64.32 \%$ |  | $\begin{array}{r} 45.91 \% \\ 100.00 \% \\ \hline \end{array}$ |  | $61.93 \%$ |
|  |  |  | 33.51\% |  | $\begin{array}{r} 100.00 \% \\ 1.62 \% \end{array}$ |  | 34.05\% | 65.95\% |
|  | Total | 10$00 \%$ | 196 | 194 | $1.62 \%$ | 403 | 206 | 197 |
|  |  |  | 100\% | 100\% | 100\% |  | 100\% | 100\% |
|  |  | 2.48\% | 48.64\% | 48.14\% | 0.74\% |  | 51.12\% | 48.88\% |
| $\begin{array}{ll}0 \\ 0 \\ 0 \\ 0 & \\ 0 & 0 \\ 0 & 0 \\ 0 & 0 \\ 0 & 0 \\ 0 & 0 \\ 0 & 0 \\ 0 & 0 \\ 0 & \\ 0 & \\ 0 & \end{array}$ | Non-poor | 8 | 124 | 38.12\% | 0 | 209 | 132 | 77 |
|  |  | $\begin{array}{r} 88.89 \% \\ 3.83 \% \end{array}$ | 65.61\% |  | $\begin{gathered} 0.00 \% \\ 0.00 \% \end{gathered}$ | 51.86\% | 66.67\% | 37.56\% |
|  |  |  | 59.33\% | $\frac{36.84 \%}{125}$ |  | 100.00\% | $\underline{63.16 \%}$ | 36.84\% |
|  | Poor | $\frac{188}{1}$$11.11 \%$ | 65 |  | $\begin{array}{r} 100.00 \% \\ 1.55 \% \end{array}$ | $\begin{array}{r} 194 \\ 48.14 \% \\ 100.00 \% \\ \hline \end{array}$ | $\begin{gathered} 66 \\ 33.33 \% \end{gathered}$ | $\begin{gathered} 128 \\ 62.44 \% \end{gathered}$ |
|  |  |  | 34.39\% | $\begin{gathered} 61.88 \% \\ 64.43 \% \end{gathered}$ |  |  |  |  |
|  |  | $\begin{array}{r} 11.11 \% \\ 0.52 \% \end{array}$ | 33.51\% |  |  |  | 34.02\% | 65.98\% |
|  | Total | $\begin{array}{r} 9.5210 \\ 100 \% \\ \underline{2.23 \%} \\ \hline \end{array}$ | 189 | $\begin{array}{r} 202 \\ 100 \% \\ 50.12 \% \\ \hline \end{array}$ | $\begin{array}{r} 3 \\ 100 \% \\ 0.74 \% \\ \hline \end{array}$ | 403 | 198 | 205 |
|  |  |  | 100\% |  |  |  | 100\% | 100\% |
|  |  |  | 46.90\% |  |  |  | 49.13\% | 50.87\% |
| $\begin{array}{ll}\text { न } \\ 0 \\ 0 \\ 0 & \\ 0 & 0 \\ 0 & 0 \\ 0 & 0 \\ 0 & 0 \\ 0 & 0 \\ 0 & 0 \\ 0 & 0 \\ 0 & \\ 0 & \end{array}$ | Non-poor | $\begin{array}{r} 90.00 \% \\ 3.01 \% \\ \hline \end{array}$ | 168 | 120 | 2 | 299 | 177 <br> 86.34\% <br> $59.20 \%$ | 122 |
|  |  |  | 86.15\% | 62.18\% | 66.67\% | $\begin{array}{r} 74.56 \% \\ 100.00 \% \\ \hline \end{array}$ |  | 62.24\% |
|  |  |  | 56.19\% | $\frac{40.13 \%}{73}$ | 0.67\% |  |  | 40.80\% |
|  | Poor |  | 27 |  | 1 | 102 | 28 | 74 |
|  |  |  | 13.85\% | 37.82\% | 33.33\% | 25.44\% | 13.66\% | 37.76\% |
|  |  |  | 26.47\% | $\begin{array}{r} \frac{71.57 \%}{193} \\ 100 \% \\ 48.13 \% \\ \hline \end{array}$ | $\frac{0.98 \%}{3}$$100 \%$$0.75 \%$ | 100.00\% | 27.45\% | 72.55\% |
|  | Total | $\begin{array}{r} 10 \\ 100 \% \\ 2.49 \% \\ \hline \end{array}$ | 195 |  |  | 401 | $\frac{205}{100 \%}$$51.12 \%$ | 196 <br> $100 \%$ <br> $48.88 \%$ |
|  |  |  | 100\% |  |  |  |  |  |
|  |  |  | 48.63\% |  |  |  |  |  |
|  | Non-poor | $\begin{array}{r} 88.89 \% \\ 2.74 \% \\ \hline \end{array}$ | 158 | 124 | 2 | 292 | $\begin{gathered} \hline 166 \\ 84.26 \% \\ 56.85 \% \\ \hline \end{gathered}$ | 126 |
|  |  |  | 84.04\% | 61.69\% | 66.67\% | 72.82\% |  | 61.76\% |
|  |  |  | 54.11\% | 42.47\% | 0.68\% | $\underline{100.00 \%}$ |  | 43.15\% |
|  | Poor | $\begin{array}{r} 1 \\ 11.11 \% \\ \underline{0.92 \%} \\ \hline \end{array}$ | 30 | $\begin{gathered} \frac{42.4 / \%}{77} \\ 38.31 \% \\ 70.64 \% \end{gathered}$ | 1 | 109 <br> $27.18 \%$ <br> $100.00 \%$ | $\begin{gathered} 31 \\ 15.74 \% \end{gathered}$ |  |
|  |  |  | 15.96\% |  | 33.33\% |  |  |  |
|  |  |  | 27.52\% |  | 0.92\% |  | 28.44\% |  |
|  | Total | 9$100 \%$$2.24 \%$ | 188 |  | $\begin{array}{r} 3 \\ 100 \% \\ \underline{0.75 \%} \\ \hline \end{array}$ | 401 | 197 <br> $100 \%$ <br> $49.13 \%$ |  |
|  |  |  | 100\% |  |  |  |  |  |
|  |  |  | 46.88\% |  |  |  |  |  |

Note: Food poverty line 10690.4 MNT is calculated using global poverty line of 1 dollar a day ( 32.04 dollars a month) and PPP of $1 \mathrm{US} \$=544.21 \mathrm{MNT}$ and share of food in total consumption $60 \%$. Column percentage is in Italic; row percentage is underlined. Undercoverage rate is in bold and highlighted with pink background; leakage is in bold and highlighted with yellow background.

Table A.6.3: Comparison of Living Standard Based on PRR Method and 'True" Welfare Food poverty line: 8908.6 MNT a month

|  |  | Living standard according to Poverty Risk Ratio method |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Affordable | Average | Poor | Extremely poor | Total | Non poor | Poor |
|  | Non-poor | 10158 |  | 103 | 0 | 271 | 168 | 103 |
|  |  | $\begin{array}{r} 100.00 \% \\ \underline{3.69 \%} \end{array}$ | 80.61\% | 53.09\% | 0.00\% | 67.25\% | 81.55\% | 52.28\% |
|  |  |  | $\frac{58.30 \%}{38}$ | 38.01\% | 0.00\% | 100.00\% | $\underline{61.99 \%}$ | 38.01\% |
|  | Poor | $\begin{array}{r} 0 \\ 0.00 \% \end{array}$ |  | 91 | 3 | 132 | 38 | 94 |
|  |  |  | 19.39\% | 46.91\% | 100.00\% | 32.75\% | 18.45\% | 47.72\% |
|  |  | $\frac{0.00 \%}{10}$ | $\underline{28.79 \%}$ | 68.94\% | 2.27\% | $\underline{100.00 \%}$ | $\underline{\mathbf{2 8 . 7 9 \%}}$ | $\underline{71.21 \%}$ |
|  | Total |  | 196 | - 194 | 3 | 403 | 206 |  |
|  |  | 100\% | 100\% | 100\% | 100\% |  | 100\% | $100 \%$ |
|  |  | 2.48\% | 48.64\% | 48.14\% | 0.74\% |  | 51.12\% | $\frac{48.88 \%}{104}$ |
|  | Non-poor | 9 | 148 | 104 | 0 | 261 | 157 | $104$ |
|  |  | 100.00\% | $78.31 \%$ | 51.49\% | 0.00\% | 64.76\% | 79.29\% | 50.73\% |
|  |  | $\underline{3.45 \%}$ | 56.70\% | 39.85\% | $\frac{0.00 \%}{3}$ | $\underline{100.00 \%}$ | 60.15\% | 39.85\% |
|  | Poor |  | 41 | 98 |  | 142 | 41 | 101 |
|  |  | 0.00\% | 21.69\% | 48.51\% | 100.00\% | 35.24\% | 20.71\% | 49.27\% |
|  |  | $\frac{0.00 \%}{9}$$100 \%$$2.23 \%$ | $\begin{array}{r} \frac{28.87 \%}{189} \\ 100 \% \\ 46.90 \% \\ \hline \end{array}$ | $\begin{array}{r} \frac{69.01 \%}{202} \\ 100 \% \\ 50.12 \% \\ \hline \end{array}$ | $\begin{array}{r} \frac{2.11 \%}{3} \\ 100 \% \\ 0.74 \% \\ \hline \end{array}$ | $\underline{100.00 \%}$ | $\underline{\mathbf{2 8 . 8 7 \%}}$ |  |
|  | Total |  |  |  |  | 403 | $\frac{198}{100 \%}$$49.13 \%$ | $\frac{71.15 \%}{205}$ <br> $100 \%$ <br> $50.87 \%$ |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
|  | Non-poor | 10 | 181 | 139 | $2$ | 332 | $\begin{gathered} 191 \\ 93.17 \% \\ 57.53 \% \\ \hline \end{gathered}$ | 141 |
|  |  | $\begin{array}{r} 100.00 \% \\ \underline{3.01 \%} \end{array}$ | $\begin{gathered} 92.82 \% \\ 54.52 \% \end{gathered}$ | 72.02\% | 66.67\% | 82.79\% |  | 71.94\% |
|  |  | $\begin{aligned} & \frac{3.01 \%}{0} \\ & 0.00 \% \\ & \underline{0.00 \%} \end{aligned}$ | $\frac{54.52 \%}{14}$$7.18 \%$$20.29 \%$ | $\underline{41.87 \%}$ | 0.60\% |  |  | $\frac{42.47 \%}{55}$ |
|  | Poor |  |  | 54 | $\frac{1}{1} \quad 69$ |  | $\begin{aligned} & \frac{31.05 \%}{14} \\ & 6.83 \% \end{aligned}$ | 55 |
|  |  |  |  | 27.98\% | 33.33\% | 17.21\% |  | 28.06\% |
|  |  |  |  | $\begin{array}{r} \frac{78.26 \%}{193} \\ 100 \% \\ 48.13 \% \\ \hline \end{array}$ | $\begin{array}{r} \frac{1.45 \%}{3} \\ 100 \% \\ 0.75 \% \\ \hline \end{array}$ | $\underline{100.00 \%}$ | $\underline{\mathbf{2 0 . 2 9 \%}}$ | 79.71\% |
|  | Total | $\begin{array}{r} 10 \\ 100 \% \\ 2.49 \% \\ \hline \end{array}$ | 195$100 \%$$48.63 \%$ |  |  | 401 | $\begin{gathered} 205 \\ 100 \% \\ 51.12 \% \\ \hline \end{gathered}$ | 196 <br> 100\% <br> $48.88 \%$ |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
|  | Non-poor | 9 | 170 | 144 | 2 | 325 | $\begin{gathered} \hline 179 \\ 90.86 \% \\ 55.08 \% \\ \hline \end{gathered}$ | 146 |
|  |  | $\begin{array}{r} 100.00 \% \\ \underline{2.77 \%} \end{array}$ | $\begin{array}{r} 90.43 \% \\ \mathbf{5 2 . 3 1 \%} \\ \hline \end{array}$ | $\begin{aligned} & 71.64 \% \\ & 44.31 \% \\ & \hline \end{aligned}$ | $\begin{array}{r} 66.67 \% \\ 0.62 \% \end{array}$ | $\begin{gathered} 81.05 \% \\ 100.00 \% \end{gathered}$ |  | $\begin{array}{r}71.57 \% \\ 44.92 \% \\ \hline\end{array}$ |
|  |  |  |  |  |  |  |  |  |
|  | Poor | 0 | $\frac{18}{18}$$9.57 \%$ | $\frac{44.31 \%}{57}$ | 1 | 76 | 18 | $\begin{gathered} 58 \\ 28.43 \% \end{gathered}$ |
|  |  | 0.00\% |  | $\begin{gathered} 28.36 \% \\ 75.00 \% \end{gathered}$ | $\begin{array}{r} 33.33 \% \\ 1.32 \% \\ \hline \end{array}$ | $\begin{array}{r} 18.95 \% \\ 100.00 \% \\ \hline \end{array}$ | 9.14\% |  |
|  |  | 0.00\% | 23.68\% |  |  |  | $\underline{\mathbf{2 3 . 6 8 \%}}$ | 76.32\% |
|  | Total | 100\% | 188 |  | $\begin{array}{r} 3 \\ 100 \% \\ 0.75 \% \end{array}$ | 401 | 197$100 \%$$49.13 \%$ | 204 |
|  |  |  | 100\% |  |  |  |  | 100\% |
|  |  | $\underline{2.24 \%}$ 46.88\% |  |  |  |  |  | 50.87\% |

Note: Food poverty line 8908.6 MNT is calculated using global poverty line of 1 dollar a day ( 32.04 dollars a month) and PPP of 1 US $\$=544.21 \mathrm{MNT}$ and share of food in total consumption $50 \%$. Column percentage is in Italic; row percentage is underlined. Undercoverage rate is in bold and highlighted with pink background; leakage is in bold and highlighted with yellow background.

Appendix 6: Inclusion and Exclusion Errors Under Different Poverty Lines.
Table A.6.4: Comparison of Living Standard Based on PRR Method and "True" Welfare
Poverty line: 17817 MNT a month


Note: Poverty line 17817 MNT is calculated using global poverty line of 1 dollar a day ( 32.04 dollars a month) and PPP of 1US\$=544.21 MNT. Column percentage is in Italic; row percentage is underlined. Undercoverage rate is in bold and highlighted with pink background; leakage is in bold and highlighted with yellow background.

Appendix 6: Inclusion and Exclusion Errors Under Different Poverty Lines.
Table A.6.5: Comparison of Poverty Status Based on Households' "True" Welfare and Child Money Receipt Status Food poverty line: 12472.1 MNT a month

|  |  | All households |  | Households with 3 or more children |  |  | Households with 1 or more children |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Receive Child Money? |  | Receive Child Money? |  |  | Receive Child Money? |  |  |
|  |  | NO | YES Total | NO | YES | Tes Total | NO | YES | Total |
|  | Non-poor | 179 | $17 \quad 196$ | 20 | 16 | 36 | 122 | 17 | 39 |
|  |  | 57.56\% | 18.48\% 48.64\% | 52.63\% | 17.98\% | 28.35\% | 53.04\% | 18.89\% | 43.44\% |
|  |  | 91.33\% | 8.67\% $100.00 \%$ | 55.56\% | 44.44\% | 100.00\% | 87.77\% | .23\% $100.00 \%$ |  |
|  | Poor | 132 | $75 \quad 207$ | 18 | 73 | 91 | 108 | 73 | 181 |
|  |  | 42.44\% | 81.52\% 51.36\% | 47.37\% | 82.02\% | 71.65\% | 46.96\% | 81.11\% | 56.56\% |
|  |  | 63.77\% | 36.23\% $100.00 \%$ | 19.78\% | 80.22\% | 100.00\% | 59.67\% | 40.33\% | 100.00\% |
|  | Total | 311 | 92403 | 38 | 89 | 127 | 230 | 90 | 320 |
|  |  | 100\% | 100\% | 100\% | 100\% |  | 100\% | 100\% |  |
|  |  | 77.17\% | 22.83\% | 29.92\% | 70.08\% |  | 71.88\% | 28.13\% | 100.00\% |
|  | Non-poor | 164 | $17 \quad 181$ | 19 | 16 | 35 | 112 | 17 | 129 |
|  |  | 52.73\% | 18.48\% 44.91\% | 50.00\% | 17.98\% | 27.56\% | 48.70\% | 18.89\% | 40.31\% |
|  |  | 90.61\% | 9.39\% 100.00\% | 54.29\% | 45.71\% | 100.00\% | 86.82\% | 13.18\% | 100.00\% |
|  | Poor | 147 | $75 \quad 222$ | 19 | 73 | 92 | 118 | 73 | 191 |
|  |  | 47.27\% | 81.52\% 55.09\% | 50.00\% | 82.02\% | 72.44\% | 51.30\% | 81.11\% | 59.69\% |
|  |  | 66.22\% | 33.78\% 100.00\% | 20.65\% | 79.35\% | 100.00\% | 61.78\% | 38.22\% | 100.00\% |
|  | Total | 311 | 92403 | 38 | 89 | 127 | 230 | 90 | 320 |
|  |  | 100\% | 100\% | 100\% | 100\% |  | 100\% | 100\% |  |
|  |  | 77.17\% | 22.83\% | 29.92\% | 70.08\% |  | 71.88\% | 28.13\% |  |
|  | Non-poor | 220 | $47 \quad 267$ | 28 | 46 | 74 | 163 | 47 | 210 |
|  |  | 70.97\% | 51.65\% 66.58\% | 73.68\% | 51.69\% | 58.27\% | 70.87\% | 52.22\% | 65.63\% |
|  |  | 82.40\% | 17.60\% $100.00 \%$ | 37.84\% | 62.16\% | 100.00\% | 77.62\% | 22.38\% | 100.00\% |
|  | Poor | 90 | $44 \quad 134$ | 10 | 43 | 53 | 67 | 43 | 110 |
|  |  | 29.03\% | 48.35\% 33.42\% | 26.32\% | 48.31\% | 41.73\% | 29.13\% | 47.78\% | 34.38\% |
|  |  | 67.16\% | 32.84\% 100.00\% | 18.87\% | 81.13\% | 100.00\% | 60.91\% | 39.09\% | 100.00\% |
|  | Total | 310 | 91401 | 38 | 89 | 127 | 230 | 90 | 320 |
|  |  | 100\% | 100\% | 100\% | 100\% |  | 100\% | 100\% |  |
|  |  | 77.31\% | 22.69\% | 29.92\% | 70.08\% |  | 71.88\% | 28.13\% | 100.00\% |
|  | Non-poor | 211 | $46 \quad 257$ | 28 | 45 | 73 | 157 | 46 | 203 |
|  |  | 68.06\% | 50.55\% 64.09\% | 73.68\% | 50.56\% | 57.48\% | 68.26\% | 51.11\% | 63.44\% |
|  |  | 82.10\% | 17.90\% $100.00 \%$ | 38.36\% | 61.64\% | 100.00\% | 77.34\% | 22.66\% | 100.00\% |
|  |  | 99 | $45 \quad 144$ | 10 | 44 | 54 | 73 | 44 | 117 |
|  | Poor | 31.94\% | 49.45\% 35.91\% | 26.32\% | 49.44\% | 42.52\% | 31.74\% | 48.89\% | 36.56\% |
|  |  | 68.75\% | 31.25\% 100.00\% | 18.52\% | 81.48\% | 100.00\% | 62.39\% | 37.61\% | 100.00\% |
|  | Total | 310 | 91401 | 38 | 89 | 127 | 230 | 90 | 320 |
|  |  | 100\% | 100\% | 100\% | 100\% |  | 100\% | 100\% |  |
|  |  | 77.31\% | 22.69\% | 29.92\% | 70.08\% |  | 71.88\% | 28.13\% |  |

[^3]Appendix 6: Inclusion and Exclusion Errors Under Different Poverty Lines.
Table A.6.6: Comparison of Poverty Status Based on Households' "True" Welfare and Child Money Receipt Status
Food poverty line: 10690.4 MNT a month

|  |  | All households |  |  | Households with 3 or more children Households with 1 or more children |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Receive Child Money? |  |  | Receive Child Money? |  |  | Receive Child Money? |  |  |
|  |  | NO | YES | Total | NO | YES | Total | NO | YES | Total |
|  | Non-poor | 196 | 22 | 218 | 22 | 21 | 43 | 137 | 22 | 59 |
| $\cdots$ |  | 63.02\% | 23.91\% | 54.09\% | 57.89\% | 23.60\% | 33.86\% | 59.57\% | 24.44\% | 49.69\% |
| $\stackrel{\square}{0}$ |  | 89.91\% | 10.09\% | 100.00\% | 51.16\% | 48.84\% | 100.00\% | 86.16\% | 13.84\% | 100.00\% |
| 砣苞 |  | 115 | 70 | 185 | 16 | 68 | 84 | 93 | 68 | 161 |
| 르즐 | Poor | 36.98\% | 76.09\% | 45.91\% | 42.11\% | 76.40\% | 66.14\% | 40.43\% | 75.56\% | 50.31\% |
| $\stackrel{\square}{\circ}$ |  | 62.16\% | 37.84\% | 100.00\% | 19.05\% | 80.95\% | 100.00\% | 57.76\% | 42.24\% | 100.00\% |
| $\bigcirc$ |  | 311 | 92 | 403 | 38 | 89 | 127 | 230 | 90 | 320 |
| $\bigcirc$ | Total | 00\% | 100\% |  | 100\% | 100\% |  | 100\% | 100\% |  |
|  |  | 77.17\% | 22.83\% |  | 29.92\% | 70.08\% |  | 71.88\% | 28.13\% |  |
|  | Non-poor | 187 | 22 | 209 | 22 | 21 | 43 | 131 | 22 | 53 |
|  |  | 60.13\% | 23.91\% | 51.86\% | 57.89\% | 23.60\% | 33.86\% | 56.96\% | 24.44\% | 47.81\% |
|  |  | 89.47\% | 10.53\% | 100.00\% | 51.16\% | 48.84\% | 100.00\% | 85.62\% | 14.38\% | 100.00\% |
|  | Poor | 124 | 70 | 194 | 16 | 68 | 84 | 99 | 68 | 167 |
|  |  | 39.87\% | 76.09\% | 48.14\% | 42.11\% | 76.40\% | 66.14\% | 43.04\% | 75.56\% | 52.19\% |
|  |  | 63.92\% | 36.08\% | 100.00\% | 19.05\% | 80.95\% | 100.00\% | 59.28\% | 40.72\% | 100.00\% |
|  | Total | 311 | 92 | 403 | 38 | 89 | 127 | 230 | 90 | 320 |
|  |  | 100\% | 100\% |  | 100\% | 100\% |  | 100\% | 100\% |  |
|  |  | 77.17\% | 22.83\% |  | 29.92\% | 70.08\% |  | 71.88\% | 28.13\% |  |
|  | Non-poor | 241 | 58 | 299 | 30 | 56 | 86 | 182 | 57 | 239 |
|  |  | 77.74\% | 63.74\% | 74.56\% | 78.95\% | 62.92\% | 67.72\% | 79.13\% | 63.33\% | 74.69\% |
|  |  | 80.60\% | 19.40\% | 100.00\% | 34.88\% | 65.12\% | 100.00\% | 76.15\% | 23.85\% | 100.00\% |
|  | Poor | 69 | 33 | 102 | 8 | 33 | 41 | 48 | 33 | 81 |
|  |  | 22.26\% | 36.26\% | 25.44\% | 21.05\% | 37.08\% | 32.28\% | 20.87\% | 36.67\% | 25.31\% |
|  |  | 67.65\% | 32.35\% | 100.00\% | 19.51\% | 80.49\% | 100.00\% | 59.26\% | 40.74\% | 100.00\% |
|  | Total | 310 | 91 | 401 | 38 | 89 | 127 | 230 | 90 | 320 |
|  |  | 100\% | 100\% |  | 100\% | 100\% |  | 100\% | 100\% |  |
|  |  | 77.31\% | 22.69\% |  | 29.92\% | 70.08\% |  | 71.88\% | 28.13\% |  |
|  | Non-poor | 235 | 57 | 292 | 30 | 55 | 85 | 178 | 56 | 234 |
|  |  | 75.81\% | 62.64\% | 72.82\% | 78.95\% | 61.80\% | 66.93\% | 77.39\% | 62.22\% | 73.13\% |
|  |  | 80.48\% | 19.52\% | 100.00\% | 35.29\% | 64.71\% | 100.00\% | 76.07\% | 23.93\% | 100.00\% |
|  |  | 75 | 34 | 109 | 8 | 34 | 42 | 52 | 34 | 86 |
|  | Poor | 24.19\% | 37.36\% | 27.18\% | 21.05\% | 38.20\% | 33.07\% | 22.61\% | 37.78\% | 26.88\% |
|  |  | 68.81\% | 31.19\% | 100.00\% | 19.05\% | 80.95\% | 100.00\% | 60.47\% | 39.53\% | 100.00\% |
|  | Total | 310 | 91 | 401 | 38 | 89 | 127 | 230 | 90 | 320 |
|  |  | 100\% | 100\% |  | 100\% | 100\% |  | 100\% | 100\% |  |
|  |  | 77.31\% | 22.69\% |  | 29.92\% | 70.08\% |  | 71.88\% | 28.13\% |  |

Note: Food poverty line 10690.4 MNT is calculated using global poverty line of 1 dollar a day ( 32.04 dollars a month) and PPP of 1US\$=544.21 MNT and share of food in total consumption $60 \%$. Column percentage is in Italic; row percentage is underlined. Undercoverage rate is in bold and highlighted with pink background; leakage is in bold and highlighted with yellow background.

Appendix 6: Inclusion and Exclusion Errors Under Different Poverty Lines.
Table A.6.7: Comparison of Poverty Status Based on Households' "True" Welfare and Child Money Receipt Status
Food poverty line: 8908.6 MNT a month

|  |  | All households |  | Households with 3 or more childrenReceive Child Money? |  |  | Households with 1 or more children <br> Receive Child Money? |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |  |  |
|  |  | NO | YES ${ }^{\text {Total }}$ | NO | YES | Total | NO | YES Total |  |
|  | Non-poor | 23 | $39 \quad 271$ | 25 | 38 | 63 | 166 | 43.33\% | 205 |
|  |  | 74.60\% | 42.39\% $67.25 \%$ | $\begin{aligned} & 65.79 \% \\ & 39.68 \% \end{aligned}$ | 42.70\% | 49.61\% | $72.17 \%$ <br> $80.98 \%$ |  | 64.06\% |
|  |  | 85.61\% | $\underline{14.39 \%}$ 100.00\% |  | 60.32\% | 100.00\% |  | 19.02\% 100.00\% |  |
|  | Poor | 79 | $53 \quad 132$ | $\frac{39.68 \%}{13}$ | 51 | $50.39 \%$ | 64 | $51 \quad 115$ |  |
|  |  | 25.40\% | 57.61\% 32.75\% | $34.21 \%$ | 57.30\% |  | $\begin{aligned} & \text { 27.83\% } \\ & \mathbf{5 5 . 6 5 \%} \\ & \hline \end{aligned}$ | $\begin{aligned} & 56.67 \% \\ & 44.35 \% \\ & \hline \end{aligned}$ | 35.94\% |
|  |  | 59.85\% | 40.15\% 100.00\% | 20.31\% | 79.69\% | $\underline{100.00 \%}$ |  |  | 100.00\% |
|  | Total |  | 92403 | 38 89 127 <br> $100 \%$ $100 \%$  <br> $29.92 \%$ $70.08 \%$  |  |  | 230 | 90 | 320 |
|  |  | 00\% | 00\% |  |  |  | $\begin{array}{r} 100 \% \\ 71.88 \% \\ \hline \end{array}$ | $\begin{array}{r} 100 \% \\ 28.13 \% \end{array}$ |  |
|  |  | 77.17\% | 22.83\% |  |  |  |  |  |  |  |
|  | Non-poor | 222 | $39 \quad 261$ | $25 \quad 38$ 63 |  |  | 160 | 39 |  |
|  |  | 71.38\% | 42.39\% 64.76\% | 65.79\% | 42.70\% | $\begin{array}{r}49.61 \% \\ 100.00 \% \\ \hline\end{array}$ | 69.57\% | 43.33\% | 62.19\% |
|  | Poor | 85.06\% | $\underline{14.94 \%}$ 100.00\% | 39.68\% | 60.32\% |  | 80.40\% | 19.60\% | 100.00\% |
|  |  | 89 | $53 \quad 142$ | $\begin{array}{r} 13 \\ 34.21 \% \end{array}$ | 51 | $\frac{100.00 \%}{64}$ | $\begin{array}{r} 70 \\ 30.43 \% \end{array}$ | $\begin{array}{r} 51 \\ 56.67 \% \end{array}$ | , |
|  |  | 28.62\% | 57.61\% 35.24\% |  | 57.30\% | 50.39\% |  |  | 37.81\% |
|  |  | 62.68\% | 37.32\% 100.00\% | 20.31\% | 79.69\% | 100.00\% | 57.85\% | 42.15\% | 100.00\% |
|  | Total | 311 | 92403 | $\begin{array}{r} 38 \\ 100 \% \end{array}$ | 89 | 127 | $\begin{array}{r} 230 \\ 100 \% \\ 71.88 \% \\ \hline \end{array}$ | 90332 |  |
|  |  | 100\% | 00\% |  | $\begin{array}{r} 100 \% \\ 70.08 \% \end{array}$ |  |  | $\begin{array}{r} 100 \% \\ 28.13 \% \\ \hline \end{array}$ | - 320 |
|  |  | 77.17\% | 22.83\% | $29.92 \%$ |  |  |  |  |  |
|  | Non-poor | 264 | $68 \quad 332$ | 32 | 66 | 98 | $\begin{array}{r} 198 \\ 86.09 \% \end{array}$ | 67 | 265 |
|  |  | 85.16\% | 74.73\% 82.79\% | $84.21 \%$$32.65 \%$ | 74.16\% | $\begin{array}{r} 77.17 \% \\ 100.00 \% \\ \hline \end{array}$ |  | 74.44\% | 82.81\% |
|  |  | 79.52\% | $\underline{20.48 \% ~ 100.00 \% ~}$ |  | 67.35\% |  | $\begin{aligned} & 86.09 \% \\ & 74.72 \% \end{aligned}$ | 25.28\% 100.00\% |  |
|  | Poor | 46 | $23 \quad 69$ | $\begin{array}{r\|r} \frac{6}{9} & \frac{32.65 \%}{6} \end{array}$ | 23 | $\frac{100.00 \%}{29}$ | $\begin{array}{r} 32 \\ 13.91 \% \end{array}$ | $\begin{array}{rr} 23 & 55 \\ 25.56 \% & 17.19 \% \end{array}$ |  |
|  |  | 14.84\% | 25.27\% $17.21 \%$ | 15.79\% | 25.84\% | $\begin{gathered} 22.83 \% \\ 100.00 \% \end{gathered}$ |  |  |  |  |
|  |  | 66.67\% | 33.33\% 100.00\% | 20.69\% | $\begin{array}{r} \frac{79.31 \%}{89} \\ 100 \% \\ 70.08 \% \\ \hline \end{array}$ |  | 58.18\% | 41.82\% 100.00\% |  |
|  | Total | 310 | 91401 | $\begin{array}{r} 38 \\ 100 \% \\ 29.92 \% \end{array}$ |  | 127 | $\begin{array}{r} 230 \\ 100 \% \\ 71.88 \% \end{array}$ | $\begin{array}{r} 90 \\ 100 \% \\ 28.13 \% \end{array}$ |  |
|  |  | 100\% | 100\% |  |  |  |  |  |  |  |
|  |  | 77.31\% | 22.69\% |  |  |  |  |  |  |  |
|  | Non-poor | 259 | $66 \quad 325$ | $32 \quad 64$ |  | 96 | 196 | 65 | 261 |
|  |  | 83.55\% | 72.53\% 81.05\% | 84.21\% | 71.91\% | 75.59\% | 85.22\% | 72.22\% | 81.56\% |
|  |  | 79.69\% | $\underline{20.31 \%}$ 100.00\% | 相 $\frac{33.33 \%}{6}$ | 66.67\% | $\frac{100.00 \%}{31}$ | 75.10\% | 24.90\% | 100.00\% |
|  |  | 51 | $25 \quad 76$ |  | 25 |  | 34 | 25 | $\begin{array}{r} 59 \\ 18.44 \% \end{array}$ |
|  | Poor | 16.45\% | 27.47\% 18.95\% | 15.79\% | 28.09\% | 24.41\% | 14.78\% | 27.78\% <br> 42.37\% |  |
|  |  | 67.11\% | 32.89\% $100.00 \%$ | 19.35\% | 80.65\% | 100.00\% | 57.63\% |  | 00.00\% |
|  | Total | 310 | $91 \quad 401$ | 38$100 \%$$29.92 \%$ | $\begin{array}{r} 89 \\ 100 \% \\ 70.08 \% \\ \hline \end{array}$ | 127 |  | $\frac{42.37 \%}{90}$ | 320 |
|  |  | 100\% | 100\% |  |  |  | $\begin{array}{r} 230 \\ 100 \% \\ 71.88 \% \\ \hline \end{array}$ | 100\% |  |
|  |  | 77.31\% | 22.69\% |  |  |  |  | 28.13\% |  |

Note: Food poverty line 8908.6 MNT is calculated using global poverty line of 1 dollar a day ( 32.04 dollars a month) and PPP of 1US\$=544.21 MNT and share of food in total consumption $50 \%$. Column percentage is in Italic; row percentage is underlined. Undercoverage rate is in bold and highlighted with pink background; leakage is in bold and highlighted with yellow background.

Appendix 6: Inclusion and Exclusion Errors Under Different Poverty Lines.
Table A.6.8: Comparison of Poverty Status Based on Households' "True" Welfare and Child Money Receipt Status
Poverty line: 17,817 MNT a month


Note: Poverty line 17,817 MNT is calculated using global poverty line of 1 dollar a day ( 32.04 dollars a month) and PPP of 1 US $\$=544.21$ MNT. Column percentage is in Italic; row percentage is underlined. Undercoverage rate is in bold and highlighted with pink background; leakage is in bold and highlighted with yellow background.

Appendix 6: Inclusion and Exclusion Errors Under Different Poverty Lines.

|  |  | Model 0 |  |  | Model 1 |  |  | Model 2 |  |  | Model 3 |  |  | Model 4 |  |  | Model 5 |  |  | Model 6 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Non-poor | Poor | Total | Non-poor | Poor | Total | Non-poor | Poor | Total | Non-poor | Poor | Total | Non-poor | Poor | Total | Non-poor | Poor | Total | Non-poor | Poor | Total |
|  | Non-poor | 129 | 67 | 196 | 131 | 59 | 190 | 135 | 55 | 190 | 139 | 50 | 189 | 136 | 53 | 189 | 132 | 58 | 190 | 127 | 65 | 192 |
|  |  | 76.33\% | 28.63\% | 48.64\% | 75.29\% | 27.83\% | 49.22\% | 75.42\% | 26.57\% | 49.22\% | 77.22\% | 24.63\% | 49.35\% | 78.61\% | 25.24\% | 49.35\% | 75.00\% | 27.75\% | 49.35\% | 74.71\% | 29.82\% | 49.48\% |
|  |  | 65.82\% | 34.18\% | 100.00\% | 68.95\% | 31.05\% | 100.00\% | 71.05\% | 28.95\% | 100.00\% | 73.54\% | 26.46\% | 100.00\% | 71.96\% | 28.04\% | 100.00\% | 69.47\% | 30.53\% | 100.00\% | 66.15\% | 33.85\% | 100.00\% |
|  |  | 40 | 167 | 207 | 43 | 53 | 96 | 4 | 152 | 196 | 41 | 153 | 194 | 37 | 157 | 194 | 44 | 151 | 195 | 43 | 15 | 196 |
|  | Poor | 23.67\% | 71.37\% | 51.36\% | 24.71\% | 72.17\% | 50.78\% | 24.58\% | 73.43\% | 50.78\% | 22.78\% | 75.37\% | 50.65\% | 21.39\% | 74.76\% | 50.65\% | 25.00\% | 72.25\% | 50.65\% | 25.29\% | 70.18\% | 50.52\% |
|  |  | 19.32\% | 80.68\% | 100.00\% | 21.94\% | 78.06\% | 100.00\% | 22.45\% | 77.55\% | 100.00\% | 21.13\% | 78.87\% | 100.00\% | 19.07\% | 80.93\% | 100.00\% | 22.56\% | 77.44\% | 100.00\% | 21.94\% | 78.06\% | 100.00\% |
|  |  | 169 | 234 | 403 | 174 | 212 | 386 | 179 | 207 | 386 | 180 | 203 | 383 | 173 | 210 | 383 | 176 | 209 | 385 | 170 | 218 | 388 |
|  | Total | 41.94\% | 58.06\% | 100.00\% | 45.08\% | 54.92\% | 100.00\% | 46.37\% | 53.63\% | 100.00\% | 47.00\% | 53.00\% | 100.00\% | 45.17\% | 54.83\% | 100.00\% | 45.71\% | 54.29\% | 100.00\% | 43.81\% | 56.19\% | 100.00\% |
| $\begin{aligned} & \ddot{0} \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \end{aligned}$ | Non-poor | 111 | 85 | 196 | 111 | 65 | 176 | 117 | 59 | 176 | 121 | 55 | 176 | 122 | 54 | 176 | 116 | 60 | 176 | 113 | 65 | 178 |
|  |  | 77.08\% | 32.82\% | 48.64\% | 75.00\% | 27.43\% | 45.71\% | 76.47\% | 25.43\% | 45.71\% | 75.63\% | 24.66\% | 45.95\% | 6.25\% | 24.22\% | 45.95\% | 74.84\% | 26.20\% | 45.83\% | 77.93\% | 26.75\% | 45.88\% |
|  |  | 56.63\% | 43.37\% | 100.00\% | 63.07\% | 36.93\% | 100.00\% | 66.48\% | 33.52\% | 100.00\% | 68.75\% | 31.25\% | 100.00\% | 69.32\% | 30.68\% | 100.00\% | 65.91\% | 34.09\% | 100.00\% | 63.48\% | 36.52\% | 100.00\% |
|  |  | 33 | 174 | 207 | 37 | 172 | 209 | 36 | 173 | 209 | 39 | 168 | 207 | 38 | 169 | 207 | 39 | 169 | 208 | 32 | 178 | 210 |
|  | Poor | 22.92\% | 67.18\% | 51.36\% | 25.00\% | 72.57\% | 54.29\% | 23.53\% | 74.57\% | 54.29\% | 24.38\% | 75.34\% | 54.05\% | 23.75\% | 75.78\% | 54.05\% | 25.16\% | 73.80\% | 54.17\% | 22.07\% | 73.25\% | 54.12\% |
|  |  | 15.94\% | 84.06\% | 100.00\% | 17.70\% | 82.30\% | 100.00\% | 17.22\% | 82.78\% | 100.00\% | 18.84\% | 81.16\% | 100.00\% | 18.36\% | 81.64\% | 100.00\% | 18.75\% | 81.25\% | 100.00\% | 15.24\% | 84.76\% | 100.00\% |
|  | Total | 144 | 259 | 403 | 148 | 237 | 385 | 153 | 232 | 385 | 160 | 223 | 383 | 160 | 223 | 383 | 155 | 229 | 384 | 145 | 243 | 388 |
|  | Total | 35.73\% | 64.27\% | 100.00\% | 38.44\% | 61.56\% | 100.00\% | 39.74\% | 60.26\% | 100.00\% | 41.78\% | 58.22\% | 100.00\% | 41.78\% | 58.22\% | 100.00\% | 40.36\% | 59.64\% | 100.00\% | 37.37\% | 62.63\% | 100.00\% |
|  | Non-poor | 222 | 45 | 267 | 222 | 37 | 259 | 225 | 32 | 257 | 222 | 32 | 25 | 225 | 29 | 25 | 222 | 34 | 25 | 225 | 34 | 259 |
|  |  | 79.00\% | 37.50\% | 66.58\% | 79.29\% | 34.26\% | 66.75\% | 80.36\% | 30.19\% | 66.58\% | 81.92\% | 28.57\% | 66.32\% | 81.82\% | 26.85\% | 66.32\% | 79.29\% | 32.38\% | 66.49\% | 79.79\% | 32.08\% | 66.75\% |
|  |  | $\frac{83.15 \%}{59}$ | $\frac{85 \%}{75}$ | $\frac{100.00 \%}{134}$ | $\frac{85.71 \%}{58}$ | $\frac{71}{}$ | $\frac{100.00 \%}{129}$ | $\frac{87.55 \%}{55}$ | $\frac{12.45 \%}{74}$ | $\frac{100.00 \%}{129}$ | $\frac{87.40 \%}{49}$ | $\frac{12.60 \%}{80}$ | $\frac{100.00 \%}{129}$ | $\frac{88.58 \%}{50}$ | $\frac{1.42 \%}{79}$ | $\frac{100.00 \%}{129}$ | $\frac{86.72 \%}{58}$ | $\frac{13.28 \%}{71}$ | $\frac{00.00 \%}{129}$ | $\frac{86.87 \%}{57}$ | $\frac{13.13 \%}{72}$ | $\frac{00.00 \%}{129}$ |
|  | Poor | 21.00\% | 62.50\% | 33.42\% | 20.71\% | 65.74\% | 33.25\% | 19.64\% | 69.81\% | 33.42\% | 18.08\% | 71.43\% | 33.68\% | 18.18\% | 73.15\% | 33.68\% | 20.71\% | 67.62\% | 33.51\% | 20.21\% | 67.92\% | 33.25\% |
|  |  | 44.03\% | 55.97\% | 100.00\% | 44.96\% | 55.04\% | 100.00\% | 42.64\% | 57.36\% | 100.00\% | 37.98\% | 62.02\% | 100.00\% | 38.76\% | 61.24\% | 100.00\% | 44.96\% | 55.04\% | 100.00\% | 44.19\% | 55.81\% | 100.00\% |
|  | Total | 281 | 120 | 401 | 280 | 108 | 388 | 280 | 106 | 386 | 271 | 112 | 383 | 275 | 108 | 383 | 280 | 105 | 385 | 282 | 106 | 388 |
|  |  | 70.07\% | 29.93\% | 100.00\% | 72.16\% | 27.84\% | 100.00\% | 72.54\% | 27.46\% | 100.00\% | 70.76\% | 29.24\% |  | 71.80\% | 28.20\% |  | 72.73\% | 27.27\% | 100.00\% | 72.68\% | 27.32\% | $\underline{100.00 \%}$ |
|  | Non-poor | 211 | 46 | 257 | 211 | 37 | 248 | 218 | 30 | 248 | 216 | 30 | 246 | 216 | 30 | 246 | 213 | 35 | 248 | 207 | 44 | 251 |
|  |  | 77.57\% | 35.66\% | 64.09\% | 79.92\% | 30.58\% | 64.42\% | 78.42\% | 28.04\% | 64.42\% | 81.51\% | 25.42\% | 64.23\% | 80.60\% | 26.09\% | 64.23\% | 80.08\% | 29.41\% | 64.42\% | 79.31\% | 34.65\% | 64.69\% |
|  | Poo | 82.10\% | 17.90\% | 100.00\% | $\frac{85.08 \%}{53}$ | 14.92\% | $\frac{100.00 \%}{137}$ | 87.90\% | 12.10\% | 100.00\% | 87.80\% | $\frac{12.20 \%}{88}$ | $\underline{100.00 \%}$ | $\frac{87.80 \%}{52}$ | $\frac{12.20 \%}{85}$ | $\frac{100.00 \%}{137}$ | $\frac{85.89 \%}{53}$ | $\frac{14.11 \%}{84}$ | $\frac{100.00 \%}{137}$ | $\frac{82.47 \%}{54}$ | 17.53\% | $\frac{100.00 \%}{137}$ |
|  |  |  | 83 | 144 $35.91 \%$ | 53 | 84 | 137 | 60 | 77 | 137 | 49 | 88 | 137 | 52 | 85 | 137 | 53 | 84 | 137 | 54 | 83 | 137 $35.31 \%$ |
|  |  | 22.43\% | 64.34\% | 35.91\% | 20.08\% | 69.42\% | 55.58\% | 21.58\% | 71.96\% | 35.58\% | 18.49\% | 74.58\% | 35.77\% | 19.40\% | 73.91\% | 35.77\% | 19.92\% | 70.59\% | 35.58\% | 20.69\% | 65.35\% | $35.31 \%$ <br> $100.00 \%$ |
|  | Total | $\frac{42.36 \%}{272}$ | $\frac{57.64 \%}{129}$ | $\frac{100.00 \%}{401}$ | $\frac{38.69 \%}{264}$ | $\frac{61.31 \%}{121}$ | $\frac{100.00 \%}{385}$ | $\frac{43.80 \%}{278}$ | $\frac{56.20 \%}{107}$ | $\frac{100.00 \%}{385}$ | $\frac{35.77 \%}{265}$ | $\frac{64.23 \%}{118}$ | $\frac{100.00 \%}{383}$ | $\frac{37.96 \%}{268}$ | $\frac{62.04 \%}{115}$ | $\frac{100.00 \%}{383}$ | $\frac{38.69 \%}{266}$ | $\frac{61.31 \%}{119}$ | $\frac{100.00 \%}{385}$ | $\frac{39.42 \%}{261}$ | $\frac{60.58 \%}{127}$ | $\frac{100.00 \%}{388}$ |
|  |  | 67.83\% | 32.17\% | 100.00\% | 68.57\% | 31.43\% | 100.00\% | $72.21 \%$ | 27.79\% |  | 69.19\% | 30.81\% |  | 69.97\% | 30.03\% |  | 69.09\% | 30.91\% | 100.00\% | 67.27\% | 32.73\% | 100.00\% |
|  | Non-poor | 181 | 27 | 208 | 174 | 26 | 200 | 172 | 28 | 200 | 177 | 23 | 200 | 176 | 24 | 20 | 174 | 28 | 20 | 173 | 29 | 202 |
|  |  | 78.02\% | 16.17\% | 52.13\% | 79.82\% | 15.76\% | 52.22\% | 79.63\% | 16.87\% | 52.36\% | 80.45\% | 14.38\% | 52.63\% | 80.73\% | 14.81\% | 52.63\% | 80.18\% | 16.47\% | 52.20\% | 77.58\% | 17.58\% | 52.06\% |
|  |  | $\frac{87.02 \%}{51}$ | 12.98\% | 100.00\% | 87.00\% | $\frac{13.00 \%}{139}$ | $\frac{100.00 \%}{183}$ | 86.00\% | $\frac{14.00 \%}{138}$ | 100.00\% | 88.50\% | 11.50\% | 100.00\% | 88.00\% | 12.00\% | 100.00\% | 86.14\% | 13.86\% | $\underline{100.00 \%}$ | 85.64\% | 14.36\% | 100.00\% |
|  | Poor | 51 | 140 | 191 | \% | 139 | 183 | 44 | 138 | 182 | 43 | 137 | 180 | 42 | 138 | 180 | 43 | 14 | 18 | 50 | 13 | 186 |
|  |  | 21.98\% | . $83 \%$ | 47.87\% | 20.18\% | 4.24\% | 47.78\% | 20.37\% | 3.13\% | 47.64\% | 19.55\% | 85.63\% | 47.37\% | 19.27\% | 85.19\% | 47.37\% | 19.82\% | 83.53\% | 47.80\% | 22.42\% | 82.42\% | 47.94\% |
|  |  | 26.70\% | 73.30\% | 100.00\% | 24.04\% | 75.96\% | 100.00\% | 24.18\% | 75.82\% | 100.00\% | 23.89\% | 76.11\% | 100.00\% | 23.33\% | 76.67\% | 100.00\% | 23.24\% | 76.76\% | 100.00\% | 26.88\% | 73.12\% | 100.00\% |
|  | Total | 232 | 167 | 39 | 218 | 165 | 383 | 216 | 166 | 382 | 220 | 160 | 380 | 218 | 162 | 380 | 217 | 170 | 387 | 223 | 165 | 388 |
|  |  | 58.15\% | 41.85\% | 100.00\% | 56.92\% | 43.08\% | 100.00\% | 56.54\% | 43.46\% | 100.00\% | 57.89\% | 42.11\% | 100.00\% | 57.37\% | 42.63\% | 100.00\% | 56.07\% | 43.93\% | 100.00\% | 57.47\% | 42.53\% | 100.00\% |
|  | Non-poor | 175 | 28 | 203 | 167 | 28 | 195 | 167 | 28 | 195 | 171 | 23 | 194 | 171 | 23 | 19 | 171 | 26 | 197 | 170 | 27 | 197 |
|  |  | 77.78\% | 16.09\% | 50.88\% | 78.04\% | 16.57\% | 50.91\% | 78.77\% | 16.37\% | 50.91\% | 79.91\% | 13.77\% | 50.92\% | 81.43\% | 13.45\% | 50.92\% | 78.80\% | 15.29\% | 50.90\% | 77.63\% | 15.98\% | 50.77\% |
|  |  | 86.21\% | 13.79\% | 100.00\% | 85.64\% | 14.36\% | 100.00\% | 85.64\% | 14.36\% | 100.00\% | 88.14\% | 11.86\% | 100.00\% | 88.14\% | 11.86\% | 100.00\% | 86.80\% | 13.20\% | 100.00\% | 86.29\% | 13.71\% | 100.00\% |
|  | Poor | 50 | 146 | 196 | 47 | 141 | 188 | 45 | 143 | 188 | 43 | 144 | 187 | 39 | 148 | 187 | 46 | 144 | 190 | 49 | 142 | 191 |
|  |  | 22.22\% | 83.91\% | 49.12\% | 21.96\% | 83.43\% | 49.09\% | 21.23\% | 83.63\% | 49.09\% | 20.09\% | 86.23\% | 49.08\% | 18.57\% | 86.55\% | 49.08\% | 21.20\% | 84.71\% | 49.10\% | 22.37\% | 84.02\% | 49.23\% |
|  |  | $\underline{\mathbf{2 5 . 5 1 \%}}$ | 74.49\% | 100.00\% | 25.00\% | 75.00\% | 100.00\% | 23.94\% | 76.06\% | 100.00\% | 22.99\% | 77.01\% | 100.00\% | 20.86\% | 79.14\% | 100.00\% | 24.21\% | 75.79\% | 100.00\% | 25.65\% | 74.35\% | 100.00\% |
|  | Total | 225 | 174 | 399 | 214 | 169 | 383 | 212 | 171 | 383 | 214 | 167 | 381 | 210 | 171 | 381 | 217 | 170 | 387 | 219 | 169 | 388 |
|  |  | 56.39\% | 43.61\% | 100.00\% | 55.87\% | 44.13\% | 100.00\% | 55.35\% | 44.65\% | 100.00\% | 56.17\% | 43.83\% | 100.00\% | 55.12\% | 44.88\% | 100.00\% | 56.07\% | 43.93\% | 100.00\% | 56.44\% | 43.56\% | 100.00\% |

 underlined. Undercoverage rate is in bold and highlighted with pink background; leakage is in bold and highlighted with yellow background.

Appendix 6: Inclusion and Exclusion Errors Under Different Poverty Lines.

|  |  | Model 0A |  |  | Model 1A |  |  | Model 2A |  |  | Model 3A |  |  | Model 4A |  |  | Model 5A |  |  | Model 6A |  |  | Model 0B |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Non-poor | Poor | Total | Non-poor | Poor | Total | Non-poor | Poor | Total | Non-poor | Poor | Total | Non-poor | Poor | Total | poor | Poor | Total | poor | Poor | Total | on-poor | Poor | Total |
|  | Non-poor | 143 | 50 | 193 | 141 | 51 | 192 | 143 | 49 | 192 | 146 | 47 | 193 | 145 | 48 | 193 | 143 | 51 | 194 | 146 | 50 | 196 | 147 | 46 | 193 |
|  |  | 72.22\% | 24.75\% | 48.25\% | 73.44\% | 24.64\% | 48.12\% | 74.09\% | 23.79\% | 48.12\% | 75.26\% | 23.04\% | 48.49\% | 77.13\% | 22.75\% | 48.37\% | 76.88\% | 23.72\% | 48.38\% | 73.74\% | 24.39\% | 48.64\% | 72.77\% | 23.23\% | 48.25\% |
|  |  | 74.09\% | 25.91\% | 100.00\% | 73.44\% | 26.56\% | 100.00\% | 74.48\% | 25.52\% | 100.00\% | 75.65\% | 24.35\% | 100.00\% | 75.13\% | 24.87\% | 100.00\% | $73.71 \%$ | 26.29\% | 100.00\% | 74.49\% | 25.51\% | 100.00\% | 76.17\% | 23.83\% | 100.00\% |
|  | Poor | 55 | 152 | 207 | 51 | 156 | 207 | 50 | 157 | 207 | 48 | 57 | 205 | 43 | 163 | 206 | 43 | 164 | 207 | 52 | 155 | 207 | 55 | 152 | 207 |
|  |  | 27.78\% | 75.25\% | 51.75\% | 26.56\% | 75.36\% | 51.88\% | 25.91\% | 76.21\% | 51.88\% | 24.74\% | 76.96\% | 51.51\% | 22.87\% | 77.25\% | 51.63\% | 23.12\% | 76.28\% | 51.62\% | 26.26\% | 75.61\% | 51.36\% | 27.23\% | 76.77\% | 51.75\% |
|  |  | 26.57\% | 73.43\% | 100.00\% | 24.64\% | 75.36\% | 100.00\% | 24.15\% | 75.85\% | 100.00\% | 23.41\% | 76.59\% | 100.00\% | 20.87\% | 79.13\% | 100.00\% | 20.77\% | 79.23\% | 100.00\% | 25.12\% | 74.88\% | 100.00\% | 6.57\% | 3.43\% | 100.00 |
|  | Total | 198 | 202 | 400 | 192 | 207 | 399 | 193 | 206 | 399 | 194 | 204 | 398 | 188 | 211 | 399 | 186 | 215 | 401 | 198 | 205 | 403 | 202 | 198 | 400 |
|  |  | 49.50\% | 50.50\% | 100.00\% | 48.12\% | 51.88\% | 100.00\% | 48.37\% | 51.63\% | 100.00\% | 48.74\% | 51.26\% | $\underline{100.00 \%}$ | 47.12\% | 52.88\% | 100.00\% | 46.38\% | 53.62\% | 100.00\% | 49.13\% | 50.87\% | 100.00\% | 50.50\% | 49.50\% | 100.00\% |
|  | Non-poor | 119 | 74 | 193 | 124 | 55 | 179 | 123 | 56 | 179 | 123 | 56 | 179 | 128 | 51 | 179 | 128 | 51 | 179 | 117 | 64 | 181 | 121 | 72 | 193 |
|  |  | 72.56\% | 31.36\% | 48.25\% | 71.68\% | 24.23\% | 44.75\% | 74.10\% | 23.93\% | 44.75\% | 73.21\% | 24.14\% | 44.75\% | 75.29\% | 22.17\% | 44.75\% | 73.99\% | 22.47\% | 44.75\% | 71.78\% | 26.67\% | 44.91\% | 73.33\% | 30.64\% | 48.25\% |
|  |  | 61.66\% | .34\% | 100.00\% | 69.27\% | 30.73\% | 100.00\% | 68.72\% | 31.28\% | 100.00\% | 68.72\% | 31.28\% | 100.00\% | 71.51\% | 28.49\% | 100.00\% | 71.51\% | 28.49\% | 100.00\% | 64.64\% | 35.36\% | 100.00\% | 62.69\% | 37.31\% | 00.00\% |
|  | Poor | 45 | 162 | 207 | 49 | 172 | 221 | 43 | 178 | 221 | 45 | 176 | 221 | 42 | 79 | 221 | 45 | 176 | 221 | 46 | 176 | 222 | 44 | 163 | 207 |
|  |  | 27.44\% | 68.64\% | 51.75\% | 28.32\% | 75.77\% | 55.25\% | 25.90\% | 76.07\% | 55.25\% | 26.79\% | 75.86\% | 55.25\% | 24.71\% | 77.83\% | 55.25\% | 26.01\% | 77.53\% | 55.25\% | 28.22\% | 73.33\% | 55.09\% | 26.67\% | 69.36\% | 51.75\% |
|  |  | 21.74\% | 78.26\% | 100.00\% | 22.17\% | 77.83\% | 100.00\% | 19.46\% | 80.54\% | 100.00\% | 20.36\% | 79.64\% | 100.00\% | 19.00\% | 81.00\% | 100.00\% | 20.36\% | 79.64\% | 100.00\% | 20.72\% | 79.28\% | 100.00\% | 21.26\% | 78.74\% | 100.00\% |
|  | Total | 164 | 236 | 400 | 173 | 227 | 400 | 166 | 234 | 400 | 168 | 232 | 400 | 170 | 230 | 400 | 173 | 227 | 400 | 163 | 240 | 403 | 165 | 235 | 400 |
|  |  | 41.00\% | 59.00\% | 100.00\% | 43.25\% | 56.75\% | 100.00\% | 41.50\% | 58.50\% | 100.00\% | 42.00\% | 58.00\% | 100.00\% | 42.50\% | 57.50\% | 100.00\% | 43.25\% | 56.75\% | 100.00\% | 40.45\% | 59.55\% | 00.00\% | 41.25\% | 58.75\% | 00.00\% |
|  | Non-poor | 228 | 36 | 264 | 234 | 29 | 263 | 232 | 33 | 265 | 225 | 38 | 263 | 232 | 31 | 263 | 233 | 32 | 265 | 232 | 35 | 26 | 227 | 37 | 264 |
|  |  | 78.89\% | . $03 \%$ | 66.33\% | 80.97\% | 27.88\% | 66.92\% | 79.45\% | 31.13\% | 66.58\% | 80.94\% | 31.93\% | 66.25\% | 81.98\% | 27.19\% | 66.25\% | 81.18\% | 28.83\% | 66.58\% | 78.91\% | 32.71\% | 66.58\% | 78.55\% | 33.94\% | 66.33\% |
|  |  | 86.36\% | 64\% | 100.00\% | 88.97\% | . $03 \%$ | 100.00\% | 87.55\% | 2.45\% | 100.00\% | 85.55\% | 4.45\% | 100.00\% | 88.21\% | 11.79\% | 100.00\% | 87.92\% | 12.08\% | 100.00\% | 86.89\% | 13.11\% | 100.00\% | 85.98\% | 14.02\% | 00.00\% |
|  | Poor | 61 | 73 | 134 | 55 | 75 | 130 | 60 | 73 | 133 | 53 | 81 | 134 | 51 | 83 | 134 | 54 | 79 | 133 | 62 | 72 | 134 | 62 | 72 | 134 |
|  |  | 21.11\% | 66.97\% | 33.67\% | 19.03\% | 72.12\% | 33.08\% | 20.55\% | 8.87\% | 33.42\% | 19.06\% | 68.07\% | 33.75\% | 18.02\% | 2.81\% | 33.75\% | 18.82\% | 1.17\% | 33.42\% | 21.09\% | 67.29\% | 33.42\% | 21.45\% | 66.06\% | $33.67 \%$ |
|  |  | 45.52\% | 54.48\% | 100.00\% | 42.31\% | 57.69\% | 100.00\% | 45.11\% | 54.89\% | 100.00\% | 39.55\% | 60.45\% | 100.00\% | 38.06\% | 61.94\% | 100.00\% | 40.60\% | 59.40\% | 100.00\% | 46.27\% | 53.73\% | 100.00\% | 46.27\% | 53.73\% | 100.00\% |
|  | Total | 289 | 109 | 398 | 289 | 104 | 393 | 292 | 106 | 398 | 278 | 119 | 39 | 283 | 114 | 39 | 287 | 111 | 398 | 294 | 107 | 401 | 289 | 109 | 398 |
|  |  | 72.61\% | 27.39\% | 100.00\% | 73.54\% | 26.46\% | 100.00\% | 73.37\% | 26.63\% | 100.00\% | 70.03\% | 29.97\% | 100.00\% | 71.28\% | 28.72\% | 100.00\% | 72.11\% | 27.89\% | 100.00\% | 73.32\% | 26.68\% | 100.00\% | $72.61 \%$ | 27.39\% | 100.00\% |
| $\begin{aligned} & \stackrel{0}{0} \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 4 \\ & 4 \end{aligned}$ | Non-poor | 213 | 41 | 254 | 218 | 36 | 254 | 217 | 37 | 254 | 222 | 30 | 252 | 222 | 30 | 252 | 221 | 33 | 254 | 212 | 45 | 25 | 214 | 40 | - 254 |
|  |  | 79.18\% | 31.78\% | 63.82\% | 80.74\% | 28.13\% | 63.82\% | 80.37\% | 28.91\% | 63.82\% | 83.46\% | 23.26\% | 63.80\% | 81.92\% | 24.19\% | 63.80\% | 80.36\% | 26.83\% | 63.82\% | 78.52\% | 34.35\% | 64.09\% | 79.26\% | 31.25\% | 63.82\% |
|  |  | 83.86\% | 16.14\% | 100.00\% | 85.83\% | 14.17\% | 100.00\% | 85.43\% | 14.57\% | 100.00\% | 88.10\% | 11.90\% | 100.00\% | 88.10\% | 11.90\% | 100.00\% | 87.01\% | 12.99\% | 100.00\% | 82.49\% | 17.51\% | 100.00\% | 84.25\% | 15.75\% | 100.00\% |
|  |  | 56 | 88 | 14 | 52 | 92 | 144 | 53 | 91 | 144 | 44 | 99 | 143 | 49 | 94 | 143 | 54 | 90 | 144 | 58 | 86 | 144 | 56 | 88 | 144 |
|  | Poor | 20.82\% | 68.22\% | 36.18\% | 19.26\% | 71.88\% | 36.18\% | 19.63\% | 71.09\% | 36.18\% | 16.54\% | 76.74\% | 36.20\% | 18.08\% | 75.81\% | 36.20\% | 19.64\% | 73.17\% | 36.18\% | 21.48\% | 65.65\% | 35.91\% | 20.74\% | 68.75\% | 36.18\% |
|  |  | 38.89\% | 61.11\% | 100.00\% | 36.11\% | 63.89\% | 100.00\% | 36.81\% | 63.19\% | 100.00\% | 30.77\% | 69.23\% | $\underline{100.00 \%}$ | 34.27\% | 65.73\% | 100.00\% | 37.50\% | 62.50\% | 100.00\% | 40.28\% | 59.72\% | $\underline{100.00 \%}$ | 38.89\% | $\underline{61.11 \%}$ | 100.00\% |
|  | Total | 269 | 129 | 398 | 270 | 128 | 398 | 270 | 128 | 398 | 266 | 129 | 395 | 271 | 124 | 395 | 275 | 123 | 398 | 270 | 131 | 401 | 270 | 128 | 398 |
|  |  | 67.59\% | $32.41 \%$ | 100.00\% | 67.84\% | 32.16\% | 100.00\% | 67.84\% | 32.16\% | 100.00\% | 67.34\% | 32.66\% | 100.00\% | 68.61\% | 31.39\% | 100.00\% | 69.10\% | 30.90\% | 100.00\% | 67.33\% | 32.67\% | 100.00\% | 67.84\% | 32.16\% | 00.00\% |
| $\begin{aligned} & 0.0 \\ & 0 \\ & 0 \\ & 0.0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \end{aligned}$ | Non-poor | 162 | 36 | 19 | 174 | 30 | 204 | 177 | 31 | 208 | 170 | 33 | 203 | 167 | 37 | 20 | 169 | 35 | 20 | 163 | 45 | 20 | 156 | 42 | 198 |
|  |  | 86.17\% | 18.18\% | 51.30\% | 90.16\% | .23\% | 52.31\% | 86.76\% | 16.06\% | 52.39\% | 8.08\% | 16.75\% | 52.05\% | 84.34\% | 19.27\% | 52.31\% | 84.50\% | 18.52\% | 52.44\% | 81.50\% | 22.61\% | 52.13\% | 80.83\% | 21.76\% | 51.30\% |
|  |  | 81.82\% | 18.18\% | 100.00\% | 85.29\% | 14.71\% | 100.00\% | 85.10\% | 14.90\% | 100.00\% | 83.74\% | 16.26\% | 100.00\% | 81.86\% | 18.14\% | 100.00\% | 82.84\% | 17.16\% | 100.00\% | 78.37\% | 21.63\% | 100.00\% | 78.79\% | 21.21\% | 100.00\% |
|  | Poor | 26 | 162 | 188 | 19 | 167 | 186 | 27 | 162 | 189 | 23 | 164 | 187 | 31 | 155 | 186 | 31 | 154 | 18 | 37 | 154 | 19 | 37 | 151 | 188 |
|  |  | 13.83\% | 82\% | 48.70\% | 9.84\% | .77\% | .69\% | 24\% | 94\% | 47.61\% | .92\% | 83.25\% | 47.95\% | 15.66\% | 80.73\% | 47.69\% | 15.50\% | 81.48\% | 47.56\% | 18.50\% | 7.39\% | 47.87\% | 19.17\% | 8.24\% | 48.70\% |
|  |  | 13.83\% | 86.17\% | 100.00\% | 10.22\% | 89.78\% | 100.00\% | 14.29\% | 85.71\% | 100.00\% | 12.30\% | 87.70\% | 100.00\% | 16.67\% | 83.33\% | 100.00\% | 16.76\% | 83.24\% | 100.00\% | 19.37\% | 80.63\% | 100.00\% | 19.68\% | 80.32\% | 100.00\% |
|  | Total | 188 | 198 | 386 | 193 | 197 | 390 | 204 | 193 | 397 | 193 | 197 | 390 | 198 | 192 | 390 | 200 | 189 | 38 | 200 | 199 | 39 | 193 | 193 | 386 |
|  |  | 48.70\% | 51.30\% | 100.00\% | 49.49\% | 50.51\% | 100.00\% | 51.39\% | 48.61\% | 100.00\% | 49.49\% | 50.51\% | 100.00\% | 50.77\% | 49.23\% | 100.00\% | 51.41\% | 48.59\% | 100.00\% | 50.13\% | 49.87\% | 100.00\% | 50.00\% | 50.00\% | 100.00\% |
| $\begin{aligned} & \text { D} 0 \\ & 0.0 \\ & 0.0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \end{aligned}$ | Non-poor | 147 | 46 | 193 | 171 | 32 | 203 | 170 | 33 | 203 | 165 | 38 | 203 | 162 | 40 | 202 | 165 | 38 | 20 | 153 | 50 | 20 | 148 | 45 | 193 |
|  |  | 81.22\% | 22.44\% | 50.00\% | 87.24\% | .84\% | 51.01\% | 89.01\% | 16.02\% | 51.13\% | 82.91\% | 19.00\% | 50.88\% | 83.08\% | 19.90\% | 51.01\% | 84.18\% | 18.81\% | 51.01\% | 80.95\% | 23.81\% | 50.88\% | 82.68\% | 21.74\% | 50.00\% |
|  |  | 76.17\% | 23.83\% | 100.00\% | 84.24\% | 15.76\% | 100.00\% | 83.74\% | 16.26\% | 100.00\% | 81.28\% | 18.72\% | 100.00\% | 80.20\% | 19.80\% | 100.00\% | 81.28\% | 18.72\% | 100.00\% | 75.37\% | 24.63\% | 100.00\% | 76.68\% | 23.32\% | 00.00\% |
|  |  | 34 | 159 | 193 | 25 | 170 | 195 | 21 | 173 | 194 | 34 | 162 | 196 | 33 | 161 | 194 | 31 | 164 | 195 | 36 | 160 | 196 | 31 | 162 | 193 |
|  | Poor | 18.78\% | 77.56\% | 50.00\% | 12.76\% | 84.16\% | 48.99\% | 10.99\% | 83.98\% | 48.87\% | 17.09\% | 81.00\% | 49.12\% | 16.92\% | 80.10\% | 48.99\% | 15.82\% | 81.19\% | 48.99\% | 19.05\% | 76.19\% | 49.12\% | 17.32\% | 78.26\% | 50.00\% |
|  |  | 17.62\% | 82.38\% | 100.00\% | 12.82\% | 87.18\% | 100.00\% | 10.82\% | 89.18\% | 100.00\% | 17.35\% | 82.65\% | 100.00\% | 17.01\% | 82.99\% | 100.00\% | 15.90\% | 84.10\% | 100.00\% | 18.37\% | 81.63\% | 100.00\% | 16.06\% | 83.94\% | 100.00\% |
|  | Total | 181 | 205 | 386 | 196 | 202 | 398 | 191 | 206 | 397 | 199 | 200 | 399 | 195 | 201 | 396 | 196 | 202 | 398 | 189 | 210 | 39 | 179 | 207 | 386 |
|  |  | 46.89\% | 53.11\% | 100.00\% | 49.25\% | 50.75\% | 100.00\% | 48.11\% | 51.89\% | 100.00\% | 49.87\% | 50.13\% | 100.00\% | 49.24\% | 50.76\% | 100.00\% | 49.25\% | 50.75\% | 100.00\% | 47.37\% | 52.63\% | 100.00\% | 46.37\% | 53.63\% | 100.00\% |

[^4]Appendix 6: Inclusion and Exclusion Errors Under Different Poverty Lines.
Table A.6.11 Inclusion Errors, Exclusion Errors, Undercoverage rates and Leakage rates under Alternative Tools. Food poverty line=10690.4 MNT a month

|  |  | Model 0 |  |  | Model 1 |  |  | Model 2 |  |  | Model 3 |  |  | Model 4 |  |  | Model 5 |  |  | Model 6 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Non-poor | Poor | Total | Non-poor | Poor | Total | Non-poor Poor Total <br> 175 35 |  |  | Non-poor Poor Total <br> 167 41  |  |  | Non-poor Poor Total |  |  | Non-poor Poor Total |  |  | Non-poor Poor Total |  |  |
|  | Non-poor | $165 \quad 53 \quad 218$ |  |  | $\begin{array}{lll}168 & 42 & 210\end{array}$ |  |  |  |  |  | $\overline{170}$ | $38$ | $208$ | 173 | 37 | 210 | 161 | 51 | 212 |
| $\bar{\pi}$ |  | 70.51\% | 31.36\% | 54.09\% | 74.34\% | 26.25\% | 54.40\% | 75.43\% | 22.73\% | 54.40\% |  |  |  | 75.91\% | 25.15\% | 54.31\% | 75.89\% | 23.90\% | 54.31\% | 75.55\% | 23.72\% | 54.55\% | 71.56\% | 31.29\% | 54.64\% |
|  |  | 75.69\% | 24.31\% | 100.00\% | 80.00\% | 20.00\% | 100.00\% | 83.33\% | 16.67\% | 100.00\% | 80.29\% | 19.71\% | 100.00\% | 81.73\% | 8.27\% | 100.00\% | 82.38\% | 7.62\% | 100.00\% | 75.94\% | 4.06\% | 100.00\% |
|  | Poor | 69 | 116 | 185 | 58 | 118 | 176 | 57 | 119 | 176 | 53 | 122 | 175 | 54 | 121 | 175 | 56 | 119 | 175 | 64 | 112 | 76 |
|  |  | 29.49\% | 68.64\% | 45.91\% | 25.66\% | 73.75\% | 45.60\% | 24.57\% | 77.27\% | 45.60\% | 24.09\% | 74.85\% | 45.69\% | 24.11\% | 76.10\% | 45.69\% | 24.45\% | 76.28\% | 45.45\% | 28.44\% | 68.71\% | 45.36\% |
|  |  | 37.30\% | 62.70\% | 100.00\% | 32.95\% | .05\% | 100.00\% | 32.39\% | 67.61\% | 100.00\% | 30.29 | 69.71\% | 0.00 | 30.86\% | 4\% | 0.00\% | 32.00\% | 88.00\% | 100.00\% | 36.36\% | 63.64\% | 100.00\% |
|  | Total | 234 | 169 | 403 | 226 | 160 | 386 | 232 | 54 | 386 | 220 | 163 | 383 | 224 | 159 | 383 | 229 | 156 | 385 | 225 | 163 | 388 |
|  |  | 58.06\% | 41.94\% | 100.00\% | 58.55\% | 41.45\% | 100.00\% | 60.10\% | 39.90\% | 100.00\% | 57.44\% | 42.56\% | 100.00\% | 58.49\% | 41.51\% | 100.00\% | 59.48\% | 40.52\% | 100.00\% | 57.99\% | 42.01\% | 100.00\% |
| $\begin{array}{ll} 0 & 0 \\ 0 \\ 0 \\ 0 & 0 \\ 0 & 0 \\ 0 & 0 \\ 0 & 0 \\ 0 & E \\ 0 & 0 \\ 0 & E \\ 0 & 0 \\ 0 & 0 \\ 0 & \end{array}$ | Non-poor | 158 | 60 | 218 | 154 | 48 | 202 | 160 | 42 | 202 | 155 | 45 | 200 | 163 | 37 | 200 | 163 | 39 | 202 | 154 | 50 | 20 |
|  |  | 72.48\% | .43\% | 54.09\% | 75.49\% | 26.52\% | 52.47\% | 75.83\% | 24.14\% | 52.47\% | 74.52\% | 25.71\% | 52.22\% | 75.81\% | 22.02\% | 52.22\% | 76.89\% | 22.67\% | 52.60\% | 71.96\% | 28.74\% | 52.58\% |
|  |  | 72.48\% | 52\% | $\underline{100.00 \%}$ | 76.24\% | 23.76\% | 100.00\% | 79.21\% | 20.79\% | 100.00\% | 77.50\% | 22.50\% | 100.00\% | 81.50\% | . $50 \%$ | 00.00\% | 80.69\% | . $3.31 \%$ | 100.00\% | 75.49\% | 4.51\% | 100.00\% |
|  |  | 60 | 125 | 185 | 50 | 133 | 183 | 51 | 132 | 183 | 53 | 130 | 183 | 52 | 131 | 183 | 49 | 133 | 182 | 60 | 124 | 184 |
|  | Poor | 27.52\% | 67.57\% | 45.91\% | 24.51\% | 73.48\% | 47.53\% | 24.17\% | 75.86\% | 47.53\% | 25.48\% | 74.29\% | 47.78\% | 24.19\% | 77.98\% | 47.78\% | 23.11\% | 77.33\% | 47.40\% | 28.04\% | 71.26\% | 47.42\% |
|  |  | 32.43\% | 67.57\% | 100.00\% | 27.32\% | 72.68\% | 100.00\% | 27.87\% | 72.13\% | 100.00\% | 28.96\% | 71.04\% | 00.00\% | 28.42\% | . $58 \%$ | 0.00 | 26.92\% | 3.08\% | 100.00\% | 32.61\% | 67.39\% | 100.00\% |
|  | Total | 218 | 185 | 403 | 20 | 181 | 38 | 211 | 174 | 385 | 208 | 175 | 383 | 215 | 168 | 383 | 212 | 172 | 384 | 214 | 174 | 388 |
|  |  | 54.09\% | 45.91\% | 100.00\% | 52.99\% | 47.01\% | 100.00\% | 54.81\% | 45.19\% | 100.00\% | 54.31\% | 45.69\% | 100.00\% | 56.14\% | 43.86\% | 100.00\% | 55.21\% | 44.79\% | 100.00\% | 55.15\% | 44.85\% | 100.00\% |
|  | Non-poor | 278 | 21 | 299 | 278 | 13 | 291 | 271 | 18 | 289 | 270 | 16 | 286 | 271 | 15 | 286 | 271 | 17 | 288 | 278 | 13 | 29 |
|  |  | 82.01\% | .87\% | 74.56\% | 82.49\% | 25.49\% | 75.00\% | 82.62\% | 1.03\% | 74.87\% | 83.85\% | 26.23\% | 74.67\% | 83.64\% | 25.42\% | 74.67\% | 83.38\% | 28.33\% | $74.81 \%$ | 79.89\% | 32.50\% | 75.00\% |
|  |  | 92.98\% | 2\% | 100.00\% | 95.53\% | 7\% | 0.00\% | 93.77\% | 23\% | .00\% | 94.41\% | 9\% | 0.00\% | $\underline{94.76 \%}$ | 4\% | .00\% | .10\% | 0\% | 100.00\% | 95.53\% | 47\% | 100.00\% |
|  | Poor | 61 | 41 | 102 | 59 | 38 | 97 | 57 | 40 | 97 | 52 | 45 | 97 | 53 | 44 | 97 | 54 | 43 | 97 | 70 | 27 | 97 |
|  |  | 17.99\% | 66.13\% | 25.44\% | 17.51\% | 74.51\% | 25.00\% | 17.38\% | 68.97\% | 25.13\% | 16.15\% | 73.77\% | 25.33\% | 16.36\% | 74.58\% | 25.33\% | 16.62\% | 71.67\% | 25.19\% | 20.11\% | 67.50\% | 25.00\% |
|  |  | 59.80\% | 20\% | $\underline{100.00 \%}$ | 60.82 | 39.18\% | $\underline{100.00}$ | 58.76\% | .24\% | 100.00\% | 53.61\% | 46.39\% | 0.00\% | 54.64\% | 45.36\% | 00.00\% | 55.67\% | 44.33\% | 100.00\% | 72.16\% | 27.84\% | 100.00\% |
|  | Total | 339 | 62 | 401 | 337 | 51 | 388 | 328 | 58 | 386 | 322 | 61 | 383 | 324 | 59 | 383 | 325 | 60 | 385 | 348 | 40 | 388 |
|  |  | 84.54\% | 15.46\% | 100.00\% | 86.86\% | 13.14\% | 100.00\% | 84.97\% | 15.03\% | 100.00\% | 84.07\% | 15.93\% |  | 84.60\% | 15.40\% |  | 84.42\% | 15.58\% | 100.00\% | 89.69\% | 10.31\% | 100.00\% |
| $\begin{aligned} & 0 \\ & 0.0 \\ & 0 \\ & \vdots \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \end{aligned}$ | Non-poor | 267 | 25 | 292 | 259 | 23 | 282 | 263 | 19 | 282 | 260 | 20 | 280 | 260 | 20 | 280 | 261 | 21 | 282 | 262 | 23 | 28 |
|  |  | 81.65\% | 33.78\% | 72.82\% | 82.75\% | 31.94\% | 73.25\% | 82.97\% | 27.94\% | 73.25\% | 83.87\% | 27.40\% | 73.11\% | 83.87\% | 27.40\% | 73.11\% | 81.82\% | 31.82\% | 73.25\% | 79.39\% | 39.66\% | 73.45\% |
|  |  | 91.44\% | 6\% | 100.00\% | 91.84\% | 6\% | 100.00\% | 93.26\% | 74\% | 100.00\% | $\underline{92.86 \%}$ | 14\% | .00\% | 92.86\% | .14\% | . $00 \%$ | 92.55\% | .45\% | 100.00\% | 91.93\% | 8.07\% | 100.00\% |
|  | Poor | 60 | 49 | 109 | 54 | 49 | 103 | 54 | 49 | 103 | 50 | 53 | 103 | 50 | 53 | 103 | 58 | 45 | 103 | 68 | 35 | 103 |
|  |  | 18.35\% | 66.22\% | 27.18\% | 17.25\% | 68.06\% | 26.75\% | 17.03\% | 2.06\% | 26.75\% | 16.13\% | 72.60\% | 26.89\% | 16.13\% | 72.60\% | 26.89\% | 18.18\% | 68.18\% | 26.75\% | 20.61\% | 60.34\% | 26.55\% |
|  |  | 55.05\% | 44.95\% | 100.00\% | 52.43\% | 47.57\% | 100.00\% | 52.43\% | 47.57\% | 100.00\% | 48.54\% | 51.46\% | 100.00\% | 48.54\% | 51.46\% | 100.00\% | 56.31\% | 43.69\% | 100.00\% | 66.02\% | 33.98\% | 100.00\% |
|  | Total | 327 | 74 | 401 | 313 | 72 | 385 | 317 | 68 | 385 | 310 | 73 | 383 | 310 | 73 | 383 | 319 | 66 | 385 | 330 | 58 | 388 |
|  |  | 81.55\% | 18.45\% | 100.00\% | 81.30\% | 18.70\% | 100.00\% | 82.34\% | 17.66\% |  | 80.94\% | 19.06\% |  | 80.94\% | 19.06\% |  | 82.86\% | 17.14\% | 100.00\% | 85.05\% | 14.95\% | 100.00\% |

 underlined. Undercoverage rate is in bold and highlighted with pink background; leakage is in bold and highlighted with yellow background.

Appendix 6: Inclusion and Exclusion Errors Under Different Poverty Lines.
Table A.6.12 Inclusion Errors, Exclusion Errors, Undercoverage rates and Leakage rates under Alternative Tools. Food poverty line=10690.4 MNT a month


Note: Food poverty line 10690.4 MNT is calculated using global poverty line of 1 dollar a day ( 32.04 dollars a month) and PPP of 1US $\$=544.21$ MNT and share of food in total consumption $60 \%$. Column percentage is
in Italic; row percentage is underlined. Undercoverage rate is in bold and highlighted with pink background; leakage is in bold and highlighted with yellow background.

Appendix 6: Inclusion and Exclusion Errors Under Different Poverty Lines.
Table A.6.13: Inclusion Errors, Exclusion Errors, Undercoverage rates and Leakage rates under Alternative Tools. Food poverty line=8,908.6 MNT a month


Notes: Food poverty line 8908.6 MNT is calculated using global poverty line of 1 dollar a day ( 32.04 dollars a month) and PPP of 1 US $\$=544.21$ MNT and share of food in total consumption $50 \%$. Column percentage is in Italic; row percentage is
underlined. Undercoverage rate is in bold and highlighted with pink background; leakage is in bold and highlighted with yellow background.

Appendix 6: Inclusion and Exclusion Errors Under Different Poverty Lines
Table A.6.14: Inclusion Errors, Exclusion Errors, Undercoverage rates and Leakage rates under Alternative Tools. Food poverty line=8,908.6 MNT a month


Notes: Food poverty line 8908.6 MNT is calculated using global poverty line of 1 dollar a day ( 32.04 dollars a month) and PPP of 1 LSS $\$=544.21$ MNT and share of food in total consumption $50 \%$. Column percentage is in Italic; row percentag is underlined.
Undercoverage rate is in bold and highlighted with pink background; leakage is in bold and highlighted with yellow background.

Welfare indicator: Per Capita Food Consumption for All Members; Food Poverty Line=12472.1 MNT







Welfare indicator: Per Capita Food Consumption for Core Members; Food Poverty Line=12472.1 MNT






Welfare indicator: Adult Equivalent Food Consumption for Core Members; Food Poverty Line=12472.1 MNT




Precicted vs Obsened Adult Equivalent Consumption Nodel 6 Poveryline $=12472.1$
Core menbers
 Nodel 4 APoverty ine $=12472.1$
Core members


 Nodel 5 AP Poveryly ine=12472.1



Welfare indicator: Per Capita Income for All Members; Poverty Line=17817 MNT



Welfare indicator: Per Capita Income for Core Members; Poverty Line=17817 MNT




Predicted vs Obsened Per Capita Income



Predicted vs Obsened Probability of P Povery based on PC Income
Model 0 A Poverty ine= 17817
Coremembers



Welfare indicator: Per Capita Food Consumption for All Members; Food Poverty Line=10690.4 MNT





Nodel 4AP Poveryly line=10690.4




Predicted is Obsened Probility of Poverty based on PC Consumption
Nodel 5A Poverty line=10690.4



Welfare indicator: Per Capita Food Consumption for Core Members; Food Poverty Line=10690.4 MNT


 Model 1 A Poverty line 10690.4


Predicted vs Obsened Probility of Poverty based on PC Consumpion Nodel 5 S Poveryly line 10690.4


Predicted vs Obsened Per Capita Consumption Nodel 3 Poverty line= 10690.4 Core members

Welfare indicator: Adult Equivalent Food Consumption for All Members; Food Poverty Line=10690.4 MNT



Welfare indicator: Adult Equivalent F ood Consumption for Core Members; F ood Poverty Line=10690.4 MNT






Welfare indicator: Per Capita Food Consumption for All Members; Food Poverty Line=8908.6 MNT


Predicted is Obsened Per Capita Consumption Nodel 4 Poveryly ine=8908.6
Al members


Predicted is Obsened Probility of Povery based on PC Consumpion Nodel 2 APoveraty ine=8908.6



Predicted vs Obsened Per Capita Consumpion Nodel 5 Poverty line=8908.6
Al members




Predicted is Obsenved Per Capita Consumption Nodel 6 Poverty line=8908. 6
Al members


Nodel 4 A Poverty line=8008. 6



Predicted vs Obsened Probability of Poverty based on PC Consumption
Model aA Poverty line=8080.7
Model OA Poverty line=890.7
All members


Predicted is Obsened Probility of Poverty based on PC Consumpion
Nodel 5 AP Poveryly lie=8908.6








Welfare indicator: Adult Equivalent F ood Consumption for All Members; Food Poverty Line=8908.6 MNT


Welfare indicator: Adult Equivalent Food Consumption for Core Members; Food Poverty Line=8908.6 MNT






$$
\begin{aligned}
& \text { Nodele 5APPoreryl line=8908.6 } \\
& \text { Corerempers }
\end{aligned}
$$




Appendix 7. Inclusion and Exclusion Errors on Individual Level
Table A.7.1: Comparison of Poverty Status Based on "True" Welfare and Child Money Receipt Status (Individual level) Food poverty line: 17,639 MNT a month; Poverty line= 30,337 MNT (National poverty line)

|  |  | All non-adults |  |  | Non-adults who are members of households with 3 or more children |  |  | Non-adults who are members of households with a child |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Receive Child Money? |  |  | Receive Child Money? |  |  | Receive Child Money? |  |  |
|  |  | NO YES |  | Total | NO | YES | Total | NO | YES | Total |
|  | Non-poor | 105 | 19 | 124 | 38 | 17 | 55 | 104 | 19 | 123 |
|  |  | 23.23\% | 5.92\% | 16.04\% | 27.94\% | 5.38\% | 12.17\% | 23.06\% | 5.97\% | 15.99\% |
|  |  | 84.68\% | 15.32\% | $\underline{100.00 \%}$ | 69.09\% | 30.91\% | 100.00\% | 84.55\% | 15.45\% | 100.00\% |
|  |  | 347 | 302 | 649 | 98 | 299 | 397 | 347 | 299 | 646 |
|  | Poor | 76.77\% | 94.08\% | 83.96\% | 72.06\% | 94.62\% | 87.83\% | 76.94\% | 94.03\% | 84.01\% |
|  |  | 53.47\% | 46.53\% | $\underline{100.00 \%}$ | 24.69\% | 75.31\% | 100.00\% | 53.72\% | 46.28\% | 100.00\% |
|  | Total | 452 | 321 | 773 | 136 | 316 | 452 | 451 | 318 | 769 |
|  | Total | 58.47\% | 41.53\% |  | 30.09\% | 69.91\% |  | 58.65\% | 41.35\% |  |
| $\begin{aligned} & \ddot{0} \\ & 0 \\ & 0 \\ & \tilde{0} \\ & \tilde{0} \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \end{aligned}$ | Non-poor | 98 | 16 | 114 | 35 | 14 | 49 | 97 | 16 | 113 |
|  |  | 20.29\% | 4.92\% | 14.11\% | 25.36\% | 4.38\% | 10.70\% | 20.73\% | 4.97\% | 14.30\% |
|  |  | 85.96\% | 14.04\% | 100.00\% | 71.43\% | 28.57\% | 100.00\% | 85.84\% | 14.16\% | 100.00\% |
|  | Poor | 385 | 309 | 694 | 103 | 306 | 409 | 371 | 306 | 677 |
|  |  | 79.71\% | 95.08\% | 85.89\% | 74.64\% | 95.63\% | 89.30\% | 79.27\% | 95.03\% | 85.70\% |
|  |  | 55.48\% | 44.52\% | 100.00\% | 25.18\% | 74.82\% | 100.00\% | 54.80\% | 45.20\% | 100.00\% |
|  | Total | 483 | 325 | 808 | 138 | 320 | 458 | 468 | 322 | 790 |
|  |  | 59.78\% | 40.22\% |  | 30.13\% | 69.87\% |  | 59.24\% | 40.76\% |  |
|  | Non-poor | 204 | 75 | 279 | 67 | 73 | 140 | 192 | 76 | 268 |
|  |  | 45.13\% | 23.36\% | 36.09\% | 49.26\% | 23.10\% | 30.97\% | 41.03\% | 23.60\% | 33.92\% |
|  |  | 73.12\% | 26.88\% | 100.00\% | 47.86\% | 52.14\% | 100.00\% | 71.64\% | 28.36\% | 100.00\% |
|  | Poor | 248 | 246 | 494 | 69 | 243 | 312 | 276 | 246 | 522 |
|  |  | 54.87\% | 76.64\% | 63.91\% | 50.74\% | 76.90\% | 69.03\% | 58.97\% | 76.40\% | 66.08\% |
|  |  | 50.20\% | 49.80\% | 100.00\% | 22.12\% | 77.88\% | 100.00\% | 52.87\% | 47.13\% | 100.00\% |
|  | Total | 452 | 321 | 773 | 136 | 316 | 452 | 468 | 322 | 790 |
|  |  | 58.47\% | 41.53\% |  | 30.09\% | $\underline{69.91 \%}$ |  | 59.24\% | 40.76\% |  |
|  | Non-poor | 197 | 76 | 273 | 64 | 74 | 138 | 458 | 138 | 596 |
|  |  | 40.79\% | 23.38\% | 33.79\% | 46.38\% | 23.13\% | 30.13\% | 37.76\% | 24.51\% | 33.56\% |
|  |  | 72.16\% | 27.84\% | 100.00\% | 46.38\% | 53.62\% | 100.00\% | 76.85\% | 23.15\% | 100.00\% |
|  | Poor | 286 | 249 | 535 | 74 | 246 | 320 | 755 | 425 | 1180 |
|  |  | 59.21\% | 76.62\% | 66.21\% | 53.62\% | 76.88\% | 69.87\% | 62.24\% | 75.49\% | 66.44\% |
|  |  | 53.46\% | 46.54\% | $\underline{100.00 \%}$ | 23.13\% | 76.88\% | 100.00\% | 63.98\% | 36.02\% | 100.00\% |
|  | Total | 483 | 325 | 808 | 138 | 320 | 458 | 1213 | 563 | 1776 |
|  |  | 59.78\% | 40.22\% |  | 30.13\% | 69.87\% |  | 68.30\% | 31.70\% |  |
| $\begin{aligned} & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & \ddot{0} \\ & \vdots \\ & 0 \end{aligned}$ | Non-poor | 110 | 9 | 119 | 26 | 9 | 35 | 109 | 9 | 118 |
|  |  | 25.00\% | 2.78\% | 15.58\% | 19.12\% | 2.82\% | 7.69\% | 24.83\% | 2.80\% | 15.53\% |
|  |  | $\underline{92.44 \%}$ | 7.56\% | 100.00\% | 74.29\% | $\underline{\mathbf{2 5 . 7 1 \%}}$ | 100.00\% | 92.37\% | 7.63\% | 100.00\% |
|  | Poor | 330 | 315 | 645 | 110 | 310 | 420 | 330 | 312 | 642 |
|  |  | 75.00\% | 97.22\% | 84.42\% | 80.88\% | 97.18\% | 92.31\% | 75.17\% | 97.20\% | 84.47\% |
|  |  | 51.16\% | 48.84\% | 100.00\% | 26.19\% | 73.81\% | 100.00\% | 51.40\% | 48.60\% | 100.00\% |
|  | Total | 440 | 324 | 764 | 136 | 319 | 455 | 439 | 321 | 760 |
|  |  | 57.59\% | 42.41\% |  | $\underline{29.89 \%}$ | 70.11\% |  | 57.76\% | 42.24\% |  |
| $\begin{aligned} & 0 \\ & 0.0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & \ddot{U} \\ & \ddot{Z} \\ & 0 \end{aligned}$ | Non-poor | 118 | 9 | 127 | 30 | 9 | 39 | 115 | 9 | 124 |
|  |  | 25.21\% | 2.74\% | 15.95\% | 21.74\% | 2.79\% | 8.46\% | 25.39\% | 2.77\% | 15.94\% |
|  |  | 92.91\% | 7.09\% | 100.00\% | 76.92\% | 23.08\% | 100.00\% | 92.74\% | 7.26\% | 100.00\% |
|  | Poor | 350 | 319 | 669 | 108 | 314 | 422 | 338 | 316 | 654 |
|  |  | 74.79\% | 97.26\% | 84.05\% | 78.26\% | 97.21\% | 91.54\% | 74.61\% | 97.23\% | 84.06\% |
|  |  | 52.32\% | 47.68\% | 100.00\% | 25.59\% | 74.41\% | 100.00\% | 51.68\% | 48.32\% | 100.00\% |
|  | Total | 468 | 328 | 796 | 138 | 323 | 461 | 453 | 325 | 778 |
|  |  | 58.79\% | 41.21\% |  | 29.93\% | 70.07\% |  | 58.23\% | 41.77\% |  |

[^5]Appendix 7. Inclusion and Exclusion Errors on Individual Level
Table A.7.2: Comparison of Poverty Status Based on "True" Welfare and PRR Method (Individual-level)
Food poverty line: 17,639 MNT a month; Poverty line= 30,337 MNT (National poverty line)

|  |  | Living standard according to Poverty Risk Ratio method |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Affordable | Average | Poor | Extremely poor | Total | Non poor | Poor |
|  | Non-poor | 24 | 223 | 137 | 0 | 384 | 247 | 137 |
|  |  | 85.71\% | 29.23\% | 12.23\% | 0.00\% | 19.80\% | 31.23\% | 11.93\% |
|  |  | 6.25\% | 58.07\% | 35.68\% | 0.00\% | 100.00\% | 64.32\% | 35.68\% |
|  | Poor | 4 | 540 | 983 | 28 | 100 | 544 | 1011 |
|  |  | 14.29\% | 70.77\% | 87.77\% | 100.00\% | 5.16\% | 68.77\% | 88.07\% |
|  |  | 0.26\% | 34.73\% | 63.22\% | 1.80\% | 100.00\% | 34.98\% | 65.02\% |
|  | Total | 28 | 763 | 1120 | 28 | 1939 | 791 | 1148 |
|  |  | 1.44\% | 39.35\% | 57.76\% | 1.44\% |  | 40.79\% | 59.21\% |
|  | Non-poor | 21 | 201 | 123 | 0 | 345 | 222 | 123 |
|  |  | 84.00\% | 26.59\% | 10.27\% | 0.00\% | 17.18\% | 28.43\% | 10.02\% |
|  |  | 6.09\% | 58.26\% | 35.65\% | 0.00\% | 100.00\% | 64.35\% | 35.65\% |
|  | Poor | 4 | 555 | 1075 | 29 | 100 | 559 | 1104 |
|  |  | 16.00\% | 73.41\% | 89.73\% | 100.00\% | 4.98\% | 71.57\% | 89.98\% |
|  |  | 0.24\% | 33.37\% | 64.64\% | 1.74\% | 100.00\% | 33.61\% | 66.39\% |
|  | Total | 25 | 756 | 1198 | 29 | 2008 | 781 | 1227 |
|  |  | 1.25\% | 37.65\% | 59.66\% | 1.44\% |  | 38.89\% | 61.11\% |
|  | Non-poor | 21 | 350 | 325 | 0 | 696 | 401 | 324 |
|  |  | 84.00\% | 46.48\% | 27.33\% | 0.00\% | 34.87\% | 50.89\% | 28.45\% |
|  |  | 3.02\% | 50.29\% | 46.70\% | 0.00\% | 100.00\% | 55.31\% | 44.69\% |
|  | Poor | 4 | 403 | 864 | 29 | 100 | 387 | 815 |
|  |  | 16.00\% | 53.52\% | 72.67\% | 100.00\% | 5.01\% | 49.11\% | 71.55\% |
|  |  | 0.31\% | 31.00\% | 66.46\% | 2.23\% | 100.00\% | 32.20\% | 67.80\% |
|  | Total | ${ }_{25}^{25}$ | 753 | $\begin{array}{r}1189 \\ 59 \\ \hline\end{array}$ | 29 | 1996 | 788 | 1139 |
|  |  | 1.25\% | 37.73\% | 59.57\% | 1.45\% |  | 40.89\% | 59.11\% |
| $\begin{array}{\|l} \stackrel{\rightharpoonup}{0} \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ u \end{array}$ | Non-poor | 8 | 92 | 59 | 0 | 159 | 371 | 325 |
|  |  | 88.89\% | 48.94\% | 29.35\% | 0.00\% | 39.65\% | 47.69\% | 26.68\% |
|  |  | 5.03\% | 57.86\% | 37.11\% | 0.00\% | 100.00\% | 53.30\% | 46.70\% |
|  | Poor | 11 | 96 | 142 | 3 | 242 | 407 | 893 |
|  |  | 11.11\% | 51.06\% | 70.65\% | 100.00\% | 60.35\% | 52.31\% | 73.32\% |
|  |  | 0.41\% | 39.67\% | 58.68\% | 1.24\% | 100.00\% | 31.31\% | 68.69\% |
|  | Total | ${ }^{9}$ | 188 | 201 | 3 0 | 401 | 778 | 1218 |
|  |  | 2.24\% | 46.88\% | 50.12\% | 0.75\% |  | 38.98\% | 61.02\% |
| $\begin{aligned} & 0 \\ & 0 . \\ & 0 \\ & 0.0 \\ & 0.0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & .0 \\ & . \\ & 0 \\ & 0 \end{aligned}$ | Non-poor |  | 273 | 142 |  | 443 | 301 | 142 |
|  |  | 100.00\% | 36.02\% | 12.83\% | 0.00\% | 23.06\% | 38.30\% | 12.51\% |
|  |  | 6.32\% | 61.63\% | 32.05\% | 0.00\% | 100.00\% | 67.95\% | 32.05\% |
|  | Poor | 0 | 485 | 965 | 28 | 100 | 485 | 993 |
|  |  | 0.00\% | 63.98\% | 87.17\% | 100.00\% | 5.21\% | 61.70\% | 87.49\% |
|  |  | 0.00\% | 32.81\% | 65.29\% | 1.89\% | 100.00\% | 32.81\% | 67.19\% |
|  | Total | 28 | 758 | 1107 | 28 | 1921 | 786 | 1135 |
|  |  | 1.46\% | 39.46\% | 57.63\% | 1.46\% |  | 40.92\% | 59.08\% |
| $\begin{aligned} & 0.0 \\ & 0 \\ & 0 \\ & 0.0 \\ & 0.0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & .0 \\ & . \\ & 0 \\ & 0 \end{aligned}$ | Non-poor | 25 | 262 | 161 | 0 | 448 | 287 | 161 |
|  |  | 100.00\% | 34.84\% | 13.63\% | 0.00\% | 22.55\% | 36.94\% | 13.31\% |
|  |  | 5.58\% | 58.48\% | 35.94\% | 0.00\% | 100.00\% | 64.06\% | 35.94\% |
|  | Poor | 0 | 490 | 1020 | 29 | 100 | 490 | 1049 |
|  |  | 0.00\% | 65.16\% | 86.37\% | 100.00\% | 5.03\% | 63.06\% | 86.69\% |
|  |  | 0.00\% | 31.84\% | 66.28\% | 1.88\% | 100.00\% | 31.84\% | 68.16\% |
|  | Total | $\begin{gathered} 25 \\ 1.26 \% \\ \hline \end{gathered}$ | $\begin{gathered} 752 \\ 37.85 \% \\ \hline \end{gathered}$ | $\begin{gathered} 1181 \\ 59.44 \% \end{gathered}$ | $\begin{gathered} 29 \\ 1.46 \% \\ \hline \end{gathered}$ | 1987 | $\begin{gathered} 777 \\ 39.10 \% \end{gathered}$ | $\begin{gathered} 1210 \\ 60.90 \% \end{gathered}$ |

Notes: Column percentage is in Italic; row percentage is underlined. Undercoverage rate is in bold and highlighted with pink background; leakage is in bold and highlighted with yellow background.

Appendix 7. Inclusion and Exclusion Errors on Individual Level
Table A.7.3: Comparison of Poverty Status Based on PRR Method and Child Money Receipt Status (Individual-level)
Food poverty line: 17,639 MNT a month; Poverty line= 30,337 MNT (National poverty line)

|  |  | All households |  |  | Households with 3 or more children <br> Receive Child Money? |  |  | $\begin{array}{\|c\|} \hline \text { Households with } 1 \text { or more children } \\ \hline \text { Receive Child Money? } \\ \hline \end{array}$ |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Receive Child Money? |  |  |  |  |  |  |  |  |
|  |  | N0 | YES | Total | N0 | YES | Total | N0 | YES | Total |
|  | Non-poor | 199 | 75 | 274 | 28 | 70 | 98 | 199 | 72 | 271 |
|  |  | 43.07\% | 23.15\% | 34.86\% | 20.14\% | 21.94\% | 21.40\% | 43.26\% | 22.43\% | 34.70\% |
|  |  | 72.63\% | 27.37\% | 100.00\% | 28.57\% | 71.43\% | 100.00\% | 73.43\% | 26.57\% | 100.00\% |
|  | Poor | 263 | 249 | 512 | 111 | 249 | 360 | 261 | 249 | 510 |
|  |  | 56.93\% | 76.85\% | 65.14\% | 79.86\% | 78.06\% | 78.60\% | 56.74\% | 77.57\% | 65.30\% |
|  |  | 51.37\% | 48.63\% | 100.00\% | 30.83\% | 69.17\% | 100.00\% | 51.18\% | 48.82\% | 100.00\% |
|  | Total | 462 | 324 | 786 | 139 | 319 | 458 | 460 | 321 | 781 |
|  |  | 100\% | 100\% |  | 100\% | 100\% |  | 100\% | 100\% |  |
|  |  | 58.78\% | 41.22\% | 100.00\% | 30.35\% | 69.65\% | 100.00\% | 58.90\% | 41.10\% | 100.00\% |
| $\approx$ <br>  <br> 0.0 <br> 0.0 <br> 0 <br> 0 <br> 0 <br> 0 <br> $\vdots$ <br> 0 <br> 0 <br> 0 <br> 0 | Non-poor | 198 | 69 | 267 | 28 | 64 | 92 | 196 | 66 | 262 |
|  |  | 40.16\% | 21.04\% | $32.52 \%$ | 19.86\% | 19.81\% | 19.83\% | 41.09\% | 20.31\% | 32.67\% |
|  |  | 74.16\% | 25.84\% | 100.00\% | 30.43\% | 69.57\% | 100.00\% | 74.81\% | 25.19\% | 100.00\% |
|  | Poor | 295 | 259 | 554 | 113 | 259 | 372 | 281 | 259 | 540 |
|  |  | 59.84\% | 78.96\% | 67.48\% | 80.14\% | 80.19\% | 80.17\% | 58.91\% | 79.69\% | 67.33\% |
|  |  | 53.25\% | 46.75\% | 100.00\% | 30.38\% | 69.62\% | 100.00\% | 52.04\% | 47.96\% | 100.00\% |
|  | Total | 493 | 328 | 821 | 141 | 323 | 464 | 477 | 325 | 802 |
|  |  | 100\% | 100\% |  | 100\% | 100\% |  | 100\% | 100\% |  |
|  |  | 60.05\% | 39.95\% | 100.00\% | 30.39\% | 69.61\% | $\underline{100.00 \%}$ | 59.48\% | 40.52\% | $\underline{100.00 \%}$ |

Notes: Column percentage is in Italic; row percentage is underlined. Undercoverage rate is in bold and highlighted with pink background; leakage is in bold and highlighted with yellow background.

Appendix 7. Inclusion and Exclusion Errors on Individual Level
Table A.7.4:Inclusion Errors, Exclusion Errors, Undercoverage rates and Leakage rates under Alternative Tools. Poverty line=National (Food Poverty Line=17,639 MNT, Poverty Line=30,337 MNT (Individual-level)


[^6]Appendix 7. Inclusion and Exclusion Errors on Individual Level


|  |  | Model 0A |  |  | Model 1A |  |  | Model 2A |  |  | Model 3A |  |  | Model 4A |  |  | Model 5A |  |  | Model 6A |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Non-poor | Poor | Total | Non-poor | Poor | Total | Non-poor | Poor | Total | Non-poor | Poor | Total | Non-poor | Poor | Total | Non-poor | Poor | Total | Non-poor | Poor | Total |
|  | Non-poor | 129 | 248 | 377 | 129 | 249 | 378 | 155 | 223 | 378 | 172 | 198 | 370 | 168 | 202 | 370 | 151 | 227 | 378 | 137 | 243 | 380 |
|  |  | 65.15\% | 15.38\% | 20.82\% | 62.93\% | 14.94\% | 20.19\% | 61.51\% | 13.81\% | 20.25\% | 67.45\% | 12.42\% | 20.01\% | 68.29\% | 12.56\% | 19.96\% | 64.81\% | 13.85\% | 20.19\% | 62.84\% | 14.62\% | 20.21\% |
|  |  | 34.22\% | 65.78\% | 100.00\% | 34.13\% | 65.87\% | 100.00\% | 41.01\% | 58.99\% | 100.00\% | 46.49\% | 53.51\% | 100.00\% | 45.41\% | 54.59\% | 100.00\% | 39.95\% | 60.05\% | 100.00\% | 36.05\% | 63.95\% | 100.00\% |
|  |  | 69 | 1365 | 1434 | 76 | 1418 | 1494 | 97 | 1392 | 1489 | 83 | 1396 | 1479 | 78 | 1406 | 1484 | 82 | 1412 | 1494 | 81 | 1419 | 1500 |
|  | $\begin{array}{\|l} \text { Poor } \\ \text { Total } \\ \hline \end{array}$ | 34.85\% | 84.62\% | 79.18\% | 37.07\% | 85.06\% | 79.81\% | 38.49\% | 86.19\% | 79.75\% | 32.55\% | 87.58\% | 79.99\% | 31.71\% | 87.44\% | 80.04\% | 35.19\% | 86.15\% | 79.81\% | 37.16\% | 85.38\% | 79.79\% |
|  |  | 4.81\% | 95.19\% | 100.00\% | 5.09\% | 94.91\% | 100.00\% | 6.51\% | 93.49\% | 100.00\% | 5.61\% | 94.39\% | 100.00\% | 5.26\% | 94.74\% | 100.00\% | 5.49\% | 94.51\% | 100.00\% | 5.40\% | 94.60\% | 100.00\% |
|  |  | 198 | 1613 | 1811 | 205 | 1667 | 1872 | 252 | 1615 | 1867 | 255 | 1594 | 1849 | 246 | 1608 | 1854 | 233 | 1639 | 1872 | 218 | 1662 | 1880 |
|  |  | 10.93\% | 89.07\% | 100.00\% | 10.95\% | 89.05\% | 100.00\% | 13.50\% | 86.50\% | 100.00\% | 13.79\% | 86.21\% | 100.00\% | 13.27\% | 86.73\% | 100.00\% | 12.45\% | 87.55\% | 100.00\% | 11.60\% | 88.40\% | 100.00\% |
| $\begin{aligned} & \stackrel{\rightharpoonup}{0} \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \end{aligned}$ | Non-poor | 112 | 226 | 338 | 117 | 222 | 339 | 125 | 210 | 335 | 172 | 167 | 339 | 170 | 169 | 339 | 141 | 194 | 335 | 110 | 231 | 341 |
|  |  | 65.12\% | 13.26\% | 18.01\% | 55.98\% | 12.84\% | 17.49\% | 54.11\% | 12.38\% | 17.38\% | 65.65\% | 10.13\% | 17.75\% | 66.41\% | 10.19\% | 17.70\% | 65.58\% | 11.33\% | 17.38\% | 65.09\% | 13.00\% | 17.52\% |
|  |  | 33.14\% | 66.86\% | 100.00\% | 34.51\% | 65.49\% | 100.00\% | 37.31\% | 62.69\% | 100.00\% | 50.74\% | 49.26\% | 100.00\% | 50.15\% | 49.85\% | 100.00\% | 42.09\% | 57.91\% | 100.00\% | 32.26\% | 67.74\% | 100.00\% |
|  | Poor | 60 | 1479 | 1539 | 92 | 1507 | 1599 | 106 | 1486 | 1592 | 90 | 1481 | 1571 | 86 | 1490 | 1576 | 74 | 1518 | 1592 | 59 | 1546 | 1605 |
|  |  | 34.88\% | 86.74\% | 81.99\% | 44.02\% | 87.16\% | 82.51\% | 45.89\% | 87.62\% | 82.62\% | 34.35\% | 89.87\% | 82.25\% | 33.59\% | 89.81\% | 82.30\% | 34.42\% | 88.67\% | 82.62\% | 34.91\% | 87.00\% | 82.48\% |
|  |  | 3.90\% | 96.10\% | 100.00\% | 5.75\% | 94.25\% | 100.00\% | 6.66\% | 93.34\% | 100.00\% | 5.73\% | 94.27\% | 100.00\% | 5.46\% | 94.54\% | 100.00\% | 4.65\% | 95.35\% | 100.00\% | 3.68\% | 96.32\% | 100.00\% |
|  | Total | 172 | 1705 | 1877 | 209 | 1729 | 1938 | 231 | 1696 | 1927 | 262 | 1648 | 1910 | 256 | 1659 | 1915 | 215 | 1712 | 1927 | 169 | 1777 | 1946 |
|  |  | 9.16\% | 90.84\% | 100.00\% | 10.78\% | 89.22\% | 100.00\% | 11.99\% | 88.01\% | 100.00\% | 13.72\% | 86.28\% | $\underline{100.00 \%}$ | 13.37\% | 86.63\% | 100.00\% | $\underline{11.16 \%}$ | 88.84\% | 100.00\% | 8.68\% | 91.32\% | 100.00\% |
|  | Non-poor | 408 | 301 | 709 | 391 | 313 | 704 | 405 | 299 | 704 | 399 | 292 | 691 | 477 | 214 | 691 | 441 | 263 | 704 | 418 | 294 | 712 |
|  |  | 70.10\% | 23.24\% | 37.77\% | 68.84\% | 24.00\% | 37.61\% | 66.07\% | 23.84\% | 37.71\% | 73.35\% | 22.29\% | 37.27\% | 76.57\% | 17.38\% | 37.27\% | 73.13\% | 20.72\% | 37.61\% | 68.30\% | 23.19\% | 37.87\% |
|  |  | 57.55\% | 42.45\% | 100.00\% | 55.54\% | 44.46\% | 100.00\% | 57.53\% | 42.47\% | 100.00\% | 57.74\% | 42.26\% | 100.00\% | 69.03\% | 30.97\% | 100.00\% | $\underline{62.64 \%}$ | 37.36\% | 100.00\% | 58.71\% | 41.29\% | 100.00\% |
|  | Poor | 174 | 994 | 1168 | 177 | 991 | 1168 | 208 | 955 | 1163 | 145 | 1018 | 1163 | 146 | 1017 | 1163 | 162 | 1006 | 1168 | 194 | 974 | 1168 |
|  |  | 29.90\% | 76.76\% | 62.23\% | 31.16\% | 76.00\% | 62.39\% | 33.93\% | 76.16\% | 62.29\% | 26.65\% | 77.71\% | 62.73\% | 23.43\% | 82.62\% | 62.73\% | 26.87\% | 79.28\% | 62.39\% | 31.70\% | 76.81\% | 62.13\% |
|  |  | 14.90\% | 85.10\% | 100.00\% | 15.15\% | 84.85\% | 100.00\% | 17.88\% | 82.12\% | 100.00\% | 12.47\% | 87.53\% | 100.00\% | 12.55\% | 87.45\% | 100.00\% | 13.87\% | 86.13\% | 100.00\% | 16.61\% | 83.39\% | 100.00\% |
|  | Total | 582 | 1295 | 1877 | 568 | 1304 | 1872 | 613 | 1254 | 1867 | 544 | 1310 | 1854 | 623 | 1231 | 1854 | 603 | 1269 | 1872 | 612 | 1268 | 1880 |
|  |  | 31.01\% | 68.99\% | $\underline{100.00 \%}$ | 30.34\% | 69.66\% | $\underline{100.00 \%}$ | 32.83\% | 67.17\% | $\underline{100.00 \%}$ | 29.34\% | 70.66\% |  | 33.60\% | 66.40\% |  | 32.21\% | 67.79\% | 100.00\% | 32.55\% | 67.45\% | $\underline{100.00 \%}$ |
|  | Non-poor | 345 | 337 | 682 | 383 | 294 | 677 | 368 | 309 | 677 | 401 | 271 | 672 | 412 | 260 | 672 | 403 | 274 | 677 | 342 | 343 | 685 |
|  |  | 66.09\% | 23.72\% | 35.10\% | 69.26\% | 21.23\% | 34.93\% | 67.52\% | 22.26\% | 35.02\% | 72.12\% | 19.94\% | 35.09\% | 74.10\% | 19.13\% | 35.09\% | 70.83\% | 20.09\% | 35.02\% | 65.14\% | 24.14\% | 35.20\% |
|  |  | 50.59\% | 49.41\% | 100.00\% | 56.57\% | 43.43\% | 100.00\% | 54.36\% | 45.64\% | 100.00\% | 59.67\% | 40.33\% | 100.00\% | 61.31\% | 38.69\% | 100.00\% | 59.53\% | 40.47\% | 100.00\% | 49.93\% | 50.07\% | 100.00\% |
|  | Poor | 177 33.910 | 1084 | 1261 | 170 | 1091 | 1261 | 177 | 1079 | 1256 | 155 | 1088 | 1243 | 144 | 1099 | 1243 | 166 | 1090 | 1256 | 183 | 1078 | 1261 |
|  |  | 33.91\% | 76.28\% | 64.90\% | 30.74\% | 78.77\% | 65.07\% | 32.48\% | 77.74\% | 64.98\% | 27.88\% | 80.06\% | 64.91\% | 25.90\% | 80.87\% | 64.91\% | 29.17\% | 79.91\% | 64.98\% | 34.86\% | 75.86\% | 64.80\% |
|  |  | 14.04\% | 85.96\% | 100.00\% | 13.48\% | 86.52\% | 100.00\% | 14.09\% | 85.91\% | 100.00\% | 12.47\% | 87.53\% | 100.00\% | 11.58\% | 88.42\% | 100.00\% | 13.22\% | 86.78\% | 100.00\% | 14.51\% | 85.49\% | 100.00\% |
|  | Total | 522 | 1421 | 1943 | 553 | 1385 | 1938 | 545 | 1388 | 1933 | 556 | 1359 | 1915 | 556 | 1359 | 1915 | 569 | 1364 | 1933 | 525 | 1421 | 1946 |
|  |  | 26.87\% | 73.13\% | 100.00\% | 28.53\% | 71.47\% | $\underline{100.00 \%}$ | 28.19\% | 71.81\% |  | 29.03\% | 70.97\% |  | 29.03\% | 70.97\% |  | $\underline{29.44 \%}$ | 70.56\% | 100.00\% | 26.98\% | 73.02\% | $\underline{100.00 \%}$ |
|  | Non-poor | 289 | 144 | 433 | 246 | 187 | 433 | 246 | 187 | 433 | 287 | 144 | 431 | 307 | 124 | 431 | 312 | 119 | 431 | 257 | 176 | 433 |
|  |  | 76.25\% | 9.72\% | 23.28\% | 74.77\% | 12.06\% | 23.03\% | 74.77\% | 12.06\% | 23.03\% | 76.33\% | 9.78\% | 23.32\% | 73.98\% | 8.65\% | 23.32\% | 78.79\% | 8.18\% | 23.30\% | 75.37\% | 11.44\% | 23.03\% |
|  |  | 66.74\% | 33.26\% | 100.00\% | 56.81\% | 43.19\% | 100.00\% | 56.81\% | 43.19\% | 100.00\% | 66.59\% | 33.41\% | 100.00\% | 71.23\% | 28.77\% | 100.00\% | 72.39\% | 27.61\% | 100.00\% | 59.35\% | 40.65\% | 100.00\% |
|  | Poor | 90 | 1337 | 1427 | 83 | 1364 | 1447 | 83 | 1364 | 1447 | 89 | 1328 | 1417 | 108 | 1309 | 1417 | 84 | 1335 | 1419 | 84 | 1363 | 1447 |
|  |  | 23.75\% | 90.28\% | 76.72\% | 25.23\% | 87.94\% | 76.97\% | 25.23\% | 87.94\% | 76.97\% | 23.67\% | 90.22\% | 76.68\% | 26.02\% | 91.35\% | 76.68\% | 21.21\% | 91.82\% | 76.70\% | 24.63\% | 88.56\% | 76.97\% |
|  |  | 6.31\% | 93.69\% | 100.00\% | 5.74\% | 94.26\% | 100.00\% | 5.74\% | 94.26\% | 100.00\% | 6.28\% | 93.72\% | 100.00\% | 7.62\% | 92.38\% | 100.00\% | 5.92\% | 94.08\% | 100.00\% | 5.81\% | 94.19\% | 100.00\% |
|  | Total | 379 | 1481 | 1860 | 329 | 1551 | 1880 | 329 | 1551 | 1880 | 376 | 1472 | 1848 | 415 | 1433 | 1848 | 396 | 1454 | 1850 | 341 | 1539 | 1880 |
|  |  | 20.38\% | 79.62\% | 100.00\% | 17.50\% | 82.50\% | 100.00\% | 17.50\% | 82.50\% | 100.00\% | 20.35\% | 79.65\% | 100.00\% | 22.46\% | 77.54\% | 100.00\% | 21.41\% | 78.59\% | 100.00\% | 18.14\% | 81.86\% | 100.00\% |
| $\begin{aligned} & 0.0 \\ & 0 \\ & 0.0 \\ & 0.0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & \vdots \\ & 0 \end{aligned}$ | Non-poor | 217 | 221 | 438 | 284 | 154 | 438 | 290 | 148 | 438 | 266 | 157 | 423 | 288 | 148 | 436 | 293 | 145 | 438 | 216 | 222 | 438 |
|  |  | 74.57\% | 13.52\% | 22.74\% | 75.33\% | 9.82\% | 22.51\% | 78.17\% | 9.43\% | 22.57\% | 73.89\% | 10.14\% | 22.16\% | 81.13\% | 9.41\% | 22.63\% | 77.31\% | 9.28\% | 22.57\% | 75.79\% | 13.37\% | 22.51\% |
|  |  | 49.54\% | 50.46\% | 100.00\% | 64.84\% | 35.16\% | 100.00\% | 66.21\% | 33.79\% | 100.00\% | 62.88\% | 37.12\% | 100.00\% | 66.06\% | 33.94\% | 100.00\% | 66.89\% | 33.11\% | 100.00\% | 49.32\% | 50.68\% | 100.00\% |
|  | Poor | 74 | 1414 | 1488 | 93 | 1415 | 1508 | 81 | 1422 | 1503 | 94 | 1392 | 1486 | 67 | 1424 | 1491 | 86 | 1417 | 1503 | 69 | 1439 | 1508 |
|  |  | 25.43\% | 86.48\% | 77.26\% | 24.67\% | 90.18\% | 77.49\% | 21.83\% | 90.57\% | 77.43\% | 26.11\% | 89.86\% | 77.84\% | 18.87\% | 90.59\% | 77.37\% | 22.69\% | 90.72\% | 77.43\% | 24.21\% | 86.63\% | 77.49\% |
|  |  | 4.97\% | 95.03\% | 100.00\% | 6.17\% | 93.83\% | 100.00\% | 5.39\% | $\underline{94.61 \%}$ | 100.00\% | 6.33\% | 93.67\% | 100.00\% | 4.49\% | $\underline{95.51 \%}$ | 100.00\% | 5.72\% | 94.28\% | 100.00\% | 4.58\% | 95.42\% | 100.00\% |
|  | Total | 291 | 1635 | 1926 | 377 | 1569 | 1946 | 371 | 1570 | 1941 | 360 | 1549 | 1909 | 355 | 1572 | 1927 | 379 | 1562 | 1941 | 285 | 1661 | 1946 |
|  |  | 15.11\% | 84.89\% | 100.00\% | 19.37\% | 80.63\% | $\underline{100.00 \%}$ | 19.11\% | 80.89\% | 100.00\% | 18.86\% | 81.14\% | 100.00\% | 18.42\% | 81.58\% | 100.00\% | 19.53\% | 80.47\% | 100.00\% | 14.65\% | 85.35\% | 100.00\% |

Appendix 7. Inclusion and Exclusion Errors on Individual Level Table A.7.6: Inclusion Errors, Exclusion Errors, Undercoverage rates and Leakage rates under Alternative Tools. Poverty line=National (Food Poverty Line=17,639 MNT, Poverty Line=30,337 MNT (Individual-level)



[^0]:    ${ }^{1}$ Mongolia is divided into 22 provinces (aimags) and each of them is divided into districts (soums). The country has 340 districts (including both rural soums and urban districts) and below them, there are 1,671 of the smallest administrative units (rural baghs and urban khoroos).

[^1]:    ${ }^{2}$ Aimag is an administrative unit equivalent to a prefecture

[^2]:    Notes: Column percentage is in Italic; row percentage is underlined. Undercoverage rate is in bold and highlighted with pink background; leakage is in bold and highlighted with yellow background.

[^3]:    Note: Food poverty line 12472.1 MNT is calculated using global poverty line of 1 dollar a day ( 32.04 dollars a month) and PPP of 1US $\$=544.21$ MNT and share of food in total consumption 70\%. Column percentage is in Italic; row percentage is underlined. Undercoverage rate is in bold and highlighted with pink background; leakage is in bold and highlighted with yellow background.

[^4]:    underlined. Undercoverage rate is in bold and highlighted with pink background; leakage is in bold and highlighted with yellow background

[^5]:    Notes: Column percentage is in Italic; row percentage is underlined. Undercoverage rate is in bold and highlighted with pink background; leakage is in bold and highlighted with yellow background.

[^6]:    Notes: Column percentage is in Italic; row percentage is underlined. Undercoverage rate is in bold and highlighted with pink background; leakage is in bold and highlighted with yellow background

