Author: Sierra Arnold

Economics, Xavier University

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Learning Module: Studying Economic Inequality Using WebCHIP

Module Overview:

This learning module is designed to help students understand and analyze the concept of economic inequality using real-world data. It will guide learners through the process of accessing and analyzing datasets related to income distribution, wealth gaps, poverty rates, and more using WebCHIP, a data analysis tool provided by the Social Science Data Analysis Network (SSDA).

Learning Objectives:

By the end of this module, students should be able to:

1. Define key terms related to economic inequality (e.g., income inequality, wealth gap, poverty).

2. Use WebCHIP to access and analyze data on economic inequality.

3. Interpret economic inequality metrics, such as income percentiles and poverty rates

4. Examine the impact of variables like education, race, and gender on economic inequality

5. Visualize and communicate findings using charts and graphs created in WebCHIP.

1. Introduction to Economic Inequality

Overview of Economic Inequality:

- What is economic inequality?

- Why is economic inequality a critical social issue?

- Key concepts: income inequality, wealth inequality, poverty, social mobility.

Core Metrics:

- Gini Coefficient: Measures income distribution, ranging from 0 (perfect equality) to 1 (perfect inequality).

- Poverty Rate: Percentage of people living below the poverty line.

- Income Quintiles/Percentiles: Distribution of income across different segments of the population.

2. Accessing WebCHIP & Exploring the Dataset

- Introduction to WebCHIP: Briefly explain WebCHIP as a tool to analyze data from the U.S. Census Bureau, Bureau of Labor Statistics, and other sources

- Dataset Overview: Guide students through selecting data on household income distribution by race, gender, and educational attainment

- Filtering the Data: Show students how to select relevant variables from the dataset (e.g., income levels, age, race, education). Demonstrate how to filter data based on specific conditions (e.g., focusing on a particular state, region, or year).

3. Analyzing the Data

- Understanding Descriptive Statistics

- Use WebCHIP to calculate basic statistics, such as mean, median, and standard deviation of income

- Demonstrate how to interpret these statistics in the context of inequality

- What does the difference between mean and median income tell us about income distribution?

- How do we interpret a high standard deviation in income?

- Comparing Income Across Different Demographics

- Use the dataset to compare income inequality across different demographic groups (e.g., by race, education level, or gender)

- Ask students to identify any patterns or trends in economic inequality based on these factors

4. Visualizing Economic Inequality

- Creating Charts and Graphs

- Show students how to create visualizations using WebCHIP, including:

- Bar charts for income distribution by group

- Histograms to show the spread of income across a population

- Line graphs to illustrate income trends over time

-Step 2: Interpreting Visualizations

- Guide students through interpreting different types of charts and what they reveal about the distribution of wealth and income

- Discuss how to use visualizations to communicate insights about economic inequality to a wider audience

5. Reflection

- Ask students to reflect on what they’ve learned and write a brief essay (or discussion post) about the most surprising or impactful insight they gained from analyzing economic inequality through WebCHIP.

- Online Resources:

- [SSDA - Social Science Data Analysis Network](https://ssdan.net/)

- [WebCHIP Tool](https://ssdan.net/webchip/)