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ABSTRACT

This paper provides a preliminary investigation of the education, migration, and employment preferences of the youth. It employs primary data consisting of the responses of 280 high school students to a specialized survey instrument. The paper places particular emphasis on identifying and measuring the impact of familial and social networks on the prospective education and migration decisions of the youth. The data suggest that a markedly smaller proportion of the youth are inclined to pursue courses in the hard sciences as compared to more popular courses such as engineering, accountancy, business, and economics. The results gleaned from the data suggest that there could be a gender bias in prospective migration. The results also suggest that familial networks strongly influence the sentiments of the youth towards migration.

JEL: J13; N35; J21; O15; F22

Key Words: youth; education; employment; human resources and migration; factor movements; international migration

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Introduction

About 87 percent of the world's 1.21 billion young people are in developing countries. Half of these countries face an imminent or anticipated a youth bulge in their populations, i.e. a peak in the share of the young people in each of their total national populations. Many of these countries are in Asia, and the list includes Bangladesh, Indonesia, Pakistan, and the Philippines. As argued by a growing number of policymakers, development practitioners and researchers, human capital investments and other social services provided to mothers, infants and children in the developing world during the 2005-2015 period are therefore even more critical, since these investments and policies will determine the capabilities of a particularly large future cohort of young people some 10-20 years from now.[1]

Young people in the Philippines—about 18.5 million in 2010—are expected to keep rising in number in the next decades. About 1.2 million young people on average will enter the labor force every year between 2010 and 2040, due to the imminent youth bulge in the Philippine population.[2]Nevertheless, youth account for more than half (1.46 million, or about 51.1 percent) of the country's total unemployed. Unemployment among youth stands at about 18 percent, which is over twice the national unemployment rate. Men account for about 60 percent of employment, and their labor force participation rate is about 80 percent—compared to a mere 30 percent for women.

Weak employment growth in the Philippines has prompted an exodus of workers, including the highly skilled. Overseas Filipino Workers (OWFs) rose from a mere 14,366 in 1972 to about 1.4 million in 2009. The majority of OFWs are women, and they account for about 62 percent of annual deployment of new hires over the past nine years. A large number of these OFWs include highly educated and skilled workers, e.g. nurses, teachers, seafarers, etc.[3]

Because more successful migration requires a strong match between skills and the demands of the international labor markets, it is possible that migration decisions are now being made much earlier in life, in sync with education choices. Youth make education decisions based on a variety of factors, including possibly their familial and friendship links with those who

[1] See among others Heckman (2006), Komarecki, Mendoza, and Murthy (2010), Ravallion (2009), World Bank (2007) and UNICEF's *State of the World's Children Report* (various years). The annex to this paper presents additional data and statistics on the youth bulge.

[2] Following the UN definition, youth are comprised by people aged 15-24. The United Nations forecasts that youth in the Philippines will continue to increase in number from about 18.5 million in 2010 and peaking at about 24 million by 2050 (UN, 2011).

[3] The figures quoted here are drawn from official government estimates reported in DOLE (2011:8-12).

already successfully migrated. These factors are still poorly measured and little analyzed in the context of Philippine youth education and migration decisions. In order to contribute stronger evidence in this area, this study examines the influence of migration factors (i.e. family background, prospects and networks) on Philippine high school students' higher education decisions. A specially designed youth survey was conducted in January-February 2012, involving a total of 280 high school students in Quezon City Science High School and St. Louis University High School in Baguio City.

Among the questions the survey will seek to answer are the following. Do students choose their degree of specialization to maximize their chances of employment (foreign or otherwise)? Do social networks play a role in expanding young people's information for education and prospective migration decisions? To what extent do social networks influence migrant networks? Insights gleaned from this survey could help inform policies to support development strategies that seek to build and retain certain types of skills in the Philippines. Further, the results could help policymakers understand how to best support young people's school-to-work transition, notably in the context of an increasingly open international labor market, and a progressively more competitive international talent pool.

In what follows, section 1 contains a brief review of related literature, while section 2 describes some of the main parameters of the youth survey and the main results. Section 3 contains a brief synthesis, pointing to the main policy implications of this study.

1. Review of Related Migration Literature

An extensive migration literature covers the various push and pull factors influencing migration, its social and economic consequences, as well as the various policy issues related to managing migration flows and its other facets (e.g. remittance flows and skilled labor management).[4] It is beyond the scope of this paper to cover this broad literature. Instead this section briefly reviews the related literature on migration focusing on the motivations for migration, brain drain and the social and its social and political consequences.

[4] See among others Clemens (2011), Kapur and McHale (2005), Ratha et al (2007), Saab et al (2007), World Bank (2006).

Calculus of Migration

An economic theory of migration suggests that the decision to migrate lies in a comparison of net returns from staying or migrating (Sjaastad 1962).The economic literature on this topic build on this basic premise by incorporating various complicating factors, including different personal and socioeconomic dimensions relating to the migrant and home country (i.e. push factors), as well as characteristics and conditions in the destination country (i.e pull factors). For example, Stark and Bloom (1985) suggest that the migration decision is influenced by the relative level of financial and social deprivation of a family or individual in the two countries (i.e. home and potential destination). An individual might opt to transfer to a reference group with a lower absolute level of income to be able to escape a lower relative level of income in a more affluent reference group. Baydar, White, and Babakol (1990) found that the expansion of access to better employment opportunities through rural development decreased the propensity to migrate. After all, the inability of families or individuals to avail of gainful employment, social insurance, and/or secure lines of credit makes migration an attractive option.

Further, the results of the evaluation of the relationship between macroeconomic variables and migration by Jennisen (2003) are consistent with the economic theory of migration. His results reveal that higher levels of GDP correspond to higher levels of immigration while higher levels of unemployment correspond to lower levels immigration or higher levels of out migration. Potts (1995) found that the shrinking income differential between rural and urban locales and the deterioration of urban services provision prompted a trend of return migration to rural locales in Africa. In addition, Van Dalen, Groenewold, and Schoorl (2005) find evidence that the decision to migrate depends, not just on economic prospects, but also on age, gender, income, and values systems. Drawing upon survey results from Ghana, Senegal, Morocco, and Egypt, they observed that potential migrants were usually young males that subscribe to modern values systems and are optimistic about the net social and economic benefits of migration. These results lend credence to the notion that migration is primarily motivated by economic considerations but also underscore the importance of personal and social variables in the migration decision. Moreover, the notion of migrant agency (Castles 2004) stresses that migrants are social creatures who desire better outcomes, not just for themselves, but also for their friends and family.

On the other hand the costs for the migrant and his/her family that is associated with migration can be divided into pecuniary and psychic costs. Psychic costs can be defined as the non-pecuniary or utility costs associated with migration, such as the opportunity cost of foregone income during the transition brought about by migration, and the stress associated with being a new environment (Sjaastad 1962). Similarly, Constant and Massey (2003) define psychic costs as the totality of the psychological burden of leaving familiar surroundings and adapting to a new culture and language. The abrupt loss of access to several familiar personal, familial, and community support systems invariably diminishes the utility of a migrant. Furthermore, Deaton, Morgan, and Anschel (1982) found that the monetary equivalent of the psychic costs associated with migration can be substantial. A potential migrant, therefore, not only considers the pecuniary costs of migration but also the psychic costs of migration prior to making his or her decision.

Family and community networks fit into the economic migration framework by reducing the pecuniary and psychic costs associated with migration. Apart from direct financial assistance, these networks further reduce the costs associated with migration through the provision of lodging, employment advice, and social support systems to migrants. Family and/or community networks are therefore expected to heavily influence the migration decision. Winters, Janvry, and Sadoulet (2001) and Mines and Janvry (1982) emphasize the role of these networks in the formulation of migration decisions. Both studies suggest that the presence of family and/or community networks abroad substantially increases the likelihood of migration. This is also consistent with the idea of chain migration or how an initial migration of young workers leads to the migration of others from the same family and/or community (Price 1963).

Education shares a complex relationship with the economic theory of migration. Van Dalen, Groenewold, and School (2005) found evidence of both positive and negative self selection effects in potential migrants. Evidence from Ghana and Egypt suggest that those with high levels of education are more inclined to migrate. The opposite is true in Morocco where those with low levels of education are more inclined to migrate. These seemingly conflicting results suggest that the influence of education on the migration decision is contingent on the availability of the appropriate opportunities in the domestic labor market. More specifically, highly educated individuals will opt to stay if there are adequate opportunities for them in the

domestic labor market because their skills will be able to command wages that would outweigh the net benefits of migration.

Social, religious, and cultural pressures can curb tendencies to migrate or even prevent migration altogether. In countries where the independent migration of women is frowned upon, women are less likely to migrate (Van Dalen, Groenewold, and Schoorl 2005). The existence and observance of traditional gender roles create barriers to migration.

Brain Drain

Outward migration of skilled professionals could also be associated with a net welfare loss for the country if important externalities or spillovers result from the loss of scarce skills (Bhagwati and Hamada, 1975). New growth theory emphasizes the importance of human capital in sustaining long-run growth. In more recent work, investments in acquiring skills could be affected by the returns on these investments at home and abroad. While brain drain is expected to adversely affect the growth prospects of the home country in some new growth models (e.g. Miyagiwa, 1991; Wong and Yip, 1999), other studies point to possible "brain gain effects", i.e. the possibility of migration to another area with higher returns incentivizes investments in human capital accumulation in the home country.

For instance, in a low-income country with poor growth prospects, the return on human capital investments are low, which leads to low levels of human capital and reinforces the poor growth prospects of the country (i.e. a low-level development trap). However, the existence of a single migrant-receiving country for which the return on human capital is relatively higher, combined with the prospect of migrating to that country, could create strong incentives for the accumulation of human capital. Given highly selective immigration policies, so that only the most-skilled are able to migrate, then many would be left behind including some high skilled labor. The potential net impact could be that the proportion of the relatively more skilled labor force will increase (e.g. Hemmi, 2005; Mountford, 1997).

In addition, the brain drain would then need to be considered vis-à-vis the gains that countries could nevertheless achieve, including through remittance inflows. It is possible that countries are *de facto* compensated for losing human capital through remittance flows, among

other potential benefits from the diaspora.[5] Recent research by Mendoza (Forthcoming), for example, raises the issue that developing countries could be facing two linked trends that are potentially detrimental to their development prospects: outmigration of high skilled professionals; and the potential decline in remittances as migrants with higher skills might also tend to remit less in the longer-term. Mendoza notes that these two trends could shrink the net positive gains from migration and remittances, and he analyzes a cross-national dataset spanning 70 countries during the period 1985-2000, as well as a country-specific dataset for the Philippines to evaluate whether there is any evidence to this effect. His study, however, finds little evidence of a double whammy, as high skilled migration is not associated with weaker remittance flows over time.

Brawn Drain

Equally important in the observed migration pattern of people is the cluster of less-educated migrant workers who leave their country *en masse* for better opportunities. With little hope of finding employment after graduation or even finishing a college degree, students' main ambition is to acquire the qualification to qualify them for an overseas employment. Often, they have low expectations to land supervisory or managerial positions that require analytical and decision making skills. Most of them are realistic and would opt for technical positions, or even jobs implying less skill requirements.

Brain drain had not only beseeched developing economies, but a new phenomena had seen its rise in the 1970's (i.e. Philippines, Burma, Bangladesh) when youth with nary a college degree saw an opportunity to work overseas. In search of greener pastures, they made up the number of migrant workers who searched for better employment options in the Middle East countries, Malaysia, and Brunie to name a few to work as laborers and factory workers. These work opportunities typically imply repetitive production activities, implying very little decision making. The burgeoning manufacturing companies in the Asian region and the black gold in the Middle East served as a strong attraction for a large number of skilled and non-skilled workers in the developing countries. Workers are hired for their dexterity and stamina to withstand physically demanding tasks. This phenomena came to be labeled as the "brawn drain".

[5] Return migration could generate avenues for technology transfer and business and entrepreneurial linkages. See Goldfarb and others (1984) and Wescott and Birkenhoff (2006).

Unstable political conditions contribute to the growing pessimism among the youth gave rise to a strong yearning to leave their country as soon as they get their high school diplomas. They usually fill in the need of developed economies for household help which are expensive when sourced locally. Household help are scarce in developing economies, but skills required for such level of work are immensely large in developing economies, making their price cheap. Hence, seeing an opportunity for better compensation, young workers often choose to migrate to countries where their skill becomes relatively more valuable. More developed economies will also often find it more beneficial to hire workers from other countries, when compared to the more expensive domestic workforce.

The growing middle class in developed economies, such as Singapore, Hong Kong, the Middle East, powered by high purchasing power, are ready and willing to trade-off a few dollars to hire domestic, which in turn give them greater hours to work or even enjoy leisure without the stress of thinking about household chores. This desire and lifestyle produced a perfect formula for brawn drain in developing economies.

There are several important issues linked to brawn drain. One is that most of those migrants who are in this cluster makes up the majority of undocumented workers and are prone to unscrupulous recruitment and manpower agencies. Another is that a significant share of young people comprises the brawn drain, implying either underemployment (to the extent that they may also posses training for higher-skilled jobs) or underinvestment (to the extent that many of them may have stopped their education investments to pursue these jobs opportunities).

If brain drain is already a problem, then brawn drain can also aggravate further the deterioration of the quality of workers that opts to stay in the country. In the case of brain drain we lose the brightest workers, while in the case of brawn drain the country also experiences an outflow of productive and mostly young workers.

While brain drain focuses on the recovery of expenses for education, it is the same question that should be addressed in the case of brawn drain. The national government loses their investment on human capital even for non-professional migrant workers who have not finished college. The massive exodus of young workers whose primary asset could be their physical stamina, requires rethinking because they make up also the massive outflow of human resources, In the long run manpower shortages in the country may negative affect the competitiveness and thus also the growth of industries.

Social and Political Dimensions of Migration

Some analysts content that migration and remittances can dampen the demand for good governance (Adbih, Chami, Dagher, Montiel 2008). By providing migrant families additional resources, as well as the broader economy an additional stimulus, remittances could mitigate, to a certain extent, the social and economic consequences of inadequate public goods provision. In addition, migration and remittances have the capacity to restructure communities through the reorganization of existing social relationships, the diversification of productive engagements, and the reformulation of consumption and investment strategies. Remittances address deficiencies in basic necessities, could provide opportunities for further investments in health and education, and afford prospective entrepreneurs with the capital that they need to start their businesses (Conway and Cohen 1998).

The forward and backward linkages that accompany the emergence of businesses funded by remittances could also afford other prospective entrepreneurs opportunities for economic advancement. The potential of remittances to increase overall income levels also enhances the resilience of remittance-receiving communities to external shocks (Adger, Kelly, Winkels, Huy, and Locke 2002) and could make migrants and non-migrants more inclined to invest in community development initiatives (Conway and Cohen 1998). Remittances can also be considered more redistributive than other income flows within the context of a developing country (Jones 1998). Migration provides disadvantaged communities more opportunities for economic advancement through more liquidity through remittances.

Furthermore, migrants have a tendency to form migrant communities abroad. The emergence of these migrant communities has the potential to substantially decrease the financial and psychic costs (Mines and de Janvry 1982) associated with migration for both migrants and potential migrants through the development of informal credit markets, shared lodging, and social support systems. These communities can also direct new migrants to the best economic opportunities available. The subsequent development of these migrant communities can provide migrants with the leverage to influence the form and structure of immigration laws (Mazza and Winden 1996).

Migration provides citizens with an alternative means to respond to deteriorations in the quality of citizenship that they enjoy (Moses 2005). Instead of acknowledging and accepting their dissatisfaction in the government or attempting to voice their concerns in generally

inaccessible venues for policy discourse, citizens can employ migration to better articulate their discontent. Faced with the threat of losing high-skilled workers, diminished productivity, and reduced tax revenues, the government could face some pressure to respond with greater urgency to the needs of its constituents. Migration, therefore, has the potential to enhance the responsiveness of the government to the needs of the citizenry.

Migration can also give rise to the emergence of improved political institutions (Batista and Vicente 2009). Migrants in countries with strong political institutions can remit or bring home their desire for stronger improved governance to their friends and family. Participation in political processes abroad can help migrants identify problems and solutions to problems in similar processes at home. Exposure to freer political environments can help migrants recognize the importance of improved political accountability and greater access to information in social development. Alternatively, migrants can take a more active role in the reshaping of the political landscape (Conway and Cohen 1998). Financial capacity, accumulated goodwill from participation in community development initiatives, prominence in the community, and generosity towards members of the community provide a migrant with ample opportunities to climb the political hierarchy and effect political change.

2. Youth Survey in Quezon City and Baguio City

The youth survey was implemented in two secondary schools: the Quezon City Science High School in Quezon City, Metro Manila (QCSHS), and the St. Louis University –Laboratory High School (SLU-LHS) in Baguio City, Benguet Province (about 250 kilometers North of Metro Manila. Participants from both schools were randomly selected, producing a total of 279 students in the sample. The sample was more or less balanced in its gender representation, and most of the respondents appeared to belong to roughly comparable income classes, using the proxy indicators such as family ownership of the home, weekly student allowance, and parents' educational attainment (see Table 1). The two schools produced varying results in terms of College degrees selected by the students. While the results from each school sample suggested that Engineering was a favored degree choice, SLU students were more likely to choose degrees in Communications and Information Technology, when compared to the hard sciences (e.g. Biology, Physics, and Chemistry). This was less the case when looking at the QCSHS results (see Table 2).

Choices of course from the students of SLU-LHS reflect choices of courses that are readily available in the locality. Most Universities in Baguio City offer courses in engineering and communication and information technology. In terms of ranking at least two Universities in Baguio consistently produces high passing rates in Engineering. Universities in Baguio hardly offer hard sciences such as Biology, Physics and Chemistry that prepares students to become scientist and researchers. Biology is usually one of the pre-medical courses, while Chemistry and Physics are typically vague to students in terms of what career is in store for them after graduation. Nevertheless, an option is to become a Chemical Engineer instead of a Chemist.

The fact also that most of the respondents from the SLU-LHS are from the regular section rather than the science section may partly explain the low turnout on the choice of hard sciences. Little exposure also on sciences and math among the regular section, curtails the appreciation for hard sciences as alternative courses, in contrast to the respondents in QCSHS.

Table 1. Descriptive Statistics

	QCSHS	SLU	COMBINED
Gender (Female)	71 out of 128 55.47%	84 out of 151 55.63%	155 out of 279 55.55%
Residence (Owned)	101 out of 128 78.91%	116 out of 151 76.82%	217 out of 279 77.78%
Weekly Allowance	MEAN: 508.67	MEAN: 460.79	MEAN: 483.91
	STD: 341.69	STD: 276.59	STD: 310.07
Mother's Educational Attainment	MEAN: 5.03	MEAN: 4.88	MEAN: 4.94
	STD: 0.65	STD: 0.70	STD: 0.68
Father's Educational Attainment	MEAN: 4.928	MEAN: 4.77	MEAN: 4.84
	STD: 0.65	STD: 0.71	STD: 0.68

Table 2. College Degree Selection

	QCSHS (Total 128)	SLU (Total 151)	COMBINED (Total 279)
Engineering	46 (35.94%)	58 (38.41%)	104 (37.28%)
Biology, Physics, Chemistry	24 (18.75%)	8 (5.30%)	32 (11.47%)
Accountancy, Business, Economics	36 (28.13%)	45 (29.80%)	81 (29.03%)
Communications Information Tech	25 (19.53%)	46 (30.46%)	71 (25.45%)
Top Courses	Accountancy 28 Psychology 20 Biology 1	Information Tech 28 Accountancy 26 Architecture 22	Accountancy 54 Architecture 31 Information Tech 30

Table 3. Education and Migration Motivations by Gender

A. Migration Intention	**MALE**	**FEMALE**
MIGRATE	38 (30.65%)	61 (39.35%)
STAY	86 (69.35%)	94 (60.65%)
B. Education and Migration Motivations	**MALE (Total 124)**	**FEMALE (Total 155)**
A1 Did you choose your degree because of the employment opportunities it can provide you here in the Philippines? (YES)	91 (73.39%)	110 (70.97%)
A2 Did you choose your degree because of the employment opportunities it can provide you abroad? (YES)	74 (59.68%)	100 (64.52%)
A8 Do you plan to pursue graduate studies? (YES)	69 (55.65%)	82 (52.90%)
A10 Would you prefer to pursue graduate studies abroad? (YES)	33 (47.83%)	48 (58.84%)

About 35 percent of the total sample of 279 students indicated that they intend to migrate after completing their tertiary education. Gender-wise, slightly more women indicated their intention to migrate (39 percent of total) when compared to the men (31 percent). There is some overlap of those that selected their degrees based on employment opportunities in the Philippines and abroad. Over 70 percent of men and women in the sample indicated that they chose their

degree because of opportunities in the Philippines. Slightly over 60 percent of men and women indicated that employment opportunities abroad were also a factor.

What is interesting here is that, once again, slightly more women indicated that their choice of degree was influenced by employment opportunities abroad: about 65 percent of the women in the sample, compared to 60 percent of the men. In addition, among those who plan to pursue graduate studies, a larger share of women indicated that they preferred graduate studies abroad (see Table 3). The cross-tabulation of these issues with respect to the educational attainment of parents is also interesting—the roughly observable pattern is consistent with the literature that those with more well educated parents are also more likely to pursue further graduate studies. In addition, those with more educated parents are also more likely to indicate their preference to pursue graduate studies abroad (see Tables 4 and 5).

Employment opportunities abroad has been cited as an important factor behind degree choice for the vast majority of each of the major degree categories—and particularly so for Engineering where 70 percent of respondents who chose Engineering degrees also cited employment prospects abroad as a major factor behind the choice (see Table 6). The majority of respondents were confident that they would be able to secure a job within 6 months of graduation. They were similarly upbeat about their chances to land a job abroad shortly after they graduate (see Tables 7-9). Technical (college graduate level) jobs as a share of total OFWs deployment offers a slightly more mixed picture.[6]

[6] There has been a marked decrease in the Professional and Technical Workers category (i.e. between 2000 and 2010, this decreased by 36,850). This coincides with a marked increase in the Service Workers category (i.e. between 2000 and 2010, this latter category increased by 63,329) (Source: Authors' analyses based on data from http://www.poea.gov.ph/stats/statistics.html).

Table 4. Education and Migration Motivations by Mother's Educational Attainment

	Grade School Graduate (Total 1)	Some High School (Total 3)	High School Graduate (Total 6)	Some College (Total 26)	College Graduate (Total 205)	Post Graduate Studies (Total 37)
A1 Did you choose your degree because of the employment opportunities it can provide you here in the Philippines? (YES)	1 (100%)	1 (33.33%)	5 (83.33%)	18 (69.23%)	148 (72.20%)	27 (72.97%)
A2 Did you choose your degree because of the employment opportunities it can provide you abroad? (YES)	1 (100%)	1 (33.33%)	3 (50%)	18 (69.23%)	128 (62.44%)	22 (59.46%)
A8 Do you plan to pursue graduate studies? (YES)	1 (100%)	1 (33.33%)	3 (50%)	16 (61.54%)	104 (50.73%)	27 (72.97%)
A10 Would you prefer to pursue graduate studies abroad? (YES)		1 (33.33%)	1 (16.67%)	11 (42.31%)	55 (26.83%)	13 (35.14%)
A11 Which type of school provides better quality tertiary level education?						
Answered "State"		1 (33.33%)		14 (53.85%)	84 (40.98%)	20 (54.05%)
Answered "Private"	1 (100%)	2 (66.66%)	5 (83.33%)	7 (26.92%)	89 (43.41%)	14 (37.84%)

Table 5. Education and Migration Motivations by Father's Educational Attainment

	High School Graduate (Total 16)	Some College (Total 40)	College Graduate (Total 185)	Post Graduate Studies (Total 29)
A1 Did you choose your degree because of the employment opportunities it can provide you here in the Philippines?	15 (93.75%)	30 (75%)	130 (70.27%)	21 (72.41%)
A2 Did you choose your degree because of the employment opportunities it can provide you abroad?	10 (62.50%)	26 (65%)	116 (62.70%)	14 (48.28%)
A8 Do you plan to pursue graduate studies?	11 (68.75%)	19 (47.50%)	91 (49.19%)	25 (86.21%)
A10 Would you prefer to pursue graduate studies abroad?	7 (43.75%)	9 (22.50%)	50 (27.03%)	11 (37.93%)
A11 Which type of school provides better quality tertiary level education?				
Answered "State"	3 (18.75%)	18 (45%)	79 (42.70%)	17 (58.62%)
Answered "Private"	10 (62.50%)	16 (40%)	81 (43.78%)	8 (27.59%)

Table 6. Degree Selection by Migration Motivation
(Of those that selected each degree, those that selected their degree because of employment opportunities abroad)

SCIENCE	ENGINEERING	ACCOUNTANCY BUSINESS ECONOMICS	COMMUNICATIONS INFORMATION TECHNOLOGY
15 of 32 (46.88%)	73 of 104 (70.19%)	53 of 81 (65.43%)	46 of 71 (64.79%)

Table 7. Degree Selection by Confidence of Placement in the Philippines
(Of those that selected each degree, those that believe they can get a job within six months after graduation)

SCIENCE	ENGINEERING	ACCOUNTANCY BUSINESS ECONOMICS	COMMUNICATIONS INFORMATION TECHNOLOGY
29 of 32 (90.63%)	74 of 104 (71.15%)	57 of 81 (70.37%)	50 of 71 (70.42%)

Table 8. Degree Selection by Confidence of Placement Abroad
(Of those that said they intend to migrate, i.e. 99 total, organized by their selected degree, those that believe they can get a job abroad shortly after they graduate)

SCIENCE	ENGINEERING	ACCOUNTANCY BUSINESS ECONOMICS	COMMUNICATIONS INFORMATION TECHNOLOGY
5 of 5 (100%)	24 of 37 (64.86%)	19 of 26 (73.08%)	19 of 26 (73.08%)

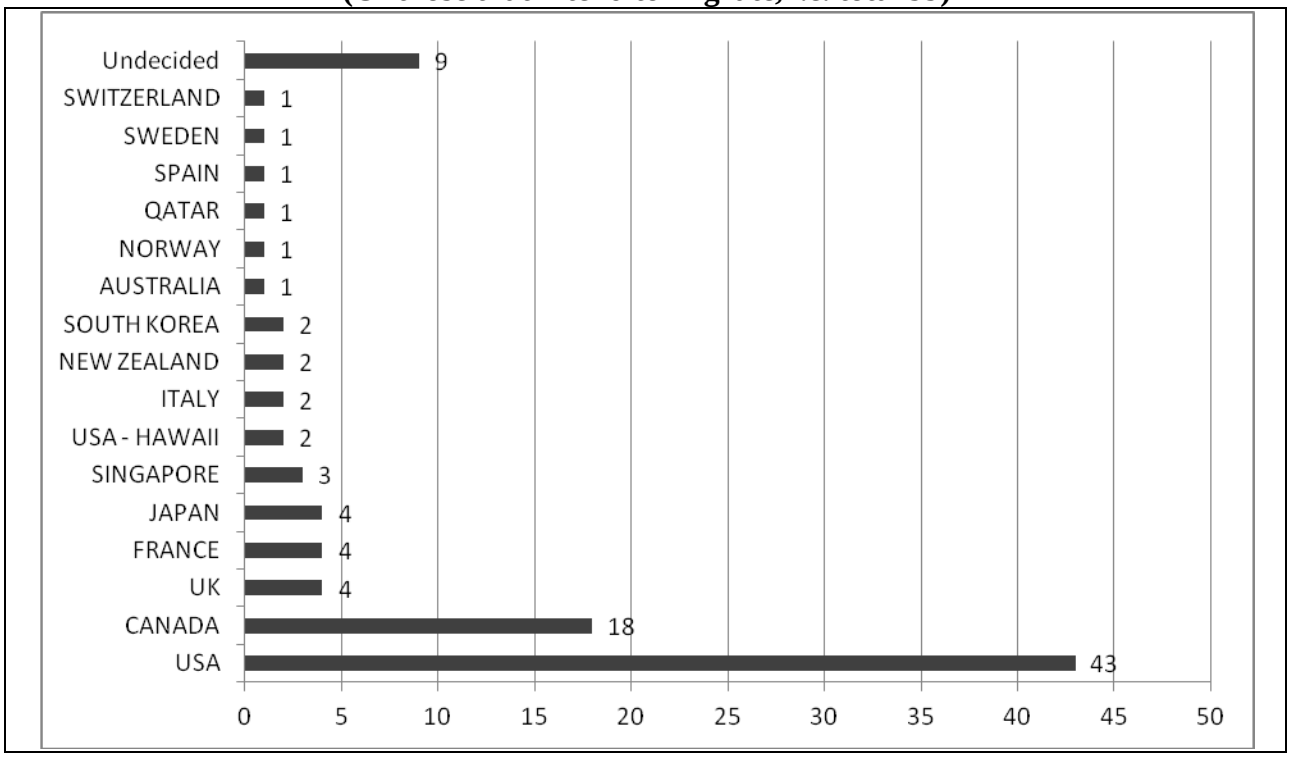
Table 9. Degree Selection by Confidence of Landing Job in Chosen Field
(Of those that said they intend to migrate, i.e. 99 total, organized by their selected degree, those that believe they can get a job close to their selected degree)

SCIENCE	ENGINEERING	ACCOUNTANCY BUSINESS ECONOMICS	COMMUNICATIONS INFORMATION TECHNOLOGY
5 of 5 (100%)	29 of 37 (78.38%)	23 of 26 (88.46%)	22 of 26 (84.62%)

As for the preferred destination countries of prospective migrants in the sample, the United States was noted by almost half of this sub-group, followed by Canada (accounting for 18 percent of the total) (see Figure 1). Both these countries can be characterized as having much more tempered jobs prospects in recent years due to the global economic slowdown and

continued economic fragility.[7] Thus it is possible that the main influence behind these country preferences does not necessarily just lie in job prospects, but also the family and social networks of the prospective migrant. As noted earlier, these networks help to improve the "calculus of migration" in favor of migrating, by lowering some of the associated costs to job search, assimilation, and other aspects. In fact those in the sample with relatives who are overseas Filipino workers (OWFs) are more likely to indicate the intention to migrate (see Table 10). A fairly large share of those young people in the sample with relatives abroad also reported being encouraged by their relatives abroad to migrate: about one-third of the men, and about half of the women (see Table 11). Of those who indicated they would like to migrate, close to 60 percent of them indicated that they have relatives abroad, and well over 70 percent of them also indicated that they have friends abroad (see Tables 12-13).

Figure 1. Preferred Destination Countries
(Of those that intend to migrate, i.e. total 99)



[7] See IMF's World Economic Outlook (various issues).

Table 10. OFW Familial Links by Migration Intention

	MIGRATE (Total 99)	STAY (Total 179)
NO OFW RELATIVE	45 (45.45%)	88 (49.16%)
WITH OFW RELATIVE	54 (54.55%)	91 (50.84%)

Table 11. Received Encouragement from Relatives Abroad to Migrate by Gender

	MALE (Total 124)	FEMALE (Total 155)
ENCOURAGED TO MIGRATE BY RELATIVES ABROAD	40 (32.26%)	75 (48.39%)
NO ENCOURAGEMENT TO MIGRATE FROM RELATIVES ABROAD	84 (67.74%)	80 (51.61%)

Table 12. Existence of Relatives with Non-Filipino Citizenship by Migration Intention

	MIGRATE (Total 99)	STAY (Total 179)
NO RELATIVES WITH OTHER CITIZENSHIP	43 (43.43%)	89 (49.72%)
EXISTINENCE OF RELATIVES WITH OTHER CITIZENSHIP	56 (56.57%)	90 (50.28%)

Table 13. Existence of Friends Abroad by Migration Intention

	MIGRATE (Total 99)	STAY (Total 179)
NO FRIENDS ABROAD	28 (28.28%)	75 (41.90%)
WITH FRIENDS ABROAD	71 (71.72%)	104 (58.10%)

As for the reported reasons for wanting to migrate, over 70 percent of the respondents who indicated a preference to migrate identified the lack of employment opportunities in the Philippines as a reason. This was followed by "unhappiness with government" at over 40 percent of the sub-group. Finally, about one-third of them reported a desire to be independent as another reason for wanting to migrate (see Figure 2).

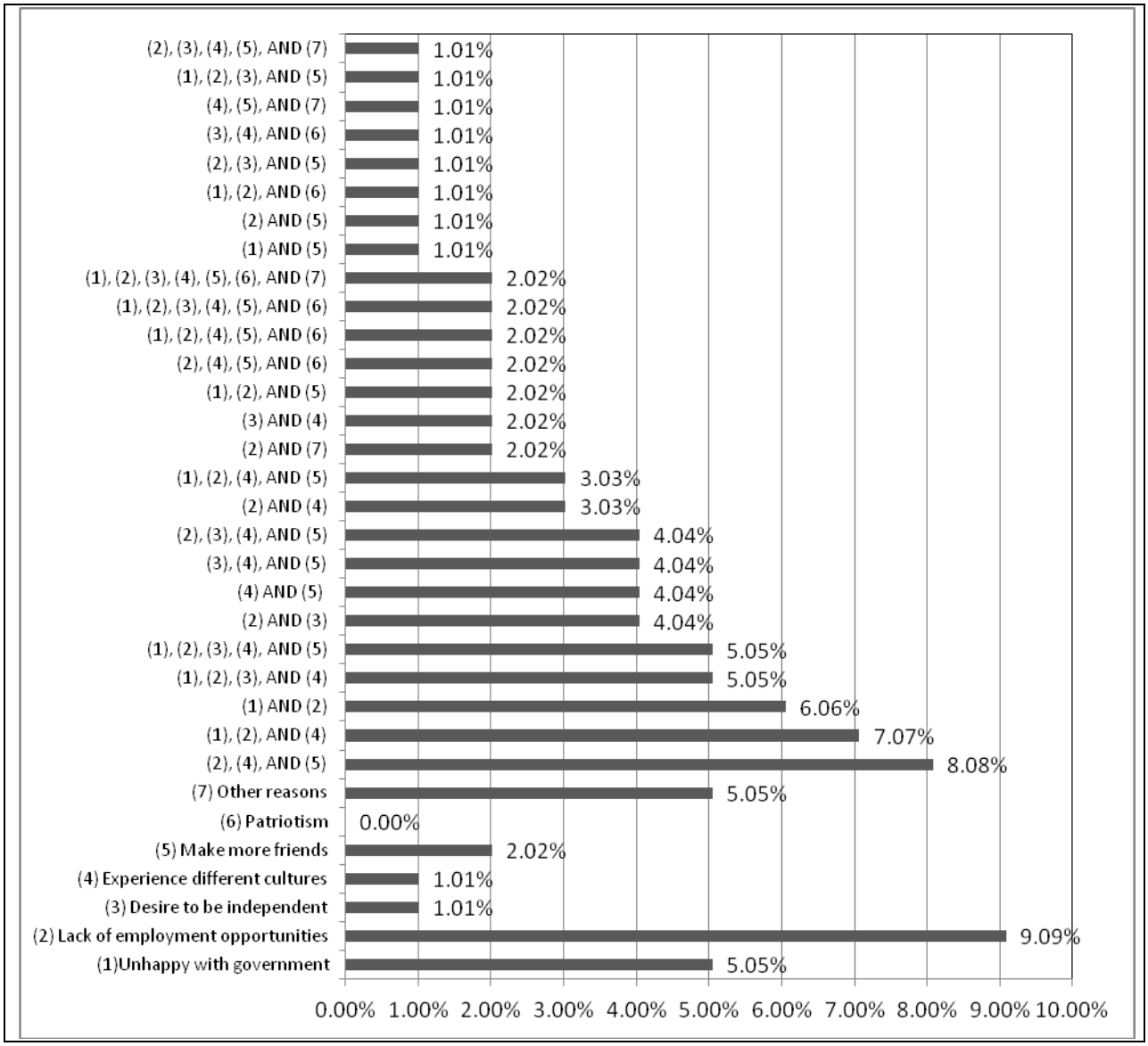
These general findings provide further evidence on the possible correlates of young people's motivations to aspire for education and eventually migrate. They cohere with other

studies and surveys of Philippine youth that have pointed to connected findings. The Philippine National Youth Commission's National Youth Assessment report in 2010,[8] for example, surveyed 5,850 young Filipinos and found that:

- About one-third of the youth who are not currently employed indicated that they preferred to work abroad;
- Those who are aged 18-24 indicated were most likely to want to work abroad (about 60 percent of this age cohort);
- Close to 60 percent of the young people with a desire to work abroad indicated higher pay as a key reason, while well over 80 percent noted that migration of young workers happens primarily because of limited work opportunities to earn a living in their respective regions (and within the country).

[8] This report was based on a survey of five thousand eight hundred fifty (5,850) young Filipinos aged 15 30 years old from 17 Regions of the country (urban and rural).

Figure 2. Reported Reasons for Wanting to Migrate



3. Preliminary Observations

As observed from the results of our survey, it is quite interesting (or disturbing?) that there could be a possible gender bias in future migration. It is possible that a larger number of females are motivated to leave the country, drawn by strong migration prospects in the USA or Canada. Family and friends are major motivators for encouraging women to migrate and work abroad.

The universal appeal of engineering, accountancy and business economics and communication information and technology in contrast to the hard sciences among the youth is

very telling of a conscious choice. The result seems to imply that the youth prefer courses that combine some technical skill with managerial and decision making training. The courses of choice can provide them better opportunities for entry level positions such as cashiering for accountancy and business economics graduates, mechanics for engineering, and computer technicians meantime while working the ladder for better opportunities.

Even as the strong draw of migration is self-evident, the youth seem nevertheless realistic about their expectation of working abroad. Given the difference in the educational system, they would hardly expect to immediately work for technical or supervisory positions. They would most likely start with tasks or jobs that requires dexterity and physical stamina. This implies losing both the brawns and brains required by the country of origin. The country loses them while they are young and loses them further when they are mature and have sufficient experience to become managers. The interest of young people to equip themselves with education to prepare them to work abroad, is a complete package of brawn and brain drain.

Courses in the hard sciences as choice for the youth seems to lag behind other more popular choices such as courses related to business and management. Although there are only two schools surveyed, the result can imply that a stronger orientation on sciences can contribute to career choices of the students, as well as help underpin the country's industrialization prospects. Science high schools may likely encourage a greater number of youth who would opt for hard sciences. This needs to be verified by future surveys. The curricula of dedicated science high schools typically carry a large number of science and math subjects in contrast to a regular high school where there is less science and math in their curriculum.

Future research on the migration and education choices of the Filipino youth could monitor all these aspects in order to produce up-to-date evidence on the skilling prospects for the country, and the challenges and opportunities offered by the burgeoning youth bulge.

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