

Econ 121 A/B  
Principles of Economics  
Spring 2024

Inequality

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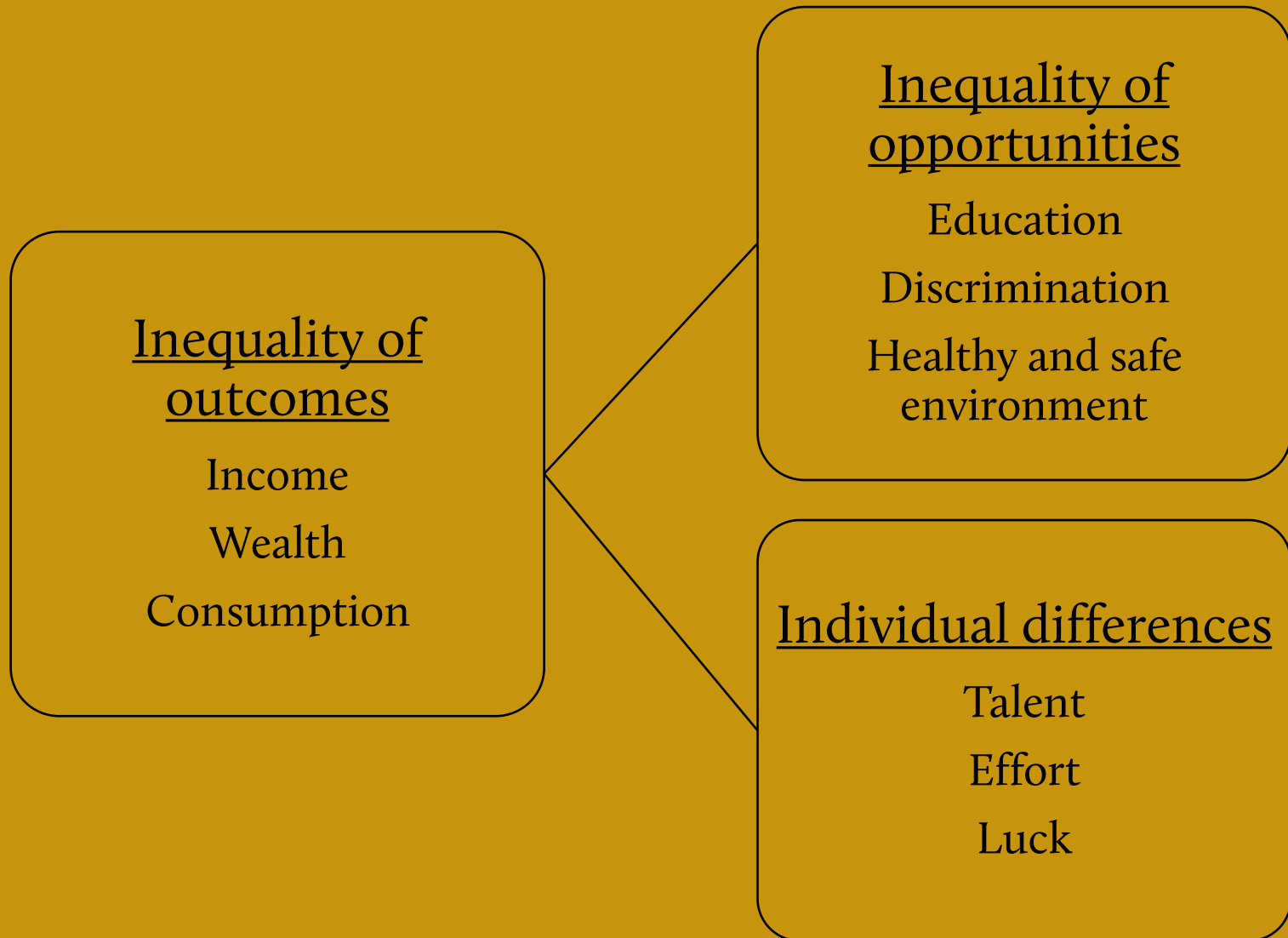
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# Learning Objectives

- Discuss what drives economic inequality among individuals and households.
- Understand the measurements for inequality.
- Evaluate policies to address inequality.

# Economic inequality



# What is the type of inequality in this case?

- Antonio earns more money working in finance than his college roommate Lorenzo does as a prosecutor for the federal government.
- In many countries, girls still lack the same access to education that boys have.

# What is the type of inequality in this case?

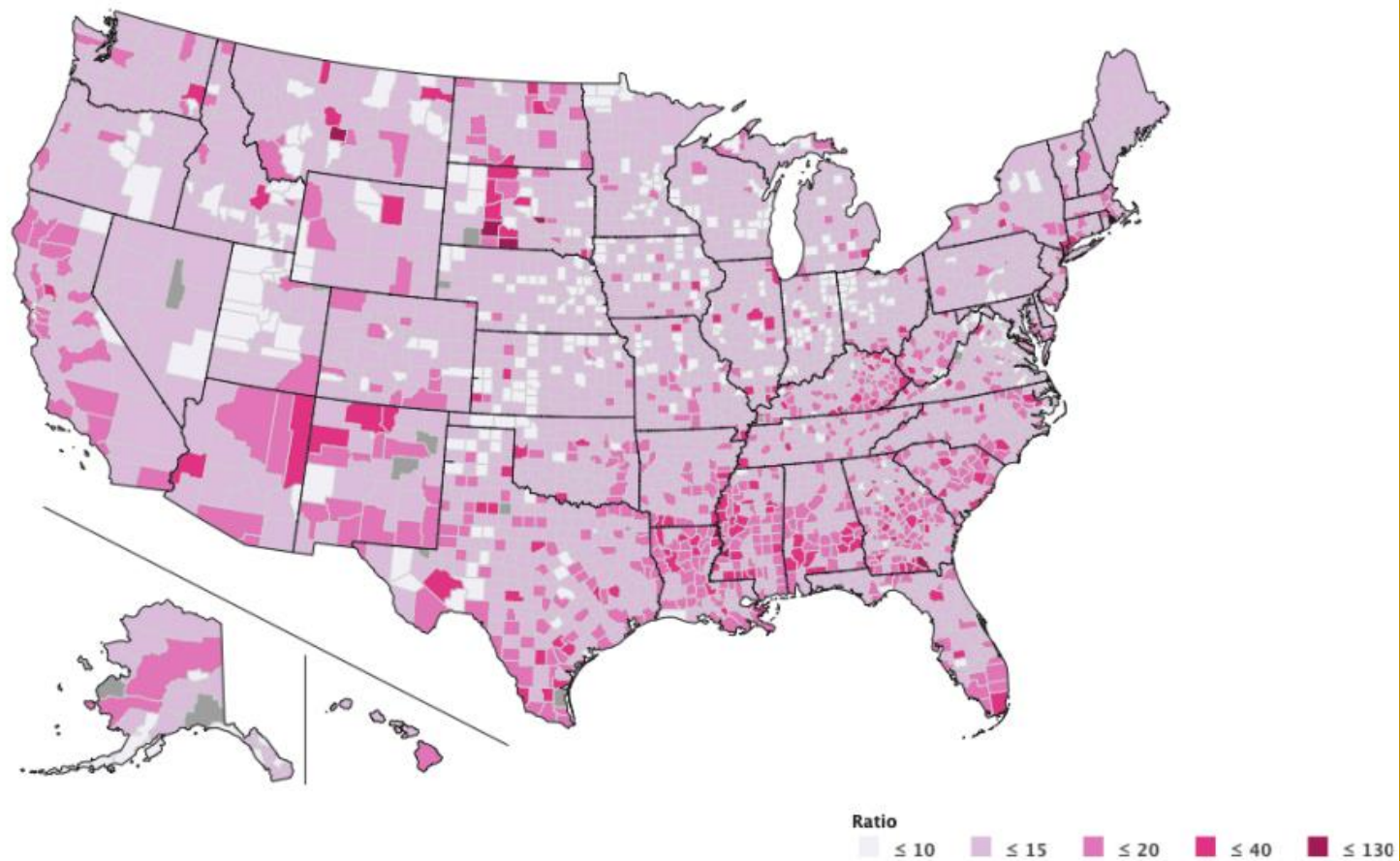
- Anita has an easy time finding a good-paying job after college because her parents have many connections and can help her land her first job. Anita's roommate, Sonia, has no such family connections and has to work a part-time job after graduating until she finds something better.
- In a company, employees that work together on a team project and have the same position in the firm are paid a bonus according to their individual performance in that project.

# Measuring income inequality

- Quintiles – US Census
  - The ratio of the average income for the highest quintile of earners divided by the average income of the lowest quintile of earners.

Figure 1  
Income Inequality by County

FRED 2020 Income Inequality by County (Ratio)



SOURCE: U.S. Census via FRED®, Federal Reserve Bank of St. Louis; <https://fred.stlouisfed.org/graph/?m=QRCJ>, accessed June 23, 2021.

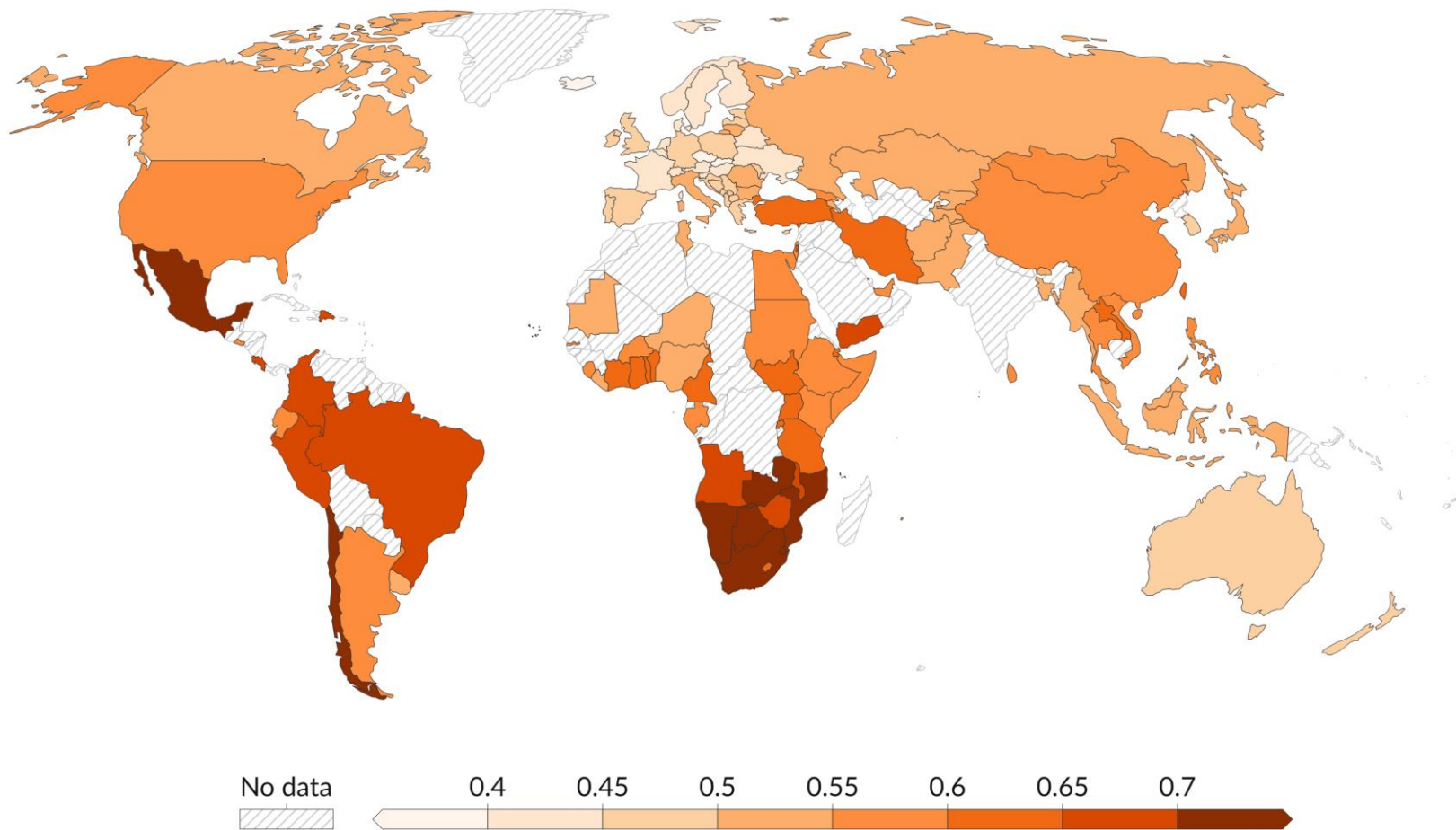
# Measuring income inequality

- Quintiles – US Census
  - The ratio of the average income for the highest quintile of earners divided by the average income of the lowest quintile of earners.
- Gini Index – World Bank
  - $\text{Gini} = (1/2)$  average difference between all the pairs of individuals / average income



# Gini coefficient, 2019

The Gini coefficient measures inequality on a scale from 0 to 1. Higher values indicate higher inequality. Inequality is measured here in terms of income before taxes and benefits.



Data source: World Inequality Database (WID.world) (2023)

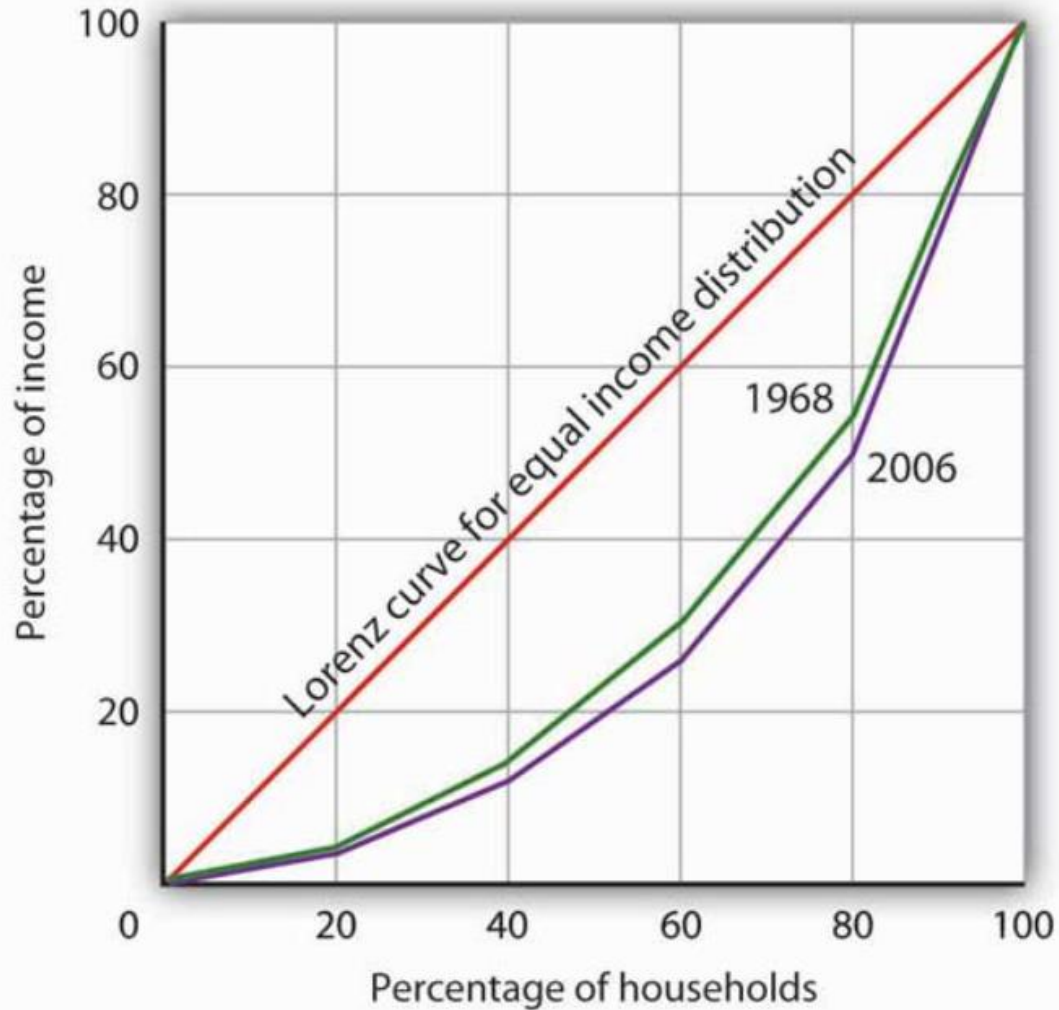
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Note: Income is measured before payment of taxes and non-pension benefits, but after the payment of public and private pensions.

# Measuring income inequality

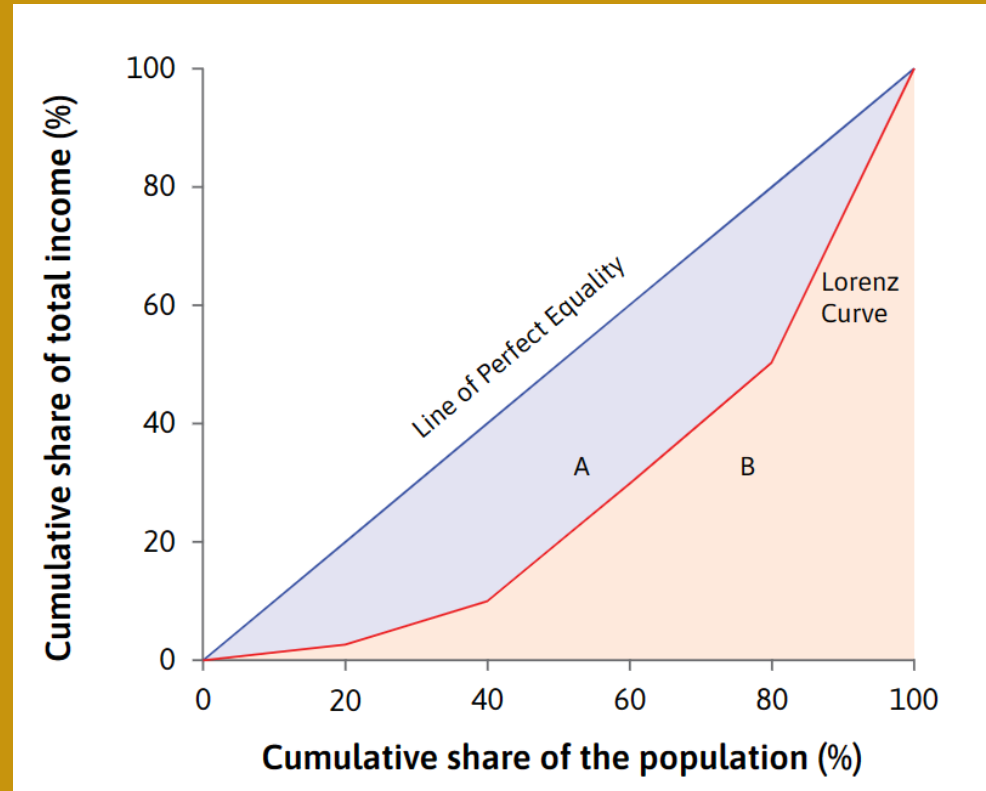
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- Lorenz curve
  - Cumulative income shares

# Lorenz curve of US



# Relationship between the Gini Index and the Lorenz curve

$$\text{Gini} \approx A/(A+B)$$



# Income, wealth, and consumption

- Income – flow of water into the tub
  - Transitory vs permanent income
  - Market vs disposable income
- Wealth – water in the tub
  - The value of a person's assets accumulated over time.
- Consumption – water that drains out of the tub

Which of the following factors are considered when measuring income inequality?

- Accidents of birth and good fortune
- The amount of money held in individual retirement accounts
- The amount of money owed on student loans

# Solutions

- Pre-distribution
  - Minimum wage
  - Protection of unions
  - Land reform
  - Expansion of educational access and quality
- Redistribution
  - Welfare program
  - Negative tax (subsidy)
  - In-kind transfers

# Which country do you prefer to live in?

- Consider the following two societies, where the numbers represent mean income at each quintile:

Economy A: 6, 10, 13, 17, 31

Economy B: 5, 11, 16, 23, 47



# Liberalism thinking of inequality - John Rawls

- People would be chiefly concerned about the possibility of being at the bottom of the income distribution.
- Maximin criterion: the government should aim to maximize the well-being of the worst-off person in society.