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Who Benefits from the Food-for-School Program: Lessons in Targeting

Rosario G. Manasan and Janet S. Cuenca

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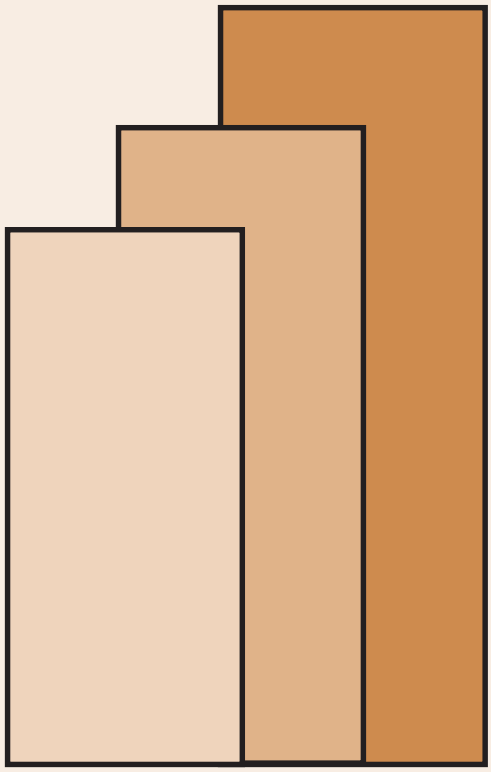

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For comments, suggestions or further inquiries please contact:
The Research Information Staff, Philippine Institute for Development Studies
5th Floor, NEDA sa Makati Building, 106 Amorsolo Street, Legaspi Village, Makati City, Philippines
Tel Nos: (63-2) 8942584 and 8935705; Fax No: (63-2) 8939589; E-mail: publications@pids.gov.ph
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WHO BENEFITS FROM THE FOOD-FOR-SCHOOL PROGRAM: *Lessons in Targeting*

Rosario G. Manasan
with Janet Cuenca

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Abstract

The Food-for-School Program (FSP) belongs to a class of social safety nets called conditional cash or in-kind transfers. There is growing interest on these instruments worldwide because of evidence that they have not only been useful in providing assistance to poor families but more so because they have been found to be effective in securing investments in human capital amongst the poor. In November 2005, the Philippine government launched its hunger mitigation initiative with FSP as one of its component. The FSP is meant to address hunger among families and at the same time, improve school attendance of the children of these households. The budget allocation for FSP has been increasing in recent years. One interesting question to ask now is: Who benefits from it? The answer has a large bearing on both the effectiveness of the program as well as its efficiency. Given this perspective, the paper assesses the 1) distribution of the benefits from the FSP, and 2) other issues arising when FSP is viewed as a type of conditional transfer. In the process, it also draws some lessons in targeting.

Keywords: *Food-for-School Program, conditional cash transfers, in-kind transfers, targeting, leakage rate, undercoverage rate*

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WHO BENEFITS FROM THE FOOD-FOR-SCHOOL PROGRAM: *LESSONS IN TARGETING*[1]

Rosario G. Manasan
with Janet Cuenca

1. INTRODUCTION

1.1. Context

Amidst rising concerns about the prevalence of hunger, the government launched its hunger mitigation initiative in November 2005. It consisted of two programs: the Food-for-School Program (FSP) and the Tindahan Nating Program (TNP). The FSP is a conditional food transfer program while TNP is a targeted food price subsidy program. The Food for School Program provides a kilo of rice to families who suffer from severe hunger through their children in day care centers and in pre-school and Grade 1 in DepEd-operated schools. On the other hand, the Tindahan Natin program aims to ensure the availability of low-priced basic food commodities (rice and instant noodles) to poor families through Tindahan Natin outlets. Under this program, only eligible households may purchase from the Tindahan Natin.

The budget allocation for these programs has been on an uptrend in recent years. The total budget allocation of the FSP is PhP 2.9 billion (PhP 2.665 billion for the DepEd component and PhP 270 million for the DSWD component) in 2006 and PhP 5.098 billion (PhP 4.013 billion for the DepEd component and PhP 1.085 for the DSWD component) in 2007. [2] In like manner, the budget allocation for the TNP is PhP 181 million in 2006 and PhP 160.8 million in 2007.

The FSP belongs to a class of social safety nets called conditional cash or in-kind transfers. There is growing interest on these instruments worldwide because of evidence that they have not only been useful in providing assistance to poor families but more so because they have been found to be effective in securing investments in human capital amongst the poor.

Conditional cash or in-kind transfers are transfers to qualifying households that require a specified action on the part of the beneficiaries for them to receive the benefit. The typical condition is increased investment on children's human capital (e.g., school attendance, regular use of preventive health care and nutrition services) but it can also involve changes in other aspects of their behavior. This approach assumes that the income effect of an unconditional transfer is not enough to stimulate demand for human capital investments (de Janvry and Sadoulet 2005). Thus, there is a need for the

[1] The author gratefully acknowledges funding support from the World Bank. The views and opinion expressed herein are solely those of the author, however, and do not reflect those of the World Bank.
[2] The budget allocation for the TNP is PhP 181 million in 2006 and PhP 160.8 million in 2007.

condition to boost demand for education and child/maternal health services. They work best when the supply of these basic social services is strong.

1.2. Objectives

Who benefits from the FSP? The answer to this question has a large bearing on both the effectiveness of the program as well as its efficiency.

Given this perspective, the objectives of this study are straightforward. This paper aims to assess:

- the distribution of the benefits from the Food-for-School Program (FSP);
- other issues arising when FSP is viewed as a type of conditional transfer.

The study limits its focus solely on the FSP.

1.3. Basic concepts in targeting

Who benefits from the FSP is largely dependent on the targeting mechanism used to identify the beneficiaries of the program. Targeting is a tool that is meant to concentrate the benefits of transfer program to the poorest segments of the population. All targeting mechanisms have the same objective: to correctly identify which households are poor and which are not.

Targeting is a means of increasing the efficiency of the program by increasing the benefits that the poor can get with a fixed program budget (Coady, Grosh and Hoddinott 2004). Conversely, it is a means that will allow the government to reduce the budget requirement of the program while still delivering the same level of benefits to the poor (**Box 1**).

Box 1. Why targeting matters

Illustrative example

Total Population	100
Poor Population	50

Higher per capita transfer with fixed budget (say, PhP 1,000)

With perfect targeting :	PhP 20 benefit per beneficiary
With no targeting:	PhP 10 benefit per beneficiary

Smaller budget with fixed per capita transfer to the poor (say, PhP 10)

With perfect targeting:	PhP 500 (50% budget savings)
With no targeting:	PhP 1,000

Targeting mechanisms may be classified into: administrative targeting or self-targeting (Hoddinott 1999) depending on who implements the targeting method. Self-targeted programs are technically open to all but designed in such a way that the benefit provided is preferred by the needy but not by the better-off households. Thus, only the poor households self-select into participating in the program, which makes screening procedures irrelevant and minimizing leakage to the non-poor. Common self-targeting features of transfers include the use of low quality foodstuff, queuing to receive transfers, or work requirement that carries a high opportunity cost of time for the relatively better off (Barrett 2002).

On the other hand, administratively targeted interventions are those in which project staff determine who will be eligible to participate or receive the benefit on the basis of a set of criteria. Administrative targeting may be further classified according to the method or approach used to reach the target group into: means testing, proxy means testing, community-based targeting and categorical or indicator-based targeting.[3] It should be emphasized that these methods need not be used on a mutually exclusive basis. In fact, in many countries they are used in combination with one another.

- A verified means test is the gold standard of targeting. It seeks to collect complete information on households; income and/or wealth and verifies the information collected against independent sources. When implemented to the letter, verified means testing is accurate. However, this approach is very costly and administratively demanding. Also, being based on household income, it may discourage work effort.
- Proxy means test generate a score for applicant households based on fairly easy to observe household characteristics like location and quality of dwelling, ownership of durable goods, demographic structure of household, and education/occupation of household members. The indicators and the weights used to generate a score are derived from statistical analysis (typically principal component analysis) of data from detailed household surveys. Eligibility is then determined by comparing the household's score against a pre-determined cut-off. Because it does not measure income itself, proxy means testing may discourage work effort less. This approach Proxy also requires less information than true means testing but is still objective. However, the formula used may be track chronic poverty well but not transient poverty.
- Community-based targeting uses a group of community members/leaders to decide who in the community should benefit. This approach is based on the assumption that local knowledge of individual household's circumstances is more accurate than the results of a means test conducted by a government field worker. However, this approach has the following drawbacks: (i) local actors may have other objectives other than good targeting of the program, (ii) it may lower cohesion of local actors, (iii) it may exacerbate existing patterns of exclusion and (iv) it makes comparability across communities difficult because local definitions of welfare are used.
- Categorical or indicator targeting refers to a method in which all individuals in a specified category automatically become eligible to receive program benefit. In these programs, eligibility is typically based on individual or household characteristics that are easy to identify like age, gender, ethnicity, demographic composition or geographic location. Age and geographic location are the most commonly used criteria. Categorical targeting is fairly simple to administer. It works best when poverty differs across categories but is similar within categories, i.e., there is within-category homogeneity.

[3] This classification scheme is based on World Bank Safety Nets website.

Any targeting method will most likely fail to include some of the poor while including some of the non-poor households. Targeting performance may be better appreciated by referring to **Table 1**. Good targeting is one which minimizes both errors of exclusion and errors of inclusion. An error of inclusion is one in which an intervention reaches individuals who are not intended to be beneficiaries. On the other hand, an error of exclusion occurs when intended beneficiaries are not able or permitted to participate in intervention. It should be emphasized that these errors are defined relative to total population and are, therefore, difficult to measure when evaluating different programs.

Table 1. Errors of Inclusion and Exclusion

	Poor	Non poor	
Participate in program	Success (45)	Inclusion error (20)	65
Do not participate	Exclusion error (15)	Success (20)	35
Total	60	40	100

Source: Coady et al 2004

In assessing the performance of alternative targeting mechanisms, one may estimate leakage rates and undercoverage rates. The leakage rate is the ratio of number of non-poor beneficiaries to the total number of beneficiaries. Thus, it is a measure of the inclusion error. On the other hand, the undercoverage rate is the ratio of the number of poor households who do not participate in the program to the total number of poor households. It is a measure of how effective the program is in reaching the poor and is related to the exclusion error. Still another measure of targeting performance is the progressivity index which is the ratio of the share of the benefits received by the poor to the proportion of the total population that is poor.

It should be emphasized that targeting involves costs: administrative costs (e.g., costs of collecting information), private costs (i.e., cost households incur in order to participate in the program), social costs (refers to stigma involved in being publicly identified as poor or needy), and incentive costs (including negative incentive effects like reduced work effort and crowding out of private transfers). These costs mean that less of the program budget will be available for distribution as benefits to the beneficiaries. Thus, in evaluating which targeting method is appropriate, one has to weigh the benefits from reduced leakage against the cost of implementing finer targeting methods.

2. FEATURES OF FOOD-FOR-SCHOOL PROGRAM

First and foremost, the Food-for-School program is an intervention that is meant to address hunger among poor families. It is also meant to improve school attendance of the children of these households. It provides one (1) kilo of rice to families who suffer from

severe hunger for every day that their children continue to attend school. In practical terms, the rice ration is provided to each eligible pupil after class.[4] Thus, eligible households are assured of having rice on their tables every day as long as their children go to school or the day-care centers.

The beneficiaries of the program are households in selected geographic areas who have children who are pre-school or Grade 1 pupils in public elementary schools or children who attend day-care centers (DCCs). The Department of Education (DepEd) implements the pre-school/ Grade1 component of the FSP while the DSWD manages the DCC component of the FSP.

The geographic areas covered by the FSP includes the 17 cities and municipalities of the National Capital Region (NCR) and the 49 provinces that have been identified by the Food Insecurity and Vulnerability Information Mapping System (FIVIMS) as either very, very vulnerable (VVV), very vulnerable (VV) or vulnerable (V). Thus, the FSP provides the rice ration to all eligible schoolchildren in all public elementary schools and DSWD-supervised day care centers in the NCR and selected municipalities in the 49 FIVIMS provinces.

Under the FSP, the DSWD organizes the parents of DCC children into Day Care Parents Group to encourage their participation and sustain their support and commitment to the program. In like manner, the DepEd mobilizes the Parents-Teachers-Community Associations (PTCAs) to assist the selected schools in the implementation of the program.

In addition to the distribution of rice to eligible children in selected schools, other complementary activities are also put in place to help ensure improvements in the nutrition status of children. First, the height and weight of children are measured by the school nurse/or teacher-in-charge at the start of the school year while another assessment is done in November to determine their progress from the baseline. On the other hand, the day care worker prepares a permanent growth monitoring record for each child enrolled in the day care program. Second, deworming of the children beneficiaries is undertaken at the start of the program. Third, parents/caregivers are given training on effective parenting and home care, the adoption of desirable food, health and nutrition practices, sustainable food production/gardening technologies and livelihood/self-sufficiency projects by the LGUs in collaboration with NGOs and other government agencies in order to sustain family food security, increase school retention, and improve nutritional status of children in the long term. Fourth, school/home/community food production is encouraged by:

- having the schools allot an area for selective production of nutrient-rich fruits and vegetables for feeding of underweight children,
- having the Barangay Councils designate an area in the community where parents of the children beneficiaries could establish a communal vegetable garden, and

[4] When two or more siblings are enrolled in Grade 1 and/or pre-school in public elementary schools or in identified day care centers only one child will receive the rice ration.

- having the LGU agriculture office provide initial planting materials to the selected schools and the communities.

The inclusion of these complementary activities in the design of the FSP is commendable. International experience suggests that the positive effects of food-based transfer programs (which can reasonably be provided only for a fixed period of time) may not be sustainable in the longer term if they are not used as a way to provide maternal education on good nutrition/ health practices (Rogers and Coates 2002).

3. COVERAGE, TARGETING AND LEAKAGE OF THE FSP

The target number of beneficiaries of the FSP in November 2005 – March 2006 was 380,553 households with children in the pre-school and Grade 1 in public elementary schools and 74,261 households with children attending DSWD-supervised day-care centers or a total of 454,814 households. The program actually reached 97.6% of its target during this period (**Table 2**).

Table 2. Target Beneficiaries and Outreach of Food for School Program SY 2005-2006 and SY 2006-2007

Region	Actual No. of Beneficiaries SY 2006-2007			Actual No. of Beneficiaries SY 2005-2006		
	Grad 1 & PS	DCC	Total	Grade 1 & PS	DCC	Total
NCR	294,997	123,311	418,308	272,459	30,820	303,279
I	2,313	1,200	3,513	9,850	n.a	9,850
II	9,136	n.a.	9,136	7,768	2,446	10,214
IV-A and B	14,569	11,312	25,881	8,433	n.a	8,433
V	60,461	36,772	97,233	6,337	7,423	13,760
VI	30,081	19,848	49,929	6,640	2,349	8,989
VII	14,900	8,340	23,240	7,100	9,756	16,856
VIII	40,783	29,294	70,077	6,078	8,335	14,413
IX	11,274	6,777	18,051	9,010	2,750	11,760
X	16,592	10,153	26,745	5,387	2,335	7,722
CARAGA	17,447	10,500	27,947	6,748	460	7,208
XI	2,011	1,195	3,206	3,752	n.a	3,752
XII	20,060	11,771	31,831	5,364	4,884	10,248
ARMM	52,595	10,269	62,864	12,581	741	13,322
CAR	9,720	9,135	18,855	2,333	1,962	4,295
Total	**596,939**	**289,877**	**886,816**	**369,840**	**74,261**	**444,101**
% to target	**66.2**	**121.0**	**77.7**	**97.2**	**100.0**	**97.6**
Memo item:						
Target no. of beneficiaries	**902,000**	**239,483**	**1,141,483**	**380,553**	**74,261**	**454,814**

a/ includes additional target family-beneficiaries resulting from PGMA's provincial visits

n.a. - not targeted in the bringing year program of DSWD

Source: NFA and DSWD

In school year (SY) 2006-2007, the target number of beneficiaries is programmed to increase to a total of 902,000 households with children in pre-school and Grade 1 in public elementary schools and some 239,483 households with children in DSWD-supervised DCCs. The actual number of beneficiaries in the DepED-managed pre-school/ Grade 1 component reached 596,939 households in SY 2006-2007 while that of the DSWD-managed DCC component reached 289,877 (**Table 2**). It is notable that the DepEd-implemented component of the FSP failed to reach the target number of beneficiaries for SY 2006-2007 while the DSWD exceeded the program target. This point is discussed in some detail below relative to the consistency of the program size as per the plan with the targeting rules that are being followed.

If the target beneficiaries of the FSP were all poor, then the 1.14 million households that are targeted under the program as planned will account for about 64% of the total number of poor households as per the food threshold. On the other hand, if the *actual* number of FSP beneficiaries were all poor, then they would account for 50% of the total number of poor households as per the food threshold. The effectiveness of the FSP to actually reach poor households depends on the targeting mechanism used as well as the way it is implemented.

3.1. Targeting mechanism

To identify the geographic areas that are covered by the program, the FSP makes use of the Food Insecurity and Vulnerability Information Mapping System. The FIVIMS is designed to identify food insecure and vulnerable provinces in the country. The FIVIMS is anchored on an index that is composed of 12 core indicators (Valientes et al. 2006). These indicators are:

- ratio of per capita income to per capita expenditure
- poverty incidence
- median family income
- ratio of food expenditure to total household expenditure
- ratio of cereal food expenditure to total food expenditure
- unemployment rate
- cohort survival rate at the elementary level
- percentage of families with working children
- percentage of households with safe water
- percentage of underweight children
- percentage of underweight adults
- percentage of agricultural land under tenancy

The FSP is targeted to include *all* the pre-school/Grade 1 pupils in *all* the public schools as well as *all* the children enrolled in *all* the DSWD-supervised day care centers in the following areas:

- All the municipalities and cities (17) in the National Capital Region (NCR);
- All the municipalities (49) of the provinces classified as very, very vulnerable (VVV) in the FIVIMS;

- All the 5th and 6th class municipalities (283) of the provinces classified as very vulnerable (VV) and vulnerable (V) in the FIVIMS;
- All the 4th class municipalities (27) in the very vulnerable and vulnerable provinces where there are no 5th and 6th class municipalities; and
- All the 3rd class municipalities (3) in the very vulnerable and vulnerable municipalities where there are no 4th, 5th and 6th class municipalities (**Annex Table 1**).

Thus, the FSP combines geographic targeting with institutional targeting at the level of the public school or day care center. Geographic targeting under the FSP occurs at two levels. First, the most food insecure and vulnerable (i.e., poorest) provinces are identified and selected. Second, because of an implicit recognition that the province is too big a unit to be homogeneous in terms of food insecurity/poverty, the FSP deems it appropriate to identify and select the relatively more food-insecure (i.e., poorer) municipalities within each of the poorest provinces. Once a municipality is selected to be part of the FSP, however, all pre-school and Grade 1 pupils in all the identified public schools (and all children enrolled in the DSWD-supervised day care centers) in the municipality automatically become eligible to receive the benefits of the program.

3.2. Weaknesses of targeting rules

The FSP share the advantages of most other geographically targeted social transfer programs. It is administratively simple and inexpensive to implement. However, the evidence available to date suggests that FSP's brand of geographic targeting can still be improved to increase the program's efficiency and effectiveness. Potential efficiency gains may come from three sources and may be better appreciated by considering three counterfactual scenarios.

First, international experience suggests geographically targeting works best when poverty differs across regions but is similar within regions, there is within-region homogeneity (Hoddinott 1999). In the Philippines, evidence indicates that the within-province variation is more important than the between-province variation in explaining the total variation in the poverty incidence across municipalities. In particular, the analysis of variance of the small area estimates[5] of municipal level poverty incidence shows that between-province variation accounts for a mere 32% of the total variation in municipal level poverty incidence. It is perhaps the implicit recognition of this result that prompted the FSP implementers to differentiate municipalities within the different target provinces according to the LGU income classification.

Second, the ranking of municipalities according to their income class does not correlate well with their ranking according to small area estimate of poverty incidence. This is true whether one is looking at the ranking of municipalities within a province or the ranking of municipalities across the nation. For instance, 155 (or 50%) of the 313 municipalities

[5] The National Statistical Coordination Board (NSCB 2005) estimated small area estimates of municipal level poverty incidence by combining data from the 2000 Family Income and Expenditure Survey (FIES), the 2000 Census of Population and Households (CPH) and the 2000 Labor Force Survey (LFS).

in the VV and V provinces are found not to be among the poorest municipalities even within each of these provinces under the FIVIMS. Also, the rank correlation between the ranking of municipalities according to the NSCB's small area estimates of poverty incidence and the ranking of municipalities derived from the application of the FIVIMS classification of provinces according to vulnerability and the income class of municipalities is found to be weak as indicated by a rank correlation coefficient of 0.46.

Third, the inclusion of the all the cities and municipalities in the NCR in the priority areas under FSP results in a substantial leakage of FSP benefits to non-poor beneficiaries. The NCR accounts for 49% of the total number of beneficiaries under the DepEd-component of the FSP, yet it has the lowest poverty incidence (6.9%) among all provinces/ regions in the country. Consequently, it accounts for 71% of the total number of non-poor households who benefits from the program. One may argue from a political economy perspective like Pritchett (2005) that the cost of this leakage is the price government has to pay to gain political support from a more visible and vocal constituency thereby better ensuring budget support for the program. Nonetheless, it is important for policymakers to be made aware of the relative magnitude of the trade-off involved between benefit leakage and political consolidation.

Given this perspective, it is not surprising that the leakage from the FSP can be reduced if the program were targeted to the poorer municipalities (as per the small area estimates (SAE) of poverty incidence at the municipal level) in each of the VV and V provinces under the FIVIMS rather than to the 5th and 6th class municipalities in the same provinces. The leakage rate[6] when FSP is targeted to the poorest municipalities in each of the priority FIVIMS provinces (55% in the DepEd component and 53% in the DSWD component) is found to be at least 6 percentage points lower than the leakage rate when the FSP is targeted to 5th and 6th class municipalities (62% in the DepEd component and 59% in the DSWD component) [**Table 3** and **Table 4**]. Conversely, these figures indicate that 45% / 47% of FSP benefits are received by poor households when the target municipalities in the VV and V provinces are identified on the basis of SAE of poverty incidence while only 38% / 55% of the benefits are received by poor households when the target municipalities in these provinces are identified on the basis of the LGU income classification. On the other hand, the undercoverage rate in the DepEd component improves by 8 percentage points when the alternative targeting rule just described is followed (alternative targeting rule # 1) while that of the DSWD component improves by 6 percentage points. Compare the undercoverage rate of the alternative targeting rule (72% in the DepEd component and 69% in the DSWD component) to that of the existing targeting rule (80% in the DepEd component and 75% in the DSWD component).[7] This means that the FSP would have been able to reach 28% of the total number of poor households with children in public elementary schools and 31% of the total number of

[6] The leakage rate and the undercoverage rate are estimated by applying the poverty incidence adjusted for the tendency of the share of the poor in public school enrolment to be higher the poverty incidence to the total number of pupils receiving the rice ration.

[7] The reduction in the undercoverage rate resulting from the adoption of alternative targeting rule may be attributed to the bigger program size (i.e., increase in number of beneficiaries) that it implies.

poor households with children in DSWD-supervised DCCs if the alternative targeting rule were implemented.

Table 3. Leakage Rate and Undercoverage Rate Under Alternative Targeting Rules for DepEd Component of FSP

Targeting rule	Leakage rate	Under-coverage rate	Share of the poor in total transfers	Index of progressivity a/
FIVIMS priority provinces & munis accdg to income class	62%	80%	38%	1.56
FIVIMS priority provinces & munis accdg to SAE	55%	72%	45%	1.84
Directly to munis accdg to SAE; same no. of actual beneficiaries as now	24%	53%	76%	3.11
Directly to munis accdg to SAE; no. of munis increased to reach ex ante target number of beneficiaries	28%	43%	72%	2.95

a/ ratio of share of benefits going to the poor divided by the proportion of households which are poor; percentage of poor HH is 24.4% in 2000

Table 4. Leakage Rate and Undercoverage Rate Under Alternative Targeting Rules for DSWD Component of FSP

Targeting rule	Leakage rate	Under-coverage rate	Share of the poor in total transfers	Index of progressivity a/
FIVIMS priority provinces & munis accdg to income class	59%	75%	41%	1.68
FIVIMS priority provinces & munis accdg to SAE	53%	69%	47%	1.93
Directly to munis accdg to SAE; same no. of actual beneficiaries as now	44%	56%	56%	2.30
Directly to munis accdg to SAE; no. of munis increased to reach ex ante target number of beneficiaries	46%	59%	54%	2.21

a/ ratio of share of benefits going to the poor divided by the proportion of households which are poor; percentage of poor HH is 24.4% in 2000

Moreover, the leakage from the FSP may be reduced some more if provincial level targeting is done away with and program intervention is directly targeted to the poorest municipalities (as per the SAE of poverty incidence at the municipal level) *while maintaining same number of program beneficiaries*.[8] A comparison of the distribution of the targeted municipalities across provinces when this alternative targeting rule (alternative targeting rule # 2) is applied with that when LGU income classification is used is shown in **Annex Table 1**.

It is notable that if the targeting rules were amended in this manner, 230 (or 61%) out of the 379 cities/municipalities that were originally targeted under the FSP would not be eligible to receive FSP benefits under the DepEd component. On the other hand, 200 (or 53%) of the 379 target cities/ municipalities under the FSP would not be eligible to receive FSP benefits under the DSWD component. In other words, 61% of the municipalities/ cities targeted under the DepEd component while 53% of the municipalities/ cities targeted under the DSWD component of the FSP at present are not the poorest municipalities/ cities from a global perspective. This number includes all the cities and municipalities in the NCR.

The resulting reduction in the leakage rate when alternative targeting rule # 2 is applied is dramatic. The leakage rate in the DepEd component is estimated to drop to 28% if the actual number of beneficiaries reached to date is maintained (**Table 3**). That is, 72% of the benefits would have been received by poor households if the said alternative targeting rule were adopted. On the other hand, the program's ability to reach poor households is also found to improve as the undercoverage rate declines to 53% if the alternative targeting rule were followed.

In like manner, the leakage rate in the DSWD component is estimated to decrease to 44% if alternative targeting rule #2 were applied while maintaining the same actual number of beneficiaries (**Table 4**). The undercoverage rate also declines to 56%.

Prospectively, it would be interesting to find out the efficiency gains, if any, if municipal level targeting is complemented by either barangay level or direct household using community-based monitoring system (CBMS). To date, the CBMS has been implemented in 4,350 barangays in 13 cities and 158 municipalities in 15 provinces. These potential gains would then have to be evaluated vis-à-vis the cost of CBMS installation and maintenance. However, if it is found to be efficient and feasible to target individual households based on the CBMS, the question is: what will be the new distribution point?

3.3. Program size

It has been a cause of concern to DepEd FSP-program implementors that they are unable to come up with 902,000 pupil-beneficiaries that they have originally targeted to reach

[8] This will result in a larger number of municipalities (i.e., an additional 51 municipalities) being targeted than before. This occurs because the more populous LGUs in NCR would have to be replaced with other municipalities.

(i.e., planned program size). Closer scrutiny of the data reveals that the *ex ante* target number of beneficiaries was not reached not because of poor implementation but precisely because the planned program size is not consistent with the maximum number of pupils that can be reached in the target areas of the FSP given current enrollment rates. Note that the actual number of beneficiaries represents very close to 100% of the current school enrollment in the priority areas under the FSP. Thus, the targeting rule would have to change if the *ex ante* target number of beneficiaries were to be attained. There are several ways of achieving this. Perhaps the most efficient way (without resorting to means testing) would be to target a total of 653 municipalities out of the poorest municipalities ranked according to the small area estimate of municipal level poverty incidence. If this were done, the leakage rate would be 28% and the undercoverage rate would be 43%.

As indicated earlier, the total budget allocation of the FSP is PhP 2.9 billion (PhP 2.665 billion for the DepEd component and PhP 270 million for the DSWD component) in 2006 and PhP 5.098 billion (PhP 4.013 billion for the DepEd component and PhP 1.085 for the DSWD component). If the actual number of beneficiaries reached as of end of August 2006 is maintained, then the budget allocation for the FSP will exceed the requirements of the program by PhP 0.8 billion in 2006 and PhP 1.2 billion in 2007 (**Table 5**). On the other hand, if the original target number of beneficiaries is reached, then the budget allocation for the FSP will exceed the program requirements by PhP 195 million in 2006 and PhP 75 million in 2007.[9]

3.4. A digression: FIVIMS index is based on outdated information

It should be pointed out that the data used to construct the FIVIMS index as it is currently measured are at least 6 years old.[10] To wit, the ratio of per capita income to per capita expenditure, poverty incidence, median family income, the ratio of food expenditure to total household expenditure and the ratio of cereal food expenditure to total food expenditure (i.e., all the income/ expenditure-based indicators) are all based on the 2000 Family Income and Expenditure (FIES). Similarly, the unemployment rate is based on the 2000 Labor Force Survey while the cohort survival rate is based on the 2000 Basic Education Information System. On the other hand, the data for 2 indicators (namely, percentage of families with working children and the percentage of households with safe water) is 7 years old. The former indicator is based on the 1999 Survey of Children while the latter indicator is based on the 1999 Annual Poverty Indicators Survey (APIS). Meanwhile, the percentage of underweight children and the percentage of underweight adults are based on the 1998 National Nutrition Survey while the percentage of agricultural land under tenancy is based on the 1990 Agriculture Census.

[9] These figures assume that the FSP will run for 120 days in 2006 and 220 days in 2007.

[10] In like manner, the small area estimates of poverty incidence at the municipal level that are used to arrive at the estimates of the leakage and undercoverage rates presented above are based on the 2000 census.

Table 5. Comparison of Budget Allocation and Program Requirements, 2006 and 2007 (in million pesos)

	2006	2007
Budget allocation		
DepEd component	2,665.00	4,013.00
DSWD component	269.50	1,085.00
Total	2,934.50	5,098.00
Budget requirement with same actual number of beneficiaries		
DepEd component	1,432.65	2,626.53
DSWD component	695.70	1,275.46
Total	2,128.36	3,901.99
Budget requirement with original target number of beneficiaries		
DepEd component	2,164.80	3,968.80
DSWD component	574.76	1,053.73
Total	2,739.56	5,022.53
Excess allocation with same actual number of beneficiaries		
DepEd component	1,232.35	1,386.47
DSWD component	(426.20)	(190.46)
Total	806.14	1,196.01
Excess allocation with original target number of beneficiaries		
DepEd component	500.20	44.20
DSWD component	(305.26)	31.27
Total	194.94	75.47

More recent provincial level poverty incidence estimates are available from the 2003 FIES. The average rate of change in the provincial level poverty incidence for the priority FIVIMS provinces is fairly modest at 3%. However, there are some significant movements in the ranking of provinces according to poverty incidence (**Annex Table 1**). For instance, Sulu and Tawi-tawi are likely to drop out of the VVV group of provinces in 2003 while Zamboanga del Norte and Maguindanao will most likely their places. On the other hand, the provinces of Apayao, Capiz, La Union, Ifugao, Bohol, Davao del Sur, Cotabato, South Cotabato are likely to graduate from the VV/ V groups of provinces in 2003. Aurora, Kalinga, Oriental Mindoro, Guimaras, Biliran, Siquijor, Davao Oriental, and Compostela Valley are likely to join the VV/ V groups of provinces in 2003. Note also that some of the changes in the number of municipalities that are included in the FSP priority areas are due to the 2005 revision in the LGU income classification.

It is not possible to update the FIVIMS index nor the small area estimates of municipal level poverty incidence for this study. A comparison of the estimate of the leakage rate and undercoverage rate based on the provincial level poverty incidence estimates from the 2000 FIES with the estimates based on the provincial level poverty incidence

estimates from the 2003 FIES indicates the importance of using more recent data. The estimate of the leakage rate for the DepEd component that is derived when the 2003 FIES data is used is equal to 60%, 3 percentage points lower than the estimate that is derived when the 2000 FIES data is used. In contrast, the undercoverage rate when 2003 FIES data is used is estimated to be equal to 75%, 4 percentage points lower than the corresponding estimate when the 2000 FIES data is used. Thus, it appears that difference in leakage/ undercoverage rates arising from the use of more recent data is dwarfed by the difference that result when the small area estimates of poverty incidence are used.

4. OTHER ISSUES

For conditional in-kind transfer, the choice of the distribution point and the size of their transfer are key issues in program design which significantly influences program effectiveness. International experience also points to the importance of strengthening the supply side in human capital investments.

4.1. The school as distribution point

The FSP makes use of the school as the point of distribution. International experience suggests a number of benchmarks pertinent to this design feature against which the FSP can be assessed. First, the implementation of similar programs in other countries indicates that the effectiveness of schools as distribution channel depends on the ability of the school network to reach the poorest areas as well as the ability of implementing agency to handle the logistics of storing, transporting, and distributing the food commodity (Rogers and Coates 2002). This situation appears to be present in the Philippines where there is a public elementary school in almost every barangay and where the National Food Authority (NFA), which is tasked to deliver the rice to schools in a timely manner, has a well-established regional/ provincial network in place.

Second, delivering food transfers through public schools may serve some self-targeting function when the relatively well-off households use private schools (Rogers and Coates 2002). This is true in the Philippines where the share of the poor in total public school enrollment has been found to be greater than their share in the total population (Manasan 2005). However, this tendency is weakened by the fact that the share of the private school system in total enrollment at the elementary level is low (7% in SY 2003-2004).

Third, experience in other countries suggests that targeting poor children within the school or class should be avoided because it creates a stigma that is likely to discourage the needy children from taking advantage of the program. In turn, this finding highlights the importance of targeting schools that serve low-income populations (Roger and Coates 2002). This lesson resonates well in the Philippines where high participation rates tend to result in a high leakage rate with universal targeting (i.e., no targeting) at the level of the school.

Fourth, studies (e.g., Glewwe, Jacoby and King 2001) show that better nutrition of children brought about by cash/food transfer programs (whether conditional or not) tend to result in higher school participation rates. However, experience in a number of countries (e.g., Bangladesh and Mexico) also suggests that rapid expansion in access can undermine service quality unless there is also an improvement in service provision (Chapman 2006). Given the already high participation rates in the public elementary school system in the Philippines, the potential improvement in school attendance and the reduction in the drop-out rate that are expected to result from the FSP accentuate the need to address the input deficits in the basic education sector (i.e., the need to strengthen the supply side).

4.2. The DCC as distribution point

The use of the DCC as a distribution point may be justified on two grounds. First, delivering food transfers through DCC may be self-targeting (even more so than through public elementary schools) precisely because there is a greater tendency for the DCCs to be patronized almost exclusively by poorer households. Second, DCCs serve younger children who are subject to the greatest nutritional risk (Chapman 2006).

On the other hand, the use of the DCC as a distribution point may not be appropriate considering that the distribution of day care centers across the country is not as extensive as that of public elementary schools. Also, since DCCs are largely funded by LGUs, they may not be present in poorer areas. Note that 16% of the total number of barangays in have no DCCs while only 68% of the total number of DCCs are accredited by the DSWD.

4.3. Size of the transfer

The FSP provides eligible beneficiary 1 kilo of rice daily 5 days a week. There are indications that the transfer is not large enough. An informal survey conducted by the DepEd in February-March 2006 found that:

- 80% of HH reported that 1 kilo of rice is not enough to provide their family with three meals a day
- Only 33% of HH reported not having missed a meal in the last 3 months

These numbers are consistent with the fact that the FSP's daily rice ration during schooldays is just enough to cover about 41% of the average rice consumption of a family with 6 members.[11] Moreover, if the rice transfer were converted to cash (PhP 440 per month), the transfer is estimated to be equal to 39% of the income gap based on the food threshold and 26% of the income gap based on the overall poverty threshold.

[11] This figure is estimated based on a 0.32 kg allocation per member per day which is, in turn, based on the national average rice consumption.

4.4. Program benefits

It is not possible to have a scientific assessment of the outcomes of the FSP because of lack of information. However, the output of NNC monitoring of the FSP implementation conducted in February/ March 2006 and March 2007does appear to validate experience in other countries that social transfers can act as effective incentives to increase poor people's demand for services and improve their education outcomes. In fact, transfers do not need to be conditional on school attendance to impact children's education (Chapman 2006). It shows that the program has some positive impact on both the school attendance and nutrition status of the pupils who benefited from the FSP (**Table 6**).[12] In particular, 62% of the respondents said that the number of school days missed declined while 44% of the children weighed gained weight. On the other hand, 20.1% of the respondents reported that they gained enhanced knowledge on basic nutrition from the program.

Table 6. Perceived Gain from FSP

Gains	Feb/Mar 2006 Percent*	Mar 2007 Percent*
1. No missed meals in the past 3 months	33.7	6.7
2. Decreased number of schooldays missed	62.1	55.2
3. Increased weight of child	44.4	49.3
4.Addtional food for the family	89.6	86.8
5. Enhanced knowledge on basic nutrition	20.1	22.5

* Total is not equal to 100% due to multiple answers.

[12] Seventeen out of the 49 provinces included in the program were visited as part of the monitoring. Fifty-two elementary schools and day care centers were visited, 401 children were weighed and 412 parents/ caregivers were interviewed.

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Annex Table 1. List of FSP Target Areas Under Alternative Targeting Rules

Provinces		Total No. of Muns	FIVIMS Prov 5th/ 6th cl Munis Target No. of Muns	Direct Targeting of Munis as per SAE Target No. of Muns	2003 FIES Prov 5th/ 6th cl Munis Target No. of Munis	Remarks
NCR	NCR	17	17	0	17	
VVV = 3	Masbate	21	21	20	21	
	Sulu	18	18	17	10	Poverty incidence ranking fell from 5 in 2000 to 12 in 2003 a/
	Tawi-Tawi	10	10	7	1	Poverty incidence rank fell from 10 to 40
	Total	**49**	**49**	**44**	**32**	
VV = 8	Apayao	7	1	3	0	Poverty incidence rank fell from 56 to 66
	Capiz	16	13	11	0	Poverty incidence rank fell from 30 to 60
	Negros Oriental	20	2	14	1	
	Zamboanga del Norte	25	2	17	25	Poverty incidence rank rose from 17 to 1
	Bukidnon	20	1	10	1	
	Basilan	6	2	4	2	
	Maguindanao	19	4	18	19	Poverty incidence rank is 2 in 2003
	Lanao del Sur	38	5	25	14	
	Total	**151**	**30**	**102**	**62**	
V = 38	La Union	19	4	5	0	Poverty incidence rank fell from 47 to 58
	Abra	27	24	11	24	
	Ifugao	11	4	7	0	Poverty incidence rank fell from 4 to 51
	Mountain Province	10	5	5	5	
	Quezon	40	14	15	14	
	Palawan	23	6	19	6	
	Marinduque	6	3	2	4	
	Occidental Mindoro	11	1	7	1	
	Romblon	17	8	10	8	
	Albay	15	1	7	1	
	Camarines Norte	12	3	1	3	
	Camarines Sur	35	9	19	7	
	Catanduanes	11	7	4	7	
	Sorsogon	15	4	8	4	
	Aklan	17	3	7	4	
	Antique	18	5	10	4	
	Iloilo	43	8	22	3	
	Negros Occidental	19	2	12	2	
	Bohol	47	26	16	0	Poverty incidence rank fell from 13 to 52
	Eastern Samar	23	15	7	15	
	Leyte	41	12	14	11	
	Northern Samar	24	15	14	14	
	Southern Leyte	18	12	0	10	
	Samar	25	15	20	12	
	Zamboanga del Sur & Zamboanga Sibugay	42	11	35	6	
	Camiguin	5	4	3	4	
	Lanao del Norte	22	14	21	14	
	Misamis Occidental	14	6	6	4	
	Davao del Norte	7	1	1	1	
	Davao del Sur	14	1	6	0	Poverty incidence rank is 69 in 2000 and 62 in 2003
	Cotabato	17	2	15	1	Poverty incidence rank fell from 26 to 54
	South Cotabato	10	3	3	0	Poverty incidence rank fell from 45 to 55
	Sarangani	7	3	7	2	
	Sultan Kudarat	11	2	10	1	
	Agusan del Sur	14	1	13	1	
	Agusan del Norte	11	3	7	1	
	Surigao del Sur	18	4	12	3	
	Surigao del Norte	27	23	20	16	
	Total	**746**	**283**	**401**	**213**	

Annex Table 1 (cont.)

	Provinces	Total No. of Muns	FIVIMS Prov 5th/ 6th cl Munis Target No. of Muns	Direct Targeting of Munis as per SAE Target No. of Muns	2003 FIES Prov 5th/ 6th cl Munis Target No. of Munis	Remarks
LV or NV	Aurora	8	0	0	4	Poverty incidence rank rose from 57 to 45
	Kalinga	8	0	6	1	Poverty incidence rank rose from 37 to 13
	Oriental Mindoro	14	0	13	3	Poverty incidence rank is 28 in 2000 and 27 in 2003
	Guimaras	5	0	2	2	Poverty incidence rank rose from 63 to 19
	Biliran	8	0	2	4	Poverty incidence rank rose from 38 to 8
	Siquijor	6	0	0	4	Poverty incidence rank rose from 59 to 48
	Davao Oriental	11	0	8	2	Poverty incidence rank is 42 in 2000 and 22 in 2003
	Compostela Valley	11	0	3	3	Poverty incidence rank is 35 in 2003
	Misamis Oriental	24	0	3	0	
	Cebu	64	0	28	0	
	Batangas	31	0	5	0	
	Nueva Ecija	27	0	1	0	
	Bulacan	22	0	1	0	
	Tarlac	17	0	1	0	
	Nueva Vizcaya	15	0	4	0	
	Isabela	34	0	5	0	
	Cagayan	28	0	6	0	
	Ilocos Sur	32	0	8	0	
	Ilocos Norte	23	0	2	0	
	Pangasinan	45	0	3	0	
	Benguet	13	0	5	0	
	Total	**446**	**0**	**106**	**23**	
	Grand Total	**1409**	**379**	**653**	**347**	

a/ Poverty incidence of provinces are ranked from highest to lowest. Province with the highest poverty incidence gets a rank of 1.