



CENTRAL BANK OF
TRINIDAD & TOBAGO

CREATING MULTI-INDICATORS OF POVERTY: Household Budget Survey And Its Applications

Dr. Earl T. Boodoo
Dr. Reshma Mahabir
Dindial Ramrattan

The authors are Economists in the Research and Policy Department of the Central Bank of Trinidad and Tobago. The views expressed are those of the authors and not necessarily those of the Central Bank.

AIM

This paper seeks to evaluate the options for developing a multi-poverty indicator for Trinidad and Tobago. Essentially, the initial undertaking attempts to identify possible indicators which can be used when reporting on poverty.

Presentation Format

- Poverty Measures and its Application
- Multi-Dimensional Indicators of Poverty
- Poverty in Trinidad and Tobago
- Methodology
- Results
- Conclusion

Poverty Measures and its Application

- Poverty measures provide a quantification of the conditions under which persons reside.
- Absolute poverty utilizes a costing of basic needs and application of a generic poverty line. This line serves as a reference point; all persons below the line are considered poor and all persons above the line are considered non-poor.
- On the other hand, relative poverty focuses on assessing a person's income levels to the median income of the population.

Multi-dimensional indicators (MDI) of Poverty

Amartya Sen recognized poverty in relation to the entitlements and capabilities available to a person.

- Poverty relative to factors including and beyond economic deprivation.
- In the literature, this school of thought facilitated the growing use of multi-dimensional poverty indicators.

The Human Development Index as a MDI

The Human Development Index (HDI) is a multi-dimensional measure focused on:

- Education
- Health
- Income indicators.

Applications of MDI

- The use of multi-dimensional indicators allow the measurement of poverty to expand beyond a single measure of deprivation (income or consumption)
- Measurement and comparisons indicators across time and space
- The aggregation of such variables across households provides the nexus for countries to assess their living standards.

Applications of MDI

This index be expanded beyond income levels and consumption patterns to include:

- housing conditions
- basic amenities
- access to education
- access to healthcare
- satisfaction of social needs
- levels of household indebtedness.

Poverty Indicators in T&T

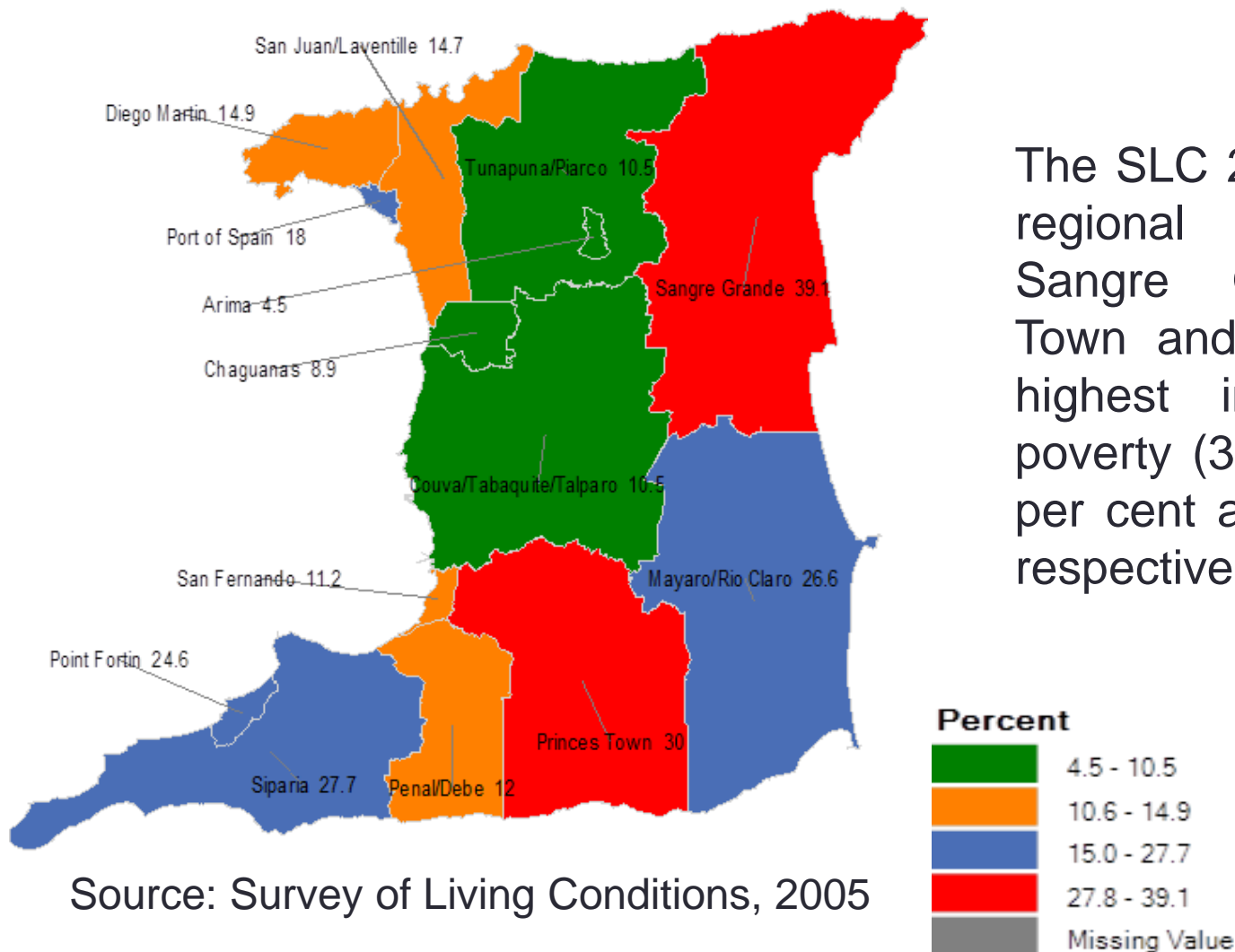
	Trinidad	Tobago	Trinidad and Tobago
	(per cent)		
Indigent	1.2	-	1.2
Poor	15.4	19.0	15.5
Vulnerable	9.2	3.2	9.0
Age Groups	Indigent Population	Poor Population	Vulnerable Population
0-4	14.2	9.1	8.8
5-14	23.9	20.5	19.6
15-24	22.9	25.5	21.2
25-44	27.8	26.2	28.7
45-64	8.6	14.8	16.2
65+	2.8	3.8	5.5

Source: Survey of Living Conditions, 2005

The level of poverty for Trinidad and Tobago was **16.7 per cent**, comprised of 1.2 per cent indigent and 15.5 per cent poor.

Out of every 5 persons indigent, approximately 3 persons (**60 per cent**) are from the age categories 0-24.

Regional Corporations and Poverty



The SLC 2005 identified the regional corporations of Sangre Grande, Princes Town and Siparia with the highest internal rates of poverty (39.1 per cent, 30.0 per cent and 27.7 per cent, respectively).

Source: Survey of Living Conditions, 2005

Methodology

- This paper attempts to empirically measure the probability of a household being designated as being poor.

$$P_i = \alpha_0 + \alpha_1 F_i + \alpha_2 HH_i + \alpha_3 X_i + \varepsilon_i$$

- P represents the poverty indicator
- F represents whether the household is female headed
- HH is the size of the household
- X represents a series of variables which include age of head of household, number of children, education of head of household, and the type of job held by the head of the household.

Data

- Household data from the Household Budgetary Survey 2008/2009.

Multi-Dimensional Poverty Groupings

Income Deficiency

- Income as an indicator of poverty

Housing Deficiency

- Someone who is squatting is defined as poor

Sanitation Deficiency

- Those without access to either a sewer system or septic tank characterized as poor

Wealth Deficiency

- Durable goods were weighted by their respective RPI weightings and classed into a Wealth Deficiency Index.

Results

	Income Deficiency	Housing Deficiency	Sanitation Deficiency	Wealth Deficiency
Rural Location	-0.0123 (1.11)	-0.0099 (3.93)	0.0853 (11.63)	0.0165 (4.99)
Female Headed Household	0.0282 (2.51)	0.0028 (1.15)	0.0014 (0.18)	-0.0027 (0.70)
Ratio of children to household size	0.1865 (6.09)	0.0186 (2.99)	0.1092 (5.41)	0.0347 (3.20)
Household size	-0.0196 (5.38)	-0.0024 (2.69)	-0.0097 (3.69)	-0.0132 (7.03)
Age of head of household	0.0009 (2.36)	-0.0004 (3.68)	-0.0032 (10.79)	-0.0008 (5.67)
Education-pre-school	0.1034 (1.17)	0.0062 (0.36)	-0.0846 (6.52)	-0.0153 (1.75)
Education-primary	0.0242 (0.59)	-0.0102 (1.46)	-0.0809 (3.84)	-0.0342 (3.25)
Education-secondary	0.0173 (0.41)	-0.0125 (1.84)	-0.1666 (8.16)	-0.0459 (4.27)
Education-University	0.0763 (1.51)	-0.0120 (6.80)	-0.1290 (26.45)	-0.0311 (9.36)
Education-Other	0.0737 (1.42)	-0.0113 (6.43)	-0.1141 (22.10)	-0.0271 (8.44)
Education-Non-stated	0.1662 (1.45)		-0.0836 (4.94)	-0.0198 (2.46)
Pseudo R-squared	0.0090	0.0683	0.1190	0.1044
No of Observations	7090	7067	7090	7090

Results

- In both the cases of sanitation and accumulation of consumer durables, households located in a rural area are more likely to be considered as poor.
- Female headed households were 2.8 per cent more likely to be poor than male headed households.
- The larger the ratio of children to household size the more likely the household will be poor.
- The larger the household size the lower likelihood the household would be poor

Results

- The effects of education especially at the tertiary level had the largest impact.
- The other variable tested was that of the age of the head of the household. While this variable was insignificant in the case of income deficiency, it was significant and negative in the other three indicators of poverty.

Conclusion

The results points to elements of income deficiency consistent with poverty indicators from previous studies such as the SLC 2005. The multi-dimensional indicators such as housing deficiency, sanitation deficiency and wealth deficiency also show valid relationships.

Thank you

Questions?