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Giving cash to the poor: A study of Pantawid Pamilya cash grants generosity, frequency, and modality

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DISCUSSION PAPER SERIES NO. 2020-59

Giving Cash to the Poor: A Study of *Pantawid Pamilya* Cash Grants Generosity, Frequency, and Modality

Kris Ann M. Melad, Nina Victoria V. Araos, and Aniceto C. Orbeta Jr.



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Giving Cash to the Poor: A Study of *Pantawid Pamilya*
Cash Grants Generosity, Frequency, and Modality

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Abstract

This study assesses the payment system of the Pantawid Pamilyang Pilipino Program (4Ps or Pantawid Pamilya) in terms of the amount, frequency, and mode of payment delivery of the cash transfers. The study is an early attempt of the Institute to examine the Pantawid Pamilya implementation and recommend improvements in its payment system in light of the enactment of RA 11310 which institutionalized the program and identified PIDS to conduct regular assessments on the program's implementation and impact. The underlying framework for the study is based on the idea that the amount of cash grants and its delivery system should be able to encourage desired behaviors among beneficiaries and help achieve the program's target outcomes. The study answers the research objectives using a combination of qualitative and quantitative methods of analysis that include a review of the available literature on payment systems of international CCTs; re-assessment of the cash grant values in relation to original intended levels and devaluation due to inflation; assessment of the implementation of the payment system including challenges, facilitating factors, and alternative ideas; and an assessment of the impact of the design features of the payment system on select outcome variables. The study uses administrative data of the Department of Social Welfare and Development (DSWD), survey data from the program's 3rd impact evaluation, interviews of key program implementers in the payment system, focus group discussions with beneficiaries, and an online survey focused on the payment delivery aspect of the Social Amelioration Program (SAP) among Pantawid Pamilya beneficiaries. The results show that the program needs to be more responsive in adjusting the benefit level of the cash grants vis-à-vis inflation and threats to welfare of the beneficiaries. With regard to payment frequency, there is no strong demand by the beneficiaries for more frequent payouts. Changes in frequency of payment should also be carefully examined to know if benefits outweigh additional costs in the operations. Although the payment delivery system has improved through the years primarily due to the conversion of mode of payment to cash cards, some opportunities to improve the payment delivery of the program are still present. Finally, the experience with the SAP distribution demonstrated the ease and speed of distributing assistance in times of emergencies when recipients (e.g., 4Ps beneficiaries) are identified and a payment system in place.

Keywords: *Pantawid Pamilya*, Conditional Cash Transfer, cash grants, payment system

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Giving cash to the poor: A study of *Pantawid Pamilya* cash grants generosity, frequency, and modality

Kris Ann M. Melad, Nina Victoria V. Araos and Aniceto C. Orbeta Jr.¹

1. Introduction

1.1. Background of the study

The Pantawid Pamilyang Pilipino Program (Pantawid Pamilya or 4Ps) is a human capital development program that aims to arrest the intergenerational transmission of poverty by providing cash grants to poor households, conditional to practice of certain desired behaviors. Specifically, the program provides cash grants based on the poor households' compliance with conditionalities on health, education, and family development. These conditions require that children attend school 85% of the time and eligible household members regularly avail appropriate basic health care services. In addition, parents in the household must attend monthly Family Development Sessions (FDS) or learning seminars.

In April 2019, Republic Act 11310 was enacted paving way to the institutionalization of Pantawid Pamilya. The Philippine Institute for Development Studies (PIDS) has been tasked to conduct periodic assessments of the program in terms of its impact on the beneficiaries and status of program implementation. The Institute is also tasked to recommend adjustments in the amount of cash grants provided to the beneficiaries every six years. This research is an early effort of the Institute to assess the overall payment system of the program considering the tasks provided in the law. The study looks at three aspects of the payment system: (1) benefit level or the amount of cash grants received by beneficiaries; (2) frequency that the cash grants are received; and (3) modality or the channel through which the grants are received by the beneficiaries.

In terms of benefit level, prior to the passing of the law, compliant household beneficiaries receive Php500.00 per month for health grants. For education, each compliant child in preschool, kindergarten, and elementary (K-6) receives Ph300.00 per month while each compliant child in high school receives Php500.00 per month. The education grant can only be received by a maximum of three (3) children for 10 months each year for each household. Starting only in 2017, an amount of Php600.00 per month is given to the households as “rice subsidy” – an additional benefit supposedly aimed to improve food security among beneficiaries.

The amount of program grants generally remained at the same levels since its pilot implementation in 2008, apart from the addition of the rice subsidy and the differentiation of cash grants for high school students in 2014². From the intended level of benefits in the program's first year of implementation, a cumulative reduction in the real value of cash grants by around 30% by 2016 is expected due to inflation. The provision of the rice subsidy in 2017 helped recover this loss in value of the cash grants, but this could also mean that no real increase in benefits was experienced by the beneficiaries for food security. The reduction in the real

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² From 2008 to mid-2014, only children 0-14 were eligible beneficiaries of the program. Coverage has been expanded to include children 15 to 18 years old in 2014 and grants have increased to Php500 for children in high school

value of grants has been cited as one of the possible reasons for the lack of program impact on some outcomes including total per capita expenditure, and prevalence of working children based on the past impact evaluation studies of the program (DSWD, 2014; DSWD and World Bank, 2014). A study done by Albert (2015) on the extension of age coverage of the program also recommended increasing the amount of education grants for elementary students from Php300 to Php350, and for high school students from Php500 to Php600, to help improve completion and cohort survival rates among the beneficiary children.

With the passing of the law, the health grants increased from Php500 to Php750 and education grants for children in Senior high school (SHS) increased from Php500 to Php700³. Meanwhile, grants for children in elementary and junior high school remain at Php300 and Php500, respectively. These amounts are expected to be adjusted every six years based on recommendations of PIDS through the program National Advisory Council – its policy making body composed of DSWD and other agencies.

On frequency of receipt of benefits, the program beneficiaries currently receive cash grants every two months based on a cycle of compliance monitoring conducted by the program implementers. This is relatively faster than during the first three years of program implementation where payouts were conducted every quarter.

In terms of impact, evidence on other CCTs suggest that more frequent provisions of cash grants contribute to better consumption smoothing of beneficiaries while less frequent and lump-sum provision of grants result in higher investments and asset accumulation among households (Bastagli, et al., 2016). Given that the main objective of the program is to address gaps in the food consumption and education and health expenses of the household, these findings suggest that a more frequent payouts should be desired. However, it is apparent that increasing payment frequencies will incur additional operations cost for the program, and whether these additional costs will be cost-effective in terms of the marginal benefits is still unclear. For example, evidence from the systematic review done by Garcia and Saavedra (2012) point that monthly provision of cash grants is associated with smaller impact on educational impacts compared to the less frequent provisions.

The third aspect examined in this study is the payment modality or how beneficiaries receive their program benefits. Cash grants are delivered to the beneficiaries by the Land Bank of the Philippines (LBP) – an Authorized Government Depository Bank (AGDB). Based on the payroll advise generated by the DSWD, the LBP pays the cash grants to the beneficiaries through two modalities. The first modality is through the Cash Cards that can be used to withdraw the money from Automated Teller Machines (ATM), while the second modality involves subcontracting of payment conduits such as money exchange centers, cooperatives, and other firms to deliver the grants in cash to beneficiaries “Over the Counter” (OTC).

Timeliness and predictability of the payments are affected by the modality of cash grant payments. Beneficiaries with cash cards, on the average, receive their benefits earlier than those that receive their benefits through OTC transactions. While cash card holders have immediate access to their benefits once credited by LBP, OTC payouts require successful bidding of a payment conduit, and numerous logistic requirements like OTC venue, scheduling, security, and transportation of beneficiaries to and from the OTC venue, among others. Given this, the DSWD and LBP have been trying to increase the proportion of household beneficiaries with

³ (RA 11310 : An Act Institutionalizing the Pantawid Pamilyang Pilipino Program)

cash cards. From the 44% of cash card holders in 2017, the DSWD reports that almost 75% of the beneficiaries are already cash card holders as of July 2019 (Pantawid Pamilya NPMO, July 12, 2019). However, this still means that until one year ago, one million out of the four million beneficiaries of the program were still vulnerable to delays and unpredictability of payments through OTC transactions. The study aims to provide additional information on this challenge of enrolling 100% of the beneficiaries to cash card accounts and the benefits that come with it.

In more recent events, the payment system of the program has been an essential tool in the delivery of the financial assistance for the Social Amelioration Program (SAP) to the Pantawid Pamilya beneficiaries as part of the government's mitigation and recovery plan during the COVID-19 pandemic. Using information on the experiences of the program beneficiaries in relation with the SAP, the study gains insights on the current capacity of the program payment system and briefly discusses its adaptability for other forms of social protection such as emergency cash assistance.

1.2. Objectives

The study aims to assess the payment system of the *Pantawid Pamilyang Pilipino Program* in terms its benefit level, frequency, and modality.

Specifically, the study aims to:

- i. review international evidence on the level of benefits, frequency, and delivery mechanisms of CCTs in other countries;
- ii. assess the implementation of the payment system and inputs of key actors and identify variations and challenges in implementation;
- iii. review the appropriateness of cash grant amounts based on of the objectives of the program, the intended value of benefits at program inception, the average expenses of poor households and students, and compare current levels with other successful CCTs;
- iv. identify and study other options of payment delivery and solicit feedback on these options and alternative recommendations of program staff to improve the current payment delivery system; and
- v. determine the impact of the program on for subgroups of beneficiaries by type of payment modality and frequency of payment.

1.3. *Research questions*

The research is a study of the overall payment system of the program covering portions of its results chain from outputs to outcomes. The following research questions are covered:

- i. What does the international evidence say about the level of benefits, frequency, and delivery mechanisms of CCTs?
- ii. How appropriate are the current benefit levels of the program in terms of the objectives of the program, its initial intended value, the average expenses of poor households and students, and in comparison, with other successful CCTs?
- iii. How have policies, infrastructure, logistic, and technical inputs from the DSWD, LBP, and other actors changed and affected the payment delivery system of the program in the past years? What motivated the changes?
- iv. How is the payment system implemented? Are there any variations or unique challenges in the implementation?
- v. What do program staff recommend to improve the current payment delivery system?
- vi. What other options of payment delivery can the program explore to improve delivery of cash grants in terms of timeliness and reliability under different circumstances? How feasible are these options based on the perspective of the DSWD and other stakeholders?
- vii. How does the level of benefits, frequency and modality of grant payments affect the following outcomes?
 - (a) Expenditure and income
 - (b) Labor outcomes
 - (c) Health, education outcomes

In addition to the above, the study also gathers insights on the capacity of the program payment system using information on the experiences of the Pantawid Pamilya beneficiaries in receiving their financial assistance for the Social Amelioration Program (SAP) of the government in line with the COVID-19 mitigation plan.

In answering these research questions, the study is expected to generate recommendations and options that will help improve the payment system of the program. Aside from generating recommendations to enhance the payment system implementation, the research also delves into the operationalization of these policy recommendations and determines whether these proposed modifications are feasible based on the perspective of the program stakeholders. Ultimately, the goal of the research is to provide improvements in the program implementation – particularly on its payment system – to increase the chances of achieving its desired outcomes in human capital formation and household welfare.

2. **Review of Related Literature**

2.1. *Role of payment system in success of CCTs all over the world*

Various studies and subsequent systematic reviews have shown that the design and implementation features of conditional cash transfers affect the uptake and outcomes of these programs on its beneficiaries (Bastagli, et al., 2016; Garcia & Saavedra, 2012; Davis, Handa, Arranz, Stampini, & Winters, 2002; Fiszbein & Schady, 2009; Baird, McIntosh, & Ozler, 2009). In terms of the benefit mechanism of cash transfers, majority looked at the variations in

impact in terms of the amount of the transfers, while several looked at the impact of variations in frequency of payment, timing, and predictability. This section presents a review of studies on this topic.

In terms of poverty reduction and household welfare, studies generally find that higher transfer levels result in bigger impacts on total household and food expenditure as well as poverty reduction. Davis, et.al. (2002) assessed the impact of the level of cash transfers by comparing the impact of two programs in Mexico that provide considerably different levels of benefits. The study reported positive impact of both programs on several indicators including household welfare and health and education outcomes of children. But, more importantly, it found that increases in the amount of grants have corresponding increases in the household expenditures of beneficiaries. The same is observed for other social protection programs that are unconditional in nature. In a two-year experiment of an unconditional cash transfer in Kenya, Haushofer, and Shapiro (2016) found relatively higher expenditures for non-durable items among households that received higher amount of transfers.

For child health outcomes, three studies of Mexico's Progresa program observed that higher transfer levels are associated with improvements in nutrition outcomes of children. Manley et. al (2015) found statistically significant improvement in the height-for-age Z scores (HAZ) to be associated with higher transfer levels. Esteva (2012) also observed higher HAZ and weight-for-age Z scores (WAZ) for beneficiaries of Progresa that received higher transfer levels, but these were both not significant. Meanwhile, Fernald et. al. (2009) found that larger cumulative transfers are associated with better child development in both physical and cognitive domains.

The results for education outcomes are more mixed. Manley et. al (2015) found a significant positive relationship between the size of transfers in Progresa and improvements in the cognitive and verbal development indices of children. The study also observed stronger effects on cognitive development due to transfer levels compared with longer duration of exposure. Baird et. al. (2009) found that higher transfers in a Malawi program are associated with improved attendance and progression in school levels among schoolgirls, but this result is only applicable when conditions are enforced with regard to the school attendance of the children. However, other education outcomes examined in the study, including dropout rates, are not responsive to increases in transfer levels. Filmer and Schady (2011) also found small and often insignificant effects on education outcomes of higher transfer levels of the CSSP in Cambodia. A meta-analysis done by Garcia and Saavedra (2012) found that transfer amounts are not statistically correlated to effect sizes of program impacts on education outcomes.

For employment, although the effects of CCTs on employment and work-seeking behavior have been widely studied, there are limited research that specifically looked into the relationship between employment and the level of transfers. One of these few studies is done by Dabalén et. al (2008) where the authors observed reduction in working hours due to increase in transfer levels in a program in Albania. The authors explain that this result could have been exacerbated by other environment conditions such as poor job generation, among others, but they also mention that underreporting of employment is possible as it is part of the eligibility criteria for the program. On the other hand, a re-analysis of six CCT programs in developing countries reveal that there is no systematic evidence that the programs have discourage work among beneficiaries (Banerjee, Hanna, Kreindler, & Olken, 2017)

Relative to studies on transfer levels, studies on the effect of the frequency, timing and predictability of cash transfers are scarcer. In terms of household welfare, Haushofer, and

Shapiro (2016) experiment of a Kenyan cash transfer program showed that monthly provision of cash transfers compared to lump-sum receipt is associated with reduction in expenditures of non-durable items. In addition, lump-sum receipt of benefits was found to be associated with higher savings and investment in beneficiary households. Bazzi et. al. (2012) also observed that predictability and the corresponding timely delivery of benefits are associated with higher increases household expenditure in Indonesia.

For education, the results of the meta-analysis done by Garcia and Saavedra (2012) indicate that more frequent provisions of cash transfers, i.e., monthly versus less frequent, is associated with negative impacts on effect sizes of program impact on education outcomes of children. The authors explained that less frequent payments (i.e., less frequent than monthly) are able to relax the saving constraints of beneficiaries due to partial delay or lumping of payments.

Regarding employment, Bazzi et. al. (2012) found reduction in the working hours of adult members associated with the delay in the receipt of transfers. As mentioned earlier, the program eligibility criteria may have influenced this observation as households anticipate receiving transfers under low employment conditions. However, it is also important to highlight the reanalysis done in Banerjee et al (2017) that show there is no significant effect on work incentives.

Banerjee et al. (2017) showed a graph (Figure 1) on the negative relationship between the generosity of the cash transfer programs and the view of people on why the poor are poor. Countries that tend to believe that the poor are lazy tend to provide less generous cash grants than countries that tend to believe that poverty is because their society is unfair.

2.2. Local assessments of the 4Ps Payment system

Studies by CGAP (2013) and Catubig et. al. (2015) both assessed the payment system of Pantawid Pamilya, although the latter had a limited scope and focused only the experience of Davao Region. Both studies noted improvements in the payment system of the program since its pilot implementation, especially after the entry of additional payment conduits that manage the delivery of cash grants to beneficiaries. However, both studies also identified gaps in the payment system.

The CGAP report mentioned as challenges the underdevelopment of the financial infrastructures and the difficulty of catching up with the demand due to rapid increase in number of beneficiaries through the years. This issue is further exacerbated by the limitation of other conduits in developing solutions and innovations as the monopoly of the implementation lies with the Land Bank of the Philippines. Another key issue pointed out by the report is the “missed opportunity” for the LBP and the other payment conduits as they fail to fully appreciate and maximize the potential of beneficiaries to be formal bank clients.

Meanwhile, Catubig et. al. noted that trade-offs exist for all types of payment delivery modes in terms of opportunity costs for the beneficiaries, transaction costs for the government, predictability, and security. This observation highlights the need to study all possible payment delivery options in order to weigh trade-offs and arrive at the most cost-efficient mode. The study also noted facilitating factors such as use of established financial infrastructures already present in the areas (e.g. LBP, Rural Banks, Philpost, etc.), and competition between payment service providers that encourage innovations. Lastly, the study highlighted that the efficiency of the program payment system relies heavily on the commitment of these providers to fulfill their obligations in the payment delivery.

3. Research Design and Methodology

This section presents the research design for the study. The study used a mix of qualitative and quantitative methods of analysis using data from both primary and secondary sources. The analysis is anchored on the conceptual framework presented in Section 3.1 which shows the pathways through which the design features of the payment system of the program affect the program's theory of change, and the achievement of the desired outcomes among beneficiaries. Section 3.2 presents the research design and data collection and analysis components that were used, while Section 3.3 briefly describes the data sources in terms of respondent profiles.

3.1. Conceptual Framework

One of the key assumptions in the program theory of *Pantawid Pamilya* is that the cash grants incentivize beneficiaries to perform their co-responsibilities meant to facilitate human capital accumulation of children in the household (DSWD, 2014). Under such assumptions, the amount of grants and the frequency and manner by which the grants reach the beneficiaries are crucial. As presented in Section 2, evidence on other CCTs demonstrate that these design features of the payment system have an influence on the achievement of desired outcomes of the program.

Figure 1 shows a simplified illustration of the program logic. Poor households receive the package of interventions which include cash grants, the imposition of program conditions, and learning sessions through the FDS. With these program inputs, beneficiaries of the program are expected to have increased income and higher productivity of children in the future. Beneficiaries receive cash grants in exchange for their compliance with program conditions on the education and health of children, and family development, which in turn result in higher investments in the human capital of children. The grants are expected to increase the resources of the household beneficiaries and allow them to afford their needs and smoothen their overall consumption. The additional income is also expected to improve chances of households to cope or withstand economic shocks. All these intermediate outcomes contribute to the overall goal of the program to increase the productivity of children beneficiaries as adults and improve the overall welfare of their households.

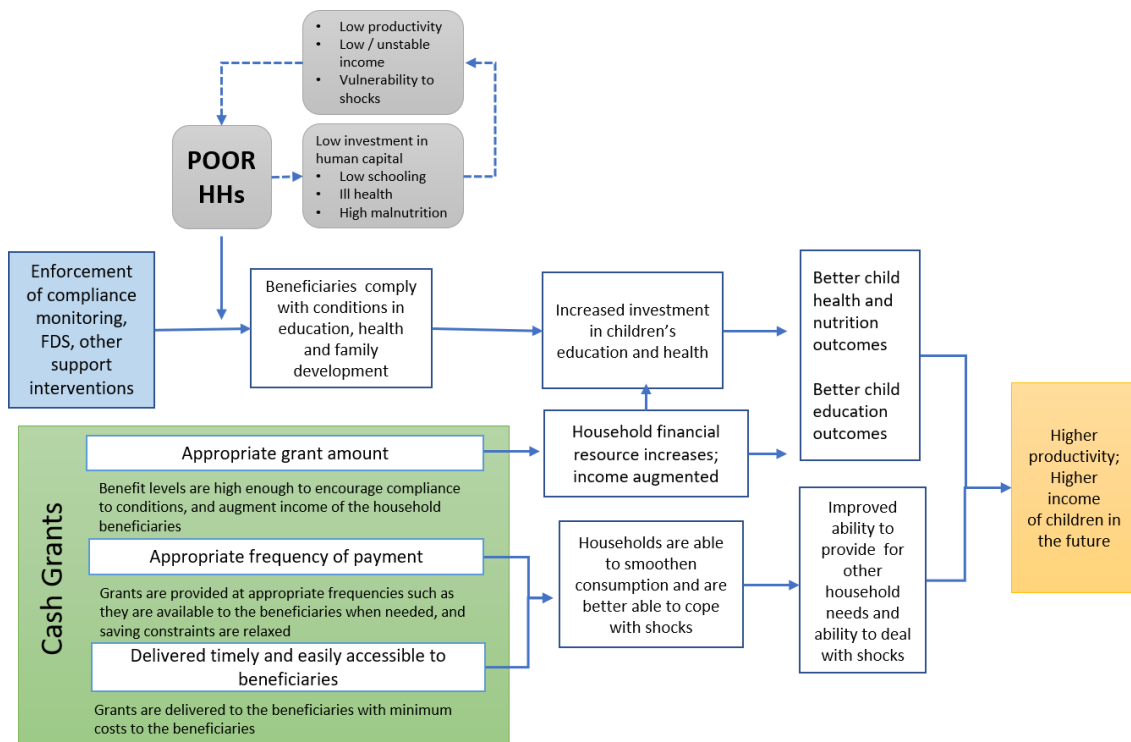
For these pathways and outcomes to be realized, it is assumed that resources for the program are adequate and delivered on time and the enforcement of conditionalities and other support interventions including the FDS are implemented effectively. Likewise, it is also important that supply of quality educational and health services is available and accessible to the beneficiaries. The final assumption key to the realization of the final program goal is that merit-based employment and entrepreneurial opportunities are available to the beneficiaries. This allows that the investments on the human capital of the children beneficiaries translate to higher productivity in gainful employments and entrepreneurial activities.

From the figure, the three features of the benefit payment are expected to have influence the realization of changes for the beneficiaries. Evidence from the literature (Section 3) generally suggest that higher transfer levels result in higher impacts on the household expenditure and other measures of immediate income effect of the grants. Likewise, higher transfer levels are also expected to influence compliance behavior of beneficiaries, therefore increasing the

likelihood of achieving outcomes related to the human capital investment in children. The frequency of the grants provision relates more to the availability of the grants to support the ongoing consumption of the beneficiaries, while the modality of grant provision influences access of the beneficiaries to the grants including the costs they incur.

It is important that the program can balance the effectiveness and cost-efficiency of the benefit scheme. The grants should be large enough that the program is able to encourage desired behaviors from the beneficiaries and effect improvements in their consumption, but at the same time, it should also be not too large to foster dependency among beneficiaries. Likewise, the grants should be provided in a timely manner such that they are available to the beneficiaries in times of need, but not at the expense of cost efficiency (i.e. operational costs vis-à-vis marginal benefit). Lastly, it is important that the grants are delivered at minimum costs for the program implementers and the beneficiaries.

Figure 1. Conceptual Framework



Assumptions:
 Resources are adequate and delivered on time
 Enforcement of conditionalities are effective
 FDS and support interventions are effective
 Beneficiaries convert grant into investments in human capital

*Supply of educational and health services are adequate, of high quality, and available and accessible to beneficiaries
 Employment and entrepreneurial opportunities are available and merit-based*

3.2. Research Design

The study used a mix of quantitative and qualitative data and analysis to answer the research questions specified in Section. For simplicity, these components are grouped into four clusters of analysis below.

3.2.1. Desk review of literature and administrative data

Desk review of available literature and evidence related to the payment policies of international CCT programs was conducted to answer the first and second research questions posted in the study. Literature on the design and assessment of successful international CCTs were used to develop insights on potential improvements in the 4Ps payment system.

The study also reviewed program administrative data and reports related to the payment system and program operations. These include data and reports on the cash grant disbursement, payment delivery modes, compliance monitoring, and budget of the program.

3.2.2. Key Informant Interviews and Focus Group Discussions

The second group of analyses include qualitative research methods through focus group discussions (FGD) with program beneficiaries and key informant interviews (KII) with

program implementers. These were conducted to gain insights from the experiences of the stakeholders with regard to the payment system of the program.

The key informant interviews of stakeholders of the program were aimed to gain an understanding of the following aspects of the payment system:

- i. Payment policies (i.e., on benefit levels, frequency, and modality) and rationale
- ii. General processes and implementation
- iii. Variations in the implementation across the years and areas
- iv. Challenges, and facilitating factors
- v. Plans and policy directions (e.g. modernization)
- vi. Suggestions/recommendation for improvement

The target respondents were key persons from the program management responsible for program policies, operations, and monitoring, as well as key officials of the Land Bank of the Philippines (LBP) as the primary AGDB.

On the other hand, the focus group discussions with beneficiaries were aimed to understand issues that they are facing in accessing and using cash transfers. The key topics in the FGD include:

- i. Assessment of the appropriateness of benefit levels relative to their household expenditures
- ii. Experience in compliance monitoring and correctness of cash grant amounts
- iii. Knowledge and experience on filing payment-related grievances
- iv. Experience in payout procedure such as receipt of information on payment schedules, challenges in accessing grants, support services related to the program payouts, etc.
- v. Expenditure of grants and tracking of expenses
- vi. Suggestions for improvement of program implementation

Data collection was conducted in National Capital Region (NCR) and the three island clusters of Luzon, Visayas, and Mindanao. The study areas were selected from the 3rd wave impact evaluation sites and consisted of 16 barangays from 8 municipalities⁴. One FGD per barangay was conducted totaling to 16 FGDs in all. For the areas outside NCR, one city and one municipality is chosen for each region, while one rural and one urban (or “*Poblacion*”) barangay were chosen for each city or municipality. The distribution of study sites per island cluster is shown in Table 1.

⁴ The areas and base sample frame for this study are the same with separate research entitled “Qualitative Follow-up Study to the 3rd Wave Impact Evaluation”. The data collection for the two studies were simultaneously conducted but the FGD participants were different.

Table 1. Distribution of study sites by island cluster

Island Group/ Cluster	Number of Cities/ Municipalities	Number of barangays
NCR	2 cities	4
Luzon	1 city, 1 municipality	4
Visayas	1 city, 1 municipality	4
Mindanao	1 city, 1 municipality	4

For each of the 16 barangays, the data collection included a focus group discussion with beneficiaries of the program, and interviews with the Pantawid Pamilya City/Municipal Link (C/ML) and Municipal Roving Bookkeeper (MRB) assigned in the areas whenever possible. The C/ML is the frontline staff of the program who oversees that the operations at the beneficiary level and serves as the primary linkage of the program with the beneficiaries and other local stakeholders. The MRB on the other hand is the staff primarily involved in the payment operations at the city or municipal level. The MRB serves as the primary link between the C/ML, the LBP or payment conduits, and higher level staff involved in the payment operations. The number of C/MLs and MRBs assigned in the area usually depend on the number of Pantawid Pamilya beneficiaries.

Data collection was conducted for majority of the Luzon areas (including NCR) from November to December 2019 while data collection in Visayas and Mindanao areas were conducted from January to March 2020.

Aside from the MRBs and C/MLs, other stakeholders interviewed are key officials involved in the policy and design of the payment system. These interviews were scheduled after all of the FGDs in order to validate and probe issues that were identified by the beneficiaries as well as the frontline workers of the program. The complete list of target respondents for the FGD and KIIs are presented in Table 2 below. The roles and number of target respondents are also shown. All of the FGDs and most of the KIIs were conducted in person while KIIs with two MRBs, the LBP, and the DSWD-FMS were conducted via phone and online video conference due to COVID-19 travel restrictions. Due to scheduling difficulties, the interview with Pantawid National Program Management office was conducted via email where the office provided responses to guide questions.

Table 2. Target respondents for FGDs and KIIs

Respondent	Number of respondents	Method	Role in the program
Beneficiaries	10/ barangay	FGD	<ul style="list-style-type: none"> ▪ Program beneficiary
City/Municipal Link	1/city or municipality	KII	<ul style="list-style-type: none"> ▪ Compliance monitoring ▪ Linkage with local actors ▪ Information channel to beneficiaries ▪ Facilitation of updates and grievances
Municipal Roving Bookkeeper	1/city or municipality	KII	<ul style="list-style-type: none"> ▪ DSWD staff assisting conduits for payouts in OTC areas
<i>Pantawid Pamilya National Program Management Office (NPMO)</i>	1-4*	KII	<ul style="list-style-type: none"> ▪ Program M&E, and key policies ▪ Grievance redress ▪ Beneficiary updating, NPMO level ▪ Compliance verification, NPMO level

Respondent	Number of respondents	Method	Role in the program
DSWD Finance Director for 4Ps	1	KII	<ul style="list-style-type: none"> ▪ In charge of payroll generation and liquidation at the national level
Landbank Program PMO	1	KII	<ul style="list-style-type: none"> ▪ Authorized government depository bank ▪ Overall in-charge of payment of grants

Thematic analysis was used to analyze the qualitative data collected by the study team. This was facilitated by the use of computer-assisted qualitative data analysis software (CAQDAS), specifically NVivo. Transcripts of the interviews were systematically coded following themes based on pre-identified areas of discussion during the questionnaire development. Sub-categories were then generated based on the initial themes in order to further analyze the range of insights provided by respondents.

Given validity and reliability issues inherent in qualitative analysis (Nowell et al. 2017), the study team employed various methods in order to validate the study results. Namely, these are triangulation, thorough documentation of interview proceedings and the analytical process, and use of rich and thick description in the analysis text.

Triangulation is conducted by comparing responses of program beneficiaries and program implementers, namely DSWD and Landbank staff. Cross verification is also done by comparing qualitative analysis results with results of other methods employed by the study. Interviews were documented with audio recordings, as well as notes taken during the interview. Documentation of the analytical process was also practiced by the writing of notes or “memos” using features provided by the CAQDAS utilized by the study team. Thick description is provided in the analysis in order to provide a thorough context for interview responses.

Although measures are taken to support the validity and reliability, particularly the qualitative component of the study, it must be noted that qualitative analysis on its own cannot be used to generalize over a large population. The main purpose of the analysis in this case is to facilitate triangulation by cross verification with the results of the other methods of analysis employed by the study. This also supplements and provides depth the analysis by capturing insights not covered by other methods.

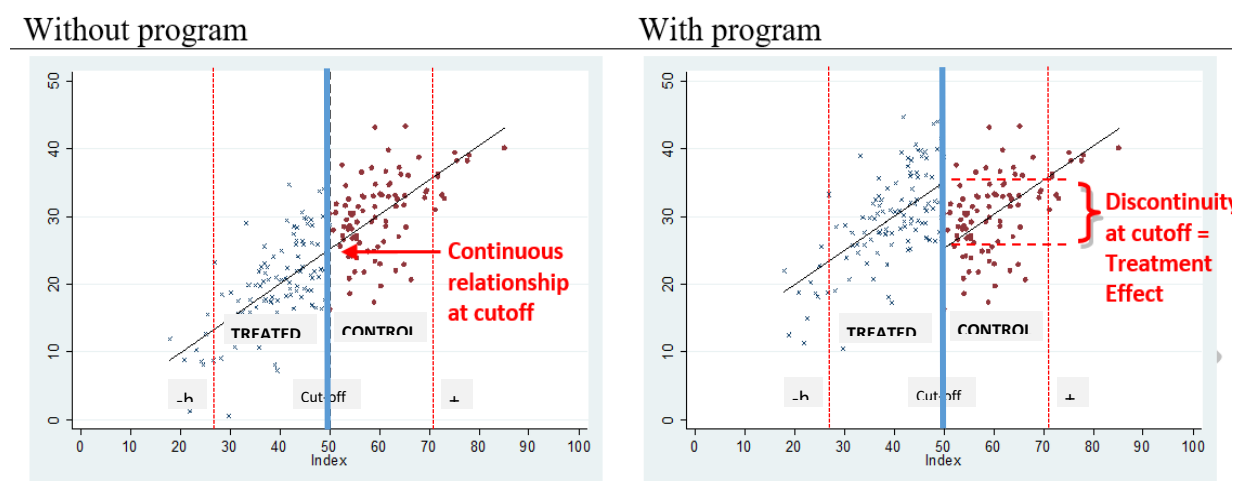
3.2.3. Analysis of IE3 survey data

The study also included an analysis of the survey data collected for the 3rd impact evaluation of the program to assess if target outcomes are affected by features of the payment system, specifically the mode of delivery of receipt of cash grants.

The survey data was collected from November to February 2017 covering 6,775 households that are beneficiaries and non-beneficiaries of the program and includes information on the manner through which beneficiaries of the program receive their cash grants. Moreover, the data includes information on the characteristics of the households and their individual members, and indicators of desired program outcomes such health care utilization and education of children, income and expenditure, receipt of social and government program benefits, labor participation, anthropometric data, among others.

Consistent with the design of the 3rd impact evaluation of the program, the study applied an RDD identification strategy was used to analyze the survey data. In RDD, poor and eligible households – the beneficiaries – are compared with households that are just below the eligibility cut-off for the program (i.e., poverty threshold). RDD is extensively discussed in the works of Imbens and Lemieux (2008), Cattaneo, Idrobo and Titiunik (2018a) and Cattaneo, Idrobo and Titiunik (2018b).

Figure 2. Regression Discontinuity Design



Source: Impact evaluation concept note, World Bank (2010)

The estimation is constructed on the base equation

$$y^- - y^+ = \lim_{x \uparrow \bar{x}} E[Y_i | X_i = x] - \lim_{x \downarrow \bar{x}} E[Y_i | X_i = x]$$

where Y is outcome of interest, X is the Proxy Means Test (PMT) score of the households based on Listahanan targeting of the program, x is the eligibility cut-off or poverty threshold, and T is the treatment assignment variable.

The study estimated the impact of the program on subsets of beneficiaries grouped by cash grant modality (OTC versus cash card). This was done by estimating the impact of the program separately on subsets of the sample based on the features of the payment system being

examined. Differences between impact estimates for the subgroups were tested using z-test of equality of coefficients:

$$Z = \frac{\tau_1 - \tau_2}{\sqrt{(se_1)^2 + (se_2)^2}}$$

where: τ_1 = coefficient (program impact) on the first subgroup
 τ_2 = coefficient (program impact) on the second subgroup
 se_1 = standard error of the impact estimate on the first subgroup
 se_2 = standard error of the impact estimate on the second subgroup

To improve precision of estimates, relevant covariates such as urban/rural classification of areas, barangay characteristics, supply conditions, etc. were included in the estimation models.

The analysis of the IE3 data for this study is limited by two main issues: (1) the original sampling of was not designed to measure the impact of such features of the payment system; and (2) the RD methodology can only generate impact estimates among household beneficiaries near the poverty thresholds and not of the poorer segments of the beneficiary population. Ideally, a controlled experiment as in an RCT should be done to accurately measure the impact of these payment system components; however, the results of the study should be able to provide a reliable picture of the impacts of this distinction in the payment modality.

3.2.4. Online survey on SAP implementation

In line with the government's social protection plan to alleviate loss of income and other shocks due to the COVID 19 pandemic, financial assistance is given to Pantawid Pamilya beneficiaries through the Social Amelioration Program (SAP). An online survey was launched to collect information on the experiences of the program beneficiaries in receiving their financial assistance. The information from the online survey was used to gain additional insight on the current capacity of the program payment system, challenges, and its ability to adapt to wider coverage of beneficiaries and available technologies in payment delivery.

The questions included in the survey are those that pertain to their experiences in accessing or withdrawing their regular cash grants in Pantawid Pamilya and the SAP financial assistance. Respondents were also asked regarding the platforms they used in accessing their benefits (e.g., ATMs, digital banking, etc.), as well as effects of the current pandemic on their sources of income, expenses, and access to health services.

3.3. Profile of Respondents by Source

This section presents the profile of respondents in the data collection activities mentioned in the preceding text. These include the description of participants in the FGDs and KIIs, as well as respondents in the 3rd impact evaluation survey and the online survey on SAP experience.

3.3.1. FGD Respondents

A total of 156 individuals participated in the 16 FGDs that were conducted. Although the research team targeted ten participants for each FGD, the number of participants varied across sites with number of participants ranging from 5 to 18 due to availability of participants. Among the island clusters, Mindanao FGDs had more participants than the average (Table 3).

Table 3. Distribution of FGD participants by island cluster

Island Cluster	Freq.	Percent
LUZON	36	23.08
MINDANAO	46	29.49
NCR	38	24.36
VISAYAS	36	23.08
Total	156	100

The base sample for the FGDs were taken from the sample of Pantawid Pamilya beneficiaries in the IE3 survey⁵. In cases where the number of potential participants for the FGDs is lower than 10, the city/municipal link were asked to invite other active beneficiaries of the program in the barangay.

Table 4 shows the profile of the FGD participants. Majority of the respondents (83%) were female, and most are the designated grantee of the household. The grantee, usually the primary caretaker of the children, is the authorized representative to receive the cash grants and attend the FDS. The rest of the participants were mostly the spouse of the grantee. Among the participants, almost 20% were Parent Leaders (PL). A parent leader is a Pantawid Pamilya beneficiary chosen as a leader or representative of a group of beneficiaries of around 25 to 40 members usually residing within the same barangay. The PLs are usually more well-versed with the program operation details compared to other members of their parent group because the C/MLs are usually relay information to the other beneficiaries through them. The average age of participants is 47.

⁵ This excludes beneficiaries who were invited in FGDs for the research “Qualitative Follow-up Study to the 3rd Wave Impact Evaluation”. The areas and base sample for these studies are the same but participants for the FGDs were different to avoid respondent fatigue.

Table 4. Profile of FGD participants

Characteristic	Freq. (n=151*)	Percent
Female	125	82.78
Parent leader	29	19.21
Grantee	122	80.79
<i>Age group</i>		
20-29	5	3.31
30-39	35	23.18
40-49	51	33.77
50-59	38	25.17
60 and older	22	14.57

Note: Five participants do not have profile information

Table 5 shows the average household composition of the FGD participants. From the table, not all of the households have children 5 years old and below and pregnant women. Meanwhile, on the average, there are two children age 3 to 18 years old in the households. These children are within the age group eligible for the education monitoring of the program. However, the average number of monitored children for education is lower which means not all of those within the eligible age group are monitored for school attendance. For context, the program has a limit of three children per household

Table 5. Household composition of FGD participants

Household member	Average number in the household (n=151)	Min.	Max.
Pregnant woman	0.05	0	1
Children 0 to 5 years old	0.46	0	3
Children 3 to 18 years old	2.21	0	10
Monitored children (for education condition)	1.49	0	3

In terms of mode of payment of cash grants, almost all of the respondents reported claiming their cash grants through cash cards (96%) while only 5 participants reported receiving through over the counter transactions in Land Bank branches. This is consistent with the KII responses and recent program reports that indicate that most of the areas nationwide, except for areas in Bangsamoro Autonomous Region in Muslim Mindanao (BARMM) are predominantly receiving grants through cash cards. Among the participants, 145 were able to provide the amount of the last grant they received. The average amount is PHP 3,400 pesos for two months of compliance monitoring, while reported amounts range from PHP 1500 to PHP5200. Most of the participants received their last cash grant one or two months prior to the interview but five of the participants reported receiving their last grants in 2009 up to 2018. These participants were later found to be inactive beneficiaries who have exited from the program due to aging out of eligible children or other reasons for ineligibility.

3.3.2. KII respondents

As discussed earlier, City or Municipal Links (C/ML) are the program frontline staff who serve as the direct link of the program to the Pantawid Pamilya beneficiaries. The C/MLs ensure that systems and program operations are running smoothly at ground level and concerns of beneficiaries regarding the program are addressed or referred to the proper stakeholders. Their role include ensuring that information on the beneficiaries are up to date, compliance data are being collected (with the help of health facilities, schools, and another program staff called Social Welfare Assistant), grievances of beneficiaries are collected and properly endorsed to appropriate channels, and FDS are being conducted and attended regularly. They are also expected to be “case managers” of the beneficiaries and ensure that that other issues and needs of the family are being addressed through linkages with local stakeholders including the Local Government Units. Given the crucial role of the C/MLs in program implementation, they were included as key informants in the study.

In total, there were 18 C/MLs that were interviewed. There were 5 each from NCR and Visayas, and 4 each from Mindanao and Luzon. Table 6 shows the profile of the respondents in terms of their experience as C/MLs and current caseload. The average years of experience as C/ML is 6 years with the shortest at 1 year and longest at 9 years. In terms of experience as C/ML in the study area, the average and range is lower since some of the C/MLs interviewed have been previously assigned to a different area. The average number of barangays covered by one C/ML is around 6, while number of beneficiaries on the average are around 780 and values range from 678 to 980.

The Municipal Roving bookkeeper (MRB) is the staff in charge with the ensuring payment operations in the program are running smoothly at the ground level. Their primary role is to coordinate with the Land Bank of the Philippines and other payment conduits to ensure that beneficiaries are able to receive their cash grants whether through cash cards or over the counter. They also work with the C/MLs in helping beneficiaries enroll to a cash card account and troubleshoot concerns regarding receipt of grants such as loss or damage of cash cards, card capture, among others.

In total, there were nine MRBs assigned in the study areas that were interviewed. On the average, the MRBs have had 5 years of experience as MRBs (Table 6). An MRB is usually assigned to one or more municipality but in some areas, particularly in populated cities like in NCR, more than one MRB can be assigned.

Table 6. Experience and caseload profile of C/ML and MRB respondents in KIIs

Respondent characteristics	Mean	Obs.	Std. Dev.	Min.	Max.
CITY/ MUNICIPAL LINKS					
Total years as C/ML	6.4	16	2.4	1	9
Total years as C/ML assigned in the study area	3.9	16	2.0	0.7	7
Caseload or number of Pantawid Pamilya beneficiaries managed	780.8	16	84.0	678	980
MUNICIPAL ROVING BOOKKEEPER					
Total years as MRB	5.1	9	2.4	2	10
Number of MRBs assigned in the same city or municipality	1.3	9	0.7	1	3

In addition to the local KIIs with the C/MLs and MRBs assigned in the study sites, interviews were conducted with officers of the Landbank of the Philippines’ Conditional Cash Transfer Program Management Department (CCT-PMD), the DSWD Financial Management Service for Special Programs (FMS-SP), and the National Program Management Office (NPMO) of the program. These interviews were done to collect information on the payment process, including rationale for past policy decisions, current, and future directions, from the perspective of the national-level program implementers. There were two KII respondents for the interview with CCT-PMD and also two respondents for the interview with DSWD FMS-SP which was done via video conferencing. The data collection for the NPMO was conducted through email questionnaire through its Planning and Monitoring Evaluation Division.

1.1.1. IE3 data

As discussed in the previous section, the main sample of the 3rd wave impact evaluation survey was based on a RDD evaluation design. The sample consisted of poor households eligible to be enrolled in the program, and non-poor or non-eligible households. The total sample covered in the survey were 6,775, coming from 180 barangays nationwide. The survey data was collected from November 2017 to February 2018 through face-to-face interviews.

Of the total sample, 3,450 households formed part of the treatment group while 3,325 households were included in the comparison group. Table 7 shows the characteristics of the treatment and comparison group at baseline and their estimated PMT scores at the time of targeting. Based on the table, the households in the treatment and comparison groups, on the average, are generally similar in terms of household composition and income. This supports the validity of comparing the two groups to measure the impact of the program.

Table 7. Household composition and estimated income of households at baseline, by treatment assignment

	Treatment	Comparison	All
Total number of households	3,450	3,325	6,775
Average number of household members	5.17	5.10	5.13
Average number of HH members by age group:			
<i>0 to 5 years old</i>	0.6	0.59	0.6
<i>6 to 14 years old</i>	1.28	1.21	1.25
<i>15 to 18 years old</i>	0.5	0.47	0.48
<i>19 to 60 years old</i>	2.48	2.49	2.48
Total no. of WRA (aged 15-49 years)	2,646	2,494	5,140
Ave. estimated income based on PMT	PHP 14,466	PHP 15,596	PHP 15,017

The focus of this study component is the differential impact of the two modes of cash grant payment on the key target outcomes of the program. Of the treatment households, data on the mode of payment is only available to 3,011 Pantawid Pamilya beneficiaries. The distribution of the households by mode of payment is shown in Table 8. Treatment households that did not have information on the mode of payment were excluded in the analysis. In total, the analytical sample for the treatment group is composed 1,315 household that receive grants through OTC mode and 1,298 households that receive grants through cash card mode of payment.

Table 8. Distribution of IE3 treatment households by mode of payment

Mode of Payment	Frequency	Percentage
Over-the-Counter (OTC)	1,315	38.1
Cash card	1,298	37.6
No data	837	24.3
Total	3,450	

Table 9 presents some information on the payment history of the 4Ps households in the analytical sample. Based on the respondents reported frequency of payouts in the past 12 months, cash card payouts were more frequent compared to OTC payouts. This could be expected because OTC payouts require more logistical preparations and schedules are dependent on a number of factors that do not affect cash-card based delivery of grants. In terms of the total amount of grants over the same period of 12 months, the difference between the two mode of payments was not statistically significant although that of the cash-card group was slightly higher possibly due to the slightly higher frequency of payouts.

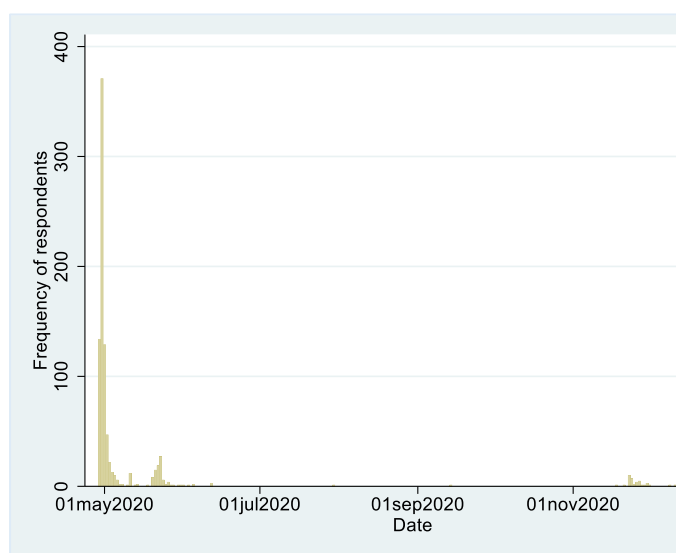
Table 9. Frequency of payout and amount of grants received by IE3 treatment households included in the analysis (n=2,613)

	All	By Mode of Payment		
		OTC	Cash Card	Difference
Frequency of cash grant payouts in the past 12 months	5.3	5.1	5.5	-0.40**
Total amount of grants received in the past 12 months (in PHP)	15,357	15,060	15,658	-597.37

1.1.2. Online SAP survey

The online survey was launched starting April 2020 using the online platform Survey Monkey. The data used in the analysis is as of December 2020, but majority of the responses included in the analysis were those received towards the end of April 2020 until the first week of May 2020 as shown in Figure 3. During this period, the first tranche of cash grants was still currently being distributed to its intended beneficiaries including 4Ps households.

Figure 3. Frequency distribution of online survey respondents by date of response

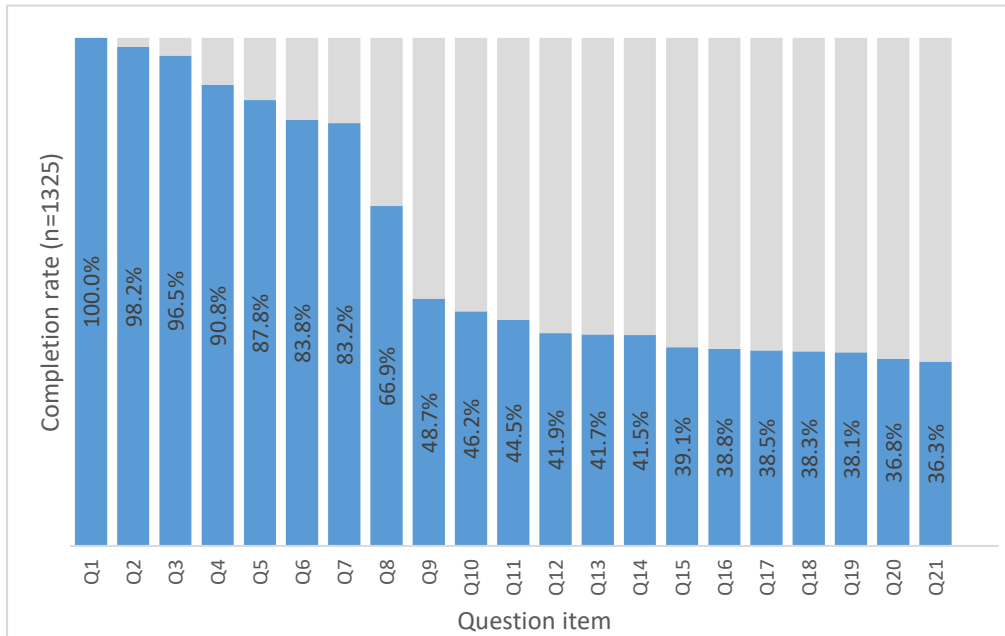


The main challenge in the data collection is the recruitment of respondents and completion of the survey. Being an online survey, the response and completion rates depend on the access of beneficiaries to internet-connected gadgets and requires a certain level of internet-literacy to navigate through the survey. This was especially difficult because the target respondents – the 4Ps beneficiaries – are from low income households, and we expect that access to stable internet connection and internet-capable devices is limited. Another issue observed in the data is the imbalance in distribution of respondents in favor of urban areas where connectivity is more available.

In total, there were 1,483 attempts to answer the survey and 1,325 of which (95.8%) were eligible to answer the interview as they were current 4Ps beneficiaries at the time of data collection. However, the number of responses dwindled as the questionnaire progressed due to

the respondents dropping out in the middle of the interview. Possible reasons could be unstable internet connection, loss of interest, respondent fatigue, or errors in navigating through the questionnaire. Of the 1,325 original respondents, only 488 beneficiaries reached the last section of the questionnaire, equivalent to only 36% completion rate (Figure 4). Average completion time for the whole questionnaire is 20 minutes.

Figure 4. Completion rate by question item in online survey



To maximize the data collected, the responses of a total of 886 respondents were included in the analysis. The data includes those of the respondents that were able to answer the questions regarding their usual experience in receiving the 4Ps cash grants as well as the question asking whether they have received their SAP grants. These are indicated by the completion rates for Question 7 and 8 (Q7, Q8) in Figure 4. However, since the completion rate for the succeeding questions decreases, these respondents have incomplete data for the latter sections which include follow-up questions on the SAP and their profile characteristics. Because of this, profile information are incomplete for some respondents.

Table 10 shows basic descriptive statistics on the respondents included in the analysis. The number of observations with data on these characteristics are also presented for reference. Most respondents are the assigned 4Ps “grantee” for their household. The grantee is the authorized representative of the household to receive cash grant payments and is also the member required to attend the Family Development Sessions. Almost all of the respondents are females which is expected since most of 4Ps grantees are also the mothers of the children beneficiaries. Most of the respondents reported that their spouse is the primary income earner or “breadwinner” of the household. The top occupations reported were construction and factory work and driving public utility transportation. The average age of respondents is 42 while the average household size is 7. The average number of children 3 to 18 years old in the household is 3 and most, but not all, of these children were enrolled in school before the quarantine.

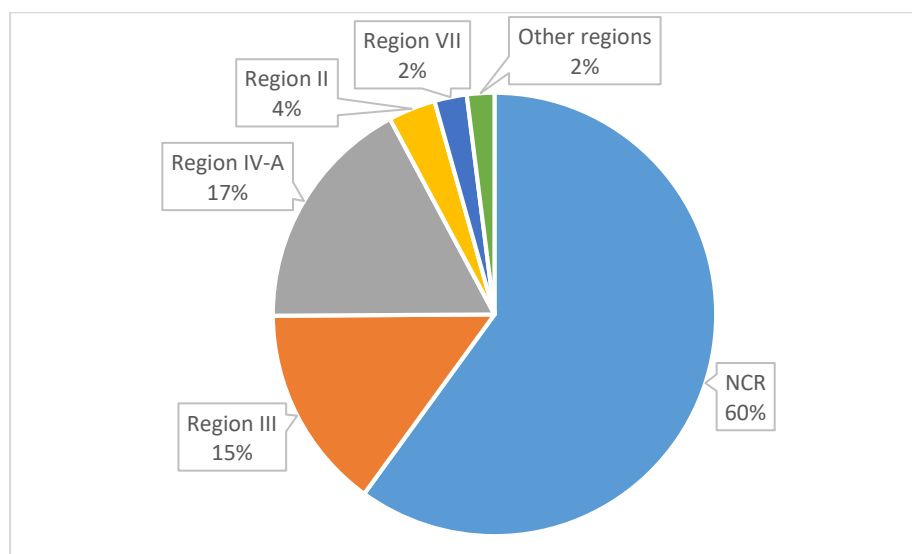
Table 10. Descriptive statistics of respondents included in the analysis

Characteristic	Percentage of respondents*	Number of observations with data
Percentage of respondents who is the current grantee of the household	98.0%	886
Percentage of respondents who is a 4Ps parent Leader	28.0%	612
Percentage of female	96.0%	552
Breadwinner of the household is the respondent's spouse	60.2%	505
	Mean*	
Age	41.63	555
Household size	6.75	510
Number of children 3 to 18 years old	2.99	510
Number of children 3 to 18 years old currently attending school	2.72	507

Note: The percentage and mean values were computed among observations with data

More than half of the respondents are from the National Capital R. This is followed by Region IV-A and Region III. The table below shows the distribution of the respondents in NCR. Most of the NCR respondents are residents of Marikina City (66.0%) followed by Makati City (16.7%).

Figure 5. Distribution of online survey respondents by region



Note: Other regions include Region I (4 respondents), Region V (3), Region VI (1), Region VIII (1), Region XII (1), and BARMM (1); N = 550 respondents

When respondents were asked if a type of quarantine is being imposed in their area of residence, majority responded that an Enhanced Community Quarantine (ECQ). This is expected since most of the respondents are from NCR and other nearby regions and most of the responses were collected in April and May 2020.

4. Results

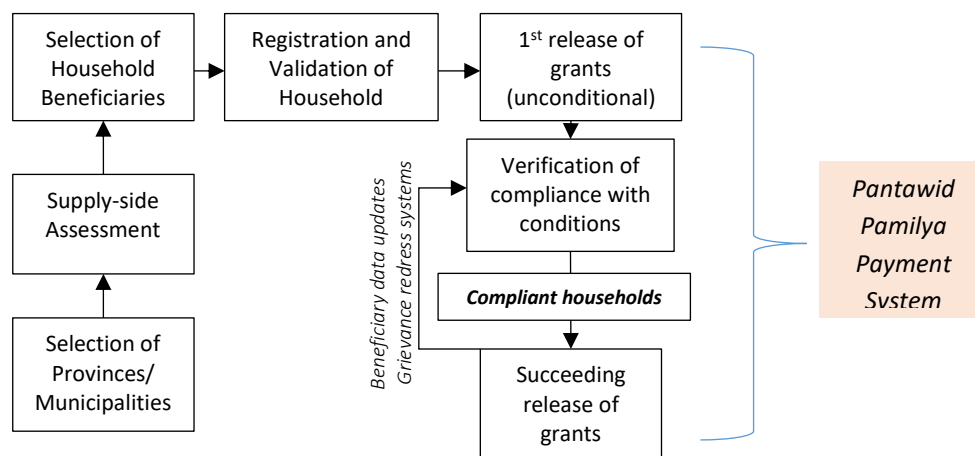
This section presents the results of the study. The first subsection provides a detailed description of the implementation of the payment system of the program as well as challenges in the implementation that were collected from the FGDs with beneficiaries and KII with implementers. The succeeding subsections focus on the three focus areas of the study, namely assessment of the benefit level, the frequency of payment, and the modality of payment delivery. The final sub-section discusses the analysis of the online survey on the SAP implementation focusing on the experience of the beneficiaries in accessing their grants and the role of the program's payment system in its delivery.

4.1. The 4Ps Program Payment System

According to the key informants from the national program management, the payment system of the program plays an especially important role in the success of the program as it ensures the correct payment to the beneficiaries and timely release of grants which are expected to encourage desired behaviors from the beneficiaries.

The payment system forms a key component of the program cycle starting from the first release of unconditional grants to newly registered households and the succeeding release of grants that are based on the compliance of beneficiaries (Figure 6).

Figure 6. Role of payment system in Pantawid Pamilya Program Cycle



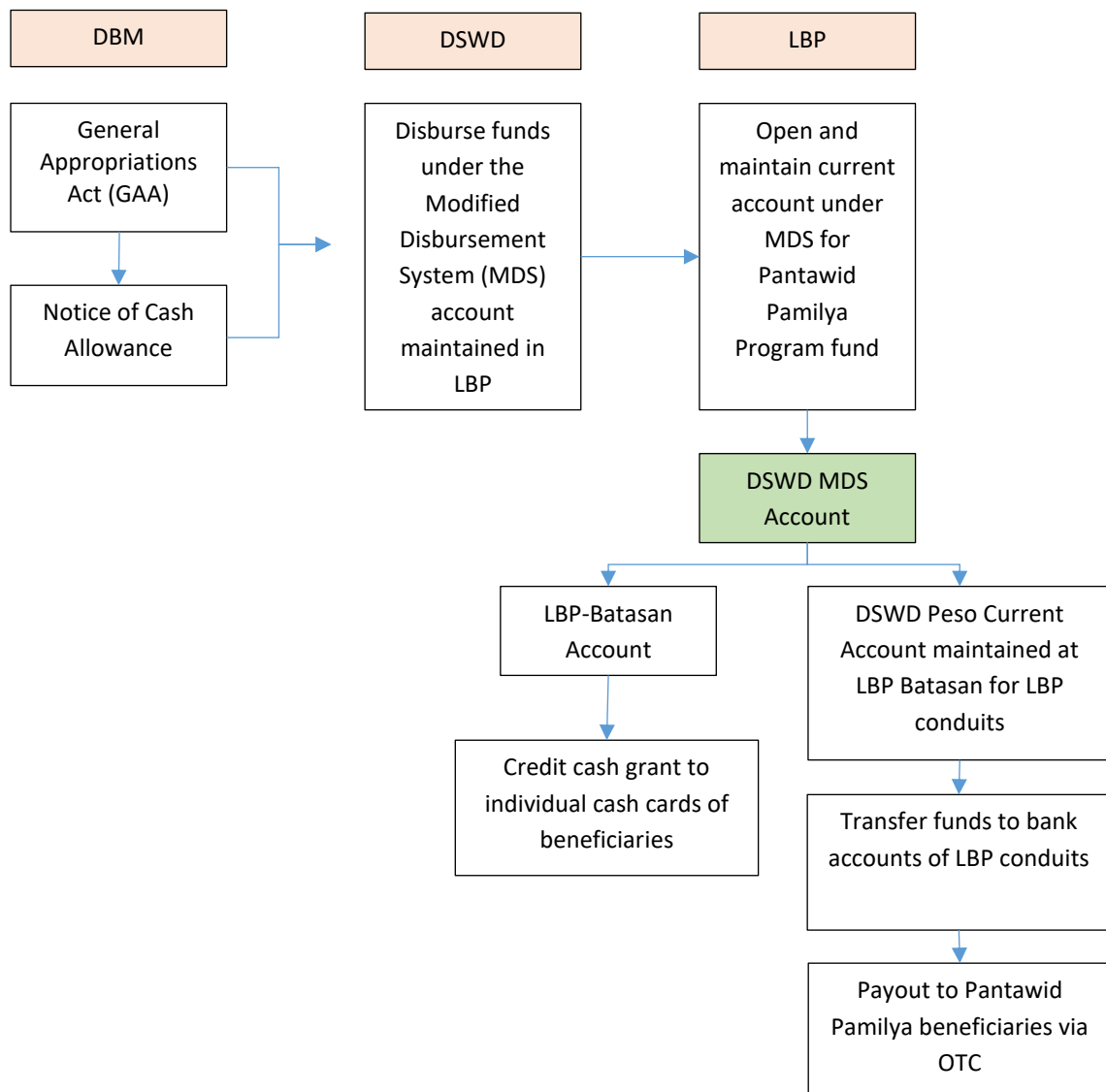
Source: Adapted from Figure 1 of Pantawid Pamilya Operations Manual (DSWD, 2015)

4.1.1. Current design of the payment system

Figure 7 shows the fund flow of the program payment system from the government allocation in the General Appropriations Act (GAA) up to the payout to beneficiaries. The fund begins with the approval of the GAA which provides authorization for the program to incur fund obligations, followed by the release of Notices of Cash Allocation (NCAs) by the DBM to DSWD for the payment of the expenses of the program. The cash grants are deposited by the DSWD in the Land Bank of the Philippines as the program's primary authorized government depository bank (AGDB). The LBP then maintains the funds in takes care of the transfer of the

funds to its conduits that will pay the cash grants to the beneficiaries or directly to the accounts of the beneficiaries with cash cards.

Figure 7. Fund flow of the Pantawid Pamilya Payment System

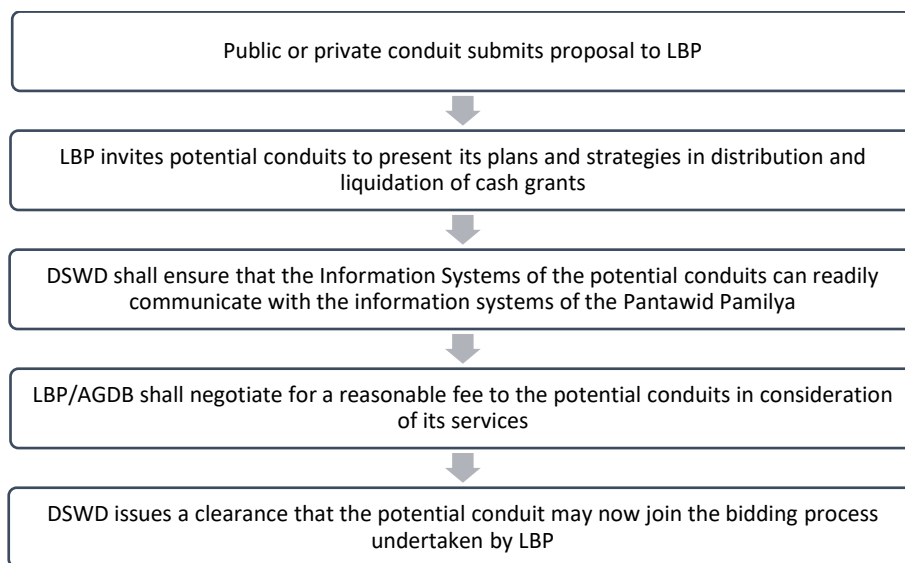


Source: Adapted from Pantawid Pamilya Operations Manual – FMS Sub-manual (DSWD, 2015)

Cash grants are delivered to beneficiaries through two modes of payment: Bank cash cards where the grants are withdrawn via ATM; and Over-the-counter (OTC) transactions where the grants are provided directly to beneficiaries and in the form of cash via payment conduits.

Payment conduits are hired by the Landbank to deliver the cash grants when there is no available ATM or Point-of-Sale merchants in the area. The LBP procures the services of these payment conduits following the existing government procurement law and selection is generally done through competitive bidding of firms. Payment conduits include rural banks, money remittance centers, cooperatives, money couriers, and postal services. The following are the procedures highlighted in the program operations manual on the selection of conduits that are eligible to provide their services in the payment delivery.

Figure 8. Selection process of payment conduits



Source: Pantawid Pamilya Operations Manual – FMS Sub-manual (DSWD, 2015)

Payment conduits that have been involved in the delivery of cash grants include the PhilPost, Globe GCASH Remit (merchant-based), Smart-NATCCO, MASSPEC, First Consolidated Bank, Rural Bank of Gattaran, Philippine Veterans Bank, M Lhuillier, LBC, among others.

After the selection of the payment conduits, the payment system starts with the generation of the Notice of Payroll Action (NAPA) based on the compliance data of beneficiaries. The NAPA is prepared by the Compliance Verification Division program’s national program management office and serves as the basis for the list of beneficiaries entitled for the cash grants in a specific pay period. Using the NAPA and the report of the DSWD regional offices on the specific mode of payment for the areas (in coordination with the LBP), the cash grants are computed. The DSWD FMS facilitates the funding process for the payment of the cash grants through the Landbank. The Landbank then facilitates the disbursement of the cash grants to the beneficiaries – either through direct crediting to the cash cards of beneficiaries or the transfer of funds to payment conduits. The conduits and LBP is likewise expected to facilitate the liquidation of funds and submission of reports to DSWD.

To ensure quality assurance, the program management established some safeguards to ensure correctness of the amount of grants and the intended beneficiaries. The following are the measures mentioned by the DSWD key informants:

- The Pantawid Pamilya Information System (PPIS) which is maintained by the Planning Monitoring and Evaluation Division (PMED) supports the core processes of the program which are registration, updating, compliance verification, payment, and grievance. It weeds out the need for manual processes which lead to human-errors.
- The program also conducts regular technical assistance and spot check activities (pre-COVID).
- The Compliance Verification Division NPMO level conducts random checks per household in all regions before and after NAPA generation.
- The Risk Management and Quality Assurance Division (RMQAD) of the NPMO helps ensure that cash grants are released to correct households and in correct amounts and

checks the payroll of beneficiaries in each pay period to check for any duplicates and inconsistencies.

- At the regional and provincial level, the Compliance Verification Officers conducts checking of the collected compliance forms from the facilities.

According to the NPMO, monitoring of the performance of the LBP as its ADGB is continuously done. They mentioned having regular dialogues with LBP and other banking units to address payment related issues and revisiting of the existing Memorandum of Agreement with the LBP to respond to the encountered problems in the implementation.

4.1.2. Changes in the payment system

According to DSWD key informants, a combination of over-the-counter (Manual) and cash card modes of payment were adopted during the early years of the program implementation. The payment delivery was initially solely done by the Landbank of the Philippines. However, during the early years of the program, due to the rapid expansion of the program, the LBP had difficulty in catering to the program coverage. This prompted DSWD to request LBP to contract out payment conduits that can do the payment delivery in their behalf especially in areas where access to ATMs or banks are difficult.

According to the DSWD key informants, although the payment system had weaknesses in the earlier years such as delays in payouts, it has improved through the years, especially starting 2017 when the DSWD management put pressure and attention to improving the payment system. This is also supported by the feedback of beneficiaries during the FGDs. They mentioned that delays in the payout were more frequent during the earlier years of the program and they almost never experience significant delays in the payout of cash grants in the recent years.

Shift towards full Cash Card mode of payment was also introduced in 2019 to facilitate faster release of cash grants and ease beneficiaries' access to it. The national program management also mentioned that the program targets conversion of cash card account into transactional accounts which allow savings and other banking transactions for beneficiaries.

According to the national program management respondents, the payment system also has improved its accuracy due to various quality assurance procedures and safeguards that were put in place. The full shift to EMV cash cards introduced faster obligation and crediting of cash grants to the beneficiaries. However, the need for more infrastructure for access and wider functionality of the accounts are lagging behind.

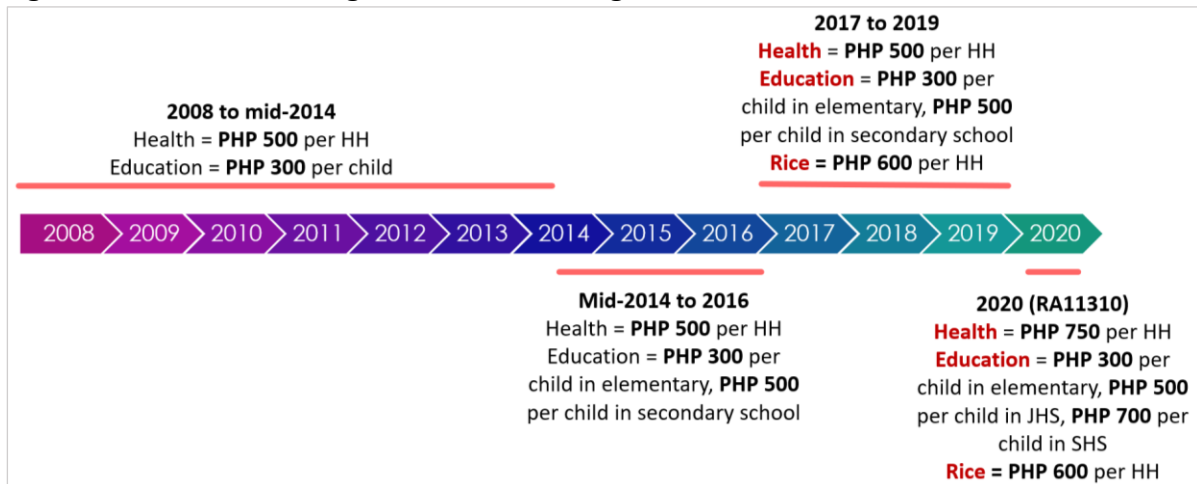
4.2. *Assessing the Benefit Level*

4.2.1. Changes in benefit level through the years

Since its implementation in 2008, the amount of grants amount of grants remained at same levels until recently. Figure 9 below shows the timeline of the changes in the value of cash grants from 2008 to 2020. From the figure we can observe that the cash grants remained the same for most of the years since its implementation except for the increase in the high school

grants in 2014, the addition of the rice subsidy in 2017, and the very recent increase in grants mandated by the institutionalization of the program through RA 11031.

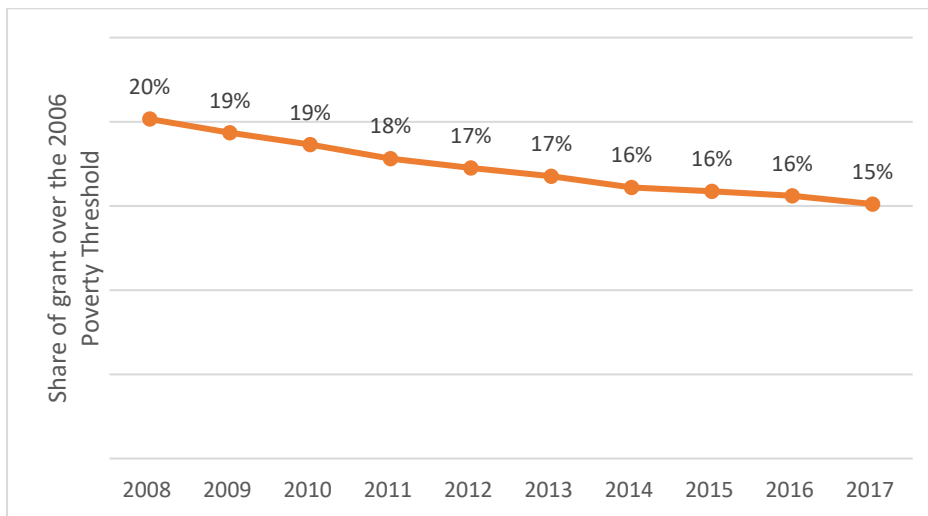
Figure 9. Timeline of changes in value of cash grants



Source: DSWD, various years

Figure 10 shows the reduction in the real value of the cash grants from its original share of the poverty threshold in the start of implementation in 2008 until 2017, excluding the addition of the rice subsidy. From covering 20% of the poverty threshold during targeting, the real value has been reduced by 5-percentage points after ten years of implementation. Note that this simulation assumes a maximum cash grant amount for a household with three children in elementary school who are all fully compliant with conditionalities. Based on the program administrative reports, beneficiaries are not always able to maximize the three-children limit in the number of beneficiaries and compliance is not always perfect, so the shares may be even lower in reality.

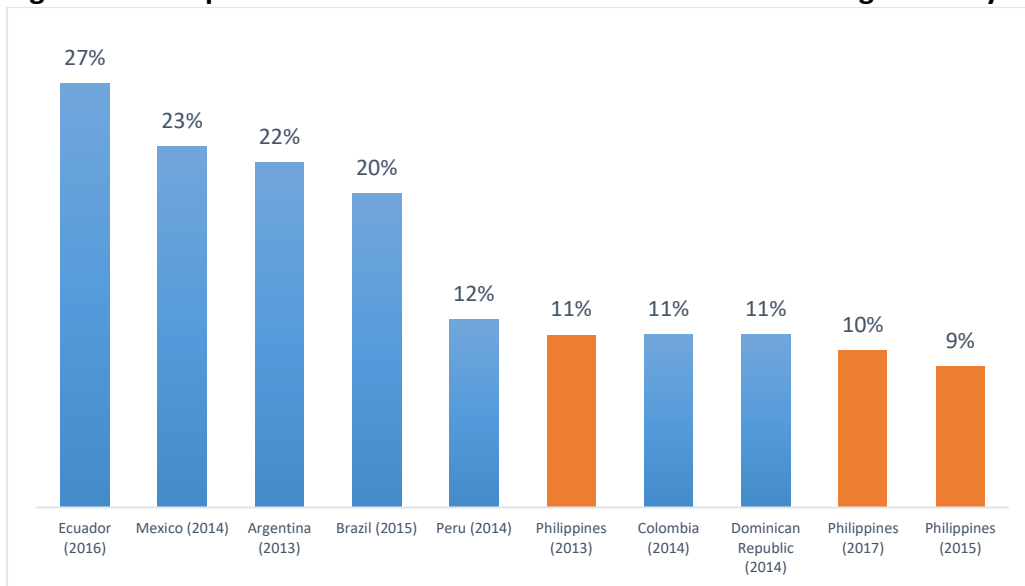
Figure 10. Share of the real value of grants over 2006 poverty threshold, by year



Source of basic data: DSWD, PSA

In a comparison made by Acosta & Velarde (2019) on the generosity (defined as of international CCTs in bottom 20% or poorest households, the Pantawid Pamilya lags behind other countries. Due to reduction in real value of the grants, the generosity of the program for the bottom 20% has decreased from 11% in 2013 to only 9% in 2015. The slight rise in the generosity observed in 2017 was explained by the authors as due to the addition of the rice subsidy.

Figure 11. Comparison of 4Ps and international CCTs in terms of generosity in bottom 20%



Source: Acosta & Velarde (2019)

4.2.2. Adequacy of grant amounts

Beneficiaries and program implementers were asked to provide their assessment on the benefit level or grant amounts paid by the program. Note that during the data collection, the beneficiaries have yet to receive the increased rates for the cash grants under Republic Act 11310. The first payout with the new grant amounts started only in March 2020 after the conduct of field activities.

4.2.2.1. Assessment of beneficiaries

Even though the respondents reported that their household budget is not enough to cover their expenses, most are reluctant to speak out on the optimal cash grant amount that should be provided to them. They noted that an increase in the cash grant amount would be able to help them cover cost of rising prices. They were not able to suggest a specific amount for the increase in grants, but they mentioned that the grant for education and rice could be increased – usually the grant for rice or education. Other beneficiaries also said that there is no need to increase the grant amount but suggested that the program cover up to college.

Some beneficiaries also said that they are already satisfied with current grant amount. Although they acknowledged that the grant is not enough to cover their expenses, the amount that they receive is already able to contribute to their household expenses. Most beneficiaries said that they are satisfied with whatever amount the government chooses to give them, also noting that the funding should go to programs for others who are also in need. Many also mentioned that beneficiaries also need to work to earn income and should not rely solely on the grant for their needs. A few of the beneficiaries, especially parent leaders, cited that the increase of benefits under RA 11310 had already been discussed with them and they are already satisfied with the amounts under the law. Besides request for increase, grantees also suggest provision of other programs, particularly livelihood programs, to support their income.

When asked how they spend the cash grants, beneficiaries report spend the cash grants mostly for education of children, food for the household, clothing, and health expenses including vitamins for children and check-ups (Figure 12). Some beneficiaries also mentioned spending the grants for other household needs such as utilities and household improvement and durables (e.g., tiles, kitchenware).

Grantees often report that they are not able to set aside a portion of the grant money, and this is often spent by the time of the next payout. Although only a small number are able to save, a few respondents shared that they use part of the grant as capital for their businesses or long-term investments.

Figure 12. How beneficiaries spend their 4Ps cash grants



Source: FGDs with beneficiaries

Unanticipated school expenses are often the reason cited why the cash grant is not enough. Although 4Ps students are enrolled in government schools with no tuition fee, parents cite miscellaneous fees such as PTA fees, and contributions for the improvement of school facilities (i.e. electric fan, TV). Parents also cite costs of projects and workbooks or learning modules. One parent shared that as 4Ps beneficiaries, they are expected by the school administration/faculty to support their children's participation in voluntary activities such as field trips.

In cases where beneficiaries have insufficient funds for household expenses, their coping mechanisms include scrimping on household expenses, adjusting consumption by reducing food consumption or purchasing cheaper alternative foods (e.g. instant noodles, vegetables), prioritizing of school expenses, borrowing money or food items from small stores in the community, as well as working additional jobs such as doing laundry, selling food/snacks, assisting in manual labor in farms.

4.2.2.2. Assessment of program implementers

The C/MLs and MRBs interviewed are generally satisfied with the grant amounts as they can see improvements in wellbeing of the beneficiaries. However, they also acknowledged that an increase in amount would help beneficiaries because of increase in prices of food and other commodities. They noted that any increase in the amount of the grants will help the beneficiaries. They also mentioned that the grants have already been increased in the law.

For the national program management, the increase in the cash grant amounts in the law can help address the did address the inflation rates given the end of the implementation of the unconditional cash transfer program which was originally meant to cushion poor households due to the inflation

Prior the enactment of RA 11310, the grant's purpose is to be an immediate aid for children stay in school and get regular health check-ups, have their growth monitored, and receive vaccines. The World Bank used the term cushioned in explaining the relief/aid done by the grants from the program. It cushioned the poor from the adverse impacts of various shocks experienced by the country for the past six years through this grant. Now, with the increased benefit, the program was able to address the varying inflation rates from different regions. UCT did address the inflation rates but the increased benefit was very appropriate in expanding the objectives and targets because of shortened length of stay of the beneficiaries in the program. The program increased the grants a little from the inception of the program

4.3. Payment Frequency

4.3.1. Current payment frequency

The cash grants of the program are currently being paid to beneficiaries on a bimonthly basis following the schedule presented below. Each cycle begins with the compliance of beneficiaries during the monitoring period of two months, followed by the collection of compliance data and payroll preparation on the third month, and the payout on the fourth month (Table 11). Based on this cycle, a compliant beneficiary is expected to receive cash grants every two months.

The frequency of payment has already been revised from its previous quarterly cycle from 2008 to 2010 in order to provide the cash grants more frequently to the beneficiaries and promote consumption smoothing through the grants.

Table 11. Illustration of the bimonthly payment cycle of Pantawid Pamilya

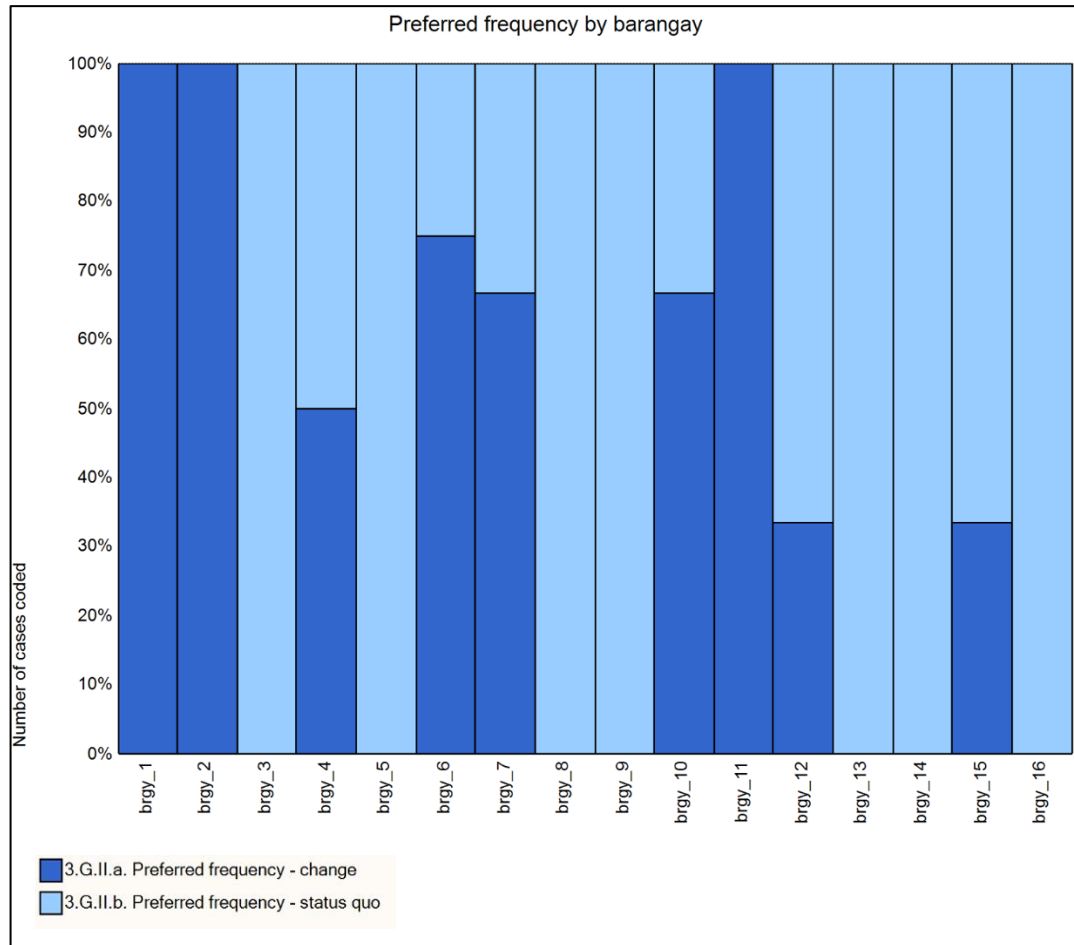
	Period 1	Period 2	Period 3	Period 4	Period 5	Period 6
FEBRUARY	Compliance monitoring					
MARCH						
APRIL	Payroll preparation	Compliance monitoring				
MAY	PAYOUT					
JUNE		Payroll preparation	Compliance monitoring			
JULY		PAYOUT				
AUGUST			Payroll preparation	Compliance monitoring		
SEPTEMBER			PAYOUT			
OCTOBER				Payroll preparation	Compliance monitoring	
NOVEMBER				PAYOUT		
DECEMBER					Payroll preparation	Compliance monitoring
JANUARY					PAYOUT	
FEBRUARY						Payroll preparation
MARCH						PAYOUT

4.3.2. Feedback and opinion on payment frequency

4.3.2.1. *Opinion of beneficiaries*

Based on the FGD with the beneficiaries, nine of the 16 barangays that responded stated that they preferred the current bimonthly schedule of provision of grants to be retained. Six of the 16 barangays leaned towards more frequent provision of grants, citing that they preferred that grants be provided monthly. One barangay had 50-50 opinion on the matter.

Figure 13. Beneficiaries' preferred payment frequency based on the FGDs



According to members who preferred to retain the current bimonthly schedule of payouts, the timing will allow beneficiaries to receive a larger amount compared to more frequent payouts. They also mentioned that increasing the payout frequencies will incur additional transportation costs for beneficiaries that do not have ATMs in their area or residence. They also said that provision of the grant every two months is acceptable since the purpose of 4Ps is to supplement the schooling needs of children and beneficiaries do not rely on the program entirely for their financial needs.

Meanwhile, respondents that were in favor of monthly payouts, argue that more frequent provisions of grants will allow them to cover emergency or sudden and urgent expenses (i.e. school projects). They also said that this will allow them to avoid needing to take out loans to tide over the household while waiting for the next provision of the grant. Several also mentioned that it will be easier for them to include the grants in the household budgeting since the timing coincides with their monthly budget preparation.

None of the respondents preferred a frequency of three months or more citing that this interval would be too long and would cause them to incur debts.

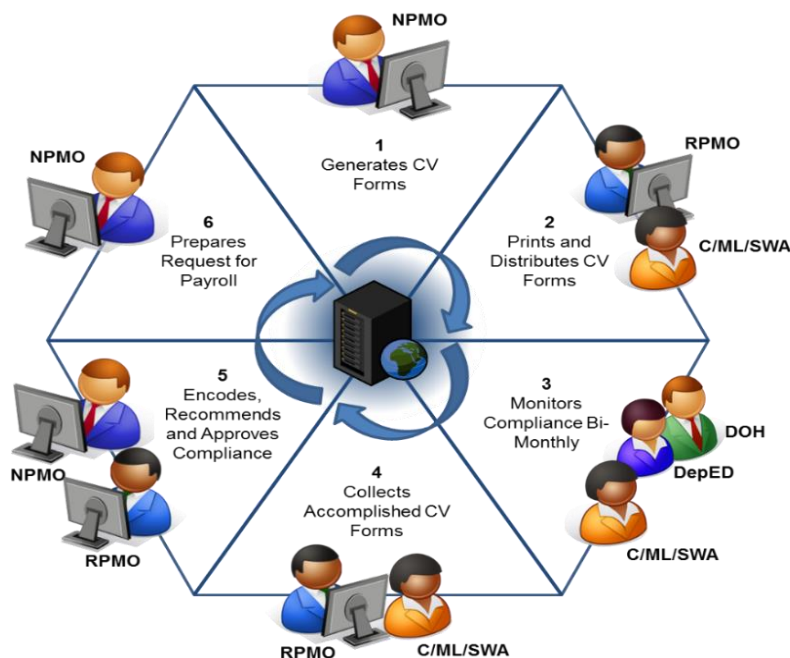
4.3.2.2. Opinion of program implementers

According to the program implementers interviewed, increasing the payment frequency is more possible for areas that are already using cash cards as mode of payment and will

be more challenging for areas such as BARMM that are still under OTC mode of payment.

Another major consideration that they mentioned is that increasing the payment frequency means added cost for the program operations and bank service fees. Following the increase in payment frequency is the increase in the frequency by which the compliance verification (CV) process is done. This increase in the CV processing eeds commensurate increase in operations budget and staff. As shown in Figure 10, the compliance verification process and payroll preparation is largely manual – i.e., forms are printed and filled-out during compliance data collection. Meanwhile, bank service fees are charged by the LBP to DSWD/NG for withdrawal transactions of beneficiaries to non-LBP ATMs. In 2020, the bank service fees budget amounted to PHP 509 million.

Figure 14. Compliance Verification Cycle



Source: Pantawid Pamilya Operations Manual – FMS Sub-manual (DSWD, 2015)

Efforts to streamline the process are currently being explored by the program management such as linking the DepEd BEIS and the program monitoring system. The NPMO also explored means to reduce the duration of the distribution and collection of compliance verification forms to improve the timeline of the payment cycle. The Compliance Verification Division initiated decentralization of processes to reduce the timeline. It also developed an offline version of encoding of compliance data. The NPMO also mentioned that these improvements were supposed to be launched this year but because of the pandemic the program postponed the use of this system/module.

4.4. Payment Modality

4.4.1. Current modes of payment

The share of cash card payment mode has continued to increase from less than half in 2016 to almost 90% as of June 2020. The biggest increase was observed in 2019 when the DSWD has started to pursue full conversion of the mode of payment to EMV-enabled cash cards.

Table 12. Share of Cash Card and OTC payment modes among 4Ps households, 2016-2020

YEAR	Cash Card	OTC
2016	45.0%	55.0%
2017	44.3%	55.8%
2018	56.1%	43.9%
2019	86.0%	14.0%
2020 (Q2)	87.8%	12.2%

Source: DSWD (Pantawid Pamilya Quarterly reports, 2016-2020)

Among the Regions, only BARMM is predominantly still under OTC mode of payment (93.1%). According to the DSWD, the remaining areas under OTC in other regions are mostly GIDA areas. There are also few beneficiaries who are currently under OTC but are only waiting for completion of account enrollment process. However, there are further delays being experienced due to the COVID-19 pandemic.

Table 13. Share of Cash Card and OTC payment modes among 4Ps households, by region, 2020

Region	Cash Card	OTC	Total	% Cash Card	% OTC
NCR	213,140	7,443	220,583	96.60%	3.40%
CAR	59,431	680	60,111	98.90%	1.10%
I	204,683	932	205,615	99.50%	0.50%
II	103,198	2,042	105,240	98.10%	1.90%
III	287,135	6,561	293,696	97.80%	2.20%
IV-A CALABARZON	311,758	5,598	317,356	98.20%	1.80%
MIMAROPA	173,228	20,896	194,124	89.20%	10.80%
V	348,760	19,417	368,177	94.70%	5.30%
VI	312,573	8,775	321,348	97.30%	2.70%
VII	279,410	5,217	284,627	98.20%	1.80%
VIII	248,426	31,446	279,872	88.80%	11.20%
IX	291,860	6,837	298,697	97.70%	2.30%
X	245,809	19,908	265,717	92.50%	7.50%
XI	247,013	9,727	256,740	96.20%	3.80%
XII	238,144	9,040	247,184	96.30%	3.70%
CARAGA	178,723	9,808	188,531	94.80%	5.20%
BARMM	26,758	361,362	388,120	6.90%	93.10%

Source: DSWD (Pantawid Pamilya Quarterly reports, 2020-Q2)

According to DSWD, the direction of the program is towards implementing a 100% Cash Card (EMV Cards) mode of payment, and eventually, conversion to transaction account where beneficiaries shall be issued with an account in the form of deposit account or electronic

money/ wallet, which can be used to store money, send payments, and receive deposits. These features are currently not available with the

The NPMO also mentioned that the program plans to engage all possible Point of Sale in these areas to address the limitation of ATM supply in some areas. An example the respondents cited is engaging sari-sari store which has digital money account to distribute cash grants.

4.4.2. Feedback and opinion on payment modalities

Generally, the beneficiaries and key informants preferred cash card mode of payment over OTC due to the convenience and reliability it provides, but their experience is usually affected by the availability of ATMs or local banks in the area and the costs that the beneficiaries need to incur. The respondents noted challenges and gaps that need to be addressed to improve the payment delivery. These are discussed in the succeeding subsections.

4.4.2.1. Experience and opinion of beneficiaries

Most respondents stated that they prefer receiving the grants through their cash cards. Respondents mentioned it was more convenient since they can choose when to withdraw the cash grant, unlike OTC where they must follow the schedule of the payout to receive the grants in person. Most respondents also mentioned that they have experienced more frequent delays in payouts when they were still under OTC mode of payment. They also mentioned that waiting time is longer compared to withdrawal via ATM.

Only respondents from one site preferred to receive the grant through OTC, citing that it was faster when payouts were conducted at their barangay gym and they did not have to transfer from one place to another to withdraw the grant. In this area, there was no available ATM and beneficiaries need to travel to the town center to withdraw from money exchange centers through POS machines and a rural bank which provides over the counter withdrawal of their grants. They also noted that OTC mode of payment do not incur fees on withdrawal (e.g., POS service fees) that reduce the amount of grants that they receive. These group of beneficiaries also reported that the queue in withdrawing through their cash cards take longer than OTC payouts due to their limited options for merchants and banks in their area. One respondent also mentioned that chairs are provided during OTC venues, so the queuing is less tiring. However, the beneficiaries also acknowledged that the cash cards could be a convenient mode of payment once the lack of ATMs and alternative means of withdrawal in the area is addressed.

Despite general preference for cash card mode of payment, the beneficiaries noted some challenges they experience in this mode of payment. One major challenge was the duration of the process of card replacement. This was not a big problem for some beneficiaries, since in some municipalities, grantees were able to get their grant OTC while card was in process, but some were not able to receive their grant from 6 months up to more than a year. Most of the respondents also mentioned that they have to wait in line at the ATM for more than an hour when the grants are released due to the volume of beneficiaries that flock the ATMs for withdrawal. In areas without ATM or LBP branches, beneficiaries either go to nearby town to withdraw their cash grants and incur transportation costs or go to private establishments that allow withdrawal through Point-of-Sale (POS) transactions/ withdrawal services. In one of the study areas, there was no standardization of fees collected by private establishments that offer encashment using

POS machines. In the interview with the LBP key informants, they mentioned that an accreditation process is currently being done to formally engage these establishments. However, it is not certain whether the POS merchants accessed by the beneficiaries in the FGDs are included in the accredited merchants of the LBP.

To address the challenges mentioned by beneficiaries, they suggested improving their access to ATMs or withdrawal options. Some suggested that grants should be released in the barangay so that beneficiaries do not have to spend money on transportation. Some also suggested to have a fixed day (or week) of the month for release of the grant (e.g. every first week of the month) for the payouts to be more predictable.

4.4.2.2. Experience and opinion of local 4Ps staff

Most of the C/MLs and MRBs believe that the cash card payment is better as it is more convenient for beneficiaries. However, there were also a few that wanted to return to the OTC payment of specific challenges in cash card-based payments. These respondents noted that there are still issues that they need to resolve even with cash cards (e.g., lost cards, wrong pin entry, etc.) while they can immediately address queries on-site during OTC payouts. They also mentioned that OTC payments minimize risk of pawning of cash cards.

The C/MLs and MRBs also noted challenges that they experience in both modes of payment. They mentioned that OTCs are more logistically challenging to conduct since it requires coordination with local government units for set-up of venue and scheduling. There were also more documentation and reportorial requirements such as physical acknowledgement receipts compared with electronic bank records in cash card mode of payment. Payout schedules are also more susceptible to delays due to issues in procurement of conduits, weather disturbances, security threats, among others.

For cash card-based payments, the C/MLs and MRBs mentioned that their main challenge is the need to frequently troubleshoot concerns of the beneficiaries with their cash cards such as cases of “forced pin”, loss and damage of cards, card capture, and disputes in the amount of grants received. They also mentioned that not all areas have ATMs or banks which affects the access of beneficiaries to their cash grants. Similar to what was mentioned by beneficiaries, the C/MLs and MRBs also mentioned that duration of the processing of card replacement takes long and feedback loop on status has gaps. In particular, some of the respondents lamented that they have difficulty providing feedback to beneficiaries on the status of processes that are submitted to higher level of program management (i.e., regional, and national level) as they do not have immediate access to the status of these requests. A few also mentioned the risk of cash card pawning as a challenge in using cash card mode of payment.

The respondents suggested the provision of satellite ATMs for areas with no LBP branches the access of beneficiaries and improve the payment delivery system. With regard to the administrative processes, the respondents recommended streamlining and expediting of processing of card replacement and change grantee updates. They suggested that the processing of card replacement should be done at the regional/local level instead of at the central office of DSWD and Landbank. To improve feedback loops to the beneficiaries, the respondents suggested that they should be provided access to real-time status of update processing and grievance resolution that they facilitated. They

also recommended the use of an online system or dashboard for the status of approval of updates to avoid conflicting information that will be provided to beneficiaries.

4.4.2.3. Opinion of national program staff

DSWD-FMS key informants believe that the conversion to cash cards for most of the beneficiaries greatly improved the performance of the payment system. Regarding other e-payment facilities (e.g., GCASH, PAYMAYA), respondents mentioned that there might not be added value to this since LBP is already working to provide the same features to beneficiaries once their cards are converted to fully transactional accounts as promised by LBP. The conversion of confirmed by the interviews with LBP staff and the National Program Management office. The key informants also noted that switching to other modes of grants payment might pose difficulties because beneficiaries would have a new system to learn and get comfortable with. They also added that many features of these digital banking technologies are already offered in the LBP mobile and the beneficiaries just need to be trained and taught how to access these features

In the response sent by the National Program Management Office, the program is also currently exploring financial technology solutions in line with a general effort to shift to digital delivery of social protection programs. They also noted that this has already been communicated with LBP.

The NPMO also noted that there is a need to map out the areas and categorize each of them according to readiness in implementing cash card mode of payment. Those which are ready, shifted to full cash card release of grants while those areas that are not ready can be classified as transition the areas that should adopt year-on-year plan to shift to cash card.

They also noted the need to update the information systems of the program and upgrade and IT equipment of the local staff so the data feedback can be more fluid. They also mentioned the need strengthen the information systems of the program to self-check for data errors. To streamline processes in the payment system, particularly card replacement and enrollment of cash card accounts, the NPMO recommends that the LBP should decentralize its processes and allow branches to open and manage the accounts of beneficiaries in their areas.

4.4.3. Differential impact of program by payment modality

This section presents the results of the analysis of IE3 data that looked into the difference in impact of the program on subgroups of beneficiaries with different modes of receiving their cash grants namely through over-the-counter means and through cash card. The difference in the impact of program on these subgroups could show advantages of pursuing specific design features of the payment system. The results are presented for four groups of outcomes: (1) children's health; (2) education; (3) income and expenditure of the household; and (4) labor outcomes. The full statistical tables of the results are shown in the appendix and only the summary of results will be presented in the succeeding discussion.

In summary, the results show that the difference in program impact on health and education outcomes for the two subgroups of beneficiaries do not significantly matter. The mixed results in education suggest that both groups are favorably impacted by the program regardless of the mode of payment. In terms of total expenditure and income, the results suggest that the

subgroup of beneficiaries with cash cards are more positively impacted by the program. Although further study is needed to explain the results, a possible explanation could be the more timely and predictable provision of grants through the cash cards relative to OTC means. The results also indicate shifts in differences in expenditure patterns where cash card beneficiaries spend more on non-food expenditures, particularly health and education, while OTC beneficiaries prefer food and clothing expenditures. Results on employment show increased duration of work for cash card beneficiaries which could possibly explain the observed positive impact on income excluding the grants.

4.4.3.1. Differential impact on child health

In summary, the results of the subgroup analysis on the program impact on child health show that for most of the outcomes examined, there is no significant difference in the program impact among beneficiaries that receive their cash grants through OTC means or through cash card. Of the outcomes, only the health visits of children and deworming of children under six years old have shown significant difference in impact between the two subgroups. These results, however, could be seen as conflicting in terms of the health seeking behavior being illustrated by the beneficiaries. In the health visits outcome, a negative impact was observed for the OTC group while an increase in deworming rate of children was also observed. These results could be clarified by further investigating other factors that could cause such discrepancy in addition to the possible effect of the mode of payment.

Table 14. Summary of results on subgroup analysis of 4Ps impact on child health by mode of cash grant payment

Outcome group and indicator	Highlight of results
<i>Growth monitoring</i>	
Regular weight monitoring for children 0 to <2 years old	No significant impact observed for both Cash Card and OTC subgroups
Frequency of weight monitoring for children 0 to 2 years old in the past six months	No significant impact observed for both Cash Card and OTC subgroups
<i>Child health services and practices</i>	
Vitamin A supplementation (6 months to 6 years old)	Positive program impact observed within sampling bandwidth only for both subgroups.
Full immunization at age 1	No significant impact observed for both Cash Card and OTC subgroups
Visited a health facility or health professional in the past 8 weeks	Negative impact observed on OTC group, no significant impact on cash card group. Difference between OTC and Cash card group is significant.
<i>Deworming</i>	
Deworming (under 6 years old)	Positive impact on OTC group, no significant impact on cash card group. Difference between OTC and Cash card group is significant
Deworming at least once (6 to 14 years old)	Positive impact observed in OTC group but not significantly different with Cash card group

Outcome group and indicator	Highlight of results
Deworming at least twice (6 to 14 years old)	Positive program impact observed for both subgroups.
Child nutrition outcomes	
Underweight	No significant impact observed for both Cash Card and OTC subgroups
Severe underweight	No significant impact observed for both Cash Card and OTC subgroups
Stunting	Increase in prevalence observed in OTC group within sampling bandwidth only, but estimate is not significantly different with Cash Card group
Severe stunting	Increase in prevalence observed in OTC group within sampling bandwidth only, but estimate is not significantly different with Cash Card group
Wasting	No significant impact observed for both Cash Card and OTC subgroups
Severe wasting	No significant impact observed for both Cash Card and OTC subgroups

1.1.2.1. Differential impact on education

Results of the subgroup analysis on the impact of education is mixed. For enrollment, significant positive impact is more frequently observed for the subgroup that receives their cash grants through cash card mode of payment, while no significant impact was observed in most enrollment outcomes of the OTC subgroup, although, the differences in estimates between the OTC and Cash card group are not significantly different based on the estimated z statistics. On the other hand, for attendance rates, positive impact is more commonly observed in OTC subgroup of beneficiaries while no impact is observed for the cash card group. For dropout rates, impact is more evident in the cash card subgroup while for child labor, the program impact is more observed in OTC subgroup of beneficiaries. In terms of education expenditure, impact on total education expenditure is observed in cash card subgroup while the impact on the OTC subgroup is positive for clothing/uniform and school supplies or project materials, and negative for school fees. With these results, it is not clear whether there is a significant advantage of a mode of payment over the other in terms of education outcomes. Certain aspects of the mode of payment, such as predictability and timeline of payouts vis-à-vis payment collection schedules of schools may explain these results but need to be investigated using more detailed information.

Table 15. Summary of results on subgroup analysis of 4Ps impact on education by mode of cash grant payment

Outcome group and indicator	Highlight of results
Enrollment	
Enrollment of children 3 to 5 years old	No significant impact for both subgroups
Enrollment of children 6 to 11 years old	Positive program impact observed for both subgroups.
Enrollment of children 12 to 15 years old	Positive impact observed in Cash Card group, but difference with OTC group is not significantly different

Outcome group and indicator	Highlight of results
Enrollment of children 16 to 17 years old	Positive impact observed in Cash Card group, but difference with OTC group is not significantly different
Enrollment of children 12 to 17 years old	Positive impact observed in Cash Card group, but difference with OTC group is not significantly different
Enrollment of children 6 to 14 years old	Positive impact observed in Cash Card group, but difference with OTC group is not significantly different
Enrollment of children 15 to 20 years old	Positive impact observed in Cash Card group within sampling bandwidth only, but difference with OTC group is not significantly different
Attendance rates (in %)	
Attendance rate of children 3 to 5 years old	No significant impact for both subgroups
Attendance rate of children 6 to 11 years old	Positive impact on OTC group, no significant impact on cash card group. Difference between OTC and Cash card group is not significant
Attendance rate of children 12 to 15 years old	No significant impact for both subgroups
Attendance rate of children 16 to 17 years old	Positive impact on OTC group, no impact on cash card group. Difference between OTC and Cash card group is significant
Attendance rate of children 12 to 17 years old	No significant impact for both subgroups
Attendance rate of children 6 to 14 years old	Positive impact observed in OTC group within sampling bandwidth only Difference between OTC and Cash card group not significant
Attendance rate of children 15 to 20 years old	No significant impact for both subgroups
Attendance of at least 85%	
Attendance of at least 85% among children 3 to 5 years old	No significant impact for both subgroups
Attendance of at least 85% among children 6 to 11 years old	Positive impact on Cash Card group, no significant impact on OTC group within MSE bandwidth. Difference between OTC and Cash card group not significant
Attendance of at least 85% among children 12 to 15 years old	No significant impact for both subgroups
Attendance of at least 85% among children 16 to 17 years old	Positive impact on OTC group, negative impact on cash card group. Difference between OTC and Cash card group is also significant
Attendance of at least 85% among children 12 to 17 years old	No significant impact for both subgroups
Attendance of at least 85% among children 6 to 14 years old	No significant impact for both subgroups

Outcome group and indicator	Highlight of results
Attendance of at least 85% among children 15 to 20 years old	No significant impact for both subgroups
<i>School level enrollment</i>	
Enrollment in daycare, nursery, preschool/kindergarten of children 3 to 5 years old	No significant impact for both subgroups
Enrollment in preschool or kindergarten children 5 years old	No significant impact for both subgroups
Enrollment in elementary of children 6 to 11 years old	No significant impact for both subgroups
Enrollment in junior high school of children 12 to 15 years old	Positive impact on Cash Card group, no significant impact on OTC group. Difference between OTC and Cash card group not significant
Enrollment in senior high school of children 16 to 17 years old	Positive impact on Cash Card group, no significant impact on OTC group. Difference between OTC and Cash card group not significant
<i>Dropout rate</i>	
Dropout rate among children 6 to 11 years old	Significant reduction in drop-out rate observed in Cash Card group within sampling bandwidth only but not significantly different with OTC group
Dropout rate among children 12 to 15 years old	Significant reduction in drop-out rate observed in Cash Card group within sampling bandwidth only but not significantly different with OTC group
Dropout rate among children 16 to 17 years old	No significant impact for both subgroups
Dropout rate among children 12 to 17 years old	Significant reduction in drop-out rate observed in Cash Card group within sampling bandwidth only but not significantly different with OTC group
Dropout rate among children 6 to 14 years old	Significant reduction in drop-out rate observed in both subgroups
Dropout rate among children 15 to 20 years old	No significant impact for both subgroups
<i>Child labor</i>	
At least 1 hour of work (with or without pay) last month, 10-14 years old	Significant reduction in child labor incidence observed in OTC group, but not significantly different with Cash Card group
At least 1 hour of paid work last month, 10-14 years old	Significant reduction in child labor incidence observed in OTC group within MSE bandwidth, but not significantly different with Cash Card group
Number of days worked (with or without pay) last month, 10-14 years old	Significant reduction in drop-out rate observed in Cash Card group within sampling bandwidth only but not significantly different with OTC group
<i>Education expenditures</i>	
Expenditures on tuition and other fees (per month) in the last school year	Negative impact on OTC group, no significant impact on Cash card group. Difference between OTC and Cash card group is not significant

Outcome group and indicator	Highlight of results
Expenditures on school materials and supplies (per month) in the last school year	Positive impact on OTC group, no significant impact on Cash card group. Difference between OTC and Cash card group is not significant
Expenditures on school uniform (per month) in the last school year	Positive impact on OTC group, no significant impact on Cash card group. Difference between OTC and Cash card group is not significant
Expenditures on school allowance (per month) last school year	Positive impact on Cash Card group within sampling bandwidth only, no significant impact on Cash card group. Difference between OTC and Cash card group is not significant
Total school expenditures (per month) last school year	Positive impact on Cash Card group within sampling bandwidth only, no significant impact on Cash card group. Difference between OTC and Cash card group is not significant

1.1.2.1. Differential impact on household expenditures and income

Results of the subgroup analysis on household income and expenditure some evidence on differential impact of the two modes of payment. Results show positive impact on the share of food and clothing expenditures of the beneficiaries in the OTC subgroup. The shift in share of expenditures of beneficiaries under the OTC subgroup towards food and clothing could be related to the emergence of flea markets in OTC payout venues as noted by Adriano (2016) and other anecdotal evidence. Meanwhile, positive impact on non-food expenditures is observed for beneficiaries in the cash card subgroup. Looking further into the results, this increase in non-food expenditures could be due to the positive impact on medical and education expenses. The increase in total expenditures for education is also consistent with the results of the previous subsection.

The results also show that positive impact on total average per capita expenditure is only observed for the cash card group of beneficiaries. This could be due to the relatively faster delivery of grants through the cash card which increases the relative frequency of payouts through this means compared to OTC payouts. As presented in Section 3, the beneficiaries under cash card mode of payment were able to have payouts slightly more frequently than the beneficiaries under OTC mode.

In terms of total per capita household income, positive impact is observed on both subgroups of beneficiaries suggesting that the receipt of grants is able to augment the household income regardless of the mode of delivery. But this positive impact is retained only for the cash card group when the grants are excluded or when it is limited to income from salaries and wages. Further study is needed to examine this result to see whether aspects of the mode of payment lead to this result or some related intermediate outcomes.

With regard to self-rated poverty, an interesting result is the positive impact on self-rating of cash card beneficiaries and negative impact on self-rating of OTC beneficiaries. This could be studied further to understand the psychology of the beneficiaries related to the mode of payment.

Table 16. Summary of results on subgroup analysis of 4Ps impact on household expenditure and income by mode of cash grant payment

Outcome group and indicator	Highlight of results
<i>Household expenditures: Share to total expenditures</i>	
Share of food to total expenditures	Positive impact on OTC group, no significant impact on Cash card group. Difference between OTC and Cash card group is significant
Share of non-food to total expenditures	Negative impact on OTC group, no significant impact on Cash card group. Difference between OTC and Cash card group is significant
Share of education to total expenditures	No significant impact for both subgroups
Share of clothing and footwear to total expenditures	Positive impact on OTC group, no significant impact on Cash card group. Difference between OTC and Cash card group is significant within sampling bandwidth
Share of health to total expenditures	No significant impact for both subgroups
Share of alcohol and tobacco to total expenditures	No significant impact for both subgroups
<i>Household expenditures</i>	
Average total per capita expenditure	Positive impact on Cash-card subgroup but difference is not significant with OTC group
Average total per capita food expenditure	No significant impact for both subgroups
Average total per capita non-food expenditure	Positive impact on Cash-card subgroup and slight negative impact on OTC group. Difference is significant
Average per capita non-food expenditure (including other disbursements)	Positive impact on Cash-card subgroup and slight negative impact on OTC group. Difference is significant
Average per capita expenditure on vice goods (e.g., alcohol, tobacco)	No significant impact for both subgroups
Average per capita expenditure on inpatient care	No significant impact for both subgroups
Average per capita expenditure on outpatient care	No significant impact for both subgroups
Average per capita expenditure on medical services and commodities	Positive impact on Cash Card group, no significant impact on OTC group. Difference between OTC and Cash card group not significant
Average per capita expenditure on education per school age child	Positive impact on Cash Card group, no significant impact on OTC group. Difference between OTC and Cash card group not significant
Average per capita expenditure on clothing and footwear	Positive impact on OTC group, no significant impact on Cash Card group. Difference between OTC and Cash card group is significant
<i>Income</i>	
Per capita income including grants	Positive program impact observed for both subgroups.

Outcome group and indicator	Highlight of results
Per capita income without grants	Positive impact on Cash Card group, no significant impact on OTC group. Difference between OTC and Cash card group is significant
Per capita income from salaries and wages	Positive impact on Cash Card group, no significant impact on OTC group. Difference between OTC and Cash card group is significant
Per capita income from entrepreneurial activities	No significant impact for both subgroups
Per capita income from other receipts (excluding grants)	No significant impact for both subgroups
Hunger and self-rated poverty	
Incidence of hunger	No significant impact for both subgroups
Number of days experienced hunger in the past 3 months	Significant reduction in duration of hunger observed in OTC group, but not significantly different with Cash Card group
Self-rated poverty status (Poor)	No significant impact for both subgroups
Self-rated poverty status (Not-Poor)	Positive impact on Cash Card group, negative impact on OTC group. Difference between OTC and Cash card group is significant

1.1.2.1. Differential impact on household expenditures and income

In terms of labor outcomes, the difference in impact between the two groups is observed on the duration of working hours and looking for additional jobs. Positive impact on total work hours is observed for beneficiaries in the cash card group while negative impact is observed for OTC beneficiaries. While this result warrants further study to explain the discrepancy, the increase in working hours for cash card beneficiaries could be a possible explanation to the observed positive impact on salaries and wages of this subgroup of beneficiaries which was discussed above. With regard to the negative impact on job-seeking behavior, negative impact is observed for the subgroup of beneficiaries that receive their grants through cash cards. However, the previous result on the longer duration of working hours for this subgroup of beneficiaries justify this.

Table 17. Summary of results on subgroup analysis of 4Ps impact on labor outcomes by mode of cash grant payment

Outcome group and indicator	Highlight of results
Labor force participation	No significant impact for both subgroups
Employment	Negative impact observed in Cash Card group within MSE bandwidth, but not significantly different with OTC group
Usual work hours per week in primary occupation	Positive program impact observed for both subgroups.
Other job or business besides primary occupation	No significant impact for both subgroups
Usual work hours per week in other jobs	Negative impact observed in OTC group, no significant impact on Cash card group. Difference between OTC and Cash card group is significant

Total usual work hours per week	Positive impact on Cash Card group, no significant impact on OTC group. Difference between OTC and Cash card group is significant
Looking for additional work if employed	Negative impact on Cash Card group, no significant impact on OTC group. Difference between OTC and Cash card group is significant
Unemployed and looking for work	No significant impact for both subgroups

4.5. 4Ps Payments System and SAP Implementation

This section presents the findings of the study related to the implementation of the Social Amelioration Program and the role of the Pantawid Pamilya payment system in the disbursement of the SAP grants. The study took advantage of implementation on SAP to learn on the performance of the 4Ps payment system in times of emergencies. The results are mainly from the online survey on the SAP among 4Ps beneficiaries but insights from the interviews of the DSWD respondents are also included to provide more information from the implementors perspective. The online survey run from April to December 2020.

In summary, the feedback of beneficiaries and key informants on the SAP implementation suggest that the experience of 4Ps beneficiaries on the distribution of the SAP is instructive in terms of ease and speed of reaching targeted beneficiaries. The beneficiaries did not report significant challenges in withdrawing their grants which they were able to receive through their cash cards. The Key informants cite that ease of the SAP distribution to 4Ps was due to the existing registry of beneficiaries and established system of payment of grants to the households.

4.5.1. Online SAP Survey

4.5.1.1. 4Ps Payment System

Almost all of the beneficiaries in the online survey data (96.8%) are currently enrolled in an LBP cash card account as part of the Pantawid Pamilya payment system. Majority of them also reported that their cash cards are currently in their possession. Two beneficiaries reported that they have already been enrolled in a cash card account but have not yet claimed or received their cash cards while three beneficiaries lost or damaged their cards and are still waiting for these to be replaced. Six beneficiaries reported other reasons why their cash cards are not in their possession including pending applications for change of their household grantee and locked cash card due to incorrect pin entry. Meanwhile, 31 respondents (3.5%) said that they are still not enrolled in an LBP cash card account and 40 (4.5%) are unaware or uncertain of the status of their LBP cash card enrollment.

Table 18. Status of enrollment and possession of LBP cash card among 4Ps online survey respondents

Status of enrollment in LBP Cash card account	Frequency	Percentage
Enrolled	858	96.8%
<i>Cash card in possession</i>	847	
<i>Cash card not claimed</i>	2	

<i>Cash card lost or damaged</i>	3	
<i>Cash card not in possession due to other reasons</i>	6	
Not enrolled	16	1.8%
Do not know/ Uncertain of status	12	1.4%

Almost all of the beneficiaries reported that they usually claim their cash grants by withdrawing from ATMs of LBP or other banks. Seventeen respondents reported receiving their grants through OTC means including five respondents who also claimed they have been enrolled in an LBP cash card account. OTC means mentioned by the respondents include withdrawing through LBP branch over the counter and encashment of cheques through other banks. Eighteen respondents reported that they are currently not receiving benefits from the program due to pending change grantee application, or they are a newly registered beneficiary that have yet to receive grants.

Table 19. How respondents usually receive their 4Ps cash grants

Usual manner of receiving 4Ps cash grants	Number of beneficiaries by LBP enrollment status			Total
	Enrolled	Not enrolled	Unknown status	
ATM (LBP or other banks)	850	-	-	850
Point-of-Sale (POS) machine	1	-	-	1
Over-the-counter (OTC)	5	10	2	17
Currently not receiving	2	6	10	18
TOTAL	858	16	12	886

4.5.1.2. Receipt of SAP cash grant

At the time of answering the survey, around 85% of the respondents already received at least one payment of the SAP financial assistance. Of those who already received their SAP grants, 48 (6% of 759) of the beneficiaries reported receiving two payments of the SAP subsidy, while the majority reported receiving only once. Note that at the time when most of the responses were collected, the government has nearly completed disbursing the first tranche of payment of SAP grants to 4Ps beneficiaries. Those responses claiming two payments of SAP grants have already been provided to them were mostly received during the latter period of data collection where the SAP distribution is on the 2nd tranche of grants.

Table 20. Status of enrollment and possession of LBP cash card among 4Ps online survey respondents

Receipt of SAP cash grants	Frequency	Percentage
Received	759	85.7%
<i>Once (first tranche)</i>	704	
<i>Twice (first and second tranche)</i>	48	
<i>No response</i>	7	
Not yet received	127	14.3%

Of those who received their SAP subsidy once, the average amount they received is PHP 6,322. Of those who received their SAP subsidy twice, the average amount for the first receipt is PHP 6,359 and PHP 807 on the second receipt. The low amounts of the second

receipt claimed by the respondents may be an indication that this is not a part of the SAP, but of their regular cash grants from the 4Ps. The values reported for this item range from 400 and PHP 6,700. For reference, the correct values of SAP subsidy that should be received by 4Ps beneficiaries is reflected in Table 22. According to the guidelines in the SAP provision, the beneficiaries are entitled to PHP 5000 to PHP8000 SAP subsidy depending on the region of residence. However, PHP1350 of the said amount will be covered by the cash grants that they were supposed to receive during the period.

Table 21. Average amount of SAP grant received by frequency of receipt

Frequency of receipt of SAP cash grants	Average (PHP)	Number of observations
<i>Once (first tranche)</i>	5,963	579
<i>Twice (first and second tranche)</i>		
<i>1st tranche</i>	6,358	36
<i>2nd tranche</i>	807	36

Table 22. Correct SAP subsidy per region

Region	Total amount of SAP (in PHP)	Total amount of SAP excluding the cash grants (PHP)
NCR	8,000	6,650.00
III, IV-A	6,500	5,150.00
VI, VII, X, XI	6,000	4,650.00
CAR, I, II	5,500	4,150.00
IV-B, V, VIII, IX, XII, CARAGA, BARMM	5,000	3,650.00

Source: DSWD Memorandum Circular No, 14 s. 2020

4.5.1.3. Mode of payment

Majority of the respondents were able to withdraw their SAP financial assistance through Landbank and non-Landbank ATMs. Only around 3% of the respondents were able to receive their financial assistance through other modes such as POS machines, assemblies called by the DSWD or LGU, and house to house visits.

Table 23. How respondents received their SAP cash grants

Manner of receiving SAP cash grants	Frequency	Percentage
ATM	592	97.2%
POS	4	0.7%
OTC in bank branch	1	0.2%
Assembly called by LGU, DSWD or LBP	10	1.6%
House to house by DSWD	2	0.3%
Total	609	

Most of the beneficiaries reported walking to the ATM, bank, or OTC venue where they withdrew their SAP cash assistance. Of those who had to ride in their own vehicle or public transportation, the median expense incurred is PHP 128, while highest value of expense was reported at PHP2500. In terms of duration of travel, the median reported by those that travelled through their own vehicle, public transportation, or LGU service vehicle was 30 minutes. The longest travel time however is 300 minutes or equivalent to 5 hours. In terms of duration of queueing in ATMs, banks, or other payout venues for SAP, the median time reported by the respondents is 60 minutes. The longest duration id queueing however is 300 minutes or equivalent to 6 hours.

Table 24. Average and median transportation cost and time spent during receipt of SAP grants

	Number of observations	Average	Median	Min	Max
Transportation expense (in PHP)	87	128.5	100	10	2500
Travel time (in minutes)	124	57.1	30	2	300
Queue time (in minutes)	505	73.9	60	1	600

Almost all of the respondents (97%) who received their SAP in venues outside their homes reported that social distancing was followed all the time while they were claiming their SAP financial assistance. Several reported that social distancing was followed only partially.

4.5.1.4. Correctness of Amount of Financial Assistance

Around two-thirds (66%) of the respondents think that the amount they received for SAP is sufficient to cover their needs during the quarantine. The rest of the respondents think otherwise.

Respondents were also asked whether they think the amount they received is correct based on their knowledge of the SAP guidelines that they are supposed to receive. Majority (81%) thinks that the amount they received is consistent with the guidelines that they know. Of those who think the amount they received is incorrect according to guidelines, their expected amounts range from PHP1,500 to PHP 50,000. The median value they expect is PHP 8,000.

4.5.1.5. Use of SAP Financial Assistance

The table below shows the expenditure items where the respondents spent their SAP financial assistance. From the proportions, almost all of the respondents spent their financial assistance on food for the household. More than half also spent the money on medicine and other health-related expenditures. Around 12% of the beneficiaries also reported using their SAP financial assistance to extend aid to other families. These other families could be their relatives or neighbors in the community, as well as through other humanitarian or relief operation modes.

Table 25. Top expenditure items where beneficiaries used their SAP grant (n=759)

Expenditure item	Percentage
Food	71.0%
Health and Medicine	38.0%
Aid for others	12.0%
Non-food household expenses	6.0%
Savings	5.0%
Investment in business	3.0%

4.5.1.6. Experience in SAP

In terms of their overall experience in the SAP implementation, 26% of the respondents reported having no issues or challenges experienced in the implementation of the SAP. Around 24% have reported that there were households they feel should not be given financial assistance, while 19% think that there are those who should receive financial assistance but were not given. Another common experience reported by the respondents is receiving negative comments from neighbors and other people on their being SAP beneficiaries. This was reported by 17% of the respondents. None reported experiencing

difficulty in withdrawing their SAP grants although this was included in the pre-coded responses available in the questionnaire.

Table 26. Problems experienced in SAP implementation (n=759)

Problems experienced in SAP implementation	Percentage
No problems experienced	26.0%
Some who are deserving did not receive SAP	24.0%
Some who are not deserving were able to receive SAP	19.0%
Disbursement of grants took a long time	17.0%
Insufficient SAC forms	12.0%
Lack of transportation to banks, ATM, or assembly venue	12.0%
The grants were shared by more than one family	6.0%
Confusing or frequently changing guidelines in implementation	6.0%
Barangay officials did not know what they should do	4.0%
The amount of grant is insufficient	3.0%
The amount of grant received is incorrect	3.0%
Negative comments directed (to respondents) by neighbors and other people	2.0%

4.5.1.7. Source of information of those who have not received SAP

Among those who have not received their SAP financial assistance at the time of the interview, majority (98 out of 125 respondents) still have not received any advice on the schedule of their SAP assistance. Among those who have already received information (27 respondents), their most common sources are the DSWD staff, LGU officials, community associations (e.g., Home-owners' Association), and/or neighbors.

Table 27. Sources of information on SAP payout schedule for those who have not received SAP (n=27)

Source of information	Percentage
DSWD Staff	44.0%
LGU Staff	30.0%
Home-owners' Association or similar organizations	22.0%
Neighbors or relatives	15.0%
Social media (Facebook, Twitter, Instagram)	11.0%
TV or radio	4.0%

4.5.1.8. 5. Non-4Ps Experience

Majority of the respondents (62%) claimed that they know of a non-4ps beneficiary who received the SAP financial assistance.

Beneficiaries were also asked what they observed, know, or perceived as the experience of non-4Ps recipients of the SAP financial assistance. The same patterns in responses are observed to when they were asked to report on their own experiences. Around 22% of the respondents reported that they think there were no issues or challenges experienced in the implementation of the SAP among the non-4ps. Around 28% have reported that there were households they feel should not be given financial assistance, while 20% think that there are those who should receive financial assistance but were not given. The

percentage of respondents that reported the issue on negative comments from neighbors and other people is around 20% of the respondents.

Table 28. Problems experienced by non-4Ps in SAP implementation (n=886)

Problems experienced in SAP implementation	Percentage
No problems experienced	22.0%
Some who are deserving did not receive SAP	28.0%
Some who are not deserving were able to receive SAP	20.0%
Disbursement of grants took a long time	20.0%
Insufficient SAC forms	17.0%
Lack of transportation to banks, ATM, or assembly venue	9.0%
The grants were shared by more than one family	8.0%
Barangay officials did not know what they should do	3.0%
Confusing or frequently changing guidelines in implementation	3.0%
The amount of grant is insufficient	2.0%
The amount of grant received is incorrect	1.0%
Negative comments directed to us by neighbors	1.0%

4.5.1.9. Role of Parent Leaders

More than one-fourth of the respondents (173 of 612) are 4Ps Parent leaders. Based on the responses, more than 80% of these parent leaders reported that almost all or all of their 4Ps members have already received their financial assistance at least once. Among those that reported at least half of their members not yet receiving SAP, the reasons they reported include lack of cash cards for other members and failure to contact or communicate with some members.

Table 29. Proportion of 4Ps beneficiaries in the parent group that received SAP according to Parent Leaders (n=612)

Proportion of members in parent groups that received SAP	Percentage of responses (by parent leaders)
All members	41.5%
Almost all	39.6%
More than 50%	7.9%
Half or 50%	4.9%
Less than 50%	0.6%
Almost none/ few of the members	1.8%
None of the members	3.7%

Most of the parent leaders play a role in the implementation of SAP among 4Ps members. Their primary role is in information dissemination to their member beneficiaries; this is done by almost all of the parent leaders who participated in the survey. Several of them have also reported being involved in actual implementation including distribution of the SAP financial assistance and identifying potential beneficiaries.

4.5.2. Opinion of DSWD Key Informants on role of 4Ps Payment System in SAP implementation

DSWD key informants noted that it was relatively easy for them to distribute the SAP benefits to Pantawid Pamilya beneficiaries compared to non-beneficiaries of the program since this only required them to provide the list of beneficiaries to the Landbank and request them to transfer the funds of SAP to the accounts of the 4Ps beneficiaries. They acknowledged that this ease was due to the existing database of beneficiaries and the wide coverage of the beneficiaries in the cash card payment system.

When asked whether the current payment system appropriate or sufficient to handle a program as large as the Social Amelioration Program, the national program management noted that the current payment system, as it is, is only intended for Pantawid Pamilya beneficiaries and may not be able to cater to other programs such as the SAP which has different coverage targets. However, they also noted that the program’s payment system should be improved to readily adapt and efficiently deliver benefits in times of emergency situations.

5. Summary and Recommendations

The study presents an assessment of the payment system of the Pantawid Pamilyang Pilipino Program using a combination of qualitative and quantitative methodologies. Data sources include program administrative reports, Focus Group Discussions with program beneficiaries, interviews with program implementers, survey data of the 3rd impact evaluation of the program, and an online survey that aims to collect information on the experiences of beneficiaries in receiving their grants and the implementation of the Social Amelioration Program.

In terms of the benefit level, the results show that the amount of cash grants have remained at their nominal levels starting 2008 up to 2016 even though the real value has already decreased due to inflation. The amount of grants have only recently increased due to the Rice subsidy and RA 11301 which started implementation in 2017 and 2020, respectively. In those years where the grants have remained stagnant, the reduction in real value of the grants also reduced its ability to augment the income of the beneficiaries and aid human capital investment of children. Compared with other countries, the 4Ps grants are lagging in terms of its generosity.

When asked to give an assessment of the benefit level of the program, beneficiaries are hesitant to demand increase in grant amounts but admit that their budget is barely enough to cover needs. Most of the grants are spent on education expenses of children and food for the family. Program implementers also acknowledged that an increase in the cash grants will be helpful to cushion the increase in prices and possible economic shocks to the households.

Evidence on the perceived optimal frequency of payment of benefits are mixed. While more frequent payments result in consumption smoothing, less frequent payments also resulted in positive impact on savings and asset accumulation. Results from the FGDs with beneficiaries also show that there is no strong demand for more frequent payments among the beneficiaries and most prefer the current bimonthly payment of grants due to additional transportation costs to be incurred and smaller amount of grants to be received every payout. As regards the feasibility of increasing the payment frequency, program implementers noted that there are cost considerations for the program. These include costs for operations in the compliance monitoring, and cost for bank service fees.

In general, the program payment system have improved through the years despite gaps in the initial years of its implementation. The conversion of the mode of delivery has been mentioned by program implementors as the key improvement in the payment delivery. This is also confirmed by accounts of beneficiaries saying that there are less delays in the payout of grants in the recent years and noted that convenience offered by cash cards. However, the experience of beneficiaries are largely dependent on the availability of ATMs or POS merchants in their community or nearby areas. In addition, both beneficiaries and program implementers also noted some issues that still need to be addressed even in the cash card mode of payment. This includes difficulty in accessing ATMs and/or banks in some of the areas, and delays in the approval of cash-card related processes such as replacement of cards in case of change of grantee, and broken feedback loop on the status of some processes.

IE3 evidence suggest mode of payment do not create significant heterogeneity in impact of the program for education and health outcomes. However, results for household income and expenditure indicate more pronounced positive impact of the program for cash card holders. While this needs further study to ascertain pathways for such discrepancy in impact, it is possible that the predictability and reliability of payouts in cash cards relative to OTC means have contributed to the positive effect of the program.

Results of the quick assessment of the Social Amelioration Program point to the ease of providing emergency cash assistance to the Pantawid Pamilya beneficiaries due to its existing registry of beneficiaries and established cash card system for most of the beneficiaries.

Based on the results of the study, the following recommendation are put forward:

- DSWD and PIDS should study the need to establish a principle for adjusting the grant amount provided by the program ahead of the six-year schedule of reviewing the benefit level stipulated in the 4Ps Act/RA11031. This is also important given that the country will enter the recovery phase post-COVID. An ex-ante analysis should precede the increase in amount of grants.
- In addition to automatic adjustment of the amount grants, the program may consider differentiating the amount of the assistance for specific target beneficiaries (e.g., by gender, location) such as the recommendation of Reyes and Tabuga (2013), David, Albert and Vizmanos (2018), and Paqueo and Orbeta (2019).
- If grant amounts cannot be adjusted proactively, supplementary interventions (other programs or other cash assistance) should be pursued.
- More than increasing the frequency of payouts, reliability and predictability of payment schedules appear to be more important. This can be done by ensuring payouts are conducted according to an explicit declared schedule and beneficiaries have reduced barriers to access the grants. To achieve this, improvements should be made in the processes and IT infrastructures of DSWD and LBP.
- Changes in frequency of payment should be carefully examined to know if benefits outweigh additional costs. This can be piloted in a small area before full implementation.
- LBP (or the relevant AGDB) should expand network of ATMs and local bank branches in the country to reach all areas. LBP should also find alternative points of cash withdrawal such as POS to cover areas without ATMs. POS establishments should be monitored, and transaction fees should not be shouldered by beneficiaries (at least for 1st withdrawal) regardless of where the transaction is done.
- Processes of resolving payment and cash card related grievances (e.g., decentralized process) should be streamlined and frontline staff should have access to real-time status.

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7. Appendix: Differential impact of Pantawid Familya by mode of payment

Table 30. Growth monitoring

Outcomes		Sharp RD Estimates					
		CER Optimal	MSE Optimal	Sample			
Regular weight monitoring for children 0 to <2 years old	Cash card	z-value	0.559	0.419	-0.372		
		difference (impact)	8.580	8.579	-4.250		
		impact	14.900	7.630	-7.130		
		se	10.370	9.150	4.930		
		robust p-value	0.117	0.257	0.163		
		conventional p-value	0.151	0.404	0.148		
		number of obs.	348	425	734		
		<i>Pantawid</i>	27.865	7.628	-7.130		
		<i>non-Pantawid</i>	12.965	24.632	19.467		
		bandwidth	356	470	3,008		
	OTC	impact	6.320	11.230	-9.880		
		se	11.300	10.580	4.860		
		robust p-value	0.468	0.195	0.365		
		conventional p-value	0.576	0.288	0.042		
		number of obs.	263	315	748		
		<i>Pantawid</i>	22.178	25.801	26.613		
		<i>non-Pantawid</i>	15.856	14.573	16.733		
		bandwidth	256	338	3,008		
		Frequency of weight monitoring for children 0 to 2 years old in the past six months	Cash card	z-value	-0.024	-0.005	-0.216
				difference (impact)	-0.021	-0.021	-0.256
impact	0.292			0.113	-0.274		
se	0.608			0.543	0.290		
robust p-value	0.564			0.669	0.275		
conventional p-value	0.632			0.835	0.344		
number of obs.	344			423	734		
<i>Pantawid</i>	3.212			0.113	-0.274		
<i>non-Pantawid</i>	2.920			3.125	2.991		
bandwidth	350			461	3,008		
OTC	impact		0.313	0.354	-0.511		
	se		0.619	0.558	0.285		
	robust p-value		0.525	0.384	0.341		
	conventional p-value		0.614	0.525	0.073		
	number of obs.		291	366	748		
	<i>Pantawid</i>		3.256	3.275	3.278		
	<i>non-Pantawid</i>		2.944	2.921	2.767		
	bandwidth		303	400	3,008		

*** p<0.01, ** p<0.05, * p<0.10

Notes: Std. error presented is based on the conventional RD estimation while the p-value is from the robust version that corrects for bias. The conditional probability exceeds 100 due to the use of a linear probability model in the estimation.

Table 31. Child health services and practices

Outcomes			Bandwidth		
			CER Optimal	MSE Optimal	Sample
Vitamin A supplementation (6 months to 6 years old)	Cash card	z-value	-0.270	-0.015	-0.787
		difference (impact)	-1.640	-1.640	-3.650
		impact	4.870	5.770	5.600 *
		se	3.940	3.550	2.310
		robust p-value	0.257	0.158	0.093
		conventional p-value	0.217	0.104	0.015
		number of obs.	1,172	1,423	2,460
		<i>Pantawid</i>	84.446	84.742	5.611
		<i>non-Pantawid</i>	79.579	78.972	84.086
	OTC	bandwidth	361	479	3,008
		impact	6.510	5.890	9.600 **
		se	4.610	4.170	2.430
		robust p-value	0.217	0.263	0.012
		conventional p-value	0.158	0.158	0.000
		number of obs.	1,188	1,449	2,465
		<i>Pantawid</i>	85.942	85.562	9.604
		<i>non-Pantawid</i>	79.435	79.670	87.832
		bandwidth	398	530	3,008
Full immunization at age 1	Cash card	z-value	-0.288	-0.062	-0.384
		difference (impact)	-2.240	-2.236	-5.440
		impact	-0.840	-1.690	0.370
		se	4.720	4.210	3.110
		robust p-value	0.944	0.844	0.339
		conventional p-value	0.859	0.688	0.905
		number of obs.	1,144	1,347	2,062
		<i>Pantawid</i>	24.840	24.631	0.368
		<i>non-Pantawid</i>	25.676	26.320	27.253
	OTC	bandwidth	432	573	3,008
		impact	1.400	2.320	-0.610
		se	6.190	5.610	3.500
		robust p-value	0.786	0.636	0.750
		conventional p-value	0.821	0.679	0.862
		number of obs.	861	1,076	2,037
		<i>Pantawid</i>	26.313	26.884	-0.603
		<i>non-Pantawid</i>	24.912	24.561	25.434
		bandwidth	332	441	3,008
Visited a health facility or health professional in the past 8 weeks	Cash card	z-value	2.286 **	0.316	0.165
		difference (impact)	18.740	18.738	4.570
		impact	2.090	0.440	4.610
		se	4.750	4.360	2.790
		robust p-value	0.765	0.940	0.221
		conventional p-value	0.660	0.920	0.098
		number of obs.	1,242	1,523	2,684
		<i>Pantawid</i>	40.863	39.405	4.630
		<i>non-Pantawid</i>	38.771	38.966	40.362
	OTC	bandwidth	348	461	3,008
		impact	-16.650 **	-10.520 *	7.630
		se	6.680	5.990	3.230
		robust p-value	0.012	0.061	0.201
		conventional p-value	0.013	0.079	0.018
		number of obs.	787	987	2,721
		<i>Pantawid</i>	28.123	32.182	7.623
		<i>non-Pantawid</i>	44.768	42.705	42.941
		bandwidth	211	281	3,008

*** p<0.01, ** p<0.05, * p<0.10

Notes: Std. error presented is based on the conventional RD estimation while the p-value is from the robust version that corrects for bias. The conditional probability exceeds 100 due to the use of a linear probability model in the estimation

Table 32. Deworming

Outcomes			Bandwidth		
			CER Optimal	MSE Optimal	Sample
		z-value	-2.901 ***	-0.359	-1.424

Deworming (under 6 years old)	Cash card	difference (impact)	-22.590		-22.598		-20.230		
		impact	-3.790		-2.950		-1.080		
		se	4.840		4.410		3.280		
		robust p-value	0.441		0.503		0.443		
		conventional p-value	0.433		0.504		0.741		
		number of obs.	1,379		1,655		2,662		
			<i>Pantawid</i>	42.126		42.907		-1.084	
			<i>non-Pantawid</i>	45.919		45.856		45.692	
			bandwidth	407		540		3,008	
		OTC	impact	18.800	***	15.670	***	9.380	**
			se	6.100		5.370		3.220	
			robust p-value	0.002		0.004		0.019	
			conventional p-value	0.002		0.004		0.004	
			number of obs.	1,023		1,282		2,701	
			<i>Pantawid</i>	61.877		59.071		9.381	
		<i>non-Pantawid</i>	43.072		43.400		55.938		
		bandwidth	296		394		3,008		
Deworming at least once (6 to 14 years old)	Cash card	z-value	-2.090	**	-0.058		-1.202		
		difference (impact)	-7.240		-7.239		-9.900		
		impact	-3.390		-2.770		0.790		
		se	2.590		2.310		1.350		
		robust p-value	0.223		0.280		0.292		
		conventional p-value	0.191		0.230		0.555		
			number of obs.	2,859		3,499		5,830	
			<i>Pantawid</i>	84.828		85.417		0.812	
			<i>non-Pantawid</i>	88.217		88.192		87.589	
			bandwidth	375		498		3,008	
		OTC	impact	3.850		3.680	*	3.930	*
			se	2.300		2.000		1.260	
			robust p-value	0.112		0.092		0.075	
			conventional p-value	0.094		0.066		0.002	
	number of obs.		2,868		3,539		5,801		
			<i>Pantawid</i>	90.892		90.825		3.928	
		<i>non-Pantawid</i>	87.043		87.145		91.028		
		bandwidth	426		569		3,008		
Deworming at least twice (6 to 14 years old)	Cash card	z-value	-0.185		-0.034		-0.642		
		difference (impact)	-1.140		-1.140		-2.560		
		impact	8.810	**	9.000	**	7.460	**	
		se	3.810		3.460		2.320		
		robust p-value	0.024		0.013		0.019		
		conventional p-value	0.021		0.009		0.001		
			number of obs.	3,233		3,846		5,807	
			<i>Pantawid</i>	32.740		33.045		7.477	
			<i>non-Pantawid</i>	23.927		24.042		32.653	
			bandwidth	441		586		3,008	
		OTC	impact	9.950	**	11.040	***	3.290	
			se	4.850		4.300		2.550	
			robust p-value	0.033		0.008		0.108	
			conventional p-value	0.040		0.010		0.197	
	number of obs.		2,510		3,096		5,777		
			<i>Pantawid</i>	33.240		33.820		3.288	
		<i>non-Pantawid</i>	23.287		22.780		30.163		
		bandwidth	355		474		3,008		

*** p<0.01, ** p<0.05, * p<0.10

Notes: Std. error presented is based on the conventional RD estimation while the p-value is from the robust version that corrects for bias
The conditional probability exceeds 100 due to the use of a linear probability model in the estimation

Table 33. Child nutrition outcomes

Outcomes		Bandwidth			
		CER Optimal	MSE Optimal	Sample	
Underweight		z-value	0.224	0.056	0.048
		difference (impact)	1.680	1.674	0.570
	Cash card	impact	3.510	3.330	0.860
		se	4.570	4.190	2.660
		robust p-value	0.435	0.413	0.457

Outcomes		Bandwidth					
		CER Optimal	MSE Optimal	Sample			
Severe underweight	OTC	conventional p-value	0.442	0.427	0.748		
		number of obs.	1,453	1,728	2,519		
		<i>Pantawid</i>	24.398	24.136	0.859		
		<i>non-Pantawid</i>	20.890	20.802	21.767		
		bandwidth	481	638	3,008		
		impact	1.830	2.330	3.170		
		se	5.940	5.160	2.790		
		robust p-value	0.857	0.838	0.415		
		conventional p-value	0.758	0.652	0.255		
		number of obs.	1,077	1,342	2,539		
		<i>Pantawid</i>	23.453	24.137	3.170		
		<i>non-Pantawid</i>	21.618	21.809	24.128		
		bandwidth	332	443	3,008		
		Severe underweight	Cash card	z-value	-0.059	-0.033	0.013
difference (impact)	-0.250			-0.256	0.080		
impact	1.870			1.810	0.500		
se	2.270			2.040	1.260		
robust p-value	0.453			0.433	0.530		
conventional p-value	0.411			0.373	0.693		
number of obs.	1,197			1,446	2,519		
<i>Pantawid</i>	7.229			6.992	0.500		
<i>non-Pantawid</i>	5.362			5.177	5.380		
bandwidth	359			476	3,008		
impact	2.120			2.230	2.490		
se	3.540			3.000	1.650		
robust p-value	0.643			0.636	0.151		
conventional p-value	0.549			0.457	0.132		
Severe underweight	OTC	number of obs.	1,375	1,657	2,539		
		<i>Pantawid</i>	7.848	7.777	2.487		
		<i>non-Pantawid</i>	5.724	5.545	7.124		
		bandwidth	464	618	3,008		
		Stunting	Cash card	z-value	1.192	0.210	0.054
				difference (impact)	9.540	9.546	0.790
				impact	5.590	4.510	1.550
				se	4.510	4.140	2.810
				robust p-value	0.225	0.279	0.311
				conventional p-value	0.215	0.277	0.581
				number of obs.	1,217	1,464	2,454
				<i>Pantawid</i>	35.714	34.795	1.568
				<i>non-Pantawid</i>	30.121	30.289	32.025
				bandwidth	381	505	3,008
impact	-3.950			0.960	6.620	**	
se	6.610			5.840	3.180		
robust p-value	0.458			0.858	0.043		
conventional p-value	0.550			0.869	0.037		
Stunting	OTC	number of obs.	854	1,079	2,506		
		<i>Pantawid</i>	30.092	33.856	6.617		
		<i>non-Pantawid</i>	34.045	32.893	37.308		
		bandwidth	256	341	3,008		
		Severe stunting	Cash card	z-value	0.232	0.096	0.043
				difference (impact)	1.190	1.184	0.300
				impact	3.540	2.690	0.640
				se	2.970	2.770	1.740
				robust p-value	0.247	0.345	0.512
				conventional p-value	0.234	0.331	0.714
				number of obs.	1,347	1,588	2,454
				<i>Pantawid</i>	11.565	11.068	0.642
				<i>non-Pantawid</i>	8.028	8.381	10.377
				bandwidth	432	573	3,008
impact	2.350			3.240	4.110	**	
se	4.180			3.730	2.000		

Outcomes		Bandwidth			
		CER Optimal	MSE Optimal	Sample	
		robust p-value	0.688	0.580	0.029
		conventional p-value	0.573	0.384	0.040
		number of obs.	1,045	1,303	2,506
		<i>Pantawid</i>	11.790	12.764	4.097
		<i>non-Pantawid</i>	9.437	9.520	14.052
		bandwidth	329	438	3,008
Wasting	Cash card	z-value	-0.416	-0.126	-0.055
		difference (impact)	-2.290	-2.294	-0.700
		impact	-2.510	-1.040	0.920
		se	3.860	3.540	2.030
		robust p-value	0.464	0.646	0.613
		conventional p-value	0.515	0.770	0.650
	OTC	number of obs.	1,074	1,302	2,207
		<i>Pantawid</i>	10.835	11.359	0.928
		<i>non-Pantawid</i>	13.348	12.397	11.217
		bandwidth	370	491	3,008
		impact	-0.220	0.040	1.370
		se	3.930	3.500	2.040
	OTC	robust p-value	0.912	0.910	0.957
		conventional p-value	0.956	0.990	0.502
		number of obs.	949	1,180	2,209
		<i>Pantawid</i>	12.211	12.006	1.367
		<i>non-Pantawid</i>	12.430	11.961	11.667
		bandwidth	332	442	3,008
Severe wasting	Cash card	z-value	-0.205	-0.088	0.075
		difference (impact)	-0.630	-0.635	0.760
		impact	-2.910	-2.440	-1.210
		se	1.960	1.800	1.060
		robust p-value	0.126	0.147	0.354
		conventional p-value	0.138	0.174	0.257
	OTC	number of obs.	1,115	1,331	2,207
		<i>Pantawid</i>	2.240	2.310	-1.209
		<i>non-Pantawid</i>	5.154	4.755	2.514
		bandwidth	391	518	3,008
		impact	-2.280	-2.100	-0.800
		se	2.370	2.160	1.130
	OTC	robust p-value	0.332	0.319	0.277
		conventional p-value	0.336	0.331	0.480
		number of obs.	1,038	1,268	2,209
		<i>Pantawid</i>	2.782	2.591	-0.800
		<i>non-Pantawid</i>	5.061	4.689	2.796
		bandwidth	372	496	3,008

*** p<0.01, ** p<0.05, * p<0.10

Notes: Std. error presented is based on the conventional RD estimation while the p-value is from the robust version that corrects for bias. The conditional probability exceeds 100 due to the use of a linear probability model in the estimation.

Table 34. Enrollment

Outcomes		Bandwidth			
		CER Optimal	MSE Optimal	Sample	
Enrollment of children 3 to 5 years old	Cash card	z-value	0.060	0.008	-0.082
		difference (impact)	0.640	0.638	-1.910
		impact	-2.210	-0.110	1.480
		se	7.160	6.720	4.290
		robust p-value	0.780	0.991	0.875
		conventional p-value	0.757	0.987	0.730
	OTC	number of obs.	746	885	1,441
		<i>Pantawid</i>	55.142	55.344	1.458
		<i>non-Pantawid</i>	57.356	55.453	54.605
		bandwidth	406	539	3,008
		impact	-2.850	-0.650	3.260

Outcomes		Bandwidth			
		CER Optimal	MSE Optimal	Sample	
	se	7.880	7.210	4.130	
	robust p-value	0.699	0.867	0.509	
	conventional p-value	0.717	0.928	0.430	
	number of obs.	738	889	1,475	
	<i>Pantawid</i>	55.209	55.775	3.257	
	<i>non-Pantawid</i>	58.060	56.426	57.220	
	bandwidth	419	557	3,008	
Enrollment of children 6 to 11 years old	z-value	0.532	0.004	1.309	
	difference (impact)	0.550	0.555	0.650	
	Cash card	impact	1.800 **	1.870 **	0.510 **
	se	0.780	0.750	0.580	
	robust p-value	0.020	0.011	0.018	
	conventional p-value	0.021	0.012	0.374	
	number of obs.	2,312	2,733	3,959	
	<i>Pantawid</i>	99.422	99.376	0.517	
	<i>non-Pantawid</i>	97.620	97.505	98.502	
	bandwidth	474	629	3,008	
	OTC	impact	1.250 *	1.380 *	0.590 **
	se	0.680	0.700	0.530	
	robust p-value	0.076	0.062	0.030	
	conventional p-value	0.068	0.050	0.269	
	number of obs.	1,702	2,095	3,938	
	<i>Pantawid</i>	99.181	99.196	0.594	
	<i>non-Pantawid</i>	97.935	97.815	98.692	
	bandwidth	358	478	3,008	
	Enrollment of children 12 to 15 years old	z-value	0.957	0.024	0.794
difference (impact)		3.210	3.207	4.460	
Cash card		impact	2.800	3.980	3.400 ***
se		2.180	2.000	1.260	
robust p-value		0.279	0.120	0.001	
conventional p-value		0.198	0.047	0.007	
number of obs.		1,208	1,464	2,551	
<i>Pantawid</i>		96.539	96.944	3.401	
<i>non-Pantawid</i>		93.738	92.959	96.459	
bandwidth		354	469	3,008	
OTC		impact	-0.410	0.130	1.860
se		2.550	2.360	1.590	
robust p-value		0.801	0.895	0.408	
conventional p-value		0.873	0.958	0.243	
number of obs.		1,445	1,771	2,534	
<i>Pantawid</i>		93.057	93.400	1.863	
<i>non-Pantawid</i>		93.463	93.275	95.053	
bandwidth		508	677	3,008	
Enrollment of children 16 to 17 years old		z-value	1.062	0.086	1.809 *
	difference (impact)	9.420	9.418	8.830	
	Cash card	impact	17.350 ***	14.920 **	10.130 ***
	se	6.290	5.690	3.320	
	robust p-value	0.010	0.017	0.002	
	conventional p-value	0.006	0.009	0.002	
	number of obs.	584	698	1,157	
	<i>Pantawid</i>	93.467	92.091	10.130	
	<i>non-Pantawid</i>	76.120	77.173	89.052	
	bandwidth	352	466	3,008	
	OTC	impact	7.930	9.050	11.050 *
	se	6.250	5.450	3.230	
	robust p-value	0.259	0.178	0.068	
	conventional p-value	0.204	0.097	0.001	
	number of obs.	689	799	1,134	
	<i>Pantawid</i>	87.112	88.112	11.045	
	<i>non-Pantawid</i>	79.183	79.061	90.787	
	bandwidth	529	702	3,008	
		z-value	1.276	0.037	1.655 *

Outcomes			Bandwidth				
		CER Optimal	MSE Optimal	Sample			
Enrollment of children 12 to 17 years old	Cash card	difference (impact)	4.630	4.637	5.900		
		impact	7.700 ***	7.550 ***	5.570	***	
		se	2.540	2.270	1.330		
		robust p-value	0.006	0.005	0.000		
		conventional p-value	0.002	0.001	0.000		
		number of obs.	1,762	2,132	3,708		
	OTC	<i>Pantawid</i>	95.622	95.369	5.568		
		<i>non-Pantawid</i>	87.918	87.816	94.120		
		bandwidth	345	458	3,008		
		impact	3.070	2.930	5.080	**	
		se	2.590	2.300	1.430		
		robust p-value	0.327	0.364	0.025		
	Enrollment of children 6 to 14 years old	Cash card	conventional p-value	0.237	0.204	0.000	
			number of obs.	1,878	2,310	3,668	
			<i>Pantawid</i>	91.681	91.576	5.078	
			<i>non-Pantawid</i>	88.613	88.650	93.903	
bandwidth			429	572	3,008		
z-value			1.241	0.010	1.165		
Enrollment of children 15 to 20 years old	Cash card	difference (impact)	1.410	1.409	1.750		
		impact	2.550 ***	2.720 ***	1.930	***	
		se	0.680	0.640	0.440		
		robust p-value	0.001	0.000	0.000		
		conventional p-value	0.000	0.000	0.000		
		number of obs.	2,682	3,321	5,924		
	OTC	<i>Pantawid</i>	99.225	99.160	1.928		
		<i>non-Pantawid</i>	96.672	96.438	98.420		
		bandwidth	335	445	3,008		
		impact	1.140	1.240	1.390	***	
		se	0.910	0.860	0.570		
		robust p-value	0.273	0.249	0.007		
	Enrollment of children 6 to 14 years old	Cash card	conventional p-value	0.207	0.150	0.014	
			number of obs.	2,533	3,146	5,889	
			<i>Pantawid</i>	97.969	97.889	1.395	
			<i>non-Pantawid</i>	96.825	96.652	98.036	
bandwidth			354	473	3,008		
z-value			1.068	0.064	0.445		
Enrollment of children 15 to 20 years old	Cash card	difference (impact)	6.750	6.753	4.320		
		impact	6.650	6.870	8.380	***	
		se	4.150	3.680	2.170		
		robust p-value	0.146	0.120	0.005		
		conventional p-value	0.109	0.062	0.000		
		number of obs.	1,437	1,729	2,790		
	OTC	<i>Pantawid</i>	81.364	81.134	8.365		
		<i>non-Pantawid</i>	74.710	74.264	81.247		
		bandwidth	391	518	3,008		
		impact	-0.100	1.050	4.760		
		se	4.770	4.130	2.500		
		robust p-value	0.901	0.987	0.457		
	Enrollment of children 15 to 20 years old	Cash card	conventional p-value	0.983	0.800	0.057	
			number of obs.	1,511	1,824	2,716	
			<i>Pantawid</i>	75.501	76.132	4.765	
			<i>non-Pantawid</i>	75.601	75.084	79.029	
bandwidth			475	632	3,008		
z-value			1.068	0.064	0.445		

*** p<0.01, ** p<0.05, * p<0.10

Notes: Std. error presented is based on the conventional RD estimation while the p-value is from the robust version that corrects for bias. The conditional probability exceeds 100 due to the use of a linear probability model in the estimation

Table 35. Attendance rates (in %)

Outcomes			CER Optimal	Bandwidth MSE Optimal	Sample
Attendance rate of children 3 to 5 years old	Cash card	z-value	0.170	0.008	-0.078
		difference (impact)	0.930	0.927	-0.450
		impact	4.060	4.090	-1.010
		se	3.750	3.370	2.240
		robust p-value	0.224	0.151	0.957
		conventional p-value	0.280	0.226	0.653
		number of obs.	396	463	771
		<i>Pantawid</i>	88.834	89.011	-1.008
		<i>non-Pantawid</i>	84.779	84.925	87.380
	OTC	bandwidth	414	546	3,008
		impact	3.130	1.970	-0.250
		se	3.990	3.580	2.300
		robust p-value	0.414	0.527	0.680
		conventional p-value	0.433	0.583	0.914
		number of obs.	451	543	795
		<i>Pantawid</i>	88.642	88.347	-0.235
		<i>non-Pantawid</i>	85.515	86.381	87.880
		bandwidth	535	708	3,008
Attendance rate of children 6 to 11 years old	Cash card	z-value	-0.320	-0.003	0.542
		difference (impact)	-0.370	-0.374	0.170
		impact	1.200	1.090	0.120
		se	0.870	0.760	0.390
		robust p-value	0.140	0.104	0.738
		conventional p-value	0.169	0.153	0.760
		number of obs.	1,787	2,210	3,887
		<i>Pantawid</i>	97.385	97.369	0.117
		<i>non-Pantawid</i>	96.187	96.279	97.095
	OTC	bandwidth	343	456	3,008
		impact	1.570 *	1.320 *	0.800 **
		se	0.760	0.650	0.350
		robust p-value	0.054	0.071	0.012
		conventional p-value	0.038	0.043	0.022
		number of obs.	1,744	2,151	3,871
		<i>Pantawid</i>	97.834	97.765	0.799
		<i>non-Pantawid</i>	96.262	96.449	97.688
		bandwidth	381	509	3,008
Attendance rate of children 12 to 15 years old	Cash card	z-value	0.897	0.010	0.297
		difference (impact)	1.330	1.331	0.940
		impact	0.720	0.630	0.910
		se	0.730	0.650	0.410
		robust p-value	0.352	0.384	0.261
		conventional p-value	0.322	0.336	0.025
		number of obs.	1,271	1,536	2,416
		<i>Pantawid</i>	97.464	97.498	0.911
		<i>non-Pantawid</i>	96.741	96.869	97.973
	OTC	bandwidth	415	551	3,008
		impact	-0.610	-0.250	0.430
		se	1.290	1.050	0.470
		robust p-value	0.608	0.716	0.616
		conventional p-value	0.638	0.812	0.368
		number of obs.	1,076	1,340	2,388
		<i>Pantawid</i>	96.310	96.700	0.426
		<i>non-Pantawid</i>	96.918	96.950	97.585
		bandwidth	378	503	3,008
Attendance rate of children 16 to 17 years old	Cash card	z-value	-2.656 ***	-0.032	-0.642
		difference (impact)	-4.450	-4.454	-3.200
		impact	-2.170	-1.640	-0.040
		se	1.450	1.320	0.720

Outcomes		Bandwidth					
		CER Optimal	MSE Optimal	Sample			
	OTC	robust p-value	0.121	0.172	0.361		
		conventional p-value	0.134	0.215	0.953		
		number of obs.	473	570	964		
		<i>Pantawid</i>	96.365	96.704	-0.043		
		<i>non-Pantawid</i>	98.535	98.343	97.773		
		bandwidth	346	458	3,008		
		impact	2.280 ***	1.410 *	0.940		
		se	0.840	0.840	0.770		
		robust p-value	0.009	0.080	0.451		
		conventional p-value	0.007	0.093	0.222		
		number of obs.	407	498	955		
		<i>Pantawid</i>	99.736	99.044	0.945		
		<i>non-Pantawid</i>	97.452	97.638	98.555		
		bandwidth	334	442	3,008		
		Attendance rate of children 12 to 17 years old	Cash card	z-value	0.152	0.001	0.035
				difference (impact)	0.180	0.184	0.090
impact	0.000			0.090	0.640		
se	0.580			0.520	0.320		
robust p-value	0.919			0.961	0.703		
conventional p-value	0.998			0.866	0.042		
number of obs.	1,870			2,244	3,380		
<i>Pantawid</i>	97.235			97.356	0.645		
<i>non-Pantawid</i>	97.233			97.268	97.920		
bandwidth	437			580	3,008		
OTC	impact			-0.180	-0.040	0.550	
	se			1.030	0.850	0.390	
	robust p-value			0.819	0.862	0.455	
	conventional p-value			0.859	0.962	0.164	
	number of obs.			1,475	1,836	3,343	
	<i>Pantawid</i>			96.980	97.167	0.546	
	<i>non-Pantawid</i>	97.162	97.207	97.844			
	bandwidth	362	483	3,008			
Attendance rate of children 6 to 14 years old	Cash card	z-value	0.165	0.001	0.840		
		difference (impact)	0.170	0.171	0.590		
		impact	1.030	0.940	0.330		
		se	0.760	0.670	0.340		
		robust p-value	0.151	0.122	0.611		
		conventional p-value	0.177	0.165	0.326		
		number of obs.	2,559	3,140	5,767		
		<i>Pantawid</i>	97.318	97.326	0.333		
		<i>non-Pantawid</i>	96.287	96.390	97.326		
		bandwidth	323	429	3,008		
		OTC	impact	0.860	0.790	0.720 **	
			se	0.700	0.600	0.300	
			robust p-value	0.272	0.277	0.027	
			conventional p-value	0.221	0.187	0.016	
			number of obs.	2,377	2,959	5,729	
			<i>Pantawid</i>	97.257	97.333	0.720	
<i>non-Pantawid</i>	96.397		96.544	97.686			
bandwidth	342		456	3,008			
Attendance rate of children 15 to 20 years old	Cash card	z-value	-0.698	-0.005	-0.574		
		difference (impact)	-0.750	-0.747	-1.010		
		impact	-0.140	0.110	0.550		
		se	0.770	0.670	0.400		
		robust p-value	0.785	0.969	0.859		
		conventional p-value	0.856	0.865	0.164		
		number of obs.	1,223	1,448	2,120		
		<i>Pantawid</i>	97.643	97.821	0.554		
		<i>non-Pantawid</i>	97.783	97.706	98.234		
		bandwidth					

Outcomes		Bandwidth		
		CER Optimal	MSE Optimal	Sample
OTC	bandwidth	459	609	3,008
	impact	0.610	0.710	0.450
	se	0.750	0.700	0.480
	robust p-value	0.459	0.372	0.340
	conventional p-value	0.418	0.311	0.345
	number of obs.	1,111	1,364	2,074
	<i>Pantawid</i>	98.151	98.190	0.454
	<i>non-Pantawid</i>	97.543	97.480	98.081
	bandwidth	465	619	3,008

*** p<0.01, ** p<0.05, * p<0.10

Notes: Std. error presented is based on the conventional RD estimation while the p-value is from the robust version that corrects for bias
The conditional probability exceeds 100 due to the use of a linear probability model in the estimation

Table 36. Attendance of at least 85%

Outcomes		Bandwidth					
		CER Optimal	MSE Optimal	Sample			
Attendance of at least 85% among children 3 to 5 years old	Cash card	z-value	-0.149	-0.018	-0.906		
		difference (impact)	-1.690	-1.694	-6.620		
		impact	8.510	8.100	-1.830		
		se	7.820	6.950	4.630		
		robust p-value	0.225	0.167	0.873		
		conventional p-value	0.277	0.244	0.692		
		number of obs.	419	489	771		
		<i>Pantawid</i>	75.458	75.436	-1.827		
		<i>non-Pantawid</i>	66.952	67.337	71.760		
		bandwidth	445	587	3,008		
	OTC	impact	10.200	8.700	2.190		
		se	8.260	7.290	4.780		
		robust p-value	0.204	0.205	0.310		
		conventional p-value	0.217	0.233	0.646		
		number of obs.	397	469	795		
		<i>Pantawid</i>	77.978	77.456	2.223		
		<i>non-Pantawid</i>	67.778	68.757	75.433		
		bandwidth	431	570	3,008		
		Attendance of at least 85% among children 6 to 11 years old	Cash card	z-value	0.197	0.005	1.204
				difference (impact)	0.660	0.661	2.970
impact	3.430			3.620 *	1.690		
se	2.260			2.060	1.130		
robust p-value	0.120			0.071	0.315		
conventional p-value	0.128			0.079	0.134		
number of obs.	1,681			2,051	3,890		
<i>Pantawid</i>	95.074			95.087	1.679		
<i>non-Pantawid</i>	91.639			91.470	94.615		
bandwidth	313			416	3,008		
OTC	impact		2.770	2.650	2.150 *		
	se		2.470	2.140	1.140		
	robust p-value		0.317	0.310	0.065		
	conventional p-value		0.261	0.215	0.060		
	number of obs.		1,935	2,366	3,875		
	<i>Pantawid</i>		94.664	94.753	2.150		
	<i>non-Pantawid</i>		91.890	92.106	95.035		
	bandwidth		437	584	3,008		
	Attendance of at least 85% among children 12 to 15 years old		Cash card	z-value	0.803	0.028	0.281
				difference (impact)	3.760	3.764	3.710
impact		-0.670		-0.840	0.970		
se		2.620		2.320	1.500		
robust p-value		0.776		0.687	0.778		
conventional p-value		0.798		0.717	0.519		
number of obs.		1,398		1,673	2,417		
<i>Pantawid</i>		93.130		93.258	0.966		
<i>non-Pantawid</i>		93.801		94.101	94.773		
bandwidth		477		633	3,008		
OTC		impact	-4.430	-3.140	-0.140		
		se	3.880	3.170	1.550		
		robust p-value	0.251	0.301	0.572		
		conventional p-value	0.253	0.322	0.927		
		number of obs.	1,039	1,293	2,390		
		<i>Pantawid</i>	89.788	91.045	-0.145		
		<i>non-Pantawid</i>	94.223	94.187	93.921		
		bandwidth	359	477	3,008		

Outcomes			Bandwidth		Sample
			CER Optimal	MSE Optimal	
Attendance of at least 85% among children 16 to 17 years old	Cash card	z-value	-2.592 ***	-0.094	-0.566
		difference (impact)	-12.810	-12.802	-8.170
		impact	-6.520 *	-5.280	-1.070
		se	4.010	3.680	2.330
		robust p-value	0.099	0.129	0.176
		conventional p-value	0.104	0.151	0.646
		number of obs.	511	626	966
	<i>Pantawid</i>	90.897	91.563	-1.071	
	<i>non-Pantawid</i>	97.412	96.846	94.088	
	bandwidth	402	531	3,008	
	OTC	impact	6.290 **	3.490	1.850
		se	2.890	2.730	2.270
		robust p-value	0.031	0.160	0.806
		conventional p-value	0.029	0.201	0.417
		number of obs.	355	443	958
		<i>Pantawid</i>	100.905	98.684	1.848
		<i>non-Pantawid</i>	94.618	95.193	96.309
bandwidth	286	378	3,008		
Attendance of at least 85% among children 12 to 17 years old	Cash card	z-value	0.137	0.004	0.094
		difference (impact)	0.520	0.519	1.060
		impact	-2.170	-2.020	0.400
		se	2.330	2.040	1.160
		robust p-value	0.339	0.297	0.319
		conventional p-value	0.351	0.321	0.731
		number of obs.	1,797	2,171	3,383
	<i>Pantawid</i>	92.521	92.762	0.400	
	<i>non-Pantawid</i>	94.692	94.784	94.587	
	bandwidth	416	552	3,008	
	OTC	impact	-2.690	-2.320	0.380
		se	2.990	2.460	1.140
		robust p-value	0.359	0.327	0.648
		conventional p-value	0.368	0.345	0.738
		number of obs.	1,405	1,747	3,348
		<i>Pantawid</i>	91.920	92.399	0.380
		<i>non-Pantawid</i>	94.610	94.721	94.577
bandwidth	338	451	3,008		
Attendance of at least 85% among children 6 to 14 years old	Cash card	z-value	0.573	0.012	0.835
		difference (impact)	1.620	1.623	3.220
		impact	2.120	2.010	1.380
		se	1.880	1.690	0.950
		robust p-value	0.228	0.186	0.587
		conventional p-value	0.258	0.236	0.145
		number of obs.	2,576	3,169	5,770
	<i>Pantawid</i>	94.222	94.216	1.376	
	<i>non-Pantawid</i>	92.099	92.210	94.613	
	bandwidth	327	435	3,008	
	OTC	impact	0.500	0.770	1.350
		se	2.110	1.790	0.910
		robust p-value	0.879	0.806	0.223
		conventional p-value	0.812	0.667	0.137
		number of obs.	2,471	3,052	5,734
		<i>Pantawid</i>	93.057	93.413	1.346
		<i>non-Pantawid</i>	92.557	92.646	94.662
bandwidth	356	476	3,008		

Outcomes			Bandwidth		
			CER Optimal	MSE Optimal	Sample
Attendance of at least 85% among children 15 to 20 years old	Cash card	z-value	-0.363	-0.010	-0.219
		difference (impact)	-1.270	-1.271	-1.390
		impact	-0.280	0.070	1.030
		se	2.550	2.260	1.370
		robust p-value	0.935	0.957	0.780
		conventional p-value	0.912	0.974	0.452
	number of obs.	1,063	1,296	2,125	
	<i>Pantawid</i>	94.407	94.610	1,029	
	<i>non-Pantawid</i>	94.688	94.537	95.569	
	bandwidth	377	501	3,008	
	OTC	impact	0.990	1.280	1.270
		se	2.400	2.190	1.410
		robust p-value	0.733	0.658	0.508
		conventional p-value	0.680	0.558	0.370
		number of obs.	1,118	1,370	2,080
		<i>Pantawid</i>	95.397	95.507	1,268
	<i>non-Pantawid</i>	94.406	94.224	95.502	
	bandwidth	466	620	3,008	

*** p<0.01, ** p<0.05, * p<0.10

Notes: Std. error presented is based on the conventional RD estimation while the p-value is from the robust version that corrects for bias. The conditional probability exceeds 100 due to the use of a linear probability model in the estimation.

Table 37. School level enrollment

Outcomes		Bandwidth					
		CER Optimal	MSE Optimal	Sample			
Enrollment in daycare, nursery, preschool/kindergarten of children 3 to 5 years old	Cash card	z-value	0.225	0.055	-0.001		
		difference (impact)	2.970	2.977	-0.040		
		impact	1.150	1.700	3.040		
		se	8.740	8.040	5.700		
		robust p-value	0.941	0.923	0.665		
		conventional p-value	0.895	0.833	0.593		
		number of obs.	589	693	922		
		<i>Pantawid</i>	38.279	37.989	3.015		
		<i>non-Pantawid</i>	37.125	36.288	36.626		
		bandwidth	556	735	3,008		
	OTC	impact	-1.820	-0.030	2.300		
		se	9.880	9.000	5.270		
		robust p-value	0.847	0.964	0.525		
		conventional p-value	0.854	0.997	0.662		
		number of obs.	442	541	933		
		<i>Pantawid</i>	38.156	38.582	2.289		
		<i>non-Pantawid</i>	39.979	38.616	38.044		
		bandwidth	393	521	3,008		
		Enrollment in preschool or kindergarten children 5 years old	Cash card	z-value	-0.872	-0.227	-0.915
				difference (impact)	-16.830	-16.834	-29.850
impact	-2.840			-4.480	-1.530		
se	12.630			11.620	7.170		
robust p-value	0.878			0.803	0.584		
conventional p-value	0.822			0.700	0.831		
number of obs.	250			299	519		
<i>Pantawid</i>	50.864			50.419	-1.515		
<i>non-Pantawid</i>	53.707			54.898	55.517		
bandwidth	384			504	3,008		
OTC	impact		13.990	14.860	1.940		
	se		14.590	13.230	7.580		
	robust p-value		0.359	0.304	0.671		
	conventional p-value		0.338	0.262	0.798		
	number of obs.		249	303	542		
	<i>Pantawid</i>		65.181	65.484	1.939		
	<i>non-Pantawid</i>		51.190	50.627	56.767		
	bandwidth		383	504	3,008		
	Enrollment in elementary of children 6 to 11 years old		Cash card	z-value	1.433	0.025	0.436
				difference (impact)	3.360	3.363	2.160
impact		2.100		2.310	0.370		
se		1.490		1.390	0.980		
robust p-value		0.162		0.102	0.145		
conventional p-value		0.160		0.097	0.705		
number of obs.		1,785		2,211	3,959		
<i>Pantawid</i>		97.376		97.197	0.372		
<i>non-Pantawid</i>		95.276		94.892	95.378		
bandwidth		333		442	3,008		
OTC		impact	-1.260	-1.190	-1.390		
		se	1.810	1.620	1.080		
		robust p-value	0.523	0.527	0.423		
		conventional p-value	0.484	0.462	0.201		
		number of obs.	2,095	2,571	3,938		
		<i>Pantawid</i>	94.340	94.295	-1.380		
		<i>non-Pantawid</i>	95.604	95.486	94.143		
		bandwidth	478	639	3,008		
		Enrollment in junior high school of children 12 to 15 years old	Cash card	z-value	0.787	0.036	0.995
				difference (impact)	3.880	3.881	3.850
impact	9.030			9.310	6.510		
se	3.150			2.770	1.780		

Outcomes		Bandwidth			
		CER Optimal	MSE Optimal	Sample	
OTC	robust p-value	0.007	0.003	0.000	
	conventional p-value	0.004	0.001	0.000	
	number of obs.	2,061	2,462	3,708	
	<i>Pantawid</i>	86.177	86.405	6.505	
	<i>non-Pantawid</i>	77.144	77.091	85.904	
	bandwidth	433	574	3,008	
	impact	5.150	5.580	5.030 *	
	se	3.790	3.260	1.920	
	robust p-value	0.219	0.151	0.097	
	conventional p-value	0.174	0.088	0.009	
	number of obs.	1,808	2,219	3,668	
	<i>Pantawid</i>	82.608	83.013	5.027	
	<i>non-Pantawid</i>	77.455	77.435	84.722	
	bandwidth	407	542	3,008	
	Enrollment in senior high school of children 16 to 17 years old	z-value	1.102	0.209	0.983
		difference (impact)	13.460	13.462	17.610
Cash card impact		15.310 **	13.780 *	7.710 **	
se		7.540	6.680	4.230	
robust p-value		0.049	0.050	0.040	
conventional p-value		0.042	0.039	0.068	
number of obs.		655	771	1,157	
<i>Pantawid</i>		59.595	58.587	7.693	
<i>non-Pantawid</i>		44.285	44.809	56.096	
bandwidth		422	558	3,008	
OTC impact		1.850	1.760	2.340	
se		9.610	8.110	4.770	
robust p-value		0.891	0.913	0.751	
conventional p-value		0.848	0.829	0.624	
number of obs.		600	720	1,134	
<i>Pantawid</i>		48.473	48.624	2.335	
<i>non-Pantawid</i>	46.625	46.868	51.763		
bandwidth	429	569	3,008		

*** p<0.01, ** p<0.05, * p<0.10

Notes: Std. error presented is based on the conventional RD estimation while the p-value is from the robust version that corrects for bias
The conditional probability exceeds 100 due to the use of a linear probability model in the estimation

Table 38. Dropout rate

Outcomes			Bandwidth			
		CER Optimal	MSE Optimal	Sample		
Dropout rate among children 6 to 11 years old	Cash card	z-value	-0.023	-0.011	-0.130	
		difference (impact)	-0.020	-0.018	-0.400	
		impact	-0.780	-0.890	-0.530	*
		se	0.710	0.660	0.360	
		robust p-value	0.318	0.253	0.084	
		conventional p-value	0.277	0.179	0.142	
		number of obs.	1,926	2,335	3,875	
	OTC	<i>Pantawid</i>	0.354	-0.885	-0.530	
		<i>non-Pantawid</i>	1.130	0.266	0.385	
		bandwidth	380	504	3,008	
		impact	-0.760	-0.850	0.060	
		se	0.530	0.540	0.340	
		robust p-value	0.196	0.171	0.281	
		conventional p-value	0.155	0.112	0.866	
		number of obs.	1,744	2,146	3,868	
		<i>Pantawid</i>	0.461	0.384	0.056	
		<i>non-Pantawid</i>	1.218	1.237	0.835	
bandwidth	382	511	3,008			
Dropout rate among children 12 to 15 years old	Cash card	z-value	-0.241	-0.111	-0.191	
		difference (impact)	-0.550	-0.550	-1.330	
		impact	-1.930	-2.140	-1.790	**
		se	1.650	1.460	0.850	
		robust p-value	0.307	0.241	0.019	
		conventional p-value	0.242	0.142	0.034	
		number of obs.	1,103	1,339	2,472	
	OTC	<i>Pantawid</i>	1.415	1.375	-1.793	
		<i>non-Pantawid</i>	3.342	3.516	1.469	
		bandwidth	325	431	3,008	
		impact	-1.380	-1.040	-0.810	
		se	1.580	1.490	1.030	
		robust p-value	0.370	0.434	0.448	
		conventional p-value	0.384	0.482	0.431	
		number of obs.	1,193	1,467	2,445	
		<i>Pantawid</i>	2.293	2.577	-0.813	
		<i>non-Pantawid</i>	3.670	3.621	2.347	
bandwidth	410	545	3,008			
Dropout rate among children 16 to 17 years old	Cash card	z-value	-0.603	-0.374	-0.385	
		difference (impact)	-4.130	-4.128	-5.310	
		impact	-4.130	-3.310	-2.800	
		se	4.020	3.640	2.460	
		robust p-value	0.394	0.533	0.223	
		conventional p-value	0.304	0.363	0.255	
		number of obs.	514	626	1,022	
	OTC	<i>Pantawid</i>	4.151	4.733	-2.808	
		<i>non-Pantawid</i>	8.279	8.047	5.503	
		bandwidth	372	491	3,008	
		impact	0.000	1.090	-2.780	
		se	5.540	4.620	2.410	
		robust p-value	0.926	0.698	0.821	
		conventional p-value	1.000	0.814	0.247	
		number of obs.	500	609	1,005	
		<i>Pantawid</i>	7.295	7.903	-2.784	
		<i>non-Pantawid</i>	7.296	6.816	4.599	
bandwidth	412	545	3,008			
Dropout rate among children 12 to 17 years old	Cash card	z-value	-0.439	-0.168	-0.364	
		difference (impact)	-1.130	-1.130	-2.690	
		impact	-2.540	-2.520	-2.070	**
		se	1.860	1.640	0.890	

Outcomes		Bandwidth					
		CER Optimal	MSE Optimal	Sample			
	OTC	robust p-value	0.228	0.215	0.015		
		conventional p-value	0.172	0.124	0.020		
		number of obs.	1,552	1,890	3,494		
		<i>Pantawid</i>	2.173	2.303	-2.067		
		<i>non-Pantawid</i>	4.709	4.825	2.674		
		bandwidth	319	423	3,008		
		impact	-1.410	-0.600	-1.440		
		se	1.780	1.540	0.960		
		robust p-value	0.473	0.742	0.382		
		conventional p-value	0.430	0.696	0.133		
		number of obs.	1,546	1,926	3,450		
		<i>Pantawid</i>	3.374	3.973	-1.437		
		<i>non-Pantawid</i>	4.780	4.572	2.977		
		bandwidth	371	494	3,008		
		Dropout rate among children 6 to 14 years old	Cash card	z-value	0.427	0.119	-0.094
				difference (impact)	0.330	0.328	-0.350
				impact	-1.300 **	-1.440 ***	-0.930 ***
				se	0.500	0.480	0.320
robust p-value	0.013			0.005	0.002		
conventional p-value	0.009			0.003	0.004		
OTC	number of obs.		2,486	3,045	5,793		
	<i>Pantawid</i>		0.540	0.476	-0.928		
	<i>non-Pantawid</i>		1.838	1.915	0.660		
	bandwidth		312	414	3,008		
	impact		-1.630 ***	-1.320 **	-0.350		
	se		0.590	0.590	0.420		
	robust p-value		0.005	0.017	0.170		
	conventional p-value		0.006	0.025	0.400		
	number of obs.		2,179	2,740	5,766		
	<i>Pantawid</i>		0.428	0.709	-0.352		
	<i>non-Pantawid</i>		2.053	2.033	1.165		
	bandwidth		306	408	3,008		
Dropout rate among children 15 to 20 years old	Cash card	z-value	-0.396	-0.189	-0.166		
		difference (impact)	-2.020	-2.021	-1.860		
		impact	-2.120	-2.110	-1.950		
		se	3.640	3.250	1.640		
		robust p-value	0.663	0.701	0.120		
		conventional p-value	0.560	0.516	0.235		
	OTC	number of obs.	999	1,209	2,204		
		<i>Pantawid</i>	5.644	5.813	-1.948		
		<i>non-Pantawid</i>	7.766	7.927	6.068		
		bandwidth	318	422	3,008		
		impact	-0.100	-0.360	-1.760		
		se	3.580	3.060	1.600		
		robust p-value	0.941	0.924	0.412		
		conventional p-value	0.978	0.907	0.270		
		number of obs.	1,052	1,306	2,141		
		<i>Pantawid</i>	7.278	7.225	-1.762		
		<i>non-Pantawid</i>	7.379	7.584	5.562		
		bandwidth	408	542	3,008		

*** p<0.01, ** p<0.05, * p<0.10

Notes: Std. error presented is based on the conventional RD estimation while the p-value is from the robust version that corrects for bias. The conditional probability exceeds 100 due to the use of a linear probability model in the estimation.

Table 39. Child labor

Outcomes		Bandwidth			
		CER Optimal	MSE Optimal	Sample	
At least 1 hour of work (with or without pay) last month, 10-14 years old	Cash card	z-value	2.222 **	0.854	0.691
		difference (impact)	7.040	7.041	6.250
		impact	3.440	3.110	2.340
		se	2.290	2.130	1.390
		robust p-value	0.163	0.191	0.100

		conventional p-value	0.133	0.144	0.091
		number of obs.	1,737	2,071	3,195
		<i>Pantawid</i>	8.824	8.360	2.337
		<i>non-Pantawid</i>	5.388	5.252	6.880
		bandwidth	422	560	3,008
	OTC	impact	-3.600 *	-4.270 **	-0.820
		se	2.190	1.800	1.210
		robust p-value	0.081	0.012	0.284
		conventional p-value	0.101	0.018	0.496
		number of obs.	1,125	1,430	3,169
		<i>Pantawid</i>	2.633	2.444	-0.823
		<i>non-Pantawid</i>	6.237	6.715	4.192
		bandwidth	278	370	3,008
At least 1 hour of paid work last month, 10-14 years old		z-value	2.102 **	0.856	0.737
		difference (impact)	6.690	6.688	6.420
	Cash card	impact	3.420	3.110	2.440 *
		se	2.250	2.090	1.380
		robust p-value	0.165	0.197	0.078
		conventional p-value	0.129	0.137	0.078
		number of obs.	1,743	2,081	3,195
		<i>Pantawid</i>	8.540	8.091	2.442
		<i>non-Pantawid</i>	5.120	4.981	6.689
		bandwidth	423	562	3,008
	OTC	impact	-3.270	-3.910 **	-0.630
		se	2.250	1.790	1.180
		robust p-value	0.114	0.017	0.425
		conventional p-value	0.146	0.029	0.593
		number of obs.	1,095	1,407	3,169
		<i>Pantawid</i>	2.636	2.458	-0.631
		<i>non-Pantawid</i>	5.903	6.373	4.071
		bandwidth	269	358	3,008
Number of days worked (with or without pay) last month, 10-14 years old		z-value	0.195	0.075	0.411
		difference (impact)	0.604	0.604	3.689
	Cash card	impact	-1.390	-0.536	-0.232
		se	2.169	1.796	0.799
		robust p-value	0.469	0.618	0.595
		conventional p-value	0.522	0.765	0.771
		number of obs.	69	78	147
		<i>Pantawid</i>	4.564	4.938	-0.230
		<i>non-Pantawid</i>	5.954	5.474	5.026
		bandwidth	201	252	3,008
	OTC	impact	-1.994	-2.073	0.186
		se	2.213	1.960	0.840
		robust p-value	0.352	0.281	0.794
		conventional p-value	0.368	0.290	0.825
		number of obs.	63	74	132
		<i>Pantawid</i>	3.418	3.342	5.104
		<i>non-Pantawid</i>	5.412	5.416	5.288
		bandwidth	313	392	3,008

*** p<0.01, ** p<0.05, * p<0.10

Notes: Std. error presented is based on the conventional RD estimation while the p-value is from the robust version that corrects for bias. The conditional probability exceeds 100 due to the use of a linear probability model in the estimation.

Table 40. Education expenditures

Outcomes		Bandwidth			
		CER Optimal	MSE Optimal	Sample	
Expenditures on tuition and other fees (per month) in the last school year	Cash card	z-value	0.531	0.015	0.230
		difference (impact)	0.071	0.071	0.103
		impact	-0.099	-0.060	0.081
		se	0.101	0.086	0.049
		robust p-value	0.315	0.427	0.955
		conventional p-value	0.328	0.485	0.097
		number of obs.	2,882	3,566	6,381
		<i>Pantawid</i>	3.202	3.234	0.081

Outcomes		Bandwidth					
		CER Optimal	MSE Optimal	Sample			
	OTC	<i>non-Pantawid</i>	3.300	3.294	3.353		
		bandwidth	334	444	3,008		
		impact	-0.170 *	-0.159 *	-0.157 **		
		se	0.088	0.078	0.049		
		robust p-value	0.068	0.065	0.018		
		conventional p-value	0.054	0.043	0.001		
		number of obs.	2,910	3,629	6,415		
		<i>Pantawid</i>	3.080	3.092	3.255		
		<i>non-Pantawid</i>	3.250	3.251	3.099		
		bandwidth	383	511	3,008		
Expenditures on school materials and supplies (per month) in the last school year	Cash card	z-value	-1.097	-0.018	-0.901		
		difference (impact)	-0.089	-0.089	-0.068		
		impact	0.042	0.043	0.082		
		se	0.055	0.051	0.030		
		robust p-value	0.504	0.508	0.217		
		conventional p-value	0.448	0.398	0.006		
		number of obs.	3,848	4,681	7,805		
		<i>Pantawid</i>	3.462	3.472	0.083		
		<i>non-Pantawid</i>	3.420	3.430	3.522		
		bandwidth	379	504	3,008		
	OTC	impact	0.131 **	0.114 **	0.054 *		
		se	0.060	0.053	0.031		
		robust p-value	0.031	0.034	0.051		
		conventional p-value	0.028	0.030	0.081		
		number of obs.	3,719	4,619	7,751		
		<i>Pantawid</i>	3.523	3.517	3.443		
		<i>non-Pantawid</i>	3.392	3.403	3.497		
		bandwidth	412	551	3,008		
		Expenditures on school uniform (per month) in the last school year	Cash card	z-value	-1.363	-0.019	-0.627
				difference (impact)	-0.100	-0.100	-0.061
impact	-0.002			0.018	0.064		
se	0.052			0.049	0.031		
robust p-value	0.911			0.855	0.244		
conventional p-value	0.976			0.714	0.042		
number of obs.	2,693			3,296	5,957		
<i>Pantawid</i>	3.823			3.837	0.064		
<i>non-Pantawid</i>	3.824			3.820	3.872		
bandwidth	329			438	3,008		
	OTC	impact	0.099 *	0.082 *	0.054 *		
		se	0.052	0.045	0.029		
		robust p-value	0.064	0.079	0.055		
		conventional p-value	0.056	0.068	0.068		
		number of obs.	3,073	3,794	6,097		
		<i>Pantawid</i>	3.891	3.882	3.798		
		<i>non-Pantawid</i>	3.793	3.799	3.851		
		bandwidth	439	586	3,008		
		Expenditures on school allowance (per month) last school year	Cash card	z-value	1.293	0.023	0.548
				difference (impact)	0.175	0.175	0.134
impact	0.121			0.139	0.099 **		
se	0.092			0.082	0.052		
robust p-value	0.228			0.149	0.028		
conventional p-value	0.186			0.090	0.055		
number of obs.	4,777			5,659	7,856		
<i>Pantawid</i>	5.567			5.572	0.099		
<i>non-Pantawid</i>	5.445			5.433	5.547		
bandwidth	517			686	3,008		
OTC	impact	-0.054	-0.054	-0.099			
	se	0.100	0.087	0.052			
	robust p-value	0.686	0.702	0.363			
	conventional p-value	0.591	0.531	0.057			
	number of obs.	3,933	4,840	7,796			

Outcomes		Bandwidth				
		CER Optimal	MSE Optimal	Sample		
		<i>Pantawid</i>	5.377	5.365	5.406	
		<i>non-Pantawid</i>	5.431	5.419	5.308	
		bandwidth	437	584	3,008	
Total school expenditures (per month) last school year	Cash card	z-value	0.908	0.011	0.662	
		difference (impact)	0.089	0.089	0.076	
		impact	0.094	0.100	0.118 ***	
		se	0.081	0.071	0.036	
		robust p-value	0.338	0.323	0.003	
		conventional p-value	0.241	0.157	0.001	
		number of obs.	3,806	4,650	8,062	
			<i>Pantawid</i>	6.011	6.016	0.118
			<i>non-Pantawid</i>	5.916	5.916	6.029
			bandwidth	351	467	3,008
		OTC	impact	0.006	0.019	-0.016
			se	0.055	0.048	0.030
			robust p-value	0.862	0.626	0.762
			conventional p-value	0.916	0.683	0.609
	number of obs.		4,659	5,665	8,000	
			<i>Pantawid</i>	5.898	5.902	5.887
			<i>non-Pantawid</i>	5.892	5.883	5.872
		bandwidth	532	712	3,008	

*** p<0.01, ** p<0.05, * p<0.10

Notes: : Log-transformed values used in the estimation. Std. error presented is based on the conventional RD estimation while the p-value is from the robust version that corrects for bias

The conditional probability exceeds 100 due to the use of a linear probability model in the estimation

Table 41. Household expenditures: Share to total expenditures

Outcomes			Bandwidth		
			CER Optimal	MSE Optimal	Sample
Share of food to total expenditures	Cash card	z-value	-2.407 **	-0.054	-1.132
		difference (impact)	-4.830	-4.836	-5.990
		impact	-1.880	-1.890	-1.640
		se	1.520	1.370	0.910
		robust p-value	0.209	0.160	0.175
		conventional p-value	0.215	0.167	0.069
		number of obs.	1,723	2,091	3,749
		<i>Pantawid</i>	62.073	62.021	-1.647
		<i>non-Pantawid</i>	63.955	63.912	61.907
	OTC	bandwidth	353	469	3,092
		impact	2.950 **	2.880 **	2.470 **
		se	1.310	1.180	0.950
		robust p-value	0.031	0.025	0.015
		conventional p-value	0.024	0.014	0.009
		number of obs.	2,191	2,673	3,793
		<i>Pantawid</i>	66.669	66.495	2.476
		<i>non-Pantawid</i>	63.715	63.619	66.135
		bandwidth	537	717	3,092
Share of non-food to total expenditures	Cash card	z-value	2.407 **	0.095	1.057
		difference (impact)	4.830	4.836	5.990
		impact	1.880	1.890	1.640
		se	1.520	1.370	0.910
		robust p-value	0.209	0.160	0.175
		conventional p-value	0.215	0.167	0.069
		number of obs.	1,723	2,091	3,749
		<i>Pantawid</i>	37.927	37.979	1.647
		<i>non-Pantawid</i>	36.045	36.088	38.093
	OTC	bandwidth	353	469	3,092
		impact	-2.950 **	-2.880 **	-2.470 **
		se	1.310	1.180	0.950
		robust p-value	0.031	0.025	0.015
		conventional p-value	0.024	0.014	0.009
		number of obs.	2,191	2,673	3,793
		<i>Pantawid</i>	33.331	33.505	-2.476
		<i>non-Pantawid</i>	36.285	36.381	33.865
		bandwidth	537	717	3,092
Share of education to total expenditures	Cash card	z-value	-0.244	-0.027	-0.305
		difference (impact)	-0.100	-0.093	-0.270
		impact	-0.160	0.010	0.280
		se	0.290	0.250	0.150
		robust p-value	0.527	0.827	0.176
		conventional p-value	0.593	0.963	0.064
		number of obs.	1,663	2,043	3,749
		<i>Pantawid</i>	2.406	2.475	0.276
		<i>non-Pantawid</i>	2.562	2.463	2.602
	OTC	bandwidth	338	450	3,092
		impact	-0.060	0.010	0.210
		se	0.290	0.260	0.170
		robust p-value	0.811	0.958	0.734
		conventional p-value	0.831	0.973	0.211
		number of obs.	2,019	2,490	3,793
		<i>Pantawid</i>	2.349	2.389	0.208
		<i>non-Pantawid</i>	2.412	2.380	2.515
		bandwidth	481	643	3,092
Share of clothing and footwear to total expenditures	Cash card	z-value	-1.589	-0.225	-1.773 *
		difference (impact)	-0.340	-0.340	-0.270
		impact	0.080	0.130	0.220 *
		se	0.130	0.110	0.070

Outcomes		Bandwidth					
		CER Optimal	MSE Optimal	Sample			
	OTC	robust p-value	0.587	0.380	0.053		
		conventional p-value	0.509	0.246	0.001		
		number of obs.	1,722	2,091	3,749		
		<i>Pantawid</i>	1.189	1.241	0.219		
		<i>non-Pantawid</i>	1.106	1.108	1.379		
		bandwidth	353	469	3,092		
		impact	0.420	** 0.370	** 0.270	***	
		se	0.170	0.150	0.080		
		robust p-value	0.020	0.021	0.002		
		conventional p-value	0.016	0.015	0.001		
		number of obs.	1,653	2,047	3,793		
		<i>Pantawid</i>	1.452	1.433	0.268		
		<i>non-Pantawid</i>	1.029	1.061	1.443		
		bandwidth	367	490	3,092		
		Share of health to total expenditures	Cash card	z-value	-0.416	-0.126	-0.413
				difference (impact)	-0.150	-0.156	-0.120
				impact	0.210	0.170	0.110
				se	0.200	0.170	0.120
robust p-value	0.305			0.314	0.693		
conventional p-value	0.303			0.322	0.342		
number of obs.	1,858			2,269	3,749		
<i>Pantawid</i>	1.111			1.105	0.114		
<i>non-Pantawid</i>	0.903			0.932	1.041		
bandwidth	400			531	3,092		
OTC	impact			0.360	0.290	0.000	
	se			0.300	0.260	0.130	
	robust p-value			0.211	0.222	0.881	
	conventional p-value			0.225	0.257	0.991	
	number of obs.			1,745	2,169	3,793	
	<i>Pantawid</i>			1.219	1.173	-0.002	
	<i>non-Pantawid</i>			0.855	0.880	0.919	
	bandwidth			396	529	3,092	
	Share of alcohol and tobacco to total expenditures	Cash card	z-value	0.839	0.175	0.469	
			difference (impact)	0.380	0.385	0.350	
impact			0.300	0.250	-0.120		
se			0.330	0.280	0.140		
robust p-value			0.334	0.326	0.840		
conventional p-value			0.357	0.370	0.392		
number of obs.			1,553	1,903	3,749		
<i>Pantawid</i>			1.824	1.763	-0.117		
<i>non-Pantawid</i>			1.521	1.508	1.493		
bandwidth			309	410	3,092		
OTC			impact	-0.080	-0.090	-0.220	
			se	0.310	0.270	0.140	
			robust p-value	0.873	0.896	0.199	
			conventional p-value	0.787	0.741	0.109	
			number of obs.	1,661	2,068	3,793	
			<i>Pantawid</i>	1.516	1.503	-0.221	
			<i>non-Pantawid</i>	1.598	1.592	1.416	
			bandwidth	371	495	3,092	

*** p<0.01, ** p<0.05, * p<0.10

Notes: Std. error presented is based on the conventional RD estimation while the p-value is from the robust version that corrects for bias

Table 42. Household expenditures

Outcomes		Bandwidth				
		CER Optimal	MSE Optimal	Sample		
Average total per capita expenditure	Cash card	z-value	1.324	0.006	1.053	
		difference (impact)	0.093	0.093	0.122	
		impact	0.082	* 0.076	* 0.062	**
		se	0.047	0.043	0.028	

Outcomes				Bandwidth					
		CER Optimal		MSE Optimal		Sample			
	OTC	robust p-value	0.082		0.077		0.048		
		conventional p-value	0.081		0.077		0.025		
		number of obs.	1,885		2,290		3,749		
		<i>Pantawid</i>	10.331		10.331		0.062		
		<i>non-Pantawid</i>	10.250		10.255		10.326		
		bandwidth	405		539		3,092		
		impact	-0.012		-0.007		0.016		
		se	0.053		0.046		0.027		
		robust p-value	0.827		0.882		0.967		
		conventional p-value	0.824		0.886		0.553		
		number of obs.	2,069		2,540		3,793		
		<i>Pantawid</i>	10.254		10.262		10.271		
		<i>non-Pantawid</i>	10.266		10.269		10.287		
		bandwidth	496		662		3,092		
		Average total per capita food expenditure	Cash card	z-value	0.225		0.001		0.414
				difference (impact)	0.017		0.017		0.032
				impact	0.059		0.058		0.043
				se	0.051		0.047		0.033
robust p-value	0.242				0.219		0.176		
conventional p-value	0.243				0.222		0.193		
OTC	number of obs.		1,890		2,307		3,858		
	<i>Pantawid</i>		9.837		9.838		0.042		
	<i>non-Pantawid</i>		9.778		9.780		9.829		
	bandwidth		394		524		3,092		
	impact		0.042		0.048		0.060		
	se		0.056		0.049		0.029		
	robust p-value		0.494		0.405		0.197		
	conventional p-value		0.451		0.323		0.041		
	number of obs.		2,100		2,588		3,898		
	<i>Pantawid</i>		9.834		9.840		9.796		
	<i>non-Pantawid</i>		9.792		9.792		9.856		
	bandwidth		491		656		3,092		
Average total per capita non-food expenditure	Cash card	z-value	3.151	***	0.023		1.283		
		difference (impact)	0.300		0.300		0.341		
		impact	0.173	***	0.161	***	0.111	***	
		se	0.064		0.058		0.037		
		robust p-value	0.007		0.005		0.006		
		conventional p-value	0.007		0.006		0.003		
	OTC	number of obs.	1,982		2,408		4,471		
		<i>Pantawid</i>	9.346		9.343		0.111		
		<i>non-Pantawid</i>	9.172		9.182		9.321		
		bandwidth	331		440		3,092		
		impact	-0.127	*	-0.113		-0.079	*	
		se	0.071		0.063		0.044		
		robust p-value	0.096		0.112		0.082		
		conventional p-value	0.073		0.071		0.068		
		number of obs.	2,210		2,738		4,493		
		<i>Pantawid</i>	9.076		9.096		9.215		
		<i>non-Pantawid</i>	9.203		9.209		9.136		
		bandwidth	427		571		3,092		
Average per capita non-food expenditure (including other disbursements)	Cash card	z-value	3.191	***	0.023		1.333		
		difference (impact)	0.298		0.298		0.347		
		impact	0.174	***	0.166	***	0.116	***	
		se	0.063		0.057		0.037		
		robust p-value	0.006		0.004		0.004		
		conventional p-value	0.006		0.004		0.002		
	OTC	number of obs.	2,047		2,490		4,471		
		<i>Pantawid</i>	9.328		9.328		0.116		
		<i>non-Pantawid</i>	9.155		9.163		9.306		
		bandwidth	349		463		3,092		
		impact	-0.125	*	-0.111		-0.079	*	

Outcomes		Bandwidth			
		CER Optimal	MSE Optimal	Sample	
		se	0.069	0.061	0.043
		robust p-value	0.094	0.112	0.075
		conventional p-value	0.071	0.071	0.068
		number of obs.	2,243	2,769	4,493
		<i>Pantawid</i>	9.058	9.079	9.196
		<i>non-Pantawid</i>	9.183	9.189	9.118
		bandwidth	435	582	3,092
Average per capita expenditure on vice goods (e.g. alcohol, tobacco)	Cash card	z-value	0.693	0.067	0.404
		difference (impact)	0.299	0.299	0.351
		impact	0.127	0.122	0.072
		se	0.313	0.281	0.171
		robust p-value	0.712	0.709	0.757
		conventional p-value	0.684	0.664	0.672
		number of obs.	1,851	2,248	4,125
		<i>Pantawid</i>	3.246	3.217	0.073
		<i>non-Pantawid</i>	3.118	3.095	3.230
	OTC	bandwidth	341	453	3,092
		impact	-0.172	-0.096	-0.152
		se	0.297	0.258	0.167
		robust p-value	0.588	0.735	0.535
		conventional p-value	0.563	0.709	0.362
		number of obs.	2,338	2,863	4,167
		<i>Pantawid</i>	2.983	3.028	3.223
		<i>non-Pantawid</i>	3.154	3.125	3.071
		bandwidth	519	694	3,092
Average per capita expenditure on inpatient care	Cash card	z-value	0.264	0.117	0.523
		difference (impact)	0.066	0.066	0.151
		impact	0.193	0.161	0.113
		se	0.166	0.149	0.096
		robust p-value	0.251	0.283	0.420
		conventional p-value	0.246	0.281	0.240
		number of obs.	2,277	2,752	4,529
		<i>Pantawid</i>	0.603	0.587	0.113
		<i>non-Pantawid</i>	0.410	0.426	0.528
	OTC	bandwidth	406	540	3,092
		impact	0.126	0.084	-0.038
		se	0.189	0.168	0.090
		robust p-value	0.449	0.494	0.772
		conventional p-value	0.503	0.619	0.673
		number of obs.	1,926	2,394	4,545
		<i>Pantawid</i>	0.521	0.495	0.416
		<i>non-Pantawid</i>	0.394	0.411	0.378
		bandwidth	353	472	3,092
Average per capita expenditure on outpatient care	Cash card	z-value	-0.690	-0.156	-0.115
		difference (impact)	-0.146	-0.146	-0.060
		impact	-0.148	-0.094	0.071
		se	0.148	0.133	0.083
		robust p-value	0.274	0.362	0.496
		conventional p-value	0.318	0.481	0.397
		number of obs.	1,980	2,416	4,495
		<i>Pantawid</i>	0.537	0.575	0.070
		<i>non-Pantawid</i>	0.685	0.669	0.616
	OTC	bandwidth	332	441	3,092
		impact	-0.002	0.013	0.065
		se	0.150	0.131	0.088
		robust p-value	0.953	0.995	0.497
		conventional p-value	0.987	0.918	0.461
		number of obs.	2,641	3,190	4,514

Outcomes			CER Optimal		Bandwidth		Sample
					MSE Optimal		
		<i>Pantawid</i>	0.630		0.632		0.558
		<i>non-Pantawid</i>	0.632		0.618		0.623
		bandwidth	543		725		3,092
Average per capita expenditure on medical services and commodities	Cash card	z-value	0.682		0.058		0.562
		difference (impact)	0.262		0.262		0.358
		impact	0.307		0.288		0.467 **
		se	0.249		0.231		0.155
		robust p-value	0.282		0.326		0.040
		conventional p-value	0.216		0.212		0.003
		number of obs.	2,114		2,567		4,618
		<i>Pantawid</i>	3.535		3.523		0.467
		<i>non-Pantawid</i>	3.228		3.235		3.591
		bandwidth	350		465		3,092
	OTC	impact	0.045		0.007		0.010
		se	0.294		0.257		0.163
		robust p-value	0.885		0.974		0.953
		conventional p-value	0.877		0.979		0.949
		number of obs.	2,354		2,879		4,634
		<i>Pantawid</i>	3.239		3.198		3.140
		<i>non-Pantawid</i>	3.194		3.191		3.150
		bandwidth	447		598		3,092
Average per capita expenditure on education per school age child	Cash card	z-value	-0.229		-0.013		-0.247
		difference (impact)	-0.099		-0.099		-0.155
		impact	0.106		0.232		0.519 ***
		se	0.308		0.278		0.146
		robust p-value	0.887		0.676		0.006
		conventional p-value	0.731		0.403		0.000
		number of obs.	1,780		2,182		4,565
		<i>Pantawid</i>	5.710		2,182		0.519
		<i>non-Pantawid</i>	5.604		5.778		5.983
		bandwidth	282		375		3,092
	OTC	impact	0.205		0.209		0.268
		se	0.302		0.272		0.175
		robust p-value	0.529		0.497		0.563
		conventional p-value	0.497		0.441		0.126
		number of obs.	2,093		2,581		4,578
		<i>Pantawid</i>	5.643		5.615		5.477
		<i>non-Pantawid</i>	5.438		5.406		5.744
		bandwidth	389		520		3,092
Average per capita expenditure on clothing and footwear	Cash card	z-value	-2.123 **		-0.100		-1.151
		difference (impact)	-0.651		-0.651		-0.546
		impact	0.097		0.161		0.407 ***
		se	0.227		0.201		0.109
		robust p-value	0.813		0.685		0.004
		conventional p-value	0.671		0.425		0.000
		number of obs.	1,777		2,189		4,485
		<i>Pantawid</i>	4.769		4.855		0.407
		<i>non-Pantawid</i>	4.672		4.694		5.154
		bandwidth	287		381		3,092
	OTC	impact	0.748 ***		0.673 ***		0.470 ***
		se	0.206		0.188		0.114
		robust p-value	0.000		0.001		0.000
		conventional p-value	0.000		0.000		0.000
		number of obs.	2,003		2,480		4,505
		<i>Pantawid</i>	5.305		5.277		4.791
		<i>non-Pantawid</i>	4.558		4.605		5.261

Outcomes	Bandwidth		
	CER Optimal	MSE Optimal	Sample
bandwidth	373	498	3,092

*** p<0.01, ** p<0.05, * p<0.10

Notes: : Log-transformed values used in the estimation. Std. error presented is based on the conventional RD estimation while the p-value is from the robust version that corrects for bias

The conditional probability exceeds 100 due to the use of a linear probability model in the estimation

Table 43. Income

Outcomes			CER Optimal	Bandwidth		Sample		
				MSE Optimal				
Per capita income including grants	Cash card	z-value	1.551		0.023	0.726		
		difference (impact)	0.300		0.300	0.295		
		impact	0.658	***	0.673	***	0.609	***
		se	0.124		0.114		0.087	
		robust p-value	0.000		0.000		0.000	
		conventional p-value	0.000		0.000		0.000	
		number of obs.	1,936		2,355		4,505	
	<i>Pantawid</i>	9.789		9.776		0.609		
	<i>non-Pantawid</i>	9.131		9.103		9.706		
	bandwidth	320		425		3,092		
	OTC	impact	0.358	**	0.422	**	0.532	***
		se	0.148		0.133		0.093	
		robust p-value	0.034		0.011		0.000	
		conventional p-value	0.016		0.001		0.000	
		number of obs.	1,661		2,098		4,531	
		<i>Pantawid</i>	9.557		9.588		9.097	
		<i>non-Pantawid</i>	9.199		9.166		9.629	
bandwidth	298		398		3,092			
Per capita income without grants	Cash card	z-value	2.117	**	0.049	1.088		
		difference (impact)	0.627		0.627		0.644	
		impact	0.445	**	0.420	**	0.064	
		se	0.179		0.166		0.126	
		robust p-value	0.017		0.017		0.302	
		conventional p-value	0.013		0.012		0.612	
		number of obs.	1,685		2,088		4,491	
	<i>Pantawid</i>	9.383		9.330		0.064		
	<i>non-Pantawid</i>	8.938		8.910		9.062		
	bandwidth	269		357		3,092		
	OTC	impact	-0.182		-0.079		-0.093	
		se	0.236		0.208		0.137	
		robust p-value	0.431		0.635		0.850	
		conventional p-value	0.439		0.703		0.496	
		number of obs.	2,142		2,668		4,514	
		<i>Pantawid</i>	8.851		8.900		9.002	
		<i>non-Pantawid</i>	9.033		8.979		8.908	
bandwidth	412		550		3,092			
Per capita income from salaries and wages	Cash card	z-value	3.199	***	0.194	1.174		
		difference (impact)	1.894		1.894		2.032	
		impact	1.216	***	1.115	***	0.434	***
		se	0.389		0.351		0.254	
		robust p-value	0.003		0.003		0.007	
		conventional p-value	0.002		0.002		0.087	
		number of obs.	1,907		2,321		4,622	
	<i>Pantawid</i>	8.026		7.879		0.434		
	<i>non-Pantawid</i>	6.809		6.764		7.178		
	bandwidth	304		404		3,092		
	OTC	impact	-0.678		-0.698	*	-0.532	
		se	0.446		0.411		0.291	
		robust p-value	0.134		0.098		0.143	
		conventional p-value	0.129		0.089		0.067	
		number of obs.	2,017		2,491		4,638	
		<i>Pantawid</i>	6.294		6.229		6.680	
		<i>non-Pantawid</i>	6.972		6.927		6.148	
bandwidth	364		487		3,092			
Per capita income from	Cash card	z-value	0.478		0.013	0.319		
		difference (impact)	0.152		0.152		0.199	
		impact	0.053		0.103		0.009	
		se	0.205		0.188		0.125	

Outcomes		CER Optimal	Bandwidth MSE Optimal	Sample	
entrepreneurial activities	robust p-value	0.790	0.594	0.782	
	conventional p-value	0.797	0.582	0.944	
	number of obs.	1,021	1,206	1,958	
	<i>Pantawid</i>	8.147	8.174	0.009	
	<i>non-Pantawid</i>	8.094	8.071	8.173	
	bandwidth	459	608	3,092	
	OTC	impact	-0.099	-0.071	-0.194
	se	0.243	0.219	0.118	
	robust p-value	0.768	0.887	0.309	
	conventional p-value	0.683	0.747	0.099	
	number of obs.	895	1,120	2,081	
	<i>Pantawid</i>	7.997	8.005	8.175	
	<i>non-Pantawid</i>	8.096	8.075	7.981	
	bandwidth	381	507	3,092	
Per capita income from other receipts (excluding grants)	z-value	-0.050	-0.001	-0.056	
	difference (impact)	-0.016	-0.016	-0.044	
	Cash card	impact	-0.150	-0.131	-0.215
	se	0.185	0.167	0.121	
	robust p-value	0.501	0.585	0.149	
	conventional p-value	0.417	0.433	0.077	
	number of obs.	1,029	1,236	1,887	
	<i>Pantawid</i>	7.867	7.880	-0.215	
	<i>non-Pantawid</i>	8.017	8.011	7.852	
	bandwidth	495	657	3,092	
	OTC	impact	-0.134	-0.077	-0.046
	se	0.264	0.228	0.135	
	robust p-value	0.637	0.761	0.532	
	conventional p-value	0.612	0.736	0.736	
number of obs.	933	1,154	1,911		
<i>Pantawid</i>	7.917	7.970	8.092		
<i>non-Pantawid</i>	8.051	8.047	8.046		
bandwidth	456	608	3,092		

*** p<0.01, ** p<0.05, * p<0.10

Notes: : Log-transformed values used in the estimation. Std. error presented is based on the conventional RD estimation while the p-value is from the robust version that corrects for bias

The conditional probability exceeds 100 due to the use of a linear probability model in the estimation

Table 44. Hunger and self-rated poverty

Outcomes		Bandwidth				
		CER Optimal	MSE Optimal	Sample		
Incidence of hunger		z-value	0.130	0.023	0.081	
		difference (impact)	0.600	0.607	1.260	
	Cash card	impact	-4.260	-3.470	-2.690	
		se	2.880	2.630	1.980	
		robust p-value	0.154	0.205	0.119	
		conventional p-value	0.139	0.186	0.176	
		number of obs.	2,729	3,250	4,622	
		<i>Pantawid</i>	14.295	14.350	-2.691	
		<i>non-Pantawid</i>	18.552	17.822	13.913	
	OTC	bandwidth	517	687	3,092	
		impact	-4.860	-4.530	-2.860	
		se	3.610	3.240	2.130	
		robust p-value	0.189	0.175	0.136	
		conventional p-value	0.178	0.163	0.180	
		number of obs.	2,287	2,830	4,638	
		<i>Pantawid</i>	14.232	13.922	-2.861	
		<i>non-Pantawid</i>	19.096	18.448	13.577	
		bandwidth	431	576	3,092	
	Number of days experienced hunger in the past 3 months		z-value	0.584	0.179	0.246
			difference (impact)	0.272	0.272	0.394
Cash card		impact	-0.321	-0.319	-0.235	
		se	0.343	0.316	0.216	
		robust p-value	0.332	0.280	0.559	
		conventional p-value	0.349	0.313	0.276	
		number of obs.	2,244	2,703	4,613	
		<i>Pantawid</i>	0.710	0.702	-0.235	
		<i>non-Pantawid</i>	1.030	1.021	0.621	
OTC		bandwidth	381	507	3,092	
		impact	-0.593 *	-0.496 *	-0.027	
		se	0.317	0.298	0.233	
		robust p-value	0.062	0.090	0.404	
		conventional p-value	0.062	0.096	0.909	
		number of obs.	2,243	2,786	4,630	
		<i>Pantawid</i>	0.524	0.595	0.826	
		<i>non-Pantawid</i>	1.117	1.090	0.800	
		bandwidth	422	565	3,092	
Self-rated poverty status (Poor)			z-value	0.384	0.079	0.041
			difference (impact)	2.340	2.337	0.540
	Cash card	impact	-0.100	-0.460	0.990	
		se	4.100	3.740	2.370	
		robust p-value	0.906	0.781	0.340	
		conventional p-value	0.980	0.901	0.676	
		number of obs.	1,714	2,131	4,609	
		<i>Pantawid</i>	20.408	20.042	0.991	
		<i>non-Pantawid</i>	20.512	20.506	20.672	
	OTC	bandwidth	266	354	3,092	
		impact	-2.440	0.420	4.080	
		se	4.500	3.810	2.200	
		robust p-value	0.534	0.891	0.164	
		conventional p-value	0.587	0.912	0.064	
		number of obs.	1,860	2,316	4,626	
		<i>Pantawid</i>	19.034	20.793	4.078	
		<i>non-Pantawid</i>	21.475	20.371	23.436	
		bandwidth	329	440	3,092	
	Self-rated poverty status (Not-Poor)		z-value	3.681 ***	0.815	1.313
			difference (impact)	14.670	14.671	15.090
Cash card		impact	8.180 ***	7.570 **	3.640 **	
		se	2.950	2.760	1.760	
		robust p-value	0.008	0.010	0.012	

Outcomes	Bandwidth			
	CER Optimal	MSE Optimal	Sample	
	conventional p-value	0.006	0.006	0.039
	number of obs.	2,010	2,436	4,609
	<i>Pantawid</i>	20.295	19.554	3.645
	<i>non-Pantawid</i>	12.114	11.982	16.258
	bandwidth	324	430	3,092
OTC	impact	-6.490 **	-5.840 **	-4.600 ***
	se	2.680	2.300	1.610
	robust p-value	0.022	0.022	0.002
	conventional p-value	0.016	0.011	0.004
	number of obs.	2,449	3,014	4,626
	<i>Pantawid</i>	6.817	7.284	-4.595
	<i>non-Pantawid</i>	13.308	13.123	7.948
	bandwidth	475	635	3,092

*** p<0.01, ** p<0.05, * p<0.10

Notes: Std. error presented is based on the conventional RD estimation while the p-value is from the robust version that corrects for bias
The conditional probability exceeds 100 due to the use of a linear probability model in the estimation

Table 45. Employment

Outcomes		Bandwidth					
		CER Optimal	MSE Optimal	Sample			
Labor force participation	Cash card	z-value	0.817	0.026	0.352		
		difference (impact)	2.120	2.122	2.340		
		impact	0.580	0.940	0.850		
		se	1.780	1.520	0.780		
		robust p-value	0.771	0.607	0.197		
		conventional p-value	0.744	0.534	0.273		
		number of obs.	7,980	9,564	15,308		
		<i>Pantawid</i>	58.540	58.549	0.846		
		<i>non-Pantawid</i>	57.957	57.607	58.456		
		bandwidth	410	545	3,008		
	OTC	impact	-1.540	-1.920	-0.650		
		se	1.890	1.640	0.710		
		robust p-value	0.349	0.174	0.688		
		conventional p-value	0.414	0.244	0.358		
		number of obs.	4,708	6,039	15,013		
		<i>Pantawid</i>	56.987	56.670	-0.656		
		<i>non-Pantawid</i>	58.526	58.586	56.984		
		bandwidth	235	314	3,008		
		Employment	Cash card	z-value	-1.064	-0.017	-0.177
				difference (impact)	-2.190	-2.189	-1.110
impact	-2.270			-2.260 *	0.330		
se	1.450			1.280	0.710		
robust p-value	0.106			0.064	0.651		
conventional p-value	0.116			0.079	0.644		
number of obs.	3,573			4,379	8,819		
<i>Pantawid</i>	90.972			90.753	0.327		
<i>non-Pantawid</i>	93.245			93.008	92.093		
bandwidth	288			383	3,008		
OTC	impact		-0.080	0.120	1.100 *		
	se		1.460	1.270	0.720		
	robust p-value		0.863	0.881	0.092		
	conventional p-value		0.954	0.927	0.128		
	number of obs.		3,528	4,382	8,590		
	<i>Pantawid</i>		92.932	92.708	1.101		
	<i>non-Pantawid</i>		93.017	92.592	92.917		
	bandwidth		323	432	3,008		
	Usual work hours per week in primary occupation		Cash card	z-value	1.109	0.051	0.605
				difference (impact)	2.770	2.771	1.629
impact		6.196 ***		5.158 ***	1.436 **		
se		1.511		1.396	0.804		
robust p-value		0.000		0.000	0.014		
conventional p-value		0.000		0.000	0.074		
number of obs.		3,356		4,089	8,032		
<i>Pantawid</i>		44.367		43.745	1.439		
<i>non-Pantawid</i>		38.171		38.587	41.628		
bandwidth		300		399	3,008		
OTC		impact	3.426 *	3.005 **	-0.909		
		se	1.989	1.718	0.940		
		robust p-value	0.065	0.047	0.397		
		conventional p-value	0.085	0.080	0.333		
		number of obs.	2,428	3,099	7,860		
		<i>Pantawid</i>	41.665	41.393	39.978		
		<i>non-Pantawid</i>	38.240	38.388	39.072		
		bandwidth	229	306	3,008		
		Other job or business besides primary occupation	Cash card	z-value	0.867	0.277	0.109
				difference (impact)	2.430	2.428	0.430
impact	2.400			2.100	1.080		
se	2.040			1.930	1.050		

Outcomes		Bandwidth			
		CER Optimal	MSE Optimal	Sample	
		robust p-value	0.212	0.224	0.552
		conventional p-value	0.240	0.276	0.301
		number of obs.	3,108	3,832	8,003
		<i>Pantawid</i>	8.320	8.058	1.085
		<i>non-Pantawid</i>	5.925	5.961	7.553
		bandwidth	274	365	3,008
	OTC	impact	-0.030	0.350	-0.890
		se	1.920	1.730	0.980
		robust p-value	0.990	0.862	0.598
		conventional p-value	0.987	0.839	0.364
		number of obs.	3,293	4,085	7,820
		<i>Pantawid</i>	6.404	6.706	-0.889
		<i>non-Pantawid</i>	6.436	6.354	6.167
		bandwidth	335	449	3,008
Usual work hours per week in other jobs		z-value	4.371 ***	0.704	0.808
		difference (impact)	18.290	18.291	15.273
	Cash card	impact	5.038	5.101	3.168
		se	3.111	2.893	2.185
		robust p-value	0.157	0.157	0.102
		conventional p-value	0.105	0.078	0.147
		number of obs.	231	285	548
		<i>Pantawid</i>	21.414	21.112	3.159
		<i>non-Pantawid</i>	16.377	16.011	19.066
		bandwidth	347	455	3,008
	OTC	impact	-13.253 ***	-11.641 ***	0.941
		se	2.799	2.659	2.136
		robust p-value	0.000	0.000	0.527
		conventional p-value	0.000	0.000	0.660
		number of obs.	160	193	550
		<i>Pantawid</i>	6.912	8.226	16.844
		<i>non-Pantawid</i>	20.165	19.867	17.784
		bandwidth	235	307	3,008
Total usual work hours per week		z-value	2.073 **	0.098	0.911
		difference (impact)	5.408	5.407	3.885
	Cash card	impact	7.860 ***	6.934 ***	1.857 ***
		se	1.722	1.560	0.808
		robust p-value	0.000	0.000	0.003
		conventional p-value	0.000	0.000	0.022
		number of obs.	2,765	3,431	8,033
		<i>Pantawid</i>	46.749	46.078	1.859
		<i>non-Pantawid</i>	38.889	39.144	43.040
		bandwidth	232	308	3,008
	OTC	impact	2.453	2.305	-1.015
		se	1.959	1.677	0.900
		robust p-value	0.164	0.103	0.256
		conventional p-value	0.211	0.169	0.259
		number of obs.	2,421	3,092	7,861
		<i>Pantawid</i>	41.976	41.921	41.137
		<i>non-Pantawid</i>	39.523	39.615	40.124
		bandwidth	228	305	3,008
Looking for additional work if employed		z-value	-1.972 **	-0.409	-0.546
		difference (impact)	-5.800	-5.800	-4.140
	Cash card	impact	-3.200 *	-3.110 **	0.930
		se	1.820	1.620	0.970
		robust p-value	0.067	0.040	0.377
		conventional p-value	0.079	0.054	0.340
		number of obs.	3,656	4,440	8,135
		<i>Pantawid</i>	7.276	7.196	0.926
		<i>non-Pantawid</i>	10.475	10.304	9.374

Outcomes			Bandwidth			
			CER Optimal	MSE Optimal	Sample	
	OTC	bandwidth	332	441	3,008	
		impact	2.600	1.940	-0.030	
		se	2.310	1.990	0.930	
		robust p-value	0.268	0.335	0.627	
		conventional p-value	0.261	0.331	0.971	
		number of obs.	3,301	4,104	7,950	
		<i>Pantawid</i>	12.140	11.209	-0.034	
		<i>non-Pantawid</i>	9.540	9.271	8.464	
		bandwidth	330	442	3,008	
	Unemployed and looking for work		z-value	0.440	0.168	0.059
difference (impact)			9.580	9.579	3.680	
Cash card			impact	-0.690	-3.560	3.550
			se	13.950	12.530	6.280
			robust p-value	0.977	0.910	0.977
			conventional p-value	0.960	0.776	0.572
			number of obs.	338	406	721
			<i>Pantawid</i>	37.823	34.390	3.586
		<i>non-Pantawid</i>	38.517	37.949	35.046	
OTC		bandwidth	333	438	3,008	
		impact	-10.270	-15.410	-0.800	
		se	16.740	14.680	7.110	
		robust p-value	0.462	0.230	0.744	
		conventional p-value	0.539	0.294	0.911	
		number of obs.	270	333	675	
		<i>Pantawid</i>	31.901	26.317	-0.779	
		<i>non-Pantawid</i>	42.174	41.724	30.530	
		bandwidth	296	388	3,008	

*** p<0.01, ** p<0.05, * p<0.10

Notes: Std. error presented is based on the conventional RD estimation while the p-value is from the robust version that corrects for bias
The conditional probability exceeds 100 due to the use of a linear probability model in the estimation