

# Motivation of Food Away From Home in Coastal Provinces of China

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## 1. Introduction

Over the latest two decades China has experienced rapid transition in dietary trends, including both food consumption structure and dietary patterns. Many studies have proved that these kind of rapid changes are associated with economic reforms and income growth in China [1-2]. In addition to variety in food consumption structure, one of the major changes which have been focused is a gradually increased consumption of food away from home (FAFH). According to the China statistical yearbooks, expenditure share of FAFH of total food expenditure in urban China reached almost five times than it was of 7 percent in 1992.

Several studies have already made contributions to analyzing the household expenditure on FAFH in China [3-5]. These literatures contributed to an understanding of household dining out in China. But none of them has considering this study by type of meals. In addition, almost of the current empirical study regarding to household expenditure on FAFH was done under the base of Becker's household production and consumption model (HPCM). So no known study was carried out at individual level. Last but not the least, dining out whether for saving time or demand of better food quality and service was not compressively stated.

The current study is aim to overcome the above gaps through examining the consumer behavior regarding to FAFH by type of meal at individuals level, and by well adding the information of free hosted meal, underestimation problem would also expected to be improved. In a word, individual characteristics, household characteristics, and other exogenous factors like city characteristics, consumption trend consistent with days, economic availability would be considered, as well as identifying the motivation of expenditure of FAFH.

## 2. Empirical Model

### 2.1. Data

The 2006 3-days survey data of three coastal provinces from China Health and Nutrition Survey (CHNS) are used in this study. In considering that children's consumption behavior suffers much from their parents or other household members, so individuals younger than 18 years old was excluded in this study. Under the same condition, individuals whose families run household business are also not included in this study since their consumption behavior is not only quite different from individuals of non-household business households, but also differ within the household business family for the difference of the content of household business.

### 2.2. Model specification

The Probit models is induced which are widely used for binary response estimation. Then the following estimation function is established for approaching the objective of this study.

$$P(\text{FAFH} = 1|\mathbf{X}) = G(\beta_0 + \mathbf{X}\boldsymbol{\beta}) \quad (1)$$

Here  $\text{FAFH}$  is a participation of FAFH indicator,  $\mathbf{X}$  denotes all the explanations variables. Then we aggregate  $\mathbf{X}$  into three parts of  $\mathbf{H}$ ,  $\mathbf{I}$ ,  $\mathbf{C}$  which indicate household characteristics, individual characteristics and others

exogenous factors including city feature, survey day and et al., so in the case that the latent variable is defined as the linear combination of these variables equation 1 could be rewritten as

$$P(\text{FAFH}_{ij}^t = 1 | \mathbf{X}_{ij}^t) = G(\beta_0 + \mathbf{H}_{ij}^t \boldsymbol{\beta} + \mathbf{I}_{ij}^t \boldsymbol{\alpha} + \mathbf{C}_{ij}^t \boldsymbol{\gamma}) \quad (2)$$

superscript of  $t$  denote the meal type regarding to breakfast, lunch and dinner. Subscription of  $i$  and  $j$  indicate individual id and survey day respectively. Demographic variables covering existence of schooling child and the elders, household size, and household income are used for identify household characteristics. Age, educational level, working dummy are chosen for individual characteristics. While population density of the city/town where individual lives, survey day dummy are used for distinguish difference between regions and days.

### 3. Result and Discussion

The estimations are conducted by meal type and province respectively. The results show us that individuals in the three coastal provinces have almost a consistent expenditure behavior of FAFH, besides the consumption behavior of FAFH regarding to breakfast and lunch seems to be affects by the similar factors while which is quite different from the consumption behavior FAFH regarding to dinner. For breakfast and lunch, working dummy of individuals, age of individuals, density of the city/ town to which the individuals live show significant positive relationship with possibility of FAFH consumption, while the existence of school child and the elder have significant negative effect on possibility of dinning out. On the other hand, household income doesn't have much impact on participation of dinning out. Regarding to dinner, the most attractive results is that only in two of the three provinces, working dummy of individuals which shows the significant effect on participation of dinning out, while possibility of participation of FAFH in the rest province suffers from the negative significant effect of household income.

From the results, we can draw the conclusion that opportunity cost of time still dominates the effects on possibility of participation of FAFH consumption especially for breakfast and lunch, since the cost of breakfast and lunch don't have much variance for general consumption behavior, even between different provinces locating far away from each. Therefore, opportunity cost of time is highlighted comparing with the income effect. On the contrary, regarding to consumption of FAFH, the disparities of dinner cost between variety restaurants and fast food store or even between different locations are obviously, so the importance of income shouldn't be ignored. But in our study we found that individuals of higher income households attend less consumption of FAFH, which might indicates that individuals of this kind of households spend more time in their job, so other than dinning out, they enjoy spending time with family members at home.

### Reference

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