SYMPOSIUM:
OBESITY ECONOMICS

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Sara Markowitz: Department of Economics, Rutgers University, 360 Dr. Martin Luther King, Jr., Boulevard, Newark, New Jersey 07102. E-mail: smarkow@newark.rutgers.edu.

INTRODUCTION TO SYMPOSIUM ON OBESITY

Sara Markowitz
Rutgers University, Newark and NBER

Obesity is everywhere. These days an American cannot turn on the television or open a newspaper without being confronted with a flurry of stories about the obesity epidemic, the latest diet craze, or the most radical weight loss methods. It seems that everyone wants to know who is to blame, why it happened, how we can stop it, and who we can sue. Much like with chocolate, I can’t resist the temptation, so I’ll put forth naïve answers to these questions: Yourself. You ate too much and did not exercise. Stop eating too much and start exercising. No one. But of course, such simple answers will not satisfy anyone, and rightly so. The best evidence so far about the rise in obesity over the past few decades is that there is a complex interaction between changing lifestyles, habits, diet and, most importantly to the economist, incentives. This symposium represents the economist’s contribution to our understanding of the tremendous health problem resulting from increasing body weights.

The first paper in this symposium, by Goldfarb, Leonard and Suranovic, asks why people diet and why the need to diet arises in the first place. This paper is a natural starting point for this symposium because it translates the physiology of weight gain into the language of economics. The paper begins with a discussion of the relationship between caloric intake, energy use, and age, leading the reader to the (scary) conclusion: “if an individual maintains the same level of calorie intake and exercise as he or she ages, that person will gain weight.” This physiological basis for weight gain provides key information for modeling the choice of body weight and the incentive to diet. The authors develop a general analytical framework for equilibrium weight and dieting decisions that consists of two major elements. The first is the production of weight and the second is the utility or disutility that different weight levels provide. The relationship between food consumption and body weight yields the unique result of u-shaped indifference curves. These elements are combined to derive the optimal level of weight, which will be altered when new motives for dieting arise (for example, aging and smoking cessation).

The paper by Goldfarb, Leonard and Suranovic is a tremendous contribution to the economics of obesity. This paper’s framework is simple enough so that any undergraduate economics major can understand it, yet it yields powerful predictions. It is designed to illustrate the motives behind the choice to diet or not to diet, but it also can be used to analyze a host of other explanations of the rising obesity epidemic.
The second paper in the symposium by Rashad, Grossman, and Chou, is complementary to the Goldfarb et al. paper, for it provides an empirical analysis of rising obesity rates in the United States. This paper builds on the idea that economic changes over the past 30 years have caused behavioral changes in the lives of Americans, redefining habits and cultural norms. Using data on individuals from 1971-1994, this paper asks why the increase in body weights have become so rapid recently, and how public policy can slow or reverse the trends. Their empirical analysis points to two primary factors as the main contributors to the increase in obesity rates over time. The first is the growth in the number of restaurants per capita, which might be reflective of the increased value of time for working women. The second factor relates to smoking. The authors show that higher cigarette taxes are associated with increases in body weight, indicating that policies designed to reduce smoking may have the unintended consequence of contributing to the obesity epidemic.

In the third paper in the symposium, Cawley, Markowitz and Tauras focus specifically on the relationship between cigarette smoking and body weight. It is commonly known that smokers weigh less than non-smokers and quitting results in an average weight gain of 4-6 pounds. (While working on this paper I realized the brand name Virginia Slims might refer to more than the size of the cigarette). Many people, especially teenage girls, believe that smoking induces weight loss. Based on this perception, we hypothesize that teenagers who are overweight may be more likely to begin smoking than their lighter counterparts. Indeed, we find that smoking initiation is less common among the lightest adolescent girls, whether weight is measured by body mass index, weight in pounds, or an indicator variable for being clinically underweight. In contrast, we find that current weight is uncorrelated with the initiation decisions of adolescent boys.

The last paper in the symposium also focuses on youth and asks: What is the cost of childhood obesity? Johnson, McInnes and Shinogle provide estimates of medical costs that include not only the direct costs of obesity-related diseases, but also allow for the possibility that obesity may add to treatment costs even if the condition was not caused by being overweight. They find higher medical expenditures among overweight children, but surprisingly also find no discernable differences in the frequency of diagnoses or the level of spending for those who have positive expenditures. The authors point out that since obese children tend to become obese adults, the long-term consequences of excessive weight in childhood may not yet have emerged.

The papers in this symposium will help answer questions surrounding the obesity problem in the United States. By using the tools of economics, the authors help us understand the strong incentives surrounding eating and dieting behaviors. We gain insight into the power of body weight in shaping behaviors such as smoking and desire to diet, and the costs imposed on ourselves and others.