

# POLICY BRIEF

## YOUNG ECONOMISTS' PERSPECTIVE

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# **The Differential Impact of 4Ps on Child Labor Before and During the COVID-19 Pandemic**

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## **Abstract**

Poverty is widely considered the root cause of child labor in the Philippines. Thus, the Pantawid Pamilyang Pilipino Program (4Ps) was designed to alleviate poverty and reduce child labor through financial assistance, conditional on welfare investments like children's education. Using 2017, 2019, and 2020 data from the Annual Poverty Indicators Survey (APIS), the study estimated the differential impact of 4Ps on child labor before and during COVID-19 across varying demographic, socio-economic, and locational characteristics. Results from the propensity score matching (PSM) and difference-in-differences (DID) model indicated that since cash transfers cannot fully offset the opportunity cost of children's education, children of beneficiaries are still likely to work. The findings also revealed that female-led families, households residing in rural areas, and households with family sizes greater than four have a higher likelihood of engaging in child labor. Moreover, despite living above the poverty threshold, households could still be forced to engage in child labor due to increasing inflation rates and declining purchasing power.

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## Policy Recommendations

- 1. Make program adjustments based on inflation and the opportunity cost of child labor.** 4Ps should expand its program into providing non-financial aid such as food packages and educational materials (e.g., school supplies and uniforms) to ease the financial burden of beneficiary households amidst the increasing inflation rate. Additionally, instead of cash transfers being conditional on monthly attendance, it should be provided on a lump sum basis at the end of each grade level to incentivize children to gain a higher potential income in the future through school participation instead of labor.
- 2. Provide skill development and employment opportunities for female beneficiaries, particularly female household heads.** Technical and vocational training for skill development should be tailored to the needs and interests of women, particularly those with marketable skills that align with local employment opportunities. The Department of Social Welfare and Development (DSWD) can foster collaborations with the private sector by providing job placement and career counseling services to identify employment opportunities and connect prospective workers with potential employers. Moreover, mothers should be provided with opportunities to join the workforce by providing affordable childcare through government-funded schools and local institutions or implementing flexible working conditions.
- 3. Determine a framework for adjusting the financial assistance amount and the mode of payment granted to beneficiaries depending on the region of residence.** 4Ps cash transfers should be more responsive and suitable in terms of the various locations of beneficiaries. Assuming the cost of children's education increases with their age, determining the cash transfer amounts should consider and readjust to their total schooling expenses to offset the opportunity cost of sending children to school (Villatoro, 2005). Further, since increasing the amount of financial assistance alone becomes insufficient once the beneficiaries cannot receive their payments on time, 4Ps should define and follow through on its payment schedule. This approach should still be complemented by offering additional measures in the form of monetary support or programs designed to target

behavioral change if the total cash aid cannot be modified effectively, especially in rural areas (Loeser et al., 2021).

## Introduction

Child labor is a chronic issue in developing countries like the Philippines because persistent poverty forces children to work to be able to afford the necessities (Naeem et al., 2011). In order to support the needs of poor households and reduce their risk of engaging in hazardous work like child labor, the government enacts programs such as 4Ps for social protection. However, the outbreak of COVID-19 in early 2020 caused issues such as fewer employment opportunities, reduction of wages, familial poverty, and limited access to education — all of which only exacerbated the phenomenon of child labor (International Labour Organization [ILO], 2020). Thus, this study assessed the effectiveness of 4Ps in reducing child labor in the Philippines, especially amidst the economic and social shocks brought by the COVID-19 pandemic.

## Model Specification and Results

The study used nationwide data from the Philippine Statistics Authority's APIS covering 2017, 2019, and 2020, where the units of observation were 4Ps beneficiary households (treatment group) and non-4Ps beneficiary households (control group) with the same socioeconomic status. The researchers used PSM to allow for a tighter selection of beneficiaries and non-beneficiaries based on their eligibility to receive 4Ps assistance (i.e., income level). Then, weights generated from the propensity scores were used to develop a probit model that has a functional specification of a DID model.

$$Pr(Y_{ip} = 1 | X_{ip,j}) = \phi(\beta_0 + \beta_1 \text{[[CCT]]}_{ip} + \beta_2 t + \beta_3 (t * \text{[[CCT]]}_{ip}) + \delta X_{ip,1} + \lambda X_{ip,2} + \text{[[}\phi X\text{]]}_{ip,3}) + \varepsilon_{ip} \quad (1)$$

$$\partial p / (\partial x_j) = \phi(x'\beta) \beta_j \quad (2)$$

The DID model (equation 1) estimated how 4Ps impacted the likelihood of households engaging in child labor from 2017 to 2020. The researchers also accounted for the heterogeneous impacts of 4Ps and re-estimated equation 1 based on the beneficiaries' family size, household head gender,

monthly household income, and whether the family lived in an urban or rural area. Then, using the probit regression results, the marginal effect of each independent variable was calculated (equation 2).

Table 1. Marginal Effects of Regressors on Child Labor.

<b>Variable</b>	<b>dy/dx</b>	<b>Std. Err.</b>	<b>z</b>	<b>P&gt; z </b>
<i>4Ps</i>	0.025	0.009	2.78	0.005**
<i>Female</i>	0.044	0.008	5.85	0.000***
<i>4 or More Family Members</i>	0.054	0.004	13.26	0.000***
<i>Rural</i>	0.044	0.004	11.87	0.000***
<i>More Than Php 7K Income</i>	0.042	0.004	9.61	0.000***
<i>Asterisks denote significance levels: *** <math>p &lt; 0.01</math>, ** <math>p &lt; 0.05</math>, * <math>p &lt; 0.10</math></i>				

Findings from the DID analysis revealed that overall, 4Ps caused an increase in child labor due to the inability of the cash transfer to fully offset the opportunity cost of children going to school. Orbeta et al. (2021) argued that 4Ps presents conditionality-related constraints where working children have to sacrifice their working hours and salary to comply with the CCT's educational requirements (e.g., attendance). Hence, it generates a form of compensatory behavior where children beneficiaries still turn to labor to afford daily subsistence.


As for the heterogeneous impacts of 4Ps across different characteristics of beneficiaries, the results showed that child labor appears to be more prevalent in female-led families, households located in rural areas, and households with larger family sizes. For one, in most developing countries, women's "work" does not always equate to "income-earning" due to the excessive length of time most women devote to caregiving work, taking the guise of unpaid labor, family and child help, aid in-kind, or self-employment (Moon, 1982). Additionally, female-led households tend to be

more impoverished as women generally have less access to productive assets and credit, as well as being compensated less than men for similar work (Zeller et al., 1997; Boxill & Quarless, 2005; Briones, 2018). Second, rural areas are characterized with limited infrastructure that poses challenges to accessing education and less stringent policies on child labor due to its social acceptance in unskilled labor positions (ILO, 2016). The poverty incidence rate is also higher in rural regions, leading families to be more inclined to send their children to work (ILO, 2016). Further, with limited resources, the presence of additional children in the household presents additional financial and opportunity costs that the family may supplement with child labor income in the absence of reliable credit (Orbeta, 2005).

With increasing inflation rates, even households above the poverty line may still be susceptible to child labor as a result of diminishing purchasing power. As the rising cost of living that can make adult wages become insufficient to support the family's basic needs, low-income households are more likely to encourage their children to drop out of school or dedicate fewer hours to education, resulting in their children entering the labor market (Sothearith & Sovannarith, 2010). However, Melad et al. (2020) contend that simply increasing the frequency of cash assistance will only lead to additional overhead expenses and service charges that can outweigh the benefits of receiving cash grants, especially for rural households that do not have easy access to payment delivery schemes (i.e., ATM cash cards and over-the-counter payments). Thus, aside from implementing varying transfer amounts and modes of payment that caters to the specific needs of beneficiaries depending on their respective region, 4Ps should also focus on the provision of non-monetary forms of support such as educational materials and employment opportunities that can directly address financial security. This would allow households to ease their financial burden and retain the real value of their income despite price movements.

## **Conclusion**

The findings suggest that children of 4Ps beneficiaries are still likely to work, with 4Ps actually contributing to an increase in child labor due to the inability of the cash transfer to fully offset the opportunity cost of children going to school. Further, children from female-led families, households located in rural areas, and households with larger family sizes are associated with a higher likelihood of engaging in child labor. This is mainly attributed to specific characteristics




that make households more susceptible to experiencing financial insecurity and consequently turning to child labor as an additional source of income. Therefore, with 4Ps unable to achieve its objective of reducing child labor, there remains a greater need for DSWD to adjust its current policy design to directly target the financial security of poor households and incite behavioral change. The study recommends that the amount of cash transfer and mode of payment should be adjusted based on the beneficiaries' region of residence and cost of living, while skill development and employment opportunities should be provided to families that are particularly vulnerable to poverty.



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