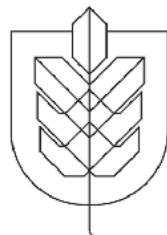




NORTH AMERICA & **parts of** **LATIN AMERICA**

Regional Explanatory Analysis by Team 5

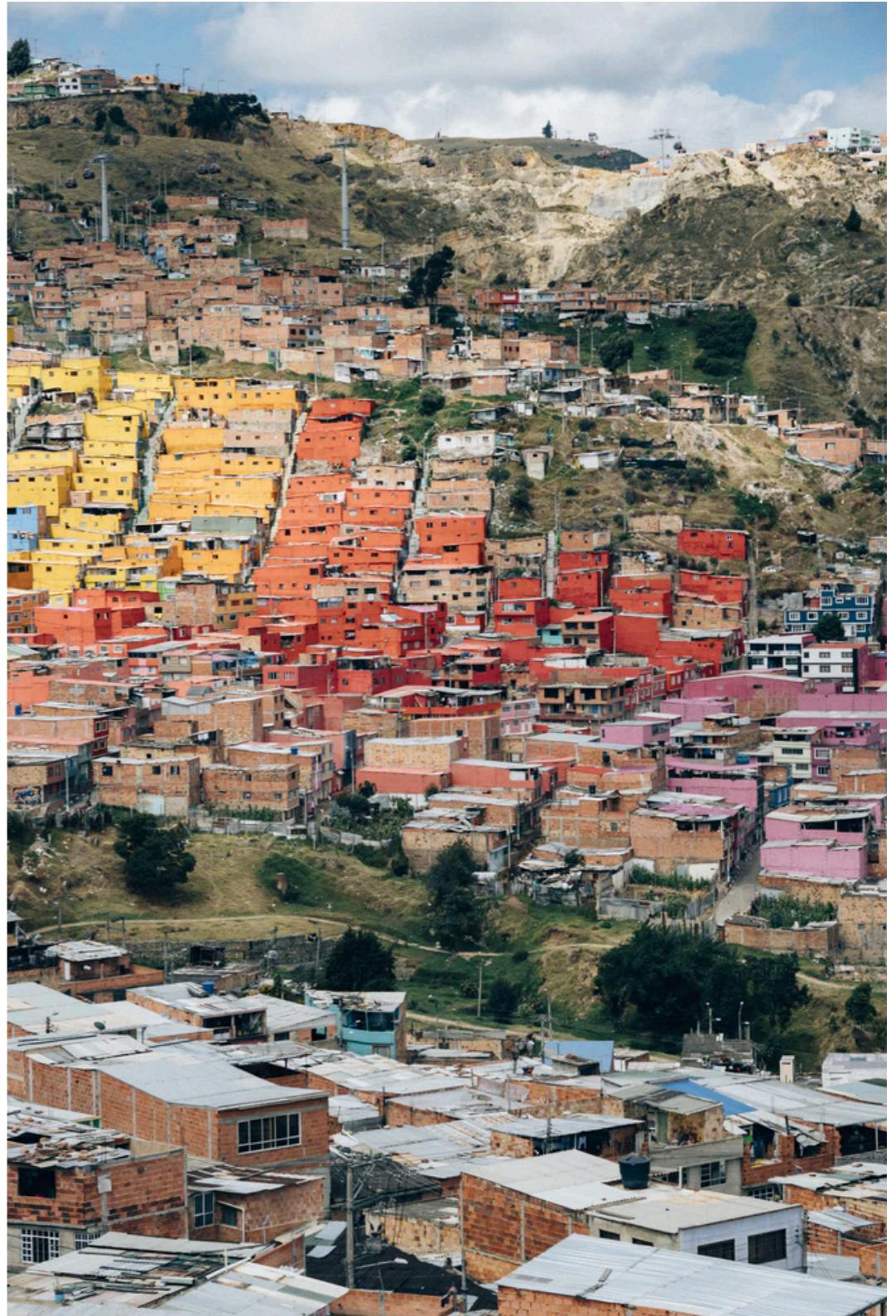


HULT
INTERNATIONAL
BUSINESS SCHOOL

Sharmaine Aguilar
Ligia Abril Benhumea Flores
Arundhishaan Kanagaraja
Jason Lee
Bowen Zhang

AGENDA

- Our Focus
- Missing Value Sources & Strategy
- General Exploration
- Outliers
 - GDP
 - Population
 - Health
 - Employment
- Key Takeaways



11 COUNTRIES

Canada, USA, Mexico, Guatemala, El Salvador,
Nicaragua, Costa Rica, Panama, Belize,
Bermuda and Honduras

Also known as
“Hot Rod”



OUR FOCUS

United Nation's Sustainable Development Goals (SDG)



Missing Values



MISSING VALUES

- **3rd party sources**
 - CIA, World Factbook
 - United Nations Population Fund
 - Indicators - World Bank
- **Bermuda had the most missing values**
- **Mean of adjacent years as benchmark**



```
8  #filling in missing values Tax Revenue column
9  tax_countries = ['BMU', 'GTM', 'HND', 'MEX', 'PAN', 'USA']
10 tax_list = [18.7, 11.9, 15.6, 13.04, 10.6, 11.95]
11 for (country_code, tax_num) in zip(tax_countries, tax_list):
12     hot_rod.loc[[country_code], ['Tax revenue (% of GDP)']] = tax_num
```

REASONS FOR MISSING VALUES

- Data Collection is **not done annually**
- World Bank's non-lending countries are **not obliged to disclose data**
- Some will have national statistics, but **not always reporting** to international level

GENERAL EXPLORATORY ANALYSIS

Political, Economic, Military and Societal Challenges



A photograph of a large collection of beer bottles, mostly dark brown glass, arranged in a wooden case. One bottle stands out prominently in the foreground on the left, having a light yellow or cream-colored label. The word "Outliers" is overlaid in white text on the center-left of the image.

Outliers

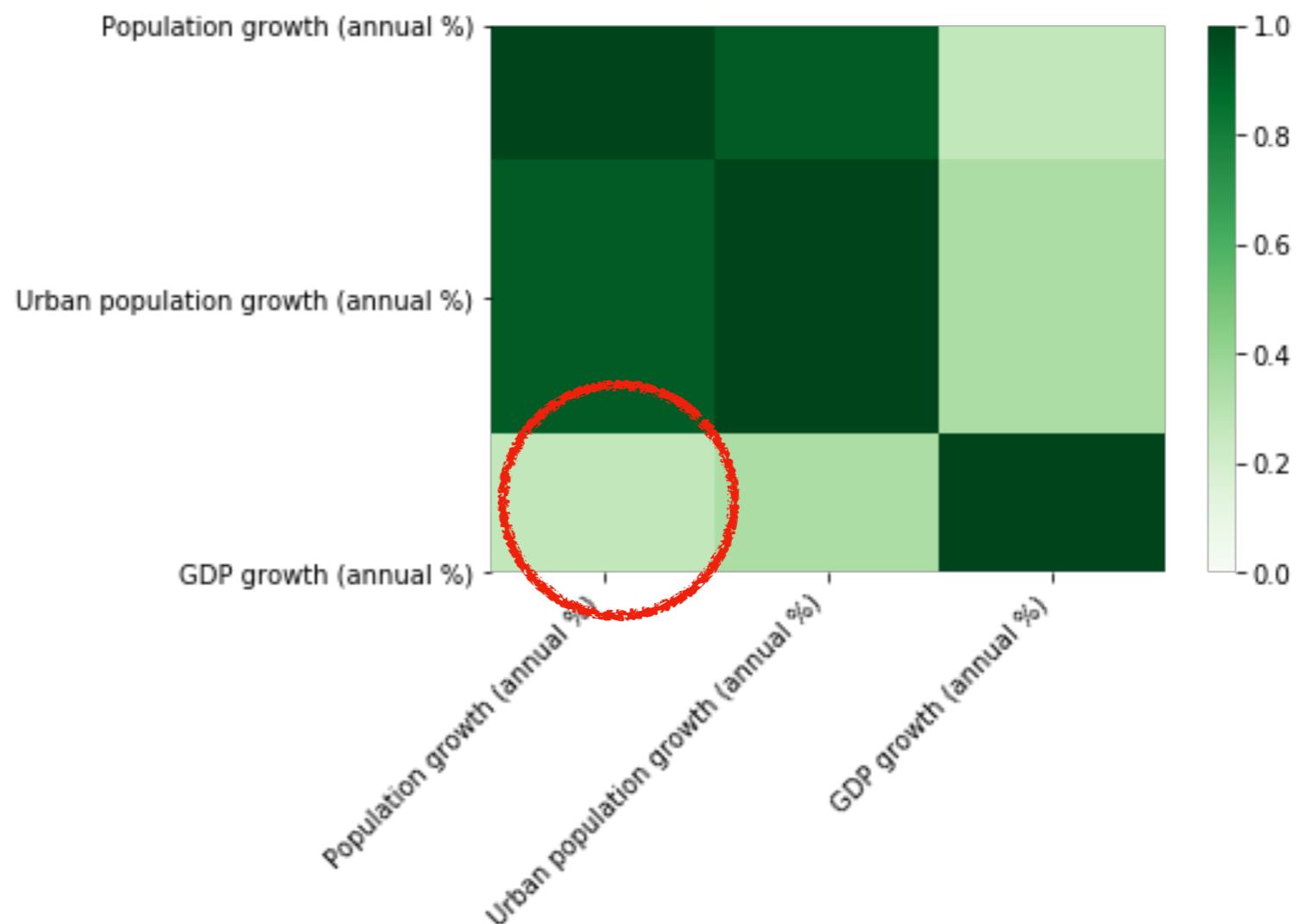


POPULATION VS GDP GROWTH

Standard Practice Assumption:

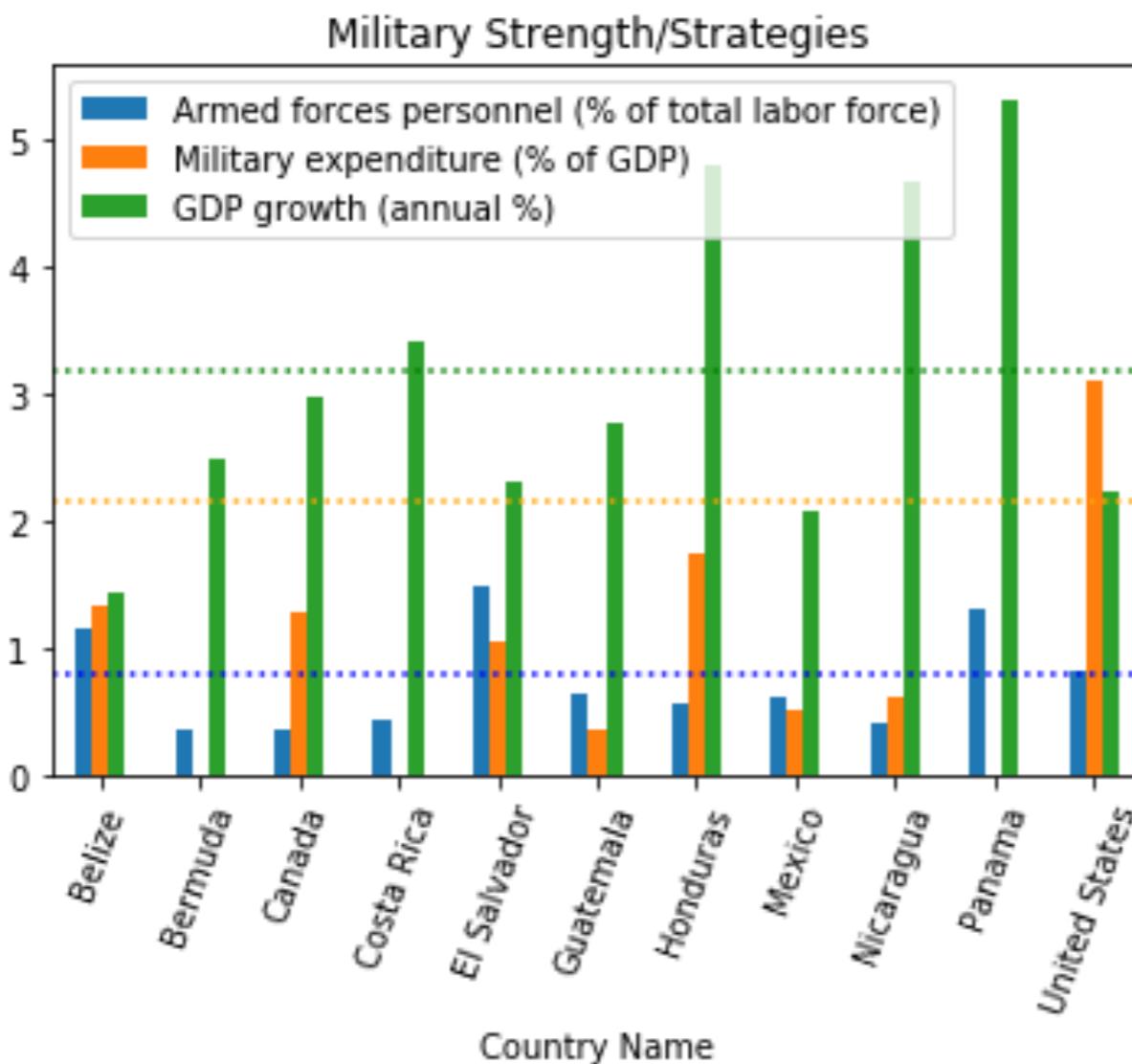
Economics: Population growth leads to increase labor, meaning more output and thus GDP increase.

**However, this is
NOT the case. Why?**





MILITARY STRENGTH HAS KEY RELATION TO ECONOMIC GROWTH



→ **Costa Rica & Panama:**
Demilitarization due to **distrust** on military and recognized as a **National Pride** as a symbol of Peace.

→ Military Expenditure leads to decrease in GDP Growth



MILITARY STRENGTH HAS KEY RELATION TO ECONOMIC GROWTH

Tropical Alliance: responding to an environmental and mass casualty disaster in Belize

[Major Alan Grant](#), 3 September 2019 - [BATSUB](#), [Belize](#), [DIO Brunei](#), [Training ex](#)



Major Alan Grant providing an exercise safety brief [Crown Copyright/MOD2019]

Last week, a major training exercise called Tropical Alliance took place in Belize with the help of the [British Army Training Support Unit Belize](#) and DIO. This was to test the skills, readiness and response of Belize's emergency services in the event of a real-life environmental disaster or casualty event.

Having An Army Might Be Practical, But It's Not Obligatory

June 21, 2014 - 11:14 AM ET

Laura Secorun Palet

FROM



Drug trafficking: The growing Latin American business

Published: Mar 29, 2018

While the shipment of coca from Colombia to the United States increases, other South American countries become more involved in this business



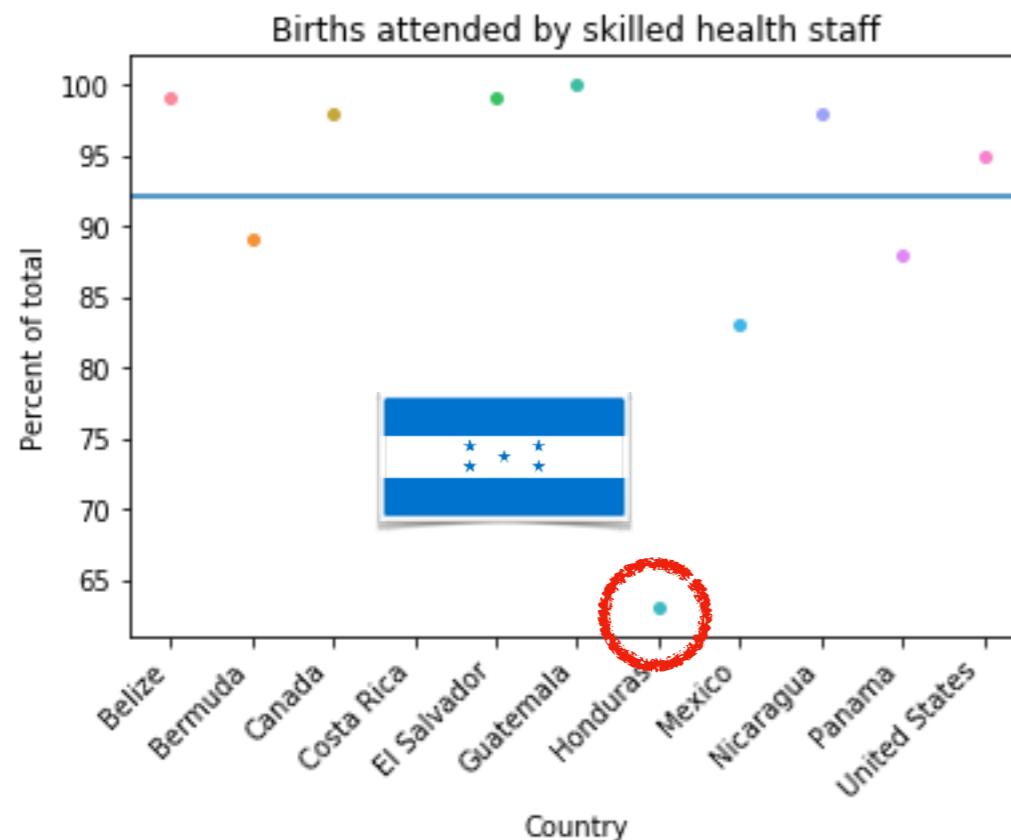
[Leer en español: Narcotráfico: El creciente negocio latinoamericano](#)

According to a report by Revista Semana, Peru, Bolivia, Ecuador, and Colombia have been the nations that most cultivate and export narcotics to Europe, United States, and Asia. Despite the campaigns of



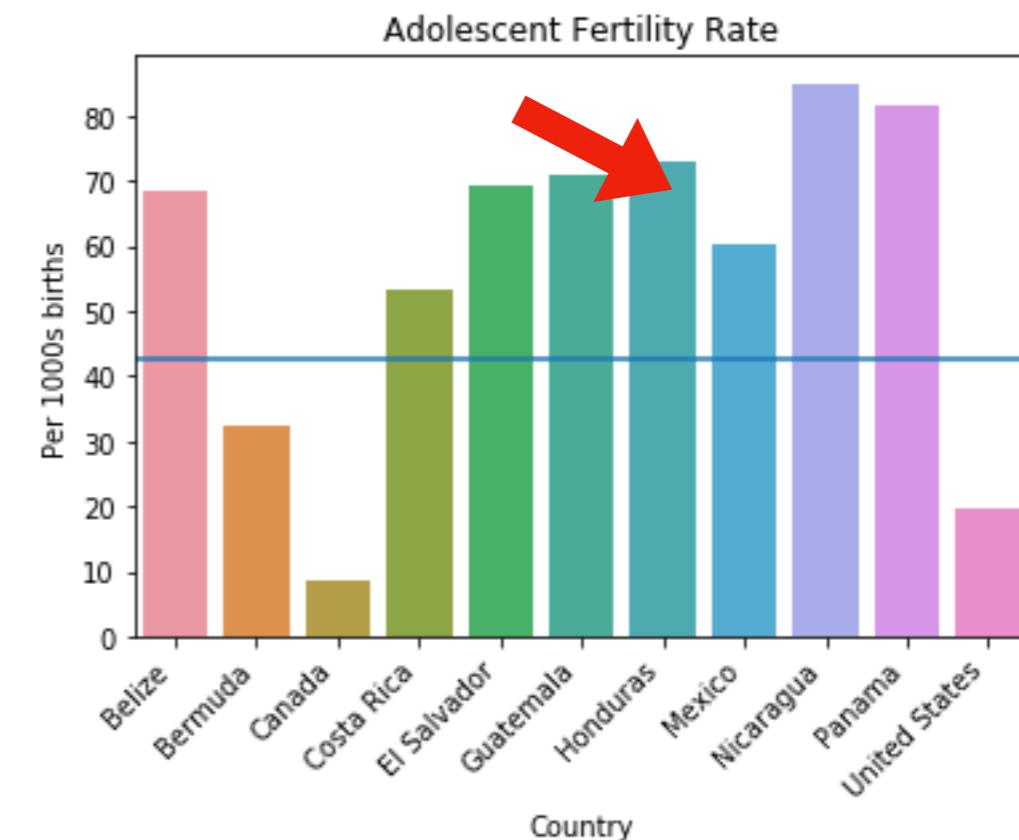
HIGH QUALITY HEALTHCARE ACCESS & ADOLESCENT FERTILITY

Some have poor quality healthcare access compared to the World



0.37 physicians per 1,000 people

High Adolescent Fertility Rates compared to Canada and US

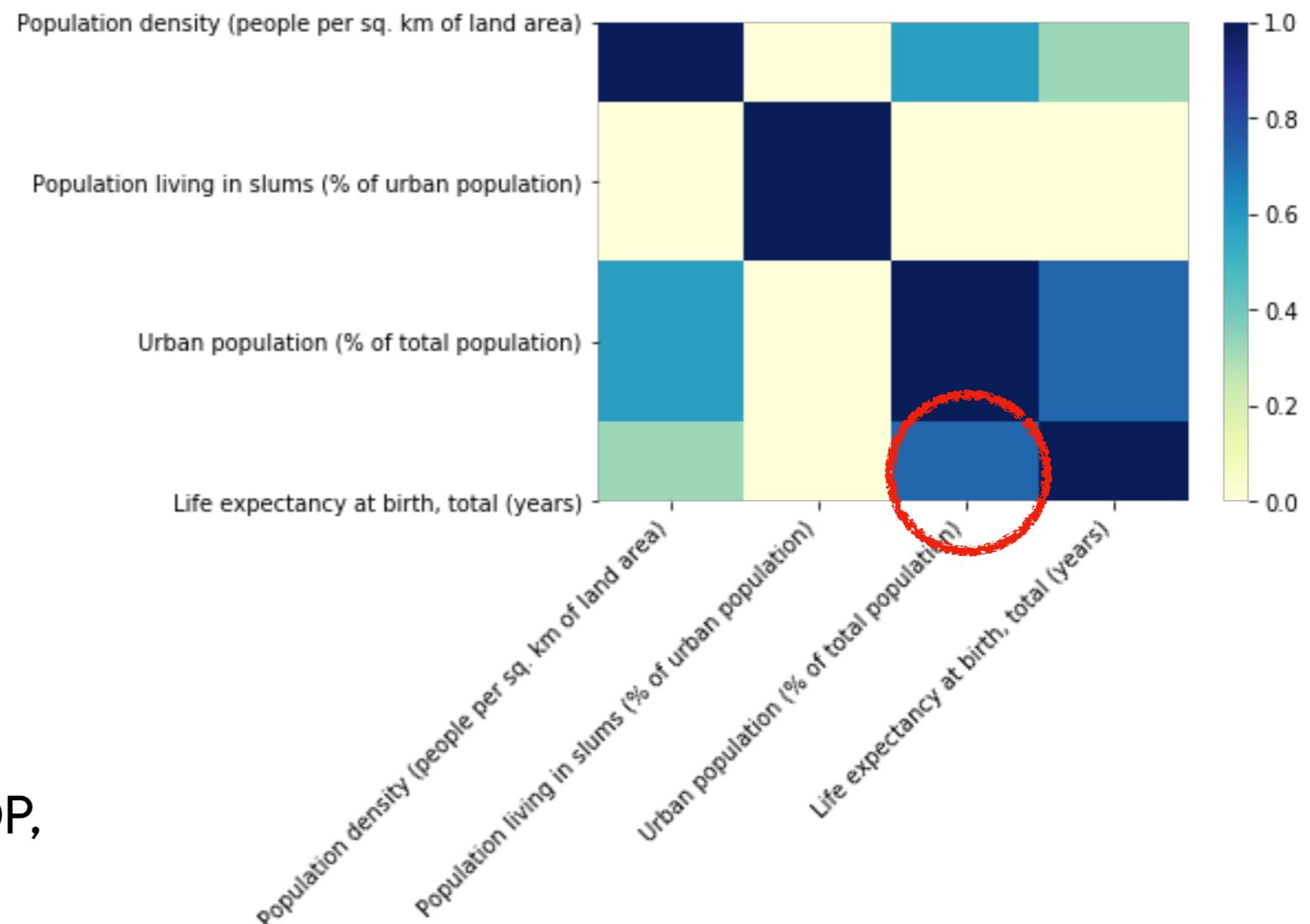




DEMOGRAPHICS & LIFE EXPECTANCY

Life Expectancy Age (yrs)	
Canada	82.5
Bermuda	81.44
Costa Rica	79.91
US	78.54
World	72.34

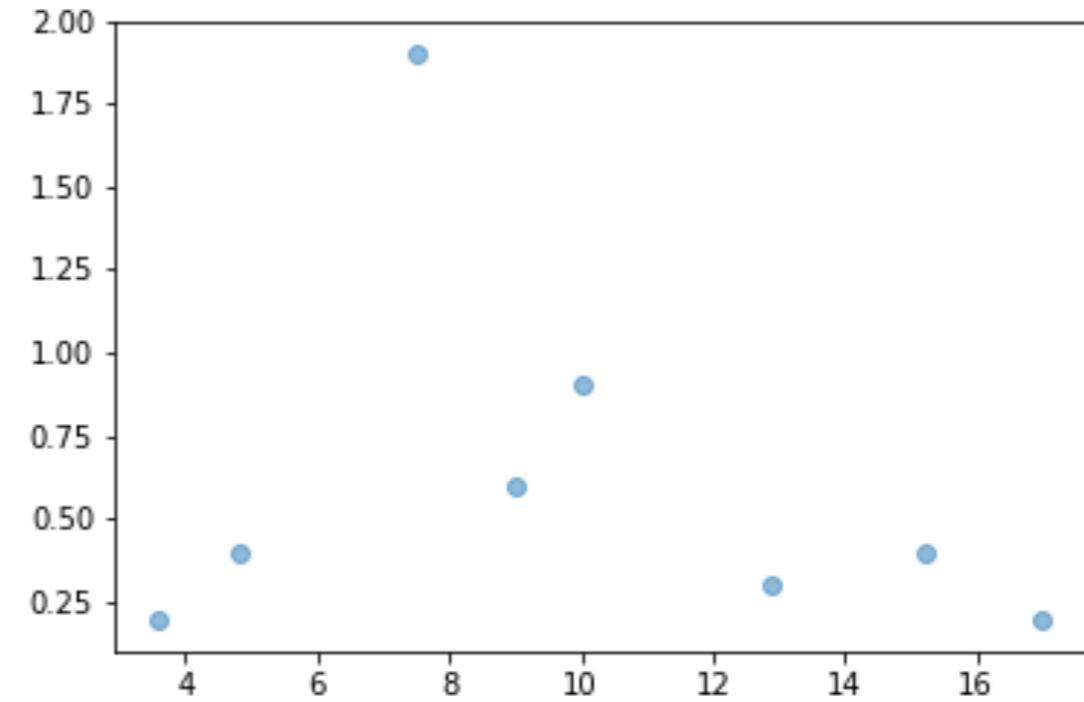
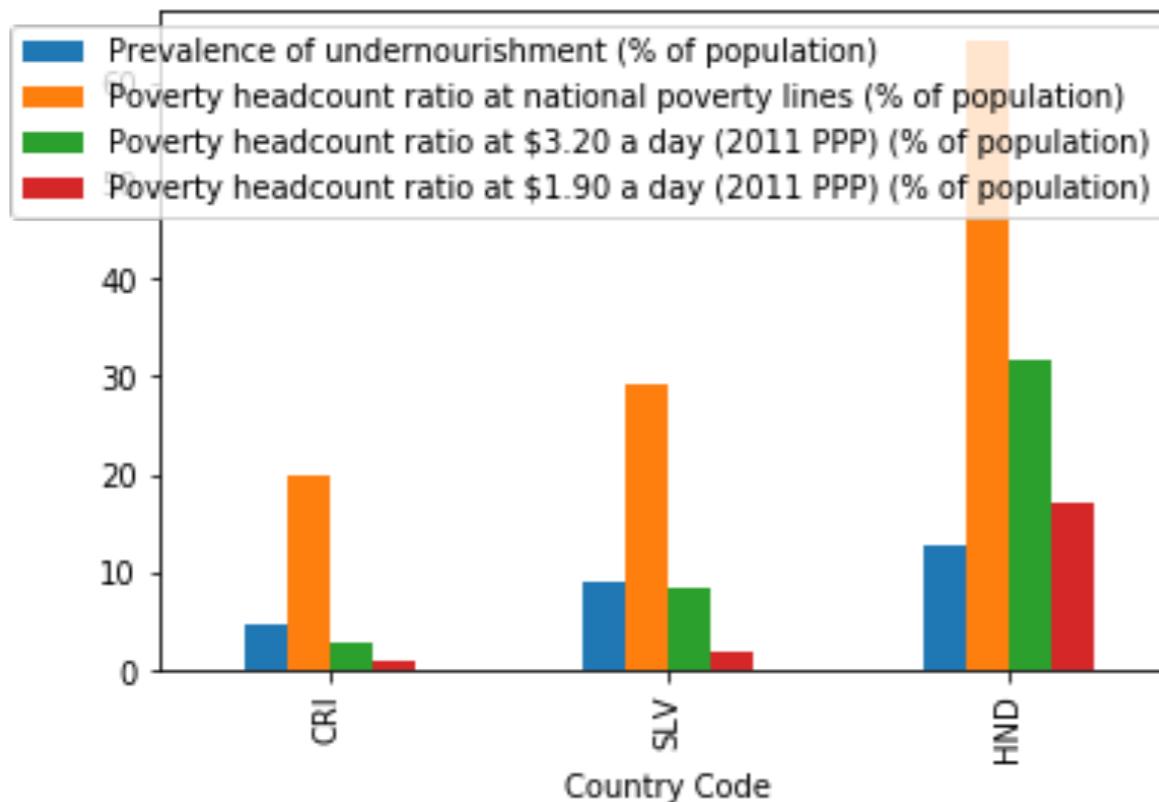
Bermuda's health spend was **11.5 percent** as a share of its GDP, behind only Switzerland at 12.4 percent and the US at 17.2 percent.





PREVALENCE OF UNDERNOURISHMENT

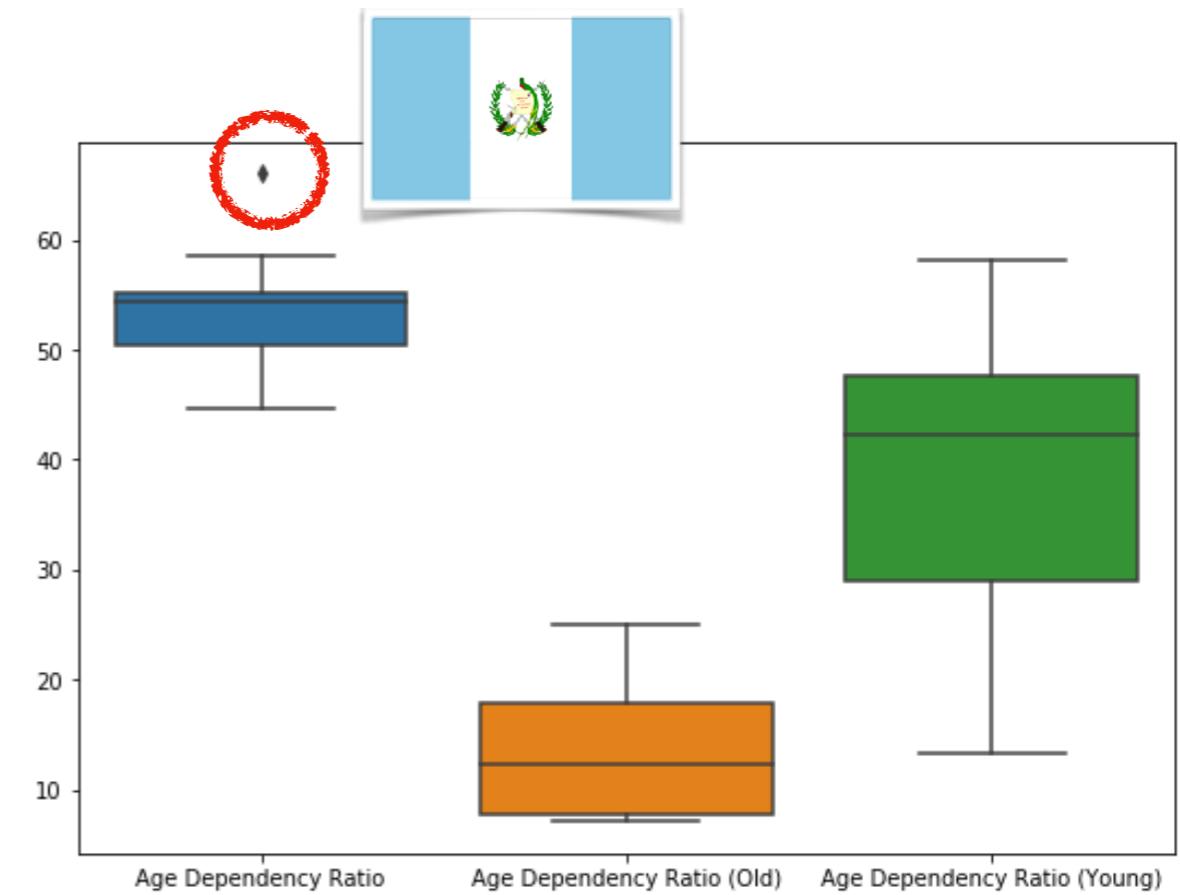
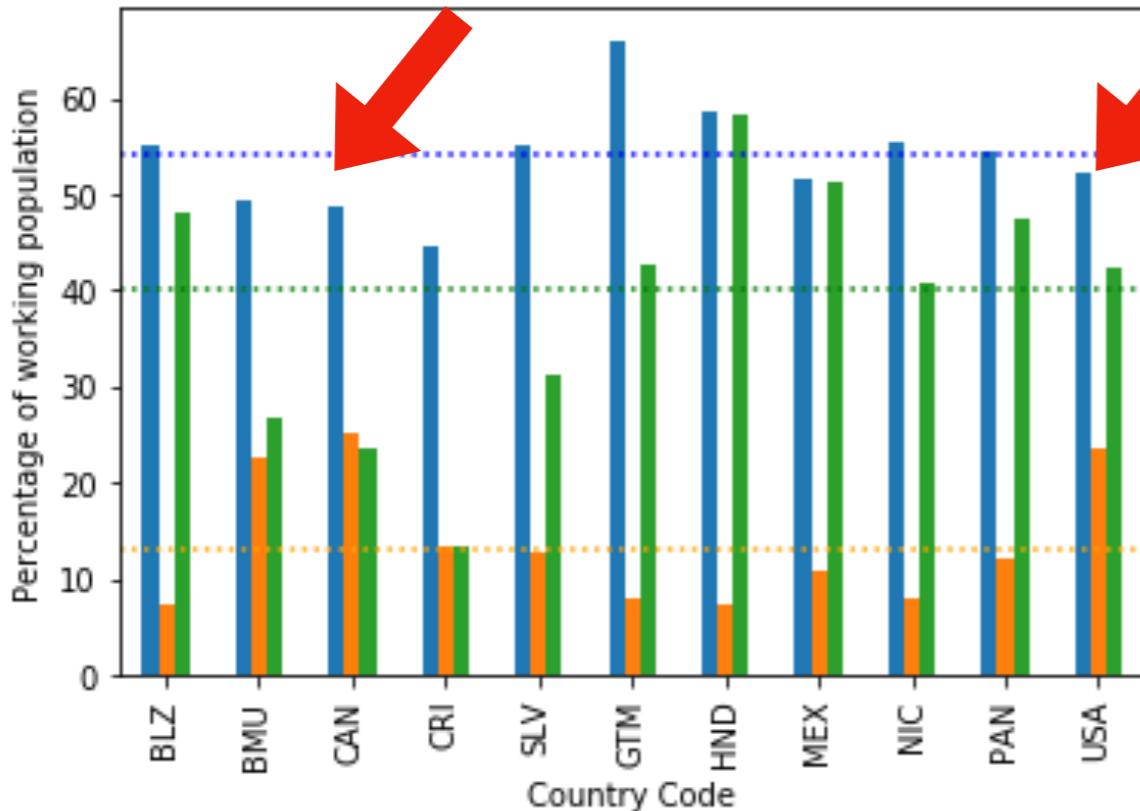
Prevalence of HIV (% of population) and undernourishment (% of population)



Positive association between HIV and undernourishment



AGE DEPENDENCY RATIO



Relatively high age dependency ratio for all



LONG-TERM ECONOMICAL IMPLICATIONS:

Working population

Closer to retirement

Growing labor force

Increased savings

Decreased savings

Change in consumption patterns

Increase in the elderly population

Increased tax rates

Increase savings

Increase housing prices

Decrease in long-term interest

Low physical capital

Goods to healthcare

Decline in economic growth

Increase in the young = increase in economic growth?



CASE: GUATEMALA'S MIGRANTS

Southwest Border Family Unit* Apprehensions by Country

Numbers below reflect Fiscal Years 2016 - 2019.

Family Units* Apprehensions by Country				
Country	FY16	FY17	FY18	FY19
El Salvador	27,114	24,122	13,669	56,897
Guatemala	23,067	24,657	50,401	185,233
Honduras	20,226	22,366	39,439	188,416
Mexico	3,481	2,271	2,261	6,004

*Note: Family Unit represents the number of individuals (either a child under 18 years old, parent or legal guardian) apprehended with a family member by the U.S. Border Patrol.

Southwest Border Single Adult Apprehensions by Country

Numbers below reflect Fiscal Years 2016 - 2019.

Single Adult Apprehensions by Country				
Country	FY16	FY17	FY18	FY19
El Salvador	27,222	16,495	12,751	20,893
Guatemala	32,621	26,387	42,994	48,606
Honduras	22,258	17,110	26,161	44,981
Mexico	175,353	116,790	139,860	149,967

LATIN AMERICA

'There Is Nothing For Us Here': Why People Keep Leaving Guatemala

July 22, 2018 · 8:12 AM ET

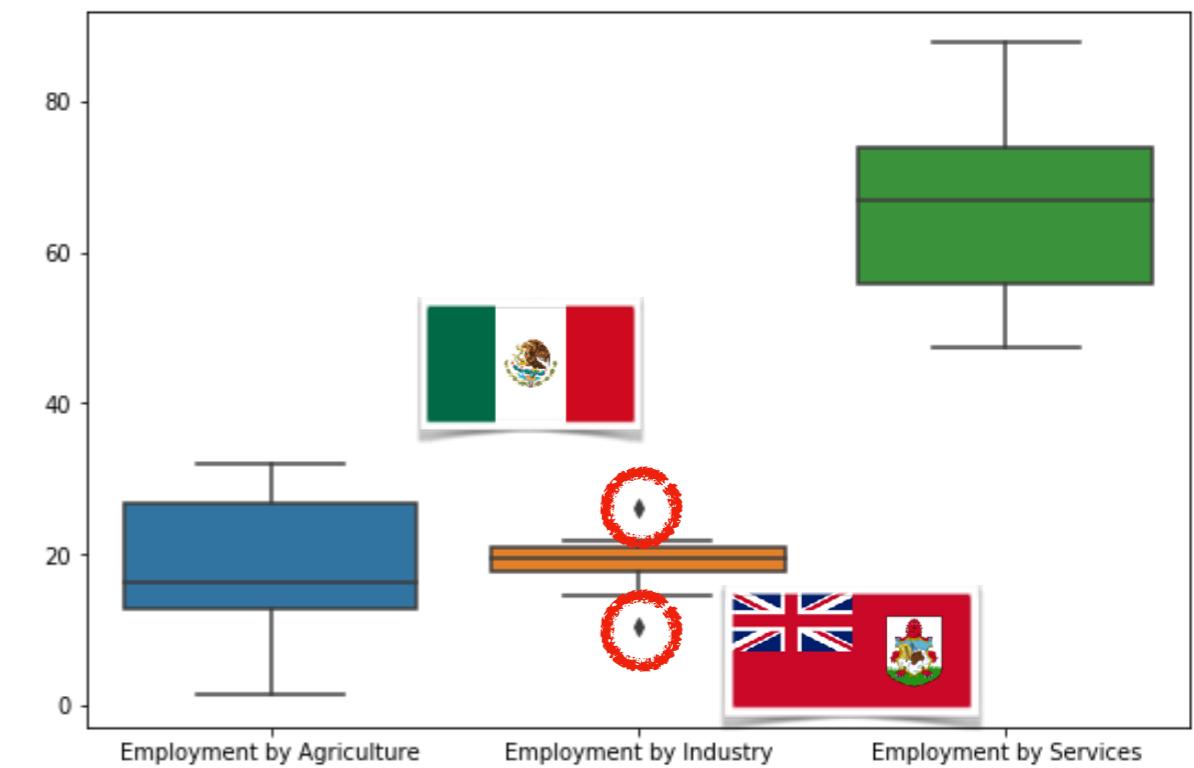
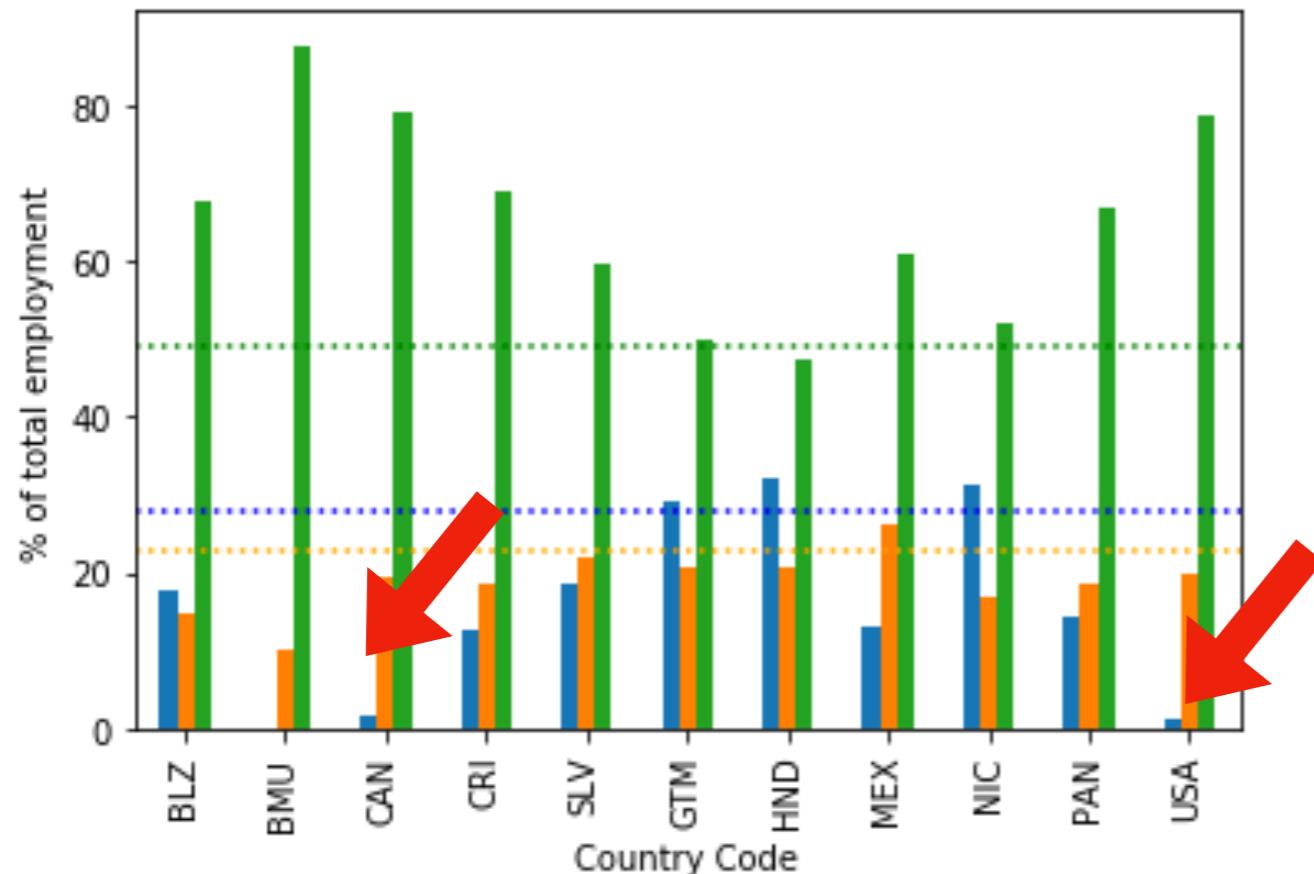
Heard on [Weekend Edition Sunday](#)

MARIA MARTIN



EMPLOYMENT BY SECTOR

Agriculture, Industry and Services



Higher employment by services than agriculture and industry



CASE: CANADA & US FARMS

Canada Has A Huge Agricultural Labor Shortage

Dan Nosowitz

It's costing the country literally billions of



These U.S. industries can't work without illegal immigrants

BY MARY JO DUDLEY

UPDATED ON: JANUARY 10, 2019 / 3:55 PM / THE CONVERSATION

KEY TAKEAWAYS



- North and Central America is a region with Upper, Middle and Low income countries and impact directly within the different variables in the dataset (political, economic, military and societal).
- **Military Strength** has a key relation with economic growth
- **Lack of access to healthcare professionals** can have long term effects on adolescent girls giving birth
- **Size of a country** does not affect the quality of health and life expectancy, poverty and rural areas does.
- There is a positive association between **HIV and undernourishment**.
- **Age dependency** implies economic effects: the older decreases growth, while the young immigrate to look for better opportunities.
- Issues such as immigration, in the case of the US, contribute to **low recorded employment** in the agriculture sector
- Latin America's overall economic growth is **beneficial for the US** because of trade and exports, and the rest of the world

**NORTH
AMERICA**
&
parts of **LATIN
AMERICA**

Thank you!

