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The Implications of Poverty Dynamics for Targeting the Poor: Simulations Using Indonesian Data

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ABSTRACT

The Implications of Poverty Dynamics for Targeting the Poor: Simulations Using Indonesian Data

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One of the key challenges on delivering benefits of poverty programs to the poor is to ensure that the beneficiaries of the programs are indeed the targeted population. This paper aims at assessing the implications of poverty dynamics on the accuracy of targeting, using a three-year panel data from Indonesia. We find that the existence of poverty dynamics within only three years period already contributes to large inclusion and exclusion errors in program targeting. We simulate several scenarios as an alternative way to increase targeting accuracy by increasing the threshold for determining the program beneficiaries. We find that the higher the threshold, the exclusion error becomes lower but the inclusion error becomes larger. At the same time, the number of beneficiaries becomes larger, implying increasing program costs. However, a significant part of inclusion error is consisted of vulnerable households, which experience poverty in other years. These findings imply that if the government wants to make sure that the poor receive the benefits of poverty programs, they need to increase the budget allocated toward poverty programs substantially. This may require an integration of various existing poverty programs. Another implication from the findings of this study points to the importance of regular and more frequent updating of the poor population database which is used for targeting of poverty programs.

Keywords: Poverty, vulnerability, dynamics, targeting, Indonesia

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I. INTRODUCTION

"Policymakers rarely have good access to evidence on what targeting approaches have worked well elsewhere, and under what conditions. In addition, adequate data on the nature and distribution of poverty are rarely available. Unsurprisingly, therefore, targeting is always an imperfect process and errors occur in both the design process and during implementation"
(Slater & Farrington, 2009)

Providing social protection programs for the poor is part of government's role to redistribute wealth, to solidify nation-building, and to increase the welfare of the poor (Domelen, 2007). Unfortunately, one challenge of these programs is to ensure that the beneficiaries of the programs are the targeted population—the poor and or the vulnerable one. Samson, Niekerk, and Quene (2010) revealed that there are always high errors on poverty targeting in developing countries, both in form of inclusion of untargeted group and exclusion of the targeted group as the beneficiaries of the program. In Bangladesh, for example, only six of a hundrend poorest-eligible-households that were the beneficiaries of government's social pension program (Samson et al., 2010), meanwhile in Argentina, the Trabajar Program, which was aimed at providing low-wage work to unemployed population only covered 7.5 percent of the unemployed (Grosh, Ninno, Tesliuc, & Ouerghi, 2008b). In Indonesia, WorldBank and AustralianAID (2012) found that many of poor households were excluded from the direct cash transfer, rice for the poor, and community health insurance programs while many of non poor households received programs' benefits.

In Indonesia, an effort to overcome targeting problem has been implemented since 2005 by collecting data of poor households, which is used as the basis for determining eligibility of the households for various poverty programs. The data is renewed every three years to take into account possible changes in the condition of poor households, including their welfare level. In 2011, this data collection of poor households was improved by creating a database of the poorest 40 percent population, from which implementing agencies can select lists of beneficiaries that are eligible for their programs. Previously, different programs from different agencies used different targeting approaches, which then contributed to large diversity of population who were the beneficiaries of those programs. There were lack of efforts to focus on the poor family and large exclusion error (AusAID, 2011). The government then refined the system for collecting the 2011 dataset by using the pre-listed list of household information based on population census data before collecting the data of targeted population, incorporating village leaders and communities to determine the poor households, widening the coverage of households listed in the dataset (incorporating not only the poor population, but also the vulnerable ones), and providing more detailed household information (AusAID, 2011; Hastuti et al., 2012).

Unfortunately, it seems that having a system of poor population database with triennially data collection period does not totally overcome the problems. Analysis by Baulch and Hoddinott (2000) on households' poverty dynamics in 10 countries with time frame analysis between two and 19 years found that the percentage of households which experienced movement on their poverty status is always larger than those who stayed poor. This implies that having trienially data collection period to determine the beneficiaries of poverty programs will bring low level of targeting accuracy in the second and third years after data collection period because of the households poverty dynamics. However, of course, it will largely depend on how dynamic households' poverty status in Indonesia is.

This paper explores households' poverty dynamics in Indonesia and assesses its impact on the efficiency of poverty programs' targeting. Furthermore, it simulates various beneficiary thresholds to obtain optimum targeting scheme in terms of the combination of inclusion error, exclusion error, and program cost. The results show that, like in other countries, there is high household's poverty dynamics in Indonesia. The proportions of households which move into and out of poverty are larger than households which stay poor within certain period of time. This leads to targeting inefficiency of poverty programs, particularly in terms of inability of the poor to access poverty programs. To ensure that most, if not all, poor households obtain benefits from the programs, increasing the programs' coverage through increasing the beneficiary threshold is necessary. However, increasing programs coverage will cause larger inclusion error (by incorporating more non-poor households as the beneficiaries) and larger cost consequences. Therefore, it is better to have an integrated poverty program than having various segmented programs targeted towards the same poor population.

The rest of the paper is organized as follows. The next section explains the dataset used in this study. Section three discusses the poverty dynamics in Indonesia. The simulations of poverty targeting scenarios are exercised in section four. Finally, section five concludes.

II. DATA

The dataset used in this study is the National Socio-economic Survey (Susenas), a survey which collects social and economic information on both individual and household characteristics such as demographics, labor market activities, education achievement and health condition of household member, housing condition, household expenditure, and access to public services. Until 2010, the survey is conducted twice a year, in March and July, each of which uses different sampling method. The March Susenas surveys the same households every year (panel survey), with the sample is renewed every three year.

Meanwhile, the July Susenas uses different sample households in each year. Moreover, the July Susenas has a larger number of sample (around 300.000 households or more than one million individuals) than the March survey (around 65,000 households or 260.000 person each year). Therefore, the March dataset is only representative at the provincial level, while the July dataset is representative at the district level. The use of either March or July dataset will largely depend on the purpose of a study.

This study uses the March Susenas data, which is known as the Panel Susenas. In particular, it uses the datasets from three consecutive years, from 2008 to 2010. As shown in Table 1, in total there are more than 65,000 households surveyed in each year, but only 80% of them (53,483 households) which were surveyed in all of the three consecutive years (2008-2010).[1] It is this balanced panel dataset that is used in the analyses in this paper.

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[1]These were due to several reasons such as migration, natural disaster, and inability to identify the household which were surveyed in the previous year.

**Table 1. Number of Household Sample of
Panel Susenas Dataset in 2008-2010**

Year	Number of Households in the Sample	Number of Households in the Balanced Sample
2008	66,724	
2009	67,174	53,483
2010	66,516	

Source: Panel Susenas 2008-2010 datasets

III. POVERTY DYNAMICS AND EFFICIENCY OF PROGRAM TARGETING

3.1 Poverty Dynamics in Indonesia

Indonesia continuously shows positive progress on the reduction of poverty rate. The balanced panel dataset indicates that the poverty rate decreased from 13.41 percent in 2008 to 12.25 percent in 2009 and further down to 11.52 percent in 2010. The reduction in poverty rate by 1.88 percentage point between 2008 and 2010 does not mean that 1.88 percent of the poor in 2008 succeeded to move out of poverty and everybody else stayed the same, rather it means that those who moved out of poverty is 1.88 percentage points higher than those who moved into poverty. Hence, poverty reduction is clearly related to poverty dynamics.

The movement of households into and out of poverty on yearly basis can be seen in Table 2. Panel A shows that between 2008 and 2009, out of 53,483 total households in the balanced sample, 7,174 households (13.41 percent) were poor in 2008 and 6,549 households (12.25 percent) were poor in 2009. The number of households who were poor in both years were 3,138 households (43.74 percent of the poor in 2008), while those who experienced poverty dynamics was much larger—around 7,447 households; 4,036 households (56.26 percent of the poor in 2008) moved out of poverty and 3,411 (7.37 percent of the non poor in 2008) households moved into poverty. This means that the poor in 2009 were comprised of 3,138 households (47.92 percent) who were poor in previous year and 3,411 households (52.08 percent) who were originally non-poor.

Table 2. Poverty Dynamics between 2008 and 2010

A. Poverty dynamics between 2008 and 2009			
2008	2009		
	Poor	Non Poor	Total
Poor	3,138	4,036	7,174
Row %	*43.74*	*56.26*	*100*
Non Poor	3,411	42,898	46,309
Row %	*7.37*	*92.63*	*100*
Total	6,549	46,934	53,483
Row %	*12.25*	*87.75*	*100*

B. Poverty dynamics between 2009 and 2010			
2009	**2010**		
	Poor	Non Poor	Total
Poor	2,936	3,613	6,549
Row %	*44.83*	*55.17*	*100*
Non Poor	3,228	43,706	46,934
Row %	*6.88*	*93.12*	*100*
Total	6,164	47,319	53,483
Row %	*11.53*	*88.47*	*100*
C. Poverty dynamics between 2008 and 2010			
2008	**2010**		
	Poor	Non Poor	Total
Poor	2,848	4,326	7,174
Row %	*39.70*	*60.30*	*100*
Non Poor	3,316	42,993	46,309
Row %	*7.16*	*92.84*	*100*
Total	6,164	47,319	53,483
Row %	*11.53*	*88.47*	*100*

Source: Balanced Panel Susenas 2008-2010 datasets

A similar pattern of poverty dynamics was observed in the following year. Panel B shows that between 2009 and 2010, the numbers of households who moved into and out of poverty were 3,228 and 3,613 households respectively; while those who stayed poor was only 2,936 households (44.83 percent of the poor in 2009). Panel C shows that accumulatively between 2008 and 2010, 2,848 households (39.70 percent) who were poor in 2008 were found still poor in 2010, which means that more than 60 percent of the poor households in 2008 has successfully moved out of poverty by 2010. However, 3,316 households (7.16 percent) who were non poor in 2008 become poor in 2010.

Table 3 identifies eight patterns of household poverty dynamics in the three year period. The number of households who experienced changes in poverty status during the period (20.50 percent) was six times larger than those who stayed poor in all years (3.40 percent). This means that the proportion of households who experienced poverty at least once during the period is 23.90 percent, or around double the poverty rate in any single year during the three year period.

Table 3. Household Poverty Dynamics, 2008-2010

Poverty Pattern	2008	2009	2010	Number	Incidence (%)	
Always Poor	Poor	Poor	Poor	1,819	3.40	
Twice Poor	Poor	Poor	Not Poor	1,319	2.47	
	Poor	Not Poor	Poor	1,029	1.92	6.48
	Not Poor	Poor	Poor	1,117	2.09	
Once poor	Poor	Not Poor	Not Poor	3,007	5.62	
	Not Poor	Poor	Not Poor	2,294	4.29	14.02
	Not Poor	Not Poor	Poor	2,199	4.11	
Never Poor	Not Poor	Not Poor	Not Poor	40,699	76.10	
Number of Observation (N)				53,483	100	

Source: Balanced Panel Susenas 2008-2010 datasets

3.2 Targeting Efficiency of Poverty Programs

To measure targeting efficiency of poverty programs, two types of targeting errors need to be examined, the inclusion and exclusion errors. An inclusion error happens when a non-poor household is included in the beneficiaries of a poverty program, while an exclusion error happens when a poor household is excluded from the beneficiary list of a poverty program. In other words, exclusion error can be regarded as under coverage while inclusion error is the leakage of a poverty program (Houssou, Zeller, V, Schwarze, & Johannsen, 2007). These two types of errors are illustrated in Table 4.

Table 4. Inclusion and Exclusion Errors

Participation in Program	Poverty Status	
	Poor	Non-Poor
Beneficiaries	Success	Type II error (inclusion error)
Non-beneficiaries	Type I error (exclusion error)	Success

The efficiency of the current Indonesia's targeting strategy through a triennial data collection is simulated using Susenas balanced panel data in three consecutive years: 2008, 2009, and 2010. The year 2008 is the base year when the data was collected. The poverty status of households is determined using the official poverty line as the threshold. Under the assumption of perfect targeting in the base year, all of the households who were identified as the poor in this year are determined as the beneficiaries of a poverty program during the whole three years from 2008 to 2010.

Table 5 shows the targeting efficiency of this strategy. In the base year when the data collection was carried out, there was a perfect targeting. Both targeting errors are zero because all households who are identified as poor were included in the beneficiaries of the poverty programs, while on the other hand none of the non-poor households were included in the beneficiary list.

Table 5. Inclusion and Exclusion Errors of First-Year Perfect Targeting Scheme

	2008			2009			2010		
	Poor	Non Poor	Total	Poor	Non Poor	Total	Poor	Non Poor	Total
Number of beneficiaries	7,174	0	7,174	3,138	4,036	7,174	2,848	4,326	7,174
Inclusion error (% of beneficiaries)		0			56.26			60.30	
Number of non-beneficiaries	0	46,309	46,309	3,411	42,898	46,309	3,316	42,993	46,309
Exclusion error (% of total poor)	0			52.08			53.80		
Total	7,174	46,309	53,483	6,549	46,934	53,483	6,164	47,319	53,483

Source: Balanced Panel Susenas 2008-2010 datasets

However, in the next two years the targeting errors started to emerge due to the poverty dynamics of households, while the targeting remain the same because it was fixed to the 2008 condition. By 2009 the inclusion error already reached 56.26 percent of all beneficiaries, while the exclusion error already reached 52.08 percent of all poor households in that year. In 2010, both the inclusion and exclusion errors increased slightly to 60.30 percent and 53.80 percent respectively. Apparently the largest proportions of both inclusion and exclusion errors occured in the following year after the base year.

Referring to the analysis of poverty dynamics in the previous section, it is clear that the targeting errors are closely related with the dynamics of poverty. Between 2008 and 2009, the poor households who moved out of poverty (56.26 percent of all poor households in 2008) are the ones who still received the benefit from the poverty program even though they were not poor anymore in 2009. This is the cause of inclusion error in 2009. On the other hand, the non-poor households who fell into poverty in 2009 (52.08 percent of all poor households in 2009) did not received the benefit from the poverty program even though they were poor in 2009. This is the cause of exclusion error in 2009.

Both the inclusion and exclusion errors increased in 2010 because of continuing poverty dynamics. By 2010, the proportion of poor households in 2008 who were able to move out of poverty is already 60.30 percent, but they continued to receive the benefit of the poverty program and formed the inclusion error. On the other hand, of all the poor in 2010, 53.80 percent were originally not poor in 2008, hence unable to access the benefit of the poverty program, and formed the exclusion error.

To sum up, there is a large targeting inefficiency in poverty programs when all poor households in the data collection year are fixed as the beneficiaries of those programs in the following years. Even though perfect targeting is achieved in the base year, there are already large inclusion and exclusion errors in the second year, which continued to increase in the third and following years.

IV. TARGETING SCENARIOS

The analysis in previous section revealed that targeting inefficiency was largely related to poverty dynamics. This condition actually shows that there are a substantial number of non-poor households who are vulnerable of being poor in Indonesia, as revealed by World Bank (2011) that even though the percentage of households who live below national poverty line was only 12.5 percent in 2011, "much of the Indonesian population clustered just above this line". The number of near poor population who lived below 1.2 x poverty line was around 24 percent, while those who lived below 1.5 and 2 times poverty line were 38 and 60 percent respectively.

To overcome the poverty targeting problem due to a high number of vulnerable households, increasing beneficiaries' threshold could be the solution which will enable vulnerable households to access poverty programs. To illustrate its impact on targeting efficiency, simulations of four different poverty thresholds are exercised in this section: 1.25 x poverty line (the poverty line is raised by 25 percent), 1.5 x poverty line, 1.75 x poverty line, and 2 x poverty line. Households with per capita income lower than these thresholds in 2008 are included as the beneficiaries of a poverty program in the base year and the next two years and

the resulting inclusion and exclusion errors as well as the implication on program costs are examined. The complete results of the simulations are presented in Table A1 in the appendix.

Table 6 summarizes the simulation results in terms of inclusion error, exclusion error, and an index of the number of beneficiaries as a proxy of program cost. The table shows that increasing the threshold above the poverty line clearly will benefit the poor as the higher the threshold the lower the exclusion error, implying the smaller the number of the poor in any given year who are excluded from receiving the benefit of a poverty program. In the baseline scenario where the threshold is set to be the same as the poverty line, exclusion error in the second year reaches 52.08 percent. By raising the threshold to be 25 percent above the poverty line, the exclusion error is cut by around one half to 27.93 percent. When the threshold is set as high as twice the poverty line, the exclusion error that occurs is very low at only 4.75 percent. This means that increasing beneficiary threshold is found to effectively reduce the number of poor households who are not able to obtain the benefit from a poverty program.

However, an undesirable consequence of the increase in the beneficiary threshold is an increase in inclusion error, implying an increase in the number of non-poor beneficiaries of the poverty program. At the baseline scenario, the inclusion error in the second year is 56.26 percent. When the threshold is raised to 25 percent above the poverty line, the inclusion error in the second year increases to 68.75 percent. It increases further with increasing the threshold and when the threshold is set twice of poverty line, the inclusion error reaches 81.48 percent.

Furthermore, increasing the threshold implies increasing program cost as the number of beneficiaries that need to be covered by a poverty program increases. Table 6 shows that merely increasing the threshold to 25 percent above the poverty line will increase the number of beneficiaries by 111 percent, or more than double the number of program beneficiaries. This increases further with the increase in threshold. When the threshold is set twice of the poverty line, the number of beneficiaries that need to be covered by a poverty program is 7.5 times the baseline scenario.

Table 6. Inclusion and Exclusion Errors and Number of Beneficiaries by Various Beneficiary Thresholds

Threshold for determining beneficiaries	2008	2009	2010
Threshold = Poverty Line			
- Inclusion error (% of beneficiaries)	0	56.26	60.30
- Exclusion error (% of total poor)	0	52.08	53.80
- Index of number of beneficiaries	100	100	100
Threshold = 1.25 x Poverty Line			
- Inclusion error (% of beneficiaries)	52.51	68.75	71.49
- Exclusion error (% of total poor)	0	27.93	30.13
- Index of number of beneficiaries	211	211	211
Threshold = 1.5 x Poverty Line			
- Inclusion error (% of beneficiaries)	67.16	74.79	76.67
- Exclusion error (% of total poor)	0	15.91	17.34
- Index of number of beneficiaries	304	304	304

Threshold = 1.75 x Poverty Line			
- Inclusion error (% of beneficiaries)	74.74	78.85	80.42
- Exclusion error (% of total poor)	0	8.31	9.82
- Index of number of beneficiaries	396	396	396
Threshold = 2 x Poverty Line			
- Inclusion error (% of beneficiaries)	78.70	81.48	82.81
- Exclusion error (% of total poor)	0	4.75	6.10
- Index of number of beneficiaries	746	746	746

Source: Balanced Panel Susenas 2008-2010 datasets

The simulation results show that increasing the threshold above the poverty line results in increasing inclusion error. The inclusion error here refers to poverty program beneficiaries who are non-poor in a given year. These non-poor beneficiaries may not entirely be undeserving as they include households who are poor in other years, so they can be regarded as those who are vulnerable to poverty. Therefore, the part of inclusion error who are truly undeserving are households who are never poor, so they can be regarded as neither poor nor vulnerable.

Table 7 recalculates the inclusion error resulted from the simulations in Table 6 by including only whose who are never poor. Comparing inclusion errors in Table 6 and those in Table 7 shows that indeed a large part of the inclusion error is consisted of households who are vulnerable to poverty. At the baseline scenario where the threshold for selecting beneficiaries is set at the poverty line, all of the inclusion error in each year is actually households who are vulnerable to poverty as they were indeed poor in the first year. Therefore, none of them are never poor.

Table 7. Inclusion of Never Poor Households as Program Beneficiaries by Various Beneficiary Thresholds

Threshold for Determining Beneficiaries	Inclusion Error (%)	
	Total	Never Poor only
Threshold = Poverty Line	60.30	0
Threshold = 1.25 x Poverty Line	71.49	36.30
Threshold = 1.5 x Poverty Line	76.67	49.91
Threshold = 1.75 x Poverty Line	80.42	58.53
Threshold = 2 x Poverty Line	82.81	63.87

Source: Balanced Panel Susenas 2008-2010 datasets

When the threshold for beneficiaries is set at 25 percent above the poverty line, the overall inclusion error in the third year is 71.49 percent. However, only 36.30 percent is consisted of households which are never poor during the whole period. This implies that the remaining 35.19 percent is consisted of households who have experienced poverty during the first or second year, implying that these households are vulnerable to poverty.

Table 7 indicates that the higher the threshold set above the poverty line, the larger the proportion of inclusion error which is consisted of households which are never poor during the whole period. However, even when the threshold is set at twice the poverty line, the part of inclusion error which is consisted of vulnerable households is still sizable. Of the overall 82.81 percent inclusion error in the third year, 63.87 percent is consisted of households which are never poor, implying that the remaining 18.94 percent is consisted of households which are vulnerable to poverty.

V. CONCLUSION

Targeting the beneficiaries of poverty programs in developing countries is a difficult undertaking due to lack of reliable household income data. Furthermore, poverty is very fluid as households move out of and into poverty frequently. This poverty dynamics has an important implication for targeting of poverty programs. A household which is deemed poor in one year, and hence eligible for receiving benefit of a poverty program, may become not poor in the following year. If the list of beneficiaries of a poverty program is fixed, this will create an inclusion error in the following year. On the other hand, a household which is not considered poor in the data collection year but become poor in the following year will create an exclusion error in the following year.

Using a balanced three-year panel data, this paper assesses the effect of three-yearly data collection of poor households on the efficiency of poverty program targeting during the three year data use. Then it simulates the impact of raising the beneficiary eligibility threshold to above the poverty line on inclusion and exclusion errors as well as program cost. The simulation results indicate that there is a trade-off between exclusion error and inclusion error, with the latter moves together with program cost.

This means that to increase the probability of the poor to obtain the benefits from poverty programs, the coverage of the programs should be broadened in order for vulnerable households can still access the poverty programs. However, there are cost consequences which come in line with the increase of programs' coverage. In addition, there are other costs, such as administrative cost, transaction and social cost, and political cost that also need to be taken into account (Grosh, Ninno, Tesliuc, & Ouerghi, 2008a).

This means that the way to increase the accessibility of the poor towards poverty programs is closely related to increasing budget allocation for poverty programs. Limited budget implies that zero targeting error (particularly to ensure the poor obtain benefits from poverty programs) is unlikely to happen. This also points to the importance to have an integrated poverty alleviation program rather than scattered various programs that target the same poor population.

Another implication from the findings of this study points to the importance of regular and more frequent updating of the poor population database which is used for targeting of poverty programs. This of course implies a higher cost for poor population data collection. This cost needs to be weight against the cost of not having an updated poor population in the form of poverty program targeting errors.

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APPENDIX

Table A1. Targeting Scenarios by Beneficiary Threshold

Threshold = 1.25 times poverty line									
	2008			2009			2010		
	Poor	Non Poor	Total	Poor	Non Poor	Total	Poor	Non Poor	Total
Beneficiaries	7,174	7931	15,105	4,720	10,385	15,105	4,307	10,798	15,105
Inclusion error (% of beneficiaries)		52.51			68.75			71.49	
Non Beneficiaries	0	38,378	38,378	1,829	36,549	38,378	1,857	36,521	38,378
Exclusion error (% of total poor)	0			27.93			30.13		
Total	7,174	46,309	53,483	6,549	46,934	53,483	6,164	47,319	53,483
Threshold = 1.50 times poverty line									
	2008			2009			2010		
	Poor	Non Poor	Total	Poor	Non Poor	Total	Poor	Non Poor	Total
Beneficiaries	7,174	14,669	21,843	5,507	16,336	21,843	5,095	16,748	21,843
Inclusion error (% of beneficiaries)		67.16			74.79			76.67	
Non Beneficiaries	0	31,640	31,640	1,042	30,598	31,640	1,069	30,571	31,640
Exclusion error (% of total poor)	0			15.91			17.34		
Total	7,174	46,309	53,483	6,549	46,934	53,483	6,164	47,319	53,483
Threshold = 1.75 times poverty line									
	2008			2009			2010		
	Poor	Non Poor	Total	Poor	Non Poor	Total	Poor	Non Poor	Total
Beneficiaries	7,174	21,223	28,397	6,005	22,392	28,397	5,559	22,838	28,397
Inclusion error (% of beneficiaries)		74.74			78.85			80.42	
Non Beneficiaries	0	25,086	25,086	544	24,542	25,086	605	24,481	25,086
Exclusion error (% of total poor)	0			8.31			9.82		
Total	7,174	46,309	53,483	6,549	46,934	53,483	6,164	47,319	53,483

	Threshold = 2.00 times poverty line								
	2008			2009			2010		
	Poor	Non Poor	Total	Poor	Non Poor	Total	Poor	Non Poor	Total
Beneficiaries	7,174	26,506	33,680	6,238	27,442	33,680	5,788	27,892	33,680
Inclusion error (% of beneficiaries)		78.70			81.48			82.81	
Non Beneficiaries	0	19,803	19,803	311	19,492	19,803	376	19,427	19,803
Exclusion error (% of total poor)	0			4.75			6.10		
Total	7,174	46,309	53,483	6,549	46,934	53,483	6,164	47,319	53,483

Source: Balanced Panel Susenas 2008-2010 datasets