Life in the Fast Food Lane: Understanding the Factors Affecting Fast Food Consumption among Students in the Philippines

Adina Faye Bondoc, Hannah Felise Florendo, Emilio Jefc Taguiwalo and John Eustaquio
School of Statistics
University of the Philippines Diliman

The fast food industry in the Philippines is growing rapidly and is dominating the food service establishments. Together with this influx in fast food establishments is the increase in fast food consumption and an emergence of an unhealthy lifestyle and increase in obesity prevalence, not only among Filipinos, but around the world. The growth of the fast food industry has been aggressive, especially with its advertisements which have been known to target families and the youth. Previous studies have shown that the youth tend to be more affected by fast food obesity than adults. With this, the researchers decided to create a model for whether students eat at fast food chains using the 2011 Global school-based Student Health Survey in the Philippines. Before modelling, factor analysis was performed to bracket variables together. A total of 6 factors arose—namely vices, assistance from others, injuries and bullying, hygiene, active lifestyle, and diet. In modelling using the original variables, various methods were used for variable selection to reduce the forty-seven variables to a manageable number of predictors. These methods were the independent Chi-squared tests, Fisher Exact Tests, Forward and Backward Selection, and Analysis of Deviance. The resulting model showed that some of the most significant predictors for whether or not a student eats fast food is their frequency of drinking soft drinks, eating fruits, and feeling hungry due to lack of food in the house. The weight and sex of a student also significantly affected the response, in which the odds of eating at a fast food chain were for men were 33.84% lower than that of women, and a kilogram increase in a student’s weight increased their odds by 2.5%.

Keywords: fast food, nutrition, factor analysis, logistic regression, Poisson loglinear model, negative binomial loglinear model, Global School-Based Student Health Survey