

***Problem Set on Broad and Policy Issues**

Question I - Broad Framing Questions:

- 1) **Ends (Results) Approach** - Similarly to what we have done to CCTs, discuss the impact of high school policies on end results (prosperity, equality, sustainability and sensibility). Explore the relationship between students motivations to evade high-school and returns to education.
- 2) **Shared Productivity** – i) Discuss the relationship between GDP growth and mean household income growth in Brazil and their possible causes and consequences. ii) Organize and discuss policies that may generate shared productivity.
- 3) **Means (Input) Approach** - Discuss, from a generic model of aggregation between different individuals and moments of time/states of nature, as well as schemes seen along the course, the channels (intermediate variables) through which such as education, conditional cash transfer (CCTs) policies, and microcredit impact the level of social welfare in a society over time.
- 4) **Social Tensions** (Atkinson's Approach) - Discuss the application of extracting social indicators from their respective Social Welfare Functions (Choose two: Inequality, Poverty, Polarization (Alienation, Identification), Volatility (Aggregate) and Mobility).

Question II – Discursive questions:

- 1) **Subjective Data:** i. Discuss possible links between temporal choice and subjective data. ii. How subjective data can help to explain Brazilian dilemmas.
- 2) **Middle Class Issues:** i) Discuss the concepts of alienation and identification. ii) Derive them plus polarization from a Social Welfare Function. iii) What is the strategy of dividing the population into absolute income classes (choose income brackets) using the between and within groups components?
- 3) **Mobility issues:** i) Discuss the concepts of volatility (aggregate) and mobility using a Social Welfare Function. ii) Discuss the intergeneration transmission of education in Brazil. How can it be addressed empirically? iii) What are the stylized facts in the Brazilian case of the two-sided relationship between income mobility and educational choices.

Question III – Techniques to think about:

Besides standard mincerian regressions for income and discrete binomial logistic regression (in the case of poverty), we have applied Difference in Difference estimators in various occasions (for example comparing the performance of beneficiaries and non beneficiaries of CCTs), Cohort effects (applied to self-reported race), Markovian regression (applied to intergenerational transmission of education) and Principal Components Analysis (applied to the choice of subjective variables in the PHDI).

Describe briefly the three microeconomic techniques posed below, explaining their purpose, intuition and trying to relate with concrete examples:

- 1) Quantile Regressions.
- 2) Regression Discontinuity Design.
- 3) Stepwise procedure (including externality effects).

Question IV – Public Policies - Write a two page essay on the Brazilian case tackling one of the following public policy related topic using the material discussed in class. You are free to pick additional empirical facts and to discuss policy proposals:

- a) Conditional Cash Transfers
- b) Education
- c) Productive Inclusion
- d) Microcredit