

**International  
Institute of  
Social Studies**

*Erasmus*

**Is wives' overseas migration a deterrent to the  
labor supply behavior of non-migrant spouse  
and school attendance of children left-behind?  
Evidence from the Philippines Temporary Migration**

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***Carl Rookie O. Daquio***

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Members of the Examining Committee:

Dr. Arjun S. Bedi

Dr. Sofia Karina Trommlerová

The Hague, The Netherlands

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***Disclaimer:***

This document represents part of the author's study programme while at the Institute of Social Studies. The views stated therein are those of the author and not necessarily those of the Institute.

***Inquiries:***

**Postal address:**

Institute of Social Studies  
P.O. Box 29776  
2502 LT The Hague  
The Netherlands

**Location:**

Kortenaerkade 12  
2518 AX The Hague  
The Netherlands

Telephone: +31 70 426 0460

Fax: +31 70 426 0799

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## List of Acronyms

ATE	Average Treatment Effect
DOLE	Department of Labor and Employment
EPR	Employment-to-Population Ratio
FB	Facebook
FIES	Family and Income Expenditure Survey
HSW	Household Service Worker
ILO	International Labour Organization
KII	Key Informant Interview
LFP/ LFPR	Labor Force Participation/ Labor Force Participation Rate
LFS	Labor Force Survey
OLS	Ordinary Least Squares
OFWs	Overseas Filipino Workers
POEA	Philippine Overseas Employment Administration
POLO	Philippine Overseas Labor Office
PSA	Philippine Statistics Authority
SOF	Survey of Overseas Filipino



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## Abstract

A key feature of the Philippine overseas migration is the increasing female migrants working outside their home. It is of interest that migrant women highly dominate overseas employment for the last decade who had to leave their homes and endure long years of family separation. The aim of this research was to determine how the migration of wives impacts the labor supply behavior or motivation to work of the husbands and the school outcomes of the children left behind. To achieve this objective, a combination of quantitative and qualitative methods was employed to address the research question.

First, I modeled husbands' participation in the labor market activities and school outcomes of children using nationally representative merged dataset on labor force and family income surveys and correct for the endogeneity of the migration status of wives using migrant networks. Results show that stayer husbands significantly reduce their hours of work and shift from being permanent to short-term employed persons. The reduced labor supply of the stayer husbands could be associated with an increasing proportion of men becoming less economically active due to their participation in the household or family duties due to the absent-wives. Meanwhile, the effect of migration also promotes productive investment, particularly in children's education. However, much of the positive effect of migration is largely driven by boy's attendance in school than girls. Second, I also interviewed female migrants at selected Middle East destination countries to understand transnational family relationships. The study found out that absent wives decide to work abroad based on the cooperation of their husbands to provide better welfare of their family, particularly children. This affirms parents' altruistic attitude in terms of maximizing resources that benefit the whole family.

## **Relevance to Development Studies**

In most developing countries, women's labor force participation has been minimal, and men continue to dominate the workforce. This is due to the attached gender roles and attitudes differentiating men to be the main family provider while women are responsible for taking care of the household. But in recent decades, increasing share of women has taken on the challenge by participating in the workforce and contribute to the household income.

In the Philippines, women's labor mobility and independence could be associated with an increase in overseas female migration. With the departure of the absent wife-mothers, it is noteworthy to note the long-term differential impact of wives' migration on household family welfare, particularly on the labor supply state and human capital decisions of left-behind members. Ignoring the dependence of non-migrant's economic welfare would underestimate the real contribution of wives-mothers' migration. It is hoped that the realizations of this paper would contribute to addressing gender gap issues relating at work, providing equal treatment opportunity, and lastly, recognize women's active role as economic agent in attaining towards more inclusive and dynamic growth

### **Keywords**

female labor participation, overseas migration, household labor allocation, Heckman's two-step procedure

# Chapter 1 Introduction

*“Even in the Philippines, we can see that there are plenty of mothers working outside the home. Others, like me, decided to pursue work abroad because of better opportunities”* [Ana, 38, Married, 3 dependents, Household Service Worker (HSW) in Muscat, Oman]<sup>1</sup>

Ana, not her real name, recently finished her first employment contract of two years as a full-time HSW and now works on her second employment contract of the same job. She first worked abroad in April 2015 and admitted that it was her first time to do household work after being a skilled worker for many years back in the Philippines. Ana is just among the thousands of Overseas Filipino Workers (OFWs) mothers who have come to great extents to pursue work overseas and endure the long separation to provide better support for their families left-behind.

The overseas migration has been prevalent in the Philippines as a source of upward social mobility and changing lifestyles that are difficult to achieve through domestic labor. At the same time, migration has become deeply embedded in people’s behavior and values at the community level. Recently, Philippines has experienced a gender gap in overseas employment with females outnumbering the male workers. This trend is more likely to sustain as women are increasingly becoming visible in the labor force. This paper aims to contribute to the growing literature of female migration by measuring its causal impact on those who are left-behind which has remained understudied.

## 1.1 Background

A key feature of the Philippine labor market is the presence of the increasing number of Overseas Filipinos Workers (OFWs) (ILO 2012: 8). Over the past four decades, the robust expansion in overseas employment has to some extent offset the deficit in domestic employment growth (2012: 8).

The advent of the 1970s saw the rise of access to labor markets in the Middle East and Asia through a large-scale and organized manner. Attractive wages

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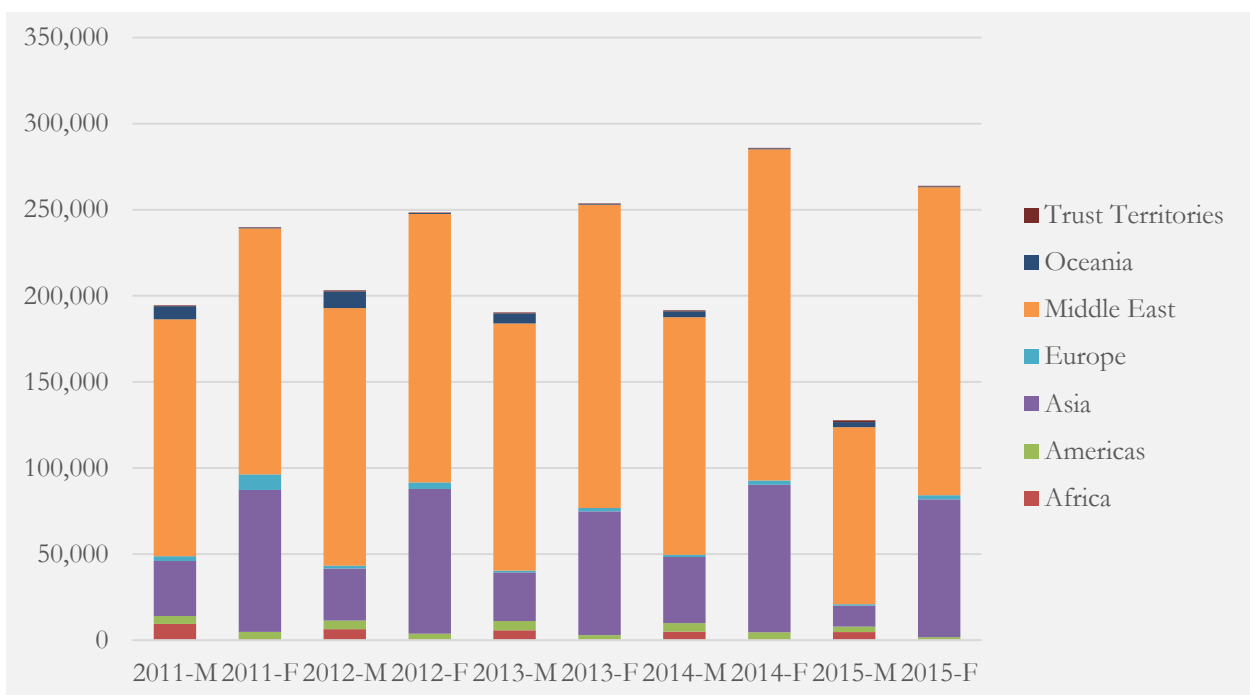
<sup>1</sup> Personal interview through Skype, The Hague, The Netherlands, 08 August 2017

abroad and the government policy of emigration have pushed families to consider “temporary migration” to improve their overall living standards at home. At the same time, economic conditions in Asian neighboring countries and the emergence of the Gulf region after the oil crisis have further stimulated migration. In the beginning of this era, the Philippine migration has been described as predominately male-oriented and occurring within a social network. This was due to gender roles differentiation where men are the only ones interacting with the outside world generating income to the household while the women are responsible for meeting the internal needs of the family (Papa 2014: 12).

It is of interest that migrant women highly dominate overseas employment for the last decade who had to leave their homes and endure long years of family separation. Recognizing the contribution of women workers and their vulnerabilities in society, the Migrant Workers and Overseas Filipino Act of 1995 (Republic Act No. 8042) was enacted. This declares the State to “apply gender sensitive in the formulation and implementation of policies and programs affecting migrant workers and the composition of bodies tasked for the welfare of migrant workers” (ILO 2012: 74).

Annual deployment of women new hires has been increasing over the five-year period which represents three-fifths of the total overseas workforce (Figure

**Figure 1 Land-based (New Hires) OFWs by Sex and Destination, 2011-2015, POEA**



1). Whether male or female, most OFWs were deployed to Middle Eastern countries. However, through the years, the gap between male and female workers deployed to the region has widened: females outnumbered males since 2011. Arnold and Shah (1984) pointed out that major labor-exporting countries in Asia are generally favorable toward labor migration to the Middle East and hence, facilitate the migration flow of workers.

The expansion of household services and caregiving work overseas has led to the feminization of migration in the Philippines. Since domestic work is an extension of family work, it is often the few employment opportunities available to women especially in the lower echelon of society (Garner & Cherrin 1998: 111). Because of their nature of work, they are often perceived as relatively low in value, prestige, and mobility. For the 2011-2014 period, women workers dominated three major occupation groups (Figure 2): services (employing between 175,453-219,027) e.g. domestic workers or caregivers; clerical and related workers (between 6,198-7,234) e.g. bookkeepers or clerks; and sales workers (between 3,890-4,797) e.g. saleslady.

**Figure 2 Land-based (New Hires) OFWs by Sex and Major Occupation Group, 2011-2014, POEA**



While the robust growth of overseas employment has helped ease domestic unemployment, it has appeared to be disadvantageous to women, particularly those employed in household services and caregiving occupations (ILO 2012: 80). Women in these sectors are generally paid low and highly exposed to different exploitative practices, including sexual abuse and other forms of harassment (NCRFW and ADB 1995 in ILO 2012).

Several studies have been documented measuring the impact of migration, which is heavily male-dominated, on sending communities (Rodriguez and Tiongson 2001; Hanson and Woodruff 2003; Sadiqi and Ennaji 2004; Acosta 2006; Amuedo-Dorantes and Pozo 2006; Cabegin 2006; Cox-Edwards and Rodriguez-Oreggia 2009; Lokshin and Glinskaya 2009; and Calero et. al. 2009). Conventionally, labor migration is viewed as economically beneficial through financial transfers. These remittances ease household's budget constraints and improve its long-term economic welfare by engaging in productive investments like education and health. Oftentimes, these studies also highlight the social costs attached to migration. Having a migrant member in the household shows detrimental effects on labor supply, education, health, and social status of left-behind family members.

This paper, in contrast, identifies the causal impact of wives-mothers' migration on families left-behind which remains a challenging empirical question. This paper is motivated on two reasons: First, the rise in female international migration has spurred discussions on the costs and benefits for migrant-sending communities. Its impact on the economic behavior, particularly the labor supply and consumption patterns of workers' non-migrating household members, has remained understudied. Second, economists have underscored the growing role of married women in the labor market by treating the labor supply decisions of married couples as joint decisions (Leeds and von Allmen 2004). For married couples where their decisions are jointly made, the theoretical model assumes that migration is a mutually interdependent decision: migrants and non-migrants jointly decide about migration such that its costs and returns are shared based on an implicit contractual arrangement between the two parties (Rodriguez and Tiongson 2001).

## 1.2 Research Objectives and Hypothesis

The study will, therefore, seek to investigate if and how wives' migration impacts the labor supply behavior or motivation to work of the stayer husbands and the school outcomes of the children left behind. The main research question is: To what extent does the migration of wives affect the labor market participation of husbands and the school attendance of children left behind in the Philippines.

The impact of migration on migrant-sending communities is characterized as "complex, multi-channeled, and context-dependent" (Démurger 2015: 3). Oftentimes, it depends on the gender and age of who migrated and who is left-behind. This paper hypothesizes that the absence of wives as an economically active member of the household translates to the loss of its own time inputs to both market and household production. For instance, absent wives, being the ideal care-giver, may translate into long interrupted personal care on dependent household members especially with the presence of primary and school-aged children and the elderly. Hence, the greater burden on household and child care responsibility on the stayer husband. The opportunity cost of work and household production may be considerable and may offset the gains from migration since these two mechanisms work in opposite directions (2015: 3). The overall economic welfare gains from wife's migration may be lesser if husbands reduced their labor market participation due to child care work. Meanwhile, absent-mothers is hypothesized to negatively affect school outcomes of children left-behind more than absent-fathers.

A combination of quantitative and qualitative methods will be employed to address the research questions. First, to determine how migration affects the labor allocation and schooling decisions of the remaining members, the paper modeled husbands' participation in the labor market activities and school outcomes of children in response to wife's migration after correcting for the endogeneity of the migration status using migrant networks. The study utilized merged dataset from the nationally representative Labor Force Survey (LFS) and the Family Income and Expenditures Survey (FIES). The former provides household labor supply information; and the latter provides income and expenditure patterns of the household, which includes among others, level of consumption by item as well as sources of income in cash and in kind.



Second, given that the surveys may not sufficiently capture the factors affecting the migration decision of the couple and the perceived social outcomes on the household economic behavior with respect to wives' migration, one-on-one in-depth interviews with female migrants at selected Middle East destination country was conducted to understand transnational family relationships. The interviews will answer these related questions: (i) How couples decide who migrates and what are their reasons? (ii) In the absence of wife-mother, how do the husband-father balance work and home responsibilities? What are the different care arrangements existing at home? (iii) How do remittances being utilized at home? and (iv) lastly, how does absent-mothers manage or practice mothering from a distance?

### **1.3 Study Limitations**

The research paper also acknowledges some methodological concerns. First, the definition and variation of the instrument used to control for the unobserved heterogeneity correlated between migration and labor supply and human capital decisions. One of the most important methodological concerns in measuring the causal impact of migration is how to treat selection bias and reverse-causality. Due to data availability, the analysis is limited to using one instrument. Second, it fails to capture and control for the effect of wives' remittance contribution to empirically measure the remittance-income effect. Third, school outcomes of children are limited to observing the school attendance. It would be more progressive to determined differences in well-being between children of migrants and non-migrant parents. And lastly, the use of cross-section data instead of longitudinal datasets that simultaneously survey migrants abroad and sending families.

### **1.4 Contribution to Literature**

Unlike from existing literature, the novelty of this is paper is to measure the causal impact of female migration in which female workers account for up to three-fifths of transnational labor migrants in the Philippines. The contribution of the paper is twofold: first, to examine the effect of migration empirically with estimates adjusted for sample selection bias caused by the endogeneity of the

migrant status of the spouse, particularly the absence of wife-mothers, on the labor supply and schooling decisions of the left-behind while moving toward samples from the Philippines. For richer analysis, there will be three layers of comparison: wife's absent, husband's absent, and when both are absent given the gendered implications of migration. Second, the analysis provides a sociological approach to this discourse by following the narratives of some migrant women from the Philippines about their shared experiences of being and becoming a migrant abroad.

## **1.5 Preview of Results and Structure of the Paper**

After correcting for the endogeneity of the migration status of wives using nationally representative merged dataset on the labor force and family income surveys, results show that stayer husbands reduce their hours of work and shift from being permanent to short-term employed persons. The changes in the labor supply are also associated with the significant reduction in self-employment without any paid employee with some evidence of a shift to be an employer in own family-operated farm or business. Meanwhile, the effect of wives' migration has gender differences on children's education, with parents placing more premiums on boy's education than girls. Second, informant interviews with female migrants at selected Middle East destination countries was conducted to understand transnational family relationships. The study found out that absent mothers are willing to work abroad based on the couple's joint decision, to provide better welfare of their family, particularly children. This affirms parents' altruistic attitude in terms of maximizing resources that benefit the whole family.

The paper is structured as follows: Section 1 provides the background, motivation, objectives, contributions, and limitations. Section 2 discusses a brief overview of the Philippine labor market situation; Section 3 theorizes the thesis problem, provides empirical evidence to support the theory; and how this paper will try to bridge the gaps in migration scholarship; Section 4 describes the methods; Section 5 discusses the results, and Section 6 concludes.

## **Chapter 2 The Philippine Economy and Labor Market Situation**

### **2.1 Current Trends and Challenges**

For the last five years, the country's economic performance has managed to sustain high economic growth, averaging 6.2 percent despite the global financial crisis in 2008 (Table 1). This was accompanied by improvements in labor productivity (output per employed person) that grew on average at 4.1 percent annually, with the highest growth in 2013 which stood at 5.6 percent. Despite the positive economic growth, its resurgence has not been inclusive. Inclusive growth is defined to be "sustained growth that massively creates jobs, draws the clear majority into the economic and social mainstream and continuously reduces mass poverty" (DOLE 2011: 14). And for growth to be inclusive, it should require the positive experience of a "sufficiently broad cross-section of the country's population" to direct the country in nation-building (2011: 14). However, employment growth lags the population growth. The employment-to-population ratio (EPR) trend for the last five years has remained virtually unchanged which stood about at 60.0 percent. This suggests that employment has been growing at the same pace as working age population. At the same time, vulnerable employment, and shares of part-time employment and unskilled labor persist. Despite these challenges, notable gains are found in terms of increasing the human capital, generating employment, and reducing the underemployment or those wanting additional hours of work.

The labor force has expanded by 2.45 million to 41,343 million in 2015 from 38,893 million in 2010 in which the country could capitalize on its "demographic sweet spot", where the benefits of the young and educated working population can be maximized for the development of the local economy (POEA 2016). At the same time, the number of employed persons follows a general upward trend. Despite the occurrence of extreme natural disasters (i.e. dry spells and destructive typhoons), which negatively impact the agricultural sector which accounts for one-third of total employment, employment grew by 2.7 million to 38,741 million from 36,035 million during the same period. The country also managed to reduce its unemployment rate considerably to 6.3 percent from a

high of 7.4 percent in 2010- the lowest unemployment rate since 2005.<sup>2</sup> The quality of employment has also improved as the rate of underemployment has improved to 18.5 percent in 2015 from 18.8 percent in 2010. Despite this modest development, more effort must be done to considerably reduce the level of underemployment by providing more employment opportunities and increasing domestic earnings.

Meanwhile, the proportion of persons in vulnerable employment or those who are self-employed and unpaid family workers has tapered off notably to 37.6 percent in 2015 from 41.7 percent in 2010. However, this remains virtually high since it represents about two-fifths of the total employed persons. But this is offset by the shift of employment of wage and salary workers which grew by 3.3 million to 22,973 million from 19,626 million during the same period.

## **2.2 Equal opportunity and treatment in employment**

With respect to equal opportunity and treatment in employment, the Philippine Constitution recognizes the role of women in the advancement of the nation and further promotes the equality of men and women before the law in all aspects of national life (ILO 2012). It is the responsibility of the State to “rectify or end all practices and systems that are disadvantageous or discriminatory to women by reason merely of their sex in cases where it is not a relevant factor in making a distinction” (2012: 55).

There has been minimal progress in terms of achieving gender equality. For the last five years, men continued to dominate the workforce which accounts three-fifths of the total employment (Table 2). Relative to the labor force, their participation rate, averaging to 78.6 percent annually, exceeded that of the women by 28.3 percentage points. Regardless, the gender gap slightly improved to 27.2 percent in 2015 from 29.2 percent in 2010.

In terms of equal access to paid employment, the share of women’s participation in wage employment has left unchanged. The share of women in wage employment in the non-agricultural sector has remained stagnant at about two-

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<sup>2</sup> The Philippines started to adopt the international standard to include the availability criterion in addition to “without work” and “looking for work” in the unemployment definition in April 2005.

fifths, particularly its shares declined to 41.3 percent in 2015 from 42.0 percent in 2010. This suggests that men largely dominate the productive and remunerative nature of employment outside of agriculture. In terms of economic activity, more than half of the shares of the female is employed in the services sector which generally is low-paid, and some extent is exploitative in nature. An indication that occupational segregation by sex and gender wage gap in some occupations persists.

**Table 1 Labor and Employment Indicators, National, 2010-2015, Philippine Statistics Authority- Labor Force Survey (PSA-LFS)**

Indicator	2010	2011	2012	2013	2014 <sup>a</sup>	2015 <sup>b</sup>
GDP growth rate (%)	7.6	3.7	6.7	7.1	6.2	5.9
Labor productivity (at constant 2000 prices)	158,222	158,911	167,692	177,098	185,517	196,014
Labor productivity growth rate (%)	4.7	0.4	5.5	5.6	2.8	5.4
Employment-to-population ratio (%)	59.3	60.1	59.7	59.4	60.4	59.7
Working age population, 15+ years (000)	60,717	61,883	62,985	64,173	64,033	64,936
Labor Force (000)	38,893	40,005	40,426	41,022	41,379	41,343
Labor force participation rate (%)	64.10	64.60	64.20	63.90	64.60	63.70
Employment (000)	36,035	37,192	37,600	38,118	38,651	38,741
Employment Rate (%)	92.65	92.97	93.01	92.92	93.41	93.70
Unemployment (000)	2,859	2,814	2,826	2,905	2,728	2,602
Unemployment Rate (%)	7.40	7.00	7.00	7.10	6.60	6.30
Underemployment (000)	6,762	7,163	7,514	7,371	7,118	7,180
Underemployment Rate (%)	18.80	19.30	20.00	19.30	18.40	18.50
<i>Class of Worker (000)</i>						
Wage and salary workers	19,626	20,538	21,492	22,247	22,407	22,973
Employer in own family-operated farm or business	1,394	1,354	1,335	1,272	1,210	1,201
Self-employed	10,858	10,994	10,626	10,668	10,869	10,693
Unpaid family workers	4,157	4,306	4,147	3,930	4,166	3,874
Vulnerable employment	15,015	15,300	14,773	14,598	15,035	14,567
% share in total employment	41.70	41.10	39.30	38.30	38.90	37.60

Note: 2014 data refer to the average of April, July and October estimates that all exclude Leyte in view of the devastating impact of Typhoon Yolanda in November 2013. To allow comparison, the July 2015 round also excludes Leyte.

<sup>a</sup> Computed using the average of April, July and October 2014 estimates in view of the devastating impact of Typhoon Yolanda in November 2013

<sup>b</sup> These annualized rates for 2015 do not include data from Leyte of Eastern Visayas or Region VIII

**Table 2 Labor Force Participation Rate (LFPR) and Employment Share (%), National, by Sex, 2010-2015, PSA-LFS**

Indicator	2010	2011	2012	2013	2014	2015	Average
LFPR	64.1	64.6	64.2	63.9	64.6	63.7	64.2
Men	78.9	80.4	78.3	78.1	78.6	77.3	78.6
Women	49.7	52.2	49.7	49.8	50.7	50.1	50.4
LFPR Gap	29.2	28.2	28.6	28.3	28.0	27.2	28.3
Share to total employment							
Men	60.8	60.7	60.8	60.7	60.5	60.4	60.6
Women	39.2	39.3	39.2	39.3	39.5	39.6	39.4
Female share of employment by branch of economic activity (%)	39.2	39.3	39.2	39.3	39.5	39.6	39.4
Agriculture	25.7	25.9	25.6	25.5	26.3	25.7	25.8
Industry	25.9	26.3	25.9	25.5	25.2	24.5	25.6
Services	51.6	51.5	51.5	51.3	51.4	51.4	51.5
Share of women in wage employment in the non-agricultural sector	42.0	41.8	41.4	41.2	41.0	41.3	41.5

## 2.3 Overseas Employment

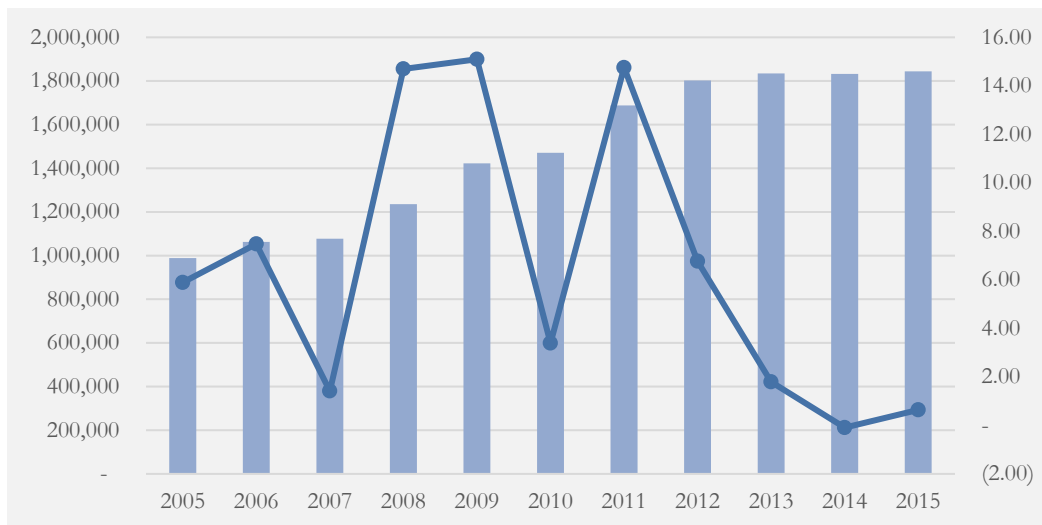
The annual deployment of OFWs has grown by “leaps and bounds” (DOLE 2011: 12). For the last decade, deployment attained the one million mark in 2006 (1.063 million), followed by a robust expansion in 2009 (1.423 million) and later a steady annual increase by 42,375 to 1.844 million in 2015 from 1.802 million in 2012 (Figure 3). More than three-fourths of the OFWs were land-based workers which are consistently increasing over time (Figure 4). Land-based workers increased by 697,243 to 1.438 million in 2015 from 0.741 million in 2005. Among land-based workers, about two-thirds are rehires. This indicates that overseas migration is transient in nature.

For the last decade, the Middle East region maintains the lion share of landbased OFWs deployed compared to those who settled in Asian soil and too much fewer OFWs deployed in the American and European region (Figure 5). OFWs deployed in the Middle East comprise the majority,

more than half of the total number of overseas working Filipinos. Saudi Arabia remains the top destination, together with other oil-dependent countries such as UAE, Qatar, Kuwait, Oman, and Bahrain (Figure 6).

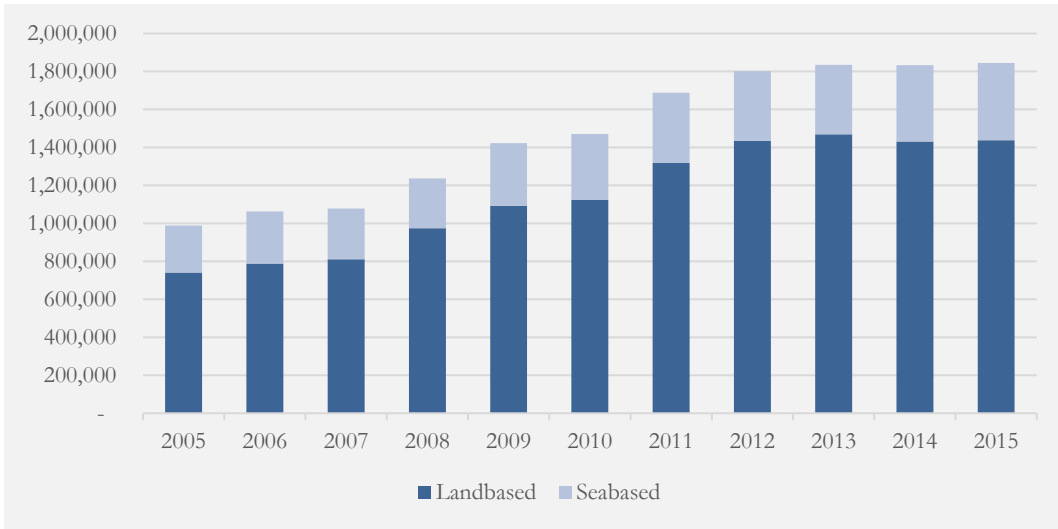
In summary, women are becoming visible in the “mainstream, officially counted labor force” (Garner & Cherrin 1998: 122). However, they still pursue home-based work as the only alternative option of earning money because of the structural aspects of raising children and performing household labor often viewed as female tasks (1998: 116). If a woman does paid work at home, then she does not only perform her traditional obligations but also makes money, which raises the standard of living of her family. This is true for married women having small children who felt obligated to share the economic support with their husband or partner. However, cross-cultural studies show that while there is an increase of women in the labor force, men seldom increase their share of domestic workload (1998: 125).

**Figure 3 OFW deployment and growth rate, 2005-2015, Philippine Overseas Employment and Administration (POEA)**

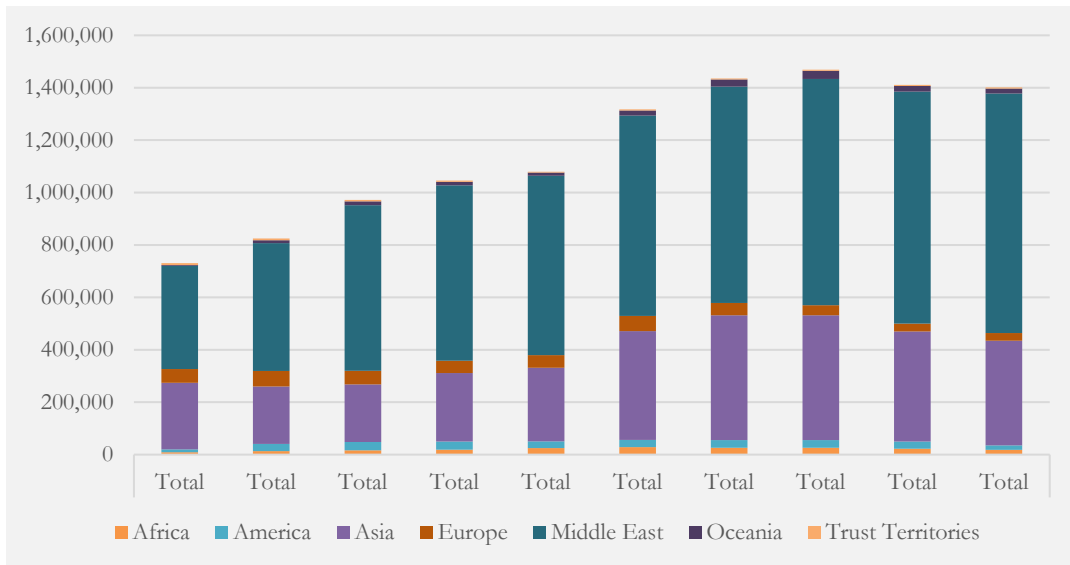




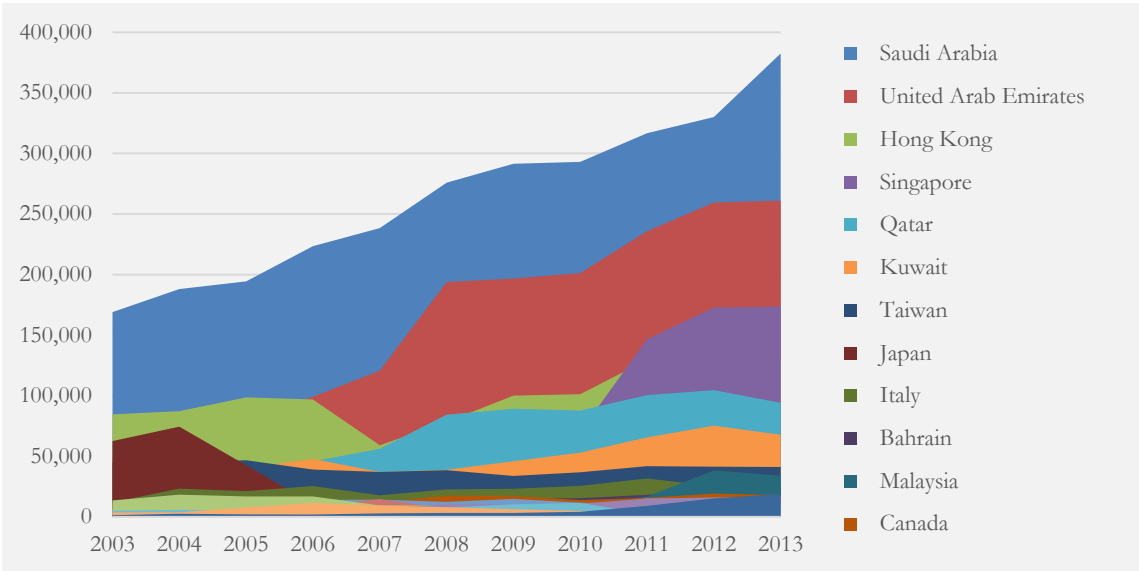
**Figure 4 Deployment by Type of OFW (Land-based and Sea-based), 2005-2015, POEA**



**Figure 5 Destination of OFWs by Major World Region, 2005-2015, POEA**



**Figure 6 Destination of OFWs, Top Destination Countries, 2003-2013, POEA**



## **Chapter 3 Review of Literature**

The review of the literature provides first an explanation of the variety of theories that explain the initiation of international migration despite employing radical concepts and assumptions. Second, it will provide empirical evidence on the impact of migration and remittances focusing on the labor market and school outcomes. These outcomes are of inherent interest among migrant-sending communities and mostly available measures in household datasets. Finally, it will enumerate the effects of female migration particularly on the existence of care erosion.

### **3.1 Theories of International Migration**

Currently, there is no unified and coherent theory that explains international migration. Only the existence of fragmented theories that have developed largely in isolation but clustered though similar disciplines. Massey et al. (1993: 432) provide a useful distinction between these contemporary theories. The neoclassical economics focuses on wage differentials and labor conditions between countries, and the cost and benefits of migration. It generally conceives migration as an individual decision for income maximization. In contrast, the new economics of migration considers not only labor markets but also different markets (crop insurance markets, futures markets, unemployment insurance, and capital markets) in the functioning of migration. It views migration as joint household decisions taken to minimize risks to household income through income diversification strategy or reduce constraints on household production activities such as family labor. Theories like the dual markets and world systems largely disregard such micro-level decisions pronounced by the first two and instead focus largely on external forces operating at the higher levels of governance. The former links immigration to the structural conditions inherent in modern industrialized states. Meanwhile, the latter view immigration as a natural outcome brought by globalization and market diffusion across national boundaries.

For this paper, the new economics of migration scholarship is observed. In an intact household headed by a couple, the migration of the other spouse for foreign labor results from the joint decisions of the couple while the remaining spouse is assigned to the local economic activities. If the local economic conditions are interrupted and fail to provide sufficient income, then the household depends on the remittances for support. Unlike in developed countries where the risks to household income are minimized through the presence of private insurance markets and government institutions, the lack or absence of such and the existence of market failures in developing countries like the Philippines makes poorer families to diversify their income through migration. Meanwhile, international wage differentials are not a sufficient condition for overseas migration as postulated by contemporary theories. Stark (1984) extends his analysis on the new economics of migration and argues that risk aversion, relative deprivation, and asymmetric information, in conjunction with inter-country wage differentials, may induce overseas migration at the level of household decision making,

## **3.2 Evidence of the impacts on labor supply**

The international migration of one member leads to either an increase or decrease in the labor supply behavior of the non-migrant members on two related but separate outcomes (Rodriguez and Tiongson 2001, Cabegin 2006, 2013; Cox-Edwards and Rodriguez-Oreggia 2009): remittance flow and absence of the migrant<sup>3</sup>.

### ***3.2.1 Remittance Effect***

First, financial transfers through remittances enable the remaining household members to ease financial constraints by engaging in riskier and higher-yielding income activities (Démurger 2015: 7). If the strength of the remittances and family ties are strong, then migration would result in the diversification of economic activities in the household and raises income from local activities in the long-term. Meanwhile,

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<sup>3</sup> May refer to migrant wife-mother, migrant husband-father, or both migrant parent

the increase in non-labor income, due to remittances, increases the reservation wage and reduces the opportunity cost of leisure of the non-migrant members, and hence discourage them to work in the local labor market. If this persists, this may create dependency on income from remittances in the long term. Second, migration also indicates loss of time input of the migrant's local labor and thus constrain the non-migrant member's labor supply especially in imperfect labor markets. Left-behind family members may not be able to hire labor to compensate for the loss time input in local production especially those engage in subsistence farming.

Empirical evidences on the labor supply in response to remittances generally conclude the reduction of the LFP of non-migrant members, especially on women. This also highlights the gendered dimension of the predominantly male migration on the well-being of recipient households. After controlling for the endogeneity of remittances and using selection correction, such as propensity score matching, Acosta (2006) finds that remittances are negatively associated with child labor and adult female labor supply while adult male LFP on average remains unchanged for the case of El Salvador. This further supports the presence of gender differences in the utilization of remittances across and within households. Amuedo-Dorantes and Pozo (2006) examine differences in hours of work in various types of employment of working-age men and women in Mexico in urban and rural areas while accounting for the endogeneity of remittance income. They found out that remittances in general, reduces the budget constraints of recipient households, translating to reduced labor supply. The income effect appears to dominate the women in rural households, who seem to utilize remittances to purchase more time away from informal and unpaid work. Similarly, higher remittances are associated with reduced male labor supply in the formal sector and urban self-employment. Meanwhile, Cox-Edwards and Rodriguez-Oreggia (2009) study focuses on the impact of persistent remittances rather than casual or sporadic remittances. They find that persistent remittances have no systematic variation in the labor force behavior. This is consistent with remittances having a “neutral effect” on labor participation such that persistent remittances flows are integral to the income diversification strategy of the

household. Lokshin and Glinskaya (2009) examined the effect of male migration to the LFP of prime-age women in Nepal. They constructed counterfactuals where the observed rates of the labor market participation of women under migrant households were simulated simultaneously under households when migration did not take place. They found evidence of substantial heterogeneity in the labor supply of women both in observable and unobservable characteristics in the impact of male migration.

### ***3.2.2 Migration Effect***

The migration of the spouse lowers the labor supply of the stayer spouse by affecting productivity at home. In a common Filipino household headed by a couple with children, both members spend time on childcare, with wives having greater time at home than the husbands (Cabegin 2006, 2013). If the time spent for childcare between husbands and wives are likely to be substituted, then migration of the spouse would decrease the labor supply of the remaining spouse in the domestic labor market and raises its production at home, both childcare and housework, for a certain number of hours to compensate for the household tasks previously done by the migrant spouse. The effect is more pronounced if there are no other close substitutes. If parental childcare services provided in the market or other family members serve as inferior, then migration of the spouse would lead to increase childcare time value, raise reservation wage, and reduce labor market participation of the remaining spouse. Meanwhile, if the home time inputs are complements, then the opposite will hold. The net impact of the home time effects may differ considerably across different population which is influenced on the age and gender composition of the household, employment sector they belong, nature of migration (permanent or temporary), and household assets and liquidity constraints (Démurger 2015: 7). An extension of this phenomenon is the reorganization of intra-family roles and the shifting of bargaining power of the left-behind members, which affects household decision-making especially on the allocation of resources (2015: 7).

Rodriguez and Tiongson (2001) studied the impact of temporary migration on household labor supply from the urban Philippines. They confirmed that migrants reduce the labor supply of non-migrant relatives (their labor supply and hours of worked), which substitute income for more leisure. This benefit differs by gender of non-migrants and more significant in males. Sadiqi and Ennaji (2004) use a gendered approach in studying the impact of male migration from Morocco to Europe on women left-behind. They concluded that Moroccan women become disempowered due to the departure of male household members (their husbands, sons, fathers, etc) and oftentimes reoccurring based on their social category they belong to and the household size. Apart from the separation and lack of facilities, their suffering is aggravated due to the inherent and heavily patriarchal social conditions that exist in Morocco. Majority of these women often find themselves the burden of catering to the household, maintaining family times, and nurturing children.

### **3.3 Evidence of the impacts on education**

Through the years, there has been a growing recognition to invest in human capital rather than physical capital due to their relative role to spur economic growth (Burney and Irfan 1995: 24). This recognition is largely attributed to the importance of the quality labor instead of the quantity to increase the production of good and services in the economy. Apart from improving economic growth, investment in human capital also takes care the distributional aspects of growth. Education generally influences human capital formation. It is assumed that the level of education in a population affects economic growth directly (increasing productivity) and indirectly (through external economies).

The impact of migration on school attainment and education performance of children left-behind is often studied under the migration and left-behind family nexus. For a typical and closely knitted Filipino family, migration is considered as a destabilizing factor and the children are usually the most affected with the absence of the fathers, mothers, or both (Asis 2006: 46). Without the presence of their ‘real’

parents, particularly the mother, it is feared that children will fall under deviant acts and behavior (2006: 46).

The literature on international migration and remittances offers inconclusive findings on whether migration has a net positive (negative) impact on education outcomes of children left-behind. These studies consistently find heterogeneous outcomes which are dependent on the age, gender, and birth order of the children left-behind as well as who migrated (Jampaklay 2006; Démurger 2015). Like the labor market outcomes, the impact on education occurs on two separate features: remittance effect and absent-migrants.

### ***3.3.1 Remittance Effect***

The remittances sent home ease financial constraints by making more available resources in the household. Consequently, this enables the family to use less child labor and increases children's participation in school. For the case of Mexico, Hanson and Woodruff (2003) found a positive relationship between children education and having a family member abroad attributing to the role of remittances. They used the historical state migration rates as an instrument to control for the potential endogeneity of remittances. Cox-Edwards and Ureta (2003) examines the effect of remittances from abroad using Cox proportional hazard model on household's schooling decisions for the case of El Salvador. They find a large and significant impact of remittances on the hazard of leaving school, especially those in rural areas. Their findings provide policy implications in relaxing the budget constraint of poor households to increase children's school attendance and retention, regardless of parent's level of education. Meanwhile, Yang (2008) examines how currency appreciation at the origin country increases children school attendance and educational expenditure while inversely lowering child labor supply in the Philippines. Calero et. al. (2009) investigates how remittances via transnational networks affect human capital investments through consumption smoothing. Their findings show that remittances enhanced school enrolment, particularly for girls and in rural areas. At the same time, schooling shows to be



unresponsive to shocks, suggesting that remittances function as informal insurance coping mechanisms to maintain education when households are faced with economic shocks. Remittances also led to a net substitution of the type of school, from the public to private, hence facilitating the quality of human capital investments in children.

### ***3.3.2 Migration Effect***

The migration of parents also translates to the disruption of family life, particularly on parental supervision and care to have multiple adverse effects on children's school outcomes. At the same time, it also leads to the shift of decision making and responsibilities such that the new decision-maker either cares about human capital investments or the children being more pressured to help in the household due to redistribution of family roles (Démurger 2015: 5). The adverse effects of parents' migration to the child's school outcome have been sociologically observed in a study in the Philippines. The discussions assume that "left-behind children are passive recipients of changes resulting from migration" (Asis 2006: 47). The absence of parents, especially mothers, has a negative dent in the children's grade and class ranking (Battistella and Gastardo-Conaco 1998). Narrowing it further, mother-absent children performed the least well in school than the parent-absent group. Furthermore, Jampaklay (2006) investigated the importance of 'who is absent' and the 'length of absence' in Kanchanaburi, Thailand. The long-term absence of the mother appears to reduce the educational chances of children left-behind, whereas the long-term absence of fathers does not.

## **3.4 Effects of Female Migration**

Having the responsibility of nurturing and guiding the young, female migration has a considerable effect on family and community dynamics (Castles and Miller 2003: 161). Married women must leave their children in the care of others, and long absences affect relationships and gender roles (2003: 161). A prominent feature of female migration is that there occurs a shift in gender roles and for some women,

this means an increase in relative autonomy, social mobility, and economic independence. Consequently, family structures are altered as “tasks are reassigned, and existing roles of the remaining family members change to fill the gap left by the absent migrant” (Hoang et al. 2015: 264). As for husbands left behind, they experience shifts in the household labor division, particularly on taking the role of household production and childcare, which have been traditionally relegated to women, while at the same time preserving the traditional expectations of masculinity ideals (Hoang and Yeoh 2011). Such phenomenon has led to the care crisis which involves the “breakdown of the previous model of providing care on the nuclear Fordist family model and the classic sexual division of labor” (Orozco 2009: 6) and “the absence and weakening of family nurturing is a prominent change coming along with parental migration” (Jingzhong and Lu 2011: 361).

In most situations, left-behind children are left in the care of stay-behind parent or with grandparents (Ye and Murray 2005 in Jingzhong and Lu 2011: 361). The role of extended family members helps mitigate the adverse effects of migration, especially if both parents are abroad; however, evidence shows that they have difficulty in substituting the absence of mother more than of the father (Jampaklay 2006: 94). At the same time, their presence in the family prior to migration may help “ease the reconfiguration of care when a parent, particularly the mother, leaves” (Hoang et al. 2015: 265).

While migrant parents are physically absent, they can provide parenting from a distance using readily available communication technologies, like a cellular phone. In fact, the study of Uy-Tioco (2007) examines the role of cell phone technology that empowers Filipino migrant women to create new alternatives to mother their children across spatial and time. This confirms the notion of trans-national mothering where “migrant mothers perform mothering functions even from a distance” (Asis 2006: 58) and keeping their families “physically and emotionally intact through the period of their absences” (Hoang et al. 2015: 266).

Overall, the existing literature on the impact of migration and remittances intend to measure the extent to which migration can improve development, especially in the sending communities. These studies attempt to construct a no-migration or no-remittance counterfactuals by estimating the labor market or school outcomes of the remaining members supposing migration and remittances did not exist. However, these studies only focus on one outcome in a source country, preventing comparative analysis in any other source countries.

The novelty of the paper is that it will compare the household social outcomes when wives migrate against husband migrate. Since much of the information suggests that there has been growing phenomena of female migrating abroad. Lim and Oishi (1996) argued that there has been increasing participation of women in international labor migration, which has been pronounced among Asian countries with “women moving in their own right as economic migrants”. At the same time, the decision of the parents, especially the mother, to leave their children marks a “departure from the ideal parents as the best caregiver” because of the mother’s role as the light of the home (Asis 2006: 47).

## Chapter 4 Methodology

The methodology will first discuss the empirical approach used to measure the causal impact of wives' migration. This is followed by the identification strategy to control for the endogeneity of the migrant's status and the set of explanatory variables controlled for. And lastly, describes the dataset used in the analysis.

### 4.1 Empirical Approach

In most empirical work, measuring the causal impact of migration is oftentimes challenging. The difficulty stems from the fact that migration is a decision variable, which dominates important literature in correcting the selection-bias and reverse causality problems (Démurger 2015:4). Hence, omitted variables that correlate with both the decision to migrate and its outcomes for families left-behind may cause endogeneity problems and limit the significance and conclusiveness of the findings. For this reason, various econometric methods are used to correct for these methodological problems in observational data using household surveys. Conventional methods involve using instrumental variables (variables that are related to migration decisions but are unrelated to the outcomes of interest), selection-correction procedures, matching methods (migrant selection is based on observable characteristics and match migrants with comparable non-migrants based on these characteristics), and natural experiments (randomized trials).

The focus of this analysis is to model how the labor market participation of the spouse and the school attendance of children left-behind is a function of the migration status of the spouse (parent), individual and household characteristics, and regional labor market conditions. This will be determined by different outcomes of employment decisions: nature of employment (permanent job; short-term; and an employer in own farm or business); class of worker<sup>4</sup> (wage and salary workers;

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<sup>4</sup> See Annex 1 for the detailed definition of the class of worker classifications.

an employer in own family-operated farm or business; self-employed without any paid employee; and without pay), and hours of work. These outcomes are observed since these are available measures in the household survey data that determines the quality of employment. As for outcomes of left-behind children, the outcome of interest is current school attendance. These outcomes are compared for migrant-sending households and for non-migrant sending households. For computational tractability, the labor supply decisions and school attendance are defined in dichotomous states (1=presence of the outcome; 0=otherwise) estimated through linear regression with endogenous treatment effects. The endogenous treatment-regression model treats the endogenous binary migration variable as a linear potential outcome that allows for correlation between the unobservables affecting both the treatment and the outcome of interest (Heckman 1976). The following main regression equation used in this analysis was introduced by Maddala (1986):

$$(Equation 1) \quad y_j = \mathbf{x}_j\boldsymbol{\beta} + t_j\boldsymbol{\delta} + \varepsilon_j$$

where  $\mathbf{x}$  is a vector of explanatory variables that affect the labor and school decisions,  $\boldsymbol{\beta}$ s and  $\boldsymbol{\delta}$ s are the vectors of unknown parameters of interest,  $\varepsilon$ s are the random error terms. The  $t_j$  is the binary-treatment variable (1=migrant spouse, 0=otherwise) which is assumed to come from an unobservable latent variable  $\mathbf{w}$ .

$$(Equation 2) \quad t_j = \mathbf{w}_j\boldsymbol{\gamma} + u_j$$

Since not all decide to migrate, Eqn. 2 is modeled according to:

$$(Equation 3) \quad t_j = \begin{cases} 1, & \text{if } \mathbf{w}_j\boldsymbol{\gamma} + u_j > 0 \\ 0, & \text{otherwise} \end{cases}$$

where  $\mathbf{w}$  are the covariates to model the treatment assignment, and the error terms  $\varepsilon$  and  $u$  are assumed to follow a bivariate normal distribution. The covariates  $\mathbf{x}$  and  $\mathbf{w}$  should be uncorrelated to the error terms and exogenous. Otherwise, the violation of such conditions will lead to biased estimates using Ordinary Least Squares (OLS). This can be validated using Heckman's Two-Step procedure. This will account for the endogeneity in the selection bias of being a migrant. For this method to work, Wooldridge (2009) noted that  $\mathbf{x}$  should be a strict subset of  $\mathbf{w}$  and

at least one element of  $\mathbf{w}$  is not in  $\mathbf{x}$ . This will satisfy the estimation of the treatment equation using maximum likelihood probit that uses an exclusion restriction<sup>5</sup>:

$$(Equation 4) \quad \Pr(t_j = 1 | \mathbf{w}_j) = P(\mathbf{w}_j \gamma)$$

From above, the hazard,  $h_j$ , is obtained for each  $j^{\text{th}}$  observation that describes the probability that a spouse decides to migrate following a standard normal density function,  $\phi$ , over the cumulative probability of migration decision,  $\Phi$ :

$$(Equation 5) \quad h_j = \begin{cases} \frac{\phi(\mathbf{w}_j \hat{\gamma})}{\Phi(\mathbf{w}_j \hat{\gamma})}, & t_j = 1 \\ \frac{-\phi(\mathbf{w}_j \hat{\gamma})}{1 - \Phi(\mathbf{w}_j \hat{\gamma})}, & t_j = 0 \end{cases}$$

Finally, the two-step parameter estimates,  $\beta$  and  $\delta$  are estimated by factoring the hazard  $h$  as an additional covariate in the main equation. A consistent estimate of the regression disturbance variance,  $\hat{\sigma}^2$ , is computed from the residuals of the augmented main equation and the estimated hazard:

$$(Equation 6) \quad \hat{\sigma}^2 = \frac{\mathbf{e}'\mathbf{e} + \beta_h^2 \sum_{j=1}^N d_j}{N}$$

Hence, the two-step estimate of  $\rho$

$$(Equation 7) \quad \hat{\rho} = \frac{\beta_h}{\hat{\sigma}}$$

## 4.2 Identification Strategy

The migration status is a potential binary endogenous regressor to the labor market decision of the other partner and to the school outcomes of the children. This is partly due to the unobserved heterogeneity that could be correlated with the observed characteristics that might complicate comparison between households with

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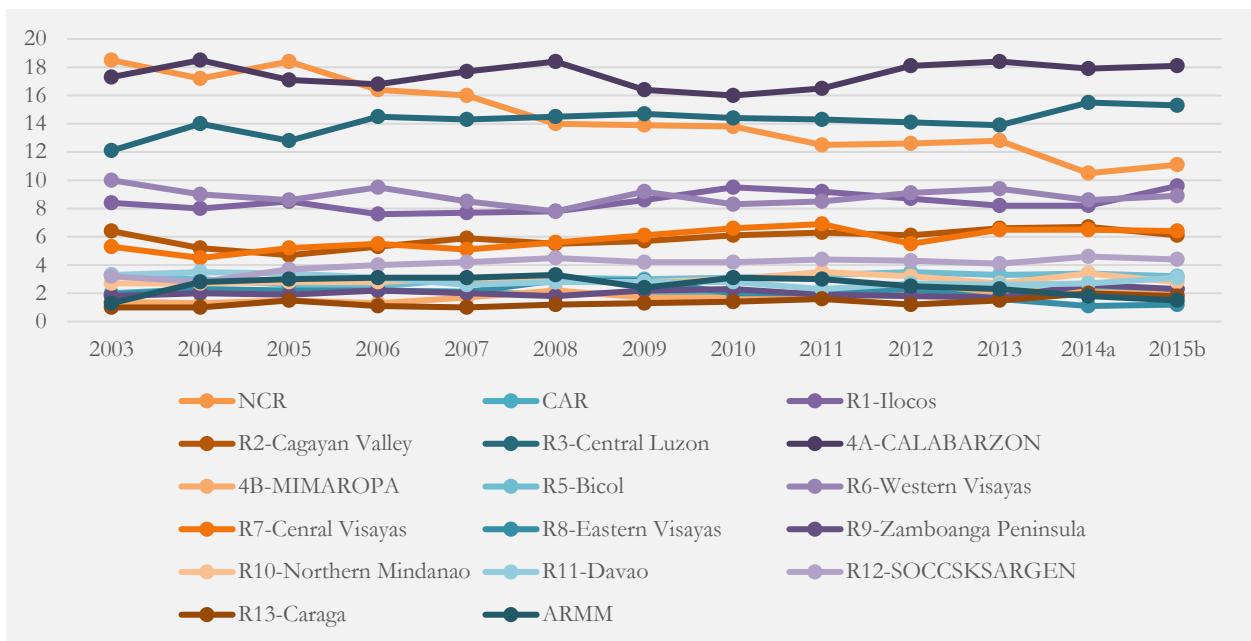
<sup>5</sup> Maddala (1986: 120-122) shows the derivation of the two-step estimate. Furthermore, Wooldridge (2009: 608) noted that if selection is purely a function of exogenous variables, then maximum likelihood estimation of a nonlinear model-such as logit or probit model produces consistent and asymptotic normal estimators.

different migration status of the spouse. Identifying a valid instrument to treat endogeneity poses a major challenge. While the use of experimental data is a promising approach, its availability, costs, and implementation impede the utilization of it (Dé-murger 2015). For many microeconomic studies on migration and remittances, different instruments were used to treat endogeneity of migration: distance of the country of destination from the origin (Cabegin 2013); presence of migration networks (Acosta 2006); historical migration rates (Hanson and Woodruff 2003; Hildebrandt and McKenzie 2005; Cordova 2006; Mansuri 2006; McKenzie and Rapoport 2006), and information on the per capita count of remittance transfer offices (Amuedo-Dorantes and Pozo 2005). The migration variables used in this literature include the migration status of the individual and amount of remittances received by the household.

For this attempt, the study made use of the presence of migration networks to instrument the migration status of the spouse. According to the network theory, as described by Massey et al (1993), migrant networks consists of “interpersonal ties that connect migrants, former migrants, and non-migrants in origin and destination areas through ties of kinship, friendship, and shared community origin” (1993: 448). These networks, which constitutes a form of social capital, potentially increase the probability of migration flows either by lowering the costs and risks of migration or raising the expected net benefits to migration. In this paper, the presence of migration networks is proxied by the relative number of deployed OFWs by regional origin in the Philippines, i.e., the absolute number of OFWs originating in the region divided by the total population in the region. To have more variation in the instrument, the relative share of women and share of men who originated from the region was used to instrument for the migration decisions of the wives and husbands, respectively.

It is assumed that the higher is the concentration of OFWs in a certain region of origin, the higher is the number of prospective OFWs coming from the same region because of the presence of support system and a reliable source of information prior to migration (e.g. migration costs). At the same time, the presence of migration networks does not directly affect the labor supply behavior of the non-migrant spouse and school attendance of left-behind children. Figure 7 shows the magnitude of OFWs by regional origin for both sexes for the 2003-2015 period. The top three regions with the highest number of OFWs originated from CALABARZON, Central Luzon, and NCR with more than 10,000 OFWs deployed each year.

**Figure 7 OFWs by region of origin, both sexes, 2003-2013 (in 000), POEA**



### 4.3 Explanatory Variables

The overseas migration status of the spouse (parent) is the main explanatory variable of interest to capture the effect of migration. The advantage of this approach is that the extent of overseas migration is analyzed as an important part of income diversification strategy of the household as proposed by the new economics of migration. Thus, it is assumed that migrants send remittances back home. For this analysis, the



effects of migration status and remittances are not separately identified. Rather, the effect of remittances is captured under the effect of overseas migration. Using the merged 2015 LFS-FIES datasets, Table 3 shows that among migrant households in the pooled samples, almost all (97.1%) spouses remit money. The percentage is slightly higher for wives when their husbands migrate (97.91%) compared to husbands when their wives migrate (96.15%). However, in terms of amount, migrant husbands send an average of Php77,930 (\$1,521.15)<sup>6</sup> monthly, which is substantially higher than migrant wives remittances averaging to Php30,326 (\$591.96) monthly. Migrant wives tend to send lower but more frequent amounts because of their nature of employment abroad. Migrant women are likely employed in low-paying unskilled and semi-skilled jobs and oftentimes they do not receive the full amount or do not receive it regularly as stipulated in their contracts. Hence, migrant women tend to send as much and as often as possible to pay for the debt that they incurred during their migration process as well as provide income to the family. Among households with a non-migrant spouse, two out of ten (18.32%) stayer spouses in the pooled samples received money abroad, probably from other migrant household members. Stayer wives received more on average (Php16,644/\$324.89/month) compared to stayer husbands (Php1,790/\$34.94/month). One reason being is that most stayer wives are not in the labor force and hence source the family's income from remittances from other migrant household members.

In terms of individual characteristics, education and age are controls which affect own earnings of the remaining spouse. Meanwhile, household characteristics include the number and age composition of the dependents and other adult family members.<sup>7</sup> The higher the number of dependents in school and employed adult members, either for pay or profit, the higher is the time value in-house production of the remaining spouse (parent).

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<sup>6</sup> 1 Php = 0.0195 USD as of 13 November 2017.

<sup>7</sup> These include the number of children less than 5 years old, number of children from 5-17 years old, number of employed persons for profit, and number of employed persons for pay.

**Table 3 Percent distribution of household receiving remittances (in per capita household)**

	Both sample		Husband sample <sup>a/</sup>		Wife sample <sup>b/</sup>	
	Migrant	Non-migrant	Migrant	Non-migrant	Migrant	Non-migrant
Amount (Php)/month						
0	2.93	81.68	3.85	82.12	2.09	66.23
>0	97.07	18.32	96.15	17.88	97.91	33.77
Total	1,194	19330	571	18,791	623	539
Mean	55,164	2,205	30,326	1,790	77,930	16,644
Std	62,226	12,229	32,525	8,734	73,292	49,936

Source: Author's own calculations from LFS-FIES 2015

Notes: <sup>a/</sup>Husband sample is defined by wife's migration status; <sup>b/</sup> Wife sample is defined by husband's migration status; In succeeding tables, this holds true.

Since migration is assumed to be a household income strategy, the remaining spouse's annual earnings for those who work in the domestic market, measured in per capita, is controlled for. The household expenditures are excluded as a covariate since household spending might have an endogenous relationship with working decisions and schooling and the unobserved heterogeneity might introduce bias (Calero et. al 2009).

Since the migration, labor supply, and schooling may be driven by the regional-specific labor market and economic characteristics, the LFPR, employment rate, underemployment rate where the household is located, and the urban-rural composition are controlled for.

## 4.4 Data

To estimate the labor supply of non-migrant spouse and school outcomes in children, the analysis is drawn from the merged datasets using the 2015 LFS-FIES.<sup>8</sup>

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<sup>8</sup> Initially, the sample is focused on married migrants based in the Middle East because of its significant deployment figures and rise of feminization in this region.

Both are nationally representative surveys that provide estimates on the labor and supply characteristics of household members; family income and expenditure, including the level of consumption per expenditure item, and sources of income.

For this attempt, I cannot separately distinguish the effect of migration and remittances. The survey data on remittances is measured on the aggregate amount in the household and not separately identified for every migrant individual in the household. Hence, remittances received in a household where a spouse migrated cannot be determined. While it is more useful to examine the remittance contribution of the migrating spouse and how it is used in intra and inter-household decisions (i.e., higher per capita remittances may lead to the reduction of labor supply due to dependence effect), the analysis will be limited to the migration status of the spouse to determine the causal impact of migration.

For the estimation of the labor supply of non-migrant spouse, the sample was limited to those married household head who is co-heading the household with a migrant spouse. Both members of the couple are in their prime working age (i.e. 25 to 54 years old). This is to exclude couples who are in school and those who decided for an early retirement. Meanwhile, the school outcomes of children are limited to sample with ages 5 to 17 years old or those who are enrolled in the primary and secondary education as prescribed by the country's education system.

Table 4 provides the descriptive statistics of the different employment states of one spouse according to the migration status of the other spouse. In the pooled

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Such information is obtained using the merged datasets from LFS, FIES, and Survey of Overseas Filipinos (SOF). The SOF provides information on the number of OFWs and their socio-economic characteristics, including the country of destination. However, the latest available SOF is 2003. At the same time, the three datasets could not be merged because they are not simultaneously conducted in a year. The FIES and SOF are riders to the LFS which is being done every other year. Hence, it is only possible to merge the LFS-FIES or LFS-SOF. Since the SOF is not available for 2004 onwards, then the analysis is done using the merged LFS-FIES. The problem now is that the migrants in the Middle East cannot be distinguished since such information is obtained from the SOF. Hence, the focus of the analysis shifted to all married migrants regardless of destination.

samples, only two-thirds (68.26%) of the stayer spouse having a migrant spouse decides to work compared to its counterpart (94.64%). This appears to be lower in migrant households having stayer wives (50.88%) than stayer husbands (87.22%). Meanwhile, stayer spouse with a migrant partner in the pooled samples worked for an average of 40.69 (19.93), which is slightly lower than stayer spouse with a non-migrant partner estimated at 43.01 (17.00). Those with a migrant partner, stayer husband worked less on averaged ( $39.91 \pm 17.54$ ) than stayer wives ( $41.931 \pm 23.18$ ). Meanwhile, the average number of hours does not change for both stayer husbands ( $43.00 \pm 16.87$ ) and wives ( $43.51 \pm 22.37$ ) with a non-migrant partner.

In terms of nature of employment, there are fewer stayer husbands to work permanently with migrant partners (76.71%) than non-migrant partners (77.91%). In contrary, there are more stayer wives to work in permanent jobs with migrant partners (84.54%) than non-migrant partners (82.92%). With respect to the class of work, there is more stayer spouse in wage and salary workers with non-migrant partners (57.27%) than migrant partners (53.74%) in the pooled samples. This appears to be consistent for both stayer husbands (57.30%) and stayer wives (55.92%) with non-migrant partners. Meanwhile, there is more stayer spouse to be self-employed or those persons who operate their own business or trades that do not employ paid employees, with migrant partners (38.28%) than non-migrant partners (36.31%) in the pooled samples. Being self-employed is more glaring among stayer wives (40.38%) than stayer husbands (36.95%) with migrant partners.

**Table 4 Employment of the stayer spouse, 25-54 years old**

Employment Outcomes	Both Sample		Husband sample		Wife sample	
	Migrant	Non-migrant	Migrant	Non-migrant	Migrant	Non-migrant
Decides to work (%)						
Obs	1,194	19,330	571	18,791	623	539
Yes	68.26	94.64	87.22	95.42	50.88	67.35
Total hours of work in a week						
Obs	815	18,294	498	17,931	317	363
Mean	40.69	43.01	39.91	43.00	41.93	43.51
Std. Dev.	19.93	17.00	17.54	16.87	23.18	22.37
Min	0	0	0	0	0	0
Max	112	112	105	112	112	112
Nature of employment (%)*						
Permanent	79.75	78.01	76.71	77.91	84.54	82.92
Short-term	16.32	17.17	17.07	17.25	15.14	13.22
Different employer	3.93	4.82	6.22	4.84	0.32	3.86
Class of Worker (%)*						
Wage and Salary Worker**	53.74	57.27	54.02	57.30	53.31	55.92
Employer	7.98	5.81	9.04	5.84	6.31	4.41
Self-employed	38.28	36.31	36.95	36.27	40.38	38.29
Without pay	0.00	0.61	0.00	0.60	0.00	1.38

Source: Author's own calculations from LFS-FIES 2015

\*The same number of observations from Total Hours of Work in a Week

\*\* Includes: worked for the private household; for private establishment; for government and government-controlled corporation; with pay in own family-operated farm or business

Meanwhile, Table 5 shows the school attendance of children between 5-17 years old. In households with a migrant parent, there are more children enrolled in school (94.84%) than those households with non-migrant parent (90.09%) in the pooled samples. This appears to be higher for stayer wives (96.09%) than stayer husbands (93.55%). However, in terms of children's sex, it appears that there are more girls enrolled in school than boys for both migrant (95.06% vs 94.62%) and non-migrant households (92.23% vs 88.10%). In fact, there are more enrolled girls among stayer wives (95.56%) than stayer husbands (94.57%) with migrant partners. However, with non-migrant partners, the proportion of enrolled girls remains virtually the same for both stayer wives (92.29%) and husbands (92.23%).

Among stayer husbands with migrant partners, there are more enrolled girls (94.57%) than boys (92.51%). In contrast, there are more enrolled boys (96.59%) than girls (95.56%) among stayer wives with migrant partners.

**Table 5 Attendance at School, children 5-17 years old**

School Outcomes	Both Sample		Husband sample		Wife sample	
	Migrant	Non-mi-grant	Migrant	Non-mi-grant	Migrant	Non-mi-grant
Both sexes, Obs	2,130	45,639	1,055	44,522	1,075	1,117
Yes (%)	94.84	90.09	93.55	90.11	96.09	89.44
Male, Obs	1,078	23,640	521	23,055	557	585
Yes (%)	94.62	88.10	92.51	88.13	96.59	86.84
Female, Obs	1,052	21,999	534	21,467	518	532
Yes (%)	95.06	92.23	94.57	92.23	95.56	92.29

Source: Author's own calculations from LFS-FIES 2015

Table 6 shows the distribution of the class of work by nature of employment of stayer spouse. Among households with migrant partners, about three-fourths (72.15%) are wage and salary workers who are permanent in the pooled samples. The proportion is higher for stayer wives (86.39%) than stayer husbands. Meanwhile, of those who work as an employer, or those persons who employ one or more paid employees in the operation of their businesses and trade, nine out of ten (93.85%) works permanently, with more stayer wives (100%) than stayer husbands (91.11%). Meanwhile, there are more stayer husbands who work permanently as self-employed (92.93%) than stayer wives (79.69%).

In general, majority works as permanent worker regardless of class of worker. The proportion of stayer husbands who are permanent and self-employed are higher with migrant partners (92.93%) than those with non-migrant partners (89.85%). Meanwhile, the proportion of stayer wives with migrant partners who are permanent, and wage and salary workers are higher (86.39%) than those with non-migrant partners (77.34%).

**Table 6 Class of work by nature of employment of stayer spouse, 25-54 years old**

Nature of Employment	Class of Work						
	Migrant			Non-migrant			
	Wage and Salary Worker	Employer	Self-employed	Wage and Salary Worker	Employer	Self-employed	Without pay
Both sample (%)							
Obs	438	65	312	10,477	1,063	6,642	112
Permanent	72.15	93.85	87.50	68.95	93.04	89.84	81.25
Short-term	20.55	6.15	12.50	22.63	6.96	10.16	18.75
Different employer	7.31	0.00	0.00	8.42	0.00	0.00	0.00
Husband sample (%)							
Obs	269	45	184	10,274	1,047	6,503	107
Permanent	63.20	91.11	92.93	68.79	93.03	89.85	80.37
Short-term	25.28	8.89	7.07	22.77	6.97	10.15	19.63
Different	11.52	0.00	0.00	8.45	0.00	0.00	0.00
Wife sample (%)							
Obs	169	20	128	203	16	139	5
Permanent	86.39	100.00	79.69	77.34	93.75	89.21	100.00
Short-term	13.02	0.00	20.31	15.76	6.25	10.79	0.00
Different	0.59	0.00	0.00	6.90	0.00	0.00	0.00

Source: Author's own calculations from LFS-FIES 2015

Table 7 provides the descriptive statistics for the explanatory variables. In the pooled samples, the average age of the household head for stayer spouse is 41.49 (7.01) with a migrant partner, lower than those with non-migrant partners, averaging to 42.26 (7.53). The size of family members is bigger for non-migrant households with five members on average. The average number of primary (less than five years old) ranging from  $0.36 \pm 0.61$  to  $0.57 \pm 0.76$ ; and school-aged (5-17 years old) children ranging from  $1.68 \pm 1.17$  to  $1.89 \pm 1.44$  does not differ notably for both migrant and non-migrant households. About half of the migrant households (41.88%) resides in urban areas, slightly higher than non-migrant households (34.89%). In terms of the level of education, most of the household head completed secondary for both migrant (35.43%) and non-migrant households (27.14%).

For stayer husbands having migrant partners, the average age is 41.83 years old, have four household members, with one primary-aged child, two school-aged

children, and one member working for pay. The composition of the household does not change considerably among stayer wives with migrant partners with an average age of 41.17 years old. But unlike for stayer husbands, four out of ten (42.86) stayer wives completed college.



Table 7 Summary statistics of the covariates

Variables	Both sample						Husband sample						Wife sample					
	Migrant			Non-migrant			Migrant			Non-migrant			Migrant			Non-migrant		
	Obs	Mean	Std. Dev.	Obs	Mean	Std. Dev.	Obs	Mean	Std. Dev.	Obs	Mean	Std. Dev.	Obs	Mean	Std. Dev.	Obs	Mean	Std. Dev.
Household Head Age (AGE)	1,194	41.49	7.01	19,330	42.26	7.53	571	41.83	6.97	18,791	42.28	7.52	623	41.17	7.05	539	41.55	7.88
Total Number of Family members (MEMBERS)	1,194	4.09	1.69	19,330	5.23	1.99	571	4.07	1.75	18,791	5.24	1.99	623	4.12	1.63	539	4.86	2.06
Members with age less than 5 year old (AGELESS5)	1,074	0.36	0.61	18,331	0.57	0.76	501	0.33	0.57	17,828	0.57	0.76	573	0.38	0.65	503	0.54	0.73
Members with age 5 - 17 years old (AGE5_17)	1,162	1.68	1.17	18,986	1.89	1.44	553	1.73	1.23	18,469	1.90	1.44	609	1.63	1.11	517	1.60	1.37
Total number of family members employed for pay (EMPLOYED_PAY)	1,160	1.15	1.09	19,106	1.37	1.08	555	1.30	1.11	18,572	1.37	1.08	605	1.02	1.05	534	1.51	1.11
Total number of family members employed for profit (EMPLOYED_PROFIT)	1,095	0.49	0.60	18,595	0.82	0.78	524	0.63	0.62	18,093	0.82	0.78	571	0.37	0.55	502	0.63	0.73
Log of per capita income (LNPCINC)	1,194	11.23	0.69	19,330	10.49	0.74	571	10.94	0.62	18,791	10.47	0.74	623	11.50	0.64	539	10.92	0.77
Log of per capita remittances (LNPERCAPITAREMIT)	1,159	10.49	1.01	3,541	8.40	1.45	549	9.98	0.92	3,359	8.32	1.40	610	10.96	0.85	182	9.79	1.65
Regional labor force participation rate (RLFPR)	1,194	63.88	2.46	19,330	63.39	3.27	571	63.97	2.88	18,791	63.37	3.30	623	63.80	1.99	539	64.00	2.08
Regional employment rate (RER)	1,194	93.68	1.95	19,330	94.20	1.82	571	94.25	2.05	18,791	94.22	1.82	623	93.16	1.71	539	93.41	1.71
Regional underemployment rate (RUNDER)	1,194	17.52	5.64	19,330	19.03	6.52	571	17.49	5.37	18,791	19.06	6.52	623	17.55	5.88	539	18.18	6.51
Relative number of OFWs based on regional origin, both sexes (RMIGNET_BOTH)*	1,194	0.77	0.29	19,330	0.63	0.30	571	0.83	0.31	18,791	0.64	0.30	623	0.71	0.26	539	0.62	0.25
Relative number of Male OFWs based on regional origin (RMIGNET_MALE)*	1,194	0.69	0.26	19,330	0.57	0.29	571	0.66	0.27	18,791	0.57	0.29	623	0.71	0.24	539	0.63	0.24
Relative number of Female OFWs based on regional origin (RMIGNET_FEMALE)*	1,194	0.85	0.44	19,330	0.70	0.40	571	1.00	0.47	18,791	0.71	0.40	623	0.72	0.38	539	0.62	0.33

Source: Author's own calculations from LFS-FIES 2015

\*Computed using the absolute number of OFWs by regional origin divided by the population in the region

Table 7 (continued)

Variables	Both sample				Husband sample				Wife sample			
	Migrant		Non-migrant		Migrant		Non-migrant		Migrant		Non-migrant	
	N	%	N	%	N	%	N	%	N	%	N	%
Urban residence												
Yes (=1)	500	41.9	6744	34.9	159	27.8	6412	34.1	341	54.7	332	61.6
No	694	58.1	12586	65.1	412	72.2	12379	65.9	282	45.3	207	38.4
Total	1194	100.0	19330	100.0	571	100.0	18791	100.0	623	100.0	539	100.0
Household Head Highest Grade Completed (HGC)												
No Grade (=0)	2	0.2	447	2.3	2	0.4	446	2.4	0	0.0	1	0.2
Pre-school	0	0.0	8	0.0	0	0.0	8	0.0	0	0.0	0	0.0
Elementary Incomplete	41	3.4	3793	19.6	39	6.8	3765	20.0	2	0.3	28	5.2
Elementary Complete	90	7.5	3085	16.0	68	11.9	3028	16.1	22	3.5	57	10.6
Secondary Incomplete	111	9.3	2584	13.4	83	14.5	2522	13.4	28	4.5	62	11.5
Secondary Complete	423	35.4	5247	27.1	236	41.3	5061	26.9	187	30.0	186	34.5
Post-secondary	19	1.6	152	0.8	10	1.8	148	0.8	9	1.4	4	0.7
College Incomplete	163	13.7	1574	8.1	61	10.7	1512	8.0	102	16.4	62	11.5
College Complete	339	28.4	2361	12.2	72	12.6	2225	11.8	267	42.9	136	25.2
Post-baccalaureate (=10)	6	0.5	79	0.4	0	0.0	76	0.4	6	1.0	3	0.6
Total	1194	100.0	19330	100.0	571	100.0	18791	100.0	623	100.0	539	100.0

Source: Author's own calculations from LFS-FIES 2015

At the same time, key informant interviews were conducted to triangulate the results of the model. Considering the time and financial constraints, the analysis does not aim to have a representative sample. Since the focus of the study is to understand the impact of female migration on transnational relationships, key informant interviews (KIIs) of female migrants at the selected Philippine Overseas Labor Offices (POLO)<sup>9</sup> in the Middle East was conducted since most of the female migrants are deployed in this region. In summary, seven female OFWs were interviewed through Skype having the following characteristics (Annex 2). The interviewees were identified through snowball sampling, i.e. through referrals from OFW networks of the POLO. To date, there are 15 POLO spread across the region where there are OFWs. While the study wishes to interview left-behind family members of the female migrants and validate their situation back home, it didn't prosper. Majority of them didn't like to be interviewed and hence such information was obtained from the first-hand experience of the migrant itself assuming that their narratives are accurate.

The narratives of the respondents do not claim a representation of their group, but their individual stories could form collective stories that depict the lives of becoming and being an OFW mother and wife. The following migrants were asked about the following: (i) Who decides to go abroad and stay behind? How did you decide? (ii) What are your reasons to migrate? (iii) How does your partner deal or balance home and care responsibilities on behalf of your absence? What are the different care arrangements practiced at your home? (iv) How do they manage the remittances received in the household? and lastly, (v) How do you manage or practice mothering from a distance?

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<sup>9</sup> These are government offices responsible for attending to the needs of OFWs.

## Chapter 5 Results and Discussion

The results are divided into two parts: First, the discussion of the impact of migration using econometric modeling on a) decision to work of the stayer spouse; b) hours of work; c) nature of employment; d) class of worker; and lastly e) schooling outcomes of children left-behind. Second, the examination of OFW-mother narratives on their decision to migrate and the perceived social outcomes on the household especially in the reallocation of intra-family roles and transfer of norms, which may affect decision-making and the control of resources.

### 5.1 Estimating the Labor Supply Behavior and Schooling Outcomes

This section discusses estimates from a linear probability model with endogenous treatment effects on the LFP and supply states of the stayer spouse using pooled samples of migrant and non-migrant households. Prior to estimating the two-step procedure, a probit model without correcting for endogeneity is estimated as preliminary analysis. Annexes 3 and 4 show the probit results for the decision to work and hours of work of the stayer spouse, respectively.<sup>10</sup> Although the estimates confirmed the inputs of spouse's home time production as substitutes, having a migrant spouse does not significantly alter the decision to work or the hours of work of the stayer spouse in the labor market.

If the selection of being a migrant into the subsample is done non-randomly, then OLS on the sample employed stayer spouse will be biased and inconsistent. Hence, there is a need for the identification of the effects of migration and correcting for sample selection.

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<sup>10</sup> See Annexes 5, 6, and 7 for the rest of the probit results for the nature of employment, class of worker, and school attendance outcomes, respectively.

### ***5.1.1 Migration and Decision to Work***

To determine whether selection is a problem, Table 8 shows the estimates of the probability of being treated, i.e., being a migrant spouse, as a function of the original control variables and an additional identifying variable- in this case, the relative share of OFWs coming from the region. This variable is assumed to affect the probability of spouse's migration decision and not to influence the labor supply decisions of stayer spouse and schooling of children left behind. For partners with a migrant spouse, we observe that the identifying variable in the pooled samples, RMIGNET\_BOTH, in this case, is highly significant, i.e., if the share of migrants increases from 0 to 100 percent, then the probability to migrate increases by 62.6 percentage points. The probability of migrating is higher for stayer husbands with migrant wives. A one-unit increase in the relative share of female migrants in the origin, RMIGNET\_FEMALE, increases the probability of wives to migrate by 61.3 percentage points. Meanwhile, for stayer wives, a one-unit increase in the relative share of male migrants in the origin, RMIGNET\_MALE, is associated with the probability of their husbands to migrate by 57.7 percentage points, which is slightly lower than the probability of wives' migration.

While we observed the decision to work without controlling for endogeneity is not significant, it is noteworthy to determine the impact of migration after controlling for selection bias. Table 8 shows the probabilities of working decision in different samples. The average treatment effects (ATE) in the pooled samples show that stayer spouses in migrant households significantly reduces their probability of deciding to work by 70.7 percentage points than those in non-migrant households. Stayer wives are more likely to reduce their decision to work by 60.1 percentage points than stayer husbands (17.4 percentage points). Duleep & Sanders (1993) noted that the existence of the family investment strategy where the decision of wives to work is affected by the decision of their husband to invest in their wife's skills that are specific to the labor market and the extent of investment. Such response helps offset the low earnings of a husband who initially lacks the skills for which there is demand in the labor market.

### ***5.1.2 Migration and Hours of Work***

Since the impact of migration has a significant effect on the decision to work, we examined if the same holds true for the hours of work<sup>11</sup> of the remaining spouse in the labor market. Table 9 shows the outcomes for total hours of work in a week. The identifying variables are all positive and significant suggesting that a one-unit increase in the relative share of OFWs coming from the region increases the likelihood of spouse's migration between 58.6 to 60.9 percentage points. Meanwhile, the estimated hazard, which represents the unobserved factors between the selection and the main equation, are positively correlated except for the husband sample. In the pooled samples, ATE shows that having a migrant partner significantly decreases the hours of work of the stayer spouse by 27.3 percent. This runs intuitively to the hypothesis that the reduced market time may be associated with the increased home time production such as housework and childcare. The reduced hours of work are largely driven by the reduction of work hours among stayer wives, but the effect is not significant (65.3 percentage points). Generally, wives take the lion's share of home production than husbands in a typical Filipino household with wives spending more time in childcare. Caring for school-aged children could be labor intensive especially for parents expected to tutor and monitor assignments, and participate in activities at school. Hence, the wives' absent makes it costlier for a husband to substitute for the lost time by wives at home by purchasing highly valued skilled services.

### ***5.1.3 Migration and Nature of Employment***

While migration affects changes in the remaining spouse hours of work, extending the analysis to different employment states will determine to what extent the remaining spouse alter their labor decisions. Table 10 shows that the ATE of having a migrant spouse in the pooled samples decreases the probability of stayer spouse to be in permanent job significantly by 15.5 percentage points, which constitutes

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<sup>11</sup> Hours of work are measured in logs.

19.9 percent reduction of the sample mean among spouses with non-migrant partners.<sup>12</sup> In contrast, migration of the spouse increases the probability of stayer spouse in the short-term job by 22.3 percentage points. This shows evidence of a shift from being permanent to short-term employment. The coefficient of the sample-selection correction factor for permanent and short-term equations are also significant. The positive estimate on the hazard for the permanent equation suggests that the presence of unobserved characteristics relating to the increased likelihood of the migration of spouse is positively correlated to the permanent-job decision of the stayer spouse. Meanwhile, the negative estimate on the hazard for the short-term equation suggests that the unobserved factors that make migration more likely are negatively associated with short-term employment decisions.

For the husband sample, the effect remains significant for stayer husbands such that the migration of their wives discourages the likelihood to work in the permanent job by 26.5 percentage points and increases the probability to work in a short-term job by 25.4 percentage points. Since the coefficients are of opposite signs and very similar in magnitude (the equality of the estimated coefficients is not significantly different ( $Z=0.5734$ ,  $p=0.5664$ )) and the effect of migration on the third category – as employer or those persons who employ paid employees in the conduct of their business – is almost zero and insignificant, it seems that stayer husbands switch from permanent jobs to short-term jobs.<sup>13</sup> This just relates the hypothesis that stayer husbands substitute wives' absence to perform household production previously done by the absent wife. However, for stayer wives, the migration of their husbands complements their absence in the labor market by shifting from working as an employer to permanent employment. Even though the effects for stayer wives are similar in magnitude, they are not statistically significant.

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<sup>12</sup> See Table 4 for sample means of spouses with non-migrant partners.

<sup>13</sup> Z test equation is provided by Clogg et al. (1995) as cited by Paternoster et al. (1998).

#### ***5.1.4 Migration and Class of Worker***

While we observed evidence of shifting in terms of nature of employment, we examined if the same holds true for the class of work as an indication of the quality of employment. Table 11 shows the probabilities for the different class of work outcomes. In the pooled samples, stayer spouse with migrant partners is more likely than those with non-migrant partners to be in wage and salary workers by 16.8 percentage points or 29 percent relative to stayer spouse in wage and salary work with non-migrant partners. Likewise, stayer spouse in migrant households increases their probability to work as an employer in own family-operated farm or business significantly by 15.2 percentage points than non-migrant households. In contrast, migration of the other spouse reduces the likelihood of being self-employed without any paid employee by the remaining spouse by 31.7 percentage points compared when the spouse does not migrate.

It seems that the pooled samples show a shift from self-employment without any paid employee to wage and salary workers and an employer in own family-operated farm or business. However, looking at samples of husbands and wives reveals that there is a gendered pattern. For the husband sample, the reduction in labor supply is associated with the significant reduction in self-employment without any paid employee with some evidence of a shift to be an employer in own family-operated farm or business by 27.1 percentage points. This suggests the increased participation of stayer husbands in entrepreneurial activities making them more flexible in terms of work arrangement and having more time in household duties due to available hired labor. In contrast, stayer wives with migrant husbands reduce largely the likelihood of being self-employed and switch to being wage and salary workers by 85.2 percentage points. This may suggest two things: First, stayer wives who worked purely on a commission basis like doing laundry, cleaning, babysitting, etc. and do not have regular working hours still express their desire to have additional hours of work in their current job or seek for new or additional job that requires longer hours of work. The increase in work effort among stayer wives could be associated to the temporary disruptive effect caused by the husband's migration to



reciprocate the income loss used to shoulder the cost of migration (Cabegin 2013: 165). Second, absent husbands complement wives time in the labor market by emancipating them in their labor supply decisions and household income utilization. Cabegin (2013) noted that migrant households have higher utility spending than non-migrant households. Higher spending on utilities may ease the conduct of household chores and allows more free time for the stayer wives in market work who spends a disproportionate time in housework at the outset. At the same time, stayer wives have more autonomy in purchasing or outsourcing housework services, making them available to participate in the labor market.

### ***5.1.5 Migration and Schooling Outcomes***

One of the objectives of paper is to determine the causal impact of migration on education. Table 12 presents the estimates of the children's school attendance. In the pooled samples, the relative share of OFWs significantly increases the likelihood of spouse's migration between 39.9 to 41.5 percentage points. The associated hazard estimate is significant and negatively correlated with the main equation except for girl's outcome. Estimates of the ATE indicate that parent's migration increases the likelihood of children, aged 5-17 years old, to attend school by 9.10 percentage points. This is largely associated with the increased probability of attending school for boys by 10.6 percentage points. The probability of girl's attendance is slightly lower, but the effect is not significant. This suggests that having absent parents continue parenting from afar. Asis (2006) noted that with the access to available communication facilities, migrants and their left-behind families can communicate frequently and promptly, which opens possibilities for maintaining family ties despite the long-distance separation.

Meanwhile, for stayer husbands, a one-unit increase in the relative share of female OFWs in the region increases the probability of wives' migration between 36.1 to 47.6 percentage points. The unobserved factors between the selection and primary equations are significant and inversely correlated. The ATE show that migration of mothers is associated with the positive likelihood of children going to

school for both sexes. The probability of boy's attendance is even higher and significant by 13.8 percentage points. However, the probability of girl's attendance remains not significant. This suggests that stayer fathers seek the assistance of a female companion in the household, oftentimes their daughters, to help them in the household production previously done by absent mothers. Hence, absent mothers imply fundamental changes in the organization of family life than absent fathers (Asis 2006). When children reach the age of six, they are assigned some light household tasks to train them to become responsible. The common household tasks delegated to children is cleaning the house while washing, ironing clothes and cooking are often delegated. Most of the time, younger girls spend more time than boys doing physical tasks at home than in school. The existing patriarchal norm as part of the culture is often cited for girls' limited participation in school especially in developing nations (Buchmann 2000). The patriarchal lineage in society prefers boys' treatment over girls. Parents believed that investing heavily in education are not in the primary interest of daughters or maximizing the wealth of the family. In extreme scenarios, archaic notions of gender stereotypes promote the culture of girls not requiring formal schooling.

On the other hand, for stayer wives, the relative share of male OFWs in the region is associated with the significant positive likelihood of the migration of husband in different samples. However, the associated hazard estimate is not significant. The ATE shows that the migration of the fathers reduces the likelihood of children's attendance, but the effect is not economically and statistically significant. At the same time in the split sample, the effects are economically relevant but go in the opposite direction even though always insignificant. In other words, absent fathers do not significantly alter the likelihood of children's attendance, regardless of sex. One reason being is that stayer mothers are more focused and hands-on in educating their children since they are more invested with the responsibility of nurturing and guiding the young. They are usually the ones assisting the children in doing school assignments than stayer fathers. This also suggests that migrant fathers provide an emancipating effect on the stayer mothers to exercise greater familial

authority in household decision-making, particularly in the schooling decision of their children. This confirms our hypothesis that migration leads the strengthening of bargaining power among remaining members. In the existing cultural norm, wives are obligated to respect their husband's authority especially if the latter is the main income earner (Cabegin 2013). If the husband migrates, this leads to greater bargaining power for the stayer wife on the utilization and allocation of household income, especially in schooling expenses.

Generally, the analysis shows that parents put premiums on boy's education than girls. Much of the positive effect of school attendance is largely driven by boy's attendance, regardless of the type of school (i.e. public or private). Available figures from World Bank show that the enrolment in primary education for boys from 2001-2009 in the Philippines averaged to 6.738 million or 376,287 higher than girls' average enrolment of 6.362 million. While most elementary schools in the Philippines are tuition-free public schools, a large share of the household expenses goes to the school allowance of children. Buchmann (2000) noted that under utility maximizing decisions, parents first decide to maximize the resources of the entire family then redistribute them to each household members based on their preferences. The guiding principle of schooling decisions is wealth maximization such that variation in schooling investments is largely due to variation in returns to schooling. Altruistic parents invest more education in boys who are more academically inclined and highly employable. Other perspectives show that resource-constraint households, due to family size or income, restrict parent's ability to pursue an altruistic goal for their children. But these financial constraints are reduced through remittances as an outcome of migration, which functions as informal insurance coping mechanisms (Calero et al. 2009). The amount remitted serves as additional income to the household as hypothesized and contributes largely to paying school-related expenses like allowances. The only limitation of this analysis is that it does not provide the extent how children of migrants and children of non-migrants compare in terms well-being such as academic performance (i.e. grades, awards received, being an honor student), physical and emotional health.

Table 8 Endogeneity-corrected ATE of migration on Decision to Work of the Stayer Spouse, 25-54 years old

VARIABLES	Selection equation for being a migrant spouse			ATE		
	Both sample	Husband sample	Wife sample	Both sample	Husband sample	Wife sample
MIGRANT_HH				-0.707*** (0.0287)	-0.174*** (0.0436)	-0.601*** (0.195)
RMIGNET_BOTH	0.626*** (0.0610)					
RMIGNET_FEMALE		0.613*** (0.0533)				
RMIGNET_MALE			0.577*** (0.200)			
lambda				0.241*** (0.0143)	0.0407** (0.0200)	0.314*** (0.116)
Constant	-12.29*** (1.277)	-10.16*** (1.512)	-12.09 (159.5)	-0.167 (0.153)	0.351*** (0.131)	-1.599 (1.284)
Observations	18,886	17,862	1,024	18,886	17,862	1,024

Source: Author's own calculations from LFS-FIES 2015

Notes: Estimated using Heckman's Two-Step Procedure; The dependent variables is decision to work; Covariates used are Household Head Age (AGE), Total Number of Family members (MEMBERS), Members with age less than 5 year old (AGELESS5), Members with age 5 - 17 years old (AGE5\_17), Total number of family members employed for pay (EMPLOYED\_PAY), Total number of family members employed for profit (EMPLOYED\_PROFIT), Log of per capita income in the household (LNPCINC), Regional labor force participation rate (RLFPR), Regional employment rate (RER), Regional underemployment rate (RUNDER), Urban residence indicator (URB), Household Head Highest Grade Completed (HGC) with reference category 'No Grade (HGC=0)'; Instruments used are RMIGNET\_BOTH (for both sample), RMIGNET\_FEMALE (for husband sample), and RMIGNET\_MALE (for wife sample); Standard errors in parentheses; \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

Table 9 Endogeneity-corrected ATE of Migration on Total Hours of Work of Stayer Spouse, 25-54 years old

VARIABLES	Selection equation for being a migrant spouse			ATE		
	Both sample	Husband sample	Wife sample	Both sample	Husband sample	Wife sample
MIGRANT_HH				-0.273*** (0.0880)	-0.0642 (0.107)	-0.653 (0.439)
RMIGNET_BOTH	0.586*** (0.0682)					
RMIGNET_FEMALE		0.589*** (0.0569)				
RMIGNET_MALE			0.609** (0.263)			
lambda				0.0501 (0.0424)	-0.0326 (0.0483)	0.306 (0.263)
Constant	-13.37*** (1.418)	-10.34*** (1.608)	-16.52 (145.5)	3.732*** (0.306)	3.846*** (0.303)	4.056 (2.823)
Observations	17,487	16,896	591	17,487	16,896	591

Source: Author's own calculations from LFS-FIES 2015

Notes: Estimated using Heckman's Two-Step Procedure; The dependent variable is logarithm of hours worked; Covariates used are Household Head Age (AGE), Total Number of Family members (MEMBERS), Members with age less than 5 year old (AGELESS5), Members with age 5 - 17 years old (AGE5\_17), Total number of family members employed for pay (EMPLOYED\_PAY), Total number of family members employed for profit (EMPLOYED\_PROFIT), Log of per capita income in the household (LNPCINC), Regional labor force participation rate (RLFPR), Regional employment rate (RER), Regional underemployment rate (RUNDER), Urban residence indicator (URB), Household Head Highest Grade Completed (HGC) with reference category 'No Grade (HGC=0)'; Instruments used are RMIGNET\_BOTH (for both sample), RMIGNET\_FEMALE (for husband sample), and RMIGNET\_MALE (for wife sample); Standard errors in parentheses; \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

Table 10 Endogeneity-corrected ATE of migration on Nature of Employment of the Stayer Spouse, 25-54 years old

VARIABLES	Selection equation for being a migrant spouse			Both sample			Husband sample			Wife sample		
	Both	Husband	Wife	Permanent	Short-term	Different employer	Permanent	Short-term	Different employer	Permanent	Short-term	Different employer
	sample	sample	sample									
MIGRANT_HH				-0.155*	0.223***	-0.0682	-0.265***	0.254***	0.0111	0.256	-0.0185	-0.238
RMIGNET_BOTH	0.478***			(0.0869)	(0.0803)	(0.0470)	(0.0984)	(0.0912)	(0.0540)	(0.356)	(0.326)	(0.165)
RMIGNET_FEMALE		0.513***										
RMIGNET_MALE			0.476*									
lambda			(0.277)	0.0875**	-0.113***	0.0252	0.136***	-0.128***	-0.00810	-0.172	0.0439	0.128
Constant	-6.384	-4.703	-5.058	(0.0410)	(0.0378)	(0.0222)	(0.0443)	(0.0411)	(0.0244)	(0.216)	(0.198)	(0.1000)
	(185.8)	(114.3)	(150.7)	0.655**	1.175***	-0.830***	0.615**	1.255***	-0.870***	0.707	-0.158	0.450
				(0.256)	(0.238)	(0.138)	(0.262)	(0.243)	(0.141)	(1.457)	(1.309)	(0.693)
Observations	14,642	14,156	486	14,642	14,642	14,642	14,156	14,156	14,156	486	486	486

Source: Author's own calculations from LFS-FIES 2015

Notes: Estimated using Heckman's Two-Step Procedure; The dependent variable is nature of employment; Covariates used are Household Head Age (AGE), Total Number of Family members (MEMBERS), Members with age less than 5 year old (AGELESS5), Members with age 5 - 17 years old (AGE5\_17), Total number of family members employed for pay (EMPLOYED\_PAY), Total number of family members employed for profit (EMPLOYED\_PROFIT), Log of per capita income in the household (LNPCINC), Regional labor force participation rate (RLFPR), Regional employment rate (RER), Regional underemployment rate (RUNDER), Urban residence indicator (URB), Household Head Highest Grade Completed (HGC) with reference category 'No Grade (HGC=0)'; Instruments used are RMIGNET\_BOTH (for both sample), RMIGNET\_FEMALE (for husband sample), and RMIGNET\_MALE (for wife sample); Standard errors in parentheses; \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

Table 11 Endogeneity-corrected ATE of migration on Class of Work of the Stayer Spouse, 25-54 years old

VARIABLES	Both sample				Husband sample				Wife sample			
	Wage and Salary		Self-employed	Without pay	Wage and Salary		Self-employed	Without pay	Wage and Salary		Self-employed	Without pay
	Workers	Employer			Workers	Employer			Workers	Employer		
MIGRANT_HH	0.168** (0.0727)	0.152*** (0.0412)	-0.317*** (0.0728)	-0.00221 (0.0138)	0.0274 (0.0834)	0.271*** (0.0454)	-0.294*** (0.0832)	-0.00406 (0.0156)	0.852** (0.433)	0.214 (0.184)	-1.148** (0.533)	0.0824 (0.0798)
lambda	-0.0964*** (0.0343)	-0.0704*** (0.0194)	0.167*** (0.0342)	-0.000718 (0.00651)	-0.0240 (0.0376)	-0.119*** (0.0203)	0.143*** (0.0374)	0.000298 (0.00704)	-0.520** (0.262)	-0.132 (0.112)	0.709** (0.322)	-0.0564 (0.0484)
Constant	-0.800*** (0.215)	-0.627*** (0.123)	2.320*** (0.222)	0.108*** (0.0403)	-0.805*** (0.218)	-0.596*** (0.127)	2.284*** (0.223)	0.117*** (0.0407)	0.0217 (1.919)	-0.966 (0.769)	2.308 (2.360)	-0.365 (0.333)
Observations	14,642	14,642	14,642	14,642	14,156	14,156	14,156	14,156	486	486	486	486

Source: Author's own calculations from LFS-FIES 2015

Notes: Estimated using Heckman's Two-Step Procedure; The dependent variable is class of worker; Selection equations are similar to Table 10; Covariates used are Household Head Age (AGE), Total Number of Family members (MEMBERS), Members with age less than 5 year old (AGELESS5), Members with age 5 - 17 years old (AGE5\_17), Total number of family members employed for pay (EMPLOYED\_PAY), Total number of family members employed for profit (EMPLOYED\_PROFIT), Log of per capita income in the household (LNPCINC), Regional labor force participation rate (RLFPR), Regional employment rate (RER), Regional underemployment rate (RUNDER), Urban residence indicator (URB), Household Head Highest Grade Completed (HGC) with reference category 'No Grade (HGC=0)'; Instruments used are RMIGNET\_BOTH (for both sample), RMIGNET\_FEMALE (for husband sample), and RMIGNET\_MALE (for wife sample); Standard errors in parentheses; \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

Table 12 Endogeneity-corrected ATE of migration on Children's School Attendance, 5-17 years old

VARIABLES	Both sample						Husband sample						Wife sample					
	Selection equation for being a migrant spouse			ATE			Selection equation for being a migrant spouse			ATE			Selection equation for being a migrant spouse			ATE		
	Both sex	Boys	Girls	Both sex	Boys	Girls	Both sex	Boys	Girls	Both sex	Boys	Girls	Both sex	Boys	Girls	Both sex	Boys	Girls
MIGRANT_HH				0.0910**	0.106*	0.0784				0.119**	0.138**	0.105				-0.00313	-0.0859	0.0530
				(0.0392)	(0.0565)	(0.0518)				(0.0493)	(0.0694)	(0.0659)				(0.0898)	(0.145)	(0.102)
RMIGNET_BOTH	0.406***	0.415***	0.399***															
	(0.0496)	(0.0699)	(0.0708)															
RMIGNET_FEMALE							0.416***	0.476***	0.361***									
							(0.0418)	(0.0593)	(0.0597)									
RMIGNET_MALE													0.776***	0.602**	1.013***			
													(0.176)	(0.245)	(0.261)			
lambda				-0.0386**	-0.0446*	-0.0348				-0.0523**	-0.0610**	-0.0480*				0.0265	0.0847	-0.0193
				(0.0184)	(0.0267)	(0.0242)				(0.0217)	(0.0308)	(0.0290)				(0.0542)	(0.0876)	(0.0615)
Constant	-4.551	-5.564	-3.562	0.624***	0.711***	0.548***	-4.612	-5.535	-4.011	0.620***	0.694***	0.555***	0.825	-1.721	3.428	1.664**	2.603**	0.763
	(102.3)	(138.7)	(151.3)	(0.107)	(0.161)	(0.137)	(103.6)	(210.8)	(275.5)	(0.108)	(0.163)	(0.138)	(90.10)	(212.7)	(111.3)	(0.717)	(1.031)	(0.970)
Observations	36,199	18,831	17,368	36,199	18,831	17,368	34,828	18,102	16,726	34,828	18,102	16,726	1,371	729	642	1,371	729	642

Source: Author's own calculations from LFS-FIES 2015

Notes: Estimated using Heckman's Two-Step Procedure; The dependent variable is school attendance; Covariates used are Household Head Age (AGE), Total Number of Family members (MEMBERS), Members with age less than 5 year old (AGELESS5), Members with age 5 - 17 years old (AGE5\_17), Total number of family members employed for pay (EMPLOYED\_PAY), Total number of family members employed for profit (EMPLOYED\_PROFIT), Log of per capita income in the household (LNPCINC), Regional labor force participation rate (RLFPR), Regional employment rate (RER), Regional underemployment rate (RUNDER), Urban residence indicator (URB), Household Head Highest Grade Completed (HGC) with reference category 'No Grade (HGC=0)'; Instruments used are RMIGNET\_BOTH (for both sample), RMIGNET\_FEMALE (for husband sample), and RMIGNET\_MALE (for wife sample); Standard errors in parentheses; \*\*\* p<0.01, \*\* p<0.05, \* p<0.1



### ***5.1.6 Robustness Check***

The findings above show that after treating for the endogeneity of migration, the absence of the missing spouse alters the labor supply decisions of the remaining spouse as well school outcomes of children left-behind. The changes in labor market and education outcomes highlight the importance of attitudes, shaped by age-old norms and traditions (Dacuycuy & Dacuycuy 2017).

The succeeding analysis shows the impact of adding the remittance effect as income contribution, measured in per capita remittances received by households. The potential endogeneity of the remittance income to the labor supply and human capital decision is another concern. Having two selection equations to be instrumented simultaneously, one for migration and remittance separately, would not be a viable option for treating with these sources of unobserved heterogeneity. Given also how remittances are measured on the aggregate amount received in the household and not separately for spouse remittance contribution, this could introduce potential bias to the outcome. Controlling for the household characteristics like size and composition of the household, it is likely that much of the possible bias is at least removed. Hence, in the succeeding analysis, remittances follow strict exogenous assumption.

Table 13 shows the probabilities for the decision to work for the different sample. The identifying variables and the associated hazard estimates are all economically and statistically significant except for the wife sample. This means that the exclusion restriction does not hold in the wife sample. In the pooled samples, the ATE of spouse's migration reduces significantly the probability of the stayer spouse decision to work. But this is offset by the significant and positive remittance income effect. This means that the higher remittance income, the higher likelihood of the stayer spouse to participate in the market. An explanation could be is that stayer spouse has to stay home to take care of the household but once remittances are sent, house help can be paid for and the stayer spouse can resume working. Meanwhile, wives' migration significantly reduces the likelihood of stayer husbands to work.

This is also true for the income effect, but it is not economically and statistically significant. In contrast, husbands' migration is associated with an increased probability for stayer wives to work but this is offset by the negative remittance effect. One reason being is that when the husband leaves, the stayer wife goes to work. However, if the husband sends enough remittances, she might go back to her original LFP or even decrease it.

On the other hand, Table 14 shows the outcomes for total hours of work in a week. The identifying variables are all economically and statistically significant except for the wife sample. This means that the exclusion restriction does not hold in the wife sample. In the pooled samples, the ATE shows that migration of the spouse significantly reduces the hours of work of the stayer spouse. This also holds true for remittance effect, but it is non-significant. For the husband sample, the remittance effect significantly reduces the hours of work of the stayer husbands. If the wife migrates, then the husband is less likely to work due to a higher burden of household chores. Among those who stay at work, the higher the remittances, the fewer hours they work since their wage income is substituted for wives' remittances. Some literature suggests that reduction in market work is attributed to a moral hazard dilemma, where higher remittance income induces a sense of dependency in migrant families (Cabegin 2006). However, the assumption is only true if idleness rather than the household and childcare is substituted with market work for those spouses who migrated. Meanwhile, the remittance effect is associated with an increased likelihood of the hours of work for stayer wives, but the effect is non-significant. Under the caveat that the exclusion restriction does not hold in the wife sample when the husband migrates, the wife is more likely to work but the hours worked decrease among those who do work. This means that wives are more likely to work but in short-term jobs.

In terms of the impact on education, Table 15 shows the probability of school attendance on children of both sexes. In the pooled samples, parent's migration significantly reduces the likelihood of children to attend school, but this is offset by the positive remittance income effect. The husband's sample drives the pooled

effect. This suggests that international remittances relax households' budget constraints that lead to increased educational investments and reinforces the hypothesis that remittances function as an insurance mechanism to maintain school enrolment. In contrast, the likelihood of children attendance in wife sample is increased by the migration of their husbands but this is offset by the reduction of the remittance income effect. However, both effects are not significant.

Generally, the results show that the effects of migration are comparable to including the remittance income effect. Oftentimes the sign of the migration effect goes in the opposite direction but then the remittance effect offsets it. There exists a reverse causality if households consider migration and remittances as an explicit means to increase or decrease labor supply and human capital decisions. The positive remittance income effect can be viewed largely as a "transitory income or as less permanent than domestic wages" (Cabegin 2013: 165). Such transitory income is likely invested more than permanent income and associated with increased investments in market participation and educational outcomes.

Table 13 Endogeneity-corrected ATE of migration with remittance effect on Decision to Work of the Stayer Spouse, 25-54 years old

VARIABLES	Selection equation for being a migrant spouse			ATE		
	Both sample	Husband sample	Wife sample	Both sample	Husband sample	Wife sample
MIGRANT_HH				-0.496*** (0.0377)	-0.192*** (0.0381)	0.492* (0.281)
LNPERCAPITAREMIT				0.0148** (0.00717)	-0.00408 (0.00548)	-0.210*** (0.0669)
RMIGNET_BOTH	0.187* (0.100)					
RMIGNET_FEMALE		0.366*** (0.0840)				
RMIGNET_MALE			-0.0284 (0.267)			
lambda				0.240*** (0.0225)	0.101*** (0.0225)	-0.248 (0.158)
Constant	-10.25*** (2.056)	-11.93*** (2.398)	6.509 (5.087)	-0.874** (0.401)	0.152 (0.354)	-2.988** (1.391)
Observations	4,205	3,514	691	4,205	3,514	691

Source: Author's own calculations from LFS-FIES 2015

Notes: Estimated using Heckman's Two-Step Procedure; The dependent variable is decision to work; Covariates used are Household Head Age (AGE), Total Number of Family members (MEMBERS), Members with age less than 5 year old (AGELESS5), Members with age 5 - 17 years old (AGE5\_17), Total number of family members employed for pay (EMPLOYED\_PAY), Total number of family members employed for profit (EMPLOYED\_PROFIT), Log of per capita remittances in the household (LNPERCAPITAREMIT), Regional labor force participation rate (RLFPR), Regional employment rate (RER), Regional underemployment rate (RUNDER), Urban residence (URB), Household Head Highest Grade Completed (HGC) with reference category 'No Grade (HGC=0)'; Instruments used are RMIGNET\_BOTH (for both sample), RMIGNET\_FEMALE (for husband sample), and RMIGNET\_MALE (wife sample); Standard errors in parentheses; \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

Table 14 Endogeneity-corrected ATE of migration with remittance effect on Hours of Work of the Stayer Spouse, 25-54 years old

VARIABLES	Selection equation for being a migrant spouse			ATE		
	Both sample	Husband sample	Wife sample	Both sample	Husband sample	Wife sample
MIGRANT_HH				-0.212*** (0.0707)	-0.0512 (0.0791)	-1.031* (0.612)
LNPERCAPITAREMIT				-0.00903 (0.0120)	-0.0228** (0.0109)	0.183 (0.151)
RMIGNET_BOTH	0.187* (0.113)					
RMIGNET_FEMALE		0.325*** (0.0895)				
RMIGNET_MALE			0.287 -0.373			
lambda				0.0983** (0.0430)	0.00955 (0.0467)	0.617* (0.345)
Constant	-12.78*** (2.298)	-12.10*** (2.529)	0.979 (6.976)	3.697*** (0.706)	3.751*** (0.706)	6.994** (3.440)
Observations	3,544	3,197	347	3,544	3,197	347

Source: Author's own calculations from LFS-FIES 2015

Notes: Estimated using Heckman's Two-Step Procedure; The dependent variable is log hours of work; Covariates used are Household Head Age (AGE), Total Number of Family members (MEMBERS), Members with age less than 5 year old (AGELESS5), Members with age 5 - 17 years old (AGE5\_17), Total number of family members employed for pay (EMPLOYED\_PAY), Total number of family members employed for profit (EMPLOYED\_PROFIT), Log of per capita remittances in the household (LNPERCAPITAREMIT), Regional labor force participation rate (RLFPR), Regional employment rate (RER), Regional underemployment rate (RUNDER), Urban residence (URB), Household Head Highest Grade Completed (HGC) with reference category 'No Grade (HGC=0)'; Instruments used are RMIGNET\_BOTH (for both sample), RMIGNET\_FEMALE (for husband sample), and RMIGNET\_MALE (wife sample); Standard errors in parentheses; \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

Table 15 Endogeneity-corrected ATE of migration with remittance effect on School Attendance of the Stayer Children, both sexes, 5-17 years old

VARIABLES	Selection equation for being a migrant spouse			ATE		
	Both sample	Husband sample	Wife sample	Both sample	Husband sample	Wife sample
MIGRANT_HH				-0.0381*	-0.0462*	0.118
				(0.0222)	(0.0267)	(0.105)
LNPERCAPITAREMIT				0.0134***	0.0137***	-0.00663
				(0.00323)	(0.00314)	(0.0176)
RMIGNET_BOTH	0.237***					
	(0.0815)					
RMIGNET_FEMALE		0.267***				
		(0.0667)				
RMIGNET_MALE			0.489*			
			(0.257)			
lambda				0.0101	0.00905	-0.0524
				(0.0133)	(0.0156)	(0.0612)
Constant	-17.50	-18.82	2.156	0.964***	0.875***	1.784***
	(75.37)	(190.0)	(4.464)	(0.186)	(0.196)	(0.680)
Observations	8,012	7,267	745	8,012	7,267	745

Source: Author's own calculations from LFS-FIES 2015

Notes: Estimated using Heckman's Two-Step Procedure; The dependent variable is school attendance; Covariates used are Household Head Age (AGE), Total Number of Family members (MEMBERS), Members with age less than 5 year old (AGELESS5), Members with age 5 - 17 years old (AGE5\_17), Total number of family members employed for pay (EMPLOYED\_PAY), Total number of family members employed for profit (EMPLOYED\_PROFIT), Log of per capita remittances in the household (LNPERCAPITAREMIT), Regional labor force participation rate (RLFPR), Regional employment rate (RER), Regional underemployment rate (RUNDER), Urban residence (URB), Household Head Highest Grade Completed (HGC) with reference category 'No Grade (HGC=0)'; Instruments used are RMIGNET\_BOTH (for both sample), RMIGNET\_FEMALE (for husband sample), and RMIGNET\_MALE (wife sample); Standard errors in parentheses; \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

## **5.2 Analyzing Female OFWs Journey Narratives: becoming and being a mother from a distance**

The succeeding analysis highlights extensively how migrant mothers-wife construct their journeys from becoming and being a mother from a distance. Their narratives provide a representation of their decision to migrate and the perceived social outcomes on the household. Generally, their narratives are found to be similar but there are a few contradictions.

### ***5.2.1 Who stays behind and go abroad***

The decision to migrate is more of a joint household decision by the couple. This is typical for egalitarian households where both husband and wife are the main decision-makers on household issues, including the decision to migrate (Dacuycuy & Dacuycuy, 2017:4). This runs consistent with the new economics of migration which argues that migration is a contractual arrangement between the household that shares the cost of migration and the migrant that remits the money because of the cooperative agreement (Cabegin 2013: 165). This is true for Respondent 5 since her husband's income is not enough to send off their eldest to college. Being more literate and fluent in English, she decided to go abroad instead of her husband. In a similar manner, Respondent 1 decision to work abroad was a mutual decision between her and her husband. Initially, her husband was supposed to work in Saudi Arabia. But during that time when her husband was applying, he became permanent with his current job as a maintenance assistant in a university. Hence, the decision to work abroad was passed on to her.

Their narratives also reveal that that while wives are away, husbands still keep their work. Some work permanently while others temporarily. This confirms our findings that husbands can afford to lower their labor market duties. The choice of the stayer husband to stay in the labor force varies according to their families' socio-economic background. Most of the respondents generally come from middle-class families situated in semi-urban and rural areas, which are typical among migrant families. For instance, Respondent 2 had their own land to farm and livestock. Her husband is a part-time tricycle driver. Meanwhile,

Respondent 6 husband works as a part-time construction worker apart from performing housework duties. Respondent 1 husband currently works as a maintenance assistant in a school.

Meanwhile in some cases, migration is a remedy to avoid marital dissolution. For instance, Respondent 7 and her husband were not on good terms and were separated prior to her migration. Both also lost their work at that time. Without any source of income and the need to support their three children (9-Female; 6-Female; and 4-Male), she eventually decided to work abroad. Apparently, things went well with her husband when she was about to leave for abroad. Recognizing how important for her family to be reunited and the impact of marital dissolution, she gave her husband a second chance. Later, her husband was convinced of her decision to leave since she was more fit to go abroad because of her international experience before. The same is true for Respondent 2 who is working in Riyadh. She decided to go abroad for the first time because they always had arguments with her husband. Her parents also recommended her to go abroad to save their marriage. At first, her husband did not approve of her initial plan since the latter was worried about the welfare of their children and being infidel while abroad. In a similar vein, migration served as a coping mechanism for Respondent 6 from a bitter divorce experience.

### ***5.2.2 Care arrangements at home***

Most migrant mothers are saddened when they must leave their children when they go abroad. During their absence, different care arrangements are being practiced at home. But one thing common among it is the presence of a female companion who shares the functions of performing the household duties and taking care of their children (Hoang et al. 2015). This confirms our analysis on the reallocation of intra-family roles due to absent-wives and puts the greater burden on the stayer husbands on taking care of the household. Having three children, Respondent 7 is happy that her husband is very hands-on in caring their children, *“He is not the type of father that complaints or convulsive. He even helped the children in their assignments. He always reminds them to study hard since we are working hard for their future”*. Respondent 1 felt the same thing as well. Her husband and in-laws are around to take good care of their child. Apart from that, the couple



also hired a private nanny to do the household chores (e.g. laundry, cooking) since her husband is away for work the whole day.

### **5.2.3 Remittance as an additional income**

One main reason these mothers must leave was to provide a better future for their children and family. They worked hard abroad so that they could send money back home. This is consistent with our findings that migration leads to positive outcome in school attendance of children left-behind. Most of the time, the remittances are used for investing in their children education and in improving their living conditions (Cox-Edwards and Oreta 2003; Acosta 2006; Calero et al. 2009). Respondent 5 sent around Php15,000 (\$292.81) monthly to her family. Her husband manages the money and spends it on their daily needs (i.e. utilities, food, school). Similarly, Respondent 2 remits monthly to her husband, even more during the school season and special occasions (i.e. birthday, Christmas). Her husband spent it mostly in their daily living expenses and education. Apart from the subsistence provided by her ex-husband, Respondent 6 still remits back at home which is used for the daily school allowance of her children.

Absent mothers stresses parent's altruism. This is consistent with our quantitative findings on how migration impacts children's education. Apart from their own welfare, they care more about the welfare of their family especially their dependents (Buchmann 2000). The need is more apparent for solo parents. For instance, Respondent 3 has been working in Oman since 2013. Being a single parent, she was encouraged to go abroad because of her dependents. Apart from a mother of two children (17-Female; 15-Female), she also needs to sustain her old-aged widow mother, her younger sibling, and an adopted child (18-Female). Being a widow and a single parent for 11 years, Respondent 4 decided to go abroad. At first, she was hesitant to leave because she doesn't want to be away with her children, *"Before, I really don't want to leave but when I finally decided so, my children, especially the youngest was deeply saddened. They were not used without me at their side especially that they were still young when I left"*. Over time, her children become accepting of her decision to work abroad, *"Of course, what I earn here abroad is for their needs and wants. I always tell them that if I stayed back home, I cannot provide you with the things you needed"*.

#### ***5.2.4 Migrant children's experience***

During migration, it is the children that are the most affected. Most of the narratives of the migrant mothers show that their absence serves as the motivation for their children to perform well back home, particularly at school. While our findings do not show a comparison of academic performance between children of migrants and children of non-migrants, this could reinforce children's attendance in school. Respondent 7 felt blessed with having obedient, hardworking, and studious children. As a parent, she molded them to be responsible even at a young age, *"After returning from school, I always instructed them to do first their assignments before they go out and play. There should be more time in studying than playing"*. For Respondent 4, she trained her children to be responsible and independent, *"Even before I was in the Philippines, I already disciplined them to become good and responsible citizen"*. In the context of socialization in the Philippines, children are taught in their early years the values of empathy, good manners, obedience, independence, and responsibility training given the intricacies of family relationships that they need to navigate to become better citizens (Asis 2006: 58).

#### ***5.2.5 Mothering from a distance***

The separation of children and their parents is often the most challenging part of the migration stage. It is more painful for migrant mothers' whose absence has significant implications in nurturing the young (Castles and Miller 2003). That is why it is very important to maintain an open communication between the migrant and the family members left-behind, at least to keep their families physically and emotionally intact. Even though they are not physically present to perform their mothering duties, the presence of technology empowers them to perform their functions across time and space (Asis 2006; Uy-Tioco 2007). This is true for Respondent 1 where she communicates with her family through Facebook (FB) every day, *"That I am aware of what they do and how they are doing makes my day complete"*. Having open communication, the children of Respondent 5 become more vocal with their problems, especially at school. At times when there are problems back home, her husband will tell her, *"The children will only listen to you"*. But she believes that her husband is just new to be a house husband. For Respondent 7, the constant communication brings their family closer despite being separated, *"This is what I told my husband before I left, that we should maintain an*

*open communication always, no secrets*". For Respondent 6, she never thought that being in a long-distance situation was a problem since she can communicate with her children through FB and Skype and still maintains a close relationship with them. However, she was devastated when she found out that her eldest son accidentally impregnated a girl. Sometimes, she partly blames herself because she was not around to guide them physically after their separation with her husband.

### ***5.2.6 Being a woman in the labor force***

The movement of women associated with an increase in autonomy, independence, and labor mobility is a prominent feature of female migration (Castles and Miller 2003). This is consistent with our findings that migration results to transfer of norms. For Respondent 7, being a woman in the labor force is a sign of empowerment, "*Even in the Philippines, we can see that there are plenty of mothers working outside the home. Others, like me, decided to pursue work abroad since the salary is higher*". But eventually, Respondent 7 plans to return home after two years and start a small business back home, "*I really wanted my family to be complete especially that the children are growing, and a mother's care is different from that of a father*". Similarly, Respondent 2 perceives that moving out from home to work is a sign of empowerment as she thinks that as a woman, she can stand for herself despite being away from her family in a foreign land. But for Respondents 3 and 1, it is more of practicality, "*Nowadays, it is practical for mothers to go abroad because of their children. Single mothers, like me, should find the courage to work abroad and a look for a job that will earn enough, so we can support our children even if we have to endure the loneliness and pain*"; "*If we return home and find a job, the earnings that we get is not at par with the earnings we get if we are abroad and sometimes being away usually pays off*". For Respondent 4, it is all about shifting of gender roles, "*Women can be as strong, independent, and steadfast just like men. And most of my friends I knew, it is the mother-wife who is in abroad and then men becoming the house-husband*". This highlights the importance of attitudes on gender roles to understand the dynamics of family relationships and household outcomes were "spouses learn to adapt and adjust to accommodate each other's attitudes, values, and preferences" (Dacuycuy & Dacuycuy 2017: 2).

The narratives of these migrant workers suggest that women are becoming independent especially in this era of globalization associated with increasing

women participation in the labor force; promoting equal work opportunity, and balancing work-and-family balance.

## Chapter 6 Conclusions, Implications, and Policy Recommendations

A key feature of the Philippine overseas migration is the increasing female migrants working outside their home. Traditionally, women are task to raise the country's future workforce; and hence the time allocated to housework affects their time spent on market work (Dacuycuy & Dacuycuy 2017). It is of interest that migrant women highly dominate overseas employment for the last decade who had to leave their homes and endure long years of family separation. The expansion of household services and caregiving work overseas has led to the feminization of migration in the Philippines. But what happens when women are given the same equal opportunity to work outside of the home? What happens to the family structures and household labor division when wives migrate, and husband are left? Having the responsibility of nurturing the young, what happens to the children in the absence of their mothers? The aim of this research is to determine how the migration of wives impacts the labor supply behavior or motivation to work of the husbands and the school outcomes of the children left behind.

To achieve this objective, a combination of quantitative and qualitative methods was employed to address the main research question. First, the paper modeled husbands' participation in the labor market activities and school outcomes of children in response to wife's migration. This was done using nationally representative merged dataset on the labor force and family income surveys after correcting for the endogeneity of the migration status using migrant networks. The labor outcome of interests are: the decision to work, hours of work, nature of employment (permanent job; short-term; and an employer), and class of worker (wage and salary workers; an employer in own family-operated farm or business; self-employed without any paid employee; and without pay). And for the education outcome, children's school attendance is observed. Second, given that surveys may not sufficiently capture the factors affecting the migration decision of the couple and the perceived social outcomes on the household economic behavior with respect to wives' migration, one-on-one in-depth inter-

views with female migrants at selected Middle East destination country was conducted to understand transnational family relationships. However, the research paper also acknowledges some methodological limitations. The results could still be subjected to large potential biases attributed to unobserved uncontrolled heterogeneity in migration econometric models. Since the research paper attempts to see the causal impact on labor supply and education of families left-behind, empirical labor supply, and human capital models could control for more unobserved heterogeneity. Also, the endogeneity of the migration variable cannot be ignored. Due to data availability, the analysis is limited to using one instrument. The paper also fails to control the effect of spouse remittance contribution to explicitly determined intra and inter-household decisions. Lastly, the absence of rich longitudinal datasets in examining migrants and non-migrants simultaneously. While the estimates from cross-section datasets will not be as good as randomized treatment-control studies (Gibson et al. 2011), the outcomes will aid policy researchers about the dynamics and channels in which migration impacts families left-behind.

However, the research paper still provides good estimates in measuring migration effects to labor supply and human capital decisions. Going back to the research questions posited, the study found out that remaining husbands substitutes wives' absence and reduces his market production by working less in different employment states. There is evidence to show that stayer husbands reduce their hours of work and shift from being permanent to short-term employed. At the same time, there is evidence that stayer husbands also shift from self-employment without any paid employee with some evidence of a shift to be an employer in own family-operated farm or business and hence, having more flexible time at work. The changes in post-migration home hours of the stayer husbands could be due to the pre-migration conjugal time differences in market and home production, where the absent wives undertaking more hours in home production prior to migration (Cabegin 2013). The reduced labor supply of the stayer husbands could be associated with an increasing proportion of men who can afford to lower their labor market time due to their participation in the household or family duties. If these trends are sustained, this would indicate a break in the traditional family norms, where men assume greater housekeeping responsibilities while women entering the labor force.

On the other hand, husband's migration increases the propensity of stayer wives to participate in the labor market. There is evidence to show that stayer wives are switching to becoming wage and salary workers from being self-employed or those who worked purely on a commission basis. The complementary outcome is consistent with that of an egalitarian society with women making choices that serve well the interest of their marriage (Dacuycuy & Dacuycuy 2017). At the same time, husband's migration emancipates stayer wives to exercise greater familial control over household decisions.

The effect of migration promotes productive investment, particularly in children's education. However, much of the positive effect of migration is largely driven by boy's attendance than girls. This just confirms that the patriarchal lineage pattern persists in the Philippines where there is the high preference of boys over girls in terms of providing formal schooling. Whereas, girls remain in the comfort of their home and is subjected to do household chores. This is true when daughters are left with their fathers while their mothers are away. Stayer fathers usually seek their daughter's assistance in the household production previously done by the absent wife.

With respect to family undertakings, wives' decision to migrate is usually a couple's joint decision brought by foreign labor conditions. Absent-mothers are willing to be separated from their families to provide better welfare, especially for their children. This affirms parents' altruistic attitude in terms of maximizing resources that benefit the whole family (Buchmann 2000). Meanwhile, their long-distance relationship is coped with the constant open communication with the aid of available online social platforms like FB and Skype. Undisputedly, children are the most affected by mothers' absence; however, they are trying to cope with their absence by recognizing their parents' effort by performing well at school and being responsible children.

The migration of women reinforces the fact that women have the agency to do productive work outside the home and able to provide the needs of their family. And these changes in the labor market outcomes are associated with the changes in old-age norms and traditions. Wives can afford to lower their housework duties due to the favorable labor market conditions that men presently enjoy both in domestic and overseas labor markets. This increases the marital

gains of the couple derived from complementarities. Moreover, husbands are placing premiums on their wives' success by promoting their participation in the labor force by equally sharing the household production activities. In this sense, marital relations are strengthened when both couples share experiences on doing housework while maintaining the balance between one's work, family, and personal concerns.

Towards the end, the result of this work should shed light on the growing issues that surround the welfare of overseas female migrant workers and their families left-behind in the Philippines. The findings above highlight the gendered dimension of the impact of female overseas migration, particularly wife-mothers, on the household welfare of the remaining household members. The effect of female migration on the work patterns of the stayer spouse has important implications on women's social status.

With female overseas migration on the rise, strategies for economic development should consider the gender aspects of migration dynamics. Policy interventions should focus on work and social policies that allow the stayer spouse in migrant households the flexibility in childcare such as provisions of health care, paid family leaves, public access to early childhood education, affordable day-care and tutorial services, and post-natal initiatives like longer paternity (maternity) leave. This would improve family dynamics and induce greater participation of the stayer husband in home production. Meanwhile, the government should continue to strengthen its regulations in protecting the female migrant workers who are seldom protected by the domestic labor laws where they work.



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# Annexes

## Annex 1 Class of Worker, LFS

Class of Worker	Sub-classification
Wage and Salary Workers	<i>Worked for private household:</i> Employed persons working in a private household, in cash or in kind.
	E.g., domestic helper, household cook, gardener, family driver
	<i>Worked for private establishment:</i> Persons working in a private establishment for pay, in cash or in kind. Aside from persons working for a private industry, it also includes those working for a religious group, missionary, unions, and non-profit organizations.
	E.g., public transport drivers (on boundary basis), persons working in public works projects on private contractors, stevedores or dock hands, cargo handlers in piers, etc.
	<i>Worked for government/ government corporation:</i> Persons working for the government or a government corporation or any of its instrumentalities.
Employer	<i>Worked with pay on own family-operated farm or business:</i> Members of the family who receives cash or fixed share of the produce as payment for his services in a farm or business operated by another member living in the same household.
	Persons who employ one or more paid employees in the operation of their businesses or trades.
Unpaid Family Workers	Members of the family who assist another member in the operation of the family farm or business enterprise and who do not receive any wage or salary for their work.
Self-employed	Persons who operate their own businesses or trades and do not employ paid workers in the conduct of their economic activities. Those who worked purely on a commission basis and do not have regular working hours are included.

Source: PSA

## Annex 2 Characteristics of Female Migrant Interviewees

Age/Marital Status/No. of Dependents/Type of Work	Background
1. 31, Married, 1 dependent, Translator	She is a mother of one child (11-Female) who is currently attending primary school. She pursued work abroad for the first time in Oman in 2012 as a cashier (1 year & 5 months) and later as translator/secretary of a manpower agency for five years. She was a plain housewife before coming to Oman.
2. 35, Married, 3 dependents, HSW	Lived in the province of Occidental Mindoro before flying to Riyadh. Married for seven years with her husband of 38 years old, have two children: (13-Male; 8-Female). She first arrived in Riyadh in 2014 with the hopes of securing a good future for her family. She first had plans to work in Dubai as HSW but did not prosper.
3. 36, Separated, 4 dependents, Beautician	Prior to working abroad, she has been in different blue-collared since 2008 such as being a saleslady, receptionist, and a beautician to support her family. Being a first time abroad, she left for the Middle East since she has relatives who work there and at the same time, assisted her in all paper works needed to get a job.
4. 36, Widow, 2 dependents, Translator	She has been working in abroad since 2013. She initially worked as a family driver for three years in Dubai until 2015. Afterwards, took a two years vacation in the Philippines, and then get hired overseas as a secretary/translator in a manpower agency in 2017. With a degree in Computer Science, she has been working in different jobs despite the low wage in the Philippines to meet ends.
5. 37, Married, 4 dependents, Nanny	She is married for 19 years blessed with three children with ages: 19-Male; 16-Male; and 13-Female. Before deciding to work abroad, she works as an on-call laundry lady for five years.

6. 38, Separated, 2 dependents, Cook

She was an orphan. Currently separated, she did not finish college and got pregnant with her firstborn while schooling. Blessed having two kids, both males.

7. 38, Married, 3 dependents, HSW

She recently finished her first employment contract of two years as a full-time HSW and now works on her second employment contract of the same job. She first worked abroad in April 2015 and admitted that it is also her first time to do household work after being a skilled worker for many years back in the Philippines.

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Source: Author's interview

Annex 3 Marginal effects of migration on decision to work probability of the stayer spouse, 25-54 years old

VARIABLES	Both sample	Husband sample	Wife sample
MIGRANT_HH	-0.625 (0.0607)	-0.29 (0.0960)	-0.0556 (0.120)
Constant	-6.340*** (1.272)	-5.566*** (1.376)	-5.030 (4.693)
Observations	15,590	14,890	692

Source: Author's own calculations from LFS-FIES 2015

Notes: Estimated using probit regression; Covariates used are Household Head Age (AGE), Total Number of Family members (MEMBERS), Members with age less than 5 year old (AGELESS5), Members with age 5 - 17 years old (AGE5\_17), Total number of family members employed for pay (EMPLOYED\_PAY), Total number of family members employed for profit (EMPLOYED\_PROFIT), Log of per capita income in the household (LNPCINC), Regional labor force participation rate (RLFPR), Regional employment rate (RER), Regional underemployment rate (RUNDER), Urban residence indicator (URB), Household Head Highest Grade Completed (HGC) with reference category 'No Grade (HGC=0)'; Standard errors in parentheses; \*\*\* p<0.01, \*\* p<0.05, \* p<0.1



Annex 4 Marginal effects of migration on hours of work probability of the stayer spouse, 25-54 years old

VARIABLES	Both sample	Husband sample	Wife sample
MIGRANT_HH	-0.121 (0.0274)	-0.0878 (0.0325)	-0.0940 (0.0657)
Constant	3.530*** (0.311)	3.642*** (0.313)	2.135 (2.162)
Observations	14,532	14,050	482

Source: Author's own calculations from LFS-FIES 2015

Notes: Estimated using probit regression; Covariates used are Household Head Age (AGE), Total Number of Family members (MEMBERS), Members with age less than 5 year old (AGELESS5), Members with age 5 - 17 years old (AGE5\_17), Total number of family members employed for pay (EMPLOYED\_PAY), Total number of family members employed for profit (EMPLOYED\_PROFIT), Log of per capita income in the household (LNPCINC), Regional labor force participation rate (RLFPR), Regional employment rate (RER), Regional underemployment rate (RUNDER), Urban residence indicator (URB), Household Head Highest Grade Completed (HGC) with reference category 'No Grade (HGC=0)'; Standard errors in parentheses; \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

Annex 5 Marginal effects of migration on nature of employment probability of the stayer spouse, 25-54 years old

VARIABLES	Both sample			Husband sample			Wife sample		
	Permanent	Short-term	Different Employer	Permanent	Short-term	Different Employer	Permanent	Short-term	Different Employer
MIGRANT_HH	0.0851 (0.0657)	-0.0377 (0.0675)	-0.164 (0.112)	0.0977 (0.0786)	-0.0865 (0.0822)	-0.0554 (0.122)	-0.134 (0.162)	0.253 (0.164)	-1.374*** (0.529)
Constant	0.340 (0.845)	2.899*** (0.887)	-10.40*** (1.324)	0.330 (0.857)	3.024*** (0.900)	-10.64*** (1.337)	4.010 (5.339)	-5.278 (5.344)	18.96 (13.24)
Observations	14,642	14,642	14,558	14,156	14,156	14,080	478	478	242

Source: Author's own calculations from LFS-FIES 2015

Notes: Estimated using probit regression; Covariates used are Household Head Age (AGE), Total Number of Family members (MEMBERS), Members with age less than 5 year old (AGELESS5), Members with age 5 - 17 years old (AGE5\_17), Total number of family members employed for pay (EMPLOYED\_PAY), Total number of family members employed for profit (EMPLOYED\_PROFIT), Log of per capita income in the household (LNPCINC), Regional labor force participation rate (RLFPR), Regional employment rate (RER), Regional underemployment rate (RUNDER), Urban residence indicator (URB), Household Head Highest Grade Completed (HGC) with reference category 'No Grade (HGC=0)'; Standard errors in parentheses; \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

Annex 6 Marginal effects of migration on class of worker probability of the stayer spouse, 25-54 years old

VARIABLES	Both sample				Husband sample			
	Wage and Salary Worker	Employer	Self-employed	Without pay	Wage and Salary Worker	Employer	Self-employed	Without pay
MIGRANT_HH	- 0.156** (0.0713)	0.0693 (0.102)	0.146** (0.0722)	-	-0.106 (0.0875)	0.145 (0.118)	0.0632 (0.0893)	-
Constant	- 4.211*** (0.997)	-7.741*** (1.440)	5.678*** (0.991)	5.137 (3.770)	- 4.247*** (1.017)	-7.641*** (1.463)	5.610*** (1.011)	7.344* (3.978)
Observations	14,642	14,642	14,642	14,043	14,156	14,156	14,156	13,752

Source: Author's own calculations from LFS-FIES 2015

Notes: Estimated using probit regression; Covariates used are Household Head Age (AGE), Total Number of Family members (MEMBERS), Member 5 years old (AGELESS5), Members with age 5 - 17 years old (AGE5\_17), Total number of family members employed for pay (EMPLOYED\_PAY), Members employed for profit (EMPLOYED\_PROFIT), Log of per capita income in the household (LNPCINC), Regional labor force participation rate (RER), Regional underemployment rate (RUNDER), Urban residence indicator (URB), Household Head Highest Grade Completion Category 'No Grade (HGC=0)'; Standard errors in parentheses; \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

Annex 7 Marginal effects of migration on school attendance probability of the stayer children, 5-17 years old

VARIABLES	Both sample			Husband sample			Wife sample		
	Both at- tendance	Male At- tendance	Female Attendance	Both at- tendance	Male At- tendance	Female Attendance	Both at- tendance	Male At- tendance	Female Attendance
MIGRANT_HH	0.0610 (0.0590)	0.0805 (0.0792)	0.0315 (0.0887)	0.00260 (0.0714)	0.00640 (0.0959)	-0.0240 (0.108)	0.278** (0.125)	0.351** (0.172)	0.155 (0.168)
Constant	-0.249 (0.647)	0.379 (0.862)	-1.077 (0.991)	-0.391 (0.658)	0.182 (0.878)	-1.173 (1.008)	7.435* (3.944)	10.16* (5.237)	4.368 (5.575)
Observations	36,199	18,831	17,359	34,828	18,102	16,717	1,347	718	629

Source: Author's own calculations from LFS-FIES 2015

Notes: Estimated using probit regression; Covariates used are Household Head Age (AGE), Total Number of Family members (MEMBERS), Members with age less than 5 year old (AGELESS5), Members with age 5 - 17 years old (AGE5\_17), Total number of family members employed for pay (EMPLOYED\_PAY), Total number of family members employed for profit (EMPLOYED\_PROFIT), Log of per capita income in the household (LNPCINC), Regional labor force participation rate (RLFPR), Regional employment rate (RER), Regional underemployment rate (RUNDER), Urban residence indicator (URB), Household Head Highest Grade Completed (HGC) with reference category 'No Grade (HGC=0)'; Standard errors in parentheses; \*\*\* p<0.01, \*\* p<0.05, \* p<0.1