

# **Three Essays in Public Finance**

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## **Essay1: A Theory of Trading of Club Goods and Its Application to Jurisdiction Formation**

**Abstract:** In this paper, we build a model of trading of club goods among clubs, and illustrate its effects on the process and outcome of club formation. Cost function as well as disutility of crowdedness is emphasized and integrated into the process of club formation, after we allow for exchanging club good among clubs. In the process, we develop a market for club goods. The model is then applied to jurisdiction formation.

**Keywords:** exchange; club good; club formation; market; intergovernmental contracting

**JEL classification:** D51; D71; H40; H77; L33

## **Essay 2: Food Consumption in Jamaica: A Household Behavior As Well As a Social Behavior**

**Abstract:** In this paper, we explore household food consumption in Jamaica and estimate the effects of related variables. With Jamaica Survey of Living Conditions 2001 data, we are able to estimate an Engel curve which reflects the relation between household food consumption and related variables. What's more, to investigate the possible neighborhood effect on food consumption, we test and estimate the spatial correlation among neighborhood food consumption. The estimated results can be applied to poverty reduction policy.

**Keywords:** food; consumption; Engel; spatial; poverty

**JEL classification:** Q18; I3; D1

### **Essay 3: A Survival Analysis of Education Duration in Jamaica**

**Abstract:** In this paper, we apply discrete time survival analysis techniques to analyze education duration in Jamaica. Based on Jamaica Survey of Living Conditions 2002, we are able to estimate the effects of household, individual and other related covariates on dropout risks of students. We compare discrete time Cox model and discrete time logit model and get that the two estimations are consistent. The estimation results could measure the effects of the covariates, or be used to predict the dropout risks of particular students in each grade, which could provide useful Policy implications to improve education in Jamaica.

**Keywords:** education; dropout; time; survival analysis; poverty

**JEL classification:** I2; J24; N36