



**DOES SOCIOECONOMIC STATUS AFFECT DECISION MAKING? AN EYE-TRACKING APPROACH TO UNDERSTANDING CONSUMER CHOICE**

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In an attempt to combat increasing obesity rates, the FDA began requiring most chain restaurants to disclose caloric information on food menus (Center for Food Safety and Applied Nutrition, 2018). However, previous research suggests broad neglect of this information, the result being that this intervention may have little effect on calories consumed by patrons in fast food settings. The neglect of calorie information is not merely because these individuals do not care about the health information being presented. Rather, it has been hypothesized that individuals of low socioeconomic status may neglect this helpful information as a result of the burden financial constraints have on attention. Financial restraint may compel attention to the most relevant information, specifically to price. As a result, calorie labeling may have little impact on obesity which is higher in incidence amongst those of lower socioeconomic status (VanEpps et al., working paper).

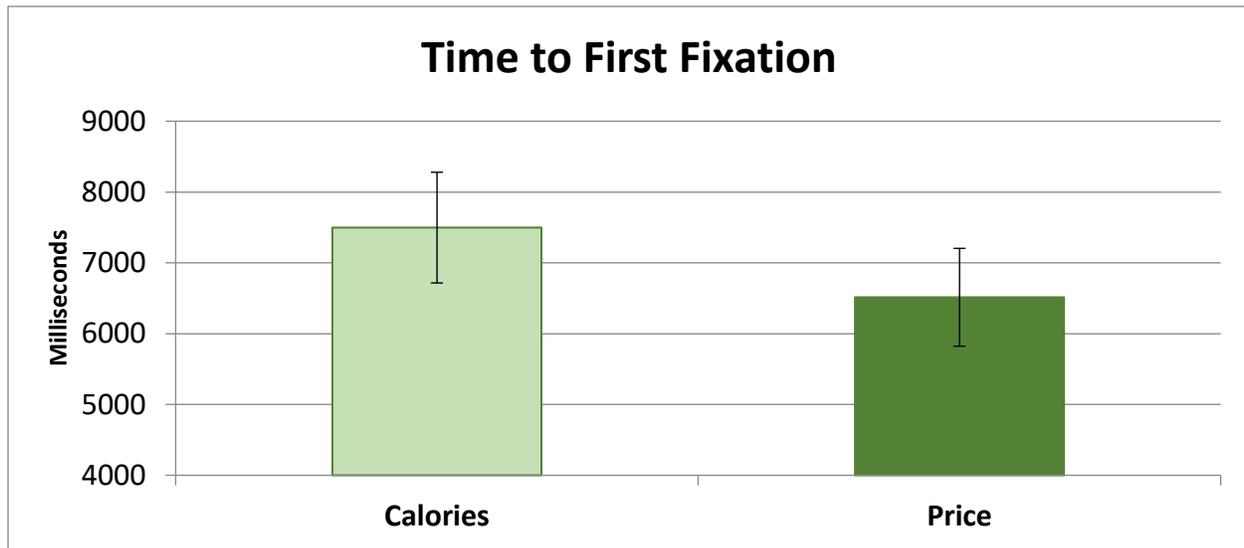
Economic principles would suggest that a scarcity effect is at play here. Due to the fact that poor people have less money, they are more likely to be concerned with choosing an option with a lower price than an option with a healthier caloric index. This concept may be used to explain commonly seen indices of poverty such as over-borrowing, under-saving, or the underutilization of assistance programs. From this perspective, individuals experiencing poverty are more likely to deploy attentional resources on price because money is a scarce resource (Shah, Mullainathan, & Shafir, 2012).

Previous findings suggest this difference in attentional focus in impoverished populations may account for the apparent disregard for caloric information presented on food menus. This is suggested by findings in many past real-world studies of calorie labeling policies as reported in a recent systematic review (Bleich et al. 2017), particularly those investigating the impact of calorie labeling among low-income populations. This line of research suggests that the introduction of calories labeling did not influence calories purchased by low-income people in New York City (Elbel et al. 2009).

Additionally, error detection studies indicate that low-income individuals are more likely to notice discrepancies regarding price information on a menu than discrepancies in calorie information (VanEpps et al., working paper). Detecting more errors in price may indicate that these individuals pay more attention to information regarding price than information regarding calories. However, we infrequently evaluate food menus for errors in real life. To improve upon the design of this prior study, we placed individuals in a realistic decision-making situation and monitored their eyes using eye-tracking technology. The use of eye-tracking technology provides a well-recognized and robust measure of attention. In this experiment we hold specific interest in measuring where participants look first, in addition to the time spent looking at each item.

For this pilot study we constructed 20 different mock food menus. Each menu counterbalances price and calorie information for each food option, with half presenting price on the right and calories on the left, and half presenting the two elements in the reverse order.

Participants were instructed to regard each menu exactly how they would if they were actually at the prompted restaurant about to purchase a meal. Eye-tracking data was gathered during this task. Analysis of time to first fixation provides vital information on the guidance of attention as opposed to time spent merely evaluating information. As participants for the pilot study were college students and probably of higher socioeconomic status, we did not expect a significant difference in attention deployment between calories and price for individual menu items. In accordance with this, participants looked at price (6.5 seconds) more quickly on average than calories (7.5 seconds), but this effect did not reach statistical significance.



By recruiting participants of low and high socioeconomic status in future directions for this study, we hope to gain a better understanding of the influence of attention on choice, and whether socioeconomic status is a significant predictor of decision-making. We propose that socioeconomic status is a relevant predictor for how individuals allocate attention and ultimately make purchasing decisions about food. Specifically, we predict that those of lower socioeconomic status attend to information about price for a longer period of time than calorie information, and that those of higher socioeconomic status will attend to calorie information for a longer period of time than price. This information has clear implications for the effectiveness of information provided on food menus, presenting a unique opportunity to ensure such public health measures are maximally impactful.

## References

- Bleich, S. N., Vercammen, K. A., Zats, L. Y., Frelier, J. M., Ebbeling, C. B., & Peeters, A. A. (2017). Interventions to prevent global childhood overweight and obesity: A systematic review. *The Lancet*, 6(4). doi:[https://doi.org/10.1016/S2213-8587\(17\)30358-3](https://doi.org/10.1016/S2213-8587(17)30358-3)
- Center for Food Safety and Applied Nutrition. (n.d.). Labeling & Nutrition - Menu Labeling Requirements. Retrieved from <https://www.fda.gov/Food/GuidanceRegulation/GuidanceDocumentsRegulatoryInformation/LabelingNutrition/ucm515020.htm>
- Elbel, B., Kersh, R., Brescoll, V. L., & Dixon, L. B. (2009). Calorie Labeling And Food Choices: A First Look At The Effects On Low-Income People In New York City. *Health Affairs*, 28(6). doi:10.1377/hlthaff.28.6.w1110
- Shah, A. K., Mullainathan, S., & Shafir, E. (2012). Some Consequences of Having Too Little. *Science*, 338(6107), 682-685. doi:10.1126/science.1222426
- VanEpps, E. M., Downs, J. S., Loewenstein, G., & Olivola, C. Y. Low-income individuals prioritize attention to price over calorie information. Working paper.

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