

Analysis of Brain Drain in the Philippines: The Case of Professionals

Jinky Leilanie Lu

Research Professor, Institute of Health Policy and Development Studies, National Institutes of Health, University of the Philippines Manila; Affiliate Faculty - Department of Social Sciences, UP Manila
jinky_lu@yahoo.com

Abstract

Brain drain is the efflux of professionals from developing countries to industrialized countries. In this study, various

needed human
return of
education

[OPINION] How and when
can this 'Filipino Dream' of
labor migration come to its
end?

**Czech Republic eyes expansion
migration for Filipino work**

FEB 16, 2022 5:39 PM

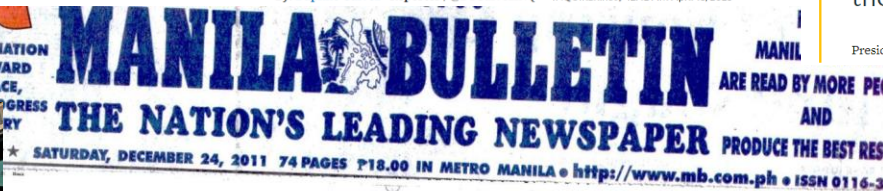
By: Daphne Galvez - Reporter / @DYGalvezINQ INQUIRER.net / 12:42 AM April 18, 2023

Philippine
March 30

**DOH says to address shortage of nurses
due to migration**

"This is my promise to you and God and to those working abroad, this will be the last. The next generation of Filipinos will work in the Philippines."

President Rodrigo Duterte



Visayas More Filipinos seek to migrate

Saturday, December 24, 2011

House urges probe of gov't migration policies

By: Abby Roiser, Jacob Lazaro, Marlon Ramos - @inquirerdotnet Philippine Daily Inquirer / 05:38 AM January 26, 2023

Countries like Canada, Australia, and New Zealand are the top countries of choice for immigration applications among Filipinos because of their booming economies. "The economic boom of these countries is fueled by the immigrants," he said. According to Tanilon, the overseas migration movements by Filipinos are almost always economic in nature, whether the movement is for overseas work or permanent settlement. "More often than not, the purpose for the growing immigration application abroad is to seek greener pastures or to reunite with their family members who are already settled abroad."

Big Start is currently partnering with academic institutions in Australia to assist Filipino students in attaining a student visa to study in Australia and English courses. "We can help student applicants who want to get student visas to Canada is approximately P30,000 to P40,000 per application while that of Australia costs P95,000 per family. In the case of Australia, however, he said most Filipinos apply for a student visa to enroll for short-term courses where they also to work an average of 20 hours per week. Big Start is currently partnering with academic institutions in Australia to assist Filipino students in attaining a student visa to study in Australia and English courses. "We can help student applicants who want to get student



The Philippines' Dangerous Dependence on the Exploitation of its People

23 November 2022

How migration lifts poor from poverty explored in Filipino family's 30-year journey

- Jason DeParle explores global migration through a Filipino family who went from living among rats in a Manila shantytown to migrating to the US
- In the book, 'A Good Provider is One Who Leaves', he explains that 'migration is the world's largest anti-poverty programme'

Export Migration
3 | Migration in our Development Policy
24 | In Search of Silver Linings: Making Labor Migration Work for Us

The negative verdict on "brain drain" stands in sharp contrast to the positive view of "human capital flight" that has been a dominant theme in Philippine development discourse. For the idea of brain drain—whereby educated and skilled Filipinos leave the country to work abroad—has been a recurring theme in Philippine development discourse. For the idea of brain drain—whereby educated and skilled Filipinos leave the country to work abroad—has been a recurring theme in Philippine development discourse.

A background image of a busy airport terminal. People are seen with luggage, some standing in lines, others walking. There are large windows on the left and a large mural of fish on the right. The overall scene is a busy, modern travel hub.

55%

of Filipinos, aged 15 years old and above, have ever **moved** to **another city, province, or country** during their lifetime

(based on 2018 National Migration Survey)

Drivers of International and Internal Migration Among Filipinos: Evidence from the National Migration Survey 2018

Gia Mizrane Abubo, Lorenzo Faustino Baquiran, & Pamela Cunanan

Migration

a form of **geographic or spatial mobility of people** involving a **change of usual residence** between clearly defined **geographic or political units** during a specified period of observation for a reason such as economic, social, political, and cultural (PSA Board, 2017). In terms of classification, a migrant is defined as someone who has resided in another place continuously for at least three months.



Migration

a form of **geographic or spatial mobility of people** involving a **change of usual residence** between clearly defined **geographic or political units** during a specified period of observation for a reason such as economic, social, political, and cultural (PSA Board, 2017). *In terms of classification, a migrant is defined as someone who has resided in another place continuously for at least three months.*

International Migrant

a person who has **crossed international borders** and changed his/her usual place of residence from his/her **country, state or territory to another**



Internal Migrant

a person who leaves one geographic or political area (**region, province, city/municipality**) to take up usual residence in **another area within a country**



Migration

a form of **geographic or spatial mobility of people** involving a **change of usual residence** between clearly defined **geographic or political units** during a specified period of observation for a reason such as economic, social, political, and cultural (PSA Board, 2017). *In terms of classification, a migrant is defined as someone who has resided in another place continuously for at least three months.*

International Migrant

a person who has **crossed international borders** and changed his/her usual place of residence from his/her **country, state or territory to another**

- international labor migration is a well-studied research area in the Philippines but rarely at the individual level

Internal Migrant

a person who leaves one geographic or political area (**region, province, city/municipality**) to take up usual residence in **another area within a country**



Migration

a form of **geographic or spatial mobility of people** involving a **change of usual residence** between clearly defined **geographic or political units** during a specified period of observation for a reason such as economic, social, political, and cultural (PSA Board, 2017). *In terms of classification, a migrant is defined as someone who has resided in another place continuously for at least three months.*

International Migrant

a person who has **crossed international borders** and changed his/her usual place of residence from his/her **country, state or territory to another**

- international labor migration is a well-studied research area in the Philippines but rarely at the individual level

Internal Migrant

a person who leaves one geographic or political area (**region, province, city/municipality**) to take up usual residence in **another area within a country**

- most literature discussing Filipinos' internal migration dates back to more than a decade ago
- recent works are more specific and empirical in nature, examining Philippine internal migration in relation to climate variability and the COVID-19 pandemic

Objectives

Identify **key drivers of Filipinos' migration** under the two types: international and internal



Objectives

Identify **key drivers of Filipinos' migration** under the two types: international and internal

- To discover underlying relationships and potentially significant interactions between demographic, geographic, and economic variables



Objectives

Identify **key drivers of Filipinos' migration** under the two types: international and internal

- To discover underlying relationships and potentially significant interactions between demographic, geographic, and economic variables
- Determine similarities and differences in the factors that influence them



Scope and Limitations

- Focused on the migration of Filipinos during **2013 to 2018** who have **returned** and were thus present during the survey period of **NMS 2018**, the scope of the National Migration Survey (NMS) 2018



Scope and Limitations

- Focused on the migration of Filipinos during **2013 to 2018 who have returned and were thus present during the survey period of NMS 2018**, the scope of the National Migration Survey (NMS) 2018
- Limited to Filipinos who **lived in the Philippines prior to their migration** abroad or migration within the country



A cartoon illustration on a grey background. In the center, a large, brown, segmented beetle with red legs and antennae is shown from a top-down perspective. Above it, a brown boot with a yellow strap is stepping down. To the left, a red, round object with two question marks is visible. To the right, a large, brown, irregular shape is shown. The scene is filled with white, puffy clouds and small, white, starburst-like shapes, suggesting a chaotic or explosive event.

METHODOLOGY

Overview of Modeling

Binary Logistic Regression

Overview of Modeling

Binary Logistic Regression



Model comparison

- ☐ Logistic regression via Maximum Likelihood Estimation
- ☐ Logistic regression via Firth's (1993) penalized logistic regression

Overview of Modeling

Binary Logistic Regression



Model comparison

- ☐ Logistic regression via Maximum Likelihood Estimation
- ☐ Logistic regression via Firth's (1993) penalized logistic regression



Robustness

- ☐ Probit regression
- ☐ Misclassification-consistent GLM estimation (Carroll & Pederson, 1993)

Overview of Modeling

Binary Logistic Regression



Model comparison

- ☐ Logistic regression via Maximum Likelihood Estimation
- ☐ Logistic regression via Firth's (1993) penalized logistic regression




Robustness

- ☐ Probit regression
- ☐ Misclassification-consistent GLM estimation (Carroll & Pederson, 1993)



Link test

A test for model specification, wherein a significant result suggests that at least one explanatory variable requires transformation or that an important variable is omitted

A stylized illustration in the background. A large, dark silhouette of a person is shown from the waist up, holding a flag with a colorful, abstract pattern. The person is positioned on the right side of the frame. Below the person, there is a dark blue, curved shape representing a body of water or a horizon. In the bottom left corner, there is a small, stylized cityscape with several buildings and a sun or moon with rays. The overall style is graphic and artistic.

DISCUSSION OF RESULTS



International Migration

International Migration: Logistic models

Variable	ML Estimation		Firth's penalized-likelihood	
	β	Std. error	β	Std. error
intercept	-6.345**	0.294	-6.341**	0.291
SEX: Male	-0.191*	0.102	-0.190*	0.102
AGE	-0.008	0.007	-0.007	0.006
CIVIL: Married	1.954**	0.326	1.959**	0.324
CIVIL: Live-in	1.846**	0.535	1.825**	0.527
CIVIL: Widowed	2.400**	1.053	2.476**	1.021
CIVIL: Separated	3.359**	0.762	3.326**	0.742
AGE \times Married	-0.043**	0.009	-0.047**	0.009
AGE \times Live-in	-0.058**	0.019	-0.057**	0.018
AGE \times Widowed	-0.043**	0.019	-0.044**	0.018
AGE \times Separated	-0.069**	0.022	-0.067**	0.021
MIGEXPER: Migrated	0.473**	0.105	0.469**	0.104
URBAN	0.006**	0.001	0.006**	0.001
EDUC	0.164**	0.016	0.163**	0.016
NATURE: Permanent	-0.265**	0.114	-0.266**	0.112
CLASS: Government	-0.593**	0.242	-0.571**	0.238
McFadden's pseudo- R^2	0.072		0.073	

* Denotes significance under $\alpha = 0.10$

** Denotes significance under $\alpha = 0.05$



International Migration

On urbanization, internal migration experience, & education

- Urban areas have more modes of transportation that allow for international travel



International Migration

On urbanization, internal migration experience, & education

- Urban areas have more modes of transportation that allow for international travel
- Higher education is more accessible in highly urbanized areas due to the presence of higher education institutions (HEIs)

International Migration

Brain drain & the relationship of education with international migration

- Brain drain happens when highly skilled workers choose to migrate to foreign countries for better wages

International Migration

Brain drain & the relationship of education with international migration

- Brain drain happens when highly skilled workers choose to migrate to foreign countries for better wages
- The final model may have captured the ***prevalence of nurse exporting*** of the Philippines

International Migration

Brain drain & the relationship of education with international migration

- Brain drain happens when highly skilled workers choose to migrate to foreign countries for better wages
- The final model may have captured the ***prevalence of nurse exporting*** of the Philippines
- Filipinos with less stable jobs have a higher propensity to migrate internationally, presumably to improve their working conditions

International Migration

Brain drain & the relationship of education with international migration

- Brain drain happens when highly skilled workers choose to migrate to foreign countries for better wages
- The final model may have captured the ***prevalence of nurse exporting*** of the Philippines
- Filipinos with less stable jobs have a higher propensity to migrate internationally, presumably to improve their working conditions

Gender & international labor migration

- We find that females have higher odds of migrating abroad compared to males.
 - ***Feminization of Philippine labor export***

International Migration

| The impact of age & civil status

- The impact of age on the odds of international migration is dependent on civil status



International Migration

| The impact of age & civil status

- The impact of age on the odds of international migration is dependent on civil status
- Looking only at the main effects of the civil status categories, one may conclude that single individuals are the least likely to migrate internationally.



International Migration

| The impact of age & civil status

- The impact of age on the odds of international migration is dependent on civil status
- Looking only at the main effects of the civil status categories, one may conclude that single individuals are the least likely to migrate internationally.
- Considering the interaction terms, we find that at older ages, single individuals are more likely to migrate abroad.
 - Old single women allegedly migrate to avoid the expectations and social norms



International Migration

| The impact of age & civil status

- The impact of age on the odds of international migration is dependent on civil status
- Looking only at the main effects of the civil status categories, one may conclude that single individuals are the least likely to migrate internationally.
- Considering the interaction terms, we find that at older ages, single individuals are more likely to migrate abroad.
 - Old single women allegedly migrate to avoid the expectations and social norms
 - They also likely have no families of their own to which they are tied to





Internal Migration

Internal Migration: Logistic models

Variable	ML Estimation		Firth's penalized-likelihood	
	β	Std. error	β	Std. error
intercept	-1.415**	0.124	-1.415**	0.124
SEX: Male	-0.308**	0.106	-0.308**	0.106
AGE	-0.060**	0.003	-0.060**	0.003
AGE \times Male	0.012**	0.003	0.012**	0.003
CIVIL: Married	0.258**	0.062	0.257**	0.062
CIVIL: Live-in	0.660**	0.061	0.660**	0.061
CIVIL: Widowed	1.153**	0.136	1.155**	0.135
CIVIL: Separated	0.860**	0.121	0.862**	0.120
LUZVIMIN: Visayas	0.306**	0.063	0.306**	0.063
LUZVIMIN: Mindanao	0.059	0.050	0.060	0.050
URBAN	0.014**	0.001	0.014**	0.001
EDUC	-0.015**	0.007	-0.015**	0.007
EMPLOY: Employed	0.586**	0.058	0.586**	0.058
NATURE: Permanent	-0.616**	0.062	-0.616**	0.062
CLASS: Government	-0.433**	0.128	-0.427**	0.128
McFadden's pseudo- R^2	0.103		0.103	

* Denotes significance under $\alpha = 0.10$

** Denotes significance under $\alpha = 0.05$



Internal Migration

| On urbanization

- The level of Urbanization **correlates positively** with internal migration



Internal Migration

| On urbanization

- The level of Urbanization **correlates positively** with internal migration
- This means that the higher the level of urbanization in the province of an individual, the more likely they are to migrate internally.



Internal Migration

| On urbanization

- The level of Urbanization **correlates positively** with internal migration
- This means that the higher the level of urbanization in the province of an individual, the more likely they are to migrate internally.
 - **Mean difference** in the level of urbanization in the province of **origin** and the level of urbanization in the province of **destination** is **26.91**
 - Implies **outward flow from Urban areas** such as Metro Manila **to less urban areas**



Internal Migration

| On geographic area

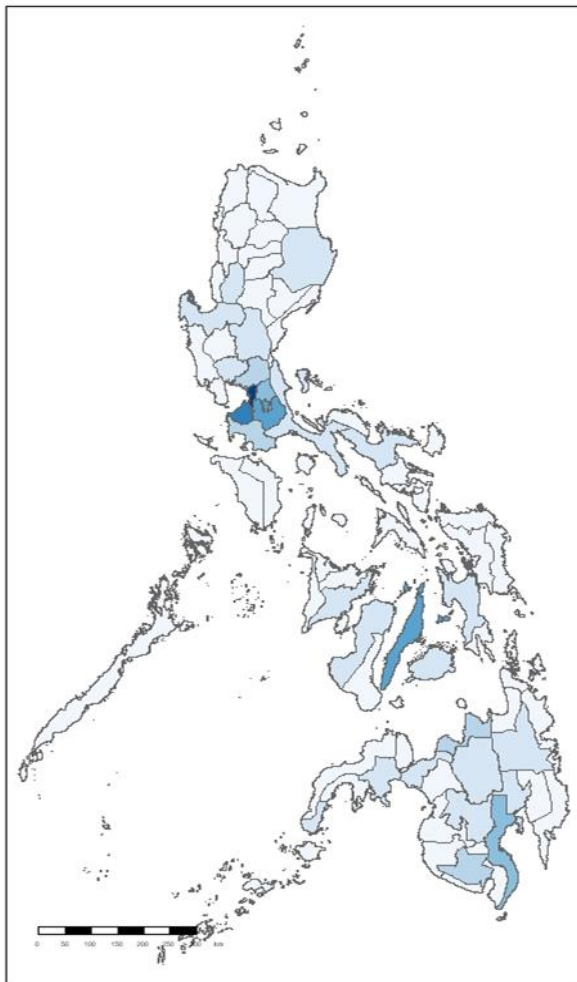
- Being in **Visayas** **correlates positively** with internal migration. People from Visayas are more likely to migrate internally than people from Luzon.



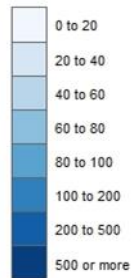
Internal Migration

| On geographic area

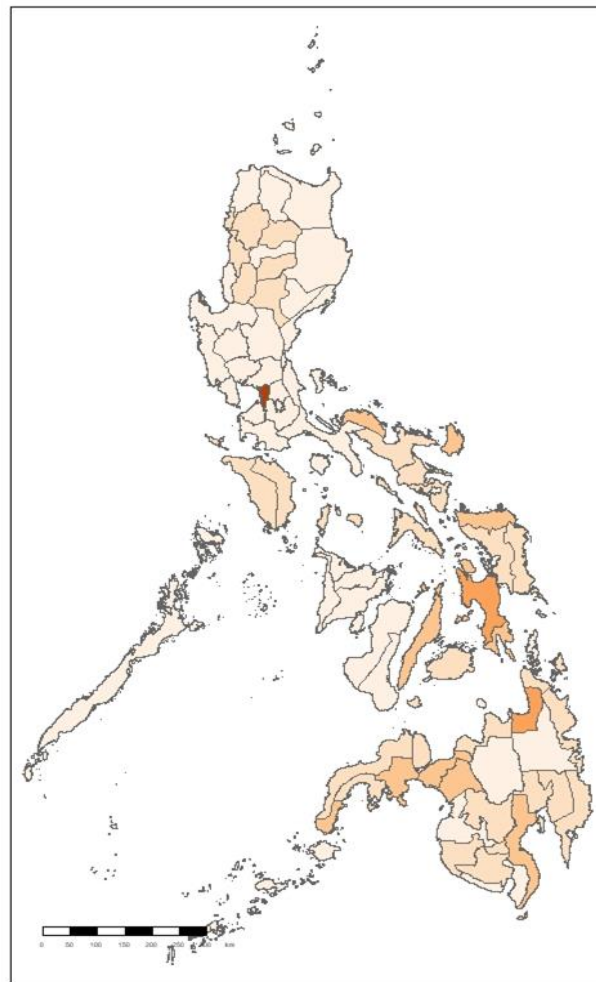
- Being in **Visayas** **correlates positively** with internal migration. People from Visayas are more likely to migrate internally than people from Luzon.
 - May not coincide with potential movement pattern from the relationship of odds of local migration and level of urbanization



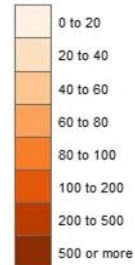
Migrant Count



Heatmap of
The Counts of
Migrants
According
To Origin



Migrant Count



Heatmap of
The Counts of
Migrants
According To
Destination



Internal Migration

| On Filipino migration patterns



In 1981, Abad found that the common Filipino migration pattern is to move from Rural to Urban. This has been the predominant belief on Filipino migration ever since.



Since this study does not explore local migration beyond identifying key drivers of it, the most we can infer from these findings is that internal migration patterns of Filipinos may no longer be as one-dimensional as Abad has previously found.

Internal Migration

| Hiring of domestic workers & internal migration

Asuncion (2014) describes a common occurrence in the Philippines wherein individuals—mostly without formal education or having only attended a few years—get **hired to be domestic workers**, especially **females**.

Internal Migration

| Hiring of domestic workers & internal migration

Asuncion (2014) describes a common occurrence in the Philippines wherein individuals—mostly without formal education or having only attended a few years—get **hired to be domestic workers**, especially **females**.

- Age, sex, and years of education correlate **negatively** with internal migration
 - Younger, less educated women are more likely to migrate

Internal Migration

| Hiring of domestic workers & internal migration

Asuncion (2014) describes a common occurrence in the Philippines wherein individuals—mostly without formal education or having only attended a few years—get **hired to be domestic workers**, especially **females**.

- Age, sex, and years of education correlate **negatively** with internal migration
 - Younger, less educated women are more likely to migrate
- The interaction of age and sex correlates **positively** with internal migration
 - This suggests that younger females are more likely to internally migrate than males. By the age of 26 years old, males are more likely to internally migrate than females.

Internal Migration

| Hiring of domestic workers & internal migration

Asuncion (2014) describes a common occurrence in the Philippines wherein individuals—mostly without formal education or having only attended a few years—get **hired to be domestic workers**, especially **females**.

- Age, sex, and years of education correlate **negatively** with internal migration
 - Younger, less educated women are more likely to migrate
- The interaction of age and sex correlates **positively** with internal migration
 - This suggests that younger females are more likely to internally migrate than males. By the age of 26 years old, males are more likely to internally migrate than females.

The prevalence of students who migrate **to access higher education** could also explain the **negative** relationship of years of education and odds of local migration.

Internal Migration

| Role of poor working conditions in internal migration

Being **employed** has a **positive** impact on the odds of internal migration; and yet, having a **permanent job** and being a **government employee** are **negative** correlates of internal migration.

Internal Migration

| Role of poor working conditions in internal migration

Being **employed** has a **positive** impact on the odds of internal migration; and yet, having a **permanent job** and being a **government employee** are **negative** correlates of internal migration.

- A permanent job and being a government employee both lean towards having job stability

Internal Migration

| Role of poor working conditions in internal migration

Being **employed** has a **positive** impact on the odds of internal migration; and yet, having a **permanent job** and being a **government employee** are **negative** correlates of internal migration.

- A permanent job and being a government employee both lean towards having job stability
 - Given the negative correlation of internal migration to these variables, the **lack of job stability** could be pushing Filipinos to migrate

Internal Migration

| Role of poor working conditions in internal migration

Being **employed** has a **positive** impact on the odds of internal migration; and yet, having a **permanent job** and being a **government employee** are **negative** correlates of internal migration.

- A permanent job and being a government employee both lean towards having job stability
 - Given the negative correlation of internal migration to these variables, the **lack of job stability** could be pushing Filipinos to migrate
- On the other hand, employed people migrate despite having a job **to improve their wages or working conditions**

A photograph of a protest or demonstration. In the foreground, a man on the left wears a green cap and a white t-shirt with a green bag slung over his shoulder. Behind him and to the right, several people hold up various signs. Visible signs include "LONG AND APANG KAPAYAN MIGRANT", "RESUME TALKS", "SUPPORT FREE ALL POLITICAL", "FULL AUDIT OF ONWA FUNDS", "RESUME PECE WAS", and "FREE ALL POLITICAL". A large banner is held across the middle of the frame, with the words "LABOR EXPORTATION" and "MIGRANTE" visible in red and green letters. The background shows a city street with buildings and a green car on the right.

CONCLUSIONS AND RECOMMENDATIONS

Conclusions

Conclusions



On Education

The difference in signs of the two models could be due to the poorer Filipinos' lack of access to knowledge or resources needed for international migration.

Conclusions



On Education

The difference in signs of the two models could be due to the poorer Filipinos' lack of access to knowledge or resources needed for international migration.



On Migration Patterns

The signs on the level of urbanization for internal migration did not agree with existing literature. Migration pattern for Filipinos may not be as straightforward as rural to urban anymore.

Conclusions



On Education

The difference in signs of the two models could be due to the poorer Filipinos' lack of access to knowledge or resources needed for international migration.



On Migration Patterns

The signs on the level of urbanization for internal migration did not agree with existing literature. Migration pattern for Filipinos may not be as straightforward as rural to urban anymore.



On Income

Income is not a key driver of migration. Wages at the destination of migration should be explored, since it could be that migration is driven by opportunity rather than necessity.

Policy recommendations

- To mitigate brain drain, reexamine and improve the working conditions and job stability within Philippines

Policy recommendations

- To mitigate brain drain, reexamine and improve the working conditions and job stability within Philippines
 - Focus on **creating jobs** that can utilize the skills of highly trained Filipinos

Policy recommendations

- To mitigate brain drain, reexamine and improve the working conditions and job stability within Philippines
 - Focus on **creating jobs** that can utilize the skills of highly trained Filipinos
 - Make jobs have **similar benefits and wages** to their counterparts abroad

Policy recommendations

- To mitigate brain drain, reexamine and improve the working conditions and job stability within Philippines
 - Focus on **creating jobs** that can utilize the skills of highly trained Filipinos
 - Make jobs have **similar benefits and wages** to their counterparts abroad
- Additionally, the government should create policies to protect OFWs (e.g. crafting a social pension program unique to them)

Policy recommendations

- To mitigate brain drain, reexamine and improve the working conditions and job stability within Philippines
 - Focus on **creating jobs** that can utilize the skills of highly trained Filipinos
 - Make jobs have **similar benefits and wages** to their counterparts abroad
- Additionally, the government should create policies to protect OFWs (e.g. crafting a social pension program unique to them)
- Protection for informal sector workers should be improved

Policy recommendations

- To mitigate brain drain, reexamine and improve the working conditions and job stability within Philippines
 - Focus on **creating jobs** that can utilize the skills of highly trained Filipinos
 - Make jobs have **similar benefits and wages** to their counterparts abroad
- Additionally, the government should create policies to protect OFWs (e.g. crafting a social pension program unique to them)
- Protection for informal sector workers should be improved
 - Improve implementation of Domestic Workers Act

Policy recommendations

- To mitigate brain drain, reexamine and improve the working conditions and job stability within Philippines
 - Focus on **creating jobs** that can utilize the skills of highly trained Filipinos
 - Make jobs have **similar benefits and wages** to their counterparts abroad
- Additionally, the government should create policies to protect OFWs (e.g. crafting a social pension program unique to them)
- Protection for informal sector workers should be improved
 - Improve implementation of Domestic Workers Act
 - Update existing labor policies to prioritize the safety of workers

Policy recommendations

- To mitigate brain drain, reexamine and improve the working conditions and job stability within Philippines
 - Focus on **creating jobs** that can utilize the skills of highly trained Filipinos
 - Make jobs have **similar benefits and wages** to their counterparts abroad
- Additionally, the government should create policies to protect OFWs (e.g. crafting a social pension program unique to them)
- Protection for informal sector workers should be improved
 - Improve implementation of Domestic Workers Act
 - Update existing labor policies to prioritize the safety of workers
- Make education, especially higher education, more accessible

Thank you!

Researchers:

Gia Mizrane Abubo

Lorenzo Faustino Baquiran

Pamela Cunanan

CREDITS: This presentation template was created by **Slidesgo**, including icons by **Flaticon**, and infographics & images by **Freepik**