

A BENEFIT INCIDENCE ANALYSIS OF THE PANTAWID PAMILYA PROGRAM AND THE KALAHI–CIDSS PROGRAM

(Final Report, 21 Feb. 2014)

Aljo Quintans^a, Raymond Gascon^a, Gina Bardillon^a, Daniel Bristol^a, Bonn Michael Canozza^a,
Tricia Rona Maligalig^a, Paulo Martin Mercado^a, Mark Anthony Pallar^a, Joven Valenzuela^a,
Marianne Welan^a, Millete Santos^a, Philip Amadeus Libre^b and Joseph Capuno^{b*}

^a*Department of Social Welfare and Development*, ^b*University of the Philippines Diliman*

*The views expressed in this paper are those of the authors and do not necessarily reflect the views and policies of the Department of Social Welfare and Development or the University of the Philippines Diliman. The authors gratefully acknowledge the support of USec. Flor Villar, Dir. Gemma Gabuya, ABD Rhodora Alday, Ms. Cynthia Lagasca, and Dir. Christian Thomas A. Deloria, the assistance from the PMOs of the Pantawid Pamilya Program and the NCDDP and from the NHTO and PDPB statisticians, the data from the NSO, and the comments and suggestions from the participants in a DSWD forum on February 18, 2014. The authors retain responsibility for any and all errors.

Executive Summary

In the Philippines, a widespread and persistent poverty continues to be one of the biggest challenges facing the government despite the robust economic growth in recent years. Learning from the successful experiences in other developing countries, in the last fifteen years or so the government through the Department of Social Welfare and Development (DSWD) has implemented two major social protection (SP) programs designed to alleviate poverty. The Pantawid Pamilya Program provides financial and non-financial assistance to eligible poor households. The Kapit-Bisig Laban sa Kahirapan-Comprehensive and Integrated Delivery of Social Services (KALAHI-CIDSS) Program also provides pecuniary and non-pecuniary support to poor communities. With a budget of about PhP33.9 billion for cash transfers in 2013, the Pantawid Pamilya Program since it started in 2008 has already covered around 3.935 million households in 143 cities and 1,483 municipalities all over the country. In the same year, KALAHI-CIDSS has already extended support to various community-level projects worth around PhP4.3 billion in 7,600 barangays in 328 municipalities in the country's poor regions. Given the huge public investments in these SP programs and the government's commitment to continue and expand them, it may be asked then if these programs are actually and effectively benefitting the poor.

In this study we investigate the distributional impact of the Pantawid Pamilya and KALAHI-CIDSS Programs on the welfare of the poor. We apply benefit incidence analysis (BIA) technique on a household survey dataset from the 2011 round of the Annual Poverty Indicators Survey and supplemented with DSWD administrative data. We presented the resulting distribution of welfare with and without the SP programs using Lorenz curves, concentration curves and derived the corresponding Gini coefficients and concentration indices. On the whole, we find that both the Pantawid Pamilya Program and KALAHI-CIDSS Program have benefitted mostly the poor, i.e., they are progressive. In particular, we find that about 80% of the Pantawid Pamilya benefits and 70% of the KALAHI-CIDSS benefits are concentrated on the bottom 40% of the households. For either program, however, less than 50 percent of the benefits go to the bottom 20% of the households (i.e., poorest of the poor). Also, around 10-15% of the program benefits go to the households in middle income deciles (4th-6th). On a positive note, the Pantawid Pamilya Program is already close to achieving its maximum distributional impact, given their mandates and budgets. However, even if such were achieved, the Pantawid Pamilya Program and possibly the KALAHI-CIDSS Program will only minimally improve the overall income status of the current program beneficiaries relative to the rest of the population. To uplift the target beneficiaries out of poverty, more program benefits are required. However, these need not all come from bigger program budget allocations; a reallocation of current budgets achieved through better targeting can help improve the poverty status of the target households.

Our findings suggest a few inputs to policy and program reforms. First, there is still room for improvement in the implementation of the two SP program even under their current budgets. The enhancement could be in the identification of beneficiaries, timely provision of benefit transfers, or making sure that beneficiaries are fully aware of the program. Second, more exhaustive and timely survey data is needed to provide a more detailed and timely analysis of the programs' distributional impact.

I. Introduction

In the Philippines, a widespread and persistent poverty continues to be one of the biggest challenges facing the government despite the robust economic growth in recent years. Learning from the successful experiences in other developing countries, in the last ten years or so the government through the Department of Social Welfare and Development (DSWD) has been implementing two major social protection (SP) programs designed to alleviate poverty at the household and community levels. Encouraged by initial positive feedbacks from the ground, these programs are being fortified and even expanded to sustain their momentum. To guide policy, this paper provides an analysis of the programs' distributional impact on the welfare of their target beneficiaries.

The poverty figures are telling. Data¹ from the National Statistical Coordination Board (NSCB) show that while poverty incidence among Filipino families has improved by nearly 10-percentage points in 2003 from 29.7% in 1991, since 2003 it has stayed nearly fixed at around 20%. The proportion of Filipinos living below the poverty threshold also dropped significantly from 34.4% in 1991 to 24.9% in 2003. However, still nearly one in every five Filipinos is considered income-poor during the period 2003-2012. Moreover, the poorest regions in 1991 – particularly Region V (Bicol), Region VIII (Eastern Visayas), Region XII (SOCCSKSARGEN) and the Autonomous Region of Muslim Mindanao (ARMM) – remained among the impoverished areas twenty years later. Notwithstanding the initial gains in the combat against poverty, the recent trends underscore the need to strengthen SP policies and programs.

Two of the country's SP programs are well in place: the Pantawid Pamilya Program and the Kapit-Bisig Laban sa Kahirapan-Comprehensive and Integrated Delivery of Social Services (KALAHI-CIDSS). Patterned after the successful conditional cash transfer programs in Latin America and South Asia, the Pantawid Pamilya Program provides financial and non-financial assistance to eligible poor households. Similar to Indonesia's Kecamatan Development Program, the KALAHI-CIDSS Program also provides pecuniary and non-pecuniary support to indigent communities. More than previous SP or anti-poverty programs, the Pantawid and KALAHI-CIDSS address the multi-dimensional aspects of poverty by empowering households and communities to make responsible decisions affecting their members' health, education and other public service needs. By 2013 the Pantawid Program, with a budget of about PhP33.9 billion for cash transfers, has covered around 3.935 million households in 143 cities and 1,483 municipalities all over the country. In the same year, KALAHI-CIDSS has already extended

¹ http://www.nscb.gov.ph/secstat/d_income.asp. Accessed on 7 February 2014.

support to various community-level projects worth around PhP4.3 billion in 7,600 barangays in 328 municipalities in the country's poor regions.

Perhaps due to their large population coverage and massive public investments, the two flagship SP programs have won both supporters and critics from all sectors. From anecdotes and features stories in the media to limited case studies, increasingly large-scale, objective and systematic evidence concerning their welfare impacts are now becoming available. For example, Labonne and Chase (2011) found evidence of social capital payoffs of the KALAHYAN-CIDSS: particularly, there is increased community participation and interaction between local officials and their constituents in the project villages than in non-project villages. In their review of the initial waves of Pantawid implementation, Manasan (2011) and Chaudhury, Friedman and Onishi (2013) report improvements in the school attendance and health status of the young children among the beneficiary families. Using benefit incidence analysis (BIA) method, Fernandez and Velarde (2012) found that the Pantawid Program has benefited mostly the poor: in particular, "about 71 percent of its beneficiaries in 2009 belonged to the poorest 20 percent of the population and accounted for 74 percent of total program benefits". Perhaps because of these initial successes, there is now a stronger advocacy to widen, deepen or extend these programs, especially the Pantawid Program (see, for example, Paqueo et al., 2013). In the Philippine Development Plan 2011-2016, the government further affirms to continue these SP programs (NEDA, 2011). Consistent with this, the DSWD announced in December 2013 its plan for the coming years to expand the Pantawid's coverage to include children 14-18 years old that belong to the household beneficiaries. For the period 2014-2019, the KALAHYAN-CIDSS approach is expected to be scaled up into the National Community-Driven Development Program to cover 847 municipalities in 14 regions.

In this paper, we investigate the welfare effects of the two SP programs using BIA technique. Specifically, we examine the extent to which poor households benefit from the program and in relation to the non-poor households. The same method has been used in the Philippines to assess the distributional impact of government expenditure and tax programs in general (Devarajan and Hossain, 1995) and educational programs (Cuenca, 2008). By applying BIA method on the household data from the 2011 Annual Poverty Indicators Survey (APIS), we provide an update of the results in Fernandez and Velarde (2012), which was based on the 2009 Family Income and Expenditure Survey. Since the Pantawid Program was started only in 2008, the 2011 APIS can better capture the effects on the nearly 1.8 million new beneficiaries since then. For comparative assessment, we also analyze the benefit incidence of the KALAHYAN-CIDSS

using the same household dataset. A secondary objective of this exercise is to enhance the technical skills of selected DSWD M&E staff assigned to the BIA technical working group.²

The rest of the paper is organized as follow. The next section presents an overview of the two SP programs. The data and BIA methodology are introduced in section III. Section IV presents and discusses the results. The last section concludes and draws out the policy implications.

II. Overview of program design and implementation

This section reprises the key design features and implementation of the Pantawid Pamilya Program and the KALAHI-CIDSS Program (Table 1).³ Started in 2008, the Pantawid Pamilya Program is a social protection program that provides cash grants to poor households to allow their family members to meet certain human development goals. It focuses on building human capital in the poorest families through investments primarily in their young members' health, nutrition and education. With such investments, these families are thus expected to break away from the vicious cycle of poverty due to low school attendance or completion rates, poor health and illness, and high malnutrition transmitted from one generation to the next. To ensure this, household beneficiaries are expected to comply with certain conditionalities, namely "pregnant women must avail pre- and post-natal care and be attended during childbirth by a trained health professional; Parents must attend Family Development Sessions (FDS); 0-5 year old children must receive regular preventive health check-ups and vaccines; 3-5 year old children must attend day care or pre-school classes at least 85% of the time; 6-14 year old children must enroll in elementary or high school and must attend at least 85% of the time; 6-14 years old children must receive deworming pills twice a year." Compliance to these conditions is strictly monitored.

The Pantawid Program cycle starts with the selection of program areas using small area poverty estimates of the NSCB (Figure 1). The provinces with the highest poverty incidence were prioritized and then the municipalities with health and education facilities from these provinces were chosen. The availability of local health and school facilities should enable the beneficiary families to have access and thereby fulfill the program's conditionalities.

²The members of the DSWD BIA technical working group are listed as authors in this paper. This research work was undertaken from August 2013 to February 2014.

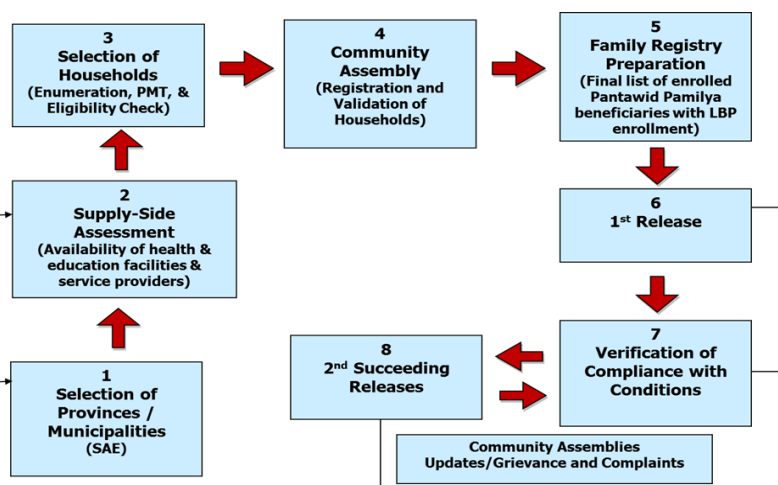
³ Much of the information here is from the DSWD websites <http://pantawid.dswd.gov.ph/> and <http://ncddp.dswd.gov.ph/>. Accessed on 8 February 2014.

Table 1. Summary of program features

Features	PANTAWID PAMILYA	KALAHI – CIDSS
Objectives	<ol style="list-style-type: none"> 1. Social assistance – to provide cash assistance to the poor to alleviate their immediate needs 2. Social development – to break the intergenerational poverty cycle through investments in human capital 	<ol style="list-style-type: none"> 1. Empowerment, by making community residents active participants in development; 2. Improving the responsiveness of local government units (LGUs) to community needs by facilitating citizens and LGU partnership in planning, budgeting, execution and monitoring. In this way, decision-making processes become more democratic and participatory; and 3. Improving people's access to basic social services, by way of implementation of community projects that directly respond to the residents' felt needs and problems, thereby helping in poverty reduction efforts.
Target Beneficiaries	The beneficiaries of the program are the identified poor households by the National Household Targeting System for Poverty Reduction (NHTS-PR) through the use of the Proxy Means Test (PMT). The PMT uses a statistical formula through proxy variables that estimates household income.	The project targets all communities in the 50% of the poor municipalities in the identified provinces (poverty incidence at 33% and above) based on the National Statistical Coordination Board (NSCB) report. These municipalities constitute the poorest 25% of all municipalities of the 42 poorest provinces.
Eligibility Criteria	<p>Eligible households are those that have been found to meet the following criteria:</p> <ul style="list-style-type: none"> • Are located in the municipalities and barangays selected for the Pantawid Pamilya Program • Identified as poor by the NHTS-PR • Have children 0-14 years old or have a pregnant woman • Are willing and able to commit to meet the conditions specified by the program 	All barangays in the identified municipalities are eligible for the program.
Program Benefits	<p>Php500.00/month for health grants and Php300/child per month for education for a maximum of 3 children for 10 months.</p> <p>Starting in 2014, the monthly education grant per child is increased to Php500 and expanded to include children who are 14-18 years old.</p>	<ol style="list-style-type: none"> 1. Grants for community projects implementation (Planning and Investment grants) 2. Capacity-Building and Implementation Support (CBIS) 3. Project Management, Monitoring and Evaluation (Note: The local government units of the community beneficiaries also provide local counterpart contributions to the KALAHI-CIDSS supported projects).
Program Components	<ol style="list-style-type: none"> 1. <i>Beneficiary Updating System (BUS)</i> The Beneficiary Update System helps to facilitate the updating of household data using Beneficiary Updates Form through the internet-based client server with encoding and approval. 2. <i>Compliance Verification System (CVS)</i> The compliance verification provides regular feedback on the beneficiaries' status relative to compliance to conditionalities which provides the basis for periodic payment of grants to household beneficiaries. 3. <i>Grievance Redress System (GRS)</i> It aims to capture and resolve grievances effectively and expeditiously in a transparent manner. 	<p><i>Component 1: Grants to Barangays in Rural Areas</i> two types of grants to participating barangays: Planning grants will cover costs associated with community mobilization, preparation of proposals by community volunteers, project operations, maintenance, and community-based monitoring.</p> <p><i>Component 2: Capacity-Building and Implementation Support (CBIS)</i> The component will cover: preparatory activities; social mobilization activities following the Community Empowerment Activity Cycle (CEAC) put in place during the first phase of project implementation; and capacity building for staff of barangay and municipal LGUs (B/MLGUs) among others.</p> <p><i>Component 3: Project Management, Monitoring and Evaluation</i> The conduct of M&E shall be done through the following undertakings, among others: strengthening of the capabilities and effectiveness of existing KC Project M&E personnel, systems and activities, provision of support to strengthen participatory M&E at community and municipal levels; and provision of support to strengthen civil society participation in third-party monitoring and other engagements.</p>

The next step is the selection of beneficiary households in the chosen municipalities through the conduct of household assessment surveys. By applying proxy means test (PMT) method on the survey data, estimates of household income are obtained and then compared with the

Figure 1. Pantawid Pamilya Program Cycle



official poverty thresholds. Those whose estimated incomes fall below the poverty threshold are then tagged as poor. The poor families are then included in the National Household Targeting System for Poverty Reduction (NHTS-PR) list from which the potential Pantawid Pamilya beneficiaries are drawn. All NHTS-PR poor households with at least one pregnant woman member or a child who is 0-14 years old are invited to a community assembly to validate their status and, if qualified, are then registered into the program. The registered families receive their program benefits so long as they comply with the program conditionalities. Their compliance is monitored and verified through the program's internet-based Beneficiary Update System (BUS). Through the BUS, regional offices upload household-level compliance information which then is sent to the National Program Management Office (NPMO) for confirmation.

Monitoring and release of cash grants follow after registration of beneficiaries in the program. Compliance of beneficiaries to conditionalities is monitored monthly and the release of cash grants is done every two months. Each beneficiary household is entitled to a health grant of PhP500.00 per month, and to an educational grant worth PhP300 per 0-14 year-old child per month. The educational grant is extended to up to 3 qualified children per family and for 10 months per child per school year. Originally, each registered households is eligible to receive cash grants for a period of five years or until the child beneficiary finishes elementary education. In December 2013, the DSWD announced that the monthly education grant per child is increased to PhP500, extended up to high school, and will cover children who 14-18 years old. The program's compliance verification system contains the information as basis for the continued periodic payment to beneficiary households.

Unlike the Pantawid Pamilya Program, the KALAHI-CIDSS Program is a community-driven development (CDD) strategy, a development approach that seeks to combat poverty and improve local governance by strengthening the capacity of citizens to identify and implement local solutions to poverty issues. Essentially, it combats poverty by providing opportunities to and by putting power back in the hands of the people to make informed decisions on locally identified options for development.

Started in 2003, the KALAHI-CIDSS Program engages the community residents and their barangay and municipal local government units. Participant communities go through a five-

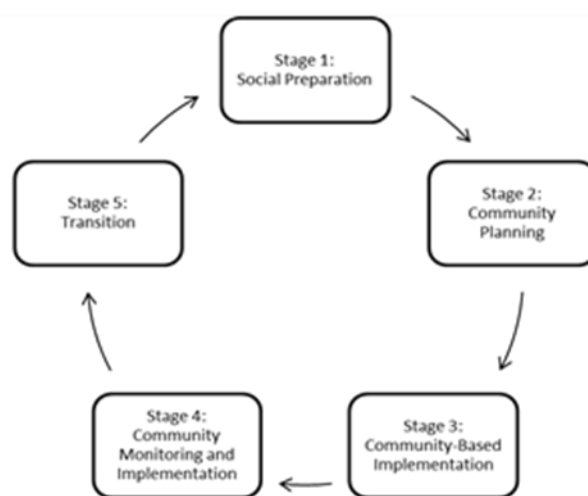
stage process called the Community Empowerment and Activity Cycle (Figure 2). At social preparation stage, the various stakeholders of the program, including but not limited to the local government officials and their representatives (congressional, provincial, municipal, and barangay level) are brought together to generate discussion on the status, issues,

and concerns of the target municipality. The purpose of the social preparation stage is to employ participatory and inclusive processes and activities to promote transparent and socially inclusive decision-making.

The next stage is community planning, which involves a series of activities where community volunteers are trained to identify and prioritize development solutions based on the issues they have determined during the participatory situational analysis. To date, the development solutions identified packaged as KALAHI-CIDSS sub-projects include basic social service facilities, basic access infrastructure, environmental protection, and community production/economic support.

In the third stage, community-based organizations are formed, mobilized, and trained so that they can implement and manage community-based projects. These local organizations have been instrumental in the roll-out of 4,303 community sub-projects funded as of end of 2013, of which around 70-80% has already been completed.

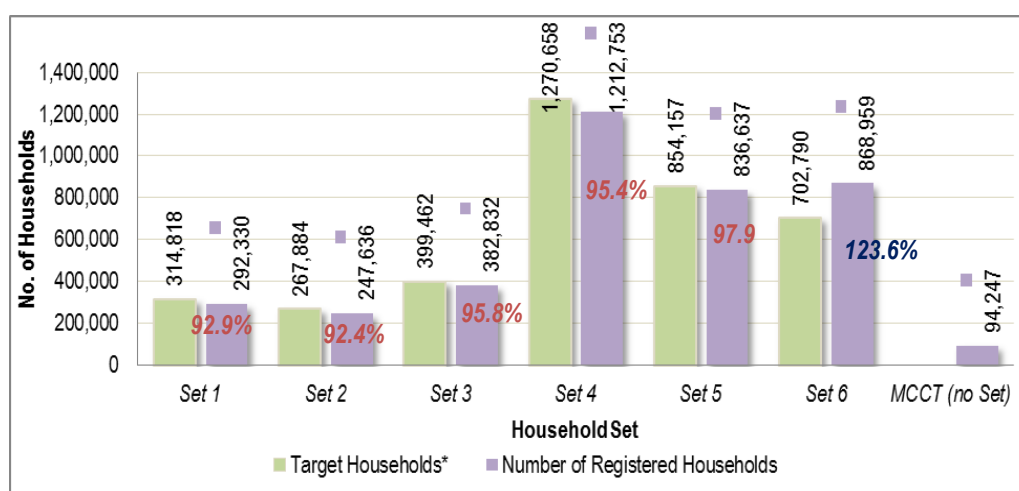
Figure 2. KALAHI-CIDSS Community Empowerment and Activity Cycle



In the monitoring and evaluation of local sub-projects, community members are trained so they themselves can monitor progress, sort out implementation concerns, and determine the needed development initiatives. The community's weaknesses and strengths during its implementation of the program are identified and studied as part of the preparations for the succeeding cycle of project implementation.

In terms of beneficiary coverage and grant disbursement, both SP programs have been prodigious. From 2008 to 2013, the Pantawid Pamilya Program enlisted one set of target households each year (Figure 3). From around 292 thousand actual beneficiary households (comprising 92% of the target) when the program was initiated in 2008, the number of new beneficiaries peaked to around 1.2 million (over 95% of the target) in 2011 (set 4). In 2013, the number of newly registered households of around 870 thousand even exceeded the target. By the end of 2013, the program has registered in all around 3.94 million households from 143 cities and 1,484 municipalities in 79 provinces nationwide.

Figure 3. The Pantawid Pamilya household coverage, 2008-2013



Note: Set 1 was registered in 2008, set 2 in 2009, set 3 in 2010, set 4 in 2011, set 5 in 2012 and set 6 in 2013.

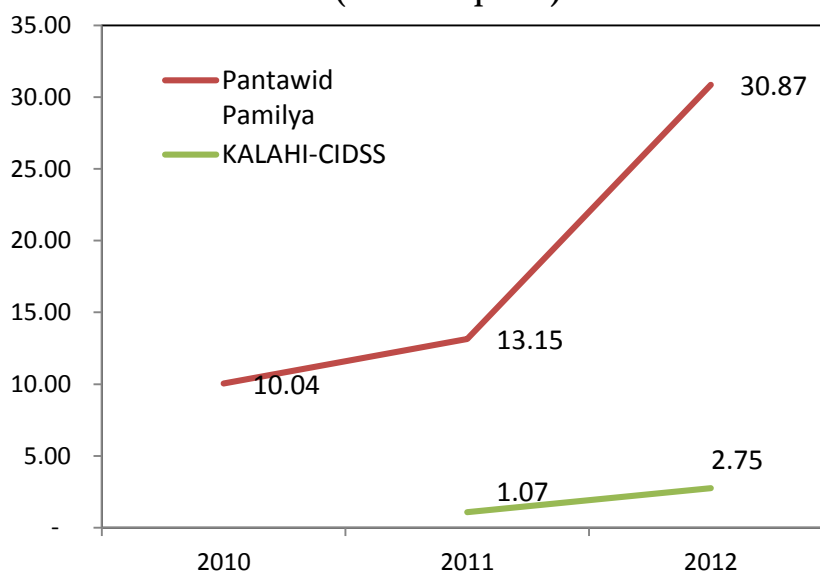
Source of raw data: DSWD.

Just as impressive, the KALAHY-CIDSS Program in 2010 covered 100% of the 256 thousand households residing in the target communities. Of the 1.312 million households it targeted in 2011, it was able to cover 91%. In 2012 it covered 99% of the 1.963 million target households.

Figure 4 shows the annual budget expenditures of the two SP programs in 2010-2012. From PhP10.04 billion in 2010, the budget for the Pantawid Pamilya Program rose by PhP3 billion the following year. Then it ballooned to about PhP31 billion in 2012. In contrast, the budget expenditures under the KALAHY-CIDSS Program are more modest. From PhP1.07

billion in 2011, the expenditures rose to PhP2.75 billion in 2012.⁴ Given their huge budget expenditures and extensive population coverage, the two SP program are thus rightly expected to show evidence how effectively the poor gained from them.

**Figure 3. Budget expenditures, by SP program, 2010-2012
(in billion pesos)**



Source of raw data: DSWD.

III. Data and Methods

This section discusses the data and method we used. All our data are culled from official, secondary sources. Our main method is benefit incidence analysis (BIA). We apply BIA technique on our data to investigate the distributional impact of the Pantawid Program and KALAHI-CIDSS Program. The BIA is often used to assess whether and how well a public program is actually reaching its intended beneficiaries (Demery, 2000; Davoodi, Tiongson and Asawanuchit, 2003; O'Donnell et al., 2008). The government program may involve the provision of subsidy (on income or consumption), imposition of taxes or other fees, regulation of prices or products, or any combination of the three policy instruments. In most of these programs, the poor and other marginalized population groups (or areas) are the main target beneficiaries, or, at least, are supposed to be protected from the program's possible adverse effects (like reduction in household income due to higher taxes). Often, however, neither all poor families nor only they

⁴The program expenditures for KALAHI-CIDSS include the Grants Released and operating costs (but excluding ACT costs) and local counterpart contributions. We are unable to collect grants data for 2010. For 2010, the local counterpart contributions amounted to about PhP0.13 billion. Note also that the size and frequency of the KALAHI-CIDSS grants are also based on the absorptive capacity of communities.

actually benefit from these programs. Due to weaknesses in the design or implementation of the program or the very behavior of different population groups, some target beneficiaries are inadvertently disqualified or crowded out, non-target families are mistakenly included, or both. Given the usual problems in targeting and service delivery, BIA is conducted to assess the actual (as opposed to the intended) welfare incidence of public programs on the target beneficiaries. The BIA evidence can then be used to guide policy or program reforms.

At the outset it would be useful to take note of the limitations of the traditional BIA method. First, it does not take the individual or household behavior into account. Since it does not predict how the households will react to policy or program changes, any corrective adjustment based on BIA may not yield the full expected result. When the policy adjustment is only marginal, the traditional BIA cannot also capture the resulting incremental welfare effects.⁵ Second, it uses the cost of or expenditures on providing public services as the measure of value that a beneficiary or user attach or derive from the service. This assumption may underestimate the true value when, for example, an ill person is willing to pay full for treatment in a government hospital to regain her health. It may also underestimate the true value when, for example, a costly public infrastructure is built for no apparent demand for it. Finally, at best it captures the benefit incidence of public spending at a point in time. The benefits that accrue at other times or in the future are not normally captured in the traditional BIA method. For example, the returns to basic education completed by Pantawid children or the returns to investments in a barangay farm-to-market road are not usually included for lack of data. Were reliable estimates of such dynamic gains are available, these can be easily incorporated even in a traditional BIA method. To be sure, these limitations have been addressed in various improvements of the traditional BIA method. Often, however, these new BIA approaches require sophisticated behavioral modelling of the beneficiaries and non-beneficiaries, and more comprehensive household-level and program data. Notwithstanding these limitations and given limited data, we employ the traditional BIA method here.

A. Data

Applying BIA would require information on both the beneficiary and non-beneficiary households and on program outlays. Our principal source of household data is the 2011 round of the Annual Poverty Indicators Survey (APIS) of the National Statistics Office.⁶ Like all previous rounds, the 2011 APIS is a survey of random samples of households that are

⁵ Specifically, the traditional BIA provides the average welfare effects, which capture the combined effects of the unadjusted and adjusted features of the program.

⁶ Much of the APIS-related information here is taken from the NSO website: <http://www.census.gov.ph/content/results-2011-annual-poverty-indicators-survey-apis>. Accessed 8 February 2014.

representative of the country and its 17 administrative regions. It has a target sample of 43,833 households, of which 42,063 (or 96%) were successfully interviewed. Sampling weights are provided to obtain population estimates.

Designed to provide non-income indicators correlated with poverty, the APIS is undertaken to gather information on the socioeconomic profile and living conditions of Filipino families. Specifically, it provides information on household composition and members' characteristics (including age, gender, relationship to the household head, marital and schooling status), income and expenditures, ownership or possession of house and lot and other assets, types of housing amenities, and access to public services including participation in social protection programs. Note that the APIS dataset used covers the survey period June-July 2011.

The following survey questions allow us to identify the KALAHI-CIDSS and Pantawid Pamilya Program beneficiaries from among the sample households and the amount of program benefits they received. For our purposes, those who replied "yes" to question I1 are considered actual Pantawid Pamilya beneficiaries. For these Pantawid Pamilya households, their declared amounts in I3 and I4 are considered as the true benefit transfers they received under the program. Those who answered "yes" to question H3 and residing in KALAHI-CIDSS target provinces are considered program beneficiaries.⁷ That is, we exclude from our estimates those households who claim to be KALAHI-CIDSS beneficiaries but otherwise reside at the time of the survey outside the program's target provinces. Since no question about the amount KALAHI-CIDSS benefits is asked in APIS, we imputed the program benefits using administrative data.

H3. Has your family been a beneficiary of the Kalabi-CIDSS Program in the past 6 months?

I1. In the last 6 months (January – June 2011), has any member of your family received payments from ... Pantawid Pamilyang Pilipino Program (4Ps)?

I2. If yes in I1, who among the family members received the payment?

I3. If yes in I1, how much was received cash from 4Ps last month?

I4. If yes in I1, How much was received from 4Ps in the last 6 months (January – June 2011).

Additionally, we collected administrative data from the relevant program units of the DSWD. In particular, we gathered the 2011 program expenditures on direct transfers to household or community beneficiaries and on overhead outlays. We also used the reported local counterpart contributions in the KALAHI-CIDSS-supported community projects.

⁷ Ideally the survey responses of those who claimed to be Pantawid beneficiaries should be compared with administrative data from the Pantawid Pamilya Program and National Household Targeting Office. This is not possible though due to "survey confidentiality". Also, the APIS data provided by NSO does not have the municipality and barangay codes needed to verify against administrative data the place of residence of those who claim to be KALAHI-CIDSS beneficiaries.

Table 2 compares the estimated number of program beneficiaries using APIS with those obtained from administrative records. The number of Pantawid Pamilya households in 2011 from APIS (around 1.22 million) is only about half of that from those in the NHTS-PR list. The main reason for this is our household's poverty status is determined using actual income and the 2012 poverty threshold, while that of those in NHTS-PR list is determined using PMT and the household assessment form (HAF), which is also different from the APIS questionnaire. Due to the PMT's own limitations, the NHTS-PR list may contain both "poor" and "non-poor" households whose poverty status may in fact be different were it determined using their actual incomes. This could explain why non-poor households among the APIS samples can legitimately claim to be Pantawid Pamilya beneficiaries. There are about 385 thousand KALAHY-CIDSS beneficiary households from the APIS, or about only a 25% of the households registered under the program in 2010-2011.

Table 2. Number of beneficiary households, by social program and poverty status, 2011

Status	APIS 2011			Administrative Data (as of 30 Dec. 2011)	
	All	Pantawid Pamilya	KALAHY- CIDSS	Pantawid Pamilya	KALAHY- CIDSS
Poor	4,237,101	798,927	176,319	2,345,639	} 1,197,959
Non-poor	14,889,343	422,649	208,879	0	
Total	19,126,444	1,221,576	385,198	2,345,639	1,197,959

Notes:

1. The APIS households are weighted samples, and their poverty status is determined by comparing their annual household income per capita with the 2012 poverty threshold. The administrative figures for the Pantawid Pamilya Program and KALAHY-CIDSS Program are cumulative for 2008-2011 and 2010-2011, respectively.

2. The actual Pantawid Pamilya households are all considered poor by virtue of their inclusion in the NHTS-PR list.

3. The actual KALAHY-CIDSS households may or may not be poor since coverage under this program is based on the overall poverty rates of the community and municipality..

Sources of raw data: APIS 2011, DSWD.

B. Estimating the net benefit incidence

Following Davoodi, Tiongson and Asawanuchit (2003), we estimate the net program benefits of the Pantawid Pamilya and KALAHY-CIDSS programs in the ensuing steps.

1. *Compute the average unit costs of implementing the Pantawid Pamilya and KALAHY-CIDSS programs in 2011 by dividing the DSWD budget expenditures for these programs, net of cost-recovery fees and out-of-pocket expenses by the beneficiary households, by the total number of members of the covered households. Then use the derived average unit cost as the average benefit per capita from the program.*

For the Pantawid, we already have estimates based on the APIS of the benefits that households received from the program for the period January – June 2011. To estimate the full-

year program benefits, we doubled the reported benefits under the assumption that the same households remained Pantawid Pamilya beneficiaries in the second half of 2011. However, we added two more months of educational grants per beneficiary child since the first six months only covered 4 school months and so that each child received, as it were, 10 months of schooling assistance. We then divided the imputed annual benefit transfers of the household by its total number of members. Our approach in estimating the Pantawid Pamilya Program benefits using APIS data are not too far from official figures. Our estimated total Pantawid Pamilya benefits for 2011 is about PhP13.8 billion while the reported program budget expenditures in the same year is PhP13.15 billion.

In estimating the KALAHY-CIDSS benefits in 2011, we used the total amount of grants disbursed, the operating costs and local counterpart contributions (LCC) for that year. Then the total amount assistance to province is divided evenly to the weighted number of beneficiary households within the province. The administrative overhead was divided evenly by region since no information on the administrative costs per province is available. Then the provincial share in the overhead cost is then distributed evenly to weighted number of beneficiary households within the province. Since only the regional estimates of the LCC are available, we first distributed a region's LCC based on the province's share in the total grants in the region. Then the province's LCC share is evenly distributed to the KALAHY-CIDSS households in the province. Thus, the net benefit of each beneficiary household comprises direct assistance, administrative support and local counterpart contributions.

Just as in the case of KALAHY-CIDSS, we included as part of the Pantawid Pamilya Program benefits to each beneficiary household an average share in the overhead or administrative expenditures of the program. The idea is that without these overhead expenses the program would have not been implemented and no grants or direct benefits would have been extended to the beneficiary households. Hence these program expenditures should be credited as part of the program benefits. But since these are overhead expenses, we simply divided them by the total number of household beneficiaries to get unit estimates.

In estimating our average benefits, we made the following additional assumptions. First, we take household and family to mean one and the same. While it is common among Filipino households to consist of several families, it is not possible to delineate from the APIS household roster the different families in the same households and their respective members. In any case, the Pantawid Pamilya grants are cash and therefore fungible, which means that they can be shared with all household members. On the other hand, the distinction between households and families is not necessary in the case of KALAHY-CIDSS-funded community-level projects that

presumably all community residents enjoy. Second, we abstract from intra-household allocation issues and assume instead that whatever income or programs benefits any household member earns or gets get shared equally among all members. Third, we assume that the full benefits of the infrastructure projects supported under KALAHICIDSS are exhaustively enjoyed in 2011 and equally by all residents in the project areas. That is, we do not impute any benefits anymore from the projects in 2012 and other succeeding years even if the infrastructure remains useful after 2011. Also, we assume that the community projects funded before 2011 have no more values. Ideally, the monetized value of the uses in 2011 of all new and old community projects should be counted as benefits in that year. Similarly, we do not impute any future benefits from completed education and better health that will presumably accrue to Pantawid households, or increased in income (or reduction in expenditures) due to the community projects that will presumably accrue to KALAHICIDSS households. While our estimates will underestimate the full program benefits (at present and in the future), doing so would require more information (for example, on users and number of uses, length of life of the infrastructure project and depreciation rate, future employment and wages, avoided illnesses and medical costs) than is available. Even if such data would be available, a sophisticated modelling of the likely future lives of the program beneficiaries, which is beyond the scope of the traditional BIA method.

Fourth, we do not impute any costs to accessing the program benefits or community-projects. That is, we assume that the Pantawid Pamilya households get their benefit transfers without having to pay for transportation or bank fees, and for the KALAHICIDSS households to access for free any of the program-supported community projects. Fifth, we do not estimate the benefits and costs of using local health services and school facilities among Pantawid households who comply with the program conditionalities. Supposedly, these local public services also provide benefits to users who are induced by their participation in the Pantawid Pamilya Program. Estimating these benefits would require information that we do not have about the uses and public expenditures on these local services. Last, we assume that the household income reported in the first half of 2011 is the same amount they earned in the other half, but that all the other relevant information (like household size, program participation status) did not change.

2. *Array the sample households from poorest to richest using a welfare measure and aggregate them into groups of equal sizes.*

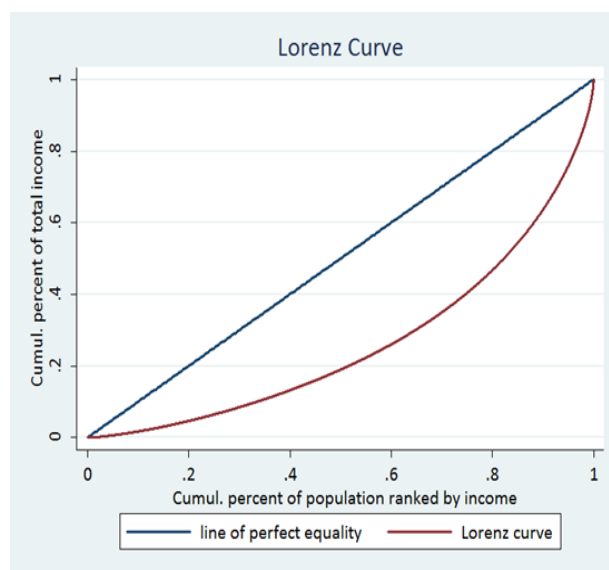
Following a common BIA practice, we use here as our welfare measure the household income per capita. This particular measure is easy to compute and readily available from APIS. It

is also used as the official basis for determining poverty status in the Philippines. However, it may also be underestimated due to recall bias and other survey problems.⁸

In our analysis, we used two sets of population. The first set consists of all weighted household samples in the APIS, regardless of the household's eligibility to participate in the relevant SP program. The second set is limited to the APIS sample households who are eligible to participate in the given SP program. Hence this set is limited to those households with 0-14 year-old children in the analysis of Pantawid Pamilya Program⁹ and to those households residing in the target areas in the analysis of KALAHI-CIDSS Program. We present the BIA results for the two population groups for each of the SP programs.

3. *Derive the distribution of benefits by multiplying the average benefit derived from the previous step by sampling weights.*

Applying the APIS sampling weights, we illustrate the resulting distribution of benefits across the relevant population using Lorenz curves, concentration curves, Gini coefficients and concentration indices. The Lorenz curve and Gini coefficient are used here to depict the improvement in income distribution resulting from the SP program. Essentially, the Lorenz curve is a locus of points that shows on the vertical axis the cumulative share in the total income (or any welfare measure) received by a given cumulative percentage of the household population (who are arranged from lowest to highest income per capita along the horizontal axis). The resulting Lorenz curve derived from the actual distribution of income is then typically compared to the so-called line of equality, which depicts equality in the distribution of income. A point on the line of equality indicates that a given cumulative percentage of household



population has the same cumulative percentage share in income. For example, if the household population are grouped into income per capita deciles, income is said to be equally distributed if the first decile gets 10% of all income, the first two deciles get 40% of all income, the first three

⁸ An alternative is to use consumption expenditures. Our own income estimates, which are based on the reported amounts for Jan-July 2011, may also be an underestimate due to seasonality of income flows during the course of the year (e.g., crop harvests in the second half of the year). However, this can be easily rectified with a full-year APIS dataset.

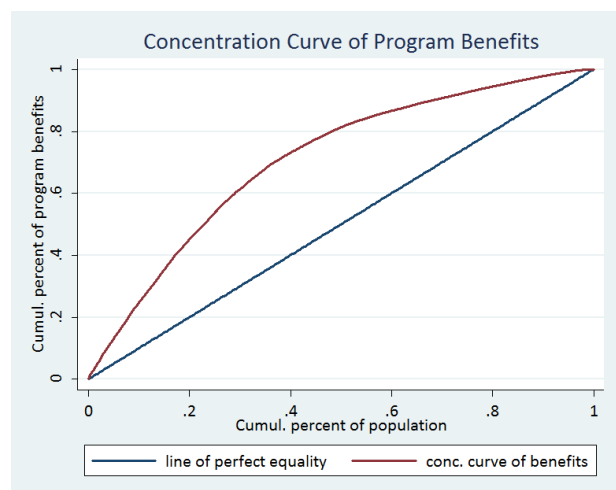
⁹ Ideally, the households with pregnant women members should also be included. Unfortunately, the APIS does not contain information about the pregnancy status of female household members.

deciles get 60% of all income, and so forth and so on. Hence the farther away the Lorenz curve from the line of equality the greater is the existing income inequality.

With the imputed program benefits added to the reported household income, the resulting Lorenz curve is then expected to move closer to the line of equality. However, not all such movements are equally desirable since the curve may tilt only at the upper end of the distribution and remain flat at the lower end of the distribution. When such happens, it means that it is the richer households more than the poorer households that actually benefit from the program.¹⁰ Hence, the Lorenz curve is a convenient depiction of the overall incidence of the net benefits derived by households from the government program.

A number that conveys the same information is the Gini coefficient. This coefficient is the ratio of the area bounded from above by the line of equality and from below by the Lorenz curve to the whole area bounded from above by the line of equality and from below by the horizontal axis.¹¹ It ranges from 0 (perfect equality) to 1 (maximum inequality).

Instead of income plus the imputed program benefits, the latter may be used instead to assess the distributional impact of the program. The analog of the Lorenz curve in this case is the concentration curve, which can be above, overlap with or below line of equality. The farther up away the concentration curve from the line of equality at the low end of the distribution the more concentrated the benefits are towards the poor households.¹² The corresponding analog of the Gini coefficient is the concentration index, which ranges from -1 to 1. A concentration index that is near -1 indicates a higher concentration of the benefits on the poor. When it is near 1, it indicates that the benefits are concentrated towards the rich. As index moves closer to zero the more equally distributed the benefits become. When the distribution of program benefits favor the poor more than the rich, the program is said to be progressive (i.e., pro-poor). When it favors the rich more than the poor, it is said to be regressive.



¹⁰ Conversely, if the tilt happens in the lower end of the distribution, then the program is said to benefit the poor more than the rich.

¹¹ It is also bounded on the right by an imaginary vertical axis emanating from the 100th percentile of the household population.

¹² The "hump" may also be more pronounced at the top end of the distribution, which means that the benefits are concentrated towards the rich households.

4. *Compare the resulting distribution of benefits with a number of benchmark distributions.*

In addition to the line of equality, we constructed two other benchmark distributions. One is a hypothetical distribution without the imputed program benefits (i.e., in the absence of the program). Presumably, the distribution of income is worse without than with the program. Put differently, the hypothetical Lorenz curve (or the “pre-program” Lorenz curve) should be lower than the one derived under the program (“post-program” Lorenz curve).

While achieving the line of perfect equality may be ideal, doing so will arguably require a major redistribution of income and possibly an overhaul of all government programs and not just the Pantawid Pamilya or the KALAHY-CIDSS. Perhaps a more useful and realistic alternative benchmark is a hypothetical distribution derived when the program is perfectly implemented, i.e., when all eligible households are identified and only they are registered as program beneficiaries, all beneficiaries are fully compliant with the program conditionalities (if any), and then they receive without any delay or leakage their full benefit entitlements for the year (2011) under the program. In this scenario, the resulting distribution of income is presumably better than the one derived under the current program implementation (base scenario). Put differently, the hypothetical Lorenz curve (or the “perfect-implementation” Lorenz curve) is going to be above the post-program Lorenz curve. Unlike the line of perfect inequality, the perfect-implementation Lorenz curve depicts the best possible distribution under the current program design.

Also, we construct the analogous alternative benchmark distributions using concentration curves. Without the program, the resulting concentration curve (“pre-program” concentration curve) presumably will lie below the post-program concentration curve (i.e., under the current program implementation). Further, we derive the same sets of Lorenz curves and concentration curves for the full household samples, and for the samples limited to households with children 0-14 years old in the case of the Pantawid Pamilya Program and for the households in the target provinces in the case of KALAHY-CIDSS Program.

For each of the derived distribution of incomes or program benefits, we calculated the corresponding Gini coefficients and concentration indices. But since we do not have the municipal and barangay codes in our APIS dataset, we refrained from computing the perfect-implementation Lorenz curve and concentration curve for the KALAHY-CIDSS Program.

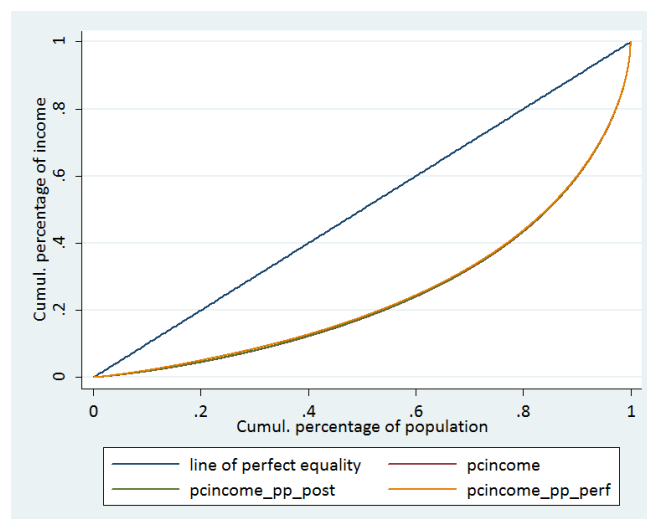
IV. Results

A. Pantawid Pamilya Program

Recall that the aim of the Pantawid Pamilya Program is to break the intergenerational cycle of poverty by providing cash assistance to eligible poor households who send their children to school and health clinics and, if any, their pregnant women members to health clinics. While we have yet to see if these children will actually surpass their parents' living standards when they become adults with their own families, their chances of doing so can already be inferred by looking at the actual incidence of the Pantawid Pamilya benefits. Figure 4 and Figure 5 show the resulting distribution of household welfare comprising income and benefit transfers under the Pantawid Pamilya Program for all households and for only those with children 0-14 years old, respectively. Each figure shows the line of equality (i.e., 45-degree line), and the Lorenz curves under the current program ("pcincome_pp_post"), without the program ("pcincome"), and with a perfectly implemented program ("pcincome_pp_perf").

In Figure 4, the Lorenz curves with and without Pantawid program benefits are nearly coincidental and both are well below the line of equality. This means that the Program has only modestly improved the distribution of welfare. Even with the program, the poorest four deciles (or the first 40% percent of the household population) together still get less than 20% of the total income, while the richest two deciles (last 20% of the household population) together still get about 60% of all income.

**Figure 4. Lorenz curves, Pantawid Pamilya Program, 2011
(All households)**

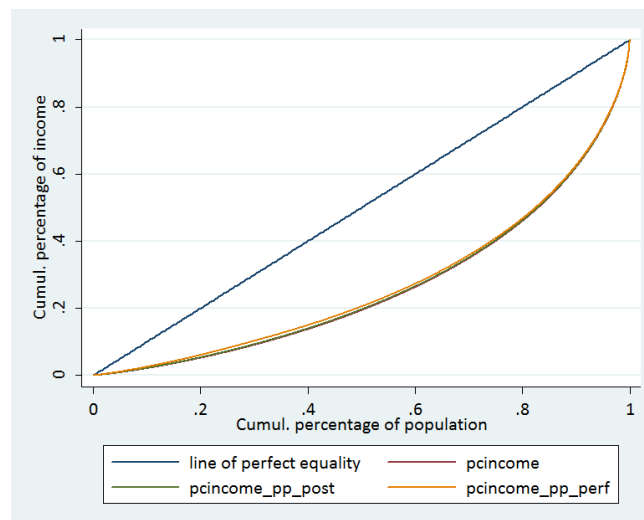


However, it may be unfair given its limited mandate and budget to expect the Pantawid Pamilya Program to significantly reduce existing inequalities. As shown in Figure 4, even when the program is perfectly implemented resulting distribution of income will still be far from ideal.

Against this more realistic benchmark, however, we find that the current program implementation is near to delivering its full potential welfare effects. The Lorenz curve with the program, while below, is already close to the perfect-implementation Lorenz curve.

To further highlight the accomplishments of the Pantawid Pamilya Program, Figure 5 shows the Lorenz curves when the analysis is limited to households with children 0-14 years old. Even when the Pantawid Pamilya families are compared with non-Pantawid families with similar household composition, the results are roughly similar to those in Figure 4. In particular, the Pantawid Pamilya benefits had only minimal effect in enhancing the welfare of the beneficiaries relative to the better off households or to their hypothetical welfare without the program. On a positive note, however, the program as implemented is already close to delivering its maximum welfare impact. The gap between the Lorenz curves under the current program and the hypothetical perfect implementation can be close further possibly by a more effective targeting and delivery of program benefits to the households in the bottom four income per capita deciles.

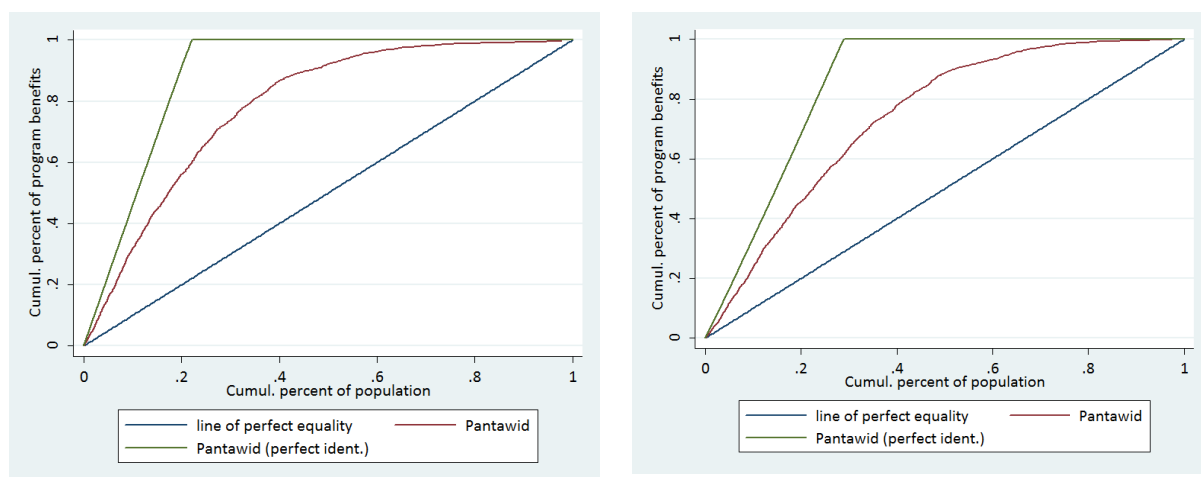
**Figure 5 Lorenz curves, Pantawid Pamilya Program, 2011
(Households with children 0-14 years old)**



Instead of the distribution of income with the imputed program benefits, Figure 6 depicts the distribution of the program benefits alone when the analysis covers all households (panel (a)) and only those with children 0-14 years (panel (b)). For this analysis we used the 2012 poverty threshold to identify the poor households in constructing our perfect-implementation concentration curve (“Pantawid (perfect indent.)”). Using this threshold, most the poor households are found to belong in the bottom two deciles (i.e., the poorest of the poor). The resulting perfect-implementation concentration curves rise very steeply for the first two deciles, and then remain flat thereafter.

In panel (a), up to around 85% of the program benefits are concentrated towards the bottom 40% of the household population. This suggests that a progressive distribution of program benefits (i.e., pro-poor). It can also be discerned that some of the program benefits (around 10%) go to the middle two deciles (i.e., 5th and 6th), which indicate possible targeting leakage. Moreover, about 60% of the program benefits is concentrated among the poorest of the poor (bottom two deciles). In panel (b), the bottom 40% of the households still get the bulk, although a slightly lower share (around 80%), of the program benefits. The poorest of the poor now gets less than 60 percent of the program benefits. By implication, the middle-income households get slightly more of the program benefits.

Figure 6. Concentration curves, Pantawid Pamilya Program, 2011



(a) All households

(b) Households with children 0-14 years old

While it is difficult to discern the changes in the income distribution with the overlapping Lorenz curves in Figure 4 and Figure 5, the exact changes can be determined with the Gini coefficients presented in Table 3. Under the base scenario (i.e., with program benefits), the Gini coefficients for the Pantawid Pamilya Program are 0.5069 when all households are considered and 0.4724 when only those with school-age children are considered. Note that estimates are still halfway between 0 (perfect equality) and 1 (maximum inequality). Without the program benefits, the corresponding estimates are 0.5091 and 0.4760. With perfect program implementation, the corresponding Gini coefficients are 0.4998 and 0.4596. Comparing the three sets of estimates only confirm the observations made using the Lorenz curve: that the Pantawid Pamilya Program so far had only marginally improved the overall welfare of the poor, although it is near to delivering its full welfare impact. Our findings are broadly consistent with those of Fernandez and Velarde (2012).

The estimates of the concentration index are -0.5684 for all households and -0.4796 for households with school-age children. Since the estimates are negative and different from 0, they indicate that the benefits are indeed concentrated on the poor. It would appear though the benefits are less concentrated when the analysis is limited to households with school-age children (since the estimated concentration index while negative is closer to 0). The reason is that the sub-sample of household population is unlikely to be widely different in socioeconomic status, and the excluded households have fewer children and are likely to be richer. Given the small variations in per capita income in the sub-sample of households, then even those in the “middle income deciles” (4th – 6th) would also appear to have received program benefits. This explains the apparent “equality” in distribution of Pantawid benefits. The corresponding indices under the perfect-program implementation scenario are -0.7804 and -0.7056. When these are compared against those derived under the base scenario, they imply as well that the program, even with its then 2011 budget, still has some ways to go to uplifting the living conditions of the poorest families.

Table 3. Gini coefficient and concentration index, Pantawid Program, 2011

	Gini coefficient		Concentration index	
	All households	Households with children 0-14 years old	All households	Households with children 0-14 years old
Benchmark distribution				
With program benefits	0.5069	0.4724	-0.5684 (0.0102)	-0.4796 (0.0097)
Without program benefits	0.5091	0.4760	n.c.	n.c.
With perfect program implementation	0.4998	0.4596	-0.7804 (0.0022)	-0.7056 (0.0029)

Note: n.c. means not computed. Figures in parentheses are standard errors.

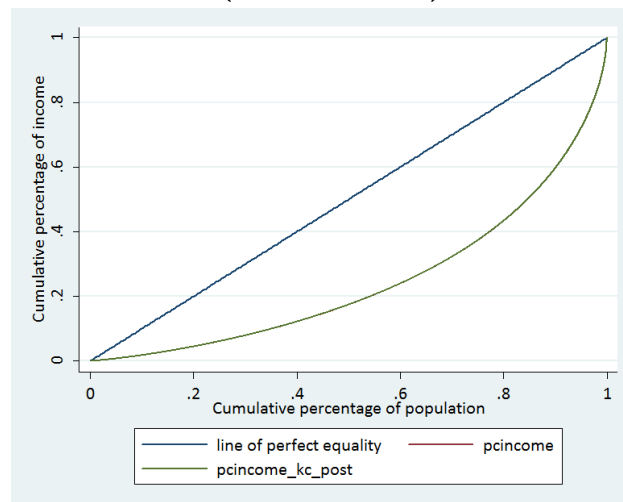
Source of raw data: APIS 2011, DSWD.

Authors' estimates.

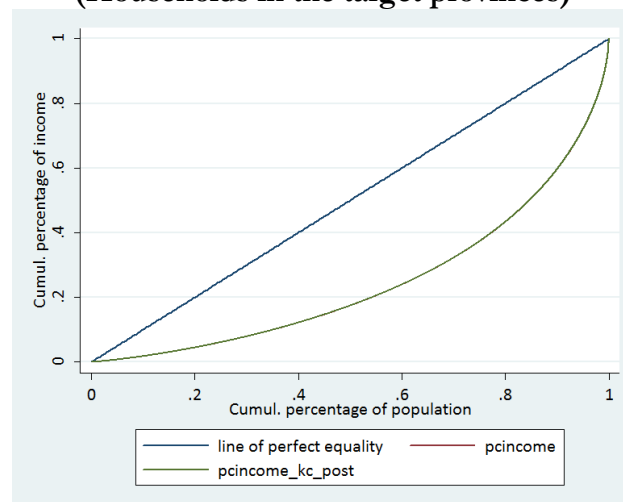
B. KALAHY-CIDSS Program

Figure 7 and Figure 8 show the Lorenz curves with and without the KALAHY-CIDSS program benefits for the full sample of households and for the sub-sample of households in the target provinces, respectively. In Figure 7, Lorenz curves with and without program benefits (respectively, “pcincome_kc_post” and “pcincome”) are also nearly coincidental, and that both are below the line of equality (i.e., 45^o-line). The same observation can be made about the Lorenz curves in Figure 8. As in the case of Pantawid Pamilya Program, these two observations suggest that the KALAHY-CIDSS Program also has only marginally improved the welfare of its target households relative to the rest of the population.

**Figure 7. Lorenz curves, KALAHI-CIDSS Program, 2011
(All households)**



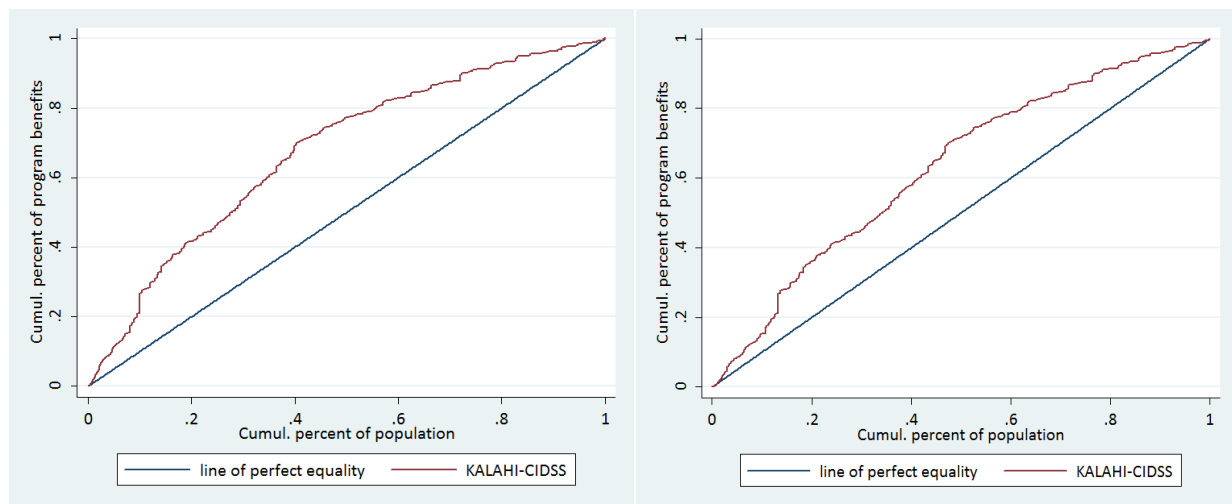
**Figure 8. Lorenz curves, KALAHI-CIDSS Program, 2011
(Households in the target provinces)**



The concentration curves in presented in Figure 9 indicate that the bulk of the KALAHI-CIDSS program benefits – which include grants, overhead expenditures are local counterpart contributions - are concentrated to the poor. In panel (a), where all households are included in the analysis, around 70% of the program benefits are received by the bottom 40% of the households. In panel (b) where the analysis is limited to households in the KALAHI-CIDSS target provinces only, around 60% of the program benefits go to the bottom 40% of the households. In other words, distribution of the KALAHI-CIDSS program benefits is progressive. Unlike the Pantawid Pamilya program benefits, however, a bigger proportion (up to 40%) of those from KALAHI-CIDSS is enjoyed by the middle-income and upper-income classes (4th – 8th deciles). Perhaps this is not surprising the KALAHI-CIDSS supported

community-level projects are intended for all local residents regardless of income status. Note also that since the community's absorptive capacity is used as basis for the KALAH-CIDSS grants it is possible then that the distribution of the benefits are partly determined by this.

Figure 9. Concentration curves, KALAH-CIDSS Program, 2011



(a) All households

(b) Households in the target provinces

Table 4 shows that the Gini coefficient for all households with program benefits (0.5090) is only slightly better than the 0.5091 derived without program benefits. Limiting the analysis to the households in the target provinces does not alter the picture by much. The estimated Gini coefficients are 0.5121 with the program and 0.5123 without the program. However, the concentration indices are negative (-0.3493 and -0.2592), which indicate a pro-poor distribution of the program benefits (but less so when compared with the distribution of the Pantawid benefits). Again, it appears that the distribution of benefits is less pro-poor when the analysis is limited to households in the target provinces. This is only apparent since this sub-sample of households is relatively homogenous in socioeconomic status, notwithstanding their differences income decile classification. The outliers consisting of richer households who are often found in the richer provinces are already excluded in this particular analysis.

Table 4. Gini coefficient and concentration index, KALAHICIDSS Program, 2011

	Gini coefficient		Concentration index	
	All households	Households in target provinces only	All households	Households in target provinces only
Benchmark distribution				
With program benefits	0.5090	0.5121	-0.3493 (0.04806)	-0.2592 (0.04711)
Without program benefits	0.5091	0.5123	n.c.	n.c.

Note: n.c. means not computed. Figures in parentheses are standard errors.

Source of raw data: APIS 2011, DSWD. Authors' estimates.

C. Crossing the poverty threshold

The breakdown of the estimated average program benefits by household income per capita decile for the Pantawid Pamilya Program and KALAHICIDSS Program are shown in Table 5 and Table 6, respectively. In Table 5, we also show the estimated additional Pantawid benefits needed for the average household in each decile to cross the poverty threshold¹³, assuming all target households are perfectly identified. Consistent with the findings in a previous section, the bottom two deciles (1st and 2nd) get higher average Pantawid benefits (amounting to 2,605 pesos and 1,902 pesos, respectively) than other households. The Pantawid benefits significantly dropped from the 4th to 10th income decile. For the poorest households (1st decile), we estimate that they would need an additional 2,170 pesos per member, or nearly double their estimated Pantawid benefits, to cross the 2012 poverty threshold. The households in the 2nd and 3rd income deciles would also need similar income supplements, although by less amount than the poorest households. However, it should be noted that required additional Pantawid subsidies for the 1st-3rd income deciles need not all come from a bigger Pantawid Pamilya Program budget. The income supplements may come from existing Pantawid benefit expenditures that go to the middle income and rich households (5th to 10th income deciles). This underscores the need for better targeting to maximize the program benefits to the poor.

As shown in Table 6, the poorest two income deciles have higher KALAHICIDSS community grants than other deciles. The average community grants to the households in 1st, 5th and 10th deciles are around 72 pesos, 19 pesos and 8 pesos, respectively. These indicate that while these grants are provided to communities, they are nevertheless well targeted. Roughly the same observations can be made with the distribution of average overhead expenditures and local counterpart contributions. However, the combined total KALAHICIDSS benefits and household income for the 1st decile amount only to 10,601 pesos, which is still below the poverty

¹³ According to NSCB, The 2009 annual per capita poverty threshold is 16,871 pesos. The 2012 annual per capita poverty threshold is 18,935 pesos.

threshold for 2009 or 2012 (i.e., 16,871 pesos and 18,935 pesos, respectively). The income gap for the household is easily estimated, computing the required program budget for the KALAHI-CIDSS Program however is not as straightforward as in the case of the Pantawid Pamilya Program. This is because the KALAHI-CIDSS Program benefits also redound to all households in the supported communities. It is possible that the richer household benefit more on the margin. Thus, information about the actual users and uses of the community project is needed to have a good estimate of the required additional Program budget to enable the indigent households cross the poverty threshold.

**Table 5. Average Pantawid benefits by household income per capita, 2011
(All households with 0-14 year old children)**

Decile	Average household income per capita (without program benefits)	Pantawid benefits (unit estimates; annual, in pesos)			Required additional Pantawid benefits per capita (under perfect program implementation))	
		Direct grants (health and education)	Share in overhead expenditures	Total	2009 poverty threshold	2012 poverty threshold
1	10,514.79	2,554.31	51.04	2,605.35	2,170.39	2,170.39
2	15,779.28	1,861.02	41.42	1,902.44	1,705.64	2,286.67
3	20,180.20	1,333.58	30.54	1,364.12	0	502.03
4	25,037.47	997.29	22.76	1,020.05	0	0
5	30,892.91	447.49	11.25	458.74	0	0
6	38,398.14	325.64	7.04	332.68	0	0
7	48,663.97	150.60	4.47	155.07	0	0
8	64,931.40	57.41	1.98	59.39	0	0
9	95,257.91	39.69	1.27	40.96	0	0
10	217,915.22	18.68	0.71	19.39	0	0

Notes:

Sources of raw data: 2011 APIS, DSWD, NSCB.

Authors' own estimates.

**Table 6. Average KALAHI-CIDSS benefits by household income per capita, 2011
(All households in target provinces)**

Decile	Average household income per capita (without program benefits)	Average benefits (in pesos)			
		Direct community grants	Share in Overhead expenditures	Local counterpart contributions	Total
1	10,459.81	71.8	44.45	25.04	141.29
2	15,776.78	71.38	29.15	26.74	127.27
3	20,171.12	26.77	26.09	13.72	66.58
4	25,085.36	36.18	23.75	21.63	81.56
5	30,877.37	19.1	18.08	13.2	50.38
6	38,367.20	13.82	11.38	5.79	30.99
7	48,755.16	16.08	9.26	4.79	30.13
8	65,247.84	11.37	8.9	6.83	27.1
9	95,749.64	9.49	8.76	3.96	22.21
10	232,888.94	8.33	6.23	4.6	19.16

Sources of raw data: 2011 APIS, DSWD, NSCB.
Authors' own estimates.

V. Conclusion and policy implications

In summary, our application of BIA methods on household dataset set from an official household survey and supplemented with DSWD administrative data reveal that both the Pantawid Pamilya Program and KALAHI-CIDSS Program have benefitted mostly the poor, who are identified based on their incomes or residence in impoverished areas. This is particularly evident in the concentration curves derived for each program.

Also, some households in the middle income deciles (4th-6th) benefit from the two SP programs, but not by as much as those in lower income deciles. Perhaps this is just as well since these households, whose income are just above the poverty thresholds, are vulnerable to adverse shocks and, therefore, to destitution. Moreover, their inclusion is perhaps unavoidable considering given the possible errors in identifying and tagging the poor in the course of program implementation. Their inclusion among the KALAHI-CIDSS beneficiaries is also inevitable since the program is targeting impoverished areas where both the poor and non-poor households reside.

Notwithstanding the progressivity in the distribution of program benefits, we find that the two programs have only minimal impact in improving the income status of their beneficiaries relative to the rest of the population. This is evident in the derived Lorenz curves for each of the program. But considering each program's limited mandate and budget it is perhaps too much to expect of them to eliminate existing gross socioeconomic inequalities among Filipino

households. A more useful and realistic benchmark then would be how far each program has actually reduced the inequalities relative to its full potential.

Against this more realistic benchmark, we find that the Pantawid Pamilya Program is already near to maximizing its full potential. To be sure, the distance between the actual and potential distributional impact may only be an artefact of the survey data used here (since the respondents may not perfectly recall the full amount of their Pantawid Pamilya benefits), a true lapse in program implementation or both. Unfortunately, we are not able to assess the KALAHI-CIDSS Program against a similar benchmark due to data limitations.

To enable the Pantawid beneficiaries cross the 2012 poverty threshold, we estimate that those in the bottom two income deciles would need on the average nearly double their Pantawid benefits. The additional benefits need not all come from bigger Pantawid budget allocation; some of it may come from better targeting, i.e., channeling the benefits that end up with the richer households under the current program implementation. For the KALAHI-CIDSS, much more program benefits than presently disbursed are required to lift the target beneficiaries out of poverty.

Due to data limitations, we possibly underestimate the true overall benefits of the two programs. For one, we do not provide estimates of the dynamic gains from the program like the economic returns to completed education, better health or improved community infrastructures. Also, we were not able to verify the APIS program beneficiaries against the list of actual program beneficiaries. Doing so would have improved our estimates of program beneficiaries, and therefore of programs' overall benefit incidence. On the other hand, we also do not have estimates of monetary or other costs in accessing the program benefits. Note also that APIS does not provide the full-year estimates of income or program benefits. Besides using more updated household survey data, we suggest that future BIA studies should address these estimation issues.

Notwithstanding our data limitations, our findings suggest a few inputs to policy and program reforms. First, there is still some room for improvement in the implementation of the Pantawid Pamilya Program even under its current budget. The enhancement could be in the identification of beneficiaries, timely provision of benefit transfers, or making sure that beneficiaries are fully aware of the program. Second, more exhaustive and timely survey data is needed to provide a more detailed and timely analysis of the programs' distributional impact. It would have been useful, for example, to be able to derive the "perfect-implementation" Lorenz curve for the KALAHI-CIDSS Program if only the municipal and barangay codes available were in the APIS dataset. For such detailed analysis, however, a bigger survey sample would be

necessary. For the next round of BIA studies, it is suggested to use the Family Income and Expenditure Survey, which has a bigger sample and provide more reliable income estimates than the APIS, or at least the full-year APIS dataset. Possibly as well the APIS can be improved along these lines or special household surveys be undertaken for the purpose. In addition to the survey data, the relevant administrative should also be complete and made readily available for benefit incidence analysis.

Finally, as a word of caution, the traditional BIA method used here has its own limitation. In particular, it is not suited to analyze the incremental benefit incidence of marginal policy or program adjustments (say increasing the amount Pantawid Pamilya educational grant from PhP300 to PhP500 per child). For such marginal reforms, marginal benefit incidence analysis is ideal. As mentioned above, we are also unable to capture the non-monetary gains from the KALAHI-CIDSS Program or provide an estimate of the future gains derived from better educated, and healthier children supported by the Pantawid Pamilya Program. To get a complete picture of a program's impact, it is best then that BIA results be compared, validated and supplemented with other those derived using other M&E tools.

References

- Demery, L. (2000). *Benefit incidence: a practitioner's guide*. The World Bank.
- Chaudhury, N., Friedman, J. and Onishi, J. (2013). *Promoting Inclusive Growth in the Philippines Assessing the Impacts of the Conditional Cash Transfer Program*. Manila: The World Bank Manila Office.
- Cuenca, J. S. (2008). *Benefit incidence analysis of public spending on education in the Philippines: A methodological note*. PIDS Discussion Paper Series No. 2008-09. Makati City: Philippine Institute for Development Studies.
- Davoodi, H.R., Tiongson, E.R. & Asawanuchit, S.S. (2003). *How useful are benefit incidence analyses of public education and health spending*. Washington, DC: International Monetary Fund.
- Deverajan, S. and Hossain, S. I. (1995). *The combined incidence of taxes and public expenditures in the Philippines*. WB Policy Research Working Paper No. 1543. Washington, DC: The World Bank.
- Fernandez, L. and Velarde, S. (2012). *Who benefits from social assistance in the Philippines? Evidence from the latest national household surveys*. Manila: The World Bank Manila Office. <http://documents.worldbank.org/curated/en/2012/03/16347722/benefits-social-assistance-philippines-evidence-latest-national-household-surveys>.
- Labonne, J. and Chase, R. I. (2011). *Do community-driven development projects enhance social capital? Evidence from the Philippines*. *Journal of Development Economics* 96(2): 348-358. <http://dx.doi.org/10.1016/j.jdeveco.2010.08.016>
- Manasan, R.G. (2011). *Pantawid Pamilyang Pilipino Program and school attendance: early indications of success*. PIDS Policy Note No. 2011-19. Makati City: Philippine Institute for Development Studies.
- National Economic and Development Authority (2011). *Philippine Development Plan 2011-2016*. Pasig City: National Economic and Development Authority.
- Paqueo, V., Orbeta, A. Jr., Castañeda, T. and Spohr, C. (2013). *After Five Years of Pantawid, What Next?* PIDS Discussion Paper Series No. 2013-41. Makati City: Philippine Institute for Development Studies.
- O'Donnell, O., Van Doorslaer, E., Wagstaff, A., & Lindelow, M. (2008). *Analyzing Health Equity Using Household Survey Data*. Washington, DC: The World Bank.
- World Bank (2012). *A user's guide to poverty and social impact analysis*. Washington, DC: The World Bank.