

Keeping children healthy and in school

Evaluating the *Pantawid Pamilya* Using Regression Discontinuity Design
Second Wave Impact Evaluation Results

20 November 2014

Table of Contents

Executive Summary 1

I. Background 4

II. Analytical framework 7

III. Methodology 9

Impact Evaluation Using Regression Discontinuity Design (RDD) 9

Sampling and Survey Instruments 11

IV. Results and Discussion 12

Pantawid Pamilya encourages trial use of modern family planning method 13

Pantawid Pamilya improves mothers' access to maternal care 14

Pantawid Pamilya improves children's health and access to health care services 16

Pantawid Pamilya keeps older children in school and reduces the number of days they have to work 20

Pantawid Pamilya increases households' investments in education 22

Pantawid Pamilya does not encourage dependency 24

Pantawid Pamilya allows parents to aspire for a better future for their children 26

V. Moving Forward: Summary, Policy Implications, and Recommendations 27

VI. References 30

VII. Annexes 32

Annex 1: Sample Areas 46

Annex 2: Description of Regression Discontinuity Design (RDD) 33

Annex 3: Validation tests 35

Annex 4: Statistical Tables – Sharp Regression Discontinuity 46

Annex 5: Statistical Tables – Fuzzy Regression Discontinuity 68

Annex 6: Statistical Tables – Sharp Regression Discontinuity with Sex Interaction Term 83

List of Figures

Figure 1. Program logic of Pantawid Pamilya…….. 7
Figure 2a. Regression discontinuity design, before program participation…….. 33
Figure 2b. Regression discontinuity design, after program participation……..... 33
Figure 3. Distribution of assignment variable……... 36
Figure 4. Test for discontinuity at the cutoff (household ownership of refrigerator)….. 37
Figure 5. Household's length of stay in the village, test for discontinuity at the cutoff... 42

List of Tables

Table 1. Distribution of sample according to beneficiary status…….. 12
Table 2. Reproductive health……..... 13
Table 3. Access to Antenatal care (ANC)…….... 14
Table 4. Delivery in health facilities……..... 15
Table 5. Postnatal care (PNC)…….. 15
Table 6. Health services and healthy practices (0-6 years old)……..... 16
Table 7. Health outcomes and utilization of health services (0-6 years old)…… 17
Table 8. Nutrition Outcomes (0-6 years old)……..... 18
Table 9. Child health (6-14 years old)…….. 19
Table 10. Education (3-20 years old)…… 20
Table 11. Child labor (10-14 years old)…… 22
Table 12. Aggregate expenditures……. 23
Table 13. Expenditure on non-food items……..... 24
Table 14. Adult Employment…… 25

Table 15. Adult-specific goods……. 26
Table 16. Parents' future expectations…….. 26
Table 17. Self-assessed welfare……. 27
Table 18. RD Sample Areas by Municipality…… 46
Table 19. Validation Tests Using Sharp Regression Discontinuity on Baseline Covariates…… 37
..
Table 20. Validation Tests Using Sharp Regression Discontinuity on Placebo Outcomes…… 42
…
Table 21. Validation Tests Using Sharp Regression Discontinuity on Baseline Outcomes…… 44
…
Table 22. Program Impacts on Reproductive Health Indicators Using Sharp Regression Discontinuity…… 47
…..
Table 23. Program Impacts on Antenatal, Delivery, and Postnatal Care Using Sharp Regression Discontinuity……... 48
Table 24. Program Impacts on Health Services and Healthy Practices (0-6 years old) Using Sharp Regression Discontinuity…….. 50
Table 25. Program Impacts on Health Outcomes and Utilization of Health Services (0-6 years old) Using Sharp Regression Discontinuity…….. 52
Table 26. Program Impacts on Nutrition Outcomes (0-6 years old) Using Sharp Regression Discontinuity……... 54
Table 27. Program Impacts on Child Health (6-14 years old) Using Sharp Regression Discontinuity…… 55
…..
Table 28. Program Impacts on Education (3-5 years old) Using Sharp Regression Discontinuity…… 56
…..
Table 29. Program Impacts on Education (6-20 years old) Using Sharp Regression Discontinuity…… 57
…..
Table 30. Program Impacts on Child Labor (10-14 years old) Using Sharp Regression Discontinuity…… 61
…..

Table 31. Program Impacts on Household Welfare Using Sharp Regression Discontinuity…… 62
…..
Table 32. Program Impacts on Adult Employment Using Sharp Regression Discontinuity…… 65
….
Table 33. Program Impacts on Parent's Future Expectations Using Sharp Regression Discontinuity…… 67
….
Table 34. Program Impacts on Reproductive Health Using Fuzzy Regression Discontinuity…… 68
….
Table 35. Program Impacts on Antenatal, Delivery, and Postnatal Care Using Fuzzy Regression 69
Discontinuity……...
Table 36. Program Impacts on Health Services and Healthy Practices (0-6 years old) Using Fuzzy Regression 71
Discontinuity……..
Table 37. Program Impacts on Health Outcomes and Utilization of Health Services (0-6 years old) Using Fuzzy Regression 72
Discontinuity…….
Table 38. Program Impacts on Nutrition Outcomes (0-6 years old) Using Fuzzy Regression 73
Discontinuity……...
Table 39. Program Impacts on Child Health (6-14 years old) Using Fuzzy Regression Discontinuity…… 74
…..
Table 40. Program Impacts on Education (3-5 years old) Using Fuzzy Regression Discontinuity…… 75
…..
Table 41. Program Impacts on Education (6-20 years old) Using Fuzzy Regression Discontinuity…… 76
….
Table 42. Program Impacts on Child Labor (10-14 years old) Using Fuzzy Regression 78
Discontinuity……
…..
Table 43. Program Impacts on Household Welfare Using Fuzzy Regression Discontinuity…… 79
…..
Table 44. Program Impacts on Adult Employment Using Fuzzy Regression Discontinuity…… 81
…..
Table 45. Program Impacts on Parent's Future Expectations Using Fuzzy Regression Discontinuity…… 82
…..

Table 46. Program Impacts on Health Services and Healthy Practices (0-6 years old) Using Sharp Regression Discontinuity with Sex Interaction Term……... 83
Table 47. Program Impacts on Health Outcomes and Utilization of Health Services (0-6 years old) Using Sharp Regression Discontinuity with Sex Interaction Term……... 85
Table 48. Program Impacts on Nutrition Outcomes (0-6 years old) Using Sharp Regression Discontinuity with Sex Interaction Term…… 87
Table 49. Program Impacts on Child Health (6-14 years old) Using Sharp Regression Discontinuity with Sex Interaction Term……... 88
Table 50. Program Impacts on Education (3-5 years old) Using Sharp Regression Discontinuity with Sex Interaction Term……... 89
Table 51. Program Impacts on Education (6-20 years old) Using Sharp Regression Discontinuity with Sex Interaction Term…….. 90
Table 52. Program Impacts on Child Labor (10-14 years old) Using Sharp Regression Discontinuity with Sex Interaction Term……... 94
Table 53. Program Impacts on Adult Employment Using Sharp Regression Discontinuity with Sex Interaction Term……... 95
Table 54. Program Impacts on Parent's Future Expectations Using Sharp Regression Discontinuity with Sex Interaction Term……... 97

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Executive Summary

1. *Pantawid Pamilya* is a core pillar of the government's social protection strategy. The program seeks to break the intergenerational cycle of poverty through improved health, nutrition, and education of children. It is an investment in human capital that ensures that children belonging to poor households, particularly those aged 0-14 years old, grow up healthy and stay in school.

2. The program provides cash incentives to households on the condition that they invest in the health and education of their children, as well as avail of maternal health services. Household beneficiaries, with up to three eligible children, are provided cash grants of up to PhP15,000 per year if they fulfill the program conditionalities. Results of this evaluation show that, in the year prior to the survey, beneficiary households received an average of P9,409, which constitutes 7% of the total household spending.

3. The first round of impact evaluation of the *Pantawid Pamilya* program was conducted using a randomized control trial design. Eligible households in the control villages were incorporated into the program 18 months after the households in treatment villages received the cash transfers. Because of this and the continuous expansion of the program as designed, it was not feasible to maintain a randomly assigned counterfactual group. Thus, the second wave of evaluation used regression discontinuity design (RDD) as an alternative approach. RDD compares observations (e.g., households) that are very close to a pre-identified cutoff (e.g., the poverty threshold). Households just below (poor and eligible) and just above (near-poor and not eligible) the poverty threshold should have similar characteristics.

4. This evaluation is based on a sample that is national in scope and covers Set 1 to Set 4 program areas, which were introduced into the program between 2008 and 2011. The beneficiary households in the sample areas have been exposed to the program for two to four years at the time of data collection from October to December 2013. The sample includes 5,041 households from 30 municipalities in 26 provinces.

5. The findings indicate that the *Pantawid Pamilya* program, which extends aid from womb to school, is on track in keeping children healthy and in school. Some of the key findings of the study include:

    - ***Pantawid Pamilya*** **encourages trial use of modern family planning methods.** Results of the study show that the program encourages women to try modern family planning methods at least once. However, there is no evidence of sustained use of these methods. The households' attitudes and practices toward reproductive health may have been influenced by the Family Development Sessions (FDS) that were attended by *Pantawid* grantees.

    - ***Pantawid Pamilya*** **promotes facility-based deliveries and access to professional postnatal care.** A key finding in the study indicates that more *Pantawid* mothers

delivered in health facilities. At the threshold, there were 7 in 10 live births among *Pantawid* mothers in the past five years, compared to 5.5 in 10 births among non-beneficiary mothers and to the national average of 6 in 10 births. There is also increased access to postnatal care in health facilities and postnatal care services by a skilled health professional.

- ***Pantawid Pamilya* improves children's access to some key health care services.** Study results reveal that significantly more *Pantawid* children, compared to the non-*Pantawid*, have access to basic health services that are vital to improving children's health outcomes. Findings show that almost 9 in 10 *Pantawid* children received Vitamin A supplementation, and over 3 in 10 received iron supplementation. In addition, nearly 8 in 10 received deworming pills at least once a year. About 1 in 5 children under 2 years and nearly 1 in 2 children aged 2-5 years had regular weight monitoring in health centers. However, results suggest that there is no significant difference between *Pantawid* and non-beneficiary children, below six years old, who suffer from wasting, underweight, and stunting.

- **Among *Pantawid* beneficiaries, about 9 in 10 households are covered by the PhilHealth health insurance program.** However, results do not indicate increased utilization of PhilHealth benefits during the last visit to the hospital by *Pantawid* children and non-beneficiaries. This may be due to the members' lack of information or knowledge on their PhilHealth benefits, as well as the lack of PhilHealth-accredited facilities in their areas of residence.

- ***Pantawid Pamilya* keeps older children in school.** Gross enrollment rate for high school children (12-15 years old) is higher for *Pantawid* children living near the poverty threshold. Keeping the high school-aged cohort in school is particularly important because this is when children are more likely to drop out of school in order to work.

- ***Pantawid* children (10-14 years old) work seven days less in a month compared to non-*Pantawid* children.** However, findings indicate that about 1 in 8 children are engaged in child labor for both *Pantawid* and non-*Pantawid* households. While the program cash grants are not enough to completely keep children from working, it has made beneficiary children spend less time working compared to their non-beneficiary counterparts, presumably due to increased time spent on schooling.

- ***Pantawid Pamilya* increases households' investments in education.** Results show that *Pantawid* households spent PhP206 more per school-aged child per year at the threshold compared to non-beneficiary households. Expenditures on exam fees are lower while expenditures for uniform or clothing are higher for *Pantawid* children. However, there is no evidence of disparity in total per capita expenditure between *Pantawid* and non-*Pantawid* households at the cutoff.

- ***Pantawid Pamilya* does not encourage dependency or spending more on vice goods.** Findings reveal that adults in beneficiary households work as much as their

non-beneficiary counterparts. Working-age *Pantawid* household members who are already employed, continue to look for additional work invalidating claims that they are reliant on the cash grants. Also, *Pantawid* households do not spend more on vice goods such as gambling, tobacco and alcohol.

- ***Pantawid Pamilya*** **allows parents to aspire for a better future of their children.** The program seems to have improved parents' perception of their situation and of their children's future. *Pantawid* parents have higher hopes of their children finishing college compared to non-*Pantawid* parents. Moreover, more *Pantawid* parents expect their children to have a better life compared to theirs. These results indicate that *Pantawid* parents understand that the program will benefit their family's future welfare. This healthier outlook of the future may also prompt beneficiaries to make the necessary behavioral changes to achieve their aspirations.

6. Although results suggest that the program continues have positive impacts on some of the outcomes, the program still faces some challenges that it needs to address. It has to ensure that children receive full immunization following the DOH-prescribed schedule of vaccinations, improve deworming outreach to comply with the prescribed two pills per year, achieve the prescribed number of antenatal check-ups for mothers, and encourage wider use of PhilHealth that is commensurate to coverage. These challenges may be attributed to the lack of adequate services to meet the rapid expansion of the program to serve more poor households, and/or due the beneficiaries' lack of appreciation of the importance of specific interventions.

Keeping children healthy and in school

Evaluating the *Pantawid Pamilya* Using Regression Discontinuity Design
Second Wave Impact Evaluation Results

I. Background

1. The *Pantawid Pamilyang Pilipino Program* (*Pantawid Pamilya*) has become a core pillar of the government's social protection strategy since its launch in 2008. *Pantawid Pamilya* is a conditional cash transfer (CCT) program that seeks to break intergenerational poverty by providing cash incentives to households to invest in the health and education of their children. The program extends aid from womb to school to improve the health, nutrition, and education of children. It is an integral part of the country's commitment to the Millennium Development Goals to eradicate extreme poverty and hunger, achieve universal primary education, reduce child mortality, improve maternal health, and promote gender equality.

2. CCT programs have been rigorously evaluated worldwide and have been found to influence household decisions on child schooling and health service utilization. The review of evidence from rigorous evaluations of the different CCT programs across the globe by Fiszbein, et al. (2009) showed that CCT programs have had positive effects on household consumption and on alleviating poverty. Such programs have been found to lead to substantial increases in the school enrollment rates. They have also resulted in wider use of preventive health care services, although its impact is not as clear cut as that of school enrollment. These impacts are found to be concentrated among those who are unlikely to use the services without the intervention leading to reductions in pre-existing disparities. More recent studies continue to generate similar results, with some even demonstrating longer-term impacts. For instance, Gertler, et al. (2012), found that cash transfers can achieve long-term increases in consumption through investments in productive activities that allow beneficiaries to attain and sustain higher living standards even after completing the program. These results were deemed instrumental in sustaining the program in countries where it is currently implemented, as well as in its adoption by other countries. However, various studies show mixed results on CCT's impact on final outcomes such as learning outcomes or child health and nutrition status.

3. *Pantawid Pamilya* is relatively new compared to the CCT programs in Latin America, particularly in Brazil and Mexico, which were implemented in 1997. Nevertheless, the results of different evaluation studies of the *Pantawid Pamilya* have indicated favorable program impacts. The Department of Social Welfare and Development (DSWD), in collaboration with the World Bank, the Asian Development Bank, and the the Australian Government Department of Foreign Affairs and Trade (DFAT), is carrying out three rounds of rigorous impact evaluations of the program. The first round impact evaluation, carried out in 2011 (DSWD and World Bank, 2014), found that the program is meeting its objective of helping to keep children in school—helping increase attendance among the 6-11 year old children—and helping keep poor children healthy.

4. In a survey of households conducted by Reyes, et al. (2013), they found that the program increased school participation of children aged 6–14 years old by 3.5 percentage points. Detailed enrollment profile analysis using Annual Poverty Indicator Survey (APIS) data reported in Paqueo, et al. (2013) suggested that the impact on enrollment was particularly high at both ends of the 3-14 age range, increasing preschool enrollment while decreasing the dropout rate after age 11. Based on the first wave impact evaluation data, Orbeta, Paqueo, and Spohr (2013), invalidated the common perception that the program discourages labor among recipient households. On the contrary, the authors argued that adult members of beneficiary households desire more work. The program, however, has yet to show impact on total per capita spending, although there is evidence on specific food groups among the poorer households. For instance, Tutor (2014) found no difference in total per capita spending. However, spending for carbohydrate-rich foods was found to be higher for beneficiaries particularly for those at the bottom quintile of the income distribution.

5. The beneficiaries of the *Pantawid Pamilya* are selected from *Listahanan*-assessed households.[1] Eligible beneficiaries in the target areas include poor households that have a pregnant member or have at least one child aged 0-14 years old at the time of selection.[2] A household is considered poor if its estimated income is below the official poverty threshold. Household incomes were predicted from a proxy means test (PMT) model using alternate indicators that are strong correlates of poverty.[3]

6. Under the program, the government provides household beneficiaries with cash grants of up to PhP15,000 per year upon compliance with health and education conditionalities. Each household receives a health grant of PhP500 per month, and an education grant of PhP300 per child, for 10 months a year, for up to three children. Beneficiaries receive the cash transfers if they comply with the following conditions set by the program:[4]

    i. Pregnant women must visit their health center monthly to avail of antenatal and postnatal care, and must deliver in a health facility attended by a trained health professional;
    ii. Parents must attend family development sessions monthly;
    iii. Children 0-5 years old must visit their health center monthly to avail of health services as prescribed by the DOH protocol. Health services include, but are not limited to, regular preventive health check-ups, growth monitoring and vaccines;
    iv. Children 6-14 years old must receive deworming pills twice a year in their respective schools;

[1] *Listahanan* is formerly the National Household Targeting System for Poverty Reduction (NHTS-PR).
[2] Recently, the age limit has been extended to18 years old.
[3] See Fernandez (2012) for a discussion of the design and implementation of the targeting system.
[4] This evaluation does not include 2014, when the program extended its coverage of children from 0-14 years old to 0-18 years old, to support children-beneficiaries through high school. The monthly education grant per child is still PhP300 for elementary but PhP500 for high school. Thus, subject to compliance of the conditionalities, the maximum annual health and education grant for a household with three beneficiary children in high school amounts to Php21,000.

v. Children 3-14 years old must be enrolled in school and must attend classes at least 85% of the time.

7. *Pantawid Pamilya* has expanded significantly since it started in 2008. The program initially covered 160 cities and municipalities in 28 provinces in all 17 regions of the country. By 2013, the program covered 1,627 cities and municipalities in 79 provinces in all 17 regions, involving 3.9 million registered households. As of November 2014, the program has reached 4.4 million registered households.

8. Given the program's coverage and budget (PhP44 billion in 2013), there is broad interest in its effectiveness in achieving its goals. Program implementers have integrated a comprehensive three-round evaluation design to measure program outcomes. The first round of impact evaluation, released in 2012, primarily utilized a randomized design. However, the continuous expansion of the program makes randomized design difficult to implement. This second wave of evaluation employs regression discontinuity design (RDD) alongside cohort analysis of the original randomized control trial (RCT) sample households from the first wave evaluation.

9. This report presents the results of the RDD analysis. It focuses on the immediate and medium-term outcomes of the program and determines whether program beneficiaries are better-off compared to non-beneficiaries in terms of:

   i. Mothers' access to maternal care;
   ii. Children's health and access to basic health services;
   iii. Children's enrollment, participation, and dropout rates;
   iv. Incidence of child labor and children's time spent for work;
   v. Household spending;
   vi. Employment of adults; and
   vii. Parents' outlook on their children's future.

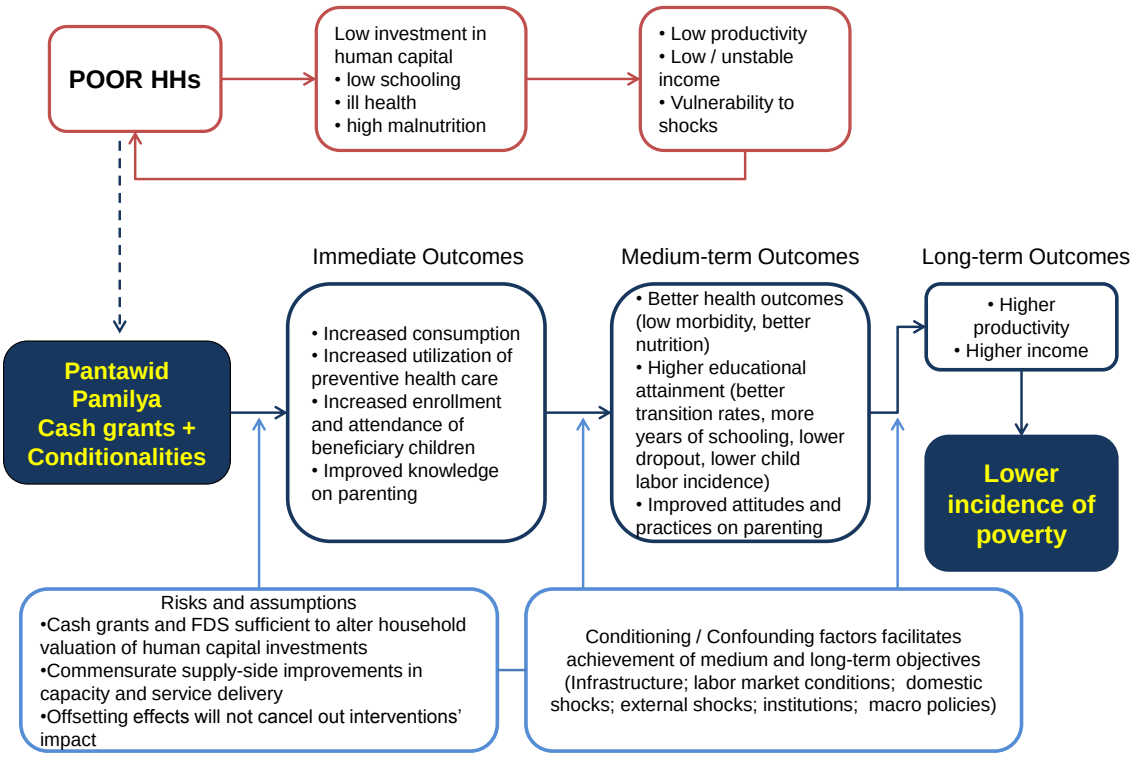
10. Section II presents the analytical framework that serves as a guide in the analysis. A discussion of the methodology used in this study can be found in Section III and detailed in Annex 1. The results of study are highlighted in Section IV, while policy implications and recommendations are discussed in Section V.

II. Analytical framework

11. A brief description of the program logic is presented to provide a perspective of what the program intends to achieve. While the framework covers the full range of intermediate, medium-term, and long-term outcomes, only outputs, compliance with conditionalities, and intermediate outcomes are expected to be realized at this stage of the program's implementation.

12. *Pantawid Pamilya* is both a mechanism for inclusive social protection and a strategy for breaking the intergenerational cycle of poverty—the twin goals of social assistance and social development. Figure 1 shows the program logic of *Pantawid Pamilya*. It illustrates a simplified model of the poverty cycle faced by target beneficiaries (red boxes). Poverty, market failures, and risks affect the valuation of investing in human capital development. This leads to low educational attainment and poor health, which hamper productivity and limit access to economic opportunities. The program recognizes that poor households are vulnerable to income and productivity shocks, and the coping mechanisms available to them are often poverty-inducing (e.g., selling productive assets or taking on high-interest debts).

Figure 1. Program logic of *Pantawid Pamilya*



Source: Authors.

13. Arresting future poverty gives poor households a chance to break away from the cycle. *Pantawid Pamilya* offers an alternative path through two key components: (i)

the provision of cash grants and the conditionalities on pre-determined investments in education and (ii) health to which the grants are binding. Cash grants help lessen the adverse consequences of shocks, allowing households to smooth consumption. On the other hand, the conditionalities provide the means to develop human capital over time, which will improve the household's opportunity to participate in high-productivity and high-value economic activities.

14. A short-term direct impact of the program is expected to increase consumption, encourage use of preventive health care, and increase school enrollment and attendance of beneficiary children. *Pantawid Pamilya* considers the monthly instructional meetings at the Family Development Sessions (FDS) a core intervention of the program. It believes that the conditionalities need to be coupled with transforming households' beliefs, perceptions, attitudes, and practices about human capital investments, as well as responsible parenting, for the welfare of children.

15. The translation of program outputs to immediate outcomes relies on key assumptions (light blue box)—the size of the cash grant and the adequacy of FDS sessions to alter households' valuation of investments in human capital. The size of the cash grants needs to be sufficient enough to cover the direct and indirect costs of program participation in order to induce changes in behavior. In addition, supply-side providers (mostly public institutions) should be able to effectively deliver quality services to the increased demand for education and health care brought about by the program.

16. The lack of adequate services could diminish the expected impact of the program's interventions. For instance, additional student enrollment in public schools could negatively affect teaching quality if schools are unable to correspondingly adjust their resources (e.g., teachers, classrooms, chairs, or books). The same could be true for public health centers if health providers are ill-equipped and unable to meet increased demand. Moreover, if the grants can only cover expenses to send children to school and to visit health centers, then households would not have enough funds to spend on other goods, such as purchasing healthier and nutritious food items. Consumption may not also increase if cash grants are used to pay the debts acquired prior to program participation.

17. The program's medium-term outcomes are expected to include better health, higher educational attainment, and improved attitudes and practices on parenting. Its target outcomes for education include higher transition rates from primary to secondary, longer years of schooling, lower dropout rates, and lesser incidence of child labor. Over time, beneficiary households are expected to have accumulated sufficient human capital that will enable them to participate actively in and gain higher returns from the labor market. Through higher productivity and higher income potential, the program is banking on in lowering the incidence of future poverty among program beneficiaries.

18. The achievement of program outcomes is dependent on the conditioning and confounding factors that influence and shape the overall environment where the program interventions operate. These factors define the overall potential that can allow beneficiary households to achieve higher incomes and better welfare. Developments on any or a combination of these factors may reinforce or negate the program outcomes and the households' responses, which affect the trajectory of their welfare over time. For instance, improvements in infrastructure and institutions can enhance the impact of the program's interventions and may allow households to benefit from positive spillover effects. On the other hand, adverse shocks, such as, climate-related disasters, constrain household's ability to sustain positive behavioral changes.

III. Methodology

Impact Evaluation Using Regression Discontinuity Design (RDD)

19. The impact of a program for a given household is ideally measured by comparing the outcomes (e.g., school enrollment, nutrition, or consumption) after the household receives program benefits, with the outcomes had that same household not been a program beneficiary (referred to as the counterfactual). This comparison yields the impact of receiving the program, netting out the effects of other factors that may influence the outcome of interest. In reality, however, the same household cannot be both a program participant and non-participant simultaneously. This is the fundamental problem in evaluating program impact and the challenge is to find the best available counterfactual information.

20. In randomized control trials (RCT), participation status is randomly assigned. Because the randomization process effectively divides the group into treated and control groups that are similar in characteristics, the control group is a valid counterfactual of the beneficiary or the treated group. Households in the control group, although eligible to receive program benefits, do not receive these benefits during the evaluation period to have a reliable estimate of the impact. However, ethical and political issues arising from withholding benefits in social protection programs to eligible groups have been a major criticism of RCT designs (Blomquist, 2013).

21. The first wave of impact evaluation of the *Pantawid Pamilya* program used a randomized design by delaying the participation of the control group by 18 months.[5] The continuous expansion of the program, which already covered more than 90% of target beneficiaries, makes it difficult to generate a representative number of households that can be randomly assigned into participant and non-participant groups. The second wave of evaluation uses the alternative approach involving regression discontinuity design (RDD), which was earlier introduced by Thistlethwaite and

[5] The results of the first wave impact evaluation are reported in DSWD and World Bank (2014).

Campbell (1960) in their study estimating the impact of merit awards on academic outcomes.

22. In recent years, there has been a growing use of RDD in evaluating the impacts of development programs.[6] RDD is a quasi-experimental method of evaluating program impact that is applicable when observation units (e.g., households) can be sorted using some continuous metric (e.g., income). Program eligibility is defined using a pre-determined threshold or cutoff point of the sorting metric, for which the population has no direct control. This sorting metric is often referred to as the assignment, running, or forcing variable. In RDD, observations just below the cutoff are similar to, and therefore, compare well to those just above the cutoff. In the absence of the program, one would expect that any shifts in outcome variables would happen smoothly alongside minor changes in the running variable. Thus, a large jump in the outcome variable, observed precisely at the threshold value of the running variable, after program intervention can be attributed to the program itself.

23. One of the strengths and advantages of RDD includes the weaker assumptions required for its validity compared to other non-experimental impact evaluation methods.[7] The main caveat is that because program impact is estimated locally, or using observations very close to the cutoff, the generalizability of RDD estimated effect is limited.[8] While the evaluation results using RDD has strong internal validity properties considered by many as next only to RCT, it needs to be recognized that its external validity is limited to observation units near the eligibility threshold. Indications of the impact away from the threshold may be obtained from complementary analysis using other national household surveys that tags *Pantawid Pamilya* beneficiaries and have information on important program outcomes such those done in Reyes et al. (2013) and Tutor (2014). These methods, of course, require more assumptions than the RDD.[9]

24. In *Pantawid Pamilya*, households were ordered according to their predicted incomes using proxy means test (PMT) prior to program participation;[10] program eligibility was determined using official provincial poverty thresholds. Households below the poverty threshold with children aged 0-14 years old or pregnant household members are eligible to become program beneficiaries.

25. In the base analysis using sharp RDD, eligible households, i.e. with income below the poverty threshold at the time of targeting, are considered as treatment (received *Pantawid* benefits) regardless of their self-reported beneficiary status. On the other

[6] Lee and Lemieux (2010), Imbens and Lemieux (2007), and Cook (2008) provide a review of regression discontinuity design and its applications in the social sciences.
[7] Hahn, Todd, and van der Klaauw (2001) showed that RDD require milder assumptions relative to those needed for other non-experimental methods.
[8] Bloom (2012) summarized three existing views on the generalizability of the RDD estimate: a strict-constructionist view, a more expansive view, and an "old-school" view (extrapolation beyond the cutoff).
[9] An expanded discussion of the methodology using RDD is discussed in Annex 1 and validity tests are presented in Annex 2.
[10] See Fernandez (2012) for a discussion of the estimation of PMT scores used.

hand, those who are not eligible but with children aged 0-14 years old or pregnant household members at the time of targeting are considered control. Thus, the base estimates are considered *intent-to-treat* (ITT) effects. Moreover, survey and administrative data are available to identify who among the eligible or ineligible households received *Pantawid* benefits and those who did not receive benefits. This information is used to estimate *treatment-of-the-treated* (TOT) effects using fuzzy RDD, i.e. using instrumental variable estimation, with the treatment assignment as the instrument of the actual receipt of *Pantawid* benefits. This report presents the *intent to treat effect*. The results of the fuzzy RDD are provided in Annex 5.

Sampling and Survey Instruments

26. In the sampling for this round of evaluation, the target population included households who have been in the program for at least two years at the time of the survey. This criterion constrained the scope of the sample to Set 1 to Set 4 program areas, which are areas introduced into the program from 2008 to 2012. Thus, the beneficiary households in the sample areas have been exposed to the program by 2-4 years at the time of data collection in October to December 2013.

27. From a universe of 1,112 municipalities and cities in Sets 1 to 4 program areas, 30 were drawn randomly—10 from each major island group. From each municipality, 5-7 villages were randomly drawn based on the population of program beneficiaries. A total of 175 villages in 30 municipalities and 26 provinces were included in the final sample.[11,12]

28. The sorting metric is the predicted household income from a PMT model estimated using pre-intervention data. In accordance with program eligibility rules, the households in the sample were drawn from the *Listahanan* of all households with children aged 0-14 years old or with pregnant mothers, prior to the start of the program or during the targeting. Power calculations in Grover (2013) suggest that 5,040 households in at least 160 clusters or villages would allow detecting a minimum effect size of 0.1 with 80% power. The total sample was allocated as follows: 30 households were drawn from each village*;* 18 households *within* and 12 households *outside* the PhP6,250 sampling bandwidth. A total of 5,041 households were included in the study, with 3,108 households drawn *within* and 1,933 households drawn *outside* the PhP6,250 sampling bandwidth.

29. Table 1 shows the distribution of households in the sample according to self-reported beneficiary status. Nearly 9% of the sample is "crossovers"—308 households considered poor in the *Listahanan* did not report themselves as program beneficiaries, while 144 of the non-poor sample households identified themselves as program

[11] See Grover (2013) for a discussion of the sampling design and the sampling bandwidth selection for this impact evaluation.
[12] The distribution of sample households by province and municipality is presented in Table 18 in Annex 3.

beneficiaries. Ideally, eligible poor households should have been program beneficiaries while non-poor households are not.

Table 1. Distribution of sample according to beneficiary status

	Beneficiaries	Non-beneficiaries
Poor	2,351	308
Non-poor	144	2,238

30. There are six instruments used in this study—Modules A, B, C, D, H, and CA. Module A is the main household questionnaire that covers information on various socio-economic characteristics and program participation. Module B deals with information on reproductive history and contraception, and is answered by 15-49 year old women household members who have had a partner. Module C is dedicated to school-aged household members (6-20 years old) and gathers data on school participation and child labor. Module D involves information on health and nutrition, as well as anthropometric measurements of 0-5 year old children. Module CA is a cognitive assessment test administered to respondents of Modules B and C. Meanwhile, information from local officials is derived through Module H. Data on barangay characteristics and other supply-side indicators are also included in this module.

IV. Results and Discussion

31. The discussion of the estimation results follows the biological development of a child from womb to school. This provides a natural path for tracing the impact of the program interventions. The last three columns in the tables below present the estimated impacts using three different bandwidths—CCT, IK, and the sampling bandwidth.[13] The analysis, however, primarily draws upon the results derived using the CCT bandwidth. The CCT bandwidth is generally the narrowest and is therefore most likely to minimize the unobserved differences between *Pantawid* and non-*Pantawid* households, following the RD logic. Estimates generated using other bandwidths are reported mainly to demonstrate robustness.[14] The estimates for continuous outcomes (e.g., expenditure items) are derived using ordinary least squares, binary outcomes (e.g., enrollment status) are derived using a probit model, while that for count data a poisson model is used.

32. In the tables below, *impact* refers to the estimated program impact at the threshold; *se* is the standard error of the estimated impact; non-*Pantawid* is the value of the outcome variable for non-treated observations (comparison group) above the poverty

[13] This study uses data-determined optimal bandwidths as proposed in Imbens and Kalyanaraman (2012), and Calonico, Cattaneo, and Titiunik (2014a)—IK and CCT bandwidths (using uniform kernel) and the sampling bandwidth as estimated in Grover (2013). Please refer to Annex I for details.

[14] Results using *fuzzy* RD are similarly presented in Appendix Tables 34-45 for robustness check. In addition, heterogeneity of impact on subpopulation of interest—males or females—are presented in Appendix Tables 46-54. Results for heterogeneity impacts on location (urban versus rural) and length of program exposure (Sets 1 and 2 areas versus Sets 3 and 4 areas) are available upon request.

line at the threshold mimicking the state of the *Pantawid* households without intervention; and *"number of obs"* is the number of observations used in the estimation within the specified bandwidth. Thus, *impact* is the difference between value of the *Pantawid* (not shown; see Annex 4) and non-*Pantawid* values at the threshold.[15]

***Pantawid Pamilya* encourages trial use of modern family planning method**

33. The program appears to encourage women to try modern family planning method at least once. While the impact is not statistically significant for the preferred CCT bandwidth, it is for both the IK and sampling bandwidths (Table 2). The larger sample sizes of the latter two bandwidths increased the precision of the estimates. Findings show that among 15-49 year old women who gave birth in the last five years, 74% of those from *Pantawid* households indicated using any modern family planning method compared to 68% of their counterparts. The higher incidence of trial use, however, is not translating into sustained use of modern family planning methods.

Table 2. Reproductive health

Outcomes		Bandwidths		
		CCT	IK	Sampling
Awareness of any modern RH method	impact	0.01	0.00	0.01
	se	0.01	0.01	0.01
	non-*Pantawid*	0.99	0.99	0.99
	number of obs	1,451	1,727	2,511
Ever use of any modern RH method	impact	0.06	0.07*	0.09**
	se	0.05	0.04	0.03
	non-*Pantawid*	0.68	0.66	0.67
	number of obs	1,479	1,841	2,490
Contraceptive prevalence rate	impact	0.04	0.04	0.06
	se	0.05	0.05	0.04
	non-*Pantawid*	0.37	0.39	0.39
	number of obs	1,546	1,523	2,289

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

34. *Pantawid* grantees attend Family Development Sessions (FDS) as compliance to program conditionality. FDS, which include lectures on family planning, may have influenced parents' knowledge on the benefits of modern family planning that could lead to changes in attitudes and practices toward reproductive health.[16] Frequent

[15] For outcome variables estimated in natural logarithm (e.g., expenditures), the reported *impact* is the inverse of the logarithm.

[16] A more thorough and rigorous evaluation of the FDS is necessary to confirm this hypothesis. The current study does not allow for a rigorous evaluation of the FDS.

health center visits by *Pantawid* mothers may also increase their access to information on modern family planning methods.

35. Findings of the study also reveal that almost all mothers (99%)—both *Pantawid* and non-*Pantawid*—are aware of at least one modern family planning method. On the other hand, contraceptive prevalence rate (CPR), which is defined among in-union women, is 43% and 39% for *Pantawid* and non-*Pantawid* mothers, respectively. The difference, however, is not statistically significant.

***Pantawid Pamilya* improves mothers' access to maternal care**

36. Table 3 shows that the incidence of at least one antenatal checkup (ANC) with live births in the past five years is high for both beneficiaries (98%) and non-beneficiaries (95%). The incidence of antenatal care by a skilled health professional is also high for *Pantawid* mothers (93%). The high ANC coverage at the cutoff for both beneficiary and non-beneficiary households makes it difficult to detect program impact. The challenge is for *Pantawid* mothers to have at least four antenatal check-ups as required by the Department of Health (DOH). Estimates show that 80% of *Pantawid* mothers had at least four antenatal check-ups. Although close to the national average of 84% (NDHS, 2013), this is still low per program standards as monthly check-ups for pregnant mothers is one of the conditionalities of the program.

Table 3. Access to Antenatal care (ANC)

Outcomes		Bandwidths		
		CCT	IK	Sampling
ANC (at least 1 check up)	impact	0.03	0.03	0.04
	se	0.02	0.03	0.04
	non-*Pantawid*	0.95	0.94	0.93
	number of obs	965	1,245	1,827
ANC (at least 4 check ups)	impact	0.06	0.03	0.03
	se	0.05	0.05	0.05
	non-*Pantawid*	0.74	0.73	0.74
	number of obs	1,118	1,577	1,827
ANC (check up by skilled health professional)	impact	0.05	0.05	0.05
	se	0.04	0.04	0.04
	non-*Pantawid*	0.88	0.88	0.88
	number of obs	1,220	1,281	1,839

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

37. A key impact of the program is that more *Pantawid* mothers delivered in health facilities. At the threshold, 7 in 10 live births in the past five years by *Pantawid* mothers were delivered in a health facility, compared to 5.5 in 10 births among non-beneficiary mothers (Table 4). The national average is 6 in 10 births (NDHS, 2013), indicating that the program has a positive impact on top of the improvements from

nationwide interventions by the DOH and related agencies. This outcome is important as institutional delivery is much more effective than skilled birth attendance at reducing maternal and infant mortality and morbidity (Tura, Fantahun, and Worku 2013).

Table 4. Delivery in health facilities

Outcomes		Bandwidths		
		CCT	IK	Sampling
Facility based delivery	impact	0.14**	0.14**	0.08
	se	0.06	0.06	0.05
	non-*Pantawid*	0.56	0.55	0.55
	number of obs	936	925	1,680
Delivery by a skilled-health professional	impact	0.10	0.06	0.07
	se	0.06	0.06	0.05
	non-*Pantawid*	0.67	0.69	0.66
	number of obs	949	1,014	1,680

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

38. The incidence of having postnatal check-up within 72 hours after birth is not statistically different between *Pantawid* and non-*Pantawid* mothers (Table 5). While there is no observed impact on incidence of postnatal check-ups, there is marked improvement on having these check-ups by a skilled health professional and in a health facility. Results of the study reveal that 80% of beneficiary mothers are checked by a skilled health professional after giving birth, compared to 59% of non-beneficiaries. More *Pantawid* mothers (72%) also had their postnatal check-up in health facilities, much higher than their non-beneficiary counterparts (55%).

Table 5. Postnatal care (PNC)

Outcomes		Bandwidths		
		CCT	IK	Sampling
PNC check-up within 72 hours	impact	0.06	0.05	0.03
	se	0.07	0.07	0.05
	non-*Pantawid*	0.37	0.37	0.35
	number of obs	1,029	1,019	1,831
PNC check-up by skilled health professional	impact	0.20***	0.16**	0.14***
	se	0.06	0.06	0.05
	non-*Pantawid*	0.59	0.62	0.58
	number of obs	805	897	1,681
PNC check-up at a facility	impact	0.17**	0.16**	0.15**
	se	0.06	0.06	0.05
	non-*Pantawid*	0.55	0.56	0.53
	number of obs	978	900	1,681

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

***Pantawid Pamilya* improves children's health and access to health care services**

39. More *Pantawid* children availed of basic health services, such as vitamin and mineral supplementation and immunization (Table 6). At the threshold, 86% of *Pantawid* children between the ages of six months and six years received Vitamin A supplementation compared to 74% of non-beneficiaries; 35% of beneficiaries received iron supplementation compared to 23% of non-beneficiaries. Vitamin A supplementation is important in boosting children's immunization against diseases such as diarrhea and measles. Iron supplementation meanwhile reduces the risk of anemia and impaired cognitive and psychomotor development (WHO, 2011).

Table 6. Health services and healthy practices (0-6 years old)

Outcomes		Bandwidths		
		CCT	IK	Sampling
Vitamin A (6 months to 6 years old)	impact	0.06	0.12**	0.09***
	se	0.06	0.05	0.04
	non-*Pantawid*	0.76	0.74	0.76
	number of obs	1,126	1,319	2,205
Iron (under 6 years old)	impact	0.12**	0.15**	0.16***
	se	0.06	0.06	0.04
	non-*Pantawid*	0.23	0.24	0.22
	number of obs	1,307	1,565	2,368
Full immunization[a] at age 1	impact	-0.08	-0.02	-0.04
	se	0.15	0.09	0.10
	non-*Pantawid*	0.39	0.36	0.36
	number of obs	161	509	351
Regular weight monitoring for 0 to 2 year olds	impact	0.06	0.06**	0.06**
	se	0.05	0.04	0.04
	non-*Pantawid*	0.11	0.12	0.11
	number of obs	527	862	708
Regular weight monitoring for 2 to 5 year olds	impact	0.24***	0.18**	0.25***
	se	0.07	0.08	0.06
	non-*Pantawid*	0.25	0.27	0.28
	number of obs	772	685	1,246
Exclusive Breastfeeding for 6 months (6 months to 6 years old)	impact	-0.06	-0.03	0.01
	se	0.06	0.06	0.05
	non-*Pantawid*	0.52	0.49	0.47
	number of obs	1,335	1,613	2,197

[a] Full immunization following the DOH-prescribed schedule of vaccinations, excluding Haemophilus influenza type B (HiB) vaccines.
*** p<0.01, ** p<0.05, * p<0.10

40. However, there is no impact observed on full immunization rates (Table 6). Full immunization, based on DOH-prescribed schedule, is receiving vaccines for BCG, measles, three doses each of DPT, polio and Hepa-B by 12 months of age. Full immunization coverage is low for both *Pantawid* and non-*Pantawid* children at 31% and 39%, respectively. National estimates from Philippine Statistics Authority (PSA) show 62% full immunization coverage in 2013 (PSA, 2014). However, since the study involved small sample size for this indicator, it is best to view this result as indicative and as starting point for further investigation.

41. More *Pantawid* children received preventive services in public health facilities. About 19% of *Pantawid* children aged 0-2 years visit health centers monthly for regular weight monitoring, while only 12% of the non-beneficiaries do so. Among children aged 2-5 years, 49% of *Pantawid* beneficiaries visit health centers for bi-monthly weight monitoring compared to only 25% of the non-beneficiaries. Utilization of these services is essential in the early diagnosis of adverse nutrition conditions among children who may require intervention.

42. As shown in Table 7, diarrhea incidence four weeks prior to the survey is lower among *Pantawid* children (11%) compared to non-beneficiaries (14%) but the difference these estimates is not statistically significant. Results suggest that among the children who had an episode of diarrhea in the reference period, *Pantawid* children are likely to visit a health facility only half of the time, which is not significantly different from the non-beneficiaries.

Table 7. Health outcomes and utilization of health services (0-6 years old)

Outcomes		Bandwidths		
		CCT	IK	Sampling
Incidence of diarrhea	impact	-0.03	-0.03	-0.04
	se	0.03	0.03	0.02
	non-*Pantawid*	0.14	0.13	0.13
	number of obs	1,728	1,747	2,376
Visit to health facility during episode of diarrhea	impact	0.11	0.01	0.08
	se	0.19	0.15	0.11
	non-*Pantawid*	0.42	0.44	0.41
	number of obs	130	181	257
Visit to public health facility during episode of diarrhea	impact	0.06	-0.03	0.06
	se	0.19	0.13	0.12
	non-*Pantawid*	0.39	0.42	0.41
	number of obs	131	183	257
Visit to health facility during episode of	impact	-0.00	0.04	0.08

Outcomes		Bandwidths		
		CCT	IK	Sampling
fever or cough	se	0.08	0.07	0.06
	non-*Pantawid*	0.49	0.48	0.48
	number of obs	743	966	1387
Visit to public health facility during episode of fever or cough	impact	0.00	0.06	0.08
	se	0.07	0.06	0.06
	non-*Pantawid*	0.45	0.45	0.46
	number of obs	759	977	1,387
Use of PhilHealth benefits during last hospital visit	impact	0.18	0.12	0.03
	se	0.21	0.17	0.04
	non-*Pantawid*	0.01	0.04	0.07
	number of obs	93	122	246

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

43. About 91% *Pantawid* beneficiaries are covered by PhilHealth compared to only 53% of non-beneficiary households. This is not surprising since, by design, the program participants are automatically enrolled in PhilHealth. However, results do not show evidence that more *Pantawid* beneficiaries utilized insurance benefits during their last visit to the hospital compared to non-beneficiaries. This suggests possible information gap among beneficiaries on their benefits as PhilHealth members. This could be addressed in the Family Development Sessions. Also, beneficiaries may lack the knowledge about the in-patient benefits that are being afforded to them as automatic members of PhilHealth. Moreover, although 90% of DOH-licensed hospitals are PhilHealth-accredited, the low utilization among *Pantawid* households may also be due to the unavailability of PhilHealth accredited hospitals in areas where the beneficiaries reside, as well as the non-inclusion of some hospital services in the current design of PhilHealth benefits. Underutilization of insurance benefits undermines the potential improvement in health outcomes, as the insurance premium becomes a mere transfer of social protection resources to PhilHealth.

44. Table 8 shows selected nutrition outcomes—wasting, underweight, and stunting—among children below the age of six. Results suggest no significant difference in the nutrition outcomes for *Pantawid* children and non-beneficiaries. The estimates also show (see Annex 6) that there is no difference in nutrition outcomes between male and female children.

Table 8. Nutrition Outcomes (0-6 years old)

Outcomes		Bandwidths		
		CCT	IK	Sampling
Wasting	impact	0.04	0.03	0.03
	se	0.03	0.03	0.02
	non-*Pantawid*	0.07	0.08	0.08

Outcomes		Bandwidths		
		CCT	IK	Sampling
	number of obs	1,513	1,777	2,098
Underweight	impact	0.05	0.04	0.04
	se	0.07	0.06	0.04
	non-*Pantawid*	0.27	0.28	0.25
	number of obs	1,268	1,450	2,316
Stunting	impact	0.01	0.01	-0.00
	se	0.06	0.06	0.05
	non-*Pantawid*	0.41	0.40	0.39
	number of obs	1,459	1,451	2,282

Note: Three height and weight measurements were taken for children ages 0 to 6 years old. Recorded measurements with 3.5 standard deviations away from the mean were dropped. The average of the child-specific anthropometric measurements were used together with the -zanthro- extension (Vidmar, et al. 2013) to generate nutrition outcomes in Stata.
*** p<0.01, ** p<0.05, * p<0.10

45. More *Pantawid* children aged 6-14 years old (78%) received deworming pills at least once a year compared to non-beneficiaries (69%). The challenge, however, is to increase the number of children taking deworming pills at least twice a year, which is the recommended dose and a program condition. The sample estimates show that at the threshold, only half of the beneficiary and non-beneficiary children received deworming at least twice per year (Table 9). Because these results are based on memory recall, it could be more difficult for respondents to remember the number of times the child took deworming pills in the 12 months prior to the interview.

Table 9. Child health (6-14 years old)

Outcomes		Bandwidths		
		CCT	IK	Sampling
Deworming at least 1 per year (6 - 14)[b]	impact	0.09**	0.06	0.05
	se	0.05	0.04	0.03
	non-*Pantawid*	0.69	0.73	0.73
	number of obs	1861	2511	3912
Deworming at least 2 per year (6-14)	impact	0.00	-0.04	-0.02
	se	0.05	0.05	0.04
	non-*Pantawid*	0.50	0.50	0.49
	number of obs	2301	2949	3913

[b] Estimates from base model with demographic and supply covariates

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

***Pantawid Pamilya* keeps older children in school and reduces the number of days they have to work**

46. Enrollment for pre-school is both low for *Pantawid* and non-*Pantawid* children. Among the 3-5 year old children, more than half of *Pantawid* beneficiaries (54%) and non-*Pantawid* beneficiaries (53%) are enrolled in pre-school (Table 10). There might be a need to look into the number and operations of day care centers in the villages and examine to what extent the local government units are able to provide this service to their constituents.[17] Household considerations may have to be examined as well, in order to explain the low enrollment rate in day care.

47. While the program has no observed impact on enrollment, there is clearly a strong positive impact on pre-school attendance, which is defined by the program as attending classes 85% of the time or not more than 3 absences in a month. This implies that enrolled *Pantawid* preschool children attend classes more often than their counterparts, as induced by the program conditionality. Table 10 shows that 94% of preschool *Pantawid* children attend classes 85% of the time, compared to a low of 55% among non-*Pantawid* children.

48. Gross enrollment of elementary-aged children (6-11 years old) at the threshold is equally high for both *Pantawid* children and non-beneficiaries at 98%. However, gross enrollment for high school-aged children (12-15 years old) is higher for *Pantawid* children (95% compared to 89% for non-beneficiaries). Attendance of at least 85% of school days is also high for both *Pantawid* children and non-beneficiaries, ranging from 93%-98% for both elementary- and high school-aged children (Table 10). More male children, 6-11 years old, have at least 85% school attendance (Appendix Table 51).

49. Keeping the high school-aged cohort in school is particularly important because this is when children are likely to drop out of school to work (Paqueo, et al. 2013). In the sample, the dropout rate for children aged 12-15 years is lower at the threshold for *Pantawid* (4%) compared to non-beneficiaries (9%), although there is not enough evidence to show that this will be the case in repeated samples.

Table 10. Education (3-20 years old)

Outcomes		Bandwidths		
		CCT	IK	Sampling
Enrollment of 3-5	impact	0.01	0.00	0.02
	se	0.09	0.07	0.07
	Non-*Pantawid*	0.53	0.52	0.51
	number of obs	503	764	829
Enrollment of 6-11	impact	0.00	-0.03	-0.01

[17] Provision and operation of pre-school services has been devolved to local government units following the Local Government Code of 1991.

Outcomes		Bandwidths		
		CCT	IK	Sampling
	se	0.02	0.06	0.01
	non-*Pantawid*	0.98	0.98	0.99
	number of obs	1544	1119	2648
Enrollment of 12 - 15[c]	impact	0.06*	0.07**	0.01
	se	0.04	0.05	0.02
	non-*Pantawid*	0.89	0.88	0.93
	number of obs	786	948	1673
Enrollment of 16-20	impact	0.04	0.01	0.02
	se	0.06	0.06	0.06
	non-*Pantawid*	0.50	0.48	0.48
	number of obs	916	1357	1536
Enrollment of 6-14	impact	0.02	0.01	-0.01
	se	0.03	0.03	0.01
	non-*Pantawid*	0.95	0.95	0.97
	number of obs	2025	1802	3913
Attendance of 3-5	impact	0.40**	0.27**	0.06
	se	0.12	0.12	0.10
	non-*Pantawid*	0.55	0.57	0.62
	number of obs	118	181	399
Attendance of 6-11	impact	-0.02	-0.02	-0.01
	se	0.03	0.03	0.03
	non-*Pantawid*	0.95	0.95	0.95
	number of obs	1526	1464	2589
Attendance of 12-15	impact	0.05	0.02	0.04
	se	0.03	0.02	0.03
	non-*Pantawid*	0.93	0.95	0.93
	number of obs	987	1185	1537
Attendance of 16-20	impact	-0.01	-0.02	0.06
	se	0.04	0.06	0.04
	non-*Pantawid*	0.97	0.96	0.92
	number of obs	309	362	681
Dropout of 6-11	impact	0.02	0.05	0.02**
	se	0.02	0.05	0.01

Outcomes		Bandwidths		
		CCT	IK	Sampling
	non-*Pantawid*	0.02	0.01	0.01
	number of obs	1468	1260	2647
Dropout of 12-15	impact	-0.05	-0.05	0.00
	se	0.04	0.04	0.02
	non-*Pantawid*	0.09	0.10	0.07
	number of obs	737	1067	1672
Dropout of 16-20	impact	-0.04	0.00	-0.02
	se	0.06	0.06	0.06
	non-*Pantawid*	0.52	0.53	0.54
	number of obs	858	1377	1519

[c] estimates from base model with demographic and supply covariates
*** p<0.01, ** p<0.05, * p<0.10

50. The incidence of child labor for children aged 10-14 years old at the threshold is the same for both *Pantawid* children and non-beneficiaries at 12% (Table 11), with no difference in the incidence of work between male and female children (Appendix Table 52). The number of days worked in a month, however, is lower for *Pantawid* children by approximately six days, which is consistent for both CCT and the IK estimates. This suggests that while the program cash grants are not enough to completely keep children from working; it has allowed beneficiary children to spend less time working than their non-beneficiary counterparts.

Table 11. Child labor (10-14 years old)

Outcomes		Bandwidths		
		CCT	IK	Sampling
Worked at least 1 hour in previous month	impact	0.00	0.00	-0.01
	se	0.04	0.04	0.03
	non-*Pantawid*	0.12	0.12	0.11
	number of obs	1241	1288	2053
Number of days worked in the past month[d]	impact	-6.69**	-5.13**	-4.06
	se	0.49	0.35	0.31
	non-*Pantawid*	9.74	10.32	10.50
	number of obs	107	159	226

[d] Estimates from count model (Poisson). Estimates from using OLS models are comparable.
*** p<0.01, ** p<0.05, * p<0.10

***Pantawid Pamilya* increases households' investments in education**

51. Beneficiary households received an average of PhP9,409 of program grants, a year prior to the survey. This accounts for 7% of beneficiary households' annual spending. Compared to CCT programs in other countries, this is at the low end of the spectrum.

According to Fiszbein, et al. (2009), program grants account for 2-3% of the annual household spending in Cambodia, 19-21% for Mexico, and 29-31% for Nicaragua.

52. Overall, there is no strong evidence of disparity in total per capita expenditure between *Pantawid* and non-*Pantawid* households at the cutoff (Table 12). At the threshold, annual per capita spending on aggregate food and non-food items is likewise the same for both beneficiaries and non-beneficiaries. While this is consistent with the findings in the first wave of RCT impact evaluation (DSWD and World Bank, 2014), the program logic discussed in Section III shows that cash grants are expected to increase total consumption of households, which can result to key health outcomes for children.

Table 12. Aggregate expenditures

Outcomes		Bandwidths		
		CCT	IK	Sampling
Total expenditure	impact	447.19	1,512.29	1,805.21**
	se	0.05	0.04	0.03
	non-*Pantawid*	28051.02	27704.04	27157.54
	number of obs	1,679	2,162	3,108
Food items	impact	-219.07	842.22	1,049.02*
	se	0.05	0.04	0.03
	non-*Pantawid*	18684.42	18393.61	18056.59
	number of obs	1,610	1,949	3,108
Non-food items	impact	802.55	734.94*	734.65*
	se	0.06	0.05	0.05
	non-*Pantawid*	8121.47	7967.75	7961.71
	number of obs	1,930	3,073	3,108

Note: Expenditures are reported in annual per capita terms, unless otherwise indicated.
All expenditures are in real values (2013 Metro Manila prices).
*** p<0.01, ** p<0.05, * p<0.10

53. Table 13 also shows that limiting the observations to the sampling bandwidth yields significantly higher total, food, and non-food spending for *Pantawid* households compared to their non-*Pantawid* counterparts. These results are, however, not robust to the other two narrower bandwidths. Tracing how the cash grants are spent remains a challenge and needs further investigation. Other studies found that *Pantawid*'s impact on consumption manifests strongly among the poorest beneficiaries (Tutor, 2014). However, the identification strategy of RD, which compares only households near the threshold, precludes examining this aspect. An analysis of surveys could help shed light on beneficiaries' consumption response to the program as long as the limitations of using these datasets are recognized. It is also possible that a full household accounting module can help address this in the succeeding rounds of evaluation, as this will allow investigation of spending on family enterprises. A more comprehensive income-consumption module will also allow exploration of household balance sheets.

54. There is strong indication that *Pantawid* households are investing on their children's education. Results show that *Pantawid* households spent PhP206 more per school-aged child per year at the threshold compared to non-beneficiary households on education-related items (Table 13). This is equivalent to 2.1% of the average grant received, which is near the neighborhood of the 2.7% national average share of education spending based on the Family Income and Expenditure Survey 2012. Results also show that expenditures on exam fees are lower for *Pantawid* children while expenditures for uniform or clothing are higher (Appendix Table 29).

Table 13. Expenditure on non-food items

Outcomes		Bandwidths		
		CCT	IK	Sampling
Education	impact	206.61**	200.56**	77.67
(per school-aged children	se	0.28	0.24	0.20
3-20 years old)	non-*Pantawid*	251.82	230.48	252.49
	number of obs	1,402	2,018	2,939
Medical items	impact	14.67	14.42*	14.60**
	se	0.23	0.20	0.16
	non-*Pantawid*	35.34	34.56	34.37
	number of obs	1,789	2,100	3,107
Clothing and footwear	impact	75.28**	73.41**	44.27**
	se	0.28	0.26	0.16
	non-*Pantawid*	91.52	95.90	107.01
	number of obs	1,351	1,453	3,108

Notes: Expenditures are reported in annual per capita terms, unless otherwise indicated.
All expenditures are in real values (2013 Metro Manila prices).
*** p<0.01, ** p<0.05, * p<0.10

55. The findings indicate that *Pantawid* households are spending more on health care relative to their counter parts. This difference ranges from PhP14 to PhP15 per capita, although the impact is not statistically significant at the narrowest bandwidth. Since the health expenditure is likely to be a combination of curative and preventive care, this difference is difficult to interpret without more information. The program logic also does not have predictions on how health spending will change as a result of the grants primarily because conditionalities do not involve any explicit health spending.

56. Clothing spending is higher by PhP75 per school-aged child per year at the threshold in *Pantawid* households. Parents of beneficiary children have prioritized spending for their children's school supplies, which can have positive signaling effects in the community and may also reinforce the interest of children in schooling.

***Pantawid Pamilya* does not encourage dependency**

57. There is no evidence that *Pantawid* leads to dependency or decreased work effort among adults in beneficiary households. On the contrary, results indicate that among working-age household members who are employed and continue to look for additional work, the proportion is significantly higher for *Pantawid* household members (17%) than for non-beneficiaries (11%) (Table 14). These results invalidate the claims that *Pantawid* beneficiaries are avoiding work and are becoming dependent on the cash transfers. The findings suggest that the program may have influenced the *Pantawid* household members to aspire for a better life, encouraging them to seek additional work. It is noteworthy that similar results were also found in the analysis using Wave 1 RCT data (Orbeta, Paqueo and Spohr, 2013). There are no significant differences between the *Pantawid* households and non-beneficiary households in all other labor market outcomes such as labor force participation, employment, looking for work if unemployed, and number of work hours.

Table 14. Adult Employment

Outcomes		Bandwidths		
		CCT	IK	Sampling
Labor force participation	impact	0.02	0.02	0.00
	se	0.02	0.02	0.02
	non-*Pantawid*	0.631	0.631	0.634
	number of obs	5,004	5,143	9,499
Employment	impact	0.00	0.01	0.02
	se	0.02	0.02	0.02
	non-*Pantawid*	0.93	0.93	0.92
	number of obs	3,437	3,995	6,081
Looking for additional work if employed	impact	0.06[a]**	-0.03	0.03
	se	0.04	0.02	0.04
	non-*Pantawid*	0.11	0.16	0.13
	number of obs	4,136	2,173	5,655
Looking for work if unemployed	impact	0.20	0.15	0.02
	se	0.19	0.19	0.12
	non-*Pantawid*	0.36	0.34	0.42
	number of obs	183	218	426
Total labor hours	impact	-1.73	0.75	0.67
	se	2.31	1.77	1.57
	non-*Pantawid*	40.39	39.13	38.85
	number of obs	2,960	4,086	5,614

[a] Estimated from a CCT bandwidth using triangular kernel.

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

58. Results also negate the notion that *Pantawid Pamilya* is nurturing dependency on the grants for "adult-specific goods'', such as alcohol, tobacco, and gambling. As shown in Table 15, there is no statistically significant difference between the spending of *Pantawid* and non-*Pantawid* households on these goods. Thus, there is no evidence to support the popular belief that beneficiary households are misallocating the cash grants and are spending them on vice goods, such as gambling and alcohol.

Table 15. Adult-specific goods

Outcomes		Bandwidths		
		CCT	IK	Sampling
Alcohol and tobacco	impact	24.79	26.13	29.15
	se	0.31	0.30	0.24
	non-*Pantawid*	68.71	65.91	65.13
	number of obs	1,819	2,068	3,108
Gambling	impact	-0.01	0.01	-0.02
	se	0.11	0.09	0.07
	non-*Pantawid*	1.21	1.25	1.35
	number of obs	1,469	2,196	3,108

Notes: Expenditures are reported in annual per capita terms, unless otherwise indicated
All expenditures are in real values (2013 Metro Manila prices).
*** p<0.01, ** p<0.05, * p<0.10

***Pantawid Pamilya* allows parents to aspire for a better future for their children**

59. *Pantawid Pamilya* seems to have improved parents' perception of their situation and of their children's future. Table 16, under the sampling bandwidth, shows that *Pantawid* parents (74%) have higher hopes of their children finishing college compared to non-*Pantawid* parents (68%). About 87% *Pantawid* parents expect their children to live a better life than themselves, compared to 81% of non-*Pantawid* parents. These results imply that *Pantawid* parents understand that the program's benefit will accrue to their family's future welfare. This more hopeful perspective about the future may also provide the incentives for beneficiaries to take the necessary behavioral changes to achieve their goals.

Table 16. Parents' future expectations

Outcomes		Bandwidths		
		CCT	IK	Sampling
Child will finish elementary	impact	0.02	0.00	0.00
	se	0.02	0.02	0.02
	non-*Pantawid*	0.95	0.96	0.96
	number of obs	1,930	2,319	3,199
Child will finish high school	impact	0.02	0.01	0.00
	se	0.03	0.02	0.02
	non-*Pantawid*	0.92	0.93	0.93

Outcomes		Bandwidths		
	number of obs	2,727	3,351	4,740
Child will finish college	impact	0.07	0.07	0.07*
	se	0.06	0.06	0.04
	non-*Pantawid*	0.66	0.66	0.68
	number of obs	2,217	2,253	4,198
Child will have a better future	impact	0.05	0.05	0.06*
	se	0.04	0.04	0.03
	non-*Pantawid*	0.81	0.82	0.81
	number of obs	3,082	3,364	5,594

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

60. In addition, more beneficiaries believe that they are better off (Table 17). Self-assessed poverty status among *Pantawid* beneficiaries is lower by 7 percentage points compared to non-beneficiaries at the threshold. There appears to be no significant difference in hunger incidence in the past three months for *Pantawid* beneficiaries and their counterparts.

Table 17. Self-assessed welfare

Outcomes		Bandwidths		
		CCT	IK	Sampling
Self-reported poverty status	impact	-0.07*	-0.06**	-0.06**
	se	0.04	0.03	0.03
	non-*Pantawid*	0.78	0.77	0.77
	number of obs	1,871	3,272	3,104
Hunger incidence in past 3 months	impact	-0.07	-0.04	-0.04
	se	0.05	0.03	0.03
	non-*Pantawid*	0.34	0.29	0.30
	number of obs	1,751	4,081	3,108

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

V. Moving Forward: Summary, Policy Implications, and Recommendations

61. The evaluation results show that the program is on track in meeting its objective of converting public investments into desired societal results. These indicate that providing an enabling environment and appropriate incentives for the poor can change their outlook of the future, as well as their behavior on investing in human capital that will likely translate hope into reality for their families.

62. The *Pantawid Pamilya* program, by extending aid from womb to school, remains on track in keeping children healthy and in school. It has facilitated mothers' access to maternal care and children's access to health care services. It keeps children in

school, particularly those who are most vulnerable to dropping out of school, and reduces the number of days spent in child labor. The grants allow households to increase their investments in education, but do not encourage dependency on it. There is also indication that it has allowed parents to aspire for a better future for their children.

63. However, the program still faces a number of challenges that has to be dealt with. These include ensuring that children receive full immunization following the DOH-prescribed schedule of vaccinations, improving deworming outreach to comply with the prescribed two pills per year, meeting the prescribed number of antenatal check-ups for mothers, and availing of PhilHealth benefits commensurate to coverage.

64. One or more program assumptions may not have materialized resulting in the non-realization of some expected impacts. One aspect that can be looked at is how the program monitors each of the mother and child health conditionalities. For instance, the program may need to explicitly monitor each immunization received by the child or each prenatal check-up undertaken by the mother, as opposed to lumping all these indicators under the conditionality "monthly health visit". If the program monitors "monthly health visits" alone, it would be very difficult to ensure and verify that the services required are delivered to and received by the target beneficiaries. Explicit monitoring will also aid beneficiaries in understanding what their monthly visit to the health clinics entails. A service delivery checklist can be developed for the purpose.

65. An in-depth process evaluation would be very useful in analyzing the extent to which the assumptions of the program have materialized and what their influences are on observed impacts. A process evaluation can also support decisions on how convergence efforts can be strengthened to provide sufficient services to beneficiaries, and send out effective messages on the importance of specific interventions. These proposed changes, however, should only be done with the objective of understanding better the weakness of program implementation and not a compliance requirement for payment purposes. The reason is that the beneficiaries should not be penalized for failure in the supply side. The current practice of monitoring health visits should be sufficient as the compliance requirement because this is fully under the control of the beneficiary.

66. The observed conservative impacts, particularly in expenditure and education outcomes, may have been due to the limitations of the RDD, where the comparison is restricted to beneficiaries who are not so poor (just below the poverty threshold) and non beneficiaries (just above the poverty threshold). Enrollment and attendance rates of 6-11 year old children are already high for households around the poverty threshold. Meanwhile, the absence of impact on aggregate expenditure could be a symptom of problems in households' balance sheets. For instance, if a significant share of household income is allotted to pay for past consumption financed through credit, then it would be difficult to see a response on current spending.

67. The current amount of grant per household is small relative to their total expenditure. During the 12 months prior to the survey, beneficiary households received an average

grant amounting to P9,409, which is equivalent to 7% of the household's total expenditure. This is at the lower end of the spectrum when compared to CCT programs in other countries. In the program logic, the expected impacts are unlikely to be realized if the size of the grant is not enough to cover the opportunity costs of program participation. CCT experience in some countries shows that based on initial evaluation results, program implementers, have adjusted cash grants to fit them to specific targeted outcomes (e.g., higher grant for secondary girls to reduce the gender gap in secondary education). Thus, a review of the amount of grant provided to *Pantawid* households is warranted considering differences in opportunity costs.

68. *Pantawid Pamilya* has initiated program modifications to address this issue. Starting June 2014, the education grant for high school students has been increased from Php300 to Php500 per month. Higher incentives might also be considered for households in villages with no high schools in the vicinity, to cover lodging expenses that may be entailed. In addition, if the program's explicit goal is to reduce the incidence of child labor, the education grants would have to be calibrated on expected income loss to households of working children. This may also involve higher grants for boys given that they drop out earlier than girls for employment reasons. Such options were identified for consideration by other analysts such as Reyes et al. (2013) and Paqueo et al. (2013). With regard to the health grant, an adjustment to compensate for inflation may be considered especially as this amount is expected to induce increased consumption of nutrient-rich food.

69. Moreover, while there is increasing demand for *Pantawid Pamilya* to demonstrate direct contribution to current poverty reduction, the program design does not realistically allow moving poor *Pantawid* households above the poverty line in the short to medium-term. The average shortfall (poverty gap) of *Pantawid* beneficiaries' income from the poverty line is 24%.[18] On the other hand, the maximum grant that can be received by beneficiaries at the time of data collection is only 13% of the annual poverty threshold for a family of six (the average number of *Pantawid* household members). The distribution of beneficiary households included in the survey also show that only 57% of sampled households have three or more eligible children and are thus able to receive the maximum amount of Php15,000 per year. This is where exit strategies for *Pantawid* households become crucial, as these will facilitate the successful transition of beneficiaries from survival to subsistence living to self-reliance.

70. Lessons learned from this round of evaluation will guide the implementation of the next round of evaluation, including what outcomes to measure, sampling design, and the implementation of regression discontinuity design. Future evaluations may also consider estimation of program impacts on disaggregated geographical areas (e.g., at the provincial level) and hard to reach groups (e.g., indigenous peoples).

[18] This proportion is computed using the predicted per capita income using the PMT model and only among the 2,495 Pantawid Pamilya households in the survey. This is close to the estimated national average gap of 26.2% (NSCB Report on the 2012 Full Year Poverty Statistics).

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VII. Annexes

Annex 1: Description of Regression Discontinuity Design (RDD)

71. RDD can be characterized as estimation of whether an outcome variable exhibits a discontinuous jump precisely at the cutoff of the running variable.[19] The magnitude of the discontinuous jump at the cutoff may be estimated using a global polynomial regression or a local regression. Global polynomial regression uses all observations in the sample to estimate program impact on an outcome. Local linear regression, on the other hand, limits the observations to a specified bandwidth around the cutoff where the functional form is most likely linear. Figures 2a and 2b graphically illustrates a local linear regression RDD, before and after program participation, on a simulated data within a specified bandwidth, *h*. In Figure 2b, the discontinuous jump, τ, at the cutoff is the estimated program impact.

Figure 2a. Before program participation

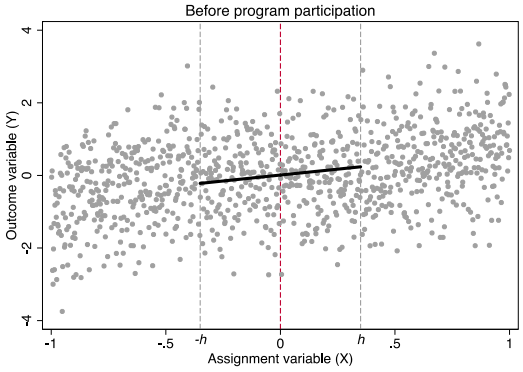
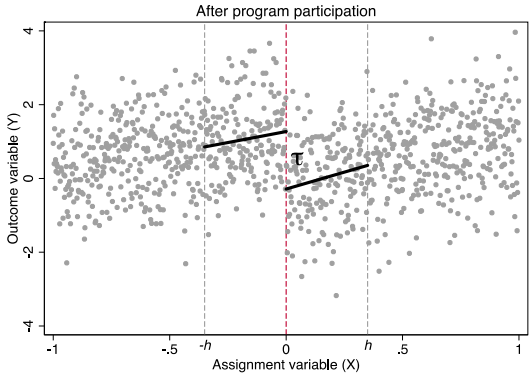


Figure 2b. After program participation



Source: Authors.

72. Under a sharp RDD, i.e. where the probability of treatment jumps from 0 to 1 at the cutoff, the average treatment effect at the cutoff $\bar{x}$ is the difference between the estimated parameters from two regression functions evaluated at a defined threshold:

$$\tau = E[Y_i(1) - Y_i(0)|X_i = \bar{x}]$$
$$= \lim_{x \uparrow \bar{x}} E[Y_i|X_i = \mathrm{x}] - \lim_{x \downarrow \bar{x}} E[Y_i|X_i = \mathrm{x}]$$

73. The report provides the results from local linear regression models using data-dependent optimal bandwidths and the estimated sampling bandwidth. In a local linear regression, τ is estimated locally within a specified bandwidth $\boldsymbol{h}$. The determination of the bandwidth is a tradeoff between bias and variance. Bias increases as one moves away from the cut-off where estimating τ is supposed to happen while variance increases with smaller number of observations units as one moves closer to the cut-off and vice-versa. A narrow bandwidth will have lower bias

[19] RDD may also be characterized as a local randomization around the cutoff where it can be analyzed and tested like an RCT design for observations *close enough* to the cutoff. The appropriate bandwidth could be very narrow to satisfy the "balance" condition between observations to the left and to the right of the cutoff.

because more observations are near the cut off, but will have larger variance because of smaller number of observations. Conversely, a wide bandwidth will have large bias because many observations will be away from the cut off, but will have a smaller variance because it uses more observations. An optimal ***h***, therefore balances this tradeoff. This study uses data-determined optimal bandwidths as proposed in Imbens and Kalyanaraman (2012), and Calonico, Cattaneo, and Titiunik (2014a)—IK and CCT bandwidths.[20] Results are presented for the sampling bandwidth of 6,250 (Grover, 2013).

74. The analysis draws mainly on the results using the CCT bandwidth. The alternative estimates derived from using alternative bandwidths (i.e. the IK and the sampling bandwidths) provide a test for the sensitivity of the estimates to varying bandwidths. The estimates reveal that, in general, the narrowest bandwidth is provided by CCT followed by IK and then the sampling bandwidth.

75. For each outcome Y_i for observation i with income X_i, the base estimation equation within an estimated optimal bandwidth or the sampling bandwidth, ***h***, is:

$$Y_i = \beta_0 + \tau T_i + \beta_1 \bar{X}_i + \beta_2 T_i \bar{X}_i + \varepsilon_i \ , \qquad -h < \bar{X}_i < h$$
$$\bar{X}_i = \mathrm{X}_i - \bar{x}$$
$$\mathrm{T}_i = 1 \text{ for } \mathrm{X}_i < 0$$
$$= 0 \text{ for } \mathrm{X}_i \geq 0$$

76. T_i is a categorical variable that indicates whether household *i* lies below or above the province-specific poverty threshold, while $\bar{X}_i$, the normalized income, is a measure of the distance of the household's income from the threshold. The coefficient τ captures the program impact in terms of a discrete jump occurring precisely at the threshold, while β_1 and β_2 capture any constant underlying the slope as well as a possible shift in the slope at the threshold.

77. The calculation of the optimal bandwidth ***h*** is a function of the distribution of outcome Y. Thus, for each outcome Y, a different optimal bandwidth ***h*** is calculated. Owing to the differences in the provincial poverty thresholds used to determine eligibility, the running variable is *normalized* as the difference between the estimated household income (PMT score) and the corresponding provincial poverty threshold. The centering of the running variable X_i at zero also makes the interpretation of τ in the pooled equation straightforward as the difference at the cutoff of the estimate derived from the left of the cutoff and the estimate from the right of the cutoff. In doing so, identical behavior across different provincial poverty thresholds is assumed. A set of municipal dummies is included in the model to account for municipal fixed effects and the variance estimates are adjusted for *barangay* cluster effects. For some

[20] The difference between the IK and CCT bandwidths are discussed in Calonico, Cattaneo, and Titiunik (2014b). The IK and CCT bandwidths were calculated using the -rdbwselect- Stata routine discussed in Calonico, Cattaneo, and Titiunik (2014b). A uniform kernel (unless otherwise indicated) is used to calculate the bandwidths.

outcomes, additional covariates are included.[21] Binary outcomes are modeled using probit regressions. Count outcomes are estimated using poisson regressions.[22]

Annex 2: Validation tests

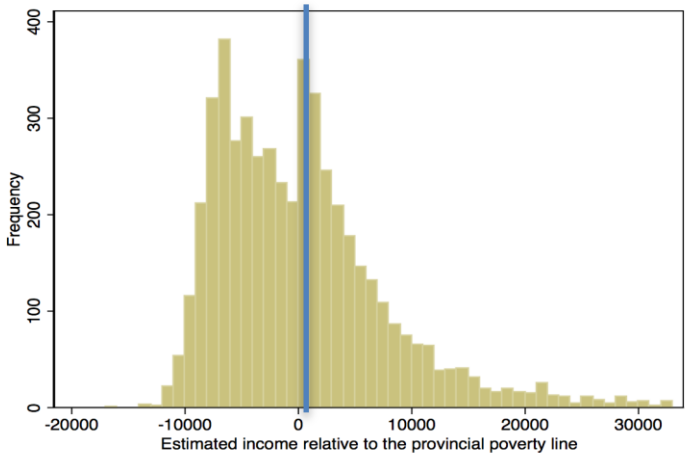
78. The causal interpretation of the RDD relies on assumptions that will yield unbiased estimates: (i) prospective beneficiaries must not have a direct influence on their location with respect to the cutoff; (ii) observations close to both sides of the cutoff are characteristically similar; and (iii) pre-program outcomes must not show discontinuity at the cutoff. Validation tests are carried out to credibly establish these assumptions—discontinuity tests on the (i) running variable, (ii) baseline covariates and placebo outcomes, and (iii) available outcomes indicators in the baseline.

79. ***Discontinuity of the running variable at the threshold.*** Evidence of gaming or manipulation could lead to biased estimates. Unusual lumping along the running variable, especially near the cutoff, which determines program eligibility, could indicate that households have a direct influence on the assignment variable. Figure 3 shows the distribution of households on the running variable. A marked lumping of observations is observed just to the right of the normalized cutoff, the point where households become ineligible to the program. This discontinuity in the distribution of the running variable is validated using a formal test suggested by McCrary (2008). This finding might be an artifact of the targeting formula used to classify households and needs further investigation. But as long as there is no precise control over the running variable, the identifying assumption of RD is still valid (Lee, 2008). As eligibility is determined using the pre-program implementation *Listahanan* data (i.e. 2008), there is no reason to believe that households or implementers have precise control over the estimated income and that exact manipulation is less likely. It is recommended that this issue be further looked into using the complete *Listahanan*.

[21] The covariates used for each set of indicators are detailed in the discussion of results section. By design, additional covariates are not necessary for identification in RDD but these can be used to improve the precision of estimates.

[22] The standard set up in regression discontinuity design is to use ordinary least squares. There is the risk, however, of getting point estimates of the marginal effects outside the range of 0 and 1, as in the case for count models. Theoretical work on the properties of the estimators using dichotomous and count models in local regressions in the context of regression discontinuity design is not yet firm (consultations with M. Cattaneo, September, 2014).

Figure 3. Distribution of assignment variable



80. ***Discontinuity of baseline covariates and placebo outcomes at the threshold.*** Another validation test to show that the discontinuity in post-intervention outcomes observed could be attributed to the program is to run discontinuity tests on baseline covariates and on the "placebo outcomes" or false experiments. Baseline characteristics should exhibit no discontinuity at the threshold, as these are variables measured prior to the intervention. Placebo outcomes, on the other hand, are variables measured after the intervention but are not believed to be directly affected by the intervention. Thus no discontinuity at the threshold is expected for placebo outcomes as well.

81. The baseline covariates tested are the variables included in the PMT model used to predict household income and to determine program eligibility. Among the 22 baseline covariates tested, only three showed discontinuity at the cutoff, both using the CCT and IK bandwidth specification: ownership of refrigerator, ownership of washing machine, and ownership of house. Figure 4 shows the corresponding plot for ownership of refrigerator, which shows that at the cut-off, more non-poor households own at least one refrigerator. Table 19 presents the full list of the 22 covariates and the estimation results.

Figure 4. Test for discontinuity at the cutoff
(household ownership of refrigerator)

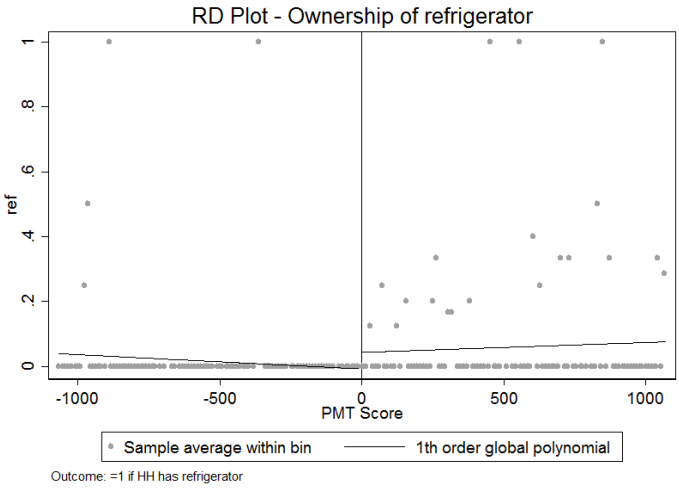


Table 19. Validation Tests Using Sharp Regression Discontinuity on Baseline Covariates

Baseline covariates		Bandwidths		
		CCT	IK	Sampling
Log of family size	impact	-0.147	-0.089	-0.075
	s.e.	0.032	0.031	0.024
	p-value	0.293	0.508	0.451
	number of obs	1592	1853	3108
	Pantawid	4.237	4.28	4.19
	non-*Pantawid*	4.384	4.369	4.265
	margin of error	0.001	0.001	0.001
	bandwidth	2899	3450	6250
Number of children 0-5 years old	impact	0.027	0.021	0.029
	s.e.	0.087	0.068	0.053
	p-value	0.755	0.754	0.585
	number of obs	1398	1942	3108
	Pantawid	0.715	0.711	0.691
	non-*Pantawid*	0.688	0.69	0.662
	margin of error	0.004	0.003	0.002
	bandwidth	2490	3630	6250
Number of children 6-14 years old	impact	-0.039	0.009	-0.093
	s.e.	0.107	0.1	0.074
	p-value	0.72	0.931	0.211
	number of obs	1592	1721	3108
	Pantawid	1.07	1.109	0.993
	non-*Pantawid*	1.108	1.1	1.086
	margin of error	0.004	0.004	0.002
	bandwidth	2896	3166	6250

Table 19. Validation Tests Using Sharp Regression Discontinuity on Baseline Covariates

Baseline covariates		Bandwidths		
		CCT	IK	Sampling
Number of children 15-18 years old	impact	0.051	0.065	0.033
	s.e.	0.064	0.06	0.047
	p-value	0.42	0.283	0.488
	number of obs	1884	2203	3108
	Pantawid	0.339	0.344	0.333
	non-*Pantawid*	0.288	0.279	0.3
	margin of error	0.002	0.002	0.001
	bandwidth	3505	4172	6250
Number of adults 19-60 years old	impact	-0.133	-0.086	-0.067
	s.e.	0.102	0.088	0.073
	p-value	0.194	0.328	0.354
	number of obs	1603	2240	3108
	Pantawid	2.03	2.063	2.073
	non-*Pantawid*	2.163	2.149	2.14
	margin of error	0.004	0.003	0.002
	bandwidth	2909	4242	6250
Number of adults 61 years old and above	impact	-0.077*	-0.062	-0.051
	s.e.	0.044	0.038	0.031
	p-value	0.083	0.105	0.102
	number of obs	1743	2243	3108
	Pantawid	0.136	0.132	0.133
	non-*Pantawid*	0.213	0.194	0.184
	margin of error	0.002	0.001	0.001
	bandwidth	3219	4259	6250
Number of HH members with no education	impact	0.103	0.098	0.025
	s.e.	0.089	0.089	0.059
	p-value	0.246	0.272	0.677
	number of obs	1548	1486	3108
	Pantawid	0.779	0.769	0.67
	non-*Pantawid*	0.676	0.671	0.645
	margin of error	0.004	0.004	0.002
	bandwidth	2818	2679	6250
Number of HH members with primary education	impact	-0.101	-0.129	-0.206**
	s.e.	0.13	0.104	0.093
	p-value	0.44	0.214	0.028
	number of obs	1635	2196	3108
	Pantawid	1.807	1.759	1.673
	non-*Pantawid*	1.907	1.888	1.879
	margin of error	0.005	0.004	0.003
	bandwidth	2983	4154	6250

Table 19. Validation Tests Using Sharp Regression Discontinuity on Baseline Covariates

Baseline covariates		Bandwidths		
		CCT	IK	Sampling
Number of HH members with secondary education	impact	-0.099	-0.146	0.129
	s.e.	0.128	0.128	0.092
	p-value	0.441	0.253	0.164
	number of obs	1566	1482	3108
	Pantawid	1.437	1.383	1.592
	non-*Pantawid*	1.535	1.53	1.463
	margin of error	0.005	0.005	0.003
	bandwidth	2851	2664	6250
Number of HH members with college education	impact	-0.042	-0.037	-0.041
	s.e.	0.071	0.055	0.055
	p-value	0.559	0.503	0.457
	number of obs	1966	3260	3108
	Pantawid	0.457	0.446	0.45
	non-*Pantawid*	0.499	0.483	0.491
	margin of error	0.003	0.002	0.002
	bandwidth	3681	6490	6250
=1 if HH is an agricultural household	impact	0.001	-0.014	-0.036
	s.e.	0.047	0.037	0.032
	p-value	0.956	0.938	0.823
	number of obs	1767	2240	3108
	Pantawid	0.315	0.294	0.277
	non-*Pantawid*	0.313	0.308	0.313
	margin of error	0.02	0.017	0.015
	bandwidth	3278	4242	6250
=1 if HH has domestic help	impact	0.008	0.007	0.008
	s.e.	0.032	0.018	0.038
	p-value	0.23	0.251	0.194
	number of obs	2645	2289	3108
	Pantawid	0.009	0.009	0.009
	non-*Pantawid*	0.001	0.003	0.001
	margin of error	0.016	0.017	0.015
	bandwidth	5164	4370	6250
=1 if HH has light walls	impact	0.013	0.014	0.025
	s.e.	0.042	0.041	0.032
	p-value	0.722	0.693	0.285
	number of obs	1870	1884	3108
	Pantawid	0.334	0.335	0.343
	non-*Pantawid*	0.321	0.321	0.318
	margin of error	0.019	0.019	0.015
	bandwidth	3481	3501	6250

Table 19. Validation Tests Using Sharp Regression Discontinuity on Baseline Covariates

Baseline covariates		Bandwidths		
		CCT	IK	Sampling
=1 if HH has light roof	impact	-0.050	-0.054	-0.037
	s.e.	0.044	0.043	0.034
	p-value	0.287	0.253	0.266
	number of obs	1702	1724	3108
	Pantawid	0.252	0.247	0.273
	non-*Pantawid*	0.302	0.301	0.31
	margin of error	0.02	0.02	0.015
	bandwidth	3142	3170	6250
=1 if HH has no toilet	impact	0.074	0.091**	0.027
	s.e.	0.045	0.046	0.03
	p-value	0.102	0.046	0.413
	number of obs	1724	1661	3108
	Pantawid	0.254	0.266	0.227
	non-*Pantawid*	0.18	0.175	0.2
	margin of error	0.02	0.02	0.015
	bandwidth	3170	3043	6250
=1 if HH water source is shared tubed/ piped well	impact	-0.039	-0.019	-0.023
	s.e.	0.027	0.027	0.026
	p-value	0.184	0.557	0.458
	number of obs	1604	1905	3108
	Pantawid	0.134	0.156	0.173
	non-*Pantawid*	0.173	0.175	0.195
	margin of error	0.021	0.019	0.015
	bandwidth	2913	3551	6250
=1 if HH water source is dug well	impact	0.025	-0.013	-0.030
	s.e.	0.044	0.029	0.025
	p-value	0.486	0.674	0.379
	number of obs	1516	2243	3108
	Pantawid	0.206	0.171	0.156
	non-*Pantawid*	0.181	0.184	0.186
	margin of error	0.021	0.017	0.015
	bandwidth	2754	4262	6250
=1 if HH has electricity	impact	-0.020	-0.018***	-0.018
	s.e.	0.031	0.026	0.03
	p-value	0.357	0.001	0.258
	number of obs	1787	4824	3108
	Pantawid	0.824	0.829	0.816
	non-*Pantawid*	0.844	0.847	0.834
	margin of error	0.019	0.012	0.015

Table 19. Validation Tests Using Sharp Regression Discontinuity on Baseline Covariates

Baseline covariates		Bandwidths		
		CCT	IK	Sampling
	bandwidth	3322	17417	6250
=1 if HH has refrigerator	impact	-0.035**	-0.041***	-0.015**
	s.e.	0.018	0.014	0.017
	p-value	0.037	0.001	0.044
	number of obs	1072	1139	3108
	Pantawid	0.015	0.009	0.028
	non-*Pantawid*	0.05	0.05	0.044
	margin of error	0.025	0.024	0.015
	bandwidth	1900	2012	6250
=1 if HH has washing machine	impact	0.059*	0.059*	0.022
	s.e.	0.08	0.081	0.036
	p-value	0.09	0.097	0.361
	number of obs	1661	1630	3108
	Pantawid	0.067	0.066	0.032
	non-*Pantawid*	0.008	0.007	0.01
	margin of error	0.02	0.02	0.015
	bandwidth	3042	2976	6250
=1 if HH owns the house	impact	-0.068*	-0.088**	-0.040
	s.e.	0.039	0.041	0.032
	p-value	0.091	0.033	0.302
	number of obs	1997	1792	3108
	Pantawid	0.337	0.325	0.375
	non-*Pantawid*	0.405	0.413	0.415
	margin of error	0.018	0.019	0.015
	bandwidth	3740	3327	6250
=1 if HH rents the house	impact	0.000	-0.004	0.003
	s.e.	0.019	0.015	0.01
	p-value	0.933	0.804	0.77
	number of obs	1724	1829	3108
	Pantawid	0.023	0.019	0.023
	non-*Pantawid*	0.024	0.023	0.019
	margin of error	0.02	0.019	0.015
	bandwidth	3180	3401	6250

Note: Sharp linear model. Probit model is used for binary outcomes.
*** p<0.01, ** p<0.05, * p<0.10

82. Eight placebo outcomes are tested, which include displacement in past 12 months, incidence of death or grave illness among household members in past 12 months, ownership of a bank account, lending money to others, planning to migrate in the next two years, affiliation to an indigenous population group, and household's length of

stay in the village. Seven of these placebo outcomes have shown no evidence of discontinuity at the cutoff and are robust to all bandwidths used. The indicator *having plans to relocate* indicates discontinuity in two of the three models. This could be a consequence of program design, which ties receiving cash grants to the municipality where the household is registered as a beneficiary. Consequently, beneficiary households have less incentive to relocate to maintain program benefits. Figure 5 below is the RD plot for length of stay in the village, which shows no systematic difference among households around the cutoff. Table 20 presents the estimation results.

Figure 5. Household's length of stay in the village, test for discontinuity at the cutoff

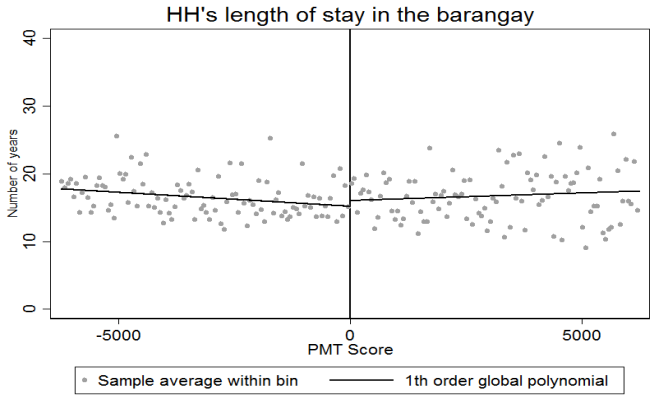


Table 20. Validation Tests Using Sharp Regression Discontinuity on Placebo Outcomes

Placebo outcomes		Bandwidths		
		CCT	IK	Sampling
Length of stay of household in barangay	impact	-0.154	-0.012	-0.635
	s.e.	1.065	1.052	0.832
	p-value	0.885	0.991	0.446
	number of obs	2116	2200	3108
	Pantawid	16.008	16.146	15.52
	non-*Pantawid*	16.162	16.158	16.155
	margin of error	0.038	0.037	0.025
	bandwidth	4007	4167	6250
Experiencing displacement in past 12 months	impact	-0.009	0.007	0.005
	s.e.	0.008	0.007	0.007
	p-value	0.755	0.148	0.136
	number of obs	1318	2809	3107
	Pantawid	0.01	0.024	0.023
	non-*Pantawid*	0.019	0.016	0.018
	margin of error	0.023	0.016	0.015
	bandwidth	2338	5518	6250

Table 20. Validation Tests Using Sharp Regression Discontinuity on Placebo Outcomes

Placebo outcomes		Bandwidths		
		CCT	IK	Sampling
Indigenous Peoples group membership	impact	-0.006	-0.006	-0.017
	s.e.	0.018	0.015	0.011
	p-value	0.741	0.71	0.731
	number of obs	1499	1651	3107
	Pantawid	0.044	0.041	0.036
	non-*Pantawid*	0.049	0.047	0.053
	margin of error	0.021	0.02	0.015
	bandwidth	2711	3019	6250
Experiencing death of HH member in Past 12 months	impact	0.013	-0.008	-0.012
	s.e.	0.035	0.023	0.023
	p-value	0.72	0.612	0.693
	number of obs	1662	3885	3108
	Pantawid	0.135	0.128	0.117
	non-*Pantawid*	0.122	0.135	0.129
	margin of error	0.02	0.013	0.015
	bandwidth	3046	7836	6250
Experiencing grave illness of HH member in past 12 months	impact	-0.023	-0.031	-0.031
	s.e.	0.037	0.026	0.026
	p-value	0.527	0.271	0.239
	number of obs	1928	2904	3108
	Pantawid	0.217	0.211	0.215
	non-*Pantawid*	0.241	0.242	0.246
	margin of error	0.019	0.015	0.015
	bandwidth	3596	5740	6250
Having a bank account	impact	0.006	0.004	0.007
	s.e.	0.033	0.025	0.02
	p-value	0.846	0.874	0.733
	number of obs	1724	2407	3105
	Pantawid	0.132	0.126	0.129
	non-*Pantawid*	0.126	0.122	0.122
	margin of error	0.02	0.017	0.015
	bandwidth	3184	4679	6250
Incidence of lending to anyone	impact	0.001	0.010	0.005
	s.e.	0.019	0.02	0.016
	p-value	0.963	0.692	0.759
	number of obs	1805	2101	3104
	Pantawid	0.056	0.064	0.07
	non-*Pantawid*	0.055	0.055	0.065
	margin of error	0.019	0.018	0.015
	bandwidth	3356	3962	6250

Table 20. Validation Tests Using Sharp Regression Discontinuity on Placebo Outcomes

Placebo outcomes		Bandwidths		
		CCT	IK	Sampling
Having plans to relocate	impact	0.034	0.044**	0.036**
	s.e.	0.023	0.019	0.017
	p-value	0.156	0.018	0.032
	number of obs	1632	2545	3078
	Pantawid	0.072	0.087	0.082
	non-*Pantawid*	0.038	0.043	0.046
	margin of error	0.02	0.016	0.015
	bandwidth	3012	4958	6250

Note: Sharp linear model. Probit model is used for binary outcomes.
*** p<0.01, ** p<0.05, * p<0.10

83. ***Discontinuity of baseline threshold outcome indicators at the baseline.*** Discontinuities at the cut-off on outcome indicators with available data prior to the program are also tested (i.e. completed at least elementary, enrollment of children aged 6-11, and enrollment of children aged 12-15). As these indicators were measured prior to program implementation, we expect that there is no discontinuity for these indicators at the cutoff. The results show that there is no observed discontinuity at the cutoff for all available baseline outcomes, a result that is consistent across the three bandwidths used (Table 21).

Table 21. Validation Tests Using Sharp Regression Discontinuity on Baseline Outcomes

Outcomes		Bandwidths		
		CCT	IK	Sampling
Completed at least elementary	impact	0.017	0.012	0.012
	s.e.	0.025	0.020	0.021
	p-value	0.496	0.561	0.554
	number of obs	6,225	8,447	10,352
	Pantawid	0.82	0.82	0.80
	non-*Pantawid*	0.80	0.79	0.79
	margin of error	0.01	0.01	0.01
	bandwidth	3625	4960	6250
Enrollment, 6-11 years old	impact	-0.01	0.01	0.01
	s.e.	0.03	0.03	0.03
	p-value	0.80	0.83	0.68
	number of obs	1,118	1,299	2,061
	Pantawid	0.93	0.94	0.95
	non-*Pantawid*	0.94	0.93	0.94
	margin of error	0.02	0.02	0.02
	bandwidth	3363	3954	6250

Table 21. Validation Tests Using Sharp Regression Discontinuity on Baseline Outcomes

Outcomes		Bandwidths		
		CCT	IK	Sampling
Enrollment, 12-15 years old	impact	0.01	0.00	-0.04
	s.e.	0.04	0.03	0.03
	p-value	0.71	1.00	0.15
	number of obs	523	863	1,286
	Pantawid	0.93	0.92	0.90
	non-*Pantawid*	0.91	0.90	0.91
	margin of error	0.04	0.03	0.02
	bandwidth	2460	4269	6250

Note: Sharp linear model. Probit model is used for binary outcomes.
*** p<0.01, ** p<0.05, * p<0.10

84. Overall, the results of the different validation tests render credibility to the identifying assumptions of the RD design in this study. Imprecise control on the running variable that determines program eligibility implies local randomization in the neighborhood of the cutoff. Furthermore, the results on baseline covariates and outcomes and placebo outcomes support the assumption that potential outcomes are similar between these two groups.

Annex 3: Sample Areas

Table 18 presents the distribution of the sample households by province and municipality. A total of 5,041households are included in the study.

Table 18. RD Sample Areas by Municipality

Province	**Municipality**	**N (*villages*)**	**N (HHs)**
Agusan del Sur	Esperanza	7	152
Aklan	New Washington	6	180
Albay	Libon	6	175
Bukidnon	Kadingilan	6	180
Camarines Norte	Vinzons	6	176
Catanduanes	Gigmoto	5	145
Cebu	Cebu City	6	179
Cebu	Samboan	5	143
Guimaras	San Lorenzo	5	145
Iloilo	San Joaquin	6	168
La Union	Tubao	5	150
Lanao del Sur	Wao	6	180
Leyte	Babatngon	5	146
Leyte	San Miguel	5	145
Masbate	Milagros	6	172
Misamis Oriental	Kinoguitan	6	165
National Capital Region	Manila (Tondo)	6	180
Negros Occidental	Sipalay City	6	180
Oriental Mindoro	Bongabong	7	203
Pangasinan	Bolinao	6	180
Quezon	Quezon	5	*1*50
Samar (West*ern)*	*B*asey	6	165
Samar (*Western*)	Catbalogan City	6	176
Sarangani	Maasim	6	180
South Cotabato	Banga	6	180
South Cotabato	General Santos City	7	*210*
Surigao del Sur	Tagbina	6	16*6*
Zambales	Olongapo City	5	150
Zamboanga del Norte	Manukan	6	166
Zamboanga Sibugay	Titay	6	154

Annex 4: Statistical Tables – Sharp Regression Discontinuity

Table 22. Program Impacts on Reproductive Health Indicators Using Sharp Regression Discontinuity

Outcomes		Bandwidths		
		CCT	IK	Sampling
Awareness of any modern RH method	impact	0.006	0.004	0.008
	s.e.	0.006	0.007	0.012
	p-value	0.418	0.548	0.372
	number of obs	1451	1727	2511
	Pantawid	0.997	0.994	0.995
	non-*Pantawid*	0.99	0.989	0.987
	margin of error	0.022	0.02	0.016
	bandwidth	3323	4026	6250
Ever use of any modern RH method	impact	0.062	0.073*	0.088**
	s.e.	0.047	0.042	0.034
	p-value	0.193	0.078	0.012
	number of obs	1479	1841	2490
	Pantawid	0.738	0.735	0.755
	non-*Pantawid*	0.676	0.662	0.666
	margin of error	0.021	0.019	0.016
	bandwidth	3411	4347	6250
Contraceptive prevalence rate	impact	0.044	0.037	0.055
	s.e.	0.048	0.048	0.036
	p-value	0.367	0.454	0.104
	number of obs	1546	1523	2289
	Pantawid	0.434	0.43	0.423
	non-*Pantawid*	0.39	0.393	0.368
	margin of error	0.021	0.021	0.017
	bandwidth	3928	3873	6250
Current user of any modern RH method	impact	-0.044	-0.034	-0.006
	s.e.	0.06	0.057	0.045
	p-value	0.45	0.52	0.989
	number of obs	1015	1114	1741
	Pantawid	0.525	0.537	0.525
	non-*Pantawid*	0.569	0.571	0.531
	margin of error	0.026	0.025	0.02
	bandwidth	3359	3689	6250

Note: Sharp linear model. Probit model is used for binary outcomes. *** p<0.01, ** p<0.05, * p<0.10

Table 23. Program Impacts on Antenatal, Delivery, and Postnatal Care Using Sharp Regression Discontinuity

Outcomes		Bandwidths		
		CCT	IK	Sampling
At least 1 pre-natal check-up	impact	0.030	0.031	0.038
	s.e.	0.019	0.029	0.035
	p-value	0.179	0.253	0.154
	number of obs	965	1245	1827
	Pantawid	0.98	0.967	0.97
	non-*Pantawid*	0.95	0.936	0.931
	margin of error	0.026	0.023	0.019
	bandwidth	3014	4023	6250
At least 4x pre-natal check-up	impact	0.061	0.026	0.027
	s.e.	0.054	0.05	0.047
	p-value	0.308	0.453	0.452
	number of obs	1118	1577	1827
	Pantawid	0.797	0.754	0.762
	non-*Pantawid*	0.736	0.728	0.735
	margin of error	0.025	0.021	0.019
	bandwidth	3526	5344	6250
Prenatal check-up by a skilled health professional	impact	0.052	0.047	0.051
	s.e.	0.044	0.042	0.044
	p-value	0.163	0.183	0.112
	number of obs	1220	1281	1839
	Pantawid	0.931	0.93	0.934
	non-*Pantawid*	0.88	0.883	0.883
	margin of error	0.024	0.023	0.019
	bandwidth	3877	4106	6250
At least 1 prenatal check-up in a health facility	impact	-0.020	-0.003	-0.030
	s.e.	0.033	0.031	0.032
	p-value	0.645	0.834	0.456
	number of obs	1439	1149	1749
	Pantawid	0.925	0.945	0.916
	non-*Pantawid*	0.944	0.947	0.946
	margin of error	0.022	0.024	0.02
	bandwidth	5025	3861	6250
Delivery by a skilled health professional	impact	0.099	0.059	0.066
	s.e.	0.058	0.058	0.049
	p-value	0.168	0.455	0.364
	number of obs	949	1014	1680
	Pantawid	0.772	0.745	0.727
	non-*Pantawid*	0.673	0.686	0.66
	margin of error	0.027	0.026	0.02
	bandwidth	3302	3522	6250

Table 23. Program Impacts on Antenatal, Delivery, and Postnatal Care Using Sharp Regression Discontinuity

Outcomes		Bandwidths		
		CCT	IK	Sampling
Facility-based delivery	impact	0.142**	0.144**	0.079
	s.e.	0.062	0.063	0.051
	p-value	0.047	0.042	0.314
	number of obs	936	925	1680
	Pantawid	0.702	0.696	0.63
	non-*Pantawid*	0.56	0.552	0.55
	margin of error	0.027	0.027	0.02
	bandwidth	3235	3192	6250
Post-natal check-up within 72hrs	impact	0.056	0.048	0.026
	s.e.	0.072	0.073	0.047
	p-value	0.45	0.51	0.622
	number of obs	1029	1019	1831
	Pantawid	0.426	0.42	0.376
	non-*Pantawid*	0.371	0.372	0.351
	margin of error	0.026	0.026	0.019
	bandwidth	3203	3179	6250
Postnatal check up by a skilled-health professional	impact	0.203***	0.164**	0.144***
	s.e.	0.063	0.062	0.05
	p-value	0.002	0.017	0.009
	number of obs	805	897	1681
	Pantawid	0.798	0.784	0.725
	non-*Pantawid*	0.595	0.62	0.581
	margin of error	0.029	0.027	0.02
	bandwidth	2830	3129	6250
Postnatal check up at a health facility	impact	0.165**	0.160**	0.147**
	s.e.	0.061	0.064	0.049
	p-value	0.013	0.018	0.015
	number of obs	978	900	1681
	Pantawid	0.72	0.721	0.682
	non-*Pantawid*	0.555	0.562	0.534
	margin of error	0.026	0.027	0.02
	bandwidth	3376	3140	6250

Notes: Sharp linear model. Probit model is used for binary outcomes.
*** p<0.01, ** p<0.05, * p<0.10

Table 24. Program Impacts on Health Services and Healthy Practices (0-6 years old) Using Sharp Regression Discontinuity

Outcomes		Bandwidths		
		CCT	IK	Sampling
Vit A (6 months to 6 years old)	impact	0.059	0.124***	0.089***
	s.e.	0.056	0.051	0.04
	p-value	0.338	0.005	0.004
	number of obs	1126	1319	2205
	Pantawid	0.82	0.859	0.852
	non-*Pantawid*	0.761	0.736	0.763
	margin of error	0.025	0.023	0.018
	bandwidth	3007	3526	6250
Iron (under 6 years old)	impact	0.124**	0.148**	0.155***
	s.e.	0.059	0.057	0.042
	p-value	0.037	0.013	0
	number of obs	1307	1565	2368
	Pantawid	0.353	0.383	0.371
	non-*Pantawid*	0.23	0.235	0.215
	margin of error	0.023	0.021	0.017
	bandwidth	3233	3887	6250
Full immunization at age 1	impact	-0.081	-0.018	-0.037
	s.e.	0.15	0.089	0.102
	p-value	0.596	0.94	0.781
	number of obs	161	509	351
	Pantawid	0.307	0.341	0.325
	non-*Pantawid*	0.388	0.359	0.362
	margin of error	0.065	0.036	0.044
	bandwidth	2961	9373	6250
Regular weight monitoring for 0 to 2 year olds	impact	0.061	0.062**	0.062**
	s.e.	0.048	0.04	0.038
	p-value	0.145	0.023	0.037
	number of obs	527	862	708
	Pantawid	0.174	0.185	0.174
	non-*Pantawid*	0.113	0.123	0.112
	margin of error	0.036	0.028	0.031
	bandwidth	4369	7627	6250
Regular weight monitoring for 2 to 5 year olds	impact	0.237***	0.175**	0.246***
	s.e.	0.073	0.081	0.058
	p-value	0.001	0.025	0
	number of obs	772	685	1246
	Pantawid	0.487	0.445	0.522
	non-*Pantawid*	0.25	0.271	0.276
	margin of error	0.03	0.031	0.023
	bandwidth	3528	3138	6250

Table 24. Program Impacts on Health Services and Healthy Practices (0-6 years old) Using Sharp Regression Discontinuity

Outcomes		Bandwidths		
		CCT	IK	Sampling
Exclusive Breastfeeding for 6 months (among 6 months to 6 years)	impact	-0.059	-0.034	0.014
	s.e.	0.062	0.057	0.052
	p-value	0.317	0.582	0.734
	number of obs	1335	1613	2197
	Pantawid	0.457	0.456	0.482
	non-*Pantawid*	0.515	0.489	0.468
	margin of error	0.023	0.02	0.018
	bandwidth	3584	4419	6250

Notes: Sharp linear model with age as covariate. Probit model is used for binary outcomes.
*** p<0.01, ** p<0.05, * p<0.10

Table 25. Program Impacts on Health Outcomes and Utilization of Health Services (0-6 years old) Using Sharp Regression Discontinuity

Outcomes		Bandwidths		
		CCT	IK	Sampling
Incidence of Diarrhea	impact	-0.025	-0.025	-0.037
	s.e.	0.03	0.029	0.024
	p-value	0.36	0.356	0.115
	number of obs	1728	1747	2376
	Pantawid	0.112	0.109	0.096
	non-*Pantawid*	0.137	0.134	0.132
	margin of error	0.02	0.02	0.017
	bandwidth	4308	4362	6250
Visit to health facility during episode of diarrhea	impact	0.111	0.010	0.082
	s.e.	0.189	0.151	0.114
	p-value	0.519	0.999	0.48
	number of obs	130	181	257
	Pantawid	0.532	0.448	0.492
	non-*Pantawid*	0.42	0.438	0.41
	margin of error	0.072	0.061	0.051
	bandwidth	2669	4116	6250
Visit to public health facility during episode of diarrhea	impact	0.055	-0.033	0.057
	s.e.	0.192	0.133	0.115
	p-value	0.834	0.712	0.621
	number of obs	131	183	257
	Pantawid	0.448	0.383	0.463
	non-*Pantawid*	0.393	0.416	0.406
	margin of error	0.072	0.061	0.051
	bandwidth	2678	4149	6250
Visit to health facility during episode of fever or cough	impact	-0.003	0.040	0.076
	s.e.	0.076	0.066	0.055
	p-value	0.946	0.492	0.16
	number of obs	743	966	1387
	Pantawid	0.487	0.523	0.559
	non-*Pantawid*	0.49	0.483	0.483
	margin of error	0.03	0.026	0.022
	bandwidth	3127	4108	6250
Visit to public health facility during episode of fever or cough	impact	0.000	0.061	0.083
	s.e.	0.072	0.064	0.055
	p-value	0.984	0.273	0.113
	number of obs	759	977	1387
	Pantawid	0.448	0.509	0.54
	non-*Pantawid*	0.448	0.447	0.457
	margin of error	0.03	0.026	0.022
	bandwidth	3180	4137	6250

Table 25. Program Impacts on Health Outcomes and Utilization of Health Services (0-6 years old) Using Sharp Regression Discontinuity

Outcomes		Bandwidths		
		CCT	IK	Sampling
Use of PhilHealth benefits during last hospital visit	impact	0.176	0.118	0.026
	s.e.	0.206	0.173	0.039
	p-value	0.332	0.488	0.382
	number of obs	93	122	246
	Pantawid	0.189	0.152	0.092
	non-*Pantawid*	0.013	0.035	0.067
	margin of error	0.085	0.074	0.052
	bandwidth	2054	2649	6250

Notes: Sharp linear model with age as covariate. Probit model is used for binary outcomes.
*** p<0.01, ** p<0.05, * p<0.10

Table 26. Program Impacts on Nutrition Outcomes (0-6 years old) Using Sharp Regression Discontinuity

Outcomes		Bandwidths		
		CCT	IK	Sampling
Wasting	impact	0.042	0.026	0.033
	s.e.	0.029	0.026	0.023
	p-value	0.156	0.361	0.2
	number of obs	1513	1777	2098
	Pantawid	0.11	0.102	0.108
	non-*Pantawid*	0.068	0.076	0.075
	margin of error	0.021	0.02	0.018
	bandwidth	4317	5224	6250
Underweight	impact	0.049	0.041	0.041
	s.e.	0.066	0.062	0.042
	p-value	0.475	0.599	0.286
	number of obs	1268	1450	2316
	Pantawid	0.323	0.319	0.292
	non-*Pantawid*	0.274	0.278	0.252
	margin of error	0.023	0.022	0.017
	bandwidth	3190	3663	6250
Stunting	impact	0.005	0.009	-0.001
	s.e.	0.057	0.057	0.047
	p-value	0.913	0.985	0.813
	number of obs	1459	1451	2282
	Pantawid	0.411	0.411	0.39
	non-*Pantawid*	0.406	0.402	0.391
	margin of error	0.022	0.022	0.017
	bandwidth	3751	3712	6250

Notes: Sharp linear model with age as covariate. Probit model is used for binary outcomes.
*** p<0.01, ** p<0.05, * p<0.10

Table 27. Program Impacts on Child Health (6-14 years old) Using Sharp Regression Discontinuity

Outcomes		Bandwidths		
		CCT	IK	Sampling
Deworming at least 1 per year (6 - 14)[b]	impact	0.092**	0.060	0.047
	s.e.	0.046	0.037	0.032
	p-value	0.036	0.112	0.108
	number of obs	1861	2511	3912
	Pantawid	0.782	0.787	0.774
	non-*Pantawid*	0.689	0.726	0.727
	margin of error	0.019	0.016	0.013
	bandwidth	2902	4027	6250
Deworming at least 2 per year (6-14)	impact	-0.003	-0.036	-0.017
	s.e.	0.052	0.047	0.041
	p-value	0.952	0.628	0.744
	number of obs	2301	2949	3913
	Pantawid	0.498	0.462	0.471
	non-*Pantawid*	0.501	0.498	0.488
	margin of error	0.017	0.015	0.013
	bandwidth	3644	4718	6250

[b] Estimates from base model with demographic and supply covariates

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

Table 28. Program Impacts on Education (3-5 years old) Using Sharp Regression Discontinuity

Outcomes		Bandwidths		
		CCT	IK	Sampling
Enrollment of 3-5	impact	0.007	0.004	0.015
	s.e.	0.085	0.066	0.065
	p-value	0.963	0.906	0.91
	number of obs	503	764	829
	Pantawid	0.536	0.525	0.525
	non-*Pantawid*	0.529	0.521	0.509
	margin of error	0.037	0.03	0.029
	bandwidth	3666	5723	6250
Attendance of 3-5	impact	0.390***	0.234**	0.057
	s.e.	0.116	0.116	0.102
	p-value	0.008	0.042	0.335
	number of obs	117	196	399
	Pantawid	0.944	0.788	0.684
	non-*Pantawid*	0.553	0.553	0.627
	margin of error	0.076	0.059	0.041
	bandwidth	1607	2946	6250

Notes: Sharp linear model with age as covariate. Probit model is used for binary outcomes.
*** p<0.01, ** p<0.05, * p<0.10

Table 29. Program Impacts on Education (6-20 years old) Using Sharp Regression Discontinuity

Outcomes		Bandwidths		
		CCT	IK	Sampling
Enrollment of 6-11	impact	-0.001	-0.029	-0.006
	s.e.	0.022	0.063	0.007
	p-value	0.896	0.369	0.339
	number of obs	1544	1119	2648
	Pantawid	0.98	0.954	0.981
	non-*Pantawid*	0.982	0.984	0.986
	margin of error	0.021	0.025	0.016
	bandwidth	3654	2544	6250
Enrollment of 12 - 15[c]	impact	0.063*	0.073**	0.005
	s.e.	0.043	0.046	0.022
	p-value	0.083	0.04	0.915
	number of obs	786	948	1673
	Pantawid	0.949	0.957	0.934
	non-*Pantawid*	0.886	0.883	0.929
	margin of error	0.029	0.027	0.02
	bandwidth	2727	3371	6250
Enrollment of 16-20	impact	0.035	0.005	0.021
	s.e.	0.059	0.056	0.056
	p-value	0.815	0.904	0.93
	number of obs	916	1357	1536
	Pantawid	0.531	0.487	0.497
	non-*Pantawid*	0.497	0.482	0.476
	margin of error	0.027	0.022	0.021
	bandwidth	3685	5479	6250
Enrollment of 6-14	impact	0.016	0.009	-0.005
	s.e.	0.03	0.03	0.01
	p-value	0.364	0.581	0.435
	number of obs	2025	1802	3913
	Pantawid	0.97	0.964	0.967
	non-*Pantawid*	0.954	0.954	0.971
	margin of error	0.018	0.019	0.013
	bandwidth	3180	2792	6250

Table 29. Program Impacts on Education (6-20 years old) Using Sharp Regression Discontinuity

Outcomes		Bandwidths		
		CCT	IK	Sampling
Attendance of 6-11	impact	-0.017	-0.017	-0.005
	s.e.	0.03	0.028	0.03
	p-value	0.597	0.561	0.841
	number of obs	1526	1464	2589
	Pantawid	0.934	0.937	0.942
	non-*Pantawid*	0.951	0.954	0.947
	margin of error	0.021	0.021	0.016
	bandwidth	3694	3484	6250
Attendance of 12-15	impact	0.046	0.024	0.043
	s.e.	0.033	0.022	0.027
	p-value	0.189	0.309	0.183
	number of obs	987	1185	1537
	Pantawid	0.978	0.97	0.976
	non-*Pantawid*	0.931	0.946	0.933
	margin of error	0.026	0.024	0.021
	bandwidth	3845	4756	6250
Attendance of 16-20	impact	-0.013	-0.016	0.061
	s.e.	0.041	0.056	0.041
	p-value	0.924	0.765	0.14
	number of obs	309	362	681
	Pantawid	0.958	0.942	0.977
	non-*Pantawid*	0.971	0.958	0.916
	margin of error	0.047	0.043	0.032
	bandwidth	2544	3062	6250
Dropout of 6-11	impact	0.017	0.047	0.016**
	s.e.	0.02	0.045	0.008
	p-value	0.443	0.11	0.033
	number of obs	1468	1260	2647
	Pantawid	0.033	0.061	0.031
	non-*Pantawid*	0.017	0.014	0.014
	margin of error	0.021	0.023	0.016
	bandwidth	3447	2919	6250

Table 29. Program Impacts on Education (6-20 years old) Using Sharp Regression Discontinuity

Outcomes		Bandwidths		
		CCT	IK	Sampling
Dropout of 12-15	impact	-0.046	-0.050	0.003
	s.e.	0.036	0.042	0.022
	p-value	0.255	0.179	0.676
	number of obs	737	1067	1672
	Pantawid	0.045	0.051	0.075
	non-*Pantawid*	0.092	0.102	0.072
	margin of error	0.03	0.025	0.02
	bandwidth	2559	3857	6250
Dropout of 16-20	impact	-0.039	0.000	-0.023
	s.e.	0.063	0.058	0.058
	p-value	0.756	0.852	0.886
	number of obs	858	1377	1519
	Pantawid	0.475	0.529	0.514
	non-*Pantawid*	0.515	0.529	0.537
	margin of error	0.028	0.022	0.021
	bandwidth	3518	5645	6250
Tuition	impact	20.727	20.146	23.575
	s.e.	29.308	25.806	21.48
	p-value	0.48	0.436	0.274
	N	3043	3869	4948
	Pantawid	102.921	103.565	110.549
	non-*Pantawid*	82.194	83.419	86.974
	Margin of error	0.874	0.682	0.502
	bandwidth	3778	4859	6250
Exam	impact	-6.727*	-0.893	-1.546
	s.e.	4.002	3.473	3.51
	p-value	0.095	0.797	0.66
	N	1900	5981	4948
	Pantawid	7.725	11.844	11.692
	non-*Pantawid*	14.453	12.737	13.238
	Margin of error	0.151	0.074	0.082
	bandwidth	2190	7123	6250

Table 29. Program Impacts on Education (6-20 years old) Using Sharp Regression Discontinuity

Outcomes		Bandwidths		
		CCT	IK	Sampling
Uniform	impact	7.620	5.748	8.496**
	s.e.	4.696	3.698	3.315
	p-value	0.106	0.122	0.011
	N	2428	3781	4948
	Pantawid	44.208	44.211	45.505
	non-*Pantawid*	36.588	38.463	37.008
	Margin of error	0.157	0.099	0.078
	bandwidth	2898	4779	6250
Books	impact	-1.640	-4.810	-4.942
	s.e.	4.533	3.44	3.323
	p-value	0.718	0.164	0.139
	N	2680	4670	4948
	Pantawid	5.437	5.419	5.837
	non-*Pantawid*	7.077	10.229	10.779
	Margin of error	0.144	0.083	0.078
	bandwidth	3266	5886	6250
Baon	impact	36.100	52.605**	47.470*
	s.e.	37.208	21.889	24.235
	p-value	0.333	0.017	0.052
	N	2491	6646	4948
	Pantawid	297.794	312.654	312.812
	non-*Pantawid*	261.694	260.049	265.342
	Margin of error	1.226	0.442	0.567
	bandwidth	2987	7759	6250
Other educational expenditures	impact	3.188	2.183	4.499
	s.e.	7.372	6.315	5.682
	p-value	0.666	0.73	0.43
	N	3717	4452	4948
	Pantawid	14.182	13.568	15.458
	non-*Pantawid*	10.994	11.384	10.959
	Margin of error	0.199	0.156	0.133
	bandwidth	4702	5588	6250

[c] estimates from base model with demographic and supply covariates

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

Table 30. Program Impacts on Child Labor (10-14 years old) Using Sharp Regression Discontinuity

Outcomes		Bandwidths		
		CCT	IK	Sampling
Worked at least 1 hour in previous month	impact	0.002	0.004	-0.006
	s.e.	0.041	0.037	0.029
	p-value	0.894	0.975	0.901
	number of obs	1241	1288	2053
	Pantawid	0.122	0.119	0.099
	non-*Pantawid*	0.119	0.115	0.105
	margin of error	0.023	0.023	0.018
	bandwidth	3747	3938	6250
Number of days worked in the past month[d]	impact	-6.693**	-5.132**	-4.056
	s.e.	0.488	0.351	0.305
	p-value	0.017	0.05	0.109
	number of obs	107	159	226
	Pantawid	3.05	5.185	6.439
	non-*Pantawid*	9.743	10.317	10.495
	margin of error	0.078	0.046	0.033
	bandwidth	3085	4584	6250

[d] Estimates from count model (Poisson).Estimating using OLS yields comparable results.

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

Table 31. Program Impacts on Household Welfare Using Sharp Regression Discontinuity

Outcomes		Bandwidths		
		CCT	IK	Sampling
Covered by PhilHealth or PhilHealth Indigent Program	impact	0.376***	0.393***	0.349***
	s.e.	0.035	0.035	0.032
	p-value	0	0	0
	number of obs	1930	1592	3108
	Pantawid	0.911	0.921	0.878
	non-*Pantawid*	0.535	0.528	0.529
	margin of error	0.019	0.021	0.015
	bandwidth	3599	2897	6250
Per capita total expenditures	impact	447.185	1,512.294	1,805.209**
	s.e.	0.045	0.035	0.027
	p-value	0.726	0.131	0.019
	number of obs	1679	2162	3108
	Pantawid	28498.21	29216.34	28962.75
	non-*Pantawid*	28051.02	27704.04	27157.54
	margin of error	0.002	0.001	0.001
	bandwidth	3083	4099	6250
Per capita food expenditures	impact	-219.070	842.223	1,049.020*
	s.e.	0.048	0.043	0.029
	p-value	0.808	0.301	0.05
	number of obs	1610	1949	3108
	Pantawid	18465.35	19235.83	19105.61
	non-*Pantawid*	18684.42	18393.61	18056.59
	margin of error	0.002	0.002	0.001
	bandwidth	2935	3643	6250
Per capita nonfood expenditures	impact	802.553	734.939*	734.648*
	s.e.	0.06	0.045	0.045
	p-value	0.116	0.054	0.052
	number of obs	1930	3073	3108
	Pantawid	8924.021	8702.691	8696.353
	non-*Pantawid*	8121.468	7967.751	7961.705
	margin of error	0.002	0.001	0.001
	bandwidth	3602	6160	6250
Per school-age child education expenditures	impact	206.605**	200.561**	77.671
	s.e.	0.281	0.241	0.203
	p-value	0.034	0.01	0.188
	number of obs	1402	2018	2939
	Pantawid	458.424	431.039	330.159
	non-*Pantawid*	251.818	230.477	252.488
	margin of error	0.012	0.009	0.006
	bandwidth	2690	4073	6250

Table 31. Program Impacts on Household Welfare Using Sharp Regression Discontinuity

Outcomes		Bandwidths		
		CCT	IK	Sampling
Per capita clothing expenditures	impact	75.275**	73.406**	44.268**
	s.e.	0.277	0.258	0.157
	p-value	0.032	0.029	0.029
	number of obs	1351	1453	3108
	Pantawid	166.799	169.303	151.281
	non-*Pantawid*	91.524	95.897	107.013
	margin of error	0.012	0.011	0.005
	bandwidth	2403	2600	6250
Per capita medical expenditures	impact	14.668	14.423*	14.595**
	s.e.	0.234	0.204	0.16
	p-value	0.14	0.089	0.028
	number of obs	1789	2100	3107
	Pantawid	50.006	48.986	48.969
	non-*Pantawid*	35.338	34.563	34.374
	margin of error	0.009	0.007	0.005
	bandwidth	3324	3953	6250
Per capita gambling expenditures	impact	-0.012	0.005	-0.017
	s.e.	0.109	0.087	0.072
	p-value	0.925	0.963	0.863
	number of obs	1469	2196	3108
	Pantawid	1.194	1.259	1.33
	non-*Pantawid*	1.207	1.254	1.347
	margin of error	0.005	0.003	0.002
	bandwidth	2641	4161	6250
Per capita alcohol and tobacco expenditures	impact	24.785	26.134	29.154
	s.e.	0.311	0.299	0.236
	p-value	0.323	0.265	0.118
	number of obs	1819	2068	3108
	Pantawid	93.492	92.04	94.287
	non-*Pantawid*	68.707	65.906	65.133
	margin of error	0.012	0.011	0.007
	bandwidth	3378	3903	6250
Self-rated poverty status	impact	-0.074*	-0.060**	-0.062**
	s.e.	0.04	0.026	0.027
	p-value	0.067	0.022	0.023
	number of obs	1871	3272	3104
	Pantawid	0.71	0.713	0.711
	non-*Pantawid*	0.784	0.773	0.774
	margin of error	0.019	0.014	0.015
	bandwidth	3486	6524	6250

Table 31. Program Impacts on Household Welfare Using Sharp Regression Discontinuity

Outcomes		Bandwidths		
		CCT	IK	Sampling
Ever experiencing hunger in the past 3 months	impact	-0.069	-0.035	-0.038
	s.e.	0.046	0.026	0.03
	p-value	0.129	0.593	0.313
	number of obs	1751	4081	3108
	Pantawid	0.268	0.253	0.257
	non-*Pantawid*	0.337	0.288	0.295
	margin of error	0.02	0.013	0.015
	bandwidth	3236	8368	6250
Ever attending any parenting session	impact	0.501***	0.492***	0.493***
	s.e.	0.041	0.029	0.034
	p-value	0	0	0
	number of obs	1847	3981	3106
	Pantawid	0.7	0.713	0.715
	non-*Pantawid*	0.199	0.221	0.222
	margin of error	0.019	0.013	0.015
	bandwidth	3445	8074	6250
Aware that parenting session is called FDS or Family Development Session	impact	0.475***	0.512***	0.524***
	s.e.	0.086	0.076	0.079
	p-value	0	0	0
	number of obs	1034	908	1474
	Pantawid	0.809	0.819	0.849
	non-*Pantawid*	0.334	0.307	0.325
	margin of error	0.026	0.027	0.021
	bandwidth	4371	3828	6250

Notes: Sharp linear model with household size as covariate. Probit model is used for binary outcomes.
*** p<0.01, ** p<0.05, * p<0.10

Table 32. Program Impacts on Adult Employment Using Sharp Regression Discontinuity

Outcomes		Bandwidths		
		CCT	IK	Sampling
Labor force participation	impact	0.021	0.022	-0.001
	s.e.	0.024	0.023	0.018
	p-value	0.392	0.351	0.894
	number of obs	5004	5143	9499
	Pantawid	0.651	0.654	0.633
	non-*Pantawid*	0.631	0.631	0.634
	margin of error	0.012	0.011	0.008
	bandwidth	3057	3157	6250
Employment	impact	0.002	0.012	0.015
	s.e.	0.019	0.017	0.015
	p-value	0.912	0.46	0.292
	number of obs	3437	3995	6081
	Pantawid	0.932	0.938	0.937
	non-*Pantawid*	0.93	0.925	0.922
	margin of error	0.014	0.013	0.011
	bandwidth	3350	3924	6250
Looking for additional work if employed	impact	0.06[a]	-0.026	0.030
	s.e.	0.03	0.039	0.023
	p-value	0.03	0.431	0.307
	number of obs	4136	2173	5655
	Pantawid	0.17	0.139	0.156
	non-*Pantawid*	0.11	0.164	0.126
	margin of error	0.01	0.018	0.011
	bandwidth	4445	2186	6250
Looking for work if unemployed	impact	0.201	0.148	0.015
	s.e.	0.187	0.191	0.12
	p-value	0.274	0.482	0.935
	number of obs	183	218	426
	Pantawid	0.559	0.491	0.431
	non-*Pantawid*	0.358	0.343	0.416
	margin of error	0.061	0.056	0.04
	bandwidth	2413	2760	6250

Table 32. Program Impacts on Adult Employment Using Sharp Regression Discontinuity

Outcomes		Bandwidths		
		CCT	IK	Sampling
Total labor hours	impact	-1.729	0.746	0.666
	s.e.	2.305	1.765	1.566
	p-value	0.454	0.673	0.671
	number of obs	2960	4086	5614
	Pantawid	38.659	39.873	39.516
	non-*Pantawid*	40.388	39.127	38.85
	margin of error	0.07	0.045	0.034
	bandwidth	3121	4422	6250

[a] estimate coming from a CCT Triangular kernel BW

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

Table 33. Program Impacts on Parent's Future Expectations Using Sharp Regression Discontinuity

Outcomes		Bandwidths		
		CCT	IK	Sampling
Child will finish elementary	impact	0.024	0.001	-0.003
	s.e.	0.023	0.018	0.017
	p-value	0.283	0.989	0.871
	number of obs	1930	2319	3199
	Pantawid	0.973	0.959	0.956
	non-*Pantawid*	0.948	0.958	0.959
	margin of error	0.019	0.017	0.015
	bandwidth	3801	4533	6250
Child will finish high school	impact	0.020	0.011	0.004
	s.e.	0.029	0.023	0.02
	p-value	0.416	0.679	0.952
	number of obs	2727	3351	4740
	Pantawid	0.937	0.936	0.934
	non-*Pantawid*	0.917	0.925	0.93
	margin of error	0.016	0.014	0.012
	bandwidth	3504	4365	6250
Child will finish college	impact	0.065	0.071	0.067*
	s.e.	0.064	0.063	0.041
	p-value	0.262	0.217	0.086
	number of obs	2217	2253	4198
	Pantawid	0.728	0.734	0.743
	non-*Pantawid*	0.663	0.662	0.675
	margin of error	0.017	0.017	0.013
	bandwidth	3237	3334	6250
Child will have a better future	impact	0.051	0.050	0.061*
	s.e.	0.044	0.036	0.032
	p-value	0.214	0.194	0.089
	number of obs	3082	3364	5594
	Pantawid	0.856	0.869	0.869
	non-*Pantawid*	0.805	0.819	0.808
	margin of error	0.015	0.014	0.011
	bandwidth	3372	3702	6250

Note: Sharp linear model. Probit model is used for binary outcomes.
*** p<0.01, ** p<0.05, * p<0.10

Annex 5: Statistical Tables – Fuzzy Regression Discontinuity

Table 34. Program Impacts on Reproductive Health Using Fuzzy Regression Discontinuity

Outcomes		Bandwidths		
		CCT	IK	Sampling
Awareness of any modern RH method	impact	0.007	0.005	0.007
	s.e.	0.011	0.009	0.007
	p-value	0.498	0.588	0.324
	number of obs	1451	1727	2511
	bandwidth	3323	4026	6250
Ever use of any modern RH method	impact	0.083	0.104*	0.120***
	s.e.	0.056	0.052	0.043
	p-value	0.148	0.056	0.008
	number of obs	1479	1841	2490
	bandwidth	3411	4347	6250
Contraceptive prevalence rate	impact	0.074	0.062	0.071
	s.e.	0.058	0.059	0.047
	p-value	0.213	0.299	0.141
	number of obs	1546	1523	2289
	bandwidth	3928	3873	6250
Current user of any modern RH method	impact	-0.023	-0.024	-0.002
	s.e.	0.073	0.068	0.054
	p-value	0.758	0.732	0.966
	number of obs	1015	1114	1741
	bandwidth	3359	3689	6250

Note: Fuzzy IV model. Probit model is used for binary outcomes.
*** p<0.01, ** p<0.05, * p<0.10

Table 35. Program Impacts on Antenatal, Delivery, and Postnatal Care Using Fuzzy Regression Discontinuity

Outcomes		Bandwidths		
		CCT	IK	Sampling
At least 1 pre-natal check-up	impact	0.053	0.037	0.034
	s.e.	0.034	0.028	0.025
	p-value	0.129	0.194	0.188
	number of obs	965	1245	1827
	bandwidth	3014	4023	6250
At least 4x pre-natal check-up	impact	0.083	0.040	0.037
	s.e.	0.071	0.057	0.054
	p-value	0.248	0.486	0.494
	number of obs	1118	1577	1827
	bandwidth	3526	5344	6250
Prenatal check-up by a skilled health professional	impact	0.058	0.065	0.043
	s.e.	0.041	0.042	0.036
	p-value	0.174	0.132	0.244
	number of obs	1220	1281	1839
	bandwidth	3877	4106	6250
At least 1 prenatal check-up in a health facility	impact	-0.016	0.008	-0.028
	s.e.	0.031	0.035	0.03
	p-value	0.598	0.822	0.359
	number of obs	1439	1149	1749
	bandwidth	5025	3861	6250
Delivery by a skilled health professional	impact	0.054	0.017	-0.002
	s.e.	0.073	0.071	0.06
	p-value	0.47	0.815	0.967
	number of obs	949	1014	1680
	bandwidth	3302	3522	6250
Facility-based delivery	impact	0.136*	0.139*	0.032
	s.e.	0.076	0.076	0.064
	p-value	0.082	0.076	0.622
	number of obs	936	925	1680
	bandwidth	3235	3192	6250
Post-natal check-up within 72hrs	impact	0.027	0.015	-0.014
	s.e.	0.078	0.077	0.057
	p-value	0.733	0.851	0.806
	number of obs	1029	1019	1831
	bandwidth	3203	3179	6250

Table 35. Program Impacts on Antenatal, Delivery, and Postnatal Care Using Fuzzy Regression Discontinuity

Outcomes		Bandwidths		
		CCT	IK	Sampling
Postnatal check up by a skilled-health professional	impact	0.170*	0.143	0.118*
	s.e.	0.089	0.086	0.065
	p-value	0.064	0.107	0.078
	number of obs	805	897	1681
	bandwidth	2830	3129	6250
Postnatal check up at a health facility	impact	0.184**	0.193**	0.137*
	s.e.	0.086	0.09	0.068
	p-value	0.039	0.039	0.051
	number of obs	978	900	1681
	bandwidth	3376	3140	6250

Notes: Fuzzy IV model. Probit model is used for binary outcomes.
*** p<0.01, ** p<0.05, * p<0.10

Table 36. Program Impacts on Health Services and Healthy Practices (0-6 years old) Using Fuzzy Regression Discontinuity

Outcomes		Bandwidths		
		CCT	IK	Sampling
Vit A (6 months to 6 years old)	impact	0.088	0.140**	0.111***
	s.e.	0.06	0.055	0.039
	p-value	0.155	0.015	0.007
	number of obs	1126	1319	2205
	bandwidth	3007	3526	6250
Iron (under 6 years old)	impact	0.169**	0.176**	0.187***
	s.e.	0.081	0.075	0.058
	p-value	0.043	0.026	0.003
	number of obs	1307	1565	2368
	bandwidth	3233	3887	6250
Full immunization at age 1	impact	-0.303	0.046	0.057
	s.e.	0.196	0.121	0.142
	p-value	0.13	0.706	0.691
	number of obs	161	509	351
	bandwidth	2961	9373	6250
Regular weight monitoring for 0 to 2 year olds	impact	0.087	0.088	0.095
	s.e.	0.08	0.062	0.067
	p-value	0.285	0.166	0.167
	number of obs	527	862	708
	bandwidth	4369	7627	6250
Regular weight monitoring for 2 to 5 year olds	impact	0.334***	0.263**	0.359***
	s.e.	0.095	0.105	0.069
	p-value	0.001	0.017	0
	number of obs	772	685	1246
	bandwidth	3528	3138	6250
Exclusive Breastfeeding for 6 months (among 6 months to 6 years)	impact	-0.053	-0.013	0.051
	s.e.	0.079	0.077	0.067
	p-value	0.505	0.867	0.453
	number of obs	1335	1613	2197
	bandwidth	3584	4419	6250

Notes: Fuzzy IV model with age as covariate. Probit model is used for binary outcomes.
*** p<0.01, ** p<0.05, * p<0.10

Table 37. Program Impacts on Health Outcomes and Utilization of Health Services (0-6 years old) Using Fuzzy Regression Discontinuity

Outcomes		Bandwidths		
		CCT	IK	Sampling
Incidence of Diarrhea	impact	-0.035	-0.039	-0.048
	s.e.	0.036	0.036	0.03
	p-value	0.339	0.287	0.12
	number of obs	1728	1747	2376
	bandwidth	4308	4362	6250
Visit to health facility during episode of diarrhea	impact	0.080	0.018	0.049
	s.e.	0.211	0.198	0.148
	p-value	0.706	0.929	0.745
	number of obs	130	181	257
	bandwidth	2669	4116	6250
Visit to public health facility during episode of diarrhea	impact	0.016	-0.134	0.002
	s.e.	0.2	0.198	0.15
	p-value	0.937	0.505	0.987
	number of obs	131	183	257
	bandwidth	2678	4149	6250
Visit to health facility during episode of fever or cough	impact	0.088	0.077	0.070
	s.e.	0.102	0.091	0.069
	p-value	0.392	0.399	0.317
	number of obs	743	966	1387
	bandwidth	3127	4108	6250
Visit to public health facility during episode of fever or cough	impact	0.070	0.093	0.081
	s.e.	0.102	0.09	0.07
	p-value	0.498	0.305	0.256
	number of obs	759	977	1387
	bandwidth	3180	4137	6250
Use of PhilHealth benefits during last hospital visit	impact	0.040	0.004	0.007
	s.e.	0.211	0.121	0.103
	p-value	0.85	0.975	0.943
	number of obs	93	122	246
	bandwidth	2054	2649	6250

Notes: Fuzzy IV model with age as covariate. Probit model is used for binary outcomes.
*** p<0.01, ** p<0.05, * p<0.10

Table 38. Program Impacts on Nutrition Outcomes (0-6 years old) Using Fuzzy Regression Discontinuity

Outcomes		Bandwidths		
		CCT	IK	Sampling
Wasting	impact	0.038	0.030	0.042
	s.e.	0.042	0.035	0.029
	p-value	0.378	0.393	0.164
	number of obs	1513	1777	2098
	bandwidth	4317	5224	6250
Underweight	impact	0.055	0.025	0.027
	s.e.	0.077	0.073	0.054
	p-value	0.48	0.73	0.624
	number of obs	1268	1450	2316
	bandwidth	3190	3663	6250
Stunting	impact	-0.012	-0.006	-0.021
	s.e.	0.068	0.067	0.057
	p-value	0.861	0.929	0.723
	number of obs	1459	1451	2282
	bandwidth	3751	3712	6250

Notes: Fuzzy IV model with age as covariate. Probit model is used for binary outcomes.
*** p<0.01, ** p<0.05, * p<0.10

Table 39. Program Impacts on Child Health (6-14 years old) Using Fuzzy Regression Discontinuity

Outcomes		Bandwidths		
		CCT	IK	Sampling
Deworming at least 1 per year (6 - 14)	impact	0.102*	0.087*	0.078**
	s.e.	0.051	0.043	0.035
	p-value	0.056	0.052	0.036
	number of obs	1861	2511	3913
	bandwidth	2902	4027	6250
Deworming at least 2 per year (6-14)	impact	0.000	-0.048	-0.017
	s.e.	0.063	0.056	0.049
	p-value	0.994	0.4	0.736
	number of obs	2301	2949	3913
	bandwidth	3644	4718	6250

Fuzzy IV model. Probit model is used for binary outcomes.
*** p<0.01, ** p<0.05, * p<0.10

Table 40. Program Impacts on Education (3-5 years old) Using Fuzzy Regression Discontinuity

Outcomes		Bandwidths		
		CCT	IK	Sampling
Enrollment of 3-5	impact	0.194*	0.076	0.090
	s.e.	0.108	0.08	0.08
	p-value	0.082	0.35	0.271
	number of obs	503	764	829
	bandwidth	3666	5723	6250
Attendance of 3-5	impact	.	0.414**	0.117
	s.e.		0.198	0.124
	p-value		0.043	0.35
	number of obs		196	399
	bandwidth	1607	2946	6250

Notes: Fuzzy IV model with age as covariate. Probit model is used for binary outcomes.
*** p<0.01, ** p<0.05, * p<0.10

Table 41. Program Impacts on Education (6-20 years old) Using Fuzzy Regression Discontinuity

Outcomes		Bandwidths		
		CCT	IK	Sampling
Enrollment of 6-11	impact	0.007	-0.014	-0.002
	s.e.	0.017	0.021	0.012
	p-value	0.702	0.504	0.885
	number of obs	1544	1119	2648
	bandwidth	3654	2544	6250
Enrollment of 12 - 15	impact	0.061	0.080*	-0.003
	s.e.	0.048	0.041	0.029
	p-value	0.214	0.058	0.906
	number of obs	787	949	1674
	bandwidth	2727	3371	6250
Enrollment of 16-20	impact	0.102	0.059	0.054
	s.e.	0.09	0.095	0.092
	p-value	0.261	0.54	0.563
	number of obs	916	1357	1536
	bandwidth	3685	5479	6250
Enrollment of 6-14	impact	0.026	0.015	0.000
	s.e.	0.022	0.023	0.013
	p-value	0.245	0.502	0.984
	number of obs	2025	1802	3913
	bandwidth	3180	2792	6250
Attendance of 6-11	impact	-0.021	-0.019	-0.005
	s.e.	0.032	0.033	0.026
	p-value	0.516	0.572	0.844
	number of obs	1526	1464	2589
	bandwidth	3694	3484	6250
Attendance of 12-15	impact	0.057	0.015	0.055
	s.e.	0.042	0.04	0.033
	p-value	0.19	0.715	0.11
	number of obs	987	1185	1537
	bandwidth	3845	4756	6250

Table 41. Program Impacts on Education (6-20 years old) Using Fuzzy Regression Discontinuity

Outcomes		Bandwidths		
		CCT	IK	Sampling
Attendance of 16-20	impact	-0.074	-0.040	0.052
	s.e.	0.076	0.067	0.058
	p-value	0.338	0.556	0.377
	number of obs	309	362	681
	bandwidth	2544	3062	6250
Dropout of 6-11	impact	0.000	0.024	0.005
	s.e.	0.02	0.021	0.015
	p-value	0.988	0.262	0.759
	number of obs	1468	1260	2647
	bandwidth	3447	2919	6250
Dropout of 12-15	impact	-0.062	-0.068	0.010
	s.e.	0.053	0.041	0.029
	p-value	0.255	0.111	0.744
	number of obs	737	1067	1672
	bandwidth	2559	3857	6250
Dropout of 16-20	impact	-0.099	-0.042	-0.047
	s.e.	0.09	0.098	0.095
	p-value	0.28	0.67	0.628
	number of obs	858	1377	1519
	bandwidth	3518	5645	6250

Note: Fuzzy IV model. Probit model is used for binary outcomes.
*** p<0.01, ** p<0.05, * p<0.10

Table 42. Program Impacts on Child Labor (10-14 years old) Using Fuzzy Regression Discontinuity

Outcomes		Bandwidths		
		CCT	IK	Sampling
Worked at least 1 hour in previous month	impact	0.003	0.007	-0.003
	s.e.	0.039	0.037	0.033
	p-value	0.929	0.857	0.939
	number of obs	1241	1288	2053
	bandwidth	3747	3938	6250
Number of days worked in the past month	impact	-7.064	-7.002	-3.826
	s.e.	5.601	4.154	3.255
	p-value	0.216	0.102	0.248
	number of obs	107	159	226
	bandwidth	3085	4584	6250

Note: Fuzzy IV model. Probit model is used for binary outcomes.
*** p<0.01, ** p<0.05, * p<0.10

Table 43. Program Impacts on Household Welfare Using Fuzzy Regression Discontinuity

Outcomes		Bandwidths		
		CCT	IK	Sampling
Covered by PhilHealth or PhilHealth Indigent Program	impact	0.522***	0.533***	0.501***
	s.e.	0.048	0.05	0.041
	p-value	0	0	0
	number of obs	1930	1592	3108
	bandwidth	3599	2897	6250
Per capita total expenditures	impact	220.098	1,564.518	2,029.078*
	s.e.	0.057	0.047	0.038
	p-value	0.893	0.252	0.063
	number of obs	1679	2162	3108
	bandwidth	3083	4099	6250
Per capita food expenditures	impact	-364.003	950.886	1,307.664*
	s.e.	0.061	0.057	0.039
	p-value	0.751	0.382	0.077
	number of obs	1610	1949	3108
	bandwidth	2935	3643	6250
Per capita nonfood expenditures	impact	765.942	761.441	745.378
	s.e.	0.079	0.063	0.063
	p-value	0.261	0.159	0.166
	number of obs	1930	3073	3108
	bandwidth	3602	6160	6250
Per school-age child education expenditures	impact	281.296**	290.944**	130.802
	s.e.	0.346	0.318	0.274
	p-value	0.032	0.01	0.12
	number of obs	1402	2018	2939
	bandwidth	2690	4073	6250
Per capita clothing expenditures	impact	86.073*	85.702*	63.956**
	s.e.	0.347	0.328	0.215
	p-value	0.064	0.058	0.031
	number of obs	1351	1453	3108
	bandwidth	2403	2600	6250
Per capita medical expenditures	impact	23.487*	22.745*	22.759**
	s.e.	0.31	0.284	0.231
	p-value	0.093	0.07	0.028
	number of obs	1789	2100	3107
	bandwidth	3324	3953	6250

Table 43. Program Impacts on Household Welfare Using Fuzzy Regression Discontinuity

Outcomes		Bandwidths		
		CCT	IK	Sampling
Per capita gambling expenditures	impact	-0.006	-0.002	-0.053
	s.e.	0.136	0.117	0.101
	p-value	0.971	0.987	0.699
	number of obs	1469	2196	3108
	bandwidth	2641	4161	6250
Per capita alcohol and tobacco expenditures	impact	27.568	27.390	45.044
	s.e.	0.418	0.41	0.337
	p-value	0.424	0.404	0.112
	number of obs	1819	2068	3108
	bandwidth	3378	3903	6250
Self-rated poverty status	impact	-0.081	-0.072*	-0.079*
	s.e.	0.054	0.039	0.04
	p-value	0.143	0.071	0.057
	number of obs	1871	3272	3104
	bandwidth	3486	6524	6250
Ever experiencing hunger in the past 3 months	impact	-0.097*	-0.049	-0.066
	s.e.	0.057	0.036	0.043
	p-value	0.097	0.182	0.137
	number of obs	1751	4081	3108
	bandwidth	3236	8368	6250
Ever attending any parenting session	impact	0.679***	0.692***	0.689***
	s.e.	0.051	0.036	0.043
	p-value	0	0	0
	number of obs	1847	3981	3106
	bandwidth	3445	8074	6250
Aware that parenting session is called FDS or Family Development Session	impact	0.679***	0.707***	0.710***
	s.e.	0.065	0.065	0.059
	p-value	0	0	0
	number of obs	1034	908	1474
	bandwidth	4371	3828	6250

Notes: Fuzzy IV model. Probit model is used for binary outcomes.
*** p<0.01, ** p<0.05, * p<0.10

Table 44. Program Impacts on Adult Employment Using Fuzzy Regression Discontinuity

Outcomes		Bandwidths		
		CCT	IK	Sampling
Labor force participation	impact	0.025	0.027	0.001
	s.e.	0.031	0.03	0.024
	p-value	0.415	0.38	0.97
	number of obs	5004	5143	9499
	bandwidth	3057	3157	6250
Employment	impact	0.005	0.018	0.027
	s.e.	0.026	0.025	0.021
	p-value	0.859	0.46	0.213
	number of obs	3437	3995	6081
	bandwidth	3350	3924	6250
Looking for additional work if employed	impact	0.029	-0.017	0.027
	s.e.	0.036	0.044	0.03
	p-value	0.427	0.704	0.38
	number of obs	3577	2173	5655
	bandwidth	3784	2186	6250
Looking for work if unemployed	impact	-0.032	0.070	-0.040
	s.e.	0.229	0.214	0.166
	p-value	0.89	0.745	0.81
	number of obs	183	218	426
	bandwidth	2413	2760	6250
Total labor hours	impact	-2.594	1.162	1.139
	s.e.	2.897	2.388	2.164
	p-value	0.377	0.63	0.602
	number of obs	2960	4086	5614
	bandwidth	3121	4422	6250

Note: Fuzzy IV model. Probit model is used for binary outcomes.
*** p<0.01, ** p<0.05, * p<0.10

Table 45. Program Impacts on Parent's Future Expectations Using Fuzzy Regression Discontinuity

Outcomes		Bandwidths		
		CCT	IK	Sampling
Child will finish elementary	impact	0.050**	0.014	0.001
	s.e.	0.025	0.023	0.019
	p-value	0.049	0.527	0.952
	number of obs	1930	2319	3199
	bandwidth	3801	4533	6250
Child will finish high school	impact	0.043	0.028	0.012
	s.e.	0.033	0.029	0.026
	p-value	0.202	0.341	0.649
	number of obs	2727	3351	4740
	bandwidth	3504	4365	6250
Child will finish college	impact	0.094	0.095	0.083
	s.e.	0.077	0.078	0.052
	p-value	0.231	0.231	0.119
	number of obs	2217	2253	4198
	bandwidth	3237	3334	6250
Child will have a better future	impact	0.076	0.078	0.071*
	s.e.	0.05	0.048	0.038
	p-value	0.141	0.112	0.071
	number of obs	3082	3364	5594
	bandwidth	3372	3702	6250

Note: Fuzzy IV model. Probit model is used for binary outcomes.
*** p<0.01, ** p<0.05, * p<0.10

Annex 6: Statistical Tables – Sharp Regression Discontinuity with Sex Interaction Term

Table 46. Program Impacts on Health Services and Healthy Practices (0-6 years old) Using Sharp Regression Discontinuity with Sex Interaction Term

Outcomes		Bandwidths		
		CCT	IK	Sampling
Vit A (6 months to 6 years old)	impact	0.097	0.154***	0.098***
	s.e.	0.059	0.05	0.045
	p-value	0.1	0.001	0.006
	number of obs	1126	1319	2205
	Pantawid	0.837	0.872	0.856
	Non-*Pantawid*	0.74	0.718	0.758
	margin of error	0.025	0.023	0.018
	Bandwidth	3007	3526	6250
	Male=1	-0.082	-0.060	-0.016
	s.e.	0.055	0.046	0.032
	p-value	0.186	0.228	0.654
Iron (under 6 years old)	impact	0.121*	0.154**	0.164***
	s.e.	0.064	0.06	0.046
	p-value	0.058	0.014	0.001
	number of obs	1307	1565	2368
	Pantawid	0.352	0.386	0.375
	Non-*Pantawid*	0.23	0.232	0.211
	margin of error	0.023	0.021	0.017
	Bandwidth	3233	3887	6250
	Male=1	0.008	-0.009	-0.016
	s.e.	0.053	0.047	0.036
	p-value	0.875	0.862	0.678
Full immunization at age 1	impact	-0.133	-0.006	-0.053
	s.e.	0.159	0.098	0.115
	p-value	0.409	0.854	0.702
	number of obs	161	509	351
	Pantawid	0.281	0.347	0.318
	Non-*Pantawid*	0.414	0.353	0.372
	margin of error	0.065	0.036	0.044
	Bandwidth	2961	9373	6250
	Male=1	0.092	-0.021	0.031
	s.e.	0.147	0.085	0.104
	p-value	0.527	0.799	0.76

Table 46. Program Impacts on Health Services and Healthy Practices (0-6 years old) Using Sharp Regression Discontinuity with Sex Interaction Term

Outcomes		Bandwidths		
		CCT	IK	Sampling
Regular weight monitoring for 0 to 2 year olds	impact	0.050	0.085**	0.057*
	s.e.	0.052	0.044	0.043
	p-value	0.249	0.014	0.073
	number of obs	527	862	708
	Pantawid	0.167	0.196	0.17
	Non-*Pantawid*	0.117	0.111	0.114
	margin of error	0.036	0.028	0.031
	Bandwidth	4369	7627	6250
	Male=1	0.017	-0.045	0.010
	s.e.	0.063	0.051	0.055
	p-value	0.755	0.303	0.837
Regular weight monitoring for 2 to 5 year olds	impact	0.238***	0.190**	0.256***
	s.e.	0.078	0.088	0.065
	p-value	0.002	0.026	0
	number of obs	772	685	1246
	Pantawid	0.488	0.454	0.527
	Non-*Pantawid*	0.25	0.264	0.271
	margin of error	0.03	0.031	0.023
	Bandwidth	3528	3138	6250
	Male=1	-0.002	-0.028	-0.020
	s.e.	0.064	0.066	0.051
	p-value	0.971	0.674	0.697
Exclusive Breastfeeding for 6 months (among 6 months to 6 years)	impact	-0.085	-0.056	-0.007
	s.e.	0.066	0.061	0.056
	p-value	0.181	0.381	0.949
	number of obs	1335	1613	2197
	Pantawid	0.444	0.446	0.473
	Non-*Pantawid*	0.529	0.502	0.48
	margin of error	0.023	0.02	0.018
	Bandwidth	3584	4419	6250
	Male=1	0.052	0.046	0.040
	s.e.	0.052	0.048	0.043
	p-value	0.316	0.332	0.35

Notes: Sharp linear with sex interaction term. Sex=1 if male.
*** p<0.01, ** p<0.05, * p<0.10

Table 47. Program Impacts on Health Outcomes and Utilization of Health Services (0-6 years old) Using Sharp Regression Discontinuity with Sex Interaction Term

Outcomes		Bandwidths		
		CCT	IK	Sampling
Incidence of Diarrhea	impact	-0.022	-0.023	-0.029
	s.e.	0.032	0.03	0.027
	p-value	0.43	0.417	0.251
	number of obs	1728	1747	2376
	Pantawid	0.113	0.11	0.099
	Non-*Pantawid*	0.135	0.132	0.128
	margin of error	0.02	0.02	0.017
	Bandwidth	4308	4362	6250
	Male=1	-0.005	-0.004	-0.013
	s.e.	0.028	0.027	0.023
	p-value	0.878	0.883	0.584
Visit to health facility during episode of diarrhea	impact	0.011	-0.014	0.109
	s.e.	0.225	0.174	0.13
	p-value	0.913	0.894	0.419
	number of obs	130	181	257
	Pantawid	0.466	0.432	0.509
	Non-*Pantawid*	0.456	0.446	0.4
	margin of error	0.072	0.061	0.051
	Bandwidth	2669	4116	6250
	Male=1	0.166	0.046	-0.043
	s.e.	0.175	0.16	0.128
	p-value	0.352	0.774	0.736
Visit to public health facility during episode of diarrhea	impact	-0.043	-0.086	0.073
	s.e.	0.216	0.147	0.132
	p-value	0.782	0.499	0.586
	number of obs	131	183	257
	Pantawid	0.382	0.349	0.473
	Non-*Pantawid*	0.425	0.435	0.4
	margin of error	0.072	0.061	0.051
	Bandwidth	2678	4149	6250
	Male=1	0.159	0.091	-0.026
	s.e.	0.175	0.155	0.128
	p-value	0.37	0.554	0.84

Table 47. Program Impacts on Health Outcomes and Utilization of Health Services (0-6 years old) Using Sharp Regression Discontinuity with Sex Interaction Term

Outcomes		Bandwidths		
		CCT	IK	Sampling
Visit to health facility during episode of fever or cough	impact	0.008	0.033	0.068
	s.e.	0.081	0.072	0.061
	p-value	0.943	0.593	0.255
	number of obs	743	966	1387
	Pantawid	0.493	0.52	0.556
	Non-*Pantawid*	0.485	0.486	0.488
	margin of error	0.03	0.026	0.022
	Bandwidth	3127	4108	6250
	Male=1	-0.021	0.012	0.014
	s.e.	0.07	0.062	0.053
	p-value	0.76	0.85	0.795
Visit to public health facility during episode of fever or cough	impact	0.002	0.045	0.069
	s.e.	0.077	0.072	0.062
	p-value	0.964	0.448	0.238
	number of obs	759	977	1387
	Pantawid	0.45	0.501	0.534
	Non-*Pantawid*	0.447	0.455	0.465
	margin of error	0.03	0.026	0.022
	Bandwidth	3180	4137	6250
	Male=1	-0.004	0.030	0.026
	s.e.	0.071	0.062	0.054
	p-value	0.961	0.629	0.622
Use of PhilHealth benefits during last hospital visit	impact	0.278	0.113	0.029
	s.e.	0.216	0.207	0.047
	p-value	0.13	0.579	0.436
	number of obs	93	122	246
	Pantawid	0.288	0.149	0.095
	Non-*Pantawid*	0.01	0.036	0.066
	margin of error	0.085	0.074	0.052
	Bandwidth	2054	2649	6250
	Male=1	-0.067	0.009	0.000
	s.e.	0.082	0.119	0.085
	p-value	0.37	0.92	0.994

Notes: Sharp linear with sex interaction term. Sex=1 if male.
*** p<0.01, ** p<0.05, * p<0.10

Table 48. Program Impacts on Nutrition Outcomes (0-6 years old) Using Sharp Regression Discontinuity with Sex Interaction Term

Outcomes		Bandwidths		
		CCT	IK	Sampling
Wasting	impact	0.053	0.036	0.044
	s.e.	0.032	0.03	0.028
	p-value	0.108	0.24	0.127
	number of obs	1513	1777	2098
	Pantawid	0.116	0.106	0.113
	Non-*Pantawid*	0.063	0.071	0.069
	margin of error	0.021	0.02	0.018
	Bandwidth	4317	5224	6250
	Male=1	-0.017	-0.015	-0.019
	s.e.	0.027	0.025	0.024
	p-value	0.546	0.557	0.471
Underweight	impact	0.096	0.082	0.066
	s.e.	0.073	0.068	0.044
	p-value	0.187	0.264	0.114
	number of obs	1268	1450	2316
	Pantawid	0.348	0.34	0.304
	Non-*Pantawid*	0.252	0.258	0.238
	margin of error	0.023	0.022	0.017
	Bandwidth	3190	3663	6250
	Male=1	-0.087*	-0.077	-0.047
	s.e.	0.045	0.045	0.034
	p-value	0.064	0.102	0.163
Stunting	impact	0.009	0.016	0.004
	s.e.	0.064	0.064	0.053
	p-value	0.98	0.921	0.909
	number of obs	1459	1451	2282
	Pantawid	0.414	0.414	0.392
	Non-*Pantawid*	0.404	0.398	0.388
	margin of error	0.022	0.022	0.017
	Bandwidth	3751	3712	6250
	Male=1	-0.002	-0.007	-0.007
	s.e.	0.048	0.048	0.04
	p-value	0.97	0.892	0.863

Note: Sharp linear with sex interaction term. Sex=1 if male.
*** p<0.01, ** p<0.05, * p<0.10

Table 49. Program Impacts on Child Health (6-14 years old) Using Sharp Regression Discontinuity with Sex Interaction Term

Outcomes		Bandwidths		
		CCT	IK	Sampling
Deworming at least 1 per year (6 - 14)	impact	0.088*	0.060	0.048
	s.e.	0.054	0.044	0.038
	p-value	0.088	0.174	0.163
	number of obs	1861	2511	3913
	Pantawid	0.777	0.784	0.772
	non-*Pantawid*	0.689	0.724	0.725
	margin of error	0.019	0.016	0.013
	bandwidth	2902	4027	6250
	Male = 1	-0.002	-0.005	-0.009
	s.e.	0.037	0.031	0.026
	p-value	0.969	0.863	0.751
Deworming at least 2 per year (6-14)	impact	-0.011	-0.041	-0.018
	s.e.	0.055	0.049	0.045
	p-value	0.84	0.568	0.79
	number of obs	2301	2949	3913
	Pantawid	0.495	0.46	0.47
	non-*Pantawid*	0.506	0.501	0.488
	margin of error	0.017	0.015	0.013
	bandwidth	3644	4718	6250
	Male = 1	0.016	0.009	0.002
	s.e.	0.041	0.034	0.031
	p-value	0.704	0.802	0.949

Note: Sharp linear with sex interaction term. Sex=1 if male.
*** p<0.01, ** p<0.05, * p<0.10

Table 50. Program Impacts on Education (3-5 years old) Using Sharp Regression Discontinuity with Sex Interaction Term

Outcomes		Bandwidths		
		CCT	IK	Sampling
Enrollment of 3-5	impact	-0.050	-0.010	0.002
	s.e.	0.098	0.078	0.075
	p-value	0.543	0.781	0.933
	number of obs	503	764	829
	Pantawid	0.508	0.519	0.519
	Non-*Pantawid*	0.558	0.529	0.517
	margin of error	0.037	0.03	0.029
	Bandwidth	3666	5723	6250
	Male=1	0.116	0.027	0.027
	s.e.	0.084	0.071	0.071
	p-value	0.163	0.701	0.704
Attendance of 3-5	impact	0.312*	0.176	-0.014
	s.e.	0.135	0.142	0.125
	p-value	0.068	0.192	0.851
	number of obs	117	196	399
	Pantawid	0.92	0.759	0.657
	Non-*Pantawid*	0.608	0.583	0.671
	margin of error	0.076	0.059	0.041
	Bandwidth	1607	2946	6250
	Male=1	0.132	0.102	0.119
	s.e.	0.147	0.119	0.086
	p-value	0.283	0.398	0.189

Notes: Sex dummy with age as covariate.
*** p<0.01, ** p<0.05, * p<0.10

Table 51. Program Impacts on Education (6-20 years old) Using Sharp Regression Discontinuity with Sex Interaction Term

Outcomes		Bandwidths		
		CCT	IK	Sampling
Enrollment of 6-11	impact	-0.006	-0.029	-0.009
	s.e.	0.028	0.082	0.009
	p-value	0.918	0.497	0.307
	number of obs	1544	1119	2648
	Pantawid	0.978	0.954	0.979
	non-*Pantawid*	0.984	0.983	0.988
	margin of error	0.021	0.025	0.016
	bandwidth	3654	2544	6250
	Male = 1	0.007	-0.001	0.005
	s.e.	0.013	0.015	0.012
	p-value	0.662	0.971	0.653
Enrollment of 12 - 15	impact	0.039	0.041	-0.022
	s.e.	0.05	0.051	0.024
	p-value	0.375	0.247	0.285
	number of obs	787	949	1674
	Pantawid	0.941	0.941	0.921
	non-*Pantawid*	0.902	0.9	0.943
	margin of error	0.029	0.027	0.02
	bandwidth	2727	3371	6250
	Male = 1	0.026	0.039	0.039*
	s.e.	0.04	0.034	0.026
	p-value	0.553	0.28	0.099
Enrollment of 16-20	impact	0.075	0.065	0.065
	s.e.	0.071	0.06	0.062
	p-value	0.414	0.359	0.426
	number of obs	916	1357	1536
	Pantawid	0.54	0.508	0.514
	non-*Pantawid*	0.465	0.444	0.449
	margin of error	0.027	0.022	0.021
	bandwidth	3685	5479	6250
	Male = 1	-0.075	-0.103*	-0.066
	s.e.	0.069	0.053	0.054
	p-value	0.284	0.054	0.229

Table 51. Program Impacts on Education (6-20 years old) Using Sharp Regression Discontinuity with Sex Interaction Term

Outcomes		Bandwidths		
		CCT	IK	Sampling
Enrollment of 6-14	impact	0.012	0.006	-0.014
	s.e.	0.036	0.036	0.01
	p-value	0.511	0.728	0.124
	number of obs	2025	1802	3913
	Pantawid	0.968	0.962	0.963
	non-*Pantawid*	0.955	0.956	0.977
	margin of error	0.018	0.019	0.013
	bandwidth	3180	2792	6250
	Male = 1	0.005	0.005	0.015
	s.e.	0.015	0.016	0.012
	p-value	0.783	0.79	0.165
Attendance of 6-11	impact	-0.039	-0.039	-0.015
	s.e.	0.035	0.033	0.03
	p-value	0.255	0.244	0.832
	number of obs	1526	1464	2589
	Pantawid	0.921	0.924	0.938
	non-*Pantawid*	0.96	0.963	0.952
	margin of error	0.021	0.021	0.016
	bandwidth	3694	3484	6250
	Male = 1	0.035*	0.035*	0.017
	s.e.	0.018	0.018	0.016
	p-value	0.069	0.057	0.341
Attendance of 12-15	impact	0.042	0.021	0.038
	s.e.	0.033	0.024	0.028
	p-value	0.236	0.407	0.264
	number of obs	987	1185	1537
	Pantawid	0.976	0.968	0.974
	non-*Pantawid*	0.933	0.947	0.936
	margin of error	0.026	0.024	0.021
	bandwidth	3845	4756	6250
	Male = 1	0.011	0.008	0.011
	s.e.	0.026	0.024	0.023
	p-value	0.645	0.709	0.567

Table 51. Program Impacts on Education (6-20 years old) Using Sharp Regression Discontinuity with Sex Interaction Term

Outcomes		Bandwidths		
		CCT	IK	Sampling
Attendance of 16-20	impact	-0.005	-0.011	0.082
	s.e.	0.034	0.056	0.052
	p-value	0.742	0.836	0.109
	number of obs	309	362	681
	Pantawid	0.963	0.945	0.981
	non-*Pantawid*	0.968	0.955	0.899
	margin of error	0.047	0.043	0.032
	bandwidth	2544	3062	6250
	Male = 1	-0.019	-0.006	-0.038
	s.e.	0.07	0.056	0.047
	p-value	0.698	0.91	0.376
Dropout of 6-11	impact	0.031	0.069	0.018*
	s.e.	0.032	0.065	0.01
	p-value	0.312	0.11	0.058
	number of obs	1468	1260	2647
	Pantawid	0.044	0.08	0.032
	non-*Pantawid*	0.013	0.01	0.014
	margin of error	0.021	0.023	0.016
	bandwidth	3447	2919	6250
	Male = 1	-0.020	-0.031	-0.003
	s.e.	0.017	0.014	0.015
	p-value	0.301	0.229	0.792
Dropout of 12-15	impact	-0.042	-0.027	0.025
	s.e.	0.039	0.044	0.025
	p-value	0.322	0.432	0.23
	number of obs	737	1067	1672
	Pantawid	0.049	0.064	0.086
	non-*Pantawid*	0.091	0.091	0.06
	margin of error	0.03	0.025	0.02
	bandwidth	2559	3857	6250
	Male = 1	-0.019	-0.043	-0.035
	s.e.	0.041	0.032	0.027
	p-value	0.618	0.167	0.149

Table 51. Program Impacts on Education (6-20 years old) Using Sharp Regression Discontinuity with Sex Interaction Term

Outcomes		Bandwidths		
		CCT	IK	Sampling
Dropout of 16-20	impact	-0.072	-0.052	-0.064
	s.e.	0.075	0.062	0.063
	p-value	0.436	0.487	0.427
	number of obs	858	1377	1519
	Pantawid	0.474	0.511	0.498
	non-*Pantawid*	0.546	0.563	0.562
	margin of error	0.028	0.022	0.021
	bandwidth	3518	5645	6250
	Male = 1	0.063	0.087	0.061
	s.e.	0.073	0.054	0.055
	p-value	0.394	0.109	0.275

Note: Sharp linear with sex interaction term. Sex=1 if male.
*** p<0.01, ** p<0.05, * p<0.10

Table 52. Program Impacts on Child Labor (10-14 years old) Using Sharp Regression Discontinuity with Sex Interaction Term

Outcomes		Bandwidths		
		CCT	IK	Sampling
Worked at least 1 hour in previous month	impact	-0.009	-0.005	-0.036
	s.e.	0.052	0.047	0.037
	p-value	0.702	0.801	0.367
	number of obs	1241	1288	2053
	Pantawid	0.119	0.117	0.088
	non-*Pantawid*	0.128	0.122	0.124
	margin of error	0.023	0.023	0.018
	bandwidth	3747	3938	6250
	Male = 1	0.014	0.008	0.043
	s.e.	0.034	0.035	0.034
	p-value	0.721	0.836	0.179
Number of days worked in the past month	impact	-5.560**	-4.128	-3.116
	s.e.	0.478	0.379	0.341
	p-value	0.047	0.149	0.272
	number of obs	107	159	226
	Pantawid	3.504	5.685	6.868
	non-*Pantawid*	9.064	9.813	9.984
	margin of error	0.076	0.049	0.037
	bandwidth	3085	4584	6250
	Male = 1	-1.903	-1.616	-1.477
	s.e.	4.448	3.277	2.565
	p-value	0.571	0.618	0.621

Note: Sharp linear with sex interaction term. Sex=1 if male.
*** p<0.01, ** p<0.05, * p<0.10

Table 53. Program Impacts on Adult Employment Using Sharp Regression Discontinuity with Sex Interaction Term

Outcomes		Bandwidths		
		CCT	IK	Sampling
Labor force participation	impact	0.012	0.013	-0.021
	s.e.	0.024	0.023	0.018
	p-value	0.623	0.573	0.271
	number of obs	5004	5143	9499
	Pantawid	0.657	0.658	0.627
	non-*Pantawid*	0.645	0.645	0.649
	margin of error	0.012	0.011	0.008
	bandwidth	3057	3157	6250
	Male = 1	0.026	0.031	0.053***
	s.e.	0.026	0.025	0.018
	p-value	0.304	0.202	0.004
Employment	impact	0.008	0.015	0.010
	s.e.	0.021	0.019	0.017
	p-value	0.703	0.414	0.534
	number of obs	3437	3995	6081
	Pantawid	0.936	0.94	0.936
	non-*Pantawid*	0.928	0.924	0.925
	margin of error	0.014	0.013	0.011
	bandwidth	3350	3924	6250
	Male = 1	-0.006	-0.003	0.009
	s.e.	0.017	0.016	0.013
	p-value	0.715	0.866	0.471
Looking for additional work if employed	impact	0.047	-0.015	0.043
	s.e.	0.034	0.049	0.028
	p-value	0.172	0.693	0.19
	number of obs	3577	2173	5655
	Pantawid	0.163	0.147	0.163
	non-*Pantawid*	0.116	0.162	0.12
	margin of error	0.014	0.018	0.011
	bandwidth	3784	2186	6250
	Male = 1	-0.021	-0.006	-0.015
	s.e.	0.022	0.025	0.018
	p-value	0.348	0.838	0.45

Table 53. Program Impacts on Adult Employment Using Sharp Regression Discontinuity with Sex Interaction Term

Outcomes		Bandwidths		
		CCT	IK	Sampling
Looking for work if unemployed	impact	0.207	0.182	0.031
	s.e.	0.182	0.179	0.127
	p-value	0.257	0.38	0.827
	number of obs	183	218	426
	Pantawid	0.546	0.502	0.436
	non-*Pantawid*	0.339	0.321	0.404
	margin of error	0.061	0.056	0.04
	bandwidth	2413	2760	6250
	Male = 1	-0.059	-0.109	-0.028
	s.e.	0.13	0.115	0.101
	p-value	0.646	0.32	0.782
Total labor hours	impact	-2.697	-1.772	-1.964
	s.e.	2.845	2.226	2.014
	p-value	0.344	0.427	0.331
	number of obs	2960	4086	5614
	Pantawid	38.177	38.671	38.374
	non-*Pantawid*	40.875	40.443	40.338
	margin of error	0.086	0.057	0.044
	bandwidth	3121	4422	6250
	Male = 1	1.557	3.913**	4.000**
	s.e.	2.187	1.893	1.602
	p-value	0.478	0.04	0.013

Note: Sharp linear with sex interaction term. Sex=1 if male.
*** p<0.01, ** p<0.05, * p<0.10

Table 54. Program Impacts on Parent's Future Expectations Using Sharp Regression Discontinuity with Sex Interaction Term

Outcomes		Bandwidths		
		CCT	IK	Sampling
Child will finish elementary	impact	0.015	-0.008	-0.020
	s.e.	0.029	0.023	0.021
	p-value	0.614	0.707	0.336
	number of obs	1930	2319	3199
	Pantawid	0.968	0.954	0.948
	non-*Pantawid*	0.953	0.962	0.968
	margin of error	0.019	0.017	0.015
	bandwidth	3801	4533	6250
	Male = 1	0.010	0.011	0.023
	s.e.	0.02	0.017	0.017
	p-value	0.554	0.496	0.179
Child will finish high school	impact	0.017	0.011	0.000
	s.e.	0.036	0.027	0.023
	p-value	0.534	0.702	0.83
	number of obs	2727	3351	4740
	Pantawid	0.934	0.936	0.932
	non-*Pantawid*	0.917	0.925	0.933
	margin of error	0.016	0.014	0.012
	bandwidth	3504	4365	6250
	Male = 1	0.007	0.003	0.008
	s.e.	0.02	0.018	0.016
	p-value	0.749	0.844	0.575
Child will finish college	impact	0.090	0.098	0.079*
	s.e.	0.071	0.07	0.046
	p-value	0.168	0.131	0.075
	number of obs	2217	2253	4198
	Pantawid	0.736	0.742	0.747
	non-*Pantawid*	0.645	0.644	0.668
	margin of error	0.017	0.017	0.013
	bandwidth	3237	3334	6250
	Male = 1	-0.045	-0.048	-0.015
	s.e.	0.038	0.038	0.03
	p-value	0.255	0.219	0.615

Table 54. Program Impacts on Parent's Future Expectations Using Sharp Regression Discontinuity with Sex Interaction Term

Outcomes		Bandwidths		
		CCT	IK	Sampling
Child will have a better future	impact	0.071	0.069	0.070*
	s.e.	0.047	0.04	0.035
	p-value	0.107	0.101	0.069
	number of obs	3082	3364	5594
	Pantawid	0.862	0.875	0.872
	non-*Pantawid*	0.791	0.806	0.802
	margin of error	0.015	0.014	0.011
	bandwidth	3372	3702	6250
	Male = 1	-0.031	-0.029	-0.010
	s.e.	0.029	0.028	0.02
	p-value	0.308	0.288	0.603

Note: Sharp linear with sex interaction term. Sex=1 if male.
*** p<0.01, ** p<0.05, * p<0.10