Day 3 - Part 1: Inequality

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Inequality Indicators

This exercise is intended to illustrate micro data based calculations of a variety of inequality indicators. For this purpose we will use the 2017 round of the `CASEN` survey, commissioned by the Chilean Ministry of Social Development.

Exercise 1: Size Distributions

1. Create a variable income quintiles for the following variables: Total Income, Labor Income, Transfers Income and Other Incomes. Use weights in the calculation.
2. Create a variable for income deciles for the following variables: Total Income, Labor Income, Transfers Income and Other Incomes. Use weights in the calculation.
3. Create a variable for income centiles for the following variables: Total Income, Labor Income, Transfers Income and Other Incomes. Use weights in the calculation.
4. Plot average Total Income, Labor Income, Transfers Income and Other Incomes within each Total Income Decile
5. Plot the income share of Labor Income, Transfers Income and Other Incomes within each Total Income Decile

Exercise 2: Lorenz Curves

1. Install the `glcurve` command in `STATA`
2. Using the `glcurve` command, create a variable for income rank and income share for the following variables: Total Income, Labor Income, Transfers Income and Other Incomes. Use weights in the calculation.
3. Plot the resulting Lorenz Curves (Income Share against Income Rank).

Exercise 3: Coefficient of Variation

1. Create a variable for coefficient of variation of for the following income measures: Total Income, Labor Income, Transfers Income and Other Incomes. Use weights in the calculations and exclude zero-valued observations.
2. Plot the resulting indexes

Exercise 4: Atkinson and Theil Indexes

1. Install the `ineqdeco` and `theildeco` commands in `STATA`
2. Using the installed commands, calculate Atkinson and Theil indexes for the following income measures: Total Income, Labor Income, Transfers Income and Other Incomes. Use weights in the calculations and exclude zero-valued observations.

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