

Research Summary Obesity and Land Use

In recent years, the anti-suburban interests have produced number of studies that could be called frivolous or even silly, especially in the field of public health. Obesity has taken center stage, a campaign that seems intent on making sure that how much we eat is kept out of the discussion.

The anti-suburbanites have been trying to demonstrate that obesity has increased in the United States because people who live in suburbs get less physical exercise. The most quoted is a Smart Growth America and Surface Transportation Policy Project report, which used an econometric model to predict a statistically significant relationship between obesity and suburbanization, using a Centers for Disease Control (CDC) dataset.¹

However, the report was rife with difficulty. The apparently statistically significant results were insignificant. The statistical method used is highly sensitive to skewing based upon “outliers”—cases far out of the normal range, principally four counties within New York City² that are so much more dense than the other observations as to render them unrepresentative. In the face of a general view that obesity is associated with lower incomes, household income data were *excluded* from the analysis, despite being available to the researchers in the CDC dataset.

Even so, the results from the questionably designed research were less than compelling. The predicted average weight difference between San Francisco, the nation’s least sprawling county outside New York and the most sprawling suburban county was less than 2.5 pounds. The predicted difference between highly urban Cook County (which includes the central city of Chicago) and the most sprawling county in the metropolitan area was less than 1.5 pounds. It is hard to imagine a weight-loss firm purchasing time on late night cable television to tout the potential of its products to trim 2.5 pounds over the course of a lifetime.

Somewhat untypical for what purported to be dispassionate research, members of Congress were briefed and an entire issue of a medical journal (*American Journal of Health Promotion*) was taken over with a summary of the research, along with related articles. Promoters were less than careful as they pointed out that U.S. Centers for Disease Control (CDC) data were used, so that some media outlets referred to the study as a CDC report.³

¹ Barbara A. McCann and Reid Ewing, *Measuring the Health Effects of Sprawl*. Washington, DC: Smart Growth America and the Surface Transportation Policy Project, 2003, <http://www.smartgrowthamerica.org/healthreport.html>, accessed February 15, 2005.

² New York City is composed of five counties, or boroughs. No other city in the United States is composed of more than one complete county.

³ Among the many misled publications were *The Eye* (*The Eye*, 2004) and Gurin.

A further installment was provided by Professor Lawrence Frank of the University of British Columbia (UBC), who led researchers on a study of neighborhood obesity in the Atlanta metropolitan area. The results indicated that people who drive more (and live in less urban settings) tend to be more obese. However, the sample included a disproportionate number of people who were in cars more than five hours per day, and can thus be considered representative of nothing.⁴ Again, there was a marketing campaign untypical of dispassionate academic research. There were press conferences and an impressive spread in a special *Time* magazine issue on obesity. Again, the study had design flaws. While the researchers managed to collect data on body weight and household income, the survey sought no information on eating habits or diet. Meanwhile, one of the study's coauthors has distanced himself the principal thesis of the marketing campaign, that suburban lifestyles cause obesity: *We do not see it as a causal relationship, necessarily.*⁵

A principal difficulty with the “suburbanization makes you fat” studies is the order of events. The large increase in obesity came after 1980.⁶ Yet, there has been little change in urban land-use patterns since 1980. The greatest suburbanization—the major reductions in density—occurred before 1980 (see Chapter 5). A recent study by the Transportation Research Board (TRB), a unit of the National Science Foundation, dismissed the “suburbs make you fat” contentions, stating that “research has not yet identified” sufficient causal relationships to demonstrate that “changes to the built environment would lead to more physical activity.”⁷

However, more fundamentally, studies that exclude plausible causes from their analysis cannot be taken seriously. The econometric researcher has an obligation to include information on every potential contributor to a problem. What might be the most important driver of obesity—food consumption—has routinely been excluded from analyses.

Yet, changing eating habits are a more plausible cause of rising obesity. There are indications that caloric consumption has increased markedly since 1980. One report indicates that there was a more than 15 percent increase in consumption during the first one-half of the 1990s.⁸ This idea was rhetorically stated in the title of an article by Dr. Ronald D. Utt of the Heritage Foundation, “Obesity and Life Styles: Is it the Hamburger or Your House?”⁹

Finally, a *Scientific American* review of the obesity literature includes no reference to land use or suburbanization.¹⁰

⁴ Six percent of the sample drove five hours or more daily. This is four times the national rate, based upon National Household Travel Survey information.

⁵ http://www.pittsburghlive.com/x/tribune-review/opinion/columnists/vassilaros/s_197185.html.

⁶ Ross C. Brownson and Tegan K. Boehmer, “Patterns and Trends in Physical Activity, Occupation, Transportation, Land Use and Sedentary Behaviors” (draft). Washington, DC: Paper prepared for the Transportation Research Board, (2003) 14.

⁷ Committee on Physical Activity, Health, Transportation, and Land Use, *Does the Built Environment Influence Physical Activity: Examining the Evidence* (Washington, DC: Transportation Research Board Institute of Medicine, 2005), p. 7–2.

⁸ Marion Nestle and Michael F. Jacobson, “Halting the Obesity Epidemic: A Public Health Policy Approach,” *Public Health Reports*, January/February 2002.

⁹ Ronald D. Utt, PhD, *Obesity and Lifestyle: Is it Your Hamburger or Your House?* Washington, DC: Heritage Foundation, <http://www.heritage.org/Research/SmartGrowth/wm343.cfm>, accessed February 5, 2005.

¹⁰ <http://www.scientificamerican.com/article.cfm?id=obesity-an-overblown-epid>.

The extent to which the anti-suburban claims have degenerated is illustrated by an Ontario College of Family Physicians¹¹ report, which examined the literature relating to suburbanization and health. The college found, for example, that driving in traffic congestion worsens stress, as it naively accepted the fallacious argument that suburbanization increases traffic congestion (see Chapter 6). They cite research purporting to associate suburbanization with “fear.” Other studies associate “roadside blight” or “visual clutter” with suburbanization and make the predictable mental health connections. The array of public health justifications for densification is great indeed, but much more could follow. Perhaps future studies will show causal relationships between suburbanization and bad breath or hemorrhoids—everything “but the kitchen sink.”

Adapted from *War on the Dream: How Anti-Sprawl Policy Threatens the Quality of Life*.
(http://www.amazon.com/War-Dream-Anti-Sprawl-Threatens-Quality/dp/0595399487/ref=sr_1_3?ie=UTF8&s=books&qid=1243698926&sr=8-3)

¹¹ Riina Bray, BAsC, MSc, MD, CCFP; Catherine Vakil, MD, CCFP, and David Elliot, PhD, *Report on Public Health and Urban Sprawl in Ontario*, Toronto, ON: Ontario College of Family Physicians, January 2005.