

the Fattening of America

As we benefit from greater convenience and efficiency, our waistlines are widening in the process

BY CHARLES GERENA

Keeping employees safe at the DuPont plant in Chesterfield County, Va., is a top priority. Keeping them healthy and productive as they make Kevlar and other materials is equally important, but it hasn't been easy.

Linda Frye of the company's Health Services department began an effort four years ago to promote the merits of healthy living and to help workers make better choices. For example, the plant's fitness center offers a circuit-training program with a personal trainer for busy people who need an introduction to exercise. But preventive health services at the plant have been underutilized, she says. "We can't make people exercise," Frye notes with some frustration.

In general, there hasn't been a shortage of advice for getting healthy,

from diet plans designed by Nathan Pritikin and Robert Atkins to workout videos led by buff celebrities. Still, 65 percent of Americans 20 to 74 years old are considered overweight compared to 47 percent in the late 1970s. During the same 30-year span, the percentage of the adult population considered obese doubled to 31 percent.

To determine these figures, the Centers for Disease Control and Prevention and other organizations used body mass index (BMI), a ratio of weight to height. The BMI for an athlete can be high because muscle weighs more than fat. Still, it's a good indicator of whether someone is carrying excess weight, which can increase the risk of death from diabetes, heart disease, hypertension, and other disorders.

So why do we knowingly endanger our health? Economists have addressed

this puzzling question through empirical research that encompasses the work of nutritionists, physicians, sociologists, and other experts. Their conclusions don't excuse us from being responsible for our well-being. Rather, they offer insights into the choices we make and the challenges we face in making healthier ones.

Energy Equation Out of Whack

According to Eric Finkelstein, an economist with RTI International near Durham, it's cheap to be fat in modern-day America. Food is more plentiful, energy-dense, and affordable. Meanwhile, technological advances have enabled people to live and work almost anywhere, which means that most people drive more than they walk. In short, we are taking in more calories while burning fewer of them. Over

time, small changes in calories consumed and expended may have accumulated into significant weight gains.

“The data on increasing obesity over the past two decades ... could be explained by a [net] increase of 100 to 150 calories per day,” notes Alexander Tabarrok, an economist at George Mason University. The increase could result from consuming an additional can of soda or three extra cookies a day. Alternatively, “the same gain in weight could be explained by a more sedentary lifestyle resulting in ... fewer calories expended.”

At an obesity summit held in Williamsburg, Va., last June, economist and nutrition expert Barry Popkin of the University of North Carolina at Chapel Hill described major shifts in body composition throughout the developing world. People generally are eating more animal-based foods and calorie-rich sweeteners like high fructose corn syrup while consuming fewer fruits and vegetables. At the same time, there has been a significant drop in the level of physical activity.

As a result, obesity is a worldwide problem. An estimated 15 percent to 20 percent of the population in England, Germany, New Zealand, and Australia are considered obese, as well as 10 to 15 percent of citizens in Canada, Spain, and Poland.

Yet obesity rates are less than 10 percent in Italy, Sweden, France, and Japan. And no developed country has seemed to grow as heavy so quickly as the United States. Why? A January 2003 working paper authored by David Cutler and two other health economists at Harvard University found that “obesity across countries is correlated

with access to new food technologies and to processed food. ... Countries that are more regulatory and that support traditional agriculture and delivery systems have lower rates of obesity.”

More Calories In

In America, caloric intake has been steadily climbing. Cutler and others attribute this trend to technological advances that have made the mass production of energy-dense processed foods possible, often at lower prices compared to fresh foods.

Barry Popkin also blames Uncle Sam for tilting the pricing of less healthful foods: “We spend all of our time subsidizing corn ... dairy products, and animal-based products. We have almost no subsidies for fruits and vegetables, and other high-fiber foods.” Other critics say federal subsidies of corn have made it possible for food producers to fill grocery shelves with inexpensive sodas, snacks, and other processed foods that use corn syrup as a sweetener.

Aside from being cheaper, foods are available in more flavors and convenient forms than ever before. This brings more of our wants within reach. For example, Cutler gives the example of a family craving pizza. In the past,

someone had to make the dough, grate the cheese, etc. Now a phone call to a pizza parlor can produce a hot pie in minutes.

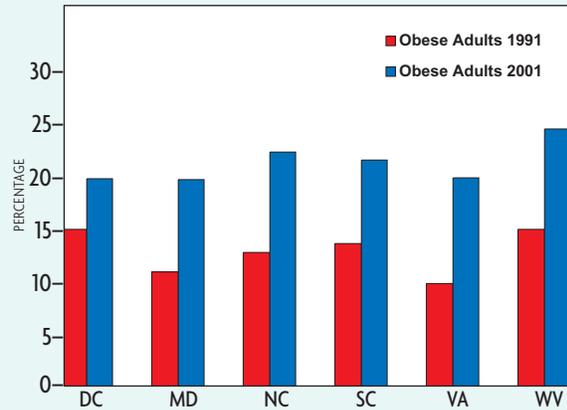
Food technology isn't the only thing that has changed, say researchers at the University of Munich. People may now have higher rates of time preference, which means they place a greater premium on current satisfaction over future satisfaction. This could have important implications for public health. “Individuals with high rates of time preference will consume more high-calorie foods ... at the expense of lower levels of health and utility in the future,” the researchers noted.

In addition to changing time preferences, people may just feel more rushed than before. Therefore, the short-term demand for convenience and immediate relief from hunger may be more important than meeting one's long-term fitness objectives, say some economists.

“As we get more stressed out and there are longer intervals between meals, what you know about food and nutrition has less predictive value of what you intend to do,” explains Lisa Mancino, an agricultural economist at

Obesity In The Fifth District

Mirroring national trends, waistlines in the Fifth District expanded significantly during the 1990s. West Virginia had the highest obesity rate in the region – 24.6 percent in 2001 – while Virginia experienced the largest rate increase between 1991 and 2001 – 98 percent.



NOTE: Percentage is an estimate of the mean number of state residents 18 years old and over who reported that they were obese. Obesity is defined as having a body mass index of 30 or greater.
SOURCE: Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance System, 1991-2001

Body Mass Index Formula

$$BMI = \left(\frac{\text{Weight in pounds}}{\text{Height in inches} \times \text{Height in inches}} \right) \times 703$$

Body Mass Index (BMI) is a tool for indicating weight status in adults. Calculate your BMI using the equation above, and the weight status table will indicate where you fall on the BMI chart.

BMI Weight Status

Below 18.5	Underweight
18.5 - 24.9	Normal
25.0 - 29.9	Overweight
30.0 and above	Obese

SOURCE: National Center for Chronic Disease Prevention and Health Promotion

the U.S. Department of Agriculture. “You might have good intentions ... but when you wait five hours between meals [you] just go with what’s available.” In fact, many people are willing to pay more for a prepared meal if it saves time.

Also, many of the medical costs of overconsumption are borne by society rather than the obese because of the third-party payment system for health care (see the cover story in the Spring 2004 issue of *Region Focus*). People may continue to overeat because they are confident that private insurance or taxpayer-supported programs will cover the cost of saving them from disease or death.

There are other reasons why people could be eating too much. To begin with, many of the most convenient, inexpensive food products have processed wheat flour and other refined carbohydrates, which some nutritionists believe can be addictive to certain people.

Second, there could be a mismatch between current societal conditions and past eating preferences. “Through most of human existence, we lived in societies where there wasn’t enough food, so we got used to eating a lot whenever food was plentiful,” says Cutler. Now, food is plentiful for many

people, yet we haven’t adjusted our eating habits.

Finally, the marginal cost of increasing meal portions is very small. The result is that food producers can offer bigger portions that consumers view as a good value.

Fewer Calories Out

There is some debate about whether eating too much is harmful. Richard Forshee, director of research at Virginia Tech’s Center for Food and Nutrition Policy, says research suggests that obese people can reduce some of their health risks by getting more exercise, while a slim person can be at risk from being a couch potato.

However, socioeconomic changes have reduced opportunities for physical activity in general, making it harder to burn calories. “For a variety of reasons, we are not using as much energy as we used to,” notes Forshee.

Advances in workplace technology have occurred, as well as a shift in the economy from primarily agriculture and manufacturing to services. Both trends have been taking place for many years, though, so they probably account for only a portion of the population’s weight gain in the last few decades.

Automation also has transformed households since World War II. This may have led people, especially women, to shift time away from housework to paid work, which tends to be less physical in nature. Whether this has had a major impact on the level of physical activity is hard to judge.

But wouldn’t being more productive at non-leisure activities leave more time for biking through a park or hitting the treadmill at the gym? In fact, RTI’s Eric Finkelstein says the level of leisure-time exercise has remained low and stable.

One reason is that while automation has reduced the number of people and the amount of physical labor required to perform a task, it has also increased the workload for the remaining workers. In addition, people have been willing to work longer hours to increase their income and, therefore, their consumption.

More money has been available to spend on entertainment as incomes have increased. Still, the more entertaining forms of exercise like hiking are expensive compared to just jogging around the block, notes George Mason’s Tabarrok. Also, “exercise must compete against a host of other entertainments.” Indeed, sedentary activities that weren’t widely

What’s The Big Deal?

Throughout the 1980s, fat was the enemy of people struggling to shed excess pounds and improve their health. In the new millennium, carbohydrates are supposedly the new culprits behind the nation’s obesity epidemic. However, some academics argue the real problem is that this “epidemic” has been blown out of proportion.

Alexander Tabarrok, an economist at George Mason University, sides with researchers who have found that carrying excess weight increases the risk of heart disease and many other health conditions. “Eating is fun, however, and that has to be counted as a benefit,” he says. Therefore, “even accepting the health evidence, I wouldn’t argue that obesity is a big deal if I thought that rational consumers were making appropriate choices given their preferences.”

Up until the 20th century, western society considered a large girth as a sign of prosperity and good health, partly because food distribution was more difficult and malnutrition was a concern. Moreover, large women were viewed favorably as child bearers, as well as symbols of beauty depicted by painters like Rubens and Renoir.

Today, Americans don’t like being fat. In addition to facing ridicule and discrimination, overweight and obese people are more aware of the relationship between diet, exercise, and health. “The large and growing industry of

diet books, drugs, clinics, etc., indicates that people do not want to be overweight,” adds Tabarrok. “Obesity is a problem because obese people think that it is a problem.”

Actually, skeptics like Paul Campos, author of the book *The Obesity Myth*, contend that not every study confirms a negative association between excess weight and poor health. Some, in fact, suggest that thin people don’t live as long as those who have excess weight.

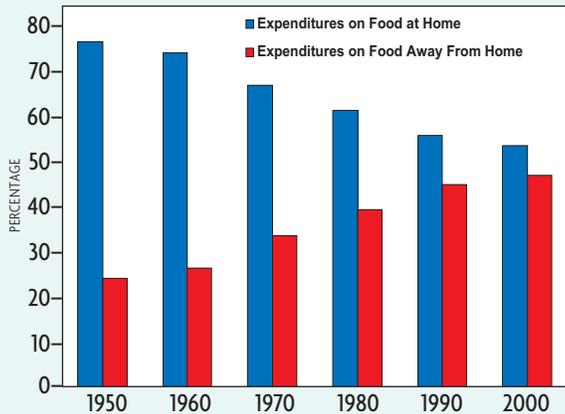
Such contradictions point out the challenges of studying complex social problems like obesity. Researchers usually can’t observe the eating habits of individuals under controlled conditions. Instead, they have to rely on surveys and aggregate data about large groups acting in a world full of variables.

As researchers flesh out the consequences of obesity, economists argue that, ultimately, individuals will choose which lifestyles suit them best. “We make choices [in our own self interest] and I don’t think our food decisions are any different,” notes Eric Finkelstein, a health economist at RTI International near Durham. “As a society we weigh a lot more than we would like, and there are problems associated with that. But many individuals may not be making bad choices from their own perspective.”

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Eating Out

Americans have preferred to eat fewer meals at home in the last 50 years. According to several studies, frequency of fast food restaurant use is associated with higher fat intake and greater body weight. Many full-service restaurants serve large portions of high-caloric, inexpensive food.



SOURCE: Economic Research Service, U.S. Department of Agriculture

available a generation ago — such as surfing the Internet, playing video games and watching television — occupy larger chunks of Americans' leisure time.

Exercise can be especially costly for people in sprawling communities dominated by automobile travel. It takes time and money for them to get exercise beyond their daily routine, notes Reid Ewing at the National Center for Smart Growth Research and Education based at the University of Maryland. "If [suburbanites] don't make a point of getting exercise, they don't get it," says Ewing, who recently co-authored one of the first studies on the relationship between sprawl and obesity.

Of course, suburban development has been demanded by homeowners and supported by public policy. Governments have facilitated it through investments in road infrastructure to connect distant communities and incentives to encourage development in rural areas.

Also, one could argue that sprawl has been fueled by the subsidization of automobile use. Ewing believes that only a fraction of the costs of automobile use are internalized — that is, borne by the user directly. The rest are externalities paid for by everyone else, such as the cost of

pollution from tail-pipe emission.

Restoring the Balance

Removing government subsidies on corn and sugar would seem to be part of the answer to America's obesity problem. Other possible solutions would also make it more expensive to be fat.

Canada and several U.S. states impose a "fat tax" on soda, snacks, and other so-called junk foods. Such a tax applied more broadly might discourage consumption of something that is unhealthy, similar to taxing cigarettes. At the very least, it would generate funds for public health campaigns, helping to counteract the billions of dollars spent on advertising high-calorie foods.

The drawback of these tactics is their broad impact. They not only impose costs on the overweight and obese, but also on those who can have occasional treats and still maintain a healthy weight.

Tying weight-related diseases to the price of health insurance might be a better way to make people bear the future cost of eating too much. On the flip side, Reid Ewing and others suggest that healthier people could pay lower premiums, similar to the "good driver" discounts offered by auto insurers. Of course, either premium arrangement would run contrary to the traditional pooling of insurance risks.

Eric Finkelstein advocates making it cheaper to be thin. For example, government can increase the number of opportunities for physical activity. This could be accomplished by favoring denser development in land-use policy, which would encourage people to walk from place to place rather than drive. Public funding of parks and bike paths, as well as increased support for physical education at schools, could also help.

Also, whole grains and produce could be made more accessible. This could include funding farmers' markets and requiring schools to offer healthier alternatives to students.

Whether they intend to make it pricier to be plump or cheaper to be thin, policy prescriptions for obesity could impose other costs on society that must be weighed against the health benefits they produce. For instance, policies that favor denser development may, in fact, lead people to walk more, but they also could produce sizable distortions in the housing market.

This underlines the challenges of understanding and dealing with the nation's growing girth. There are no easy answers, no matter what the makers of diet pills and exercise gadgets say.

"It is important to recognize the complexity of the problem we face," says Virginia Tech's Richard Forshee. "I don't think there is a single cause of overweight and obesity. There can be many different explanations for different people." **RF**

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