

**Paper 167 – Social Sciences**

**A ROBUST MULTIVARIATE LINEAR REGRESSION APPROACH IN PREDICTING THE HUNGER SEVERITY IN PHILIPPINE PROVINCES**

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**ABSTRACT**

Hunger is one of the social issues that can be considered alarming all over the world. It has been a lingering problem for generations even in rich countries. In the Philippines, Official government statistics show an increasing trend in hunger incidence among Filipino households. A Data from National Statistics Coordination Board (NSCB) shows that the percentage of existence of the poor in the nation increased to 14.6 percent in 2006 from 13.5 percent in 2003. The Social Weather Stations (SWS) quarterly surveys on the incidence of hunger show an increasing trend in the percentage of families that experienced hunger as well. Various literatures cite that the main cause of hunger is poverty. In connection, this paper was crafted aiming to determine the likelihood of hunger severity of provinces in the Philippines using four variables from each provinces: income, population, employment rate, and poverty incidence. Robust Multivariate Linear Regression was used to construct the model. The results showed that the most significant predictor of hunger is still the poverty incidence in the province. A noticeable finding in this paper is that a higher employment rate does not necessarily minimize hunger. In fact, it may actually increase the estimated rate of hunger severity. The model is highly significant at 0.01. The obtained r-squared is 0.6308. The results of this study provide relevant information that will be useful in crafting policies of the government related to hunger.

**Keywords: Hunger, Hunger Index, Hunger Severity, Robust Multivariate Linear Regression**

