

Obesity and Time Use—A First Look Using ATUS Data

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The growing incidence of obesity in the United States can be understood as an ongoing depreciation of the country's stock of health capital, which affects the formation and productivity of conventional wealth-creating capital. Although attention has recently turned from biological to more behavioral and systemic explanations of obesity rates, little attention has been paid to the specific role played by household production decisions. In order to better understand the socioeconomic dimensions of the obesity epidemic, this study examines how the allocation of time and purchased inputs in household food production across different income levels and household types influences the generation of health capital, defined as an optimal Body Mass Index score.

Existing research shows that since the 1970s, Americans, especially lower income groups, have spent progressively less time cooking and cleaning up while increasing their consumption of prepared foods and amount of snacking (Hammerish, 2005; Perman, 1998; Marmonier *et al.*, 2002; Rolls *et al.*, 2004; Nielson & Popkin, 2003). These trends appear to support the growing perception that waning cooking knowledge works against a population's healthy food intake (Brown and Hermann, 2005).

Combined data from the Food and Eating Module of the American Time Use Survey, coupled with data from the Current Population Survey yield statistics that help clarify the relationship between obesity rates and household meal preparation and eating time trends. Significant differences were found in the average time spent in primary and secondary eating and drinking across weight categories as well as in the average time spent preparing and presenting food and drink for different weight categories. Adding Consumer Expenditure Survey data to the analysis gives definition to the relationship between obesity and income demographics. Significant differences were found in the percentage of overweight and obese people across different income categories. Average BMI across education levels was also found to vary significantly. Findings from multivariate analysis reveal that, compared to Underweight, Normal weight and Overweight groups, Obese respondents spend (significantly?) less time in primary eating and drinking activities.

The general hypothesis being developed by this study is that the amount of time spent in home production of food is inversely related to rates of obesity. More specific questions are raised about the influence on obesity of household expenditure shares for different food categories identified by the 2005 Dietary Guidelines for Americans, as well as the influence of respondent's levels of reported physical activity versus sedentary behavior. Logit regression techniques were used to understand the combined influence of socio-economic, lifestyle and eating-related time use variables on household production of a healthy weight. Preliminary results are different for males and females, the latter being distinguished by higher obesity rates in the general population.

Single female parents were found more likely to be obese than other females, while females with incomes starting at 40,000 were found more likely to be obese or overweight than lower income-earning females. Single males and male single parents were found less likely to be obese than other males, while males making at least 50,000 were found more likely to be obese or overweight compared to males earning less than 50,000, who were found to be less likely to be obese or overweight. Females with at least some college were found more likely to be obese compared to less educated females, while males with relatively more education were found less likely to be obese or overweight. The 25% of females who spent the most on processed foods, fresh, meat and food away from home categories were more likely to be obese or overweight compared to those who spent less in those categories. The 25% of females who spent the most on oils, dairy, cereals and beverage categories were less likely to be obese or overweight compared to those who spent less, although only slightly. The 25% of males who spent the most on oil, processed foods and cereals were the most likely to be obese or overweight while the 25% of males who spent the most on beverages, sweets, dairy and meat categories were less likely to be obese than those who spent less on these categories. Both males and females who logged the greatest amount of screen time minutes were found more likely to be overweight, although less so for females.

Both males and females who spent the most time preparing food and eating were found less likely to be overweight or obese, although less so for the former. These preliminary findings that an inverse relationship exists between time spent in eating-related activity and an individual's susceptibility to obesity point to several policy implications arise that, to successfully address, require a comprehensive understanding of the inter-relationships between obesity, education and lifestyle. If there is a direct correlation between the amount of time Americans spend cooking and an awareness of basic cooking skills, then we must investigate appropriate approaches to increase the nation's stock of health capital, which ultimately is a product of household allocation of time and purchases. A

broad array of factors should be considered to strike appropriate food assistance policy for those low income groups least knowledgeable about cooking: the increase of working mothers and multiple income families with less disposable time and income; reductions in family and consumer science education and the attendant surge in the “home-meal replacement” market do not seem to be consistent with our findings.

References

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