

DISCUSSION QUESTION

Name:

Instructor:

Course:

The poverty rate in the U.S. was equal to approximately 15% in 1981. In 2013, the poverty rate in the U.S. was equal to approximately 15%.

- a) Despite the fact that the poverty rate was almost identical in 2013 to what it was in 1981, economists agree that a significantly larger amount of income inequality existed in 2013 compared to 1981. How is it possible to have greater income inequality without having a higher poverty rate?

- b) What are the major causes of the changes in income inequality over the past 30 years?

- c) What could be done to reduce the level of income inequality in society?

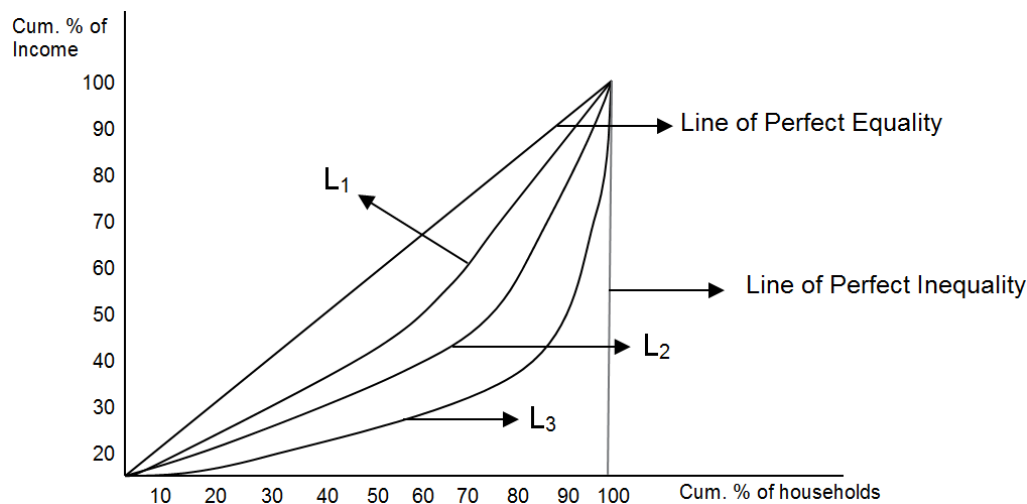
PEER GROUP PROBLEM SOLVING

Name:

Instructor:

Course:

Use the following figure, representing three different countries (1, 2, and 3) Lorenz' curves, to answer the following questions.



- Of the three nations represented in the figure above, which one has the lowest amount of income inequality?
- Of the three nations represented in the figure above, which one has the highest Gini Coefficient?
- Of the three nations represented in the figure above, which one has the highest per capita income level?
- Explain how you would use each nation's Lorenz curve to calculate the Gini Coefficients.

IN-CLASS EXPERIMENT / ACTIVE EXERCISE

Have students break up into groups of 3 or 4 and answer the following the questions regarding the distribution of income in two hypothetical countries.

<i>Income Group Quintiles</i>	1	2	3	4	5
<i>Country A Income Level</i>	\$10,000	\$20,000	\$40,000	\$90,000	\$140,000
<i>Country B Income Level</i>	\$5,000	\$10,000	\$45,000	\$100,000	\$200,000

Note: The quintiles rank income levels from the lowest 20% to the top 20%.

a) Calculate the per capita income in each country.

b) Calculate the Gini Coefficients in both countries.

SOLUTIONS AND INSTRUCTOR NOTESDiscussion Question

The poverty rate in the U.S. was equal to approximately 15% in 1981. In 2013, the poverty rate in the U.S. was equal to approximately 15%.

- a) Despite the fact that the poverty rate was almost identical in 2013 to what it was in 1981, economists agree that a significantly larger amount of income inequality existed in 2013 compared to 1981. How is it possible to have greater income inequality without having a higher poverty rate?

Poverty rate measures the percent of individuals who have an income that is below the poverty line; income inequality is based on the full distribution of income in society, which therefore includes both rich and poor.

It is possible to have greater income inequality without seeing an increase in the poverty rate if higher income individuals have a larger proportion of total income within a society (if the rich get richer but there is no increase in the relative number of poor individuals).

- b) What are the major causes of the changes in income inequality over the past 30 years?

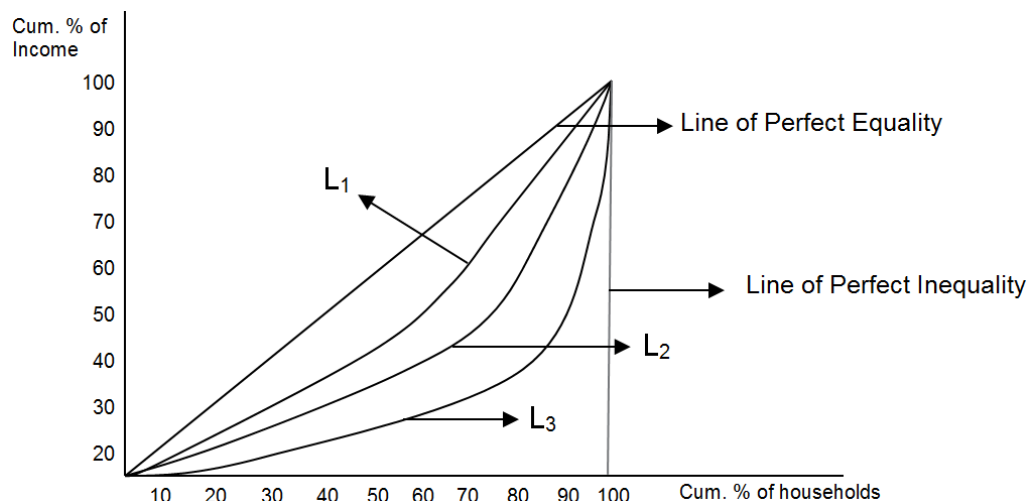
There are many different causes, but three primary causes include technological changes, globalization, and changes in tax rates. Technological changes and globalization have increased earnings of highly skilled workers and decreased relative earnings of low- skilled workers, while changes in tax rates over the past 30 years have favored high- income individuals.

- c) What could be done to reduce the level of income inequality in society?

There are many different options, and the options that any individual favors will be based largely on political preferences. Options generally favored by the political left include increasing marginal income tax rates on the wealthy and increasing funding for social insurance programs. Options generally favored by the political right include increasing incentives to work such as through labor market training programs or the earned income tax credit.

Peer Group Problem Solving

Use the following figure, representing three different countries (1, 2, and 3) Lorenz' curves, to answer the following questions.



- a) Of the three nations represented in the figure above, which one has the lowest amount of income inequality?

Country 1 has the lowest inequality (and Gini coefficient) because their Lorenz curve is nearest to the line of perfect equality.

- b) Of the three nations represented in the figure above, which one has the highest Gini Coefficient?

Country 3 has the highest inequality (and Gini coefficient) because their Lorenz curve is furthest from the line of perfect equality.

- c) Of the three nations represented in the figure above, which one has the highest per capita income level?

Indeterminate. You can determine the level of income inequality from a Lorenz curve, but you cannot determine a nation's per capita income level.

- d) Explain how you would use each nation's Lorenz curve to calculate the Gini Coefficients.

You would take the area between the nation's Lorenz curve and the line of perfect equality divided by the total area between the line of perfect inequality and the line of perfect equality, times 100.

In-Class Experiment / Active Exercise

Have students break up into groups of 3 or 4 and answer the following the questions regarding the distribution of income in two hypothetical countries.

Income Group Quintiles	1	2	3	4	5
Country A Income Level	\$10,000	\$20,000	\$40,000	\$90,000	\$140,000
Country B Income Level	\$5,000	\$10,000	\$45,000	\$100,000	\$200,000

Note: The quintiles rank income levels from the lowest 20% to the top 20%.

- a) Calculate the per capita income in each country.

The average income is found by the sum of each groups income divided by 5 (the number of groups). In Country A this equals $\$300,000/5=\$60,000$. In Country B this equals $\$360,000/5=\$72,000$.

- b) Calculate the Gini Coefficients in both countries.

In Country A, if everyone has \$60,000 there would be perfect equality. In order for everyone to have perfect equality, group 1 must be given \$50,000, group 2 must be given \$40,000 and group 3 must be given \$20,000 (or \$30,000 must be taken away from income group 4 and \$80,000 from group 5). Therefore the Gini coefficient equals $\$110,000/\$300,000 = 0.367$ (or 36.7).

In Country B, if everyone has \$72,000 there is perfect equality. In order for everyone to have perfect equality, group 1 must be given \$67,000, group 2 must be given \$62,000 and group 3 must be given \$27,000 (or \$28,000 must be taken away from income group 4 and \$128,000 from group 5). Therefore the Gini coefficient equals $\$156,000/\$360,000 = 0.433$ (or 43.3).

For more in-class experiment and active learning ideas, visit www.econedactive.com.