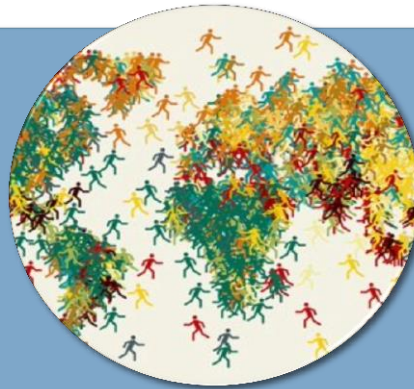


MIGRATION

CHAPTER 9

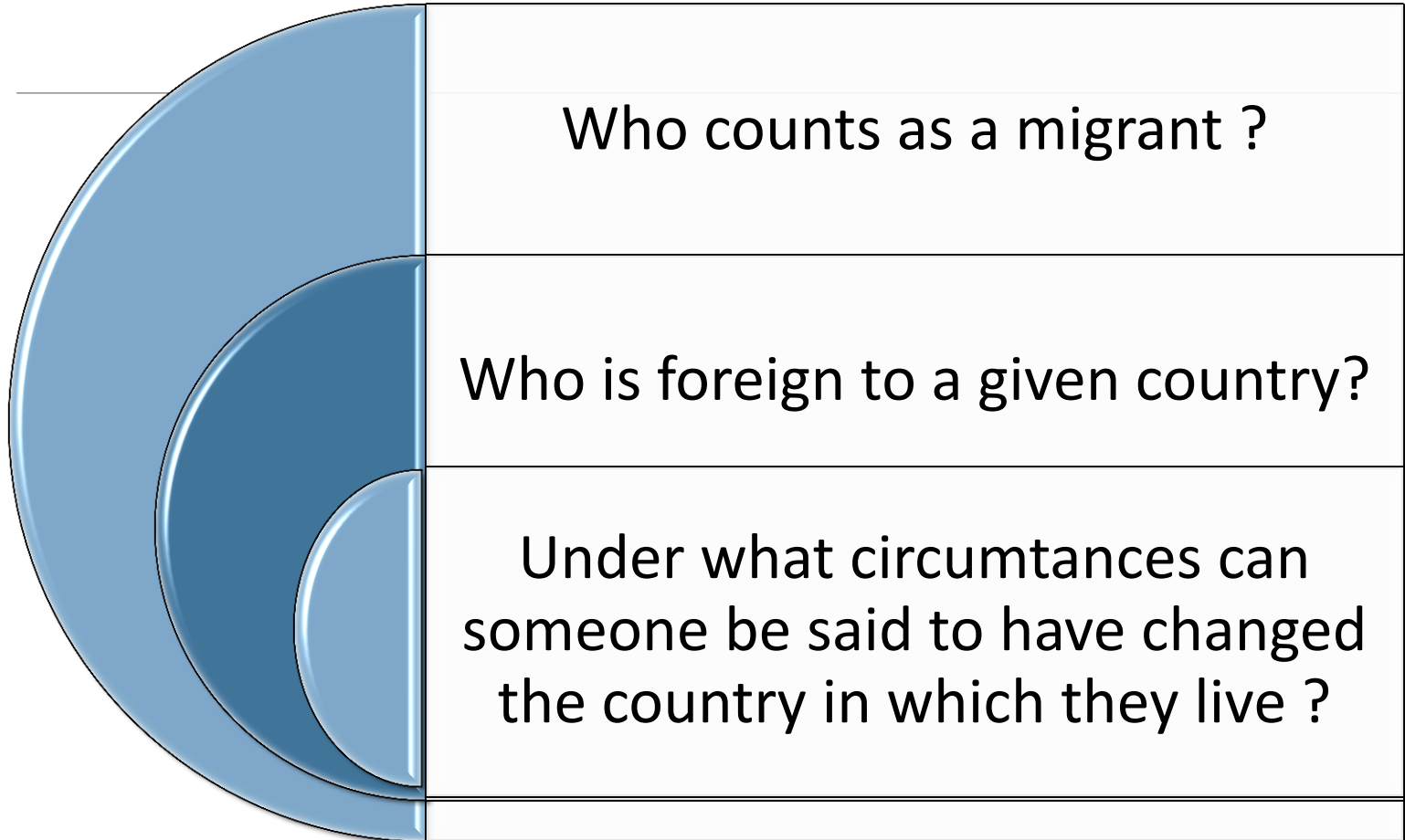


Understanding migration statistics.



What do migration statistics measure ?

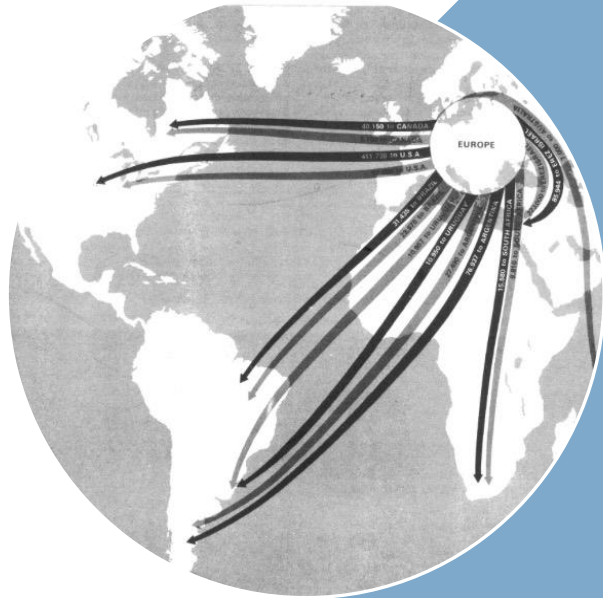




Who counts as a migrant ?

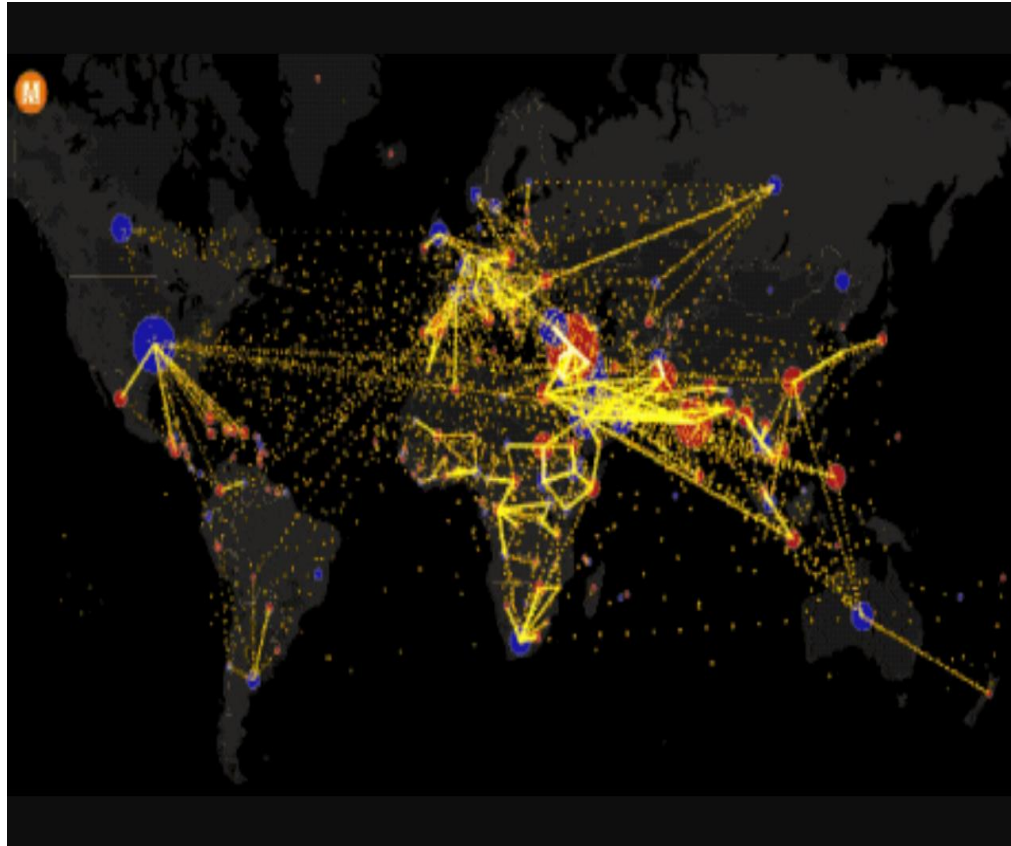
Who is foreign to a given country?

Under what circumstances can someone be said to have changed the country in which they live ?



Migration is that of the demographic processes that changes the fastest (a volatile process). This is of importance in population projections for nations that receive large numbers of migrants and where the balance between in and out migration (net migration) is decisive for whether the population grows, stagnates or declines.

Migration



Who is a migrant ?



Internal and international migration



Internal migration

- Internal migration involves moves within a country



International migration

- International migration involves moves across national boundaries.

A migrant can be:

Someone whose country of birth is different to their country of course;

Someone whose nationality is different to their country of residence;

Someone who changes their country of usual residence for period of at least a year, so that the country of destination effectively becomes the country of usual residence.

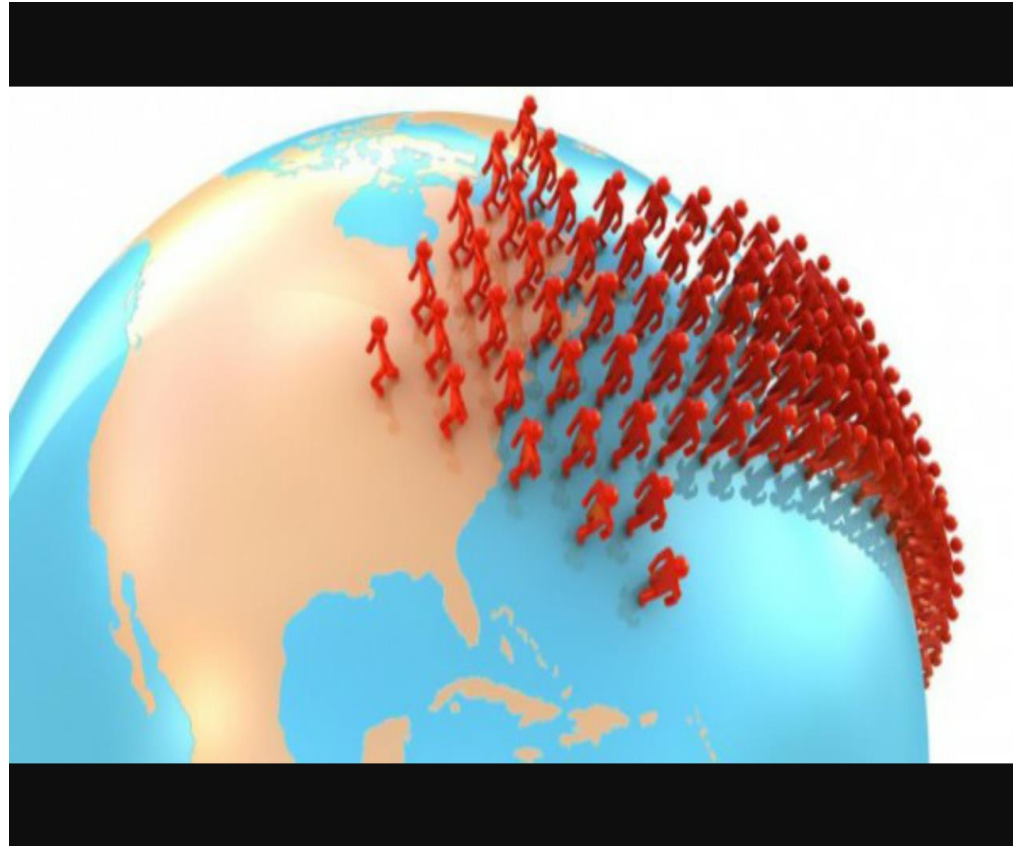
- ❖ The first definition is consistent and objective,
- ❖ The second definition excludes nationals born abroad
- ❖ The third definition is objective

Net migration



Net migration is the measure of the net flow of migrants into or out of a country.

The indicators of the volume of migration are absolute numbers of "migrations" or migrants.



INTENSITY OF MIGRATION

MIGRATION MAY BE CONSIDERED AS A
FLOW AFFECTING A STOCK (OF
POPULATION).

Reasons for change of previous place of residence



In the directions of flows,
migration is distinguished by
external and internal migration.



Migration is voluntary and forced (forced).



Migration can be returnable and irretrievable



System of population migration indicators

The main absolute indicators of migration are:

- Number of arrivals (P);
- Number of retired (B);
- migration turnover (gross migration)
- migration balance (mechanical increase or net migration)

in-migration rate (IMR) = $(I / P) * 1,000$

out-migration rate (OMR) = $(O / P) * 1,000$

net migration rate (NMR) = $[(I - O) / P] * 1,000$

gross migration rate (GMR) = $[(I + O) / P] * 1,000$

migration efficiency ratio (MER) = $[(I - O) / (I + O)] * 100$

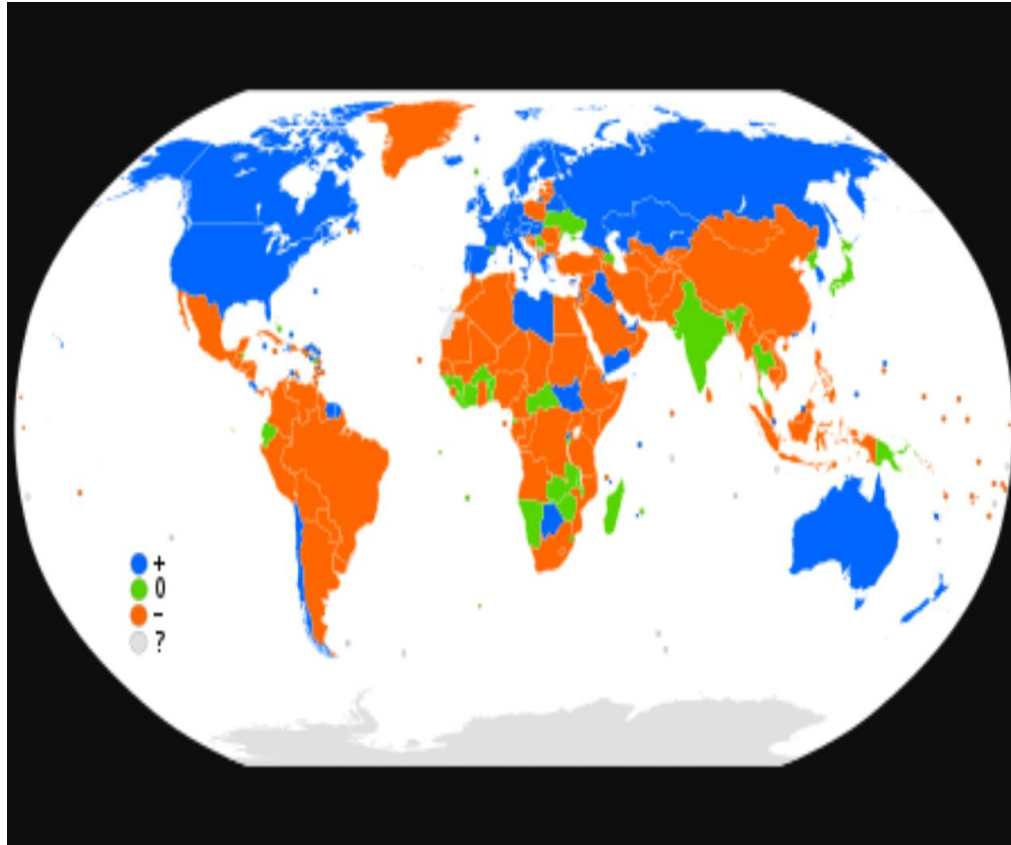
The turnover of migration

$$B_M = \Pi + y,$$

Migration balance

$$C_M = \Pi - y.$$

Coefficients



Coefficient of arrival

$$K_{\Pi} = \frac{\Pi}{S} \times 1000 .$$

Coefficient of retirement

$$K_B = \frac{B}{S} \times 1000 .$$

Migration Turnover Ratio

$$K_{\Pi+B} = \frac{\Pi + B}{\bar{S}} \times 1000$$

The coefficient of mechanical (migration) increase

$$K_{\Delta_M} = K_{\Pi} - K_B = \frac{\Pi - B}{S} \times 1000$$

Coefficient of migration efficiency

$$K_{\text{э}\phi} = \frac{\Pi - B}{\Pi + B} \times 1000$$

When determining the extent of illegal migration, the data of departmental statistics are used:

1. On deportation - forcible expulsion of illegal migrants from the country;
2. The number of persons arrested or detained at the border when trying to cross it illegally;
3. Denial of admission to the country on the border.

Solving Migration Problems



INTENSITY OF MIGRATION

MIGRATION MAY BE CONSIDERED AS A
FLOW AFFECTING A STOCK (OF
POPULATION).

At first and obvious method of measuring the intensity of migration is to compute a



Migration rate



cohort analysis

- In analyzing the intensity of migration, however, we also have to take into account the fact that migration is a renewable phenomenon, which leads us to the problem of the average intensity and tempo of migration in the framework of cohort analysis.

The Migration Rate

the basic
identity

$$P_t - P_{t-1} = D_t - D_{t-1}$$
$$10$$

$$Y = \frac{P_t}{\ln(P_{t+n}/P_t)} \left(\frac{P_{t+n} - P_t}{P_t} \right)^n$$

$$= \frac{(P_{t+n} - P_t)}{\ln(P_{t+n}/P_t)} (n)$$

For the "rate" of out-migration

$$P_t + \frac{P_t}{(P_t + P_{t+n})} (B_{(t,t+n)} + I_{(t,t+n)} - D_{(t,t+n)})$$

For the "rate" of in-migration

$$P_{i+n} - \frac{P_{i+n}}{(P_i + P_{i+n})} (B_{(i,i+n)} - O_{(i,i+n)} - D_{(i,i+n)})$$

For the "rate" of net migration
when negative

$$P_t + \frac{P_t}{(P_t + P_{t+n})} (B_{(t,t+n)} - D_{(t,t+n)})$$

For the "rate" of net migration
when positive

$$P_{i+n} - \frac{P_{i+n}}{(P_i + P_{i+n})} (B_{(i,i+n)} - D_{(i,i+n)})$$

A task. Sample.

There are the following data for the region, thousand people:

The average annual population is 5700

The population has arrived in the region 170

Population from the region 90 dropped out

Define:

- 1) Coefficients of arrival, departure, migration increase;
- 2) The coefficient of intensity of migration turnover;
- 3) Coefficient of migration efficiency.

Решение:

$$1) K_{\Pi} = \frac{\Pi}{S} \times 1000 = \frac{170}{5700} \times 1000 = 29,8 \text{ ‰};$$

$$K_B = \frac{B}{S} \times 1000 = \frac{90}{5700} \times 1000 = 15,8 \text{ ‰};$$

$$K_{\Delta_M} = K_{\Pi} - K_B = 29,8 - 15,8 = 14,0 \text{ ‰}.$$

$$2) K_{\Pi+B} = K_{\Pi} + K_B = 29,8 + 15,8 = 45,6 \text{ ‰}.$$

$$3) K_{\text{эф}} = \frac{\Pi - B}{\Pi + B} \times 100 = \frac{170 - 90}{170 + 90} \times 100 = 30,76 \text{ ‰}.$$

Exercise 1.

Calculate the balance of migration for the year, if at the beginning of the year in

The country was inhabited by 10 million people, at the end of the year - 11.5 million people, and the natural increase for the year was 250 thousand people.

Exercise 2.

Calculate the balance of migration for the year, if at the beginning of the year in

The country was home to 21 million people, at the end of the year - 22.3 million people, and the natural increase for the year was 630 thousand people.

Exercise 3.

The population of the region at the beginning of the year - 800 thousand people. The population of the region at the end of the year - 840 thousand people.

The coefficient of departure is 30 ‰. The coefficient of gross migration turnover - 70 ‰. Define:

- 1) the number of arrivals;
- 2) the absolute and relative balance of migration;
- 3) the migration balance ratio;
- 4) the efficiency of migration.

Tests

1. Pendulum migration is:

the movement of the population outside the country to places of rest and back;

periodic population transfer from one settlement to another and back, related to work or study;

the movement of the population through the territory of the country to places of rest and vice versa;

Moving the population across the country with a change in permanent residence.

2. The absolute indicators of the mechanical movement of the population include:

Population;

coefficient of migration turnover;

number of births;

number of arrivals;

balance of migration.

3. Relative indicators of the population's mechanical movement include:

birth rate;

the effectiveness of migration;

coefficient of natural increase;

coefficient of migration turnover;

balance of migration.

4. The intensity of migration turnover is calculated as:

the ratio of the number of arrivals per year to the average annual population;

the difference between the number of arrivals and departures for the year, divided by the average annual population;

the sum of the number of arrivals and departures for the year, divided by the average annual number;

the number of arrivals for the year, divided by the number of retired for the year.

5. The coefficient of migration growth is calculated as:

the ratio of the number of arrivals per year to the average annual population;

the difference between the number of arrivals and departures for the year, divided by the average annual population;

the sum of the number of arrivals and departures for the year, divided by the average annual number;

the number of arrivals for the year, divided by the number of retired for the year.