MAP OF BASIC EMPIRICAL TECHNIQUES USED

MULTIVARIATE EXERCISES (Allows to test significance of coefficients (Standard error, t-stat, p-value)

- BI-VARIATE TABULATIONS
  - Ex: POVERTY PROFILE

- DISCRETE VARIABLES REGRESSIONS (Linear Probability, Probits, Tobits...) Logits

- CONTINUOUS VARIABLES REGRESSIONS

- FUNCTIONAL FORM (Linear, log-log, Log Linear, ...)

- MULTINOMIAL (Ordered, Non-Ordered)

- INTERPRETATION OF R²
  - Ex: Gross Contribution to Inequality and Net (Difference of R² With & Without variable)

- INTERPRETATION OF COEFFICIENTS
  - Ex: Levels, Elasticity, Semi-Elasticity,

COMMON TYPES OF PROBLEMS AND ANALYSES USED:

DIFFERENCE IN DIFFERENCE

- IMPACT EVALUATION: Applied to all Techniques above

SELECTIVITY BIAS

- AVOID EX: RANDOM CONTROL TRIALS (RCTs), QUASI-EXPERIMENTS...
- DEAL WITH EX: HECKIT, PROPSITY SCORE MATCHING (PSE)...

OMMITED VARIABLES

- EX: EDUCATION OF PARENTS

MEASUREMENT ERROR

- EX: WHO ANSWER THE QUESTIONNAIRE KNOWS +...

GRAPHICAL REPRESENTATION OF INCOME DISTRIBUTIONS

- LORENZ

- FREQUENCY DISTRIBUTION FUNCTION (FDP)

- CUMMULATIVE DISTRIBUTION FUNCTION (CDF)

- LEVELS X GROWTH
  - CHECK PRESSURE POINTS

- GROWTH INCIDENCE CURVE (GIC)

Poverty Dominance (starts with CDF)

A dominates B in 1st order (FOD) => \( P^0A > P^0B \) for every \( z \)

A dominates B in 2nd order (SOD) => \( P^1A > P^1B \) for every \( z \)

A dominates B in 3rd order (TOD) => \( P^2A > P^2B \) for every \( z \)
Definitions and Formulas (2 first pages to be distributed in the exam)

**Labor Economics**

Occupied population (E): People working
Unemployed population (U): People looking for job but not occupied
Inactive population (I): People not occupied

Active Age Population (PLA): 
occupied + unemployed + inactive = (E + U + I)

Economically Active Population (PEA):
occupied + unemployed (E + U)

Participation Rate: \( \frac{PEA}{PLA} = \frac{E + U}{E + U + I} \)

Unemployment Rate: \( \frac{Unemployed}{PEA} = \frac{U}{E + U} \)

Occupation Rate in PEA: \( \frac{Occupied}{PEA} = \frac{E}{E + U} \)

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**Labor Market, Income Policies and Demographic Bonus Decomposition**

Diagram showing the decomposition of labor market income, with variables for education, years of schooling, hours worked, occupation rate, participation rate, total income, and demographic bonus.