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ABSTRACT

An estimated 10% of the Philippine population—about 10 million people—is overseas. While they contribute significantly to the Philippine economy by way of remittances and other connections, there may be a growing risk of brain and skills drain that could be detrimental to the country's long run growth prospects. In crafting any possible response, it would be critical to understand the motivations of the Filipino youth, who comprise a large share of the migrant population, and notably since the country is on the cusp of a youth bulge. In order to contribute to the evidence-base in this area, this study turns to a unique survey of about 2500 Philippine college students, empirically examining the factors that influence youth migration intentions. It identifies and evaluates the strength of the various push and pull factors that might ultimately determine the decision to migrate. The study finds that a student who has relatives and friends abroad who encourage migration as well as relatives and friends in the Philippines who encourage migration is 11.75 times more likely to have an intention to migrate compared to the baseline student. A student who witnessed cheating in local elections is 1.35 times more likely to have an intention to migrate compared to the baseline student. The results of the study highlight the potentially increasing challenges for policymakers who seek to facilitate a better match between young people's skills and job opportunities at home. Regional integration, such as the imminent emergence of the ASEAN Economic Community in 2015, could accentuate these factors, further underscoring the importance of policies to address youth unemployment, underemployment, and education-job mismatches. While domestic policies will still be needed, international cooperation could prove increasingly critical.

Key words: migration, brain drain, remittances, migrant networks

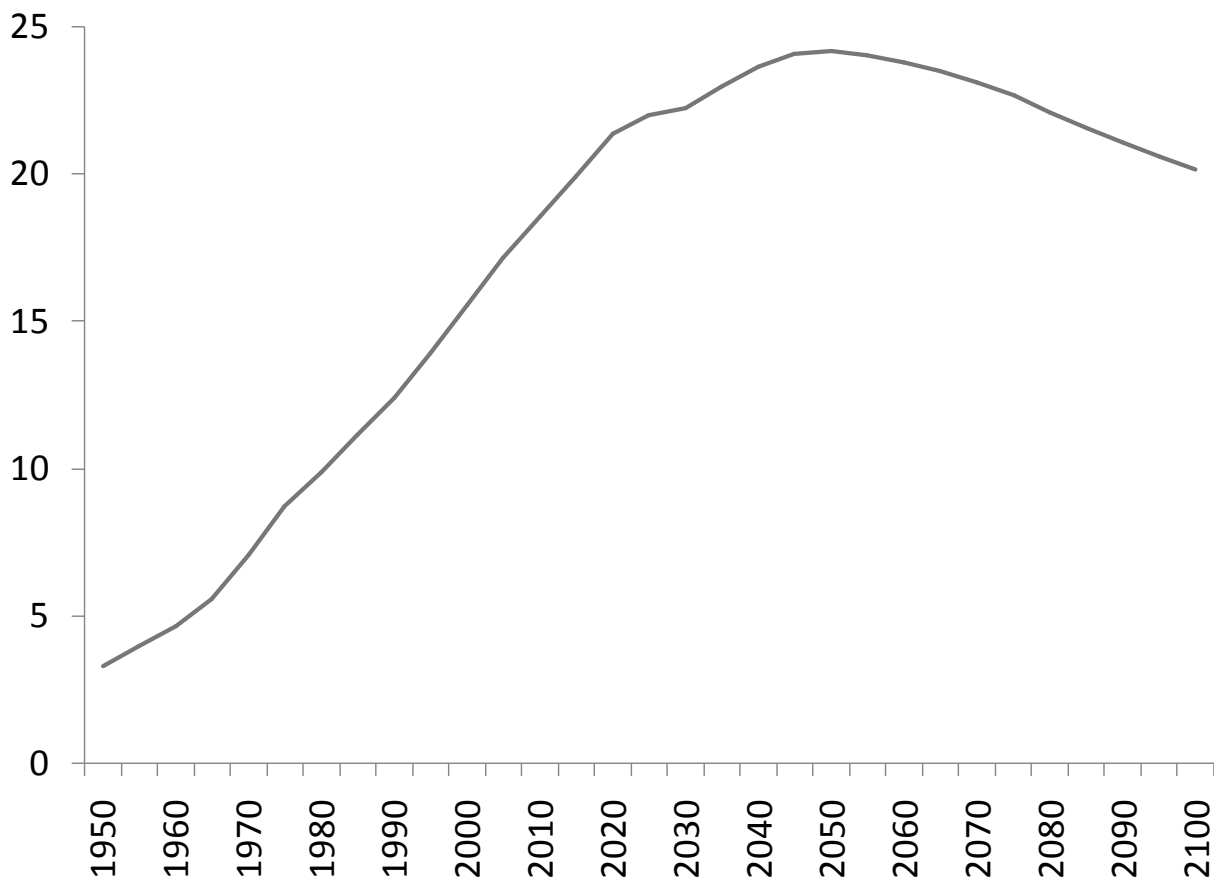
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Introduction

The Philippines has one of the youngest populations in the world. Filipinos aged 10 to 29 comprise approximately twenty percent of the total Philippine population.¹ The sheer number of young people in the Philippines is expected to grow substantially in the following decades due to the country's imminent youth bulge. According to the United Nations, the country is expected to reach its peak number of young people by around 2040-2050, roughly 25-30 years from the time of writing this study (see Figure 1). Providing all these young people with employment and economic opportunities will be a key policy challenge for decades to come.

Figure 1. Philippine Youth (Aged 15-24), 1950-2100



Source: UN Population Division (World Population Prospects: The 2010 Revision)

¹ See 2010 Philippine National Census.

Unemployment among Philippine youth is approximately 16%, twice that of the national unemployment rate.² This number masks an even larger employment and opportunity gap since it is widely known that millions more are underemployed (i.e. employed but want to work more) or are among the multitude of discouraged workers (i.e. those who are no longer looking for work and may be in the informal sector). In the face of weak employment growth the ranks of the unemployed and underemployed could swell in the coming years with young people entering the labor force. It is imperative that more jobs are created and more entrepreneurship encouraged in order to spur economic development that is inclusive for the vast majority of the youth.

Generating enough jobs is only part of the challenge. Analysts recently point to the persistent mismatches in the Philippine labor market. Jobs are available in some sectors, but young workers are not properly skilled to take on these opportunities.³ While many Philippine youth lack skills, there are also many who obtained skills that are largely incompatible with the opportunities offered in the Philippine economy. Why would young people choose skills that poorly fit the domestic job market?

Various factors could influence education and skill building decisions. Our hypothesis is that they may be heavily influenced by the lure of foreign employment opportunities, transmitted through strong social networks and connections with friends and relatives abroad, and also further amplified by continued integration of international (regional) labor markets. These factors may not always facilitate a strong jobs-skills match, particularly if there are market imperfections. For instance, anecdotal evidence suggests that upwards of 1 million nurses are unemployed in the Philippines at the time of writing this study, a phenomenon that follows the global economic slowdown (and subsequent tighter foreign health labor markets) in 2009-2010. More broadly, it is possible that a large number of young people are responding to foreign labor market signals, in order to increase their chances for successful migration, to the detriment of their ability to acquire employment opportunities in the Philippines itself.

Migration and overseas deployment statistics cohere with the hypothesis above. Data from the Commission on Filipinos Overseas (CFO) reveal that the number of registered

² Data from the Philippine Department of Labor and Employment (DOLE) Unemployment rate, Department of Labor and Employment. Unemployment rate, Department of Labor and Employment. Unemployment rate, Department of Labor and Employment. Unemployment rate, Department of Labor and Employment. Unemployment rate, Department of Labor and Employment. Unemployment rate, Department of Labor and Employment..

³ Evidence reveals that increased investments in education and training has not translated to increases in the skills sought after by emerging markets. There is a recognizable under-subscription in courses that offer in-demand skills and an over-supply of graduates with skills for saturated markets.

emigrants has grown from 57,720 in 2002 to 83,640 in 2012, an increase of 45%. Filipinos with college level education comprised almost half of the total emigrant population in the past decade. Data from the Philippine Overseas Employment Agency (POEA) reveal that the number of Overseas Filipino Workers (OFWs) has grown by 56% from 1,077,623 in 2007 to 1,687,831 in 2012. A substantial proportion of these OFWs are educated and skilled workers such as professional nurses, electrical technicians, and seafarers. Further regional integration with the creation of the ASEAN Economic Community in 2015 is also widely expected to further expand opportunities for Philippine professionals in the regional labor market.⁴

Better understanding the motivations that compel young Filipinos to migrate would be a critical first step for crafting effective policy responses. Anemic domestic economic opportunities combined with the lure of foreign labor markets (and subsequent strong migrant community networks which help lower information challenges that previously may have been much more pronounced) are among the factors that are likely to influence the education, employment, and migration decisions of young Filipinos. This study hopes to contribute to this enhanced understanding; and in what follows, section 1 provides a brief review of relevant literature, while section 2 discusses the methodology of the Pinoy Youth Barometer survey which forms the basis of the analysis herein. Section 3 concludes with a synthesis of the key findings of this study.

II. Review of Related Literature

Economic, sociological, anthropological, psychological, political and other factors influence migration decisions (Ciarniene & Kumpikaite 2011). This section briefly reviews the relevant theory and evidence behind these key factors.

Cost-benefit calculus. The Neoclassical economic theory of migration formulates the decision to migrate on a calculation of all of the costs and benefits (Sjaastad 1962), pecuniary and non-pecuniary costs, associated with migration. The “push” and “pull” factors that influence the migration decision are linked to the imbalances in the number of economic opportunities in the origin country and the host country.

⁴ Members of the ASEAN have agreed to establish an ASEAN Economic Community by 2015. Subsumed within this initiative is the pursuit of freer skilled labor mobility.

The inability of the labor market to absorb new graduates could result in excess labor, decreased wages, and increased emigration. According to the theory of the reservation wage⁵, the optimal strategy of an individual is to accept a job offer if it is equal to or exceeds his or her reservation wage. If the prevailing market wage is lower than the reservation wage of an individual, that individual is expected to drop out of that labor market or seek an alternative labor market (i.e. go abroad). Depressed wages resulting from an oversupply of labor could thus be expected to encourage or even induce migration among unemployed individuals. Alternatively, the recognition of low market wages could prompt students to pursue courses that would provide them skills that are sought after in labor markets abroad.

Hirschman (1970) adds a political dimension, noting how members of a nation who are dissatisfied with the government can either communicate their grievances through complaints, protests, or more active participation in the democratic processes (if possible), or withdraw from the relationship through emigration. Increases in the costs of communicating grievances or decreases in the costs of emigrating would thus prompt rational economic agents to migrate. An individual's level of satisfaction or dissatisfaction with the government as well as the availability of cost-effective means of communicating sociopolitical grievances would thus be expected to influence his or her migration decision.

In addition, among the non-pecuniary costs of migration, psychic costs represent the totality of the psychological burden of leaving familiar surroundings and social structures (Eisenbruch 1990) and adapting to a new culture and language (Constant & Massey 2003). Adopting a new lifestyle and adjusting to a new set of social mores and conventions can prove difficult especially if the migrant neither has the time nor the luxury to properly adapt to the culture of the host country (Becerra & Gurrola 2010). The fear of losing one's cultural identity through acculturation is also part of the psychic costs of migration (Bhugra & Ayonrinde 2004). This fear is compounded by the fear of societal rejection or outright discrimination of minorities (Dion & Kawakami 1996). Migrants who belong to minorities typically have weaker social support systems and more limited political representation in the host country. Moreover, Deaton,

⁵ The reservation wage is defined as the lowest wage that will induce a potential employee to accept a job offer. As noted in the literature, job-search is often a complex process whereby various factors (including better prospects in expanded labor markets) could influence employment decisions. See among others, seminal work by Kiefer and Neumann (1979), and more recently, Jones (1988).

Morgan, and Anschel (1982) indicate that the monetary equivalent of the psychic costs of migration can be substantial or even prohibitive.

Psychic costs may vary across individuals from the same host country or culture. Prevailing social, religious, and cultural mores and traditions can influence the decision of men and women to migrate differently. For example, in countries where the independent migration of women is frowned upon, women are less likely to migrate (Van Dalen, et al. 2005). The existence and observance of traditional gender roles that prescribe women to stay at home impose additional costs to female migration. Alternatively, social and religious pressures could compel people to migrate. Carillo (2004) defines sexual migration as international relocation motivated, directly or indirectly, by the sexuality of the migrant. Religious intolerance, severe gender inequities and inequalities, and societal persecution could serve as particularly persuasive incentives to migrate.

Geographic mobility and integrating labor markets. Enhanced geographic mobility in the midst of persistent education-job mismatches can be argued to increase the propensity to migrate (Hensen, et al. 2009). Freer access to larger inter-regional labor markets or even the global labor market reduces the likelihood of graduates working at jobs below their level of education and jobs outside of their respective fields of specialization. Enhanced geographic mobility or spatial flexibility thus offers graduates more opportunities to fully realize the expected returns from education. The resulting higher expected returns from employment abroad, in turn, encourages migration. Box 1 contains a discussion of how regional integration and expanded labor markets—such as that implied by the ASEAN Economic Community—could contribute to the lure of migration.

Box 1. ASEAN Economic Community 2015

In 2007, members of the ASEAN pledged to develop the ASEAN Economic Community (AEC) by 2015. The AEC is envisioned to be a highly competitive economic region that would be fully integrated into the global economy. The primary goals of the AEC include promoting equitable regional socioeconomic development across the Southeast Asian region and developing a globally competitive ASEAN market and production base. In order to achieve these goals, the AEC has to have the capacity to transform Southeast Asia into a region with freer movement of goods, capital, investments, and skilled labor.

Data from the Global Trade Analysis Project (GTAP) reveal that less than ten percent of Filipino migrants immigrate to countries within the ASEAN region. The emergence of an ASEAN interregional migration framework that enhances the mobility of skilled labor could be expected to increase the migration of Filipino professionals to other member countries of the ASEAN. Enhanced labor mobility increases the propensity to migrate by reducing the costs of migration (or increasing the net benefits associated with migration). Moreover, the increased deployment of skilled Filipino workers, including OFWs, in the ASEAN region could lead to the development of more expansive and sophisticated migrant networks that would, in turn, facilitate future migration flows from the Philippines. It is thus easy to intuit that the establishment of the AEC could intensify the factors that have been observed to influence the intention to migrate.

The increase in the propensity to migrate can also be motivated by the desire of skilled Filipino professionals to find more appropriate education-job matches. In principle, greater economic mobility would be expected to increase the likelihood of finding more appropriate education-job matches for skilled Filipino professionals. Access to a larger regional labor market would afford Filipino professionals a wider array of employment opportunities. In the absence of employment opportunities in the Philippines, Filipino professionals, those who are counted among the best and brightest, would be expected to migrate, and the flow of migration from the Philippines is expected to increase. The resulting exacerbation of the brain-drain represents a daunting challenge to the Philippine development agenda.

It is, however, important to note that enhanced geographic mobility does not guarantee perfect education-job matches. Immigrants face numerous challenges in finding employment, especially in particularly competitive fields (Galarneau & Morissette 2004) challenges include the non-recognition of credentials, educational level, or experience of immigrants from developing countries and racial biases. As a result, a considerable number of skilled immigrants, especially from developing countries, are forced to accept education-job mismatches abroad.

The emigration of skilled workers could stymie efforts to accumulate the critical mass of human capital necessary for the emergence of high value-added production chains that require skilled labor. The absence of high value-added production chains in the domestic economy, in turn, would make it difficult for skilled graduates to find education-job matches in the domestic labor market. More specifically, the absence of highly specialized scientific research facilities in the Philippines would compel graduates of courses steeped in the Sciences to seek employment elsewhere. The expected result would again be an increase in the propensity to migrate.

Migrant networks. The hypothesis of “chain migration”(Price 1963)suggests that migrants increase the likelihood of the migration of their relatives and friends through the reduction of some of the costs associated with migration. Successful migrants accumulate social capital in the form of relationships, knowledge, and skills that help their relatives and friends migrate (Douglas, et al. 2002). The cultivation of more expansive familial and community networks by migrants may help to increase the propensity to migrate of their relatives and friends (Winters, et al. 2001). The presence of these networks reduces both the pecuniary and psychic costs associated with migration through the provision of lodging, employment advice, and social support systems to new migrants. These networks might also help to mitigate market imperfections—including information asymmetries—that once characterized poorly integrated international labor markets.

Relatives and friends in migrant destination countries could help mitigate information problems that prospective migrants face by providing information on job opportunities as well as assistance in capitalizing on these job opportunities. The presence of these social support structures may tend to lower uncertainty associated with migration and also, eventually, make it easier for migrants to acculturate and acclimate themselves to their new environment. Furthermore, evidence suggests that denser migrant networks translate to stronger and more influential migrant networks (Kelly 2006). In Canada for example, Filipino representation in municipal and provincial government is more strongly observed in Winnipeg where the Philippine population is particularly concentrated.

Empirical studies have been conducted to analyze the factors associated with an individual’s intention to migrate. For instance, Papapanagos and Sanfey (2001) investigated migration intentions in Albania using observations from the Central and Eastern Europe Eurobarometer survey in 1992. Ordered probit method⁶ was utilized to estimate the results which show that being a male with a high level of educational attainment are among the factors associated with the intention to migrate. On the other hand, the results do not show a clear relationship between respondents’ income and their intention to migrate to Western Europe, which the authors attributed to the contrasting effects of lucrative opportunities abroad and costs

⁶ Respondents were asked on their intention to migrate to Western Europe and the set of possible responses ranged from 1 (definitely not), 2 (probably not), 3 (probably) and 4 (definitely).

associated with migration. Lastly, those who believe that free market is appropriate for Albania (a former communist country in Eastern Europe) demonstrated a higher intention to migrate.

Similarly, Becerra et al (2010) examined the migration intentions of Mexican adolescents, using data from a 2009 survey of 980 young people in Tijuana, Mexico. Being a female and the perceived discrimination of immigrants in the United States were among the factors associated with lower intentions to migrate. Also, the educational attainment of the participant's father was associated with a lower intention to migrate. In this case, the authors cited the significantly low proportion of college graduates in Mexico which makes returns to schooling in Mexico (in terms of increase in wages associated with higher level of schooling) possibly higher than in the United States. This in turn can affect the perceived returns to higher education in Mexico.

On the other hand, Van Dalen, Gronewold and Fokkema (2005) examined the impact of receiving remittances on the migration intentions of adult members of households with migrants in the case of Egypt, Morocco and Turkey. Results estimated using the logistic regression method showed that receiving remittances is associated with a higher likelihood of having an intention to migrate. In turn this might indicate the possibility that remittances can be interpreted by household members left behind as a success indicator on the part of the migrant household member, thereby encouraging the former to also migrate.

Ivlevs and King (2012) utilized ordered probit regression in estimating results from data collected on a sample of Latvian individuals aged 17-64 years old. The study found that while first-generation migrants and third-generation migrants are less likely to have an intention to migrate, being a second-generation migrant is associated with a higher likelihood of having an intention to migrate. A hypothesis posited by the authors pertains to the possible satisfaction on the part of the first generation migrants on the status quo and the costs associated with another migration, both of which would deter them to migrate again; and the decadence of migration capital (i.e., benefits that a potential migrant can utilize from having a migrant relative in case he/she pursues a plan to migrate) through time and over generations.

Lastly, Epstein and Gang (2006) examined how the presence of relatives and friends abroad and the presence of relatives and friends in the home country who intend to go abroad affect the intention to migrate in the case of Hungary. The authors utilized probit analysis in estimating results from data collected on a sample of 20 to 60 year old individuals in 1994. They

found evidence that while the presence of relatives and friends abroad and the presence of relatives and friends in Hungary who plan to migrate are associated with higher likelihood of having plans to migrate, the associated likelihood of having plans to migrate is higher for those who have friends and relatives in Hungary who intend to go abroad as opposed to those who have relatives and friends who are already abroad. The authors attributed the observed result on the stronger presence of a herd effect (in which a person is motivated to migrate if he has an acquaintance that will also migrate) rather than a network effect.

Taken together, the literature suggests that push and pull elements—with social networks and integrating labor markets playing particularly important roles—are among the key factors that influence migration decisions and/or intentions. These help to inform the empirical methodology deployed in this paper, to which we turn to next.

II. Data and Methodology

The data used in this paper draws from the Pinoy Youth Barometer Survey, an initiative gathering information from approximately 2500 young people on education, employment, and migration decisions and intentions. The survey was implemented in twelve campuses across the Philippines. Seven of the schools are privately funded while five are publicly funded. The survey involved both college and high school students. The college sample contained approximately 200 randomly selected students from each campus while the high school sample contained approximately 100 randomly selected students from each campus with a High School.

The survey instrument was designed to collect information on student perceptions and intentions as efficiently as possible; and it was comprised of mostly objective questions. Open-ended questions were included only when absolutely necessary to ensure that the quality of the responses would not be compromised. The questionnaire was subdivided into several sections. First, the education subsection attempted to glean information on the academic competitiveness and post-graduate prospects of students. Second, the employment subsection asked students about their confidence regarding the availability of employment here and abroad as well as the competitiveness of their course in the labor market. Third, the migration subsection was designed to identify the factors that would motivate a student to migrate as well as the factors that would motivate a student to stay in the Philippines. Finally, the happiness subsection measured the

subjective well-being of a student through the use of a series of Likert-scale questions.⁷ The government performance subsection measured the level of satisfaction of students with selected government officials and national government agencies.

Methodology

This study utilized a Logistic regression model given that the dependent variable (the intention of a student to migrate) is a binary variable, and based on the standard approach in the empirical literature on migration intentions. The dependent variable is the response to the survey question “Do you plan to migrate after graduating?” wherein the response of a student with no intentions to migrate is coded as “0” while the response of a student who intends to migrate is coded as “1”.

A logistic regression model predicts the likelihood of the dependent variable happening as opposed to a specific value response predicted by typical regression models (Tranmer & Elliot 2008). The model measures the changes in the likelihood of a student planning to migrate effected by the chosen independent variables. The coefficients generated from the logistic regression model, however, are more difficult to interpret than the coefficients generated from ordinary least squares regression models. The analysis will thus revolve around odds ratios, or put simply, the relative odds of an event occurring between two mutually exclusive groups.

Earlier empirical studies examine migration intentions and identify certain push and pull factors behind these intentions to migrate. Parkins (2010) qualitatively examined the push and pull factors for Jamaican migrants. The lack of job opportunities in their home country and the perception of better opportunities abroad were identified as push factors; and economic stability and skill-job compatibility were identified as pull factors. Van Dalen, Groenewold, and Schoorl (2005) identified the important influence of social networks in a migrant’s intention to leave, particularly if he or she has had a household member who was a migrant. They also discovered that the expectation of financial success in the destination country is a strong push factor, especially among young males. Makni (2011) empirically tries to determine the characteristics of the potential student migrant in Bulgaria, and her results show that students who do not expect to find adequate jobs in their home country, who have family members abroad, and who have migration experience, are more likely to want to migrate. Lastly, Van Dalen, Groenewold, and Fokkema (2005) find that receiving remittances is associated with a higher likelihood to migrate.

⁷ For further information on the Likert-scale, see for example, Frey et al (2000).

Table 1 provides a list of the key variables utilized in the empirical analysis as possible explanatory factors behind migration intentions.

Descriptive Statistics

The descriptive statistics generated from the dataset reveal the proportions of affirmative responses for the model's chosen variables with respect to gender, type of school and region. Looking at the proportion of affirmative responses by gender, there is little difference when comparing the confidence of both males and females in finding a job related to their respective degrees in the Philippines; but when it comes to finding a job related to their degrees abroad, males are more confident (70.10% vs. 65.38%). Though they are less confident in finding a job related to their degrees abroad, females appear more flexible with their employment prospects. A greater proportion of those sampled are willing to get a job unrelated to their degrees abroad (61.90% vs. 57.57%), a greater proportion desire to start their own businesses (86.69% vs. 81.04%), and a greater proportion are more willing to undergo vocational training should they find themselves unemployed (55.10% vs. 49.75%). More females report being encouraged to migrate by their friends in the Philippines (33.77% vs. 28.00%); and lastly, more males report having witnessed cheating in elections. 30.99% vs. 21.18% of males and females respectively report witnessing cheating in national elections.

While roughly 3 out of 10 public school students report plans of migrating, 4 out of 10 private school students report that they plan to migrate (32.93% vs. 43.35%). Both public and private school students report a similar level of confidence in finding a job domestically, but private school students are more confident about finding a job abroad related to their degrees (72.89% vs. 58.02%). This could be interpreted as an initial sign of how much more competitive their training (and therefore their employment prospects) could be.

Table 1: List of Independent Variables

Independent Variable	Value Descriptions	Expected Link with Migration Intention
<i>PUSH FACTORS</i>		
NATURAL LOG OF WEEKLY ALLOWANCE		Weekly allowance is treated as a proxy for household income. It serves as a means to gauge the economic status of the household that the student belongs to. Anemic economic opportunities, and/or relatively lower wage and economic advancement prospects in the home country could translate to a higher propensity to migrate.
CONFIDENCE IN FINDING DOMESTIC EMPLOYMENT RELATED TO DEGREE	(1) Confident (0) Not Confident	The confidence of a student in finding employment that is related to his or her degree in the Philippines is taken as a means to gauge the perceived returns of domestic employment gleaned from his or her educational degree. If a student is confident in finding domestic employment then he or she will be expected to be less likely to migrate.
CONFIDENCE IN FINDING EMPLOYMENT ABROAD RELATED TO DEGREE	(1) Confident (0) Not Confident	The confidence of a student in finding employment related to his or her degree abroad would be expected to increase the likelihood of migration. If a student is confident in his or her chances of finding preferred employment abroad, then the perceived returns from employment abroad gleaned from education will be higher.
WITNESSED CHEATING IN NATIONAL ELECTIONS	(1) Witnessed cheating in national elections (0) Did not witness cheating in national elections	Witnessing cheating in national elections or witnessing cheating in local elections would be expected to increase the propensity to migrate. The recognition of structural problems in democratic processes would increase the perceived costs associated with communicating grievances and effecting changes in the manner in which the government conducts itself (the “voice” option). This increase in costs, in turn, makes emigration (the “exit option”) a relatively cheaper option.
WITNESSED CHEATING IN LOCAL ELECTIONS	(1) Witnessed cheating in local elections (0) Did not witness cheating in local elections	
PRESENCE OF RELATIVES HERE WHO ENCOURAGE MIGRATION	(1) With relatives here encouraging migration (0) With no relatives here encouraging migration	The presence of relatives in the Philippines who encourage migration and the presence of friends in the Philippines who encourage migration are treated as push factors for migration. These push factors emphasize the opportunities gap that exists between the home country and the host country.
PRESENCE OF FRIENDS HERE WHO ENCOURAGE MIGRATION	(1) With friends here encouraging migration (0) With no friends here encouraging migration	

PULL FACTORS		
PRESENCE OF RELATIVES ABROAD WHO ENCOURAGE MIGRATION	(1) With relatives abroad encouraging migration (0) With no relatives abroad encouraging migration	The presence of relatives abroad who encourage migration, the presence of friends abroad who encourage migration, and the receiving of remittances are treated as pull factors for migration. These pull factors emphasize the opportunities gap that exists between the home country and the host country. The presence of relatives and friends abroad would serve to reduce the costs associated with migration by providing would-be migrants lodging and access to community networks that could prove invaluable for finding employment and easing the acculturation process.
FAMILY RECEIVES REMITTANCES	(1) Student's family receives remittances (0) Student's family does not receive remittances	
PRESENCE OF FRIENDS ABROAD WHO ENCOURAGE MIGRATION	(1) With friends abroad encouraging migration (0) With no friends abroad encouraging migration	

MITIGATING FACTORS		
WILLINGNESS TO TAKE A DOMESTIC JOB UNRELATED TO DEGREE	(1) Willing (0) Not Willing	The willingness of a student to take a domestic job unrelated to his or her degree is used to gauge a student's capacity to adjust his or her expectations with regards to the domestic labor market. It is treated as a measure of the flexibility of a student in looking for employment. A willingness to accept a domestic job unrelated to one's degree would be expected to translate to a lower propensity to migrate. Greater flexibility affords a student greater chances of employment and thus increases the associated perceived returns to education in the domestic labor market.
WILLINGNESS TO TAKE A JOB ABROAD UNRELATED TO DEGREE	(1) Willing (0) Not Willing	A student willing to take a job abroad unrelated to his or her degree would be expected to translate to a higher propensity to migrate. Greater flexibility affords a student greater chances of employment and thus increases the associated perceived returns to an education abroad.
WILLINGNESS TO UNDERGO VOCATIONAL TRAINING DUE TO UNEMPLOYMENT	(1) Willing (0) Not Willing	The willingness of a student to undergo vocational training is used to gauge a student's capacity to adjust his or her expectations with regards to the domestic labor market. It is treated as another measure of the flexibility of a student in looking for employment. A willingness to undergo vocational training would be expected to translate to a lower propensity to migrate. Again, greater flexibility affords a student greater chances of employment and thus increases the associated perceived returns to education.
DESIRE TO START OWN BUSINESS	(1) Wants to start own Business (0) Does not want to start own Business	The desire to start a business is treated as a proxy for initiative and entrepreneurship. A greater desire to start a business would be expected to translate to a higher propensity to migrate given the highly unequal distribution of wealth and opportunities in the Philippines as well as the inability of a large proportion of the Filipino population to access formal credit institutions for the necessary startup capital.

Source: Authors' Elaboration

Public school students are also more flexible regarding their employment prospects in the Philippines, as they are more willing to take a domestic job unrelated to their degrees (67.40% vs. 62.64%) and they are also more willing to undergo vocational training due to unemployment (61.39% vs. 47.87%). These might be interpreted as signs of greater flexibility, or perhaps their own recognition of potential skills mismatches, despite their degrees. Private school students also receive more encouragement to migrate from their relatives here in the Philippines (48.00% vs. 35.42%) and from their relatives abroad (45.35% vs. 34.88%) (see Table 2).

Comparing schools from different regions, the proportion of students from schools in Visayas and Mindanao (46.30%) who plan to migrate is greater than the proportion of students from Luzon who plan to migrate (36.32% from schools in NCR and 36.29% from schools not in NCR). A greater proportion of these students from Visayas and Mindanao report receiving remittances compared to the other students (45.15% vs. 39.47% of students in NCR and 33.26% of students outside of NCR). Students from NCR Luzon schools (71.16%) and students from schools in Visayas and Mindanao (75.51%) are more confident in finding a job abroad related to their degree compared to students from Luzon but are not from NCR (57.73%). As confident as they are about finding a job abroad related to their degrees, students from NCR Luzon are less willing to take a job abroad unrelated to their degree compared to the students from Visayas and Mindanao schools (55.39% vs. 67.49%).

Students from NCR Luzon are also less willing to undergo vocational training due to unemployment compared to students outside NCR (37.42% of students in NCR vs. 62.71% of students in Luzon outside of NCR and 55.97% of students in Visayas and Mindanao schools). Again, these are potential signs of how some students appear to demonstrate more confidence in their ability to secure employment, given their degree of choice, when compared to others. Even though they are given similar levels of educational investment, it is still possible that there are challenges faced by students from outside Manila (or from less competitive public schools) in attaining employment that fits well with their educational background.

Table 2: Descriptive Results per Variable (Proportion of Affirmative Answers)

	By Gender		By Type of School		By Region		
	MALE	FEMALE	PRIVATE	PUBLIC	Luzon Schools in NCR	Luzon Schools not in NCR	Visayas Mindanao Schools
PLANNING TO MIGRATE	38.99%	39.68%	43.35% *	32.93% *	36.32% *	36.29% *	46.30% *
CONFIDENT IN FINDING DOMESTIC EMPLOYMENT RELATED TO DEGREE	88.52%	88.66%	89.14%	87.62%	90.85%	87.48%	87.68%
WILLING TO TAKE A DOMESTIC JOB UNRELATED TO DEGREE	65.17%	64.03%	62.64% *	67.40% *	62.86%	64.88%	65.64%
CONFIDENT IN FINDING EMPLOYMENT ABROAD RELATED TO DEGREE	70.10% *	65.38% *	72.89% *	58.02% *	71.16% *	57.73% *	75.51% *
WILLING TO TAKE A JOB ABROAD UNRELATED TO DEGREE	57.57% *	61.90% *	61.08%	59.40%	55.39% *	58.86% *	67.49% *
WILLING TO UNDERGO VOCATIONAL TRAINING DUE TO UNEMPLOYMENT	49.75% *	55.10% *	47.87% *	61.39% *	37.42% *	62.71% *	55.97% *
DESIRES TO START OWN BUSINESS	81.04% *	86.69% *	83.98%	85.23%	82.56%	84.94%	85.71%
PRESENCE OF RELATIVES ABROAD WHO ENCOURAGE MIGRATION	40.68%	41.95%	45.35% *	34.88% *	46.95% *	37.55% *	41.19% *
FAMILY RECEIVES REMITTANCES	36.45%	40.29%	41.87% *	33.33% *	39.47% *	33.26% *	45.15% *
PRESENCE OF RELATIVES HERE WHO ENCOURAGE MIGRATION	41.95%	43.99%	48.00% *	35.42% *	47.94% *	37.72% *	45.62% *
PRESENCE OF FRIENDS HERE WHO ENCOURAGE MIGRATION	28.00% *	33.77% *	32.68%	30.27%	27.06% *	32.58% *	35.67% *
PRESENCE OF FRIENDS ABROAD WHO ENCOURAGE MIGRATION	35.01%	39.59%	37.30%	39.27%	35.67%	38.63%	39.37%
WITNESSED CHEATING IN NATIONAL ELECTIONS	30.99% *	21.18% *	25.79%	23.54%	25.28%	23.32%	26.70%
WITNESSED CHEATING L LOCAL ELECTIONS	37.21%	33.33%	35.14%	34.11%	32.81%	33.84%	37.91%

* Significant at $\alpha = 0.05$ (One-Tailed).

Students outside NCR in Luzon receive relatively less encouragement to migrate from their families in the Philippines and abroad compared to the other schools. 47.94% of students from NCR receive encouragement to migrate from their relatives in the Philippines and 46.95% of them receive encouragement to migrate from their relatives abroad. For the student in Visayas and Mindanao, 45.62% of them receive encouragement to migrate from their families in the Philippines, and 41.19% of them receive similar encouragement from their families abroad. This is in contrast to the students in Luzon but outside NCR, where only 37.72% of them receive encouragement to migrate from their relatives in the Philippines and only 37.55% of them receive encouragement from their relatives abroad. We interpret these results as part of the imbalanced economic growth and job generation dynamics within the Philippines, with investments heavily favoring Luzon and its major urban centers.

Empirical Results

Table 3 synthesizes the main results of an empirical analysis of the push, pull, and mitigating factors that may influence migration intentions. This allows for a more formal empirical assessment across these different factors. In order to provide more intuitive results, we also create a baseline student to which we compare each factor based on an odds comparison. This allows us to identify the difference in the odds ratio on the margin, when we focus on each of the push and pull factors for migration. Table 4 outlines the baseline student, which serves as the basis for this comparison.

Table 3: Results of the Logit regression (Dependent variable: Intention to Migrate)

VARIABLE	ODDS RATIO	STD ERROR	LOGIT COEFFICIENT	STD ERROR	Z	P-VALUE
<i>PUSH FACTORS</i>						
NATURAL LOG OF WEEKLY ALLOWANCE	.8574457	.0664955	-.1537974	.0775507	-1.98	0.047**
BELONGING TO A PUBLIC SCHOOL	.7469879	.0957961	-.2917063	.1282432	-2.27	0.023**
CONFIDENCE IN FINDING DOMESTIC EMPLOYMENT RELATED TO DEGREE	.6240202	.1139986	-.4715726	.1826841	-2.58	0.010**
CONFIDENCE IN FINDING EMPLOYMENT ABROAD RELATED TO DEGREE	1.331985	.1724503	.2866701	.1294687	2.21	0.027**
PRESENCE OF RELATIVES HERE WHO ENCOURAGE MIGRATION	2.350265	.3176982	.8545282	.1351755	6.32	0.000***

PRESENCE OF FRIENDS HERE WHO ENCOURAGE MIGRATION	1.734401	.2414536	.5506619	.1392144	3.96	0.000***
WITNESSED CHEATING IN NATIONAL ELECTIONS	.8528448	.1356152	-.1591777	.1590151	-1.00	0.317
WITNESSED CHEATING IN LOCAL ELECTIONS	1.354539	.19389	.303461	.143141	2.12	0.034**
PULL FACTORS						
PRESENCE OF RELATIVES ABROAD WHO ENCOURAGE MIGRATION	1.669911	.2395238	.5127706	.143435	3.57	0.000***
FAMILY RECEIVES REMITTANCES	1.197806	.1617077	.1804913	.1350033	1.34	0.181
PRESENCE OF FRIENDS ABROAD WHO ENCOURAGE MIGRATION	1.725554	.2665456	.5455479	.1544696	3.53	0.000***
MITIGATING FACTORS						
COMPARISON OF ACADEMIC PERFORMANCE WITH PEERS	1.297322	.1522062	.2603022	.1173234	2.22	0.027**
WILLINGNESS TO TAKE A DOMESTIC JOB UNRELATED TO DEGREE	.7917042	.1092279	-.2335675	.1379655	-1.69	0.090*
WILLINGNESS TO TAKE A JOB ABROAD UNRELATED TO DEGREE	1.408624	.1915184	.3426134	.1359613	2.52	0.012**
WILLINGNESS TO UNDERGO VOCATIONAL TRAINING DUE TO UNEMPLOYMENT	.8961806	.1087609	-.1096134	.1213604	-0.90	0.366
DESIRE TO START OWN BUSINESS	1.418411	.2340511	.3495369	.1650094	2.12	0.034**
CONSTANT	.5473216	.3132443	-.6027188	.5723223	-1.05	0.292

Table 4: Characteristics of Baseline Student for Odds Comparison

1. Studies in a private school.	9. Does <i>not</i> have relatives abroad who encourage migration.
2. Does <i>not</i> compare academic performance with peers.	10. Does <i>not</i> have friends abroad who encourage migration.
3. Is <i>not</i> confident in finding domestic employment related to degree of specialization.	11. Does <i>not</i> have relatives here who encourage migration.
4. Is <i>not</i> confident in finding employment abroad related to degree of specialization.	12. Does <i>not</i> have friends here who encourage migration
5. Is <i>not</i> willing to take a job in the Philippines unrelated to degree.	13. Does <i>not</i> belong to a family that receives remittances.
6. Is <i>not</i> willing to take a job abroad unrelated to degree.	14. Did <i>not</i> witness cheating in national elections.
7. Is <i>not</i> willing to undergo vocational training.	15. Did <i>not</i> witness cheating in local elections.
8. Does <i>not</i> desire to start a new business.	

To provide a useful summary, the following point-by-point description shows the increase in the odds ratio when analyzing each of the factors and comparing this to the baseline student:

1. A student who is from a public school is 0.75 times less likely to have an intention to migrate compared to the baseline student. *25% reduction in baseline likelihood.*
2. A student who compares his or her performance with his or her peers is 1.30 times more likely to have an intention to migrate compared to the baseline student. *30% increase in baseline likelihood.*
3. A student who is confident in finding domestic employment related to his or her degree of specialization is 0.62 times less likely to have an intention to migrate compared to the baseline student. *38% reduction in baseline likelihood.*
4. A student who is confident in finding employment abroad related to his or her degree of specialization is 1.33 times more likely to have an intention to migrate compared to the baseline student. *33% reduction in baseline likelihood.*
5. A student who is willing to take a job in the Philippines unrelated to his or her degree is 0.79 times less likely to have an intention to migrate compared to the baseline student. *21% reduction in baseline likelihood.*
6. A student who is willing to take a job abroad unrelated to his or her degree is 1.40 times more likely to have an intention to migrate compared to the baseline student. *40% increase in baseline likelihood.*
7. A student who is willing to take vocational training unrelated to his or her degree is 0.9 times more likely to have an intention to migrate compared to the baseline student. *10% reduction in baseline likelihood.⁸*
8. A student who desires to start a new business is 1.42 times more likely to have an intention to migrate compared to the baseline student. *42% increase in baseline likelihood.*
9. A student with relatives abroad who encourage migration is 1.67 times more likely to have an intention to migrate compared to the baseline student. *67% increase in baseline likelihood.*

⁸ Nevertheless, this factor is not statistically significant in our regression analysis.

10. A student with friends abroad who encourage migration is 1.72 times more likely to have an intention to migrate compared to the baseline student. *72% increase in baseline likelihood.*
11. A student with relatives in the Philippines who encourage migration is 2.35 times more likely to have an intention to migrate compared to the baseline student. *135% increase in baseline likelihood.*
12. A student with friends in the Philippines who encourage migration is 1.73 times more likely to have an intention to migrate compared to the baseline student. *73% increase in baseline likelihood.*
13. A student who belongs to a family that receives remittances is 1.2 times more likely to have an intention to migrate compared to the baseline student. *20% increase in baseline likelihood.*⁹
14. A student who witnessed cheating in national elections is 0.85 times less likely to have an intention to migrate compared to the baseline student. *15% reduction in baseline likelihood.*¹⁰
15. A student who witnessed cheating in local elections is 1.35 times more likely to have an intention to migrate compared to the baseline student. *35% increase in baseline likelihood.*

A student, therefore, who has relatives and friends abroad who encourage migration (see 9 and 10) as well as relatives and friends in the Philippines who encourage migration (see 11 and 12) is 11.75 times more likely to have an intention to migrate compared to the baseline student. Moreover, a student who possesses the aforementioned characteristics who also witnessed cheating in local elections (see 15) is 15.91 times more likely to have an intention to migrate compared to the baseline student. Our regression results largely confirm the empirical literature as regards factors behind migration intentions.

- **Income.** Consistent with the hypothesis presented earlier, lower weekly allowance (a proxy for income) is linked to having a greater intention to migrate. The results indicate that this relationship is statistically significant.

⁹ This is not statistically significant in our regression analysis.

¹⁰ This is not statistically significant in our regression analysis.

- **Public School.** The results indicate that a student from a public school is less likely to have intentions to migrate compared to a student from a private school. It is possible that public school students are compelled to stay by their desire to repay (through their service and taxes) the government and taxpayers for their undergraduate education.
- **Remittance Receipts.** Students from families that receive remittances are more likely to have intentions to migrate compared to those who belong to families that do not receive remittances. The results, however, are not statistically significant. The direction of the relationship is consistent with the findings of Van Dalen, Gronewold and Fokkema (2005). Students who belong to families that receive remittances observe first hand that remittances afford their respective households higher levels of consumption and relax liquidity constraints for household-level investments. The act of remitting could also be viewed by the student as a means of lowering both the projected pecuniary and perceived psychic costs of migration.
- **Migrant Networks.** The presence of relatives and friends abroad who encourage migration are treated as pull factors for migration. On the other hand, the presence of relatives and friends in the Philippines who encourage migration are treated as push factors for migration. Both the presence of relatives and friends abroad who encourage migration are associated with a higher likelihood of having an intention to migrate. Relatives and friends abroad can increase the propensity to migrate by: (1) helping to emphasize (either directly or indirectly) the disparity in economic opportunities between the home country and the destination country; and (2) helping to entice potential migrants with the (implicit or explicit) promise of assistance in the migration and acculturation processes. These results cohere with the Chain Migration hypothesis of Price (2001). The presence of relatives and friends in the Philippines who encourage migration are also both associated with a higher likelihood of having an intention to migrate. Those who have relatives in the Philippines who encourage migration are 2.32 times more likely to have intentions to migrate than those who do not have relatives in the Philippines who encourage them to migrate. The presence of relatives in the Philippines who encourage migration appears to exert a stronger influence on the decision to migrate than the presence of relatives abroad who encourage migration. This stronger observed effect could be attributed to the interplay between the needs of the household and the

recognition of the student of his or her greater role in the household upon graduation. It is possible that encouragement from family members at home exerts a stronger effect on the migration decision than encouragement from family members abroad because it is subsumed within the context of familial responsibility.¹¹ Similarly, those who have friends in the Philippines who encourage migration are 1.67 times more likely to migrate than those who do not have. This result can be viewed as herd behavior— persons are motivated to migrate if he or she has an acquaintance that also intends to migrate (Epstein & Gang 2006).

- **Political Factors.** Students that witnessed cheating in local elections are 1.29 times more likely to have an intention to migrate than those who have not witnessed cheating first hand. The said result is statistically significant at 10%. This is in line with the framework of Albert Hirschman, who posited that the recognition of structural problems in democratic processes, such as the lack of credibility in local elections, would increase the perceived costs associated with communicating grievances and effecting changes in the manner in which the government conducts itself (the “voice” option). This increase in costs, in turn, makes emigration (the “exit option”) a relatively cheaper option. In contrast to the result observed for those who witnessed cheating in the local elections, the observation of cheating in national elections has no significant association with the intention of a student to migrate. Perhaps this reflects the stronger influence of the local governance environment on migration decisions.
- **Entrepreneurship.** Those who indicated a desire to start a business are 1.59 times more likely to have an intention to migrate than those who do not. Banerjee and Newman (1993) argued that the presence of imperfections in the capital market deters poorer economic agents from being self-employed. In this case, migration can be a tool through which an agent can accumulate savings which in turn can be used to overcome the lack of

¹¹ A study by Battistella, G. and Conaco, M. C. G. (1998) The impact of labour migration on the children left behind: A study of elementary school children in the philippines. *SOJOURN: Journal of Social Issues in Southeast Asia*, 220-241. revealed that Filipino children exhibited an understanding of the economic motivations behind the migration of their parent(s). Given that the relationships that exist within Filipino families are built upon systems of responsibilities and privileges, Filipino children, especially those who belong to families with migrants, would recognize the value of migration to their respective families’ economic welfare.

access to credit in the home country and establish a business upon his or her return¹². Alternatively, the recognition or the belief in the existence of an unfair business environment can prompt enterprising youths to seek better employment and entrepreneurship opportunities outside of the Philippines.

- **Academic Competitiveness.** A student who compares his or her academic performance with his or her peers is 1.3 times more likely to have an intention to migrate when compared to a student who does not compare his or her academic performance with his or her peers. It is possible that more competitive students are also the same people with the requisite skills and innate competitiveness drive to explore entry into more competitive labor markets abroad.
- **Other results.** Confidence in finding employment abroad related to one's degree and willingness to work abroad in an unrelated degree are both associated with a higher likelihood of having an intention to migrate. This clarifies that young people who intend to migrate also already consider the reality of job-skill mismatches abroad. On the other hand, more confidence in finding employment in the Philippines related to one's degree is associated with a lower likelihood of having an intention to migrate. Students who are confident in finding domestic (overseas) employment would have higher perceived returns to schooling because they assign a higher probability to finding gainful domestic (overseas) employment¹³. The willingness to take a domestic job unrelated to one's degree and the willingness to undergo vocational training due to unemployment are both associated with a lower likelihood of having an intention to migrate, although the observed coefficients are not statistically significant.

¹²Mesnard (2000) utilized probit analysis in estimating results from a sample of Tunisian male workers aged 20 to 60 years old. The empirical results show that in the case of workers who have worked abroad, accumulation of savings is associated with a higher likelihood of establishing his own business. On the other hand, an empirical study by Wahba and Zenou (2012) serves to support the claim that migration can increase the potential of a person to be an entrepreneur. The authors utilized a bivariate probit analysis using data from Egypt and their results showed that returning migrants have higher likelihood of establishing their own business, after controlling for the potential loss of social capital at the home country due to migration

¹³A related model by Harris and Todaro posited that urban-rural migration is determined by the difference between the expected wages in urban and rural sectors, which in turn are influenced by actual wage differential and difference between employment prospects in the 2 areas.

III. Synthesis

A deeper understanding of the motivations behind the education, employment, and migration intentions of the youth is critical to efforts aimed at correcting mismatches in the Philippine labor market and enhancing the capacity of the Philippine economy to harness the full productive potential of the youth.

Predictably, stronger confidence in finding degree-appropriate employment in the Philippines decreases the likelihood of migration. This result emphasizes the importance of promoting policies that ensure that the educational options accessible to students cohere better with their employment opportunities, as well as with national development targets. Information on economic and employment opportunities could be more effectively shared and disseminated among the youth, in order to better inform their decisions. This information could include, increasingly, detailed analyses of integrating regional and international labor markets. Dissemination of this information through social networks may also provide more traction as far as better informing young people on their education, employment and migration decisions.

Several other factors will tend to increase policymakers' challenges on promoting job creation and better skills matching. These need to be monitored in the years to come. First, the empirical results herein indicate that encouragement from family members and peers in the Philippines increases the likelihood of migration. This result suggests that a student's decision to migrate is more than just a personal decision as it is formulated within his or her present socioeconomic context. His or her computation of the costs and benefits associated with migration is governed by more than just the information that is readily available to him or her.

A student is thus expected to be more acutely aware of the presence of disparities in economic opportunities between his or her home country and a potential host country because of information offered by his or her friends and relatives in the Philippines. In addition, encouragement from friends and relatives abroad also helps to increase the likelihood of migration. It is possible that these networks provide information that help emphasize these disparities. Receiving remittances may be increasing the likelihood of migration for similar reasons.

Over time, we can expect these linkages to be stronger (with more Filipinos working abroad and connected through social networks), so it would be critical to understand how these

emerging networks influence the decisions of young people and also how to tap them for better informing the youth of prospects here in the Philippines.

Further, entrepreneurship, measured through a desire to start a business, also appears to be linked to a higher likelihood of migration intentions. Encouraging domestic entrepreneurship through various means (including by broadening access to formal credit markets and promoting a more competitive business environment) is crucial to harnessing the productive potential of enterprising young Filipinos – otherwise the country also potentially faces an “entrepreneur-drain.” This would be a “double-whammy” for the Philippine economy if these are the same individuals that could have spurred the creation of innovations and enterprises that enhance economic competitiveness and stronger job generation domestically. Similarly, academic competitiveness is observed to increase the likelihood of migration. The inability of the labor market to provide competitive individuals with the opportunities that they desire is driving these individuals to seek employment abroad.

Political factors are also at play. Witnessing poll fraud in local elections increases the likelihood of migration. It is possible that migration, or exit, is becoming a more attractive option for those who are dissatisfied with domestic political reforms. This result reiterates the importance of reforms that strengthen the integrity of domestic democratic processes.

Correcting education-job mismatches in the domestic labor market is critical to ensuring better outcomes for the next generation of Filipinos. The ever-changing landscape of the global labor market, after all, does not guarantee education-job matches for immigrants from the developing world—despite what migration theory might predict for geographically expanding labor markets.

IV. Directions for Policy Attention

The Philippine government has recently launched a number of programs to address the closely interrelated issues of unemployment, underemployment, and education-job mismatches. Foremost among these programs is the implementation of a variation of the K-to-12 system that is widely used throughout the world. Apart from extending the number of years subsumed within the basic education program, the recently instituted K-to-12 program tasks incoming senior high school students to choose a specialization from one of the following tracks: Academics (Science, Technology, Mathematics, and Engineering), Management (Business and Accountancy),

Humanities (Social Sciences, Education), and Vocational Training. The program aims to (1) provide students with the basic proficiencies necessary to pursue undergraduate courses or vocational courses in their chosen field of specialization and (2) assist students in formulating and devising feasible career trajectories. Moreover, the Vocational Training track seeks to increase the number of skilled high-school graduates in the fields of agriculture, electronics, and trade. The government also intends to increase the basic education budget by 10% in 2014. A similar system is followed in Malaysia, where students are placed in different occupational tracks (science, arts, technical, or vocational) upon completing a standard public examination at the end of the lower secondary level. By the time the students are in the upper secondary level, they can either be on an academic track or a vocational track. Students take the same core courses in subjects like math, language, and science, but they would also be required to take on electives depending on their chosen tracks (Yusof 2002). This educational system provides students with a wide range of career trajectories.

Beyond improving the basic education system, the Philippine government has also taken steps to enhance the competitiveness of Filipino professionals. The government recently established the Philippine Qualifications Framework (PQF), which is designed to ensure that the educational standards employed in the Philippines are on par with existing international educational standards. More specifically, the government, through the Commission on Higher Education (CHED) and the Professional Regulation Commission (PRC), intends to review, and if necessary modify, the structure and the content of the programs being used by colleges in the training of professionals. Training regulations for schools engaged in priority sectors such as the Business-Process-Outsourcing (BPO), Information and Communications Technology, Tourism, and Agriculture industries are presently being reviewed by TESDA, in cooperation with industry experts, to ensure the competitiveness of its graduates both here and abroad. Several countries in the Asia-Pacific region, including New Zealand, Australia, Singapore, China, Indonesia, and Thailand, among others, have already formulated a National Qualifications Framework (ADB 2012). While individual country frameworks exist, the ASEAN region lacks a more integrated framework akin to the European Qualifications Framework (EQF), a standard designed to simplify the comparison of qualifications across the entire region, making job seekers more mobile. A similar scheme can be implemented in the ASEAN region to facilitate the transfer of the skill supply to where it is demanded. This underscores the need for international cooperation

to help young people from the nations involved take fuller advantage of the opportunities provided by regional integration. This could also help mitigate the potential market failures—notably due to information imperfections—that could plague integrating labor markets.

The Philippines' Commission on Higher Education (CHED) has also recently adopted a more proactive role in addressing education-job mismatches. CHED has issued a memorandum that prohibits both public and private schools from offering new programs in oversubscribed courses such as Information Technology, Hotel and Restaurant Management, Business Administration, and Nursing. Apart from issuing a memorandum on oversubscribed courses, CHED is also encouraging enrollment in priority courses identified by a joint commission comprised of members of CHED and the Department of Labor and Employment through its student financial assistance program. Beneficiaries of the student financial assistance program of CHED are obligated to enroll in Science, Mathematics, and Engineering courses. The CHED can supplement these efforts, and extend financial assistance to a broader subsection of the Filipino population through the development of student loan programs for specific undergraduate and vocational courses.

Some governments are engaging the private sector in their efforts to develop the skills of the labor force and to reduce skill-job mismatches. Thailand, Mongolia, and Australia are just some of the countries tapping the private sector. Thailand, for example, grants tax deductions to companies that provide training under the Skill development Promotion Act of 2002. Mongolia's government subsidizes on-the-job training in companies for the unemployed through its Employment Promotion Fund. And as a final example, Australia encourages firms to invest in the training of their employees through its National Workforce Development Fund. Firms identify their business needs and personnel inadequacies; and the government contributes to their workforce development. Both the Australian government and the firm share funding for the training, and contributions from both parties range from 33% to 66%. Government funding only goes to nationally accredited courses that abide by the National Skills Standard and the Australian Qualifications Network(OECD).

In order to better address skill-job mismatches, some more developed countries chose to adopt more sophisticated and adaptive information networks. In the United States, New Jersey State established a string of Talent Networks aimed at bringing together potential employers and employees, informing job seekers of the skills they need to prepare for particular jobs, and

enabling employers to find suitable candidates for their companies. Networks are set up for key industries: advanced manufacturing, financial services, health care, life sciences, technology and entrepreneurship, transportation, and logistics and distribution. The Australian government has online portals for information regarding skills and the labor. This information is targeted towards policy makers, industry players, and potential job seekers. On a wider scale, the European Job Mobility Portal (EURES) collects resumes and curriculum vitas and job vacancies across the European Region; and they provide candidates with information on living and working abroad to ease the transition process. Steps to create better networks and to improve information dissemination can be done by the Philippines, and later on, the ASEAN region in an effort to promote stronger benefits for youth from integrating labor markets.

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