



# **Skilled Migration and Development**

**Research to Operations**

**Çaglar Özden**

Development Research Group

WORLD BANK

# Brain Drain



# Brain Drain



## OVERALL PATTERNS

# Skilled Migration



## The Benefits

- Remittances
- Diaspora effects
- Incentives for higher levels of education
- Brain Circulation

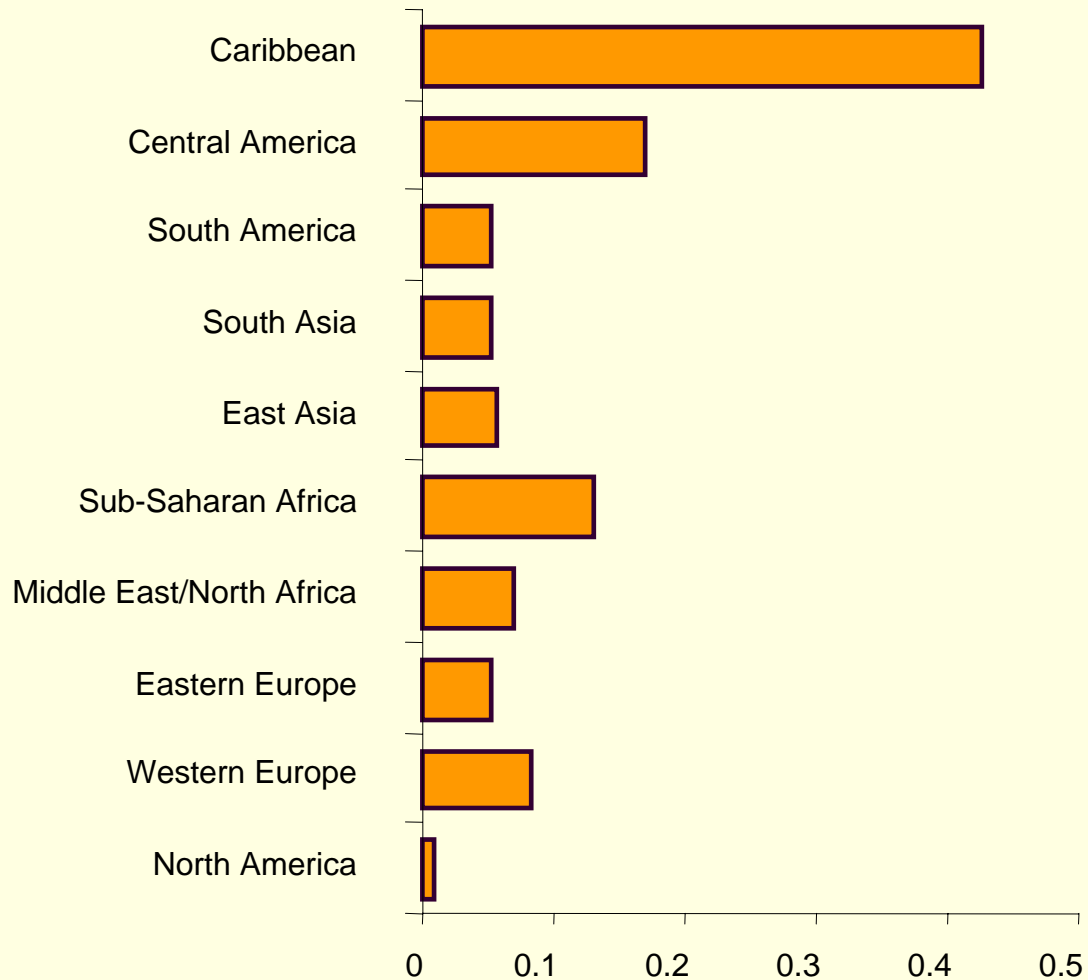
## The Costs

- The Cost of Education
- Loss of Positive Spillovers – benefits to people other than the migrant
  - Productivity spillovers
  - Services to population – education and healthcare
  - Innovation and creativity
  - Institution building

# Brain Drain



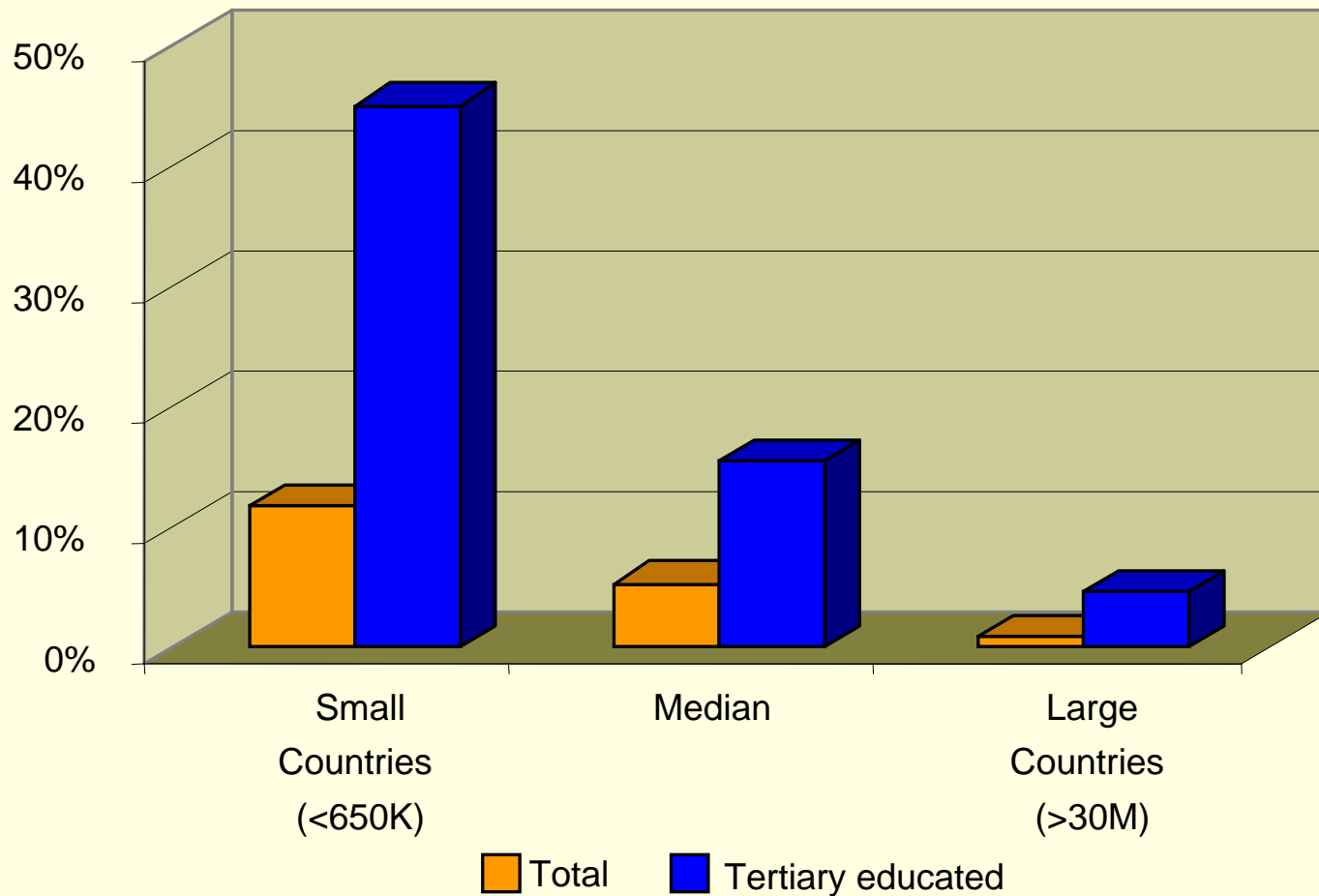
## Share of Educated Population Living Abroad



# Brain Drain



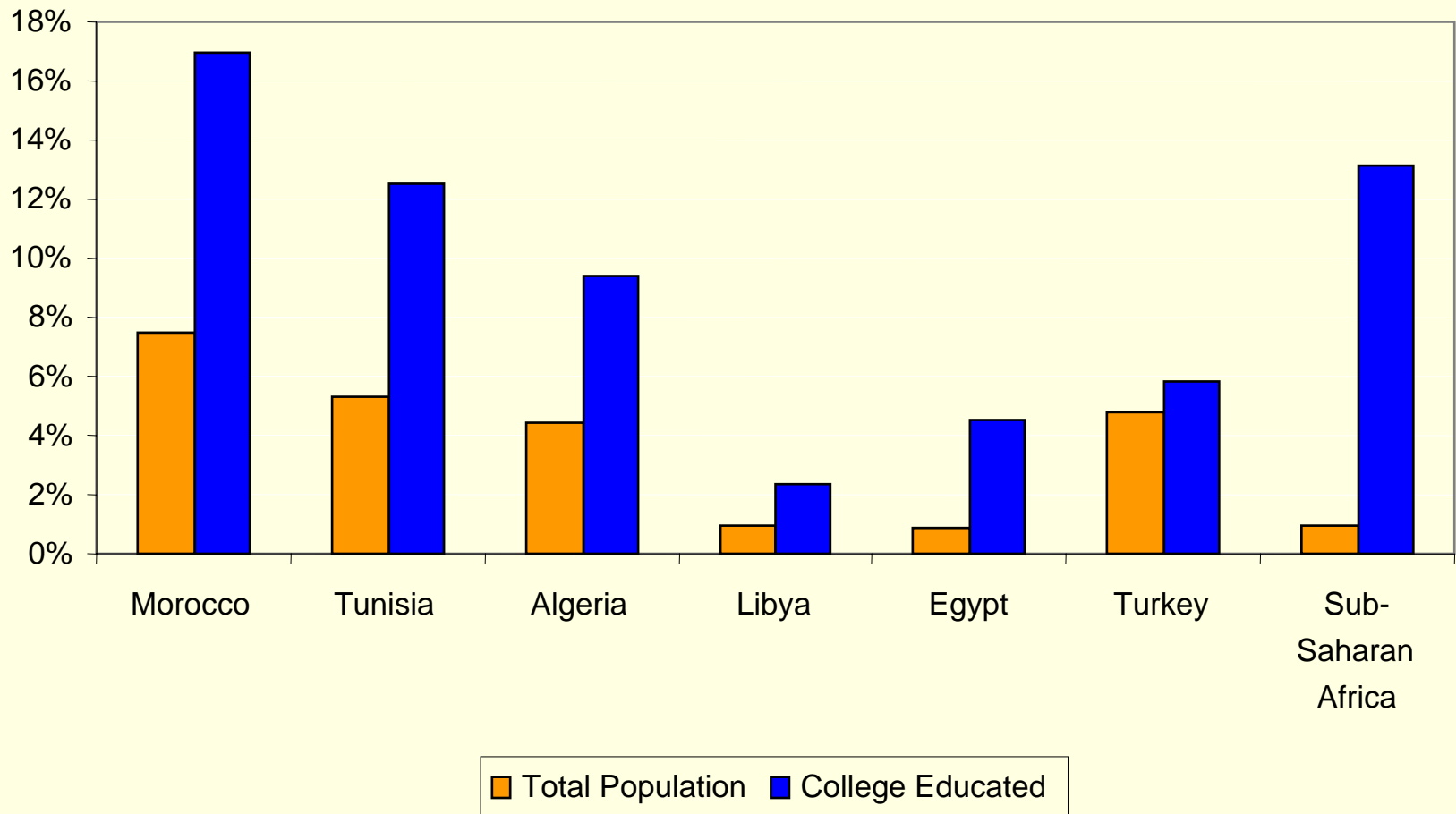
## Share of Population Living Abroad



# Brain Drain – North Africa



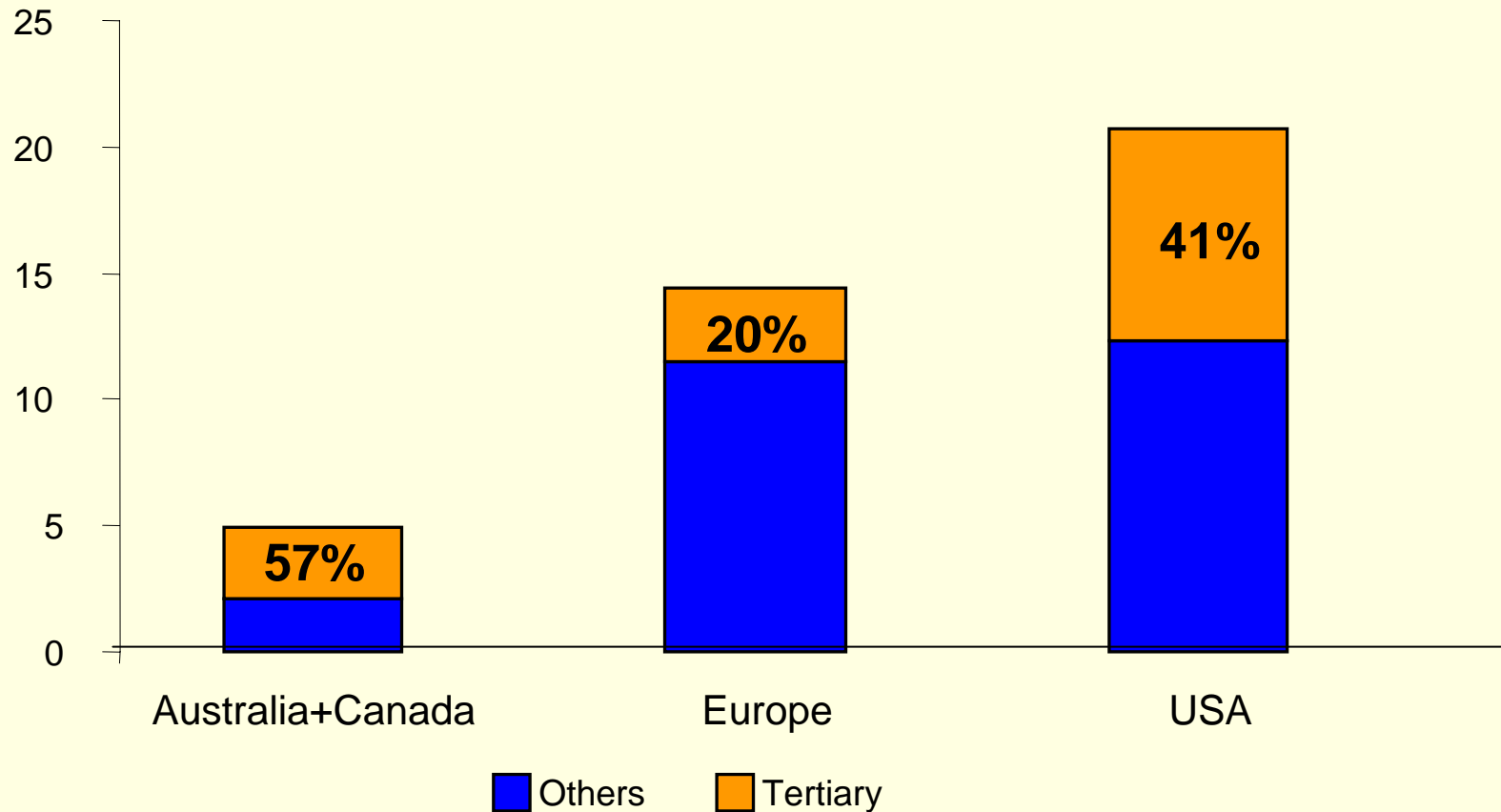
Share of Population Living in OECD Countries, 2000



# Brain Drain



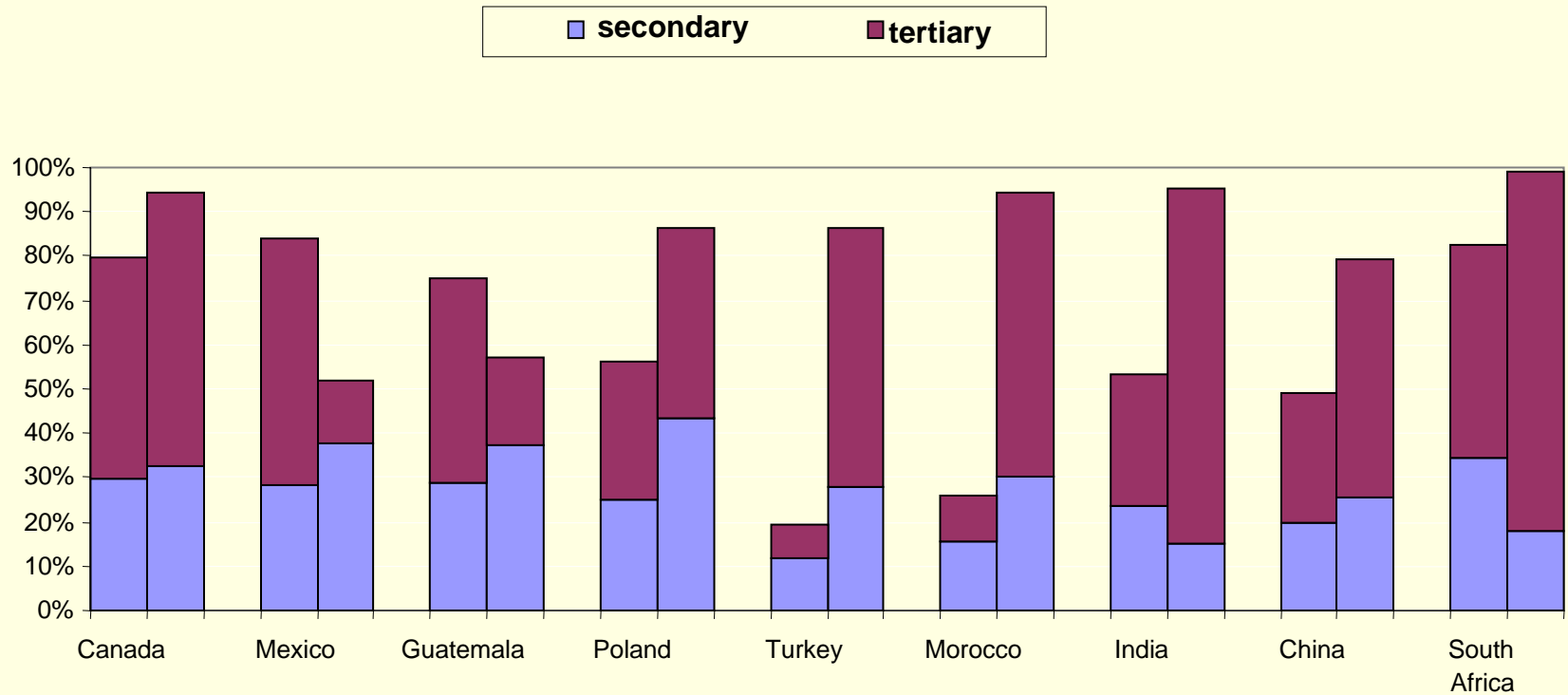
**Migrants from Developing Countries in 2000 (Mil.)**



# Brain Drain



Migration from selected countries to EU15 and USA - composition by education

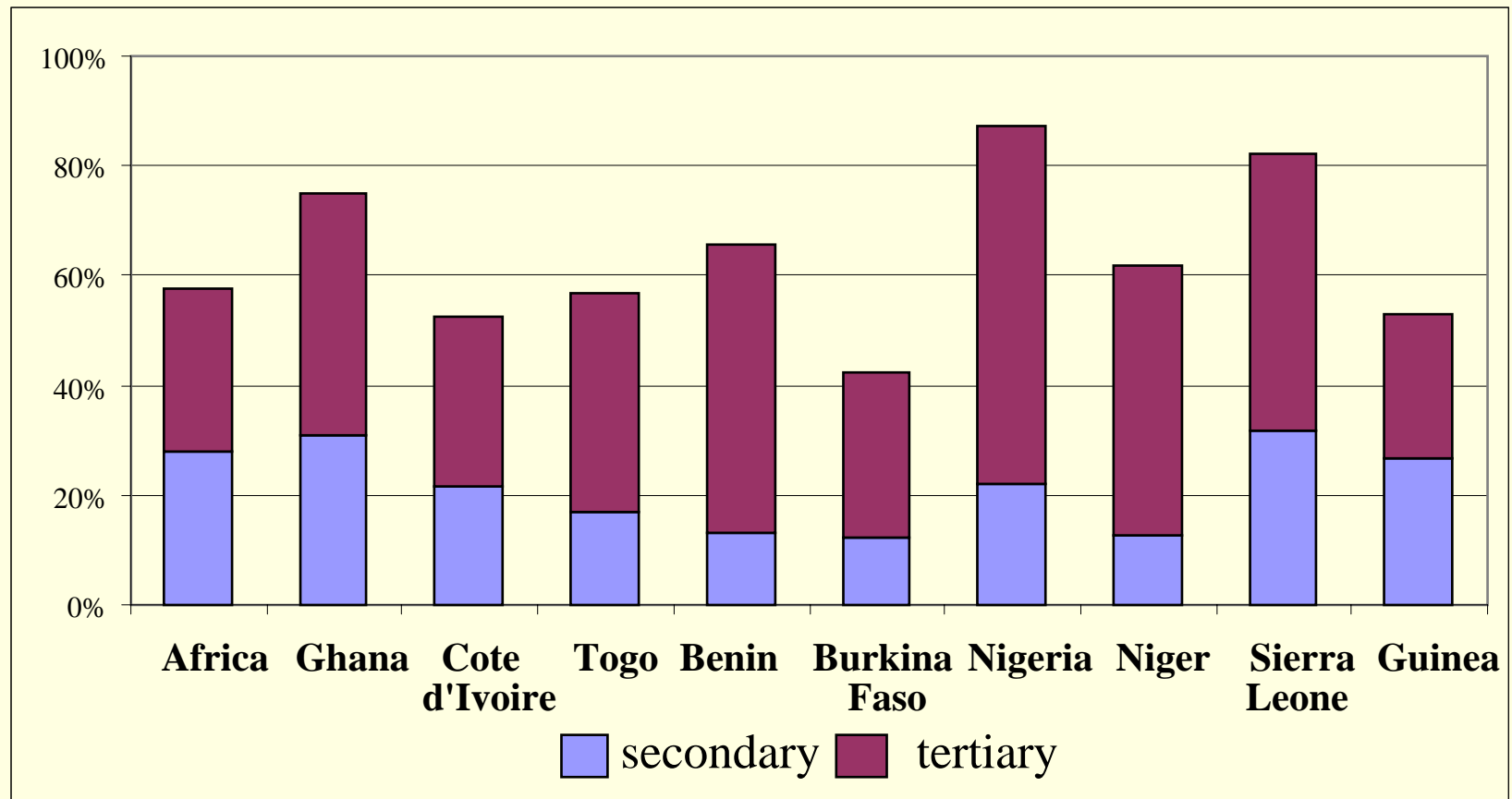


for each country, first column represents EU15, and the second, USA

# Skilled Migration - Africa



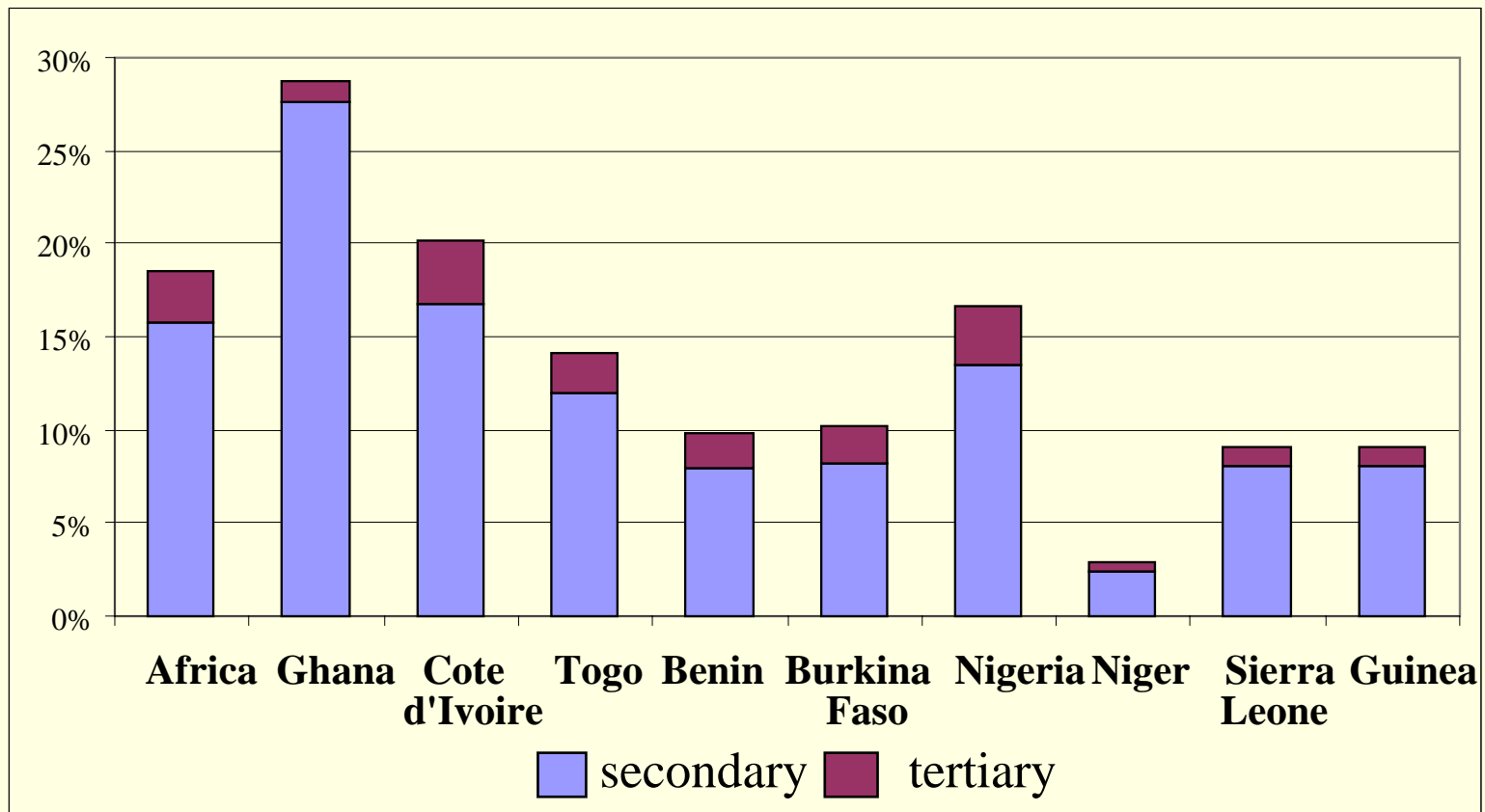
Share of Migrants by Education Attainment: 2000



# Skilled Migration - Africa



Share of Labor Force by Education Attainment: 2000



# Brain Drain



**PERFORMANCE IN THE DESTINATION  
MARKETS**

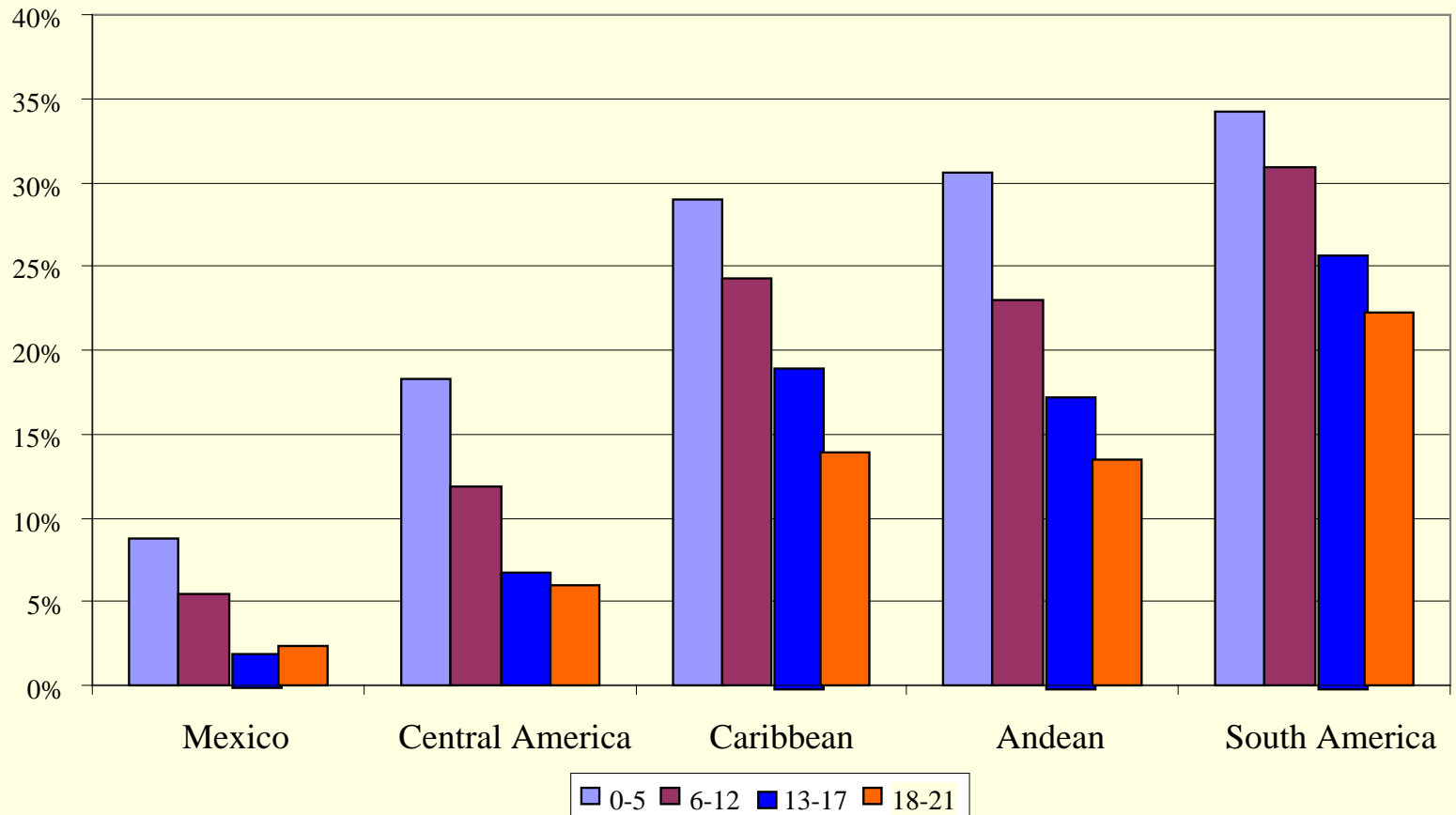
**ASSIMILATION & BRAIN WASTE**

# Brain Drain

## Age of Migration & Location of Education



**Share of College Educated Migrants by Age of Arrival to the US**

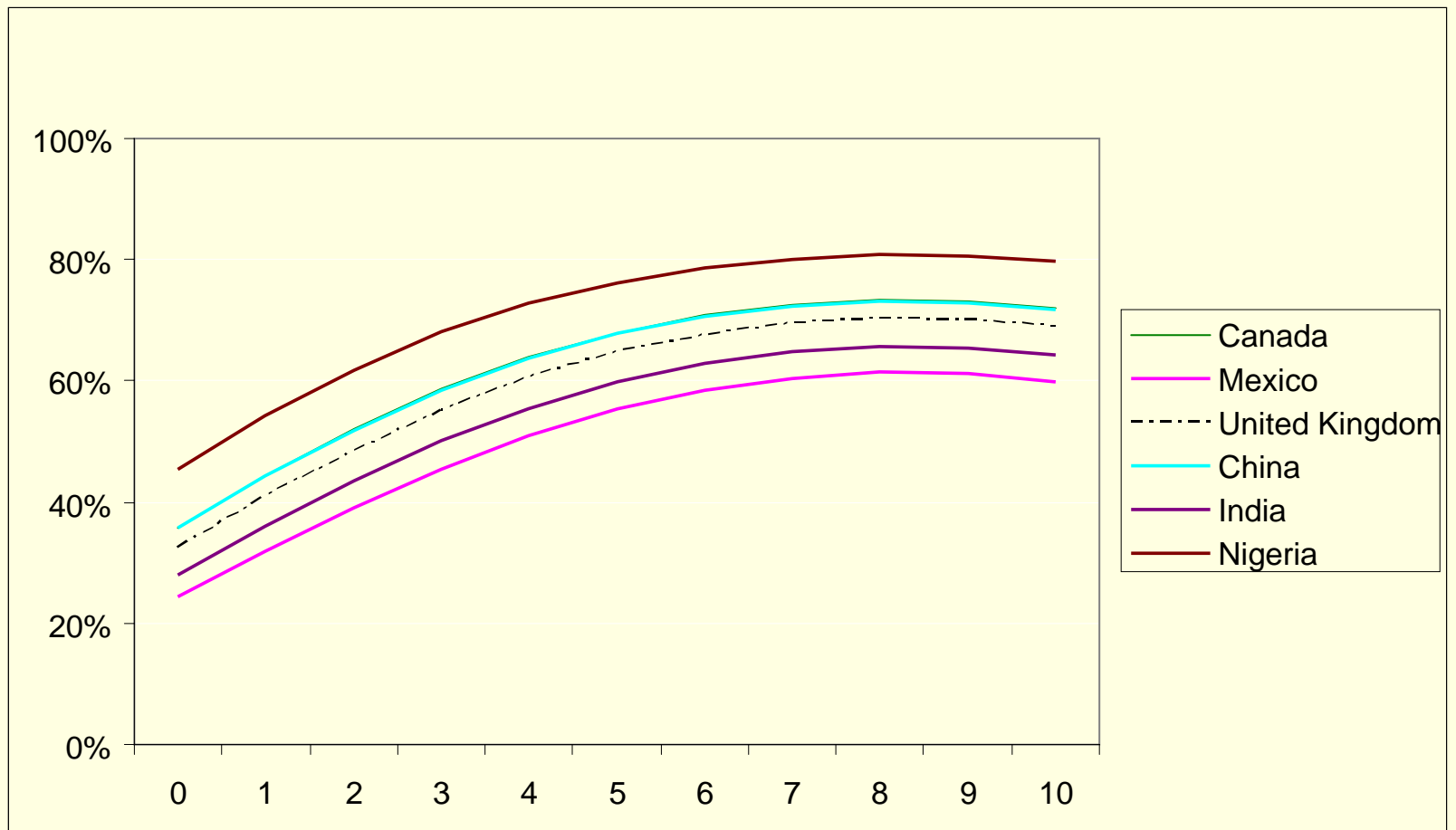


# Brain Drain

## Female Migrants in the US



### Predicted Probability of Employment vs. Years in the US

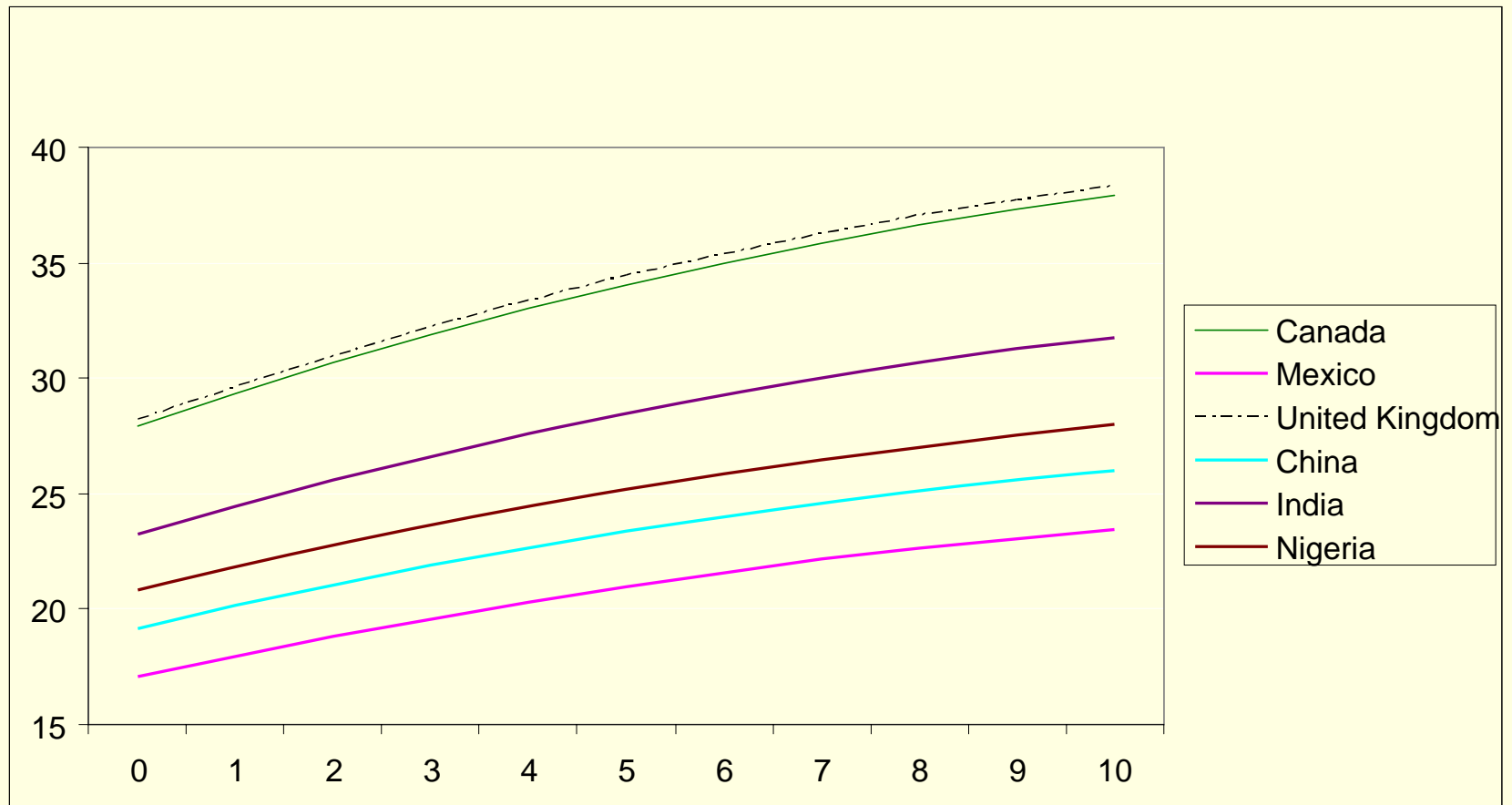


# Brain Drain

## Female Migrants in the US



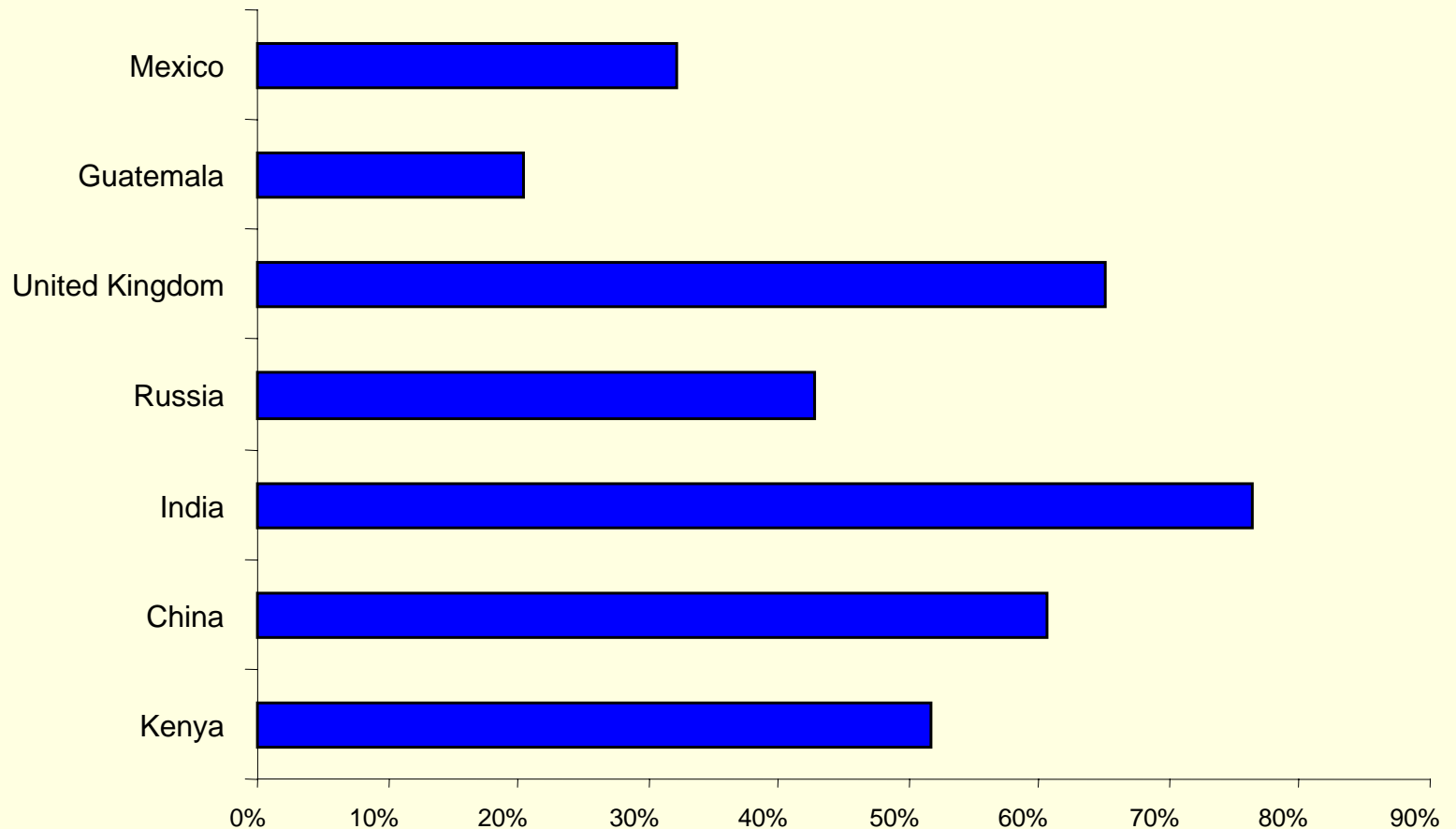
**Predicted wage (\$ thousands) vs. Years in the US**



# Brain Waste



**Percent of College Educated Migrants in Skilled Jobs in 2000**



# Brain Waste

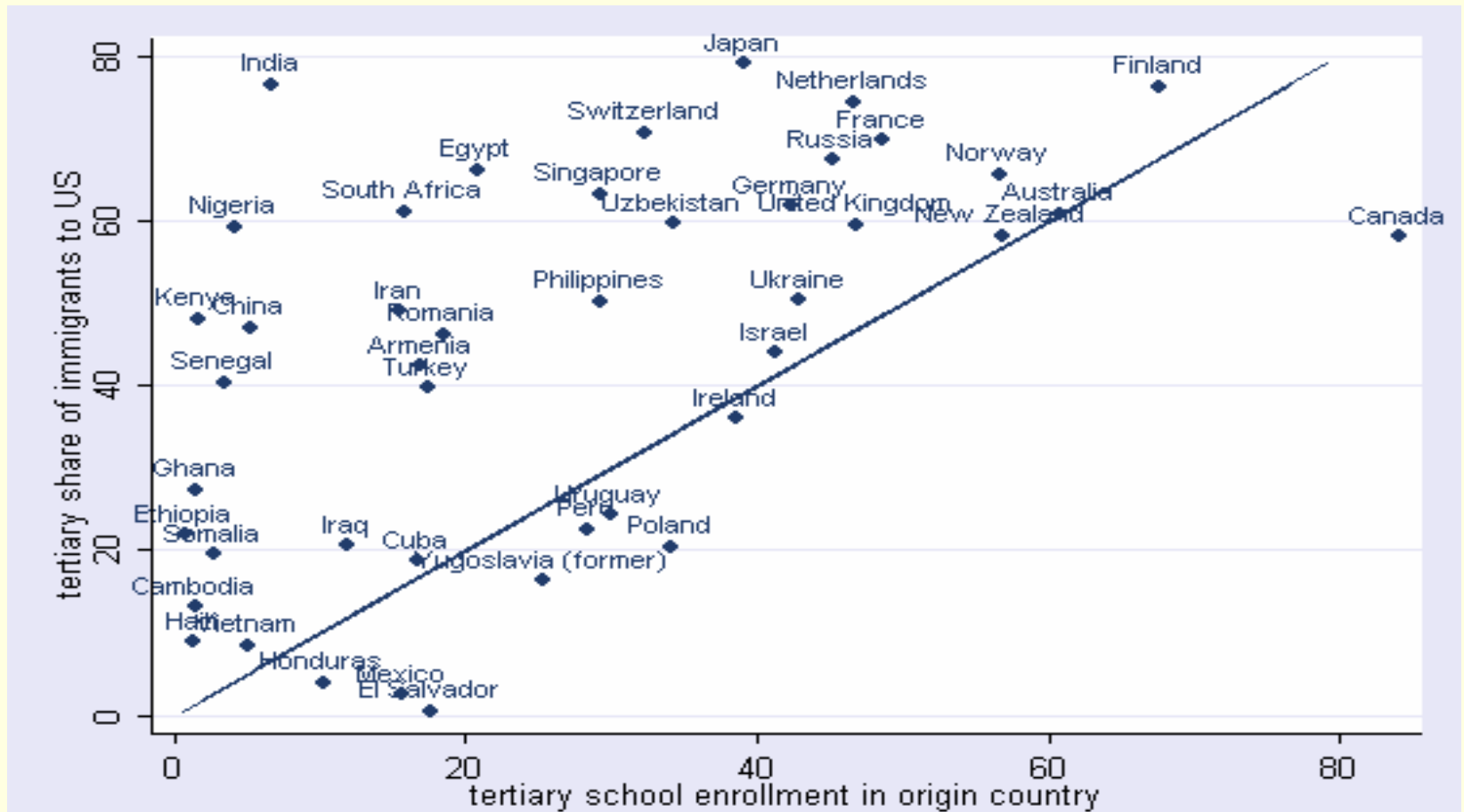


- QUESTION 1 – How does occupational placement of immigrants vary by home-country?
  - Indians vs. Mexicans
- QUESTION 2 – What explains the variation?
  - Human capital quality
  - Selection effects

# Brain Waste



Figure 1: Tertiary education at home and among immigrants to the US, 1990s

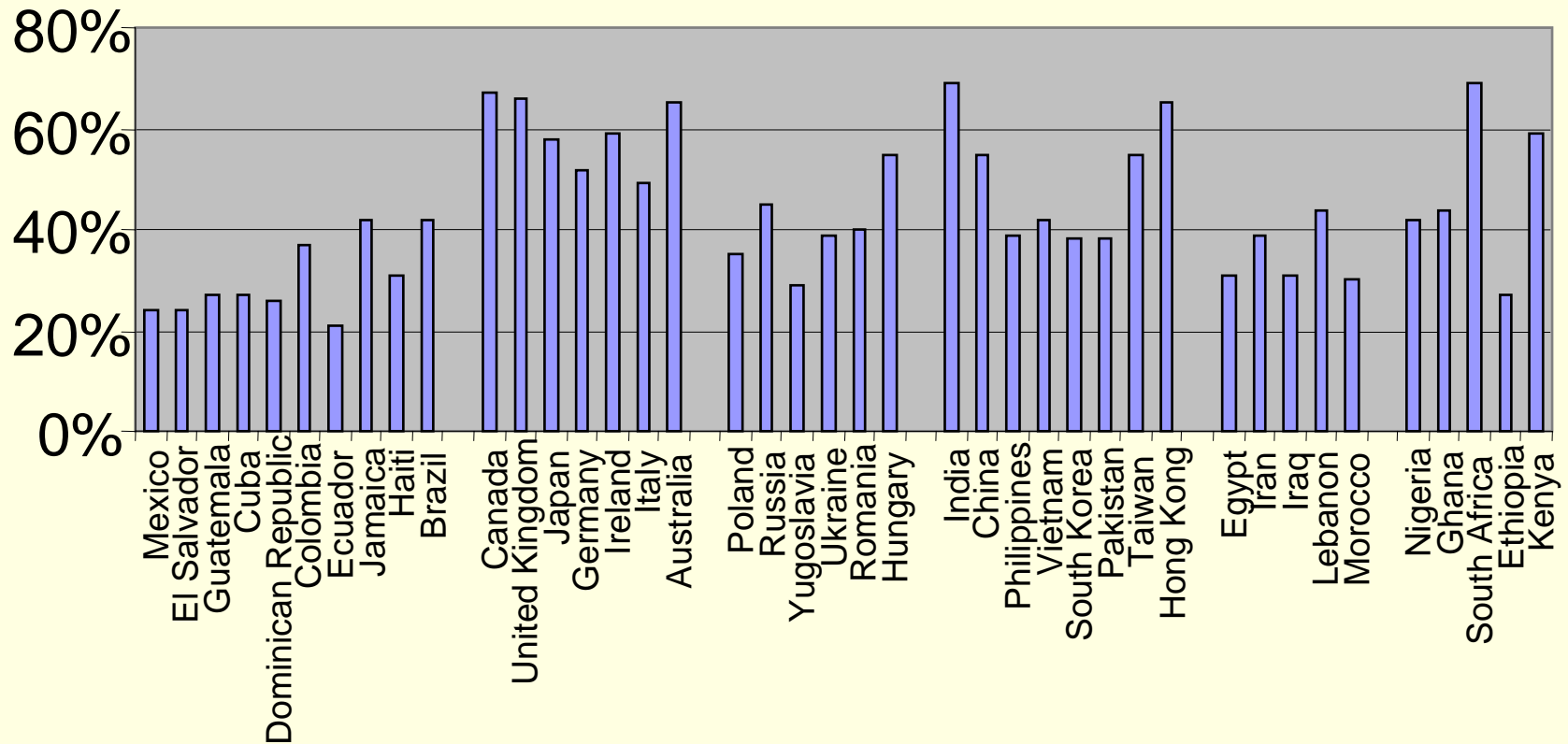


# Brain Waste



Probability of entering a skilled job in the US

34 year old, 6 years since migration, Bachelors degree obtained at home



# Brain Drain



**MEDICAL BRAIN DRAIN**

**AFRICA**

# MEDICAL BRAIN DRAIN



- The most complete dataset on physicians' emigration rate for the period 1991-2004
- Data collected from medical associations and statistical institutions in 16 important OECD countries
- Migrants are defined as those trained, rather than born, in their home country

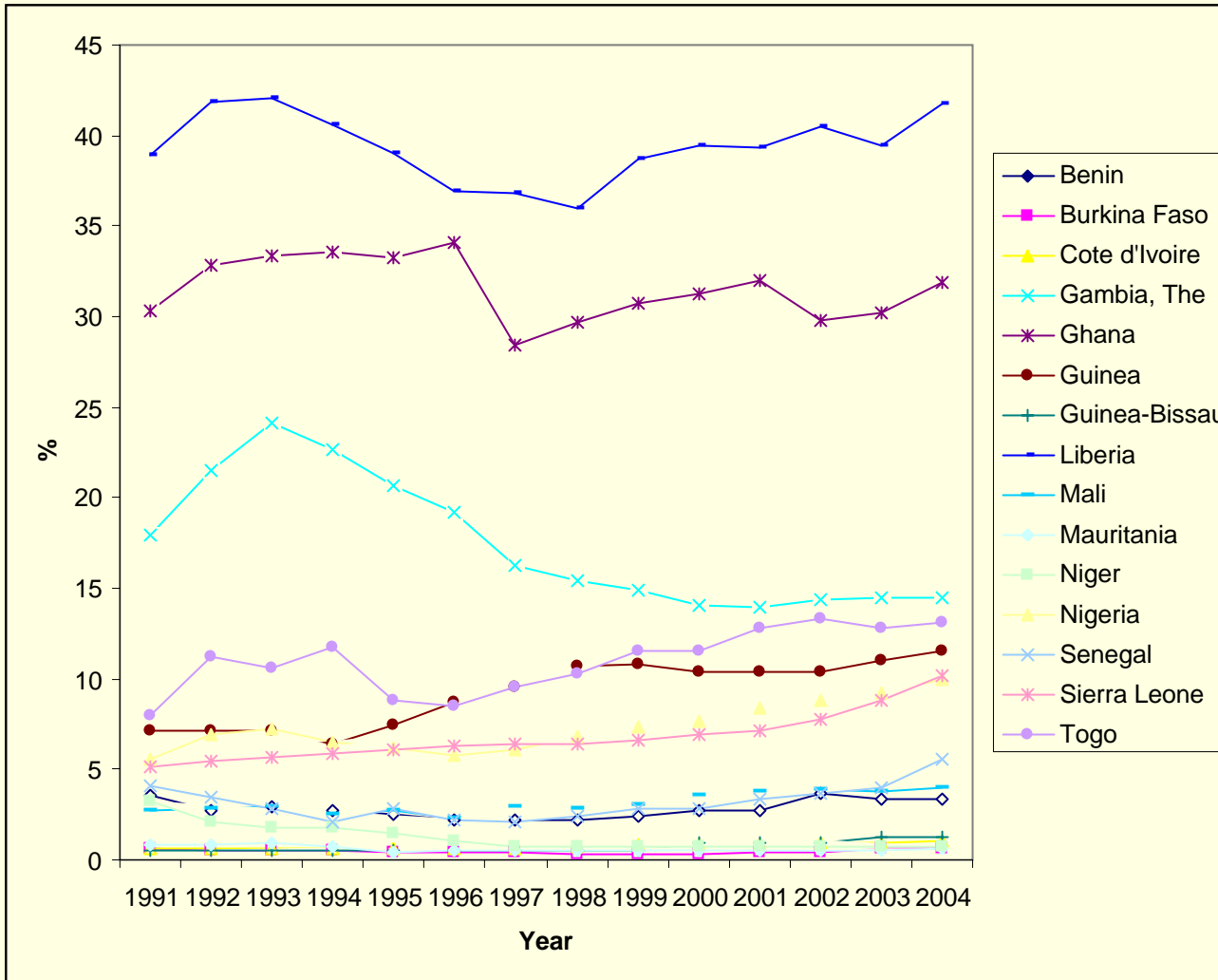
# MEDICAL BRAIN DRAIN



- Small and low-income countries are the most affected by medical brain drain (MBD)
- Contrary to the general trends observed for post-secondary educated workers, the MBD drastically rose in small and low-income countries
- The most affected regions are the Middle East and North Africa, South Asia (SA) and Sub-Saharan Africa (SSA)
- 12 out of the 30 most affected countries in 2004 are in SSA
- Severe increase in MBD over time is observed in Zimbabwe, Malawi, Zambia and Togo

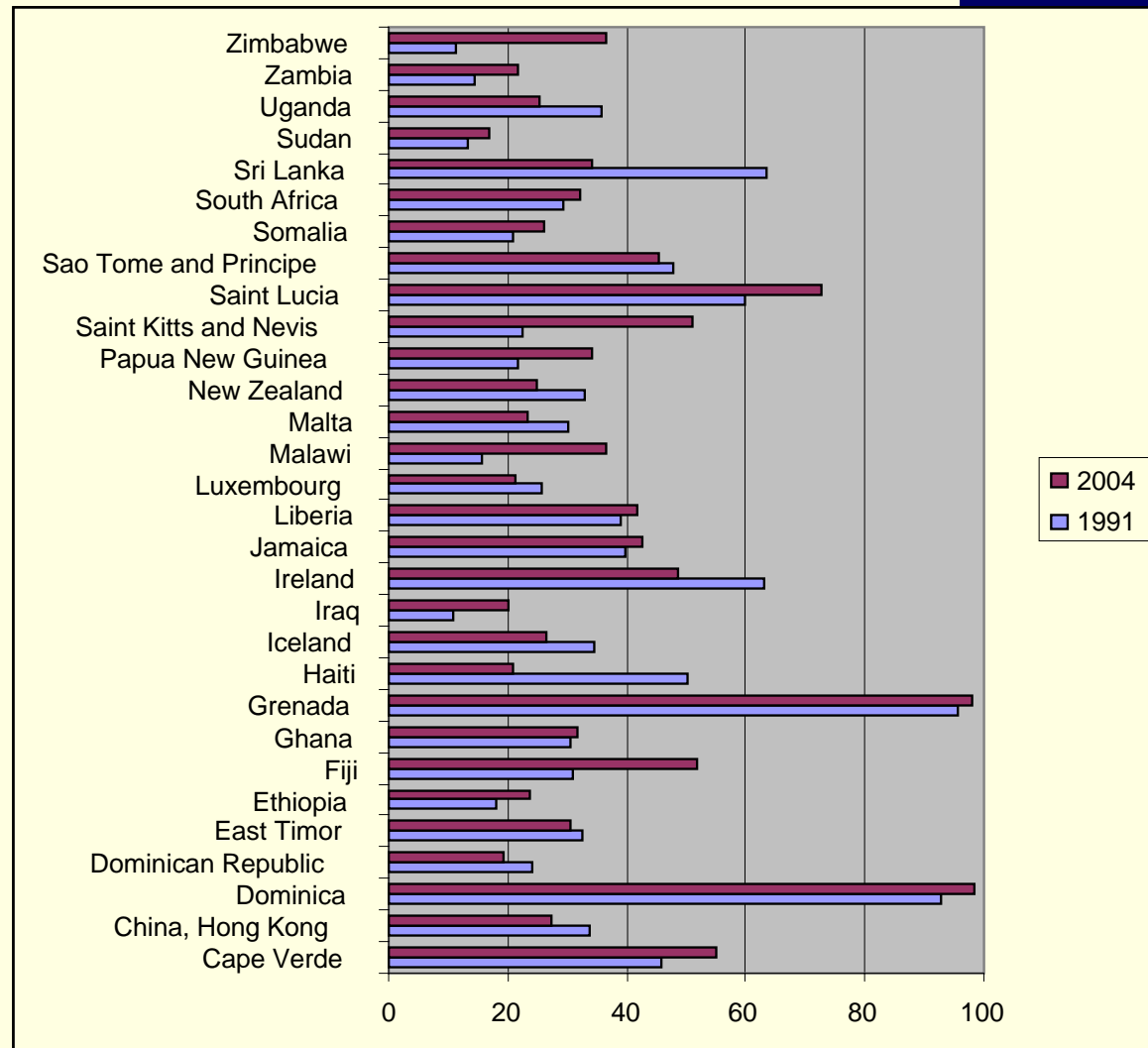
# MEDICAL BRAIN DRAIN

WESTERN AFRICA 1991-2004



# MEDICAL BRAIN DRAIN

## 30 MOST AFFECTED COUNTRIES IN 2004



# Physician Migration Dataset

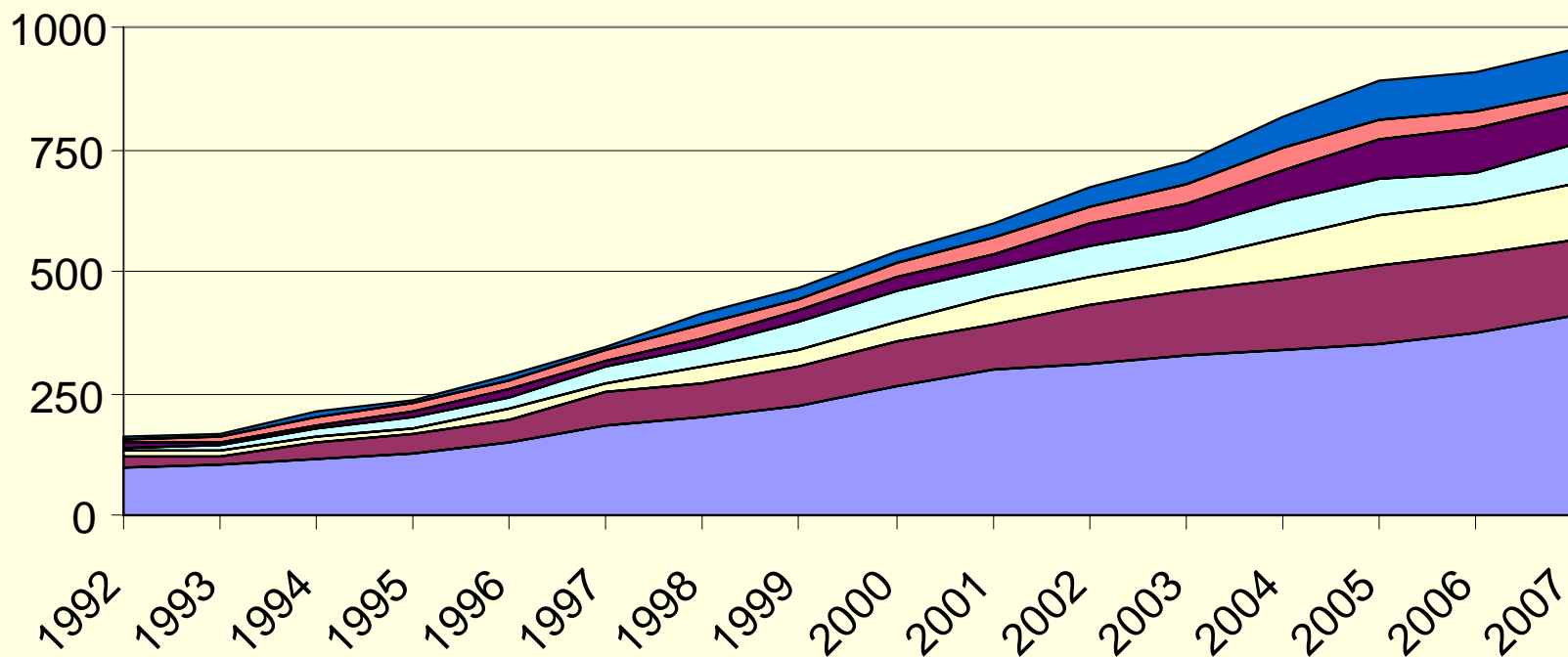


**What do we actually know??**

# Migration Soccer Players vs Doctors



## Total Number by Origin

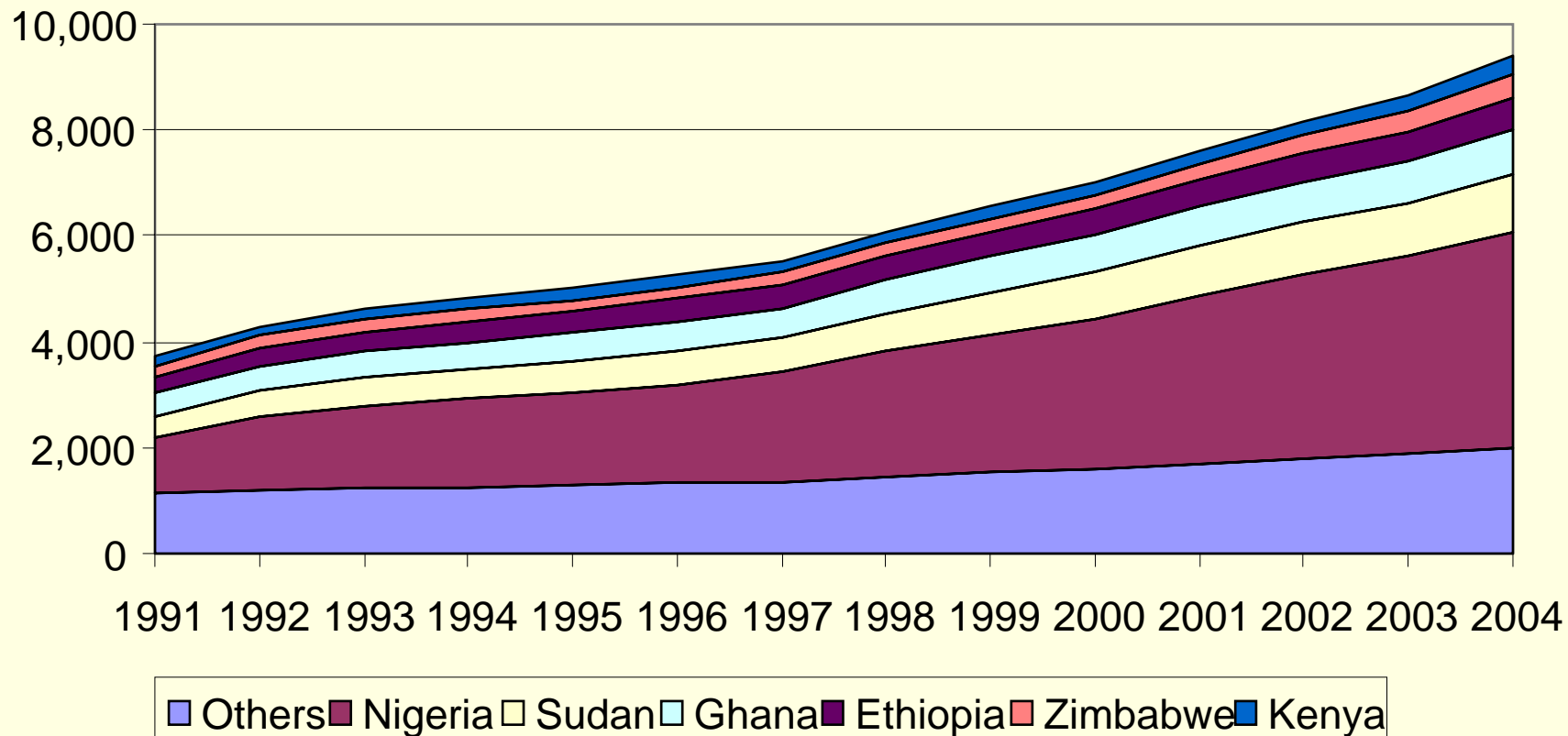


Rest of Africa Nigeria Cameroon Ghana Senegal South Africa Ivory Coast

# Migration Soccer Players vs Doctors



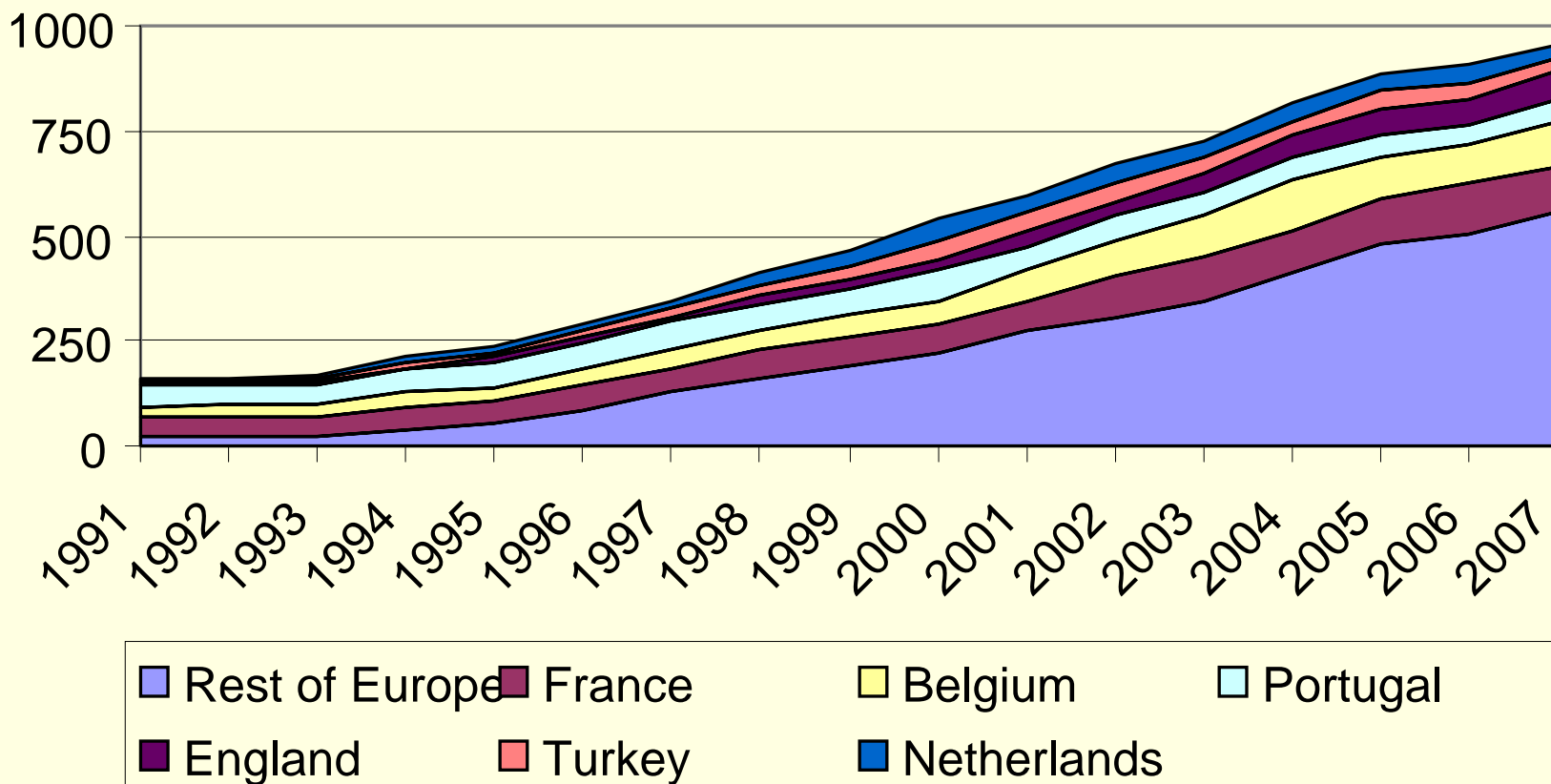
## Total Number By Origin



# Migration Soccer Players vs Doctors



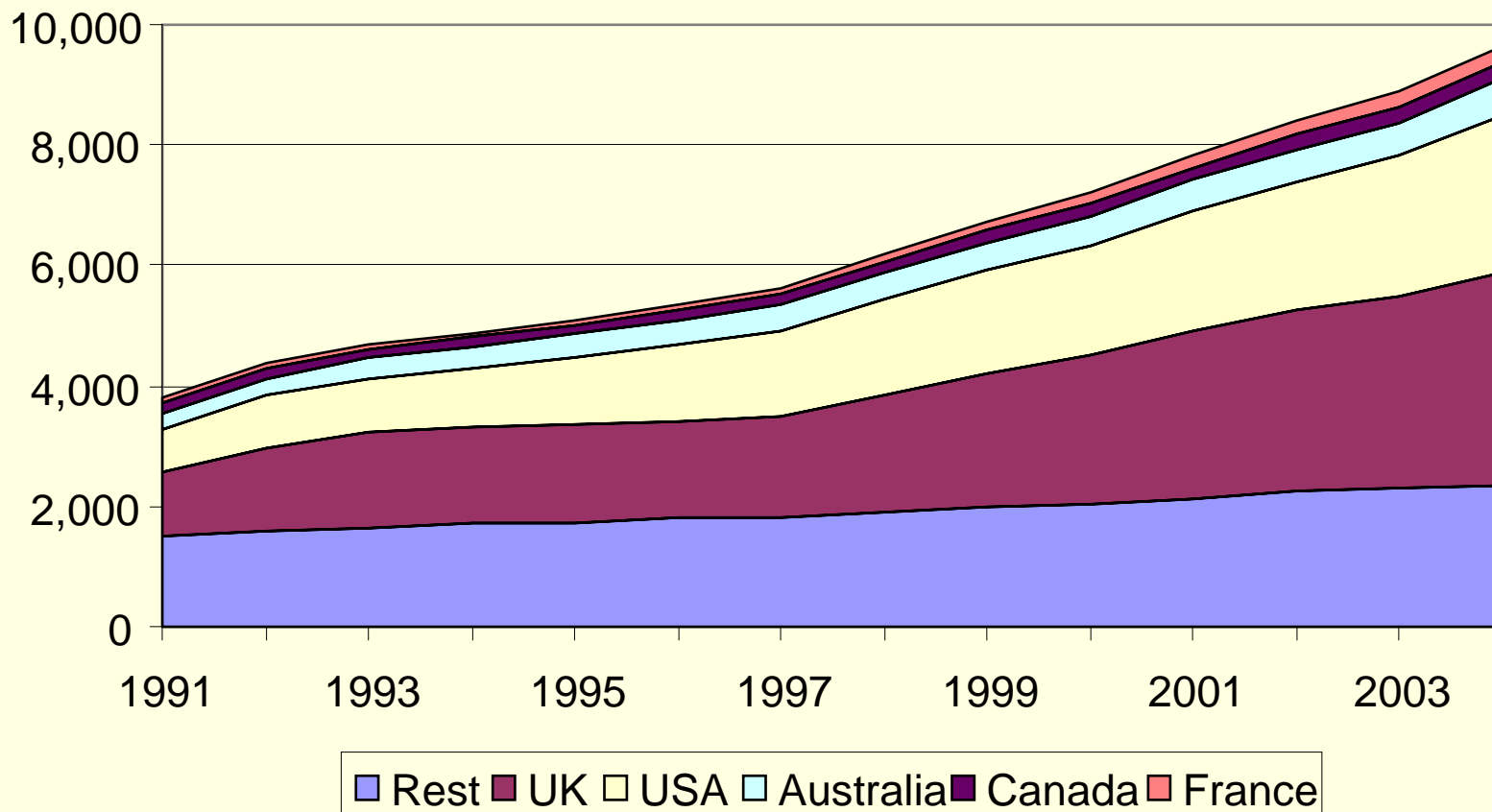
### Total Number By Destination



# Migration Soccer Players vs Doctors



## Total Number by Destination

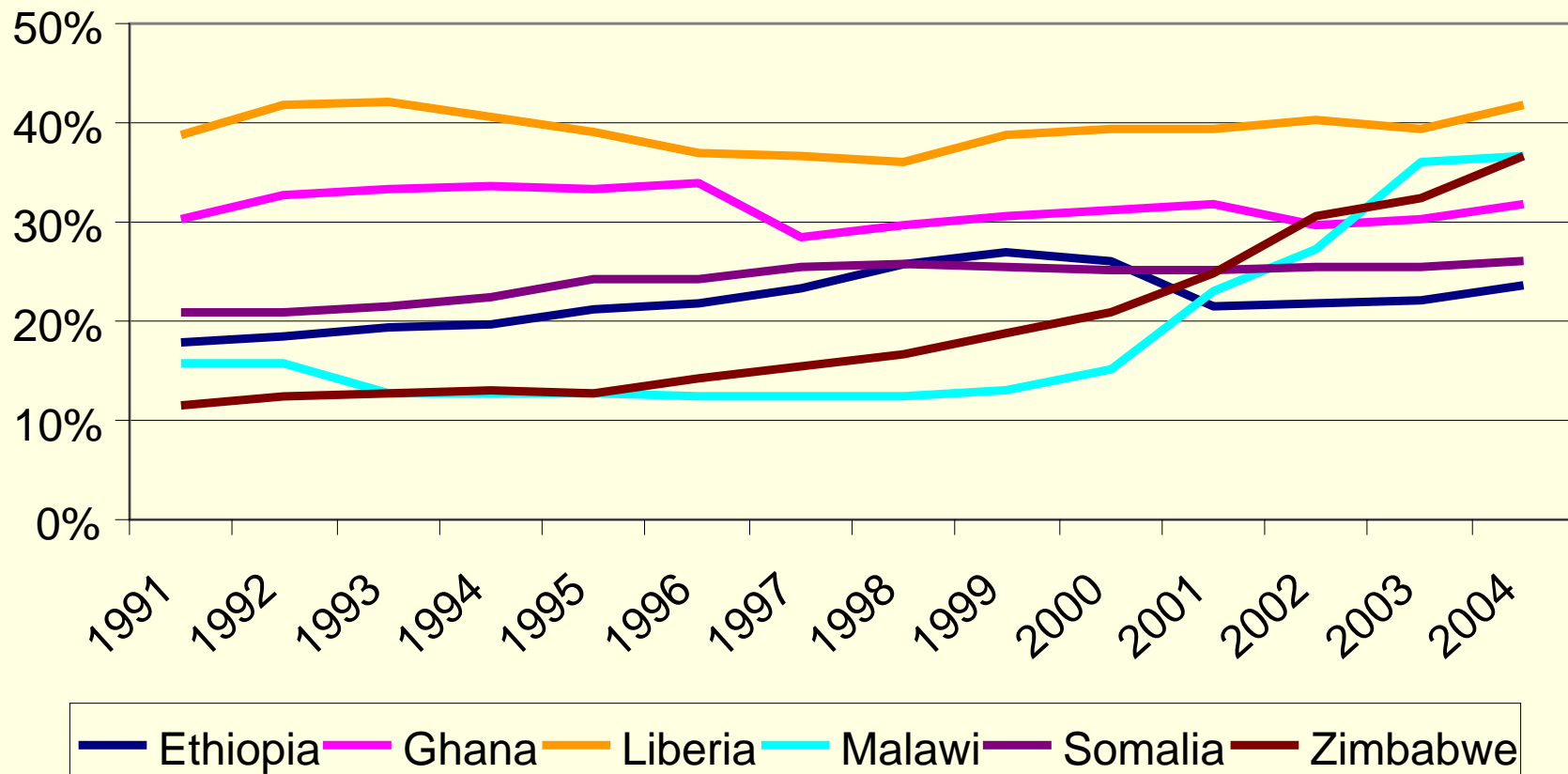


# Migration

## Soccer Players vs Doctors



### Migration Rate



**Migration**

**Soccer Player vs Doctors**



**What are the differences between  
Soccer players and Doctors?**

**Migration**

**Soccer Players vs Doctors**



**What are the differences between  
Soccer players and Doctors?**

**Salaries?**

**Social Externalities?**

**Lifestyle?**

**Talent?**

**Looks?**

# Migration

## Soccer Players vs Doctors



**Senegal vs.  
France**

**2002  
World Cup**

# Migration

## Soccer Players vs Doctors



**What are the differences between  
Soccer players and Doctors?**

**Opportunity Cost of  
Production/Replacement**

# Migration



**Migration of Doctors is not the  
'disease'**

**It is the  
'symptom'**

# Migration



## Skilled people leave because of

- Professional opportunities
  - Income gain
  - Political Instability
  - Under-appreciation

# Migration



**Who Leaves?**

**Preliminary Data from Ghana**

# MEDICAL BRAIN DRAIN

## Research Project in Ghana



### Objectives

- Understand the determinants for Medical Brain Drain in Ghana
- Identify how Ghana could turn brain drain into brain gain and what is the impact on medical education
- Find out the diaspora resources can be organized and effectively used in Ghana

# MEDICAL BRAIN DRAIN

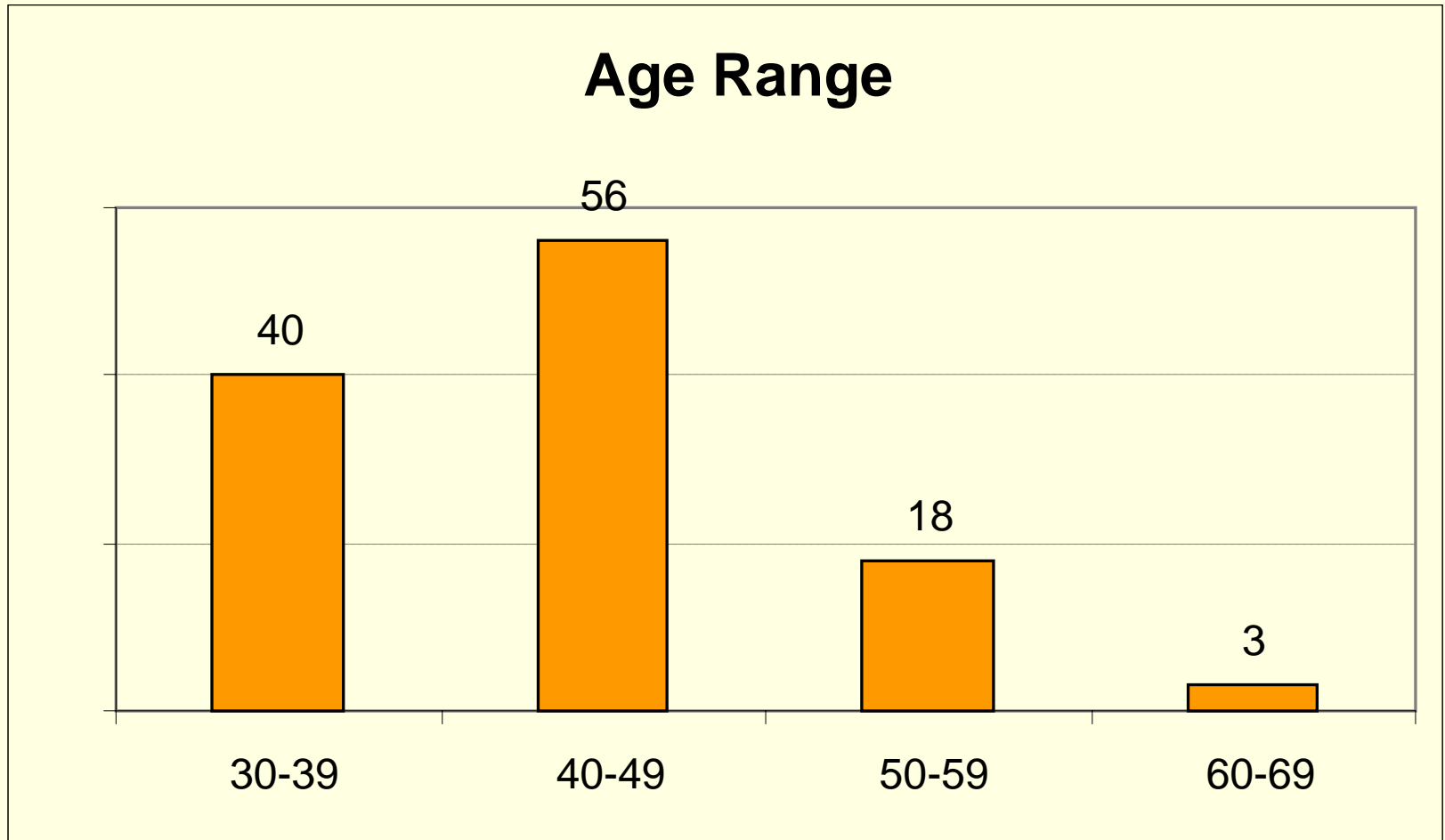
## Research Project in Ghana



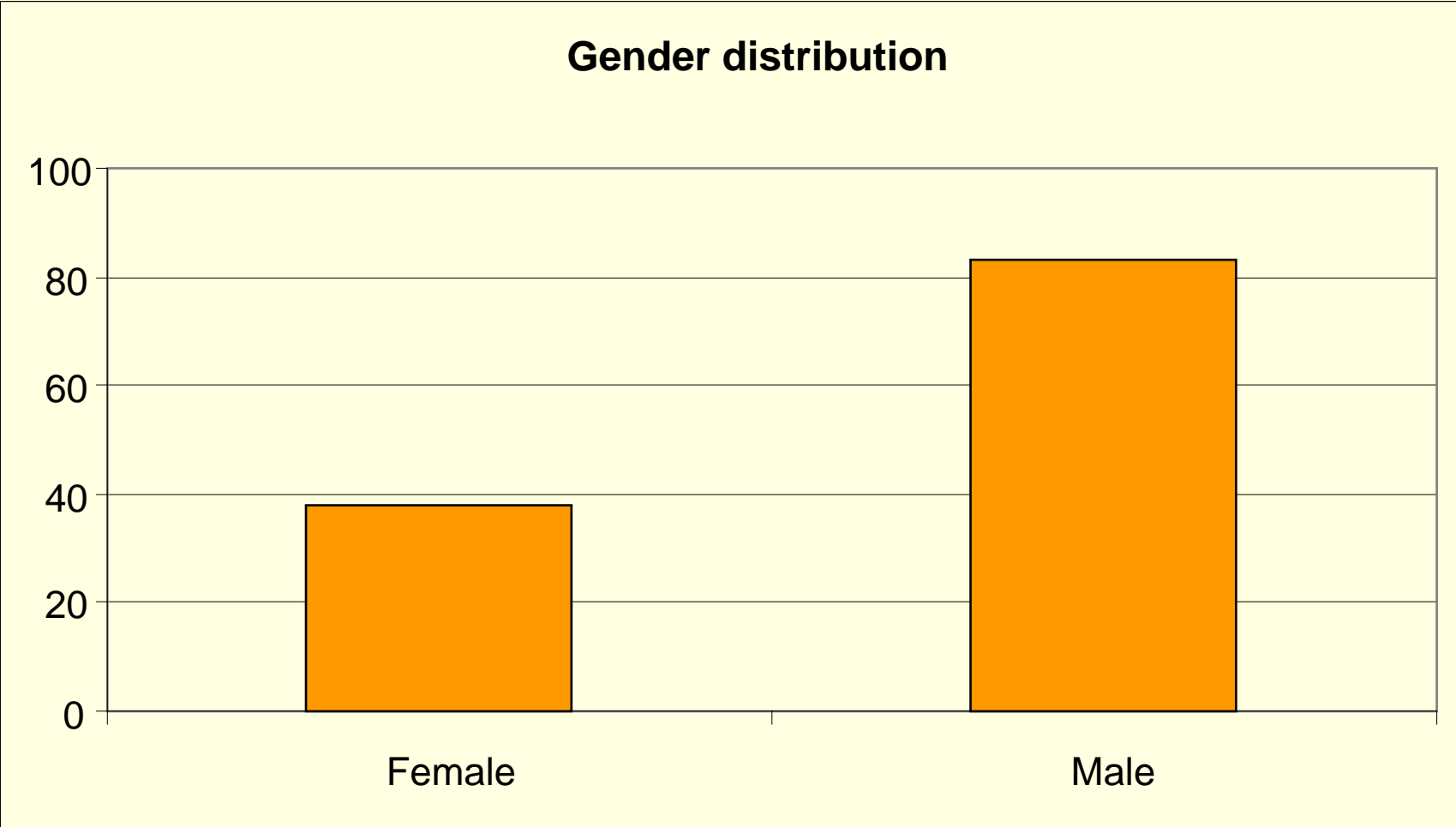
### Methodology

- Conduct specifically designed survey of physicians
  - physicians currently in Ghana
  - physicians abroad
  - medical students
  
- After compilation of data, rigorous analysis
  
- Policy recommendations and implementation
  - World Bank operational units + government + doctors!!!

**It is not a recent issue!**



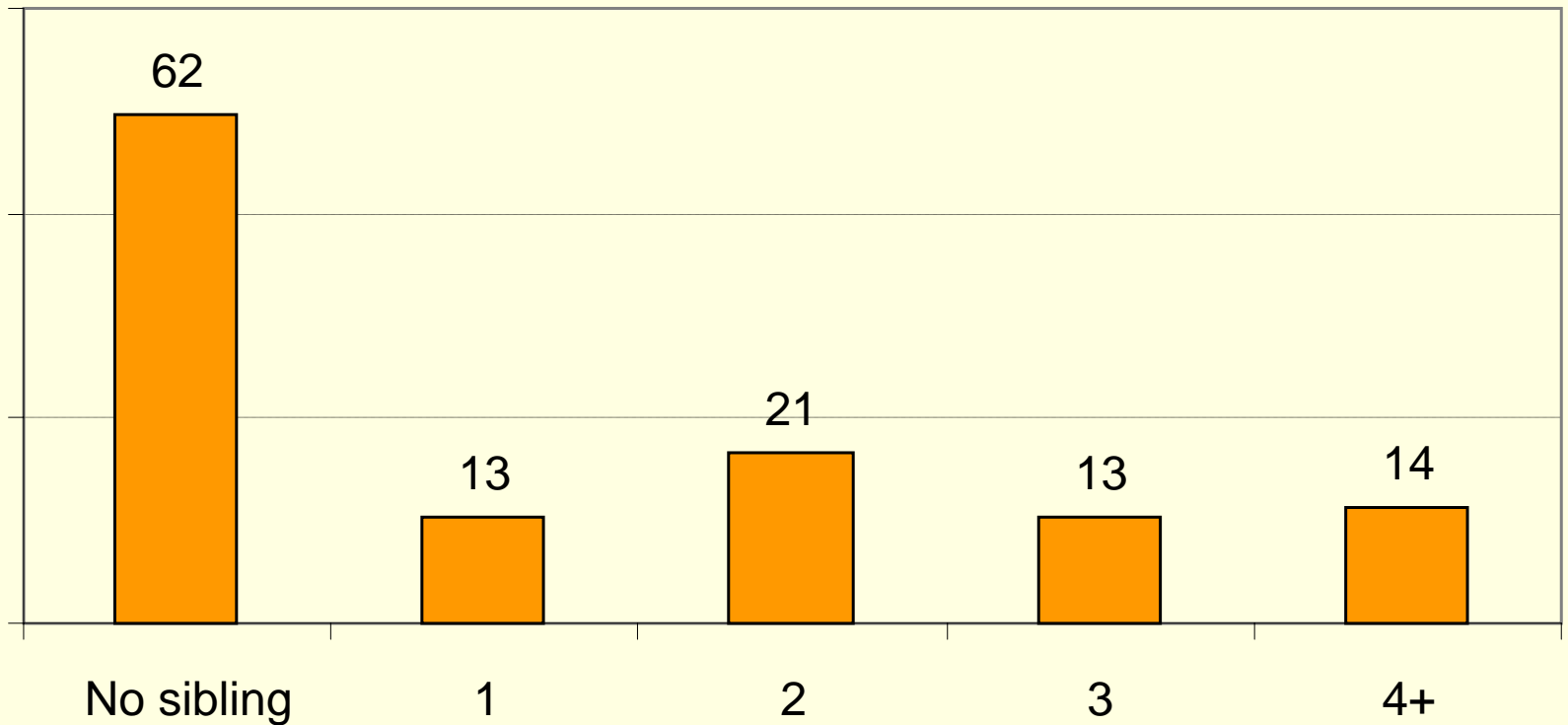
# Gender Dimension



# Role of Networks??



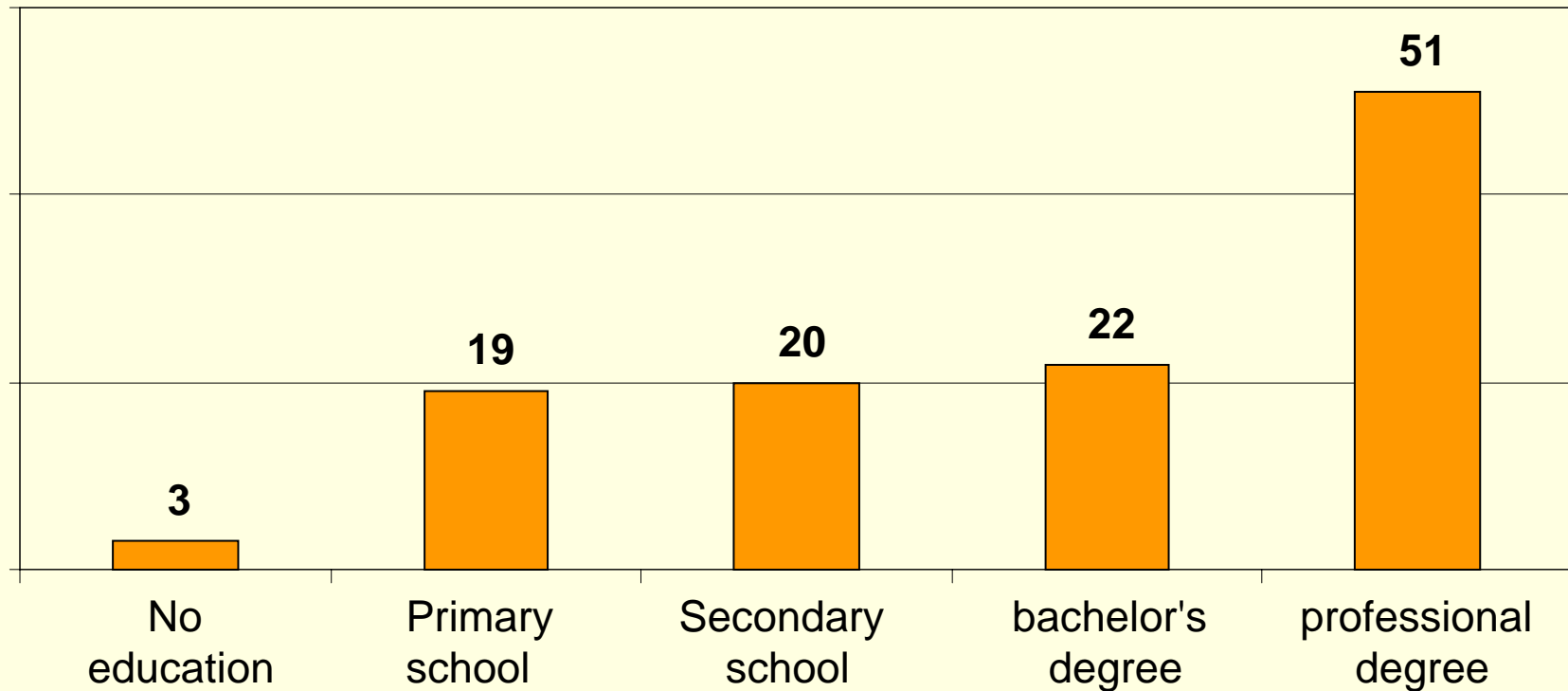
## Siblings abroad



# Social Status



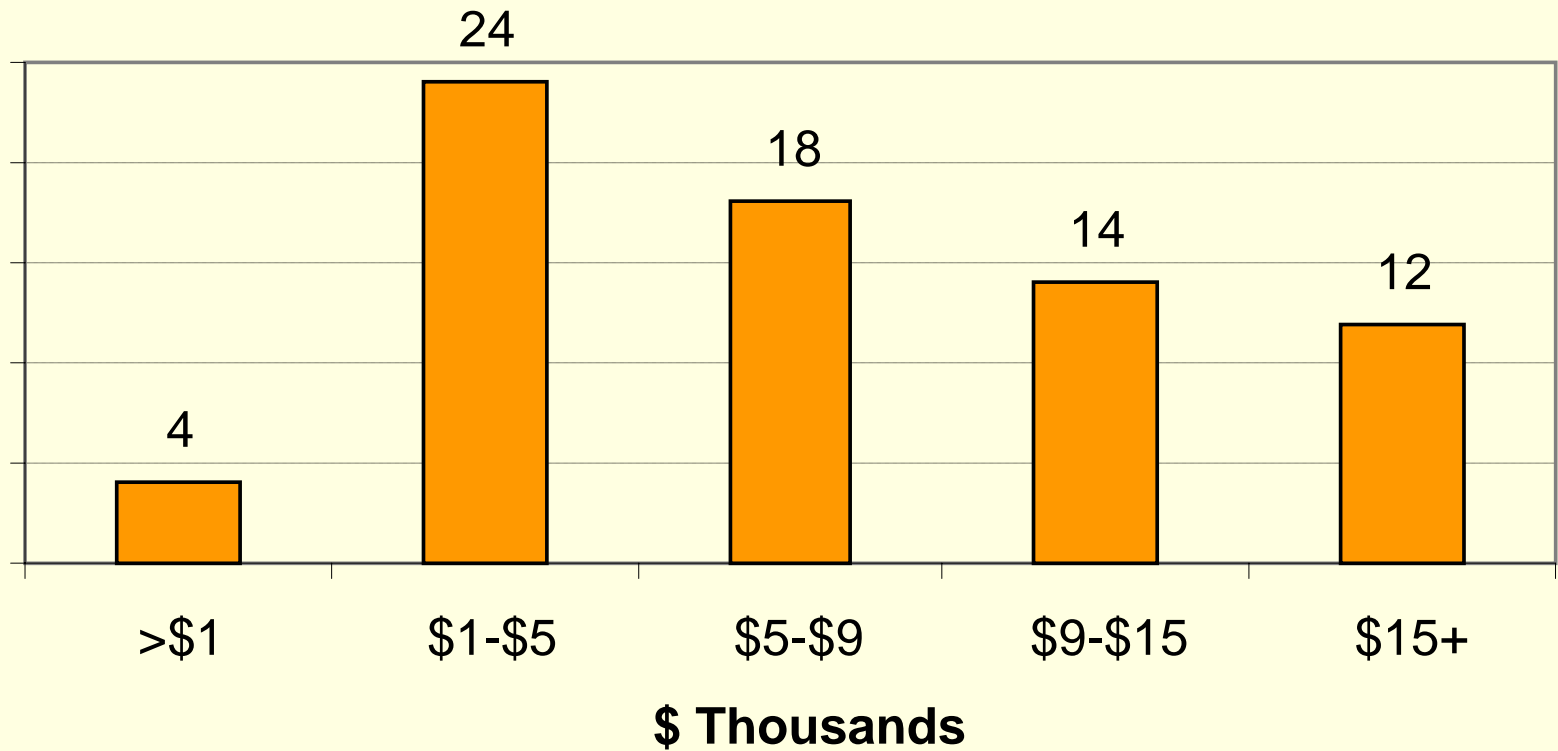
## Education level of Father



# Remittances



## Remittances- Average: \$6,800



# Migration



**What should we do?  
Treat the symptom or cure the  
disease?**

# Migration



## What should we do? Treat the symptom or cure the disease?

- Take away Passports
- Punish the recruiters
- Pay Higher salaries back at home
- Make migrants pay for their education
  - Make migrants feel guilty

# Migration



**...or is High Level of  
Skilled Migration  
a result of wrong  
education and health policies?**

# Migration



## What is equitable, economically efficient and pro-development?

- **Two-tiered education system?**
  - **One for the Global Market, one for the local market where the first finances the latter?**
- **Migrant tax – coordinated w/ Destination countries?**
- **Recruitment Tax?**
- **Brain Circulation?**

# Migration



**No Easy Answers!!**

**Ask The British!!**

**UK is the country with the  
Highest level of skilled  
migration today!**

# FUTURE

