

# Visualization: Motivating a question

UCLA Soc 114

# Can inequality make people better off?

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1. unequal rewards motivate work and innovation

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An argument that it does:

1. unequal rewards motivate work and innovation
2. work and innovation make everyone better off

What kind of data might support (or contradict) this argument?

## Can inequality make people better off?

Each dot is a country (hypothetical data)



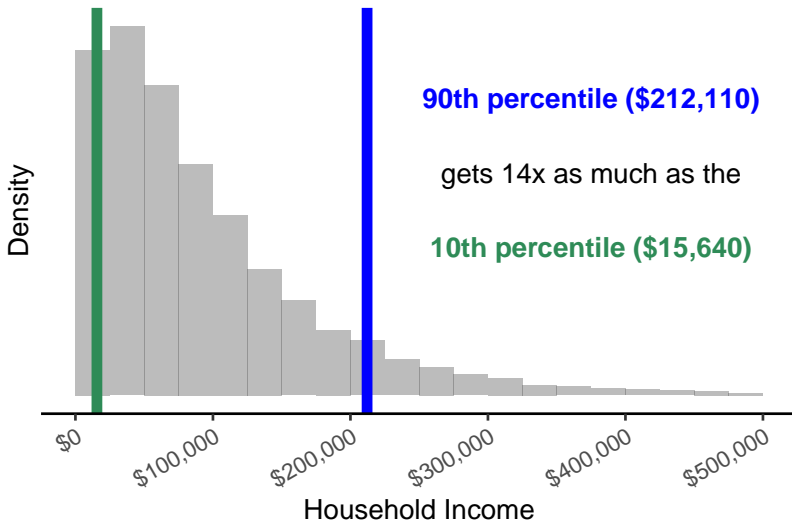
## Defining concepts: Income inequality

2022 Annual Social and Economic Supplement to the Current Population Survey (U.S. households)



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$$90/10 \text{ income ratio} = \frac{90\text{th percentile}}{10\text{th percentile}} = \frac{212,110}{15,640} = 13.6$$

Defining concepts: Economic productivity

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Gross Domestic Product Per Capita

= (Total Economic Production) / (Number of People)

## Two theories: Two possible graphs

Theory 1)

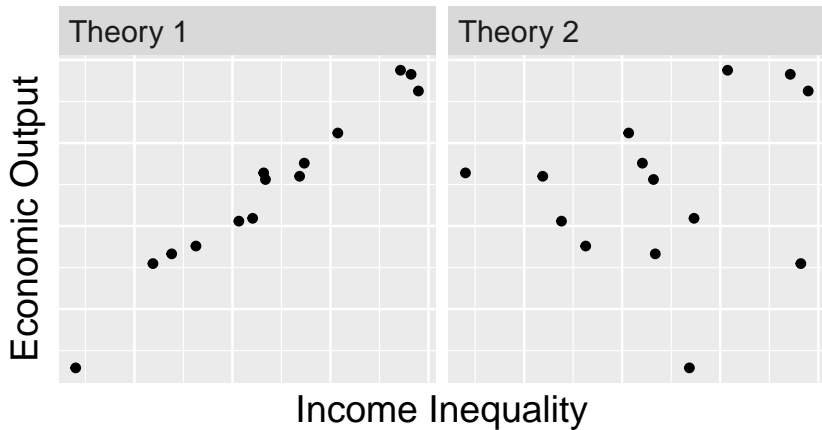
Countries with more inequality have more economic output

Theory 2)

Inequality and economic output are unrelated

## Two theories: Two possible graphs

Each dot is a country



## Real data: Jencks 2002 Table 1

```
table1 <- read_csv(  
  "https://soc114.github.io/data/jencks_table1.csv"  
)
```

## Real data: Jencks 2002 Table 1

# A tibble: 14 x 4

	country	ratio	gdp	life_expectancy
	<chr>	<dbl>	<dbl>	<dbl>
1	Sweden	2.6	0.68	78.9
2	Finland	2.7	0.68	76.6
3	Norway	2.8	0.85	77.8
4	Denmark	2.9	0.79	75.4
5	Netherlands	3.2	0.75	77.5
6	Germany	3.2	0.71	76.6
7	Belgium	3.2	0.74	76.4
8	France	3.5	0.66	78.4
9	Switzerland	3.6	0.84	78.5
10	Italy	4.8	0.67	77.6
11	Canada	4	0.78	78.2
12	Australia	4.3	0.75	78
13	UK	4.6	0.67	77
14	US	5.6	1	75.7