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A descriptive analysis of the dynamics of labor market outcomes of 4Ps beneficiaries

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DISCUSSION PAPER SERIES NO. 2021-34

A Descriptive Analysis of the Dynamics of Labor Market Outcomes of 4Ps Beneficiaries

Aubrey D. Tabuga, Arkin A. Arboneda, and Anna Rita P. Vargas



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A Descriptive Analysis of the Dynamics of Labor Market
Outcomes of 4Ps Beneficiaries

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PHILIPPINE INSTITUTE FOR DEVELOPMENT STUDIES

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Abstract

This study aims to understand the nuances and dynamics in the labor market outcomes of 4Ps beneficiaries. The 4Ps or *Pantawid Pamilyang Pilipino* Program is the Philippine government's key social assistance program with the purpose of breaking inter-generational poverty by incentivizing human capital investment. To help achieve human capital development, accessing sustainable livelihood is crucial. Using the survey data sets collected and used in previously conducted studies on the 4Ps program, this study formed a panel of households and members in order to examine the changes or the lack of changes in labor status of individuals across the years. The idea is to draw insights that can be utilized in the design or redesign and implementation of related programs such as the Sustainable Livelihood Program for improving the labor market outcomes of 4Ps beneficiaries. The study finds a wide gender gap in terms of labor market status, with males being better off in having a stable work status. Meanwhile, majority of females exclude themselves from the labor force to do unpaid work in the form of household and family duties. The study highlights the importance of the Sustainable Livelihood Program, which was found to mostly benefit women, and the need for sustainable and fully-packaged livelihood programs that targets young women and young mothers in poorer communities. For women who engage in economic activities, the study found that they usually remain in the same industry within the period of interest. Meanwhile, male adult members of 4Ps households appear to be more flexible in the way they participate in the labor force. While these results reflect women's lack of flexibility because of their socially-dictated roles, these show important aspects for possible interventions for women in 4Ps households.

Keywords: Pantawid Pamilyang Pilipino Program, labor dynamics, labor market outcomes

Table of Contents

1. Introduction	1
2. Background of the study	1
2.1. Cash transfers and labor market outcomes	1
2.2. Pantawid Familyang Pilipino Program	3
3. Data and methodology	5
4. Results and discussion	8
4.1. Profile of households and household members	8
4.2. Dynamics of labor market outcomes	13
5. Summary and recommendations	22
References	23

List of Tables

Table 1. Summary of the impacts of different cash transfers on adult labor outcomes	2
Table 2. Specific health and education conditionalities under the 4Ps program	4
Table 3. Survey designs used in the three impact evaluation studies on 4Ps	6
Table 4. Creating the panel data: results of the matching exercises	7
Table 5. Distribution of households and members in the panel data	8
Table 6. Profile of households in the panel data	9
Table 7. Profile of working-aged household members in the panel data, 2017 round	9
Table 8. Profile of working age population in various data sets	10
Table 9. Labor and employment indicators in comparison with estimates using national survey data (%)	11
Table 10. Class of employment of economically active members (%)	12
Table 11. Members looking for work and reasons for not looking for work among non- economically active members (%)	13
Table 12. Profile of household members, by change in work status between 2011 and 2013	18
Table 13. Profile of household members, by change in work status between 2013 and 2017	18

List of Figures

Figure 1. Active 4Ps beneficiary households, as of December 2020	5
Figure 2. Primary occupation of economically active members (%)	11
Figure 3. Industry group of the primary occupation of economically active members (%)	12
Figure 4. Nature of employment of economically active members (%)	12
Figure 5. Share of economically active members to total working-age population, by sex and age group (based on ages in 2011)	15
Figure 6. Share of economically active members to total working-age population, by sex and highest educational attainment	15
Figure 7. Tracking of the employment status of household members aged 17 and above	16
Figure 8. Movements in and out of work of the working-age population	16
Figure 9. Movements in and out of work of the working-age population, by sex	17

Figure 10. Changes in the primary occupation of economically active members.....	19
Figure 11. Changes in the industry classification of the primary occupation of male household members.....	19
Figure 12. Changes in the industry classification of the primary occupation of female household members.....	20
Figure 13. Changes in the class of work of economically active members	20
Figure 14. Changes in the nature of work of economically active members	21
Figure 15. Tracking the status of members who were chronically out of work	21

A Descriptive Analysis of the Dynamics of Labor Market Outcomes of 4Ps Beneficiaries

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1. Introduction

The *Pantawid Pamilyang Pilipino* Program (4Ps) is the country's biggest poverty reduction and social development program. Targeting poor families, the 4Ps aims to reduce intergenerational poverty. This is done by investing in human capital in the form of conditionalities related to education and health in exchange for cash grants to be used by identified poor families in meeting their intermediate needs.

Although the program is promising to deliver its objectives, especially in terms of educational outcomes, there are more to be desired for both health and labor market outcomes. A recent evaluation study conducted by the Philippine Institute for Development Studies shows lower employment rates among program beneficiaries, particularly in the rural areas (Orbeta, Melad and Araos 2021). The literature outside of the country also notes that conditional cash transfers (CCTs) often have a negligible effect on labor force participation, while select studies point to higher labor force participation, particularly for women, and higher working hours.

In addition, analysis in most studies is usually done at an aggregated level due to lack of data granularity. Thus, nuances in labor market dynamics may not be fully captured and understood. In this regard, this study aims to understand the dynamics in the labor market outcomes of 4Ps beneficiaries by examining the demographic and economic characteristics of individuals and households that exhibited either changes or lack of changes in labor status across the years. This study also looks at the dynamics within the *Pantawid* households in relation to labor outcomes, such as hours of work, and the sector and nature of employment. Findings of this study will lend some insights as to what efforts are needed to be prioritized or improved in terms of labor and employment to ensure that 4Ps can truly achieve its goal of reducing intergenerational poverty.

2. Background of the study

2.1. Cash transfers and labor market outcomes

Mainstream economic theory suggests that increased windfall income could lead to less hours devoted by an individual to work or to seek employment. Standard and basic economic models of labor supply usually expect individuals to choose between the benefits from having more hours of work against the cost of allotting more hours to work (). In other words, it involves a tradeoff between having more income or having more time for leisure. Thus, given an unexpected cash windfall (i.e. increase in non-work income), such as through cash transfers, individuals are expected to demand more leisure, and thus work for lesser hours (see Becker 1965; Cesarini, et al. 2017)

However, findings of several local and international studies have proven otherwise. The literature review of Baird, McKenzie and Özler (2018) found that the standard labor-leisure

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economic model can only be approximately achieved among labor outcomes of the elderly population when they receive pensions. Among working-aged adults, there is little to no effect in the working hours and work-seeking behaviors of beneficiaries who received cash transfers, either conditional or unconditional, or cash grants. There is also no evidence in the reduction of work hours even among migrant households receiving cash transfers in the form of remittances.

Table 1. Summary of the impacts of different cash transfers on adult labor outcomes

Transfer type	Typical impact on labor outcomes
Government cash transfers: CCTs	No effect on total work or leisure; Small effects on self-employment and entrepreneurship in the short run; mixed evidence on adult labor outcomes for young adults who were children in beneficiary households
Government cash transfers: UCTs	Cash transfers to working age adults have resulted in a change in the type of work, with more self-employment and own agriculture. Pensions decrease amount worked by the elderly, and have mixed results on other adults living with them, with some doing more migration and self-employment, and others enjoying more leisure.
Charitable giving and humanitarian transfers	No short-term effect on total work or work income when given in non-disaster/non-refugee situation, reduced work slightly among refugees. Few studies consider labor outcomes or look long-term.
Remittance transfers	Limited impact on labor of adults in receiving household; some evidence of a positive impact on self-employment in some cases, but more common is no impact.
Cash transfers for search assistance and finding work	Increases job search, resulting in a temporary reduction in work, but then in a higher chance of being employed in higher paying work. Impacts strongest when subsidy is for finding work in a different labor market, including fostering internal migration.
Cash transfers for business start-up and growth	Small grants have typically increased business start-up and survival, and increased business earnings. Impacts on work, and total labor income tend to be smaller, but still positive. Larger grants targeted at higher-growth entrepreneurs also have created jobs for others.
Combination transfers of cash, training, and assets	Ultra-poor programs changed type of work towards more livestock-rearing, increased total work hours and work income. Unclear how much of this is due to cash versus other program components. General equilibrium effect increases wages for other occupations in the village.

Source: Baird, McKenzie and Özler (2018, p.13)

Focusing on CCTs, Banerjee, et. al. (2015) examined the relationship between CCTs and labor supply through randomized controlled trials of cash transfer programs in seven developing countries including the Philippines. Findings of their study provided evidence against the claim that cash transfer programs enable the existence of “lazy poor”. Estimates from the randomized evaluations suggest that fund transfers have no effects on work behavior of beneficiaries, regardless of sex.

Deviating even further from common neoclassical notions, some studies show that windfall income from CCTs may actually induce labor participation. Vera Cossio (2017) used the timing and eligibility criteria of a CCT program in Bolivia to determine its effect on labor supply. The study found that the cash transfers actually encouraged labor market engagement, particularly among women. This was explained by introducing fixed costs of labor market entry in the model, which illustrates how CCTs allow individuals to overcome the initial financial hurdles of finding employment. Another simulation, using a CGE model based on the social safety nets

implemented in Egypt, also found a positive relation between CCTs and labor supply, particularly in the sectors of health and education, which employs both skilled and semi-skilled workers (Helmy, et al. 2018).

Del Boca, Pronzato and Sorrenti (2020) evaluated the impact of imposing a condition for cash transfers on labor outcomes, essentially comparing the effects of CCTs and unconditional cash transfers (UCTs) on labor supply. For this particular setup, the condition considered was the attendance of parents to labor market mentoring programs. The study showed a significant increase in the labor participation of fathers of CCT families compared to those in families assigned under the UCT program. Meanwhile, the effect on mothers were negligible. This implies the existence of behavioral differences with regard to labor participation between men and women beneficiaries of CCTs. Indeed, one of the issues when it comes to the analysis of CCT impacts on labor force engagement is that it treats households as unitary models.

The difference in results between sexes were corroborated by the findings of Novella, et al. (2012). Their study examined the relationship between the labor participation effects of CCTs and bargaining power of parents in the household through randomized experimental designs from the rural areas of Honduras (*Programa de Asignacion Familiar*), Mexico (*Programa de Educacion, Salud y Alimentacion*) and Nicaragua (*Red de Proteccion Social*). The study found that, though relatively limited, that CCTs tend to increase the paternal labor supply, while having a negligible effect on maternal labor supply. This implies that cash transfers seem to increase the bargaining power of women in the household, especially if they are the recipients of the benefits. The nuances of this such research are issues that merit further investigation.

More evident relationships can also be distinguished between CCTs and the prevalence of child labor, especially since the reduction of child labor and youth development are part of the key thrusts of most CCT programs. de Hoop and Rosati (2013), in their systematic review of the effects of CCTs on child labor, showed evidence of reduction in child labor when families are CCT beneficiaries, albeit considerable variations depending on the program. Furthermore, the studies in review established no significant increase in child labor, which suggests that the windfall income received by households in exchange of keeping their children in school and out of work is greater than the income from child labor. The systematic review also showed that for children that persist in child labor, being a member of a CCT beneficiary household considerably lessened their daily working hours. Disaggregation of these findings by income class establish that the negative effect of CCTs on child labor participation are much more evident in poorer households.

2.2. Pantawid Pamilyang Pilipino Program

The *Pantawid Pamilyang Pilipino* Program or 4Ps is the local counterpart of a CCT policy implemented in the Philippines through the Department of Social Welfare and Development (DSWD). The program piloted in 2008 and was only institutionalized in 2019 by virtue of Republic Act (RA) No. 11310. The 4Ps involves a bimonthly distribution of cash grants to targeted poor households for a maximum period of seven years in exchange for conditionalities revolving around the health and education of children and pregnant women household members. The overarching goal of the program is to break the intergenerational cycle of poverty by compelling households to invest in human capital improvements. Orbeta, Melad and Araos (2021) outline these conditionalities of the 4Ps, which are (1) time-specific take up of basic maternal and child health services, (2) enrollment and regular attendance of children in schools, and (3) regular attendance to family development sessions conducted by the DSWD.

Table 2. Specific health and education conditionalities under the 4Ps program

Health conditionalities for pregnant women	Pregnant household member/s should visit a health facility at least once every two months to avail of pre- and postnatal care services (at least one prenatal consultation per trimester)
	Pregnant women should avail of Basic or Comprehensive Emergency Obstetric and Newborn Care (B/CEmONC) services, or avail of delivery services from a skilled health professional
	Avail of postnatal care services within six weeks after delivery of the child
Health conditionalities for children	Children below two years old should be completely immunized according to the vaccination schedule of the Department of Health
	Children 2 to 5 years old should visit health centers once every two months for regular weight monitoring
	Children 6 to 14 years old must receive deworming pills at least twice per year
Education conditionalities	Children 3 to 5 years old should enroll in daycare or kindergarten, and attend at least 85 percent of the school days in a month
	Children 6 to 18 years old should enroll in elementary or high school, and attend at least 85 percent of the school days in a month

Source: Orbeta, Melad and Araos (2021, p.5)

Under the program, every household beneficiary receives a monthly health grant, a monthly education grant, depending on the child's school level, and a monthly rice subsidy (Orbeta, Melad and Araos 2021). Section 7 of RA 11310 listed the amounts per type of grant. The education grant is PHP 300, PHP 500, and PHP 700 per child in elementary, junior high school, and senior high school¹, respectively, for a maximum of three child beneficiaries per household. Meanwhile, the health grant amounts to PHP 750 per household. Lastly, the rice subsidy, which was only added in 2017 to improve the food security of beneficiaries, is at PHP 600 per household. Given these, a household that fully complies with all the conditionalities can receive up to PHP 37,200 per year if there are three monitored children enrolled in senior high school.

Since the program's inception and expansion in 2008, the 4Ps is currently being implemented in 144 cities and 1,483 municipalities in 80 provinces, with a total of 5,066,892 registered households. As of December 2020, there were a total of 4,2391,393 active 4Ps beneficiary households, many of which are in the regions of Bangsamoro Autonomous Region in Muslim Mindanao (9.2%), Bicol Region (8.7%), and Western Visayas (7.6%) (**Figure 1**).

Recent evaluations of the impacts of the 4Ps support the general literature that government cash transfers, or CCTs in this case, do not encourage dependency among beneficiaries. This means that cash grants do not disincentivize individuals from continuing to seek work (Orbeta, Melad and Araos 2021). In fact, it was found that beneficiaries actually tended to work more and for longer hours per week. Moreover, a qualitative analysis of the data conducted by Araos, Melad and Orbeta (2020) found that both beneficiaries and non-beneficiaries of 4Ps are casually employed, citing lack of education and qualifications as obstacles to permanent employment. Availability of jobs is also an issue in the rural areas, due to seasonality. With regard to livelihood assistance, beneficiaries prefer capital instead of employment facilitation, which implies the potency that CCTs can lend in getting over financial hurdles in seeking

¹ The PHP 700 grant per child enrolled in senior high school was only implemented starting 2020 after the enactment of RA 11310. Previously, the education grant for high school, regardless of school level, was at PHP 500 per monitored children.

employment. Most beneficiaries also expressed that the conditionalities of the 4Ps does not impact their time spent working.

Figure 1. Active 4Ps beneficiary households, as of December 2020



Source: DSWD

Orbeta, Melad and Araos (2021) also noted that the 4Ps has a positive effect on the education outcomes of children, particularly with older ones. The program implementation has led to an increased school enrollment rate for high school-aged children (i.e., age 12 to 17), as well as age-appropriate enrollment and lower dropout rates. The data further showed that the 4Ps helps beneficiaries stay longer in school, where beneficiaries tend to stay in school until at least high school, as compared to previous outcomes wherein enrollment rates begin to drop as early as 12 years old. Evidence also shows that the program improves high school completion rates. However, despite better school attendance outcomes, findings also identify no significant relationship between 4Ps cash transfers and reduction in child labor among children aged 10 to 14 years old, implying that children continue to both attend school and participate in work, possibly to supplement the additional expenses incurred from going to school. This finding is in contrast with the common trend found in the global literature.

3. Data and methodology

This study utilizes the survey data sets collected and used for the three waves of impact evaluation studies of the 4Ps program. All of these studies conducted a survey of households that were registered as beneficiaries of the program. **Table 3** outlines the survey designs used by these evaluation studies.

Table 3. Survey designs used in the three impact evaluation studies on 4Ps

	IE Wave 1 (2011)	IE Wave 2 (2013)	IE Wave 3 (2017)
Study design	Randomized control trial	Regression discontinuity design	Regression discontinuity design
Target population	Households in “Set 1” areas or those located in municipalities where the 4Ps were scaled up in 2008 and 2009	Households with at least two years of program exposure (registered from 2008 to 2012) – Sets 1 to 4 areas	Households with at least two years of program exposure (registered from 2008 to 2014)
Sample selection	Households in randomly selected municipalities were included in the sample based on their eligibility status corresponding to four sample groups	Households in randomly selected municipalities that have incomes nearer the poverty threshold (cutoff) have higher selection probability	Households in randomly selected municipalities that have incomes nearer the poverty threshold (cutoff) have higher selection probability
Location	130 barangays in 8 municipalities and 4 provinces	175 barangays in 30 municipalities and 26 provinces	180 barangays in 30 municipalities and 25 provinces
Data collection	October to November 2011	October to December 2013	November 2017 to January 2018

Source: DSWD and The World Bank (2014), DSWD (2014), and Orbeta, Melad and Araos (2021)

The IE Wave 1 study (see DSWD and The World Bank 2014) adopted a randomized control trial methodology for the impact evaluation. Among the Set 1 areas², or the cities and municipalities identified as priority during the scaling up of the 4Ps program in 2008 and 2009, the study identified eight municipalities in four provinces as the study sites. These are the municipalities of Paracelis and Sadanga in Mountain Province, Paluan and Santa Cruz in Occidental Mindoro, Jimalalud and Basay in Negros Oriental, and Lala and Salvador in Lanao del Norte.

With equal chances of selection, a sample of 130 barangays were identified from these municipalities. The selected barangays were equally divided into treatment and control groups. Ten households were then randomly selected from each identified barangay. Households in treatment barangays were exposed to the 4Ps program starting 2009. For the purposes of the impact evaluation, exposure to the program of households in control barangays was purposely delayed to 2011, immediately after the conduct of the analysis.

Meanwhile, both the IE Waves 2 and 3 studies (see DSWD 2014; Orbeta, Melad and Araos 2021) adopted a regression discontinuity design (RDD). For both studies, the target population includes all households with at least two years of program exposure at the time of the survey. In both waves, 30 municipalities were randomly drawn from all sets of areas that fit the selection criterion, making sure that there are 10 municipalities per major island cluster. From each municipality, a random sample of barangays were drawn. Households in the selected barangays were then sorted based on their predicted household income using a proxy means

² The Set 1 areas were composed of poorest municipalities identified as priority for the first phase (or the scaling up) of the 4Ps program in 2008 and 2009. The 2000 Small Area Estimates was used to identify these poorest municipalities, while the 2006 Family Income and Expenditure Survey (FIES) was used to identify the poorest provinces.

test model. Consistent with the RDD design, households were randomly selected, but those with predicted incomes nearer the selected cutoff, which in both cases is the poverty threshold, have higher selection probability.

From the survey data sets of each IE study, a panel data was constructed for this study. This consists of households and household members present in all three source data sets. The longitudinal structure of data allows this study to capture individual- and household-level nuances and dynamics of labor outcomes, particularly in terms of the observed changes or lack of changes in their labor and employment status, by tracking the status of each member in different periods. Given the designs of the source data sets, the constructed panel data is limited to the setup used in the IE Wave 1 study, such that households retained in the panel will only come from the eight selected Set 1 municipalities.

To construct the panel data, matching was first conducted at the household level using the Household IDs. Out of more than 2,000 households, only 457 were identified to be present in all the survey rounds (**Table 4**). After which, individuals among these households were matched using their designated Member IDs. However, upon careful inspection of the automated matching results, members with the same name but have different IDs were found and not tagged as matched. This prompted for the use of manual matching using the names (i.e., last name, first name/s, and middle name) and birthday as references. This resulted to 2,045 household members that were consistently present in the three survey rounds.

As the study focuses on labor outcomes of household members, only those belonging in the working age population were retained in the final panel data. Working age population, as defined by the Philippine Statistics Authority (2003), consists of persons aged 15 to 64 years old. However, this study excludes the ages 15 and 16 as the module on labor and employment in the 2011 round were only asked for members aged 17 and above. Given these conditions, 836 individuals in 431 households were identified and formed the final panel data set.

Table 4. Creating the panel data: results of the matching exercises

	2011	2013	2017
<i>Before matching</i>			
Number of households	3,742	4,301	2,265
Members currently living in the household	18,307	22,689	13,563
<i>After matching of households</i>			
Number of households	457		
Number of members	3,009	3,002	2,823
<i>After matching of household members</i>			
Members present in all survey rounds	2,045		
<i>Final data set (panel of household members aged 17 to 64)</i>			
Number of households	431		
Number of members	836		

Source: Authors' calculations

Several limitations were imposed for this study in reference to the structure of the panel data and to the consistency of variables across the survey rounds. First, given the setup in forming the data set, there is the issue of representativeness with respect to the entire 4Ps household beneficiary population. This limitation holds mainly due to the study design implemented in the first wave of the 4Ps IE study. Thus, the analysis carried out for this study is mainly

descriptive in nature. In order to have a comparison with national estimates and comparable population, results were also evaluated in contrast with estimates using the official national surveys of the Philippine Statistics Authority, such as the Family Income and Expenditure Survey (FIES) and the Labor Force Survey (LFS).

Second, some variables that were deemed to be useful in identifying nuances in labor market outcomes were only available at the household level. For instance, questions on disability were asked in terms of the presence of at least one member with disability, rather than tagging the household individual with disability.

Lastly, there were variables that were inconsistently defined across the three survey periods. Aside from the definition of working-age population as discussed in the earlier part of this section, there is also an inconsistency in terms of defining unemployment. Three criteria were used in the national definition to identify the unemployed: (1) without work or job; (2) available for work; and, (3) seeking work, or not seeking work due to valid reasons (PSA 2017). However, availability for work was not included in the questionnaire of the 2011 survey round. Thus, for comparability concerns across the three periods, this study uses an older definition of unemployment without the availability criterion.

4. Results and discussion

4.1. Profile of households and household members

Given the data setup specified in the previous section, households included in this study are among those in “Set 1” areas or in the priority municipalities selected for the first phase of 4Ps implementation in 2008. **Table 5** shows the distribution of households and household members included in the panel data by province and municipality.

Table 5. Distribution of households and members in the panel data

Province	Municipality	Number of Households	Number of Household Members
Mountain Province	Paracelis	28	61
	Sadanga	35	74
Occidental Mindoro	Paluan	33	64
	Santa Cruz	44	82
Negros Oriental	Basay	27	50
	Jimalalud	91	184
Lanao del Norte	Lala	93	179
	Salvador	80	142

Source of basic data: Panel data of 4Ps IE 2011, 2013 and 2017 rounds

On the average, beneficiary households in the panel data consist of six to seven household members, most of which belongs to a single type of household (above 64%). However, it can be seen across the rounds that the proportion of extended type of households had significantly increased from 19.0 percent in 2011 to 31.6 percent in 2017. Among these households, majority (97.2%) are in rural barangays³.

³ Using the urban/rural classification of barangays based on the 2010 Census of Population and Housing.

In the 2011 and 2013 rounds, beneficiary households are overwhelmingly headed by males (around 87%), but there was a change in household headship observed in 2017, wherein a greater share of women served as the household head (69.6%). Despite this, still a majority of the households were headed by men.

The proportion of households with at least one member with disability is relatively high (above 4%) compared to the national estimates from the 2010 Census of Population, wherein only 1.57 percent of the population have a disability (PSA 2013).⁴ Meanwhile, 16.7 percent of households belong to an indigenous people group, and only a few (about 2%) have a member working or living overseas.

Table 6. Profile of households in the panel data

Indicator	Number			Percent		
	2011	2013	2017	2011	2013	2017
Household size, mean	6.7	6.6	6.3			
Sex of household head						
Male	374	374	300	86.8	86.8	69.6
Female	57	57	131	13.2	13.2	30.4
Type of household						
Single	330	286	277	76.6	66.4	64.3
Extended	82	140	136	19.0	32.5	31.6
Two or more non-related families or persons	19	5	18	4.4	1.2	4.2
Part of an indigenous people group	72			16.7		
At least one member with disability	43	17	22	10.0	3.9	5.1
At least one member overseas	7	6	6	1.6	1.4	1.4
Location						
Rural	419			97.2		
Urban	12			2.8		

Source of basic data: Panel data of 4Ps IE 2011, 2013 and 2017 rounds

On the average, members in the panel are about 41 years old during the 2017 survey round. Among the household members, slightly more than half are females (51.1%). Most of the members have attained a primary level of education (54.1%). Meanwhile, 32.7 percent of the adult household members have reached secondary level.

Table 7. Profile of working-aged household members in the panel data, 2017 round

Indicator	Number	Percent
Age, mean	41.1	
Sex		
Male	409	48.9
Female	427	51.1
Highest grade completed		
No grade completed	40	4.8

⁴ Changes in the proportion of households with at least one member with disability may be attributed to the changes in household composition across the survey periods, such that members move in and/or out of the household.

Indicator	Number	Percent
Primary	452	54.1
Secondary	273	32.7
Tertiary (including post-secondary)	71	8.5

Source of basic data: Panel data of 4Ps IE 2011, 2013 and 2017 rounds

Compared to estimates of comparable population using the national data sets, members in the panel data are slightly older compared to the national estimates for the entire working age population in 2017 (using the Labor Force Survey), and to other comparable populations (i.e., bottom 30% households and IE Wave 3 survey data). There are also slightly more females compared to the other data sets. In terms of education, the distribution by education attainment of members in the panel data is nearest to that of the bottom 30% households.

Table 8. Profile of working age population in various data sets

Indicator	All population, 2017	Bottom 30% Households, Jan 2016	4Ps Full Data, 2017	4Ps Panel Data, 2017
Age, mean	34.4	32.9	32.0	41.1
Sex				
Male	50.6	52.0	50.7	48.9
Female	49.4	48.0	49.3	51.1
Highest grade completed				
No grade completed	1.4	4.9	4.3	4.8
Primary	20.8	56.6	43.1	54.1
Secondary	46.1	32.5	43.1	32.7
Tertiary*	31.7	6.0	9.6	8.5

Note: *Includes post-secondary

Source of basic data: LFS 2017; Merged FIES-LFS 2015; 4Ps IE 2011, 2013 and 2017 rounds; Panel data of 4Ps IE 2011, 2013 and 2017 rounds

In terms of labor outcomes, there is an increasing trend for the labor force participation rate, from 62.2 percent in 2011 to 72.7 percent in 2017. This increase is largely attributed to the increasing proportion of younger age groups entering the labor force. Among the members aged below 24 years old in 2011, the labor force participation rate increased from 41.4 percent in 2011 to 64.5 percent in 2017.

Among those in the labor force, more than 92 percent have work, job or business for at least an hour during the previous week from the time of the survey. The proportion of members with economic activity to the labor force is highest in 2013 at 96.7 percent, and lowest in 2017 at 92.6 percent.

Table 9. Labor and employment indicators in comparison with estimates using national survey data (%)

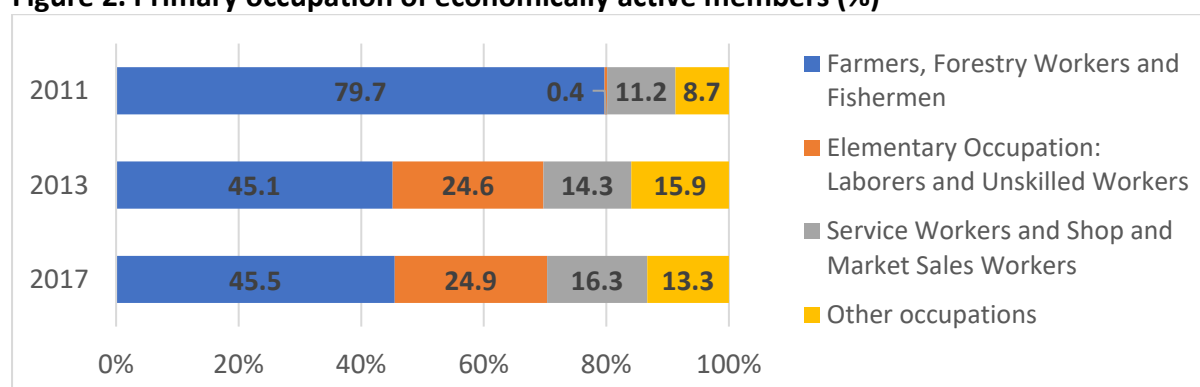
Labor indicators	All population, 2017	Bottom 30% Households, Jan 2016	4Ps Full Data			4Ps Panel Data*		
			2011*	2013	2017	2011	2013	2017
In the labor force	61.2	62.1	66.4	63.9	57.5	62.2	69.9	72.7
Employed / Economically active	94.3	94.7	92.2	97.5	96.4	94.8	96.7	92.6
Unemployed / Not economically active	5.7	5.3	7.8	2.5	3.6	5.2	3.3	7.4

Note: *Includes only ages 17 and above; availability criterion is not included in the estimation.

Source of basic data: LFS 2017; Merged FIES-LFS 2015; 4Ps IE 2011, 2013 and 2017 rounds; Panel data of 4Ps IE 2011, 2013 and 2017 rounds

In terms of primary occupation, majority (four out of five) were working as farmers, forestry workers or fishermen in 2011. However, a significant decline in this category was observed in 2013, alongside the increasing share of workers engaged in elementary occupations starting in 2013.

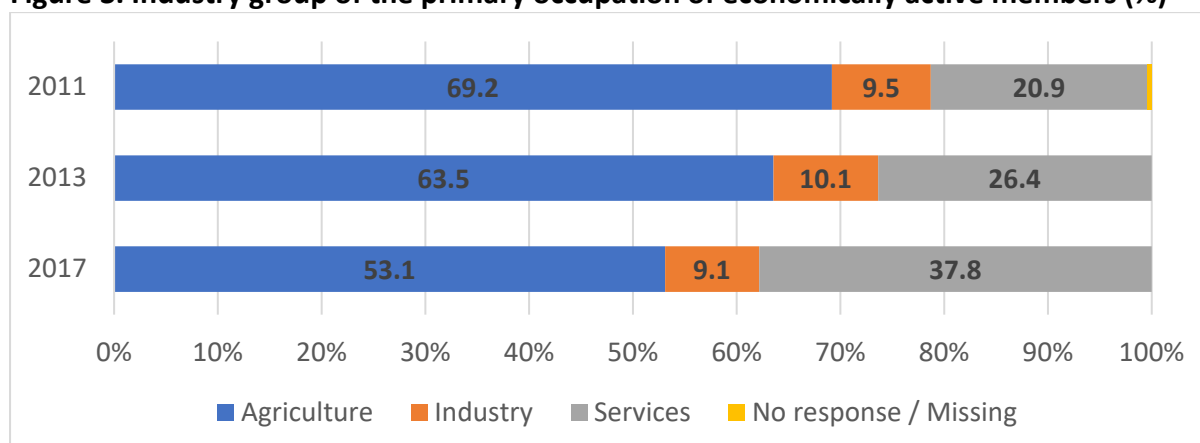
Figure 2. Primary occupation of economically active members (%)



Source of basic data: Panel data of 4Ps IE 2011, 2013 and 2017 rounds

The agriculture sector consistently accounted for the majority of total economically active members (**Figure 3**). However, its share was declining quite fast across the survey periods, alongside the increasing share of the services sector. The share of the industry sector remained constant at around 9 to 10 percent of economically active members.

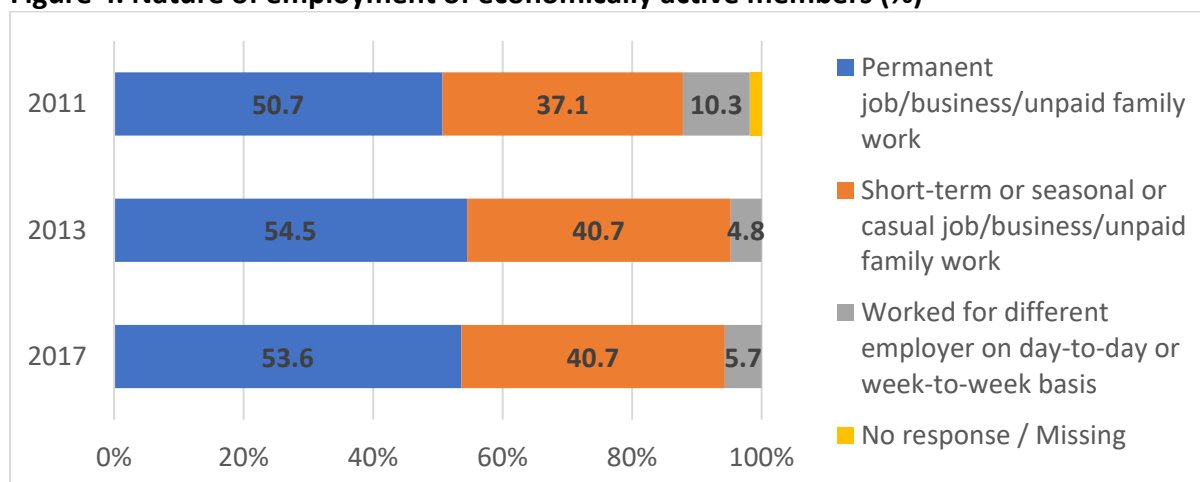
Figure 3. Industry group of the primary occupation of economically active members (%)



Source of basic data: Panel data of 4Ps IE 2011, 2013 and 2017 rounds

The bulk of members who have work have either a permanent, at around 50 percent, or a short-term/seasonal/casual work, at around 40 percent (**Figure 4**). In terms of class of employment, almost half worked for private households or establishments, at 44 to 47.2 percent (**Table 10**). About one in five members were noted to be working in a family-operated farm or business, of which majority were working without pay. A significant proportion of economically active members were self-employed.

Figure 4. Nature of employment of economically active members (%)



Source of basic data: Panel data of 4Ps IE 2011, 2013 and 2017 rounds

Table 10. Class of employment of economically active members (%)

Class of employment	2011	2013	2017
Worked for private household or establishment	44.0	44.8	47.2
Self-employed without any paid employee	19.5	30.3	20.1
Worked without pay on own family-operated farm or business	16.0	16.3	17.8
Worked for government/government corporation	4.9	5.7	5.3
Employer in own family-operated farm or business	6.7	2.1	5.2
Worked with pay on own family-operated farm or business	7.1	0.9	4.4
No response / Missing	1.8	0.0	0.0
Total	100.0	100.0	100.0

Source of basic data: Panel data of 4Ps IE 2011, 2013 and 2017 rounds

Among the non-economically active members in the panel data, only a small percentage, at about three percent, have looked for work during the previous week at the time of the survey. For those who did not look for work, an overwhelming majority (more than 70%) have cited household and family duties as their main reason for not joining the labor force.

Table 11. Members looking for work and reasons for not looking for work among non-economically active members (%)

Looking for work / Reasons for not looking for work	2011	2013	2017
Looking for work	3.2	3.0	2.9
Not looking for work	92.1	96.7	97.1
<i>Household, family duties</i>	<i>71.4</i>	<i>83.0</i>	<i>71.4</i>
<i>Too young/old or retired/permanent disability</i>	<i>1.2</i>	<i>1.8</i>	<i>7.7</i>
<i>Tired/believe no work is available</i>	<i>2.0</i>	<i>1.8</i>	<i>4.8</i>
<i>Temporary illness/disability</i>	<i>1.7</i>	<i>1.5</i>	<i>4.8</i>
<i>Waiting for rehire/job recall</i>	<i>0.0</i>	<i>0.0</i>	<i>2.9</i>
<i>Schooling</i>	<i>5.5</i>	<i>1.8</i>	<i>2.6</i>
<i>Others</i>	<i>6.7</i>	<i>5.5</i>	<i>1.8</i>
<i>Awaiting results of previous job application</i>	<i>0.3</i>	<i>0.7</i>	<i>0.7</i>
<i>Bad weather</i>	<i>0.6</i>	<i>0.0</i>	<i>0.4</i>
<i>No response / Missing</i>	<i>2.6</i>	<i>0.4</i>	<i>0.0</i>
No response / Missing	4.7	0.4	0.0
Total	100.0	100.0	100.0

Source of basic data: Panel data of 4Ps IE 2011, 2013 and 2017 rounds

4.2. Dynamics of labor market outcomes

Significant gaps in employment were consistently observed among women and youth. **Figure 5** shows that there is great disparity in the proportion of economically active members to total working age population across age groups. Young people, particularly those aged 24 and below in 2011, were usually out of employment as they are more likely to be in schools. A larger proportion of the same age group eventually gained work or job in 2017.

In terms of sex, a larger proportion of males have work or job compared to females. Among males, differences in accessing work disappear by around age 30. Meanwhile, access to work among females were seen to increase starting the age of 40. The gender gap in access to employment is highest for young women (usually the period of childbearing age), and for women approaching the retirement age.

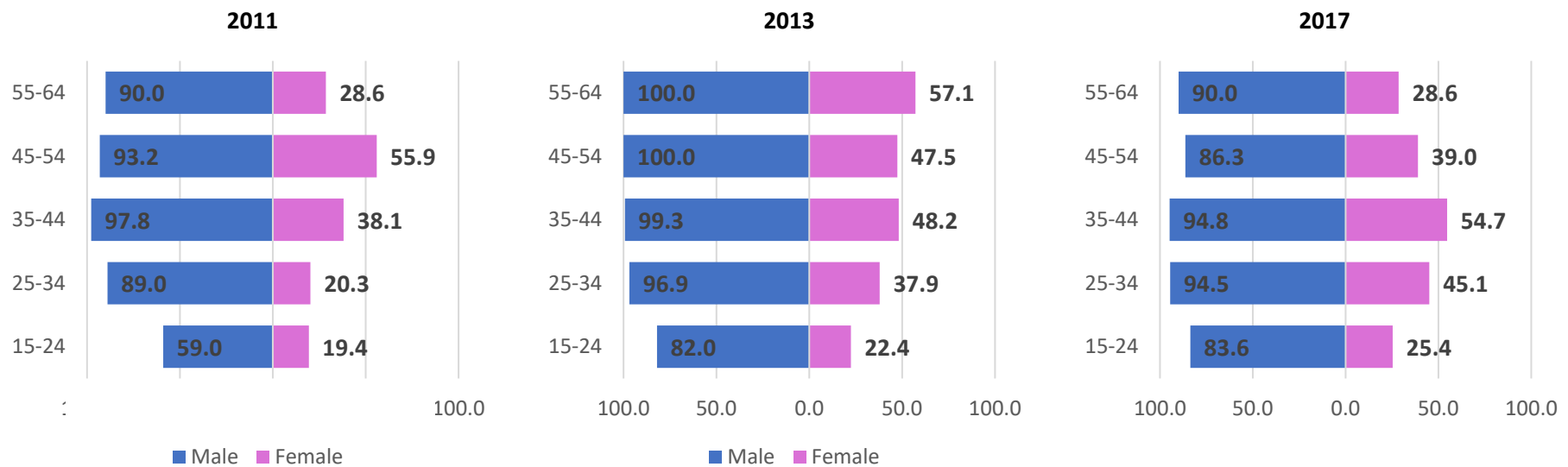
Education seems to be an important factor among women to enter employment. **Figure 6** shows that there is a higher proportion of females engaged in an economic activity among those with tertiary or post-secondary education compared to those with lower levels of education. In contrast, there is a higher proportion of employed among less educated males. This suggests that there may be more available jobs in poor localities for those with lower levels of education than for those with higher level of education.

Although there is a consistently high percentage of members engaged in an economic activity across the survey rounds (see **Table 9**), there were underlying shifts in employment status among individuals not captured at the aggregate level. **Figure 7** shows the movements in and out of work among members who have been engaged in an economic activity during all the

survey rounds. However, it must be noted that the work status of household members observed in the data may not reflect their actual work status during the whole duration between 2011 and 2013, and between 2013 and 2017. This is because the questions on labor and employment only used the past week from the survey date as the reference period.

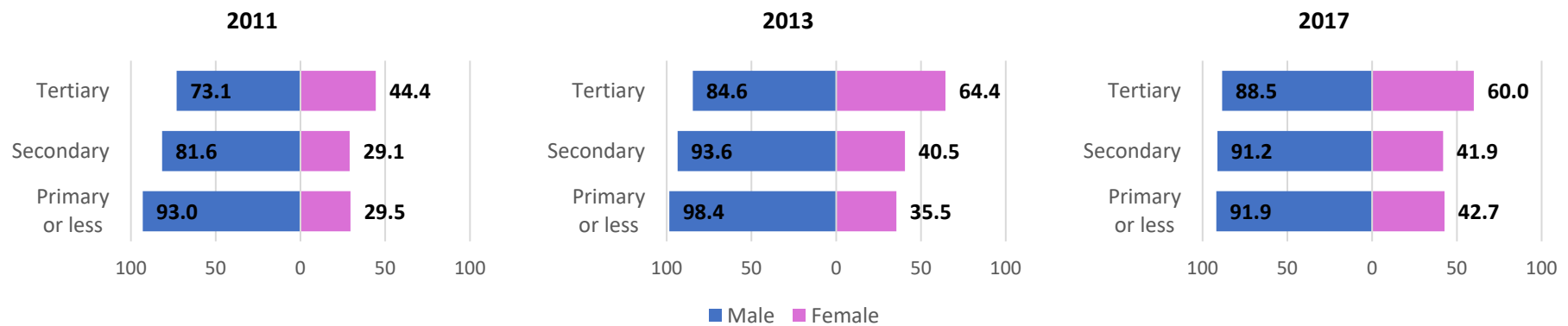
In 2011, 60.8 percent were found to have a work or job, but only 78.8 percent (or 48.0% of the working age population) have retained their work status in 2013 and 2017. Among those who did not have a work or job in 2011, most of them eventually gained some work. However, majority of members not in the labor force in 2011 stayed on as such, with only a few managed to join the work force in the succeeding periods.

Figure 5. Share of economically active members to total working-age population, by sex and age group (based on ages in 2011)



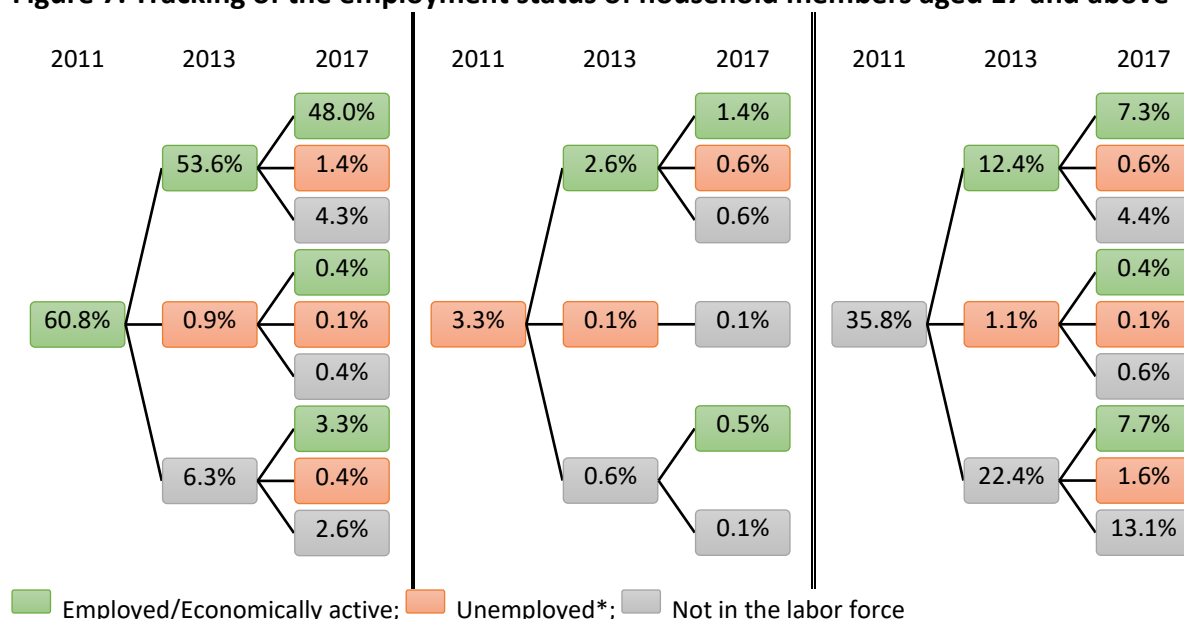
Source of basic data: Panel data of 4Ps IE 2011, 2013 and 2017 rounds

Figure 6. Share of economically active members to total working-age population, by sex and highest educational attainment



Source of basic data: Panel data of 4Ps IE 2011, 2013 and 2017 rounds

Figure 7. Tracking of the employment status of household members aged 17 and above



Notes: (1) Includes only 809 members (out of 836) with non-missing responses in all rounds.

(2) *Definition of unemployment does not include the availability criterion

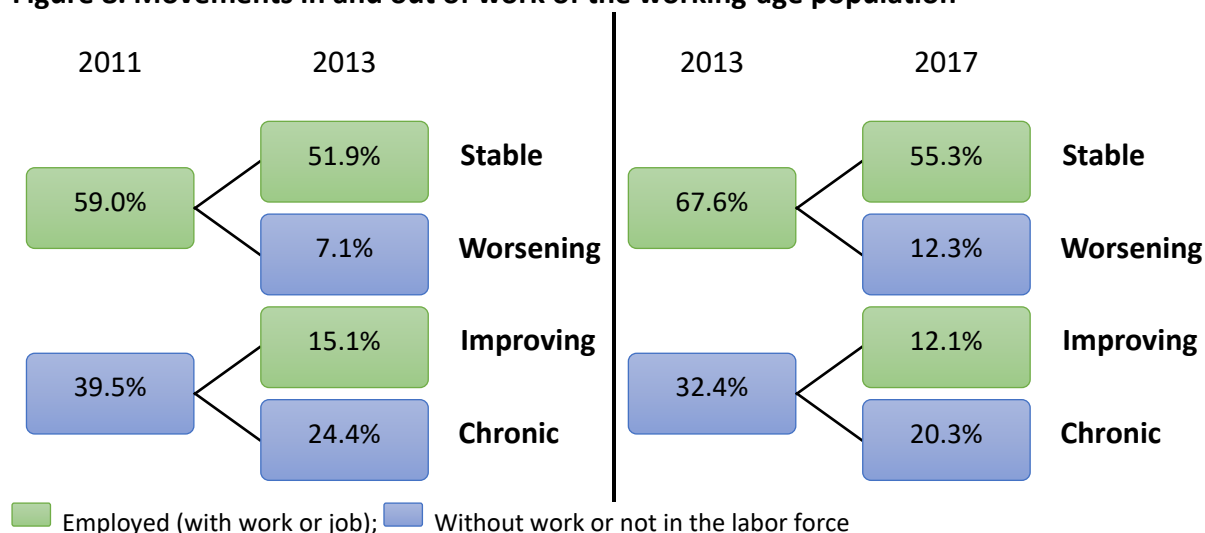
(3) Values are expressed as column percentages.

Source of basic data: Panel data of 4Ps IE 2011, 2013 and 2017 rounds

Based on the changes of work status between two periods, members were grouped into four: (1) stable, or those who have work in both periods; (2) worsening, or those who lost their work in the second period; (3) improving, or those who gained work in the second period; and, (4) chronic, or those who did not have work in both periods.

In both time intervals, about half had a stable work status (**Figure 8**). Meanwhile, one in four members fall under “chronic” work status, or did not have work in both periods.

Figure 8. Movements in and out of work of the working-age population



Notes: (1) There are 13 individuals (1.6%) with missing work/job status in 2011, of which five (0.6%) have work and 8 (1.0%) did not have work in 2013.

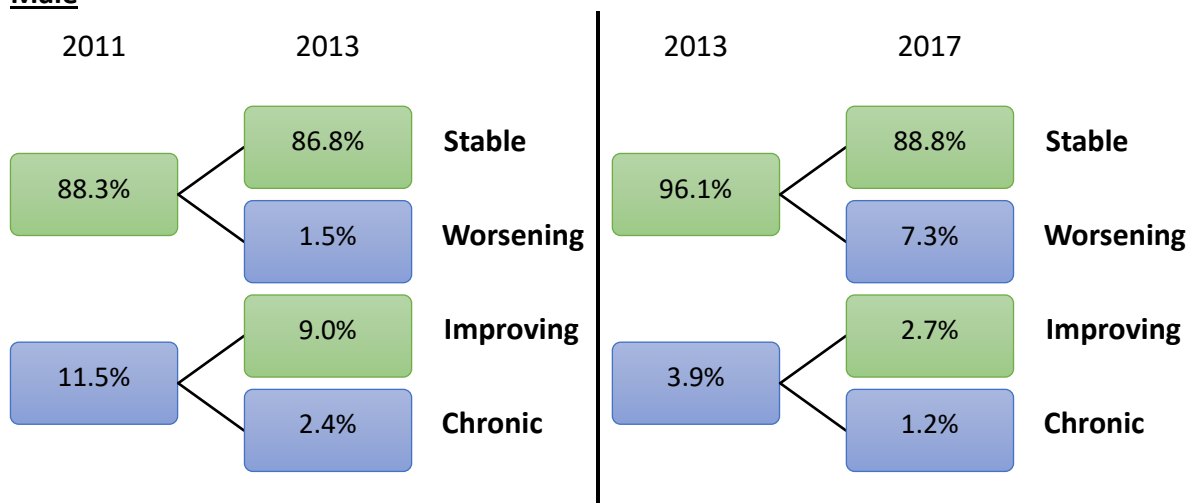
(2) Values are expressed as column percentages.

Source of basic data: Panel data of 4Ps IE 2011, 2013 and 2017 rounds

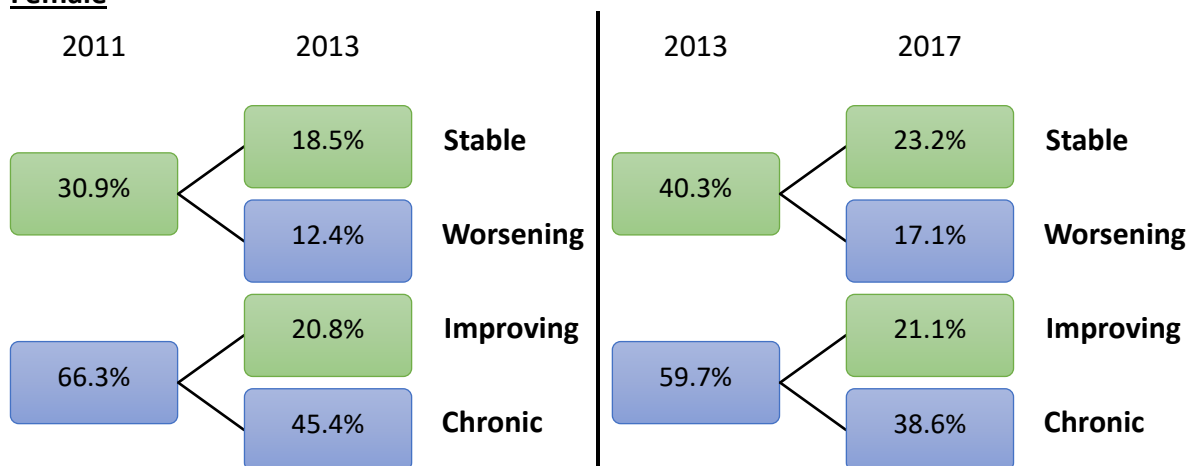
Disaggregating by sex, it can be observed that the retention of work (i.e., having work in both periods) appears to be more likely among men than women (**Figure 9**). A significantly high proportion of males (at above 85%) were able to retain their work status in both time intervals. Men were also more likely to improve their working status, as shown by a high proportion of men who did not have work but eventually gained work during the succeeding period.

Figure 9. Movements in and out of work of the working-age population, by sex

Male



Female



■ Employed (with work or job); ■ Without work or not in the labor force

Notes: (1) There are 12 females (2.8%) and 1 male (0.2%) with missing work/job status in 2011.

(2) Values are expressed as column percentages.

Source of basic data: Panel data of 4Ps IE 2011, 2013 and 2017 rounds

Tables 12 and 13 show other information about the members disaggregated by the change in work status categories. In general, there is a lower proportion of those with tertiary or post-secondary education who were chronically without work compared to those with lower educational attainment. Among solo parents, majority had a stable work status, which may

suggest that they cannot afford to lose work given their circumstances. In both time intervals, more than half of pregnant women were chronically out of work.

Table 12. Profile of household members, by change in work status between 2011 and 2013

	Stable	Worsening	Improving	Chronic
Age (in 2013), mean	39.1	34.7	38.1	33.8
By highest grade completed				
No grade completed	47.5	12.5	2.5	37.5
Primary	56.4	12.2	7.5	22.3
Secondary	46.5	17.9	6.6	27.5
Tertiary (including post-secondary)	46.5	23.9	8.5	18.3
By other characteristics				
Solo parent (in 2013)	60.7	14.3	3.6	14.3
Pregnant (in 2013)	17.6	11.8	2.9	67.6
Living in a household that experienced an economic difficulty in 2013	51.8	16.0	5.9	25.2

Notes: (1) There are 13 individuals (1.6%) with missing work/job status in 2011.

(2) Values are expressed as row percentages.

Source of basic data: Panel data of 4Ps IE 2011, 2013 and 2017 rounds

Table 13. Profile of household members, by change in work status between 2013 and 2017

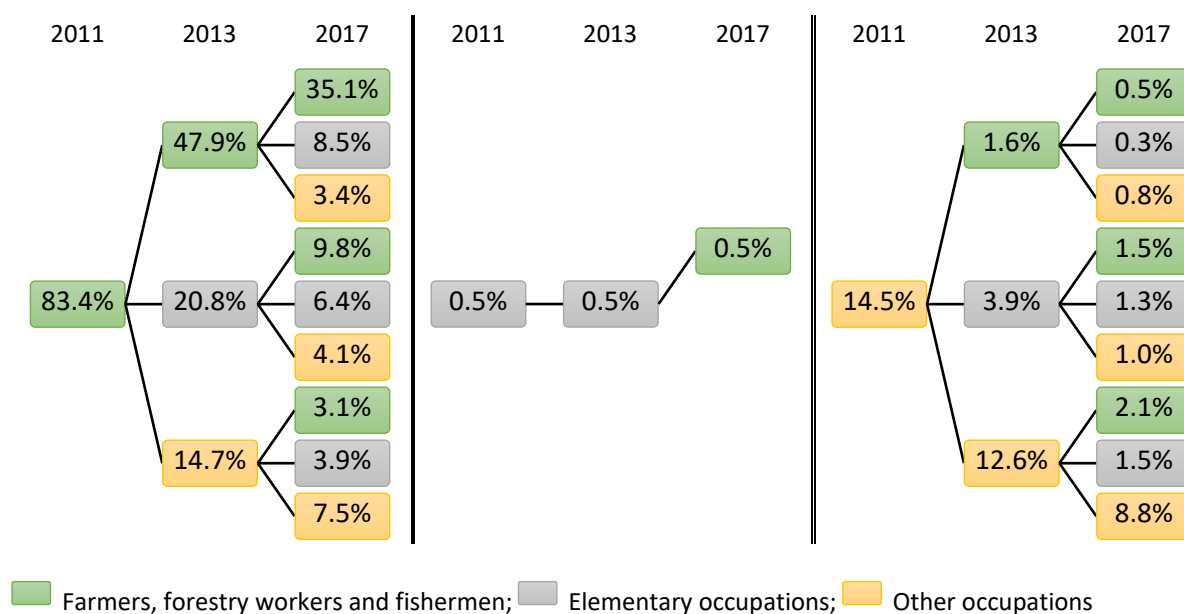
	Stable	Worsening	Improving	Chronic
Age (in 2017), mean	42.1	39.4	42.6	38.5
By highest grade completed				
No grade completed	57.5	20.0	2.5	20.0
Primary	56.2	11.5	13.1	19.2
Secondary	52.4	12.1	12.5	23.1
Tertiary (including post-secondary)	59.2	11.3	12.7	16.9
By other characteristics				
Solo parent (in 2017)	59.4	12.5	9.4	18.8
Pregnant (in 2017)	6.3	12.5	25.0	56.3
Living in a household that experienced an economic difficulty in 2017	54.3	13.4	10.5	21.9

Note: Values are expressed as row percentages.

Source of basic data: Panel data of 4Ps IE 2011, 2013 and 2017 rounds

Looking closely at the subset of members who have work in all three periods, movements in terms of the class, nature and industry of employment were also observed. For the primary occupation of the economically active household members, the bulk of members engaged as farmers, forestry workers and fishermen in 2011 (83.4%) remained as such in the succeeding periods, while a significant proportion worked as laborers and other elementary occupations in 2013. Meanwhile, significant proportions of employed members were transferring to elementary occupations in the latter periods, which reflects the increasing share of members working as laborers and unskilled workers starting 2013 (see **Figure 2**).

Figure 10. Changes in the primary occupation of economically active members



Figures 11 and 12 tracks the major industry grouping of the primary occupation of male and female members, respectively. Compared to males, females were more likely to stay within the same industry. For instance, more than half of the 45.3 percent engaged in agriculture in 2011 remained in agriculture in 2017, while those engaged in services in 2011 (47.2%) remained in services in both 2013 and 2017. In contrast, movements across industries were commonly observed among males, although a significant proportion of those engaged in agriculture in 2011 remained in the same industry in 2017.

Figure 11. Changes in the industry classification of the primary occupation of male household members

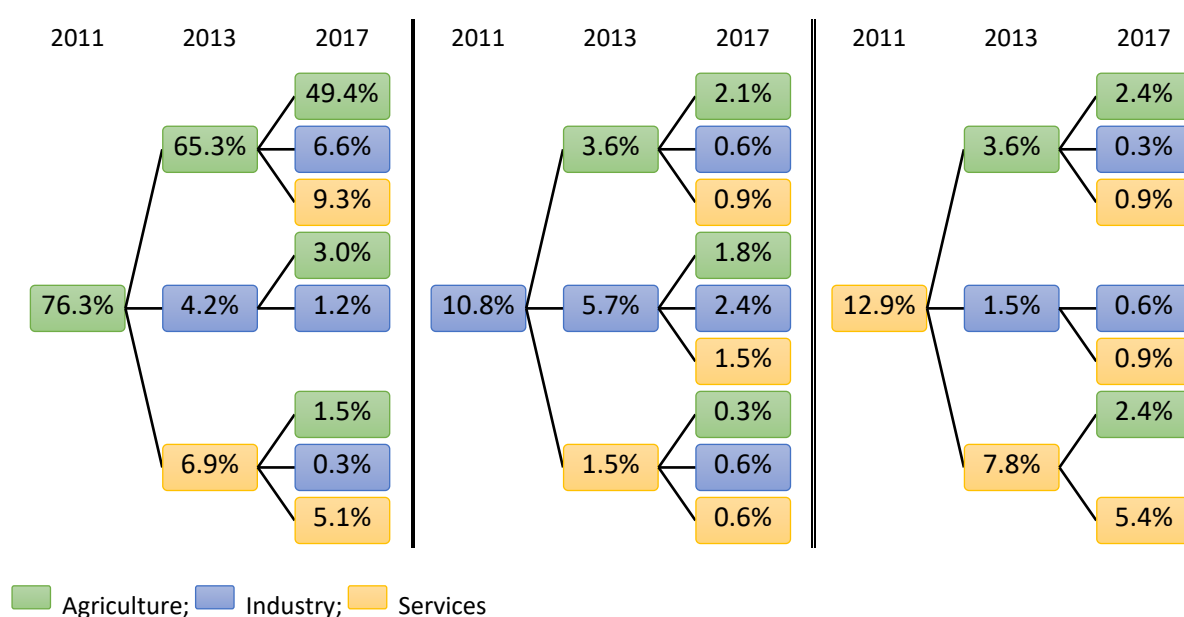
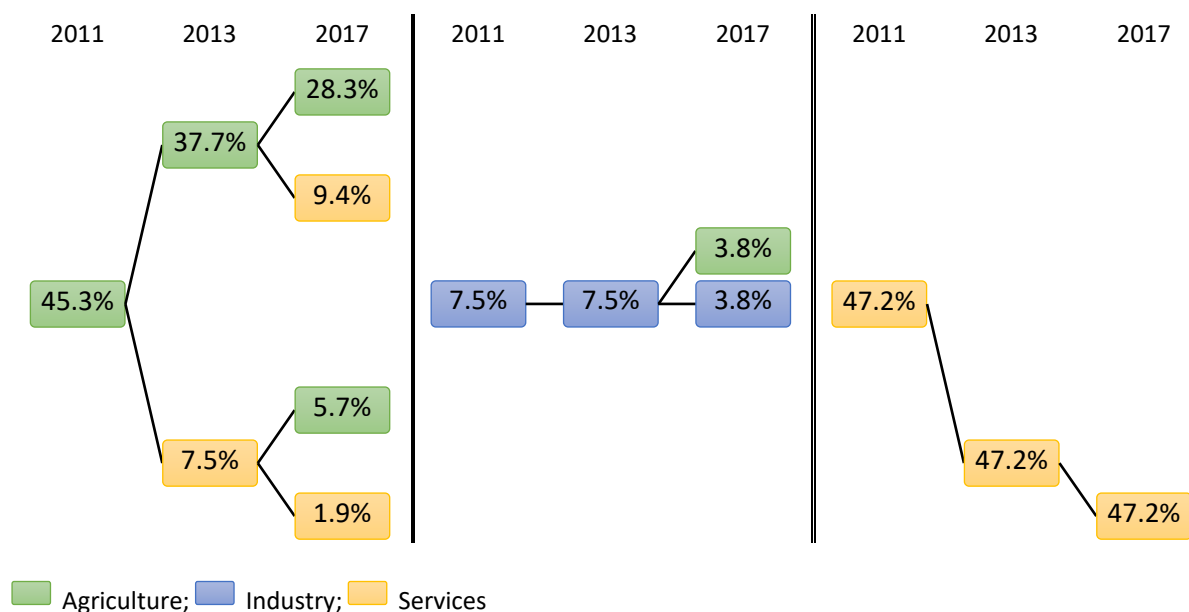


Figure 12. Changes in the industry classification of the primary occupation of female household members

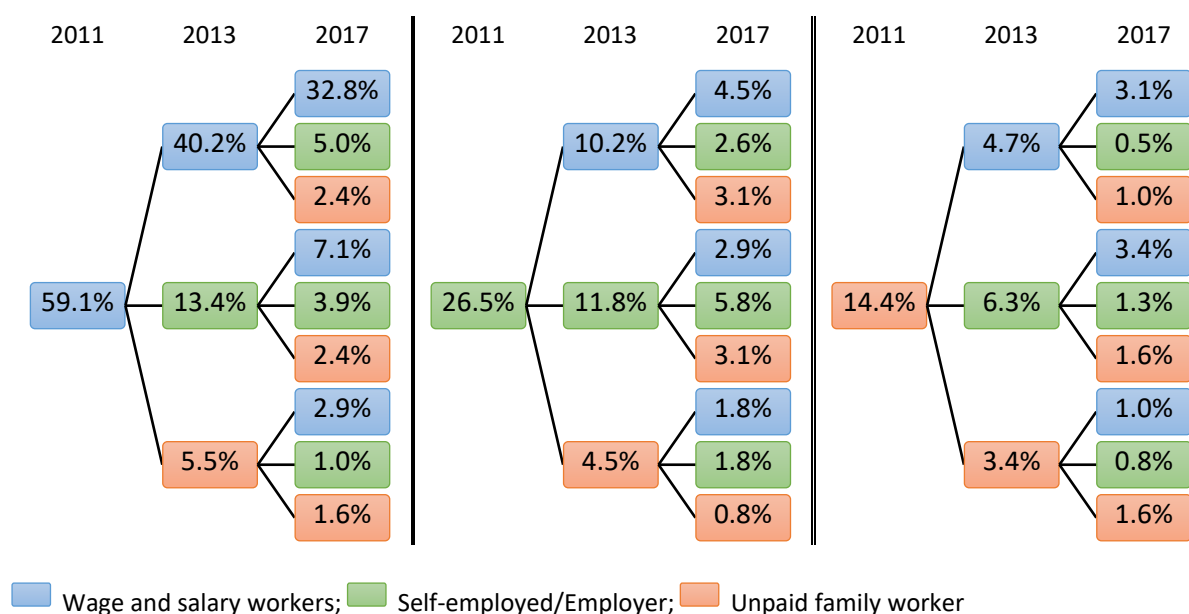


Note: Values are expressed as column percentages.

Source of basic data: Panel data of 4Ps IE 2011, 2013 and 2017 rounds

In terms of class of employment, about one in three members who have work in all three periods were consistently engaged as wage or salary workers (**Figure 13**). Some of those with different class of work in earlier periods eventually became wage and salary workers either in 2013 or 2017. Meanwhile, one in five employed members have a permanent work in all three survey periods (**Figure 14**).

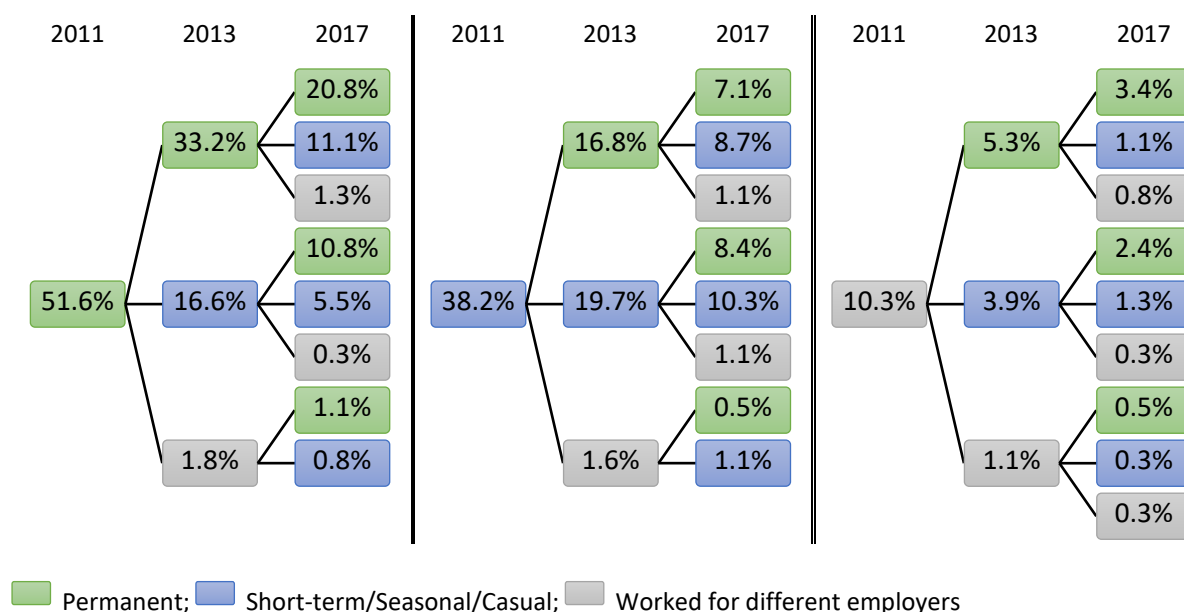
Figure 13. Changes in the class of work of economically active members



Note: Values are expressed as column percentages.

Source of basic data: Panel data of 4Ps IE 2011, 2013 and 2017 rounds

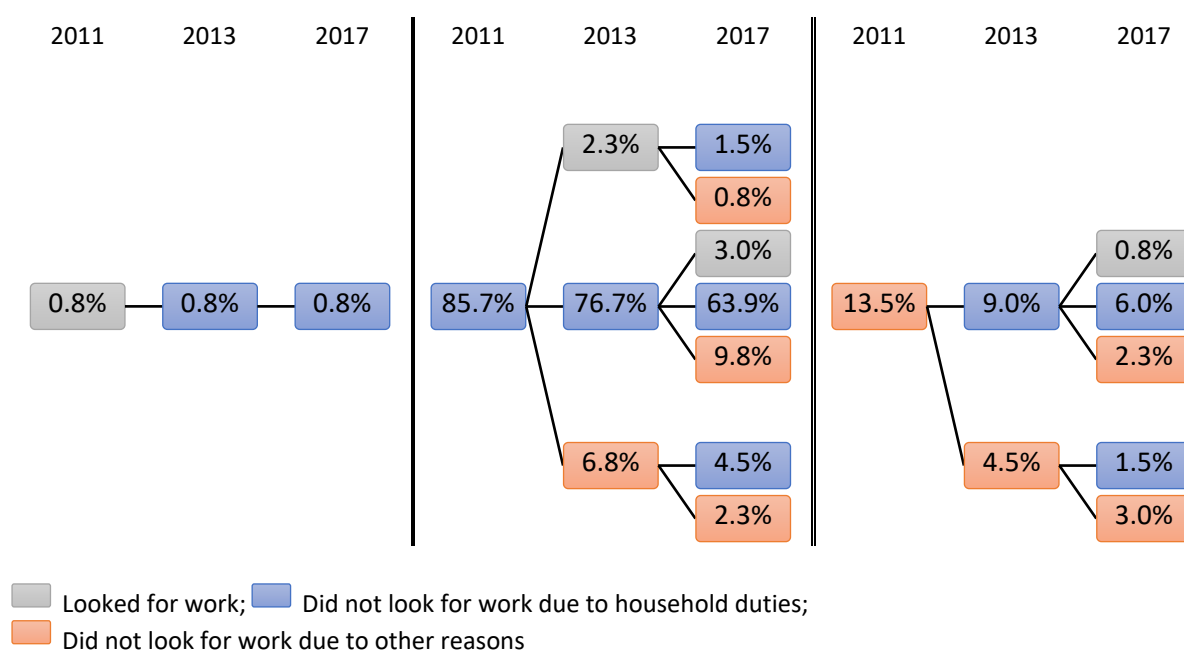
Figure 14. Changes in the nature of work of economically active members



Legend: Permanent; Short-term/Seasonal/Casual; Worked for different employers
 Note: Values are expressed as column percentages.
 Source of basic data: Panel data of 4Ps IE 2011, 2013 and 2017 rounds

On the other hand, among the members who were chronically out of work, about 63.9 percent have not looked for work during each survey period due to family or household duties. Interestingly, all of the members that fall under this category were females. This relates to the low share of economically active females and the high proportion of females who are chronically out of work, as observed in previous discussions. Females tend to opt out of the labor force to do unpaid work in the form of household or family duties.

Figure 15. Tracking the status of members who were chronically out of work



Legend: Looked for work; Did not look for work due to household duties; Did not look for work due to other reasons
 Note: Values are expressed as column percentages.
 Source of basic data: Panel data of 4Ps IE 2011, 2013 and 2017 rounds

Among those households with a member who is chronically out of work, about 86.9 percent (in 2017) to 94.4 percent (in 2013) have at least another member who was at work or have a job. This means that the cost of being chronically out of work, most particularly for women who were usually doing unpaid household work, is often compensated by other members in the household who have a work or job.

5. Summary and recommendations

In summary, there are notable movements in and out of work among 4Ps households in the panel data. A wide gender gap is also observed in the labor market status of male and female household members. Males were better off in terms of having a stable work status across the observed time periods based on the limited definition of stable which is having work only in the periods being examined. It is important to note, however, that while they had work/job at the time of the survey, there were significant movements across industries which suggests lack of job security, though it also indicates capability to shift industry when necessary. Meanwhile, majority of females exclude themselves from the labor force to do unpaid work in the form of household and family duties. For those who did have work, there was less movement across industries which indicates their inability to diversify their skills or preference to remain in their chosen industry of occupation because of their socially-determined roles in the household.

Taking these into consideration, it is important to address the varying labor market needs of men and women in 4Ps households. The Sustainable Livelihood Program of the DSWD has a significant role in improving the labor status of women who represent an overwhelming majority of SLP beneficiaries⁵. It is important for future iterations or components of this program and other such programs to focus on young women, young mothers (since a significant proportion of pregnant women were mostly chronically out of work), and members of marginalized sociodemographic groups (e.g. persons with disability, indigenous people). Such programs must first develop strategies that both account for the circumstances and their livelihood needs and preferences. To make these livelihood programs more viable and effective, having a fully-packaged program that is continuing and sustainable must be considered as opposed to dispersed, seemingly disjointed capacity building programs.

Meanwhile, the seemingly lack of job security among many male 4Ps members shows the importance of continuous education and re-tooling programs for purposes of either improving specialization in their chosen field or craft, or for expanding their skills set so they can better adapt to changing demand in the workplace. It is likewise essential for them to gain access to social protection given the erratic state of their labor market status.

⁵ Orbeta, et. al. (2020), in their impact evaluation of the Sustainable Livelihood Program, found that an overwhelming majority of the program participants are women (92%).

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