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TAXING OBESITY – OR PERHAPS THE OPPOSITE

SAUL LEVMORE¹

The true subject of this Lecture is the question of why we regulate some things and not others, and then how we might predict future regulation. Let me begin with my conclusion, to be developed at greater length in other work. Its academic novelty will be the notion that a fair amount of regulation is best understood as fostering self-control on behalf of the governed. I will suggest that we add this explanation, or category, of government intervention to the more familiar ones of public goods, coordination, interest group capture, and negative externalities where there are high transaction costs. Its practical or political angle is predicting the future of intervention with respect to our latest perceived crisis, that of American obesity.² If we gathered in 1964, my application might have been to the future of tobacco regulation. One question is whether today's obesity is like yesteryear's smoking.

What distinguishes smoking, college education, fisheries, child safety seats, and unsafe driving from fatty foods, sedentary lifestyles, day trading of stock, driving in foul weather, and sunburns? The answer is that the government takes an intense interest in regulating everything on the first list and then almost no interest in the second, though it contains no less serious social problems.

We have various ways of explaining “why and when” of government interventions, a small subset of which I just offered as my first list. In some cases, government intervention serves a coordination role, as it might with rules like driving on the left or right; in others it discourages selfishness and controls negative externalities, as they are called, as in pollution controls or prosecutions of thefts; and in some it simply encourages the production of public goods. But in some circumstances law works to encourage individuals to do what they themselves are likely to think in their own interest, though perhaps at a different time or place. It is this self-control strategy that I will emphasize, for it is one that seems particularly apt with respect to obesity. It suggests that we think of obesity as more like retirement savings and only somewhat like smoking and driving regulation. Our government spends a great deal of effort and money to encourage retirement planning. Most of us (and even those who are young) wish we saved more for the future, and we enlist our government to help us do so – at the expense of taxpayers who do not. Lucky for us, retirement planning serves some interest groups well; Wall Street encourages savings plans, while those who lose from this intervention are dispersed and disorganized. But now that I have started at the end and told you exactly where we are heading, let

¹ Dean & William B. Graham Professor of Law, University of Chicago Law School. This lecture was delivered at the Cleveland-Marshall Law School in September, 2005. I am most grateful for that opportunity and for the hospitality and intellectual energy I enjoyed in discussing this and other topics with the school's faculty and students.

² Over the last forty years the percentage of obese adults in America has risen from 13.3% to 31.1%. NATIONAL CENTER FOR HEALTH STATISTICS, HEALTH, UNITED STATES, 2004, at 242 (2004), available at <http://www.cdc.gov/nchs/data/hus/hus04.pdf>. Obesity is, however, somewhat arbitrarily defined. A neutral description might be that youths and adults in the U.S. are getting heavier, and that however obesity might be defined, it has increased.

us fill in some gaps by beginning with the more familiar, and apt, comparison between obesity and smoking.

Our governments have regulated tobacco for some time, but they have done more to stop smoking since second-hand smoke, a classic negative externality, attracted attention.³ Obesity is weak in this regard. My over-eating or inadequate exercise might disturb your aesthetic field or add greatly to your health insurance or Medicare costs one day, but such emotional and monetary effects are caused by countless personal decisions that we might try to nudge one way or another but that we mostly leave to individuals. With much fanfare and controversy, we lightly regulate helmets for motorcyclists, job training for the underemployed, and safety equipment in automobiles, while we barely encourage small automobiles and sun protection, though all these precautions could be undertaken by individuals to save themselves money, to be sure, but could also be encouraged in the interest of saving expenses imposed on others.

The negative externalities associated with smoking regulation are really quite modest compared to its self-control potential. You have probably read that the external costs are modest; it is the sort of counterintuitive fact that law professors love. The extra costs the smoker adds to shared health care expenses have been said to be *more* than offset by the decrease in retirement benefits paid out to the smoker. And so, the academic mind continues, perhaps the government should be encouraging smokers! I hate to throw cold water on this fancy, but more recent studies show that the external costs probably *do* exceed the external benefits, though they do so by only a modest amount.⁴ We could try to explain the significant taxes on cigarettes as aiming to monetize those external costs. It should be noted that these taxes do, in fact, affect smoking. Addicts are not irrational, as it turns out, and the impact of the tax is substantial once we take into account all the putative smokers who are discouraged by higher prices from taking up the habit.⁵ Moreover, the costs of smoking would seem yet greater if we took into account the expected loss of the smoker as a productive member of society. We might provocatively say that the government is a one-half owner of each of us (if only because of its investment in our education or the share it takes out of our income), so that the citizenry has a substantial incentive to encourage each individual to work hard and to adopt a

³ Federal excise tax increased from 8 to 16 cents per pack in 1983, and from 16 to 20 cents in 1991. A number of state cigarette taxes were passed and/or significantly increased during the late 1980s and early 1990s. The dangers of smoking to smokers had influenced different education and labeling regulations from the mid 1960s on. However, the sharp increase in cigarette taxation came about after the Surgeon General's 1986 report on second hand smoke. See Jonathan Gruber, *Tobacco at a Crossroads: The Past and Future of Smoking Regulation in the United States*, J. ECON. PERSPECTIVES, Spring 2001, at 193; Robert A. Kagan and William P. Nelson, *The Politics of Tobacco Regulation in the United States*, http://www.igs.berkeley.edu/research_programs/hist_papers/tobacco.pdf, (2000).

⁴ J. Chaloupka & Kenneth E. Warner, *The Economics of Smoking*, in 1 HANDBOOK OF HEALTH ECONOMICS 1539 (A.J. Culyer & J.P. Newhouse, eds. 2000).

⁵ Gary S. Becker & Kevin M. Murphy, *A Theory of Rational Addiction*, 96 J. POL. ECON. 675 (1988); Eugene M. Lewit, et. al., *The Effects of Government Regulation on Teenage Smoking*, 24 J. L. & ECON. 545, 568 (1981). Pricing effects have also been shown to have some effect on food choices. Simone A. French, *Pricing Effects on Food Choices*, J. NUTR., March 2003, Vol. 133, at 841S-843S.

healthy lifestyle. But I will not make too much of this view of the external costs if only because it raises philosophical problems about the role of government that would take us too far afield.

In contrast, the *internal*, or self-imposed, costs of smoking are overwhelmingly large. For starters, studies suggest that most smokers would prefer not to have become smokers.⁶ People who choose to engage in first-hand smoke at the rate of a pack a day are choosing to impose expected costs on themselves equal to six years of life. The matter is complicated because the last six years of life might not be regarded as worth as much as earlier ones, and the data do not include the quality of life (up for pleasure or down for health problems). On the other hand, it is not as if every smoker (or obese citizen or fast driver) will live to be 82 while clean-living neighbors will live to be 88. Some will lose no time and some will die tomorrow, but on average there is a 6 year loss. If we value those six years at just \$75,000 per year (extrapolating from risk studies and tort suits, which value lives these days at somewhere between \$3 and \$7 million), and continue with the pack a day smoker (our national average is actually a bit lower, but more than half of smokers do consume a pack a day or more), then the internally imposed costs from smoking are at least \$35 per pack!⁷ A pack costs about \$5 at my corner store these days, but there is a respectable argument for taxing cigarettes so that they sell for \$40 a pack! I think we can all estimate that this would cut consumption. And a good argument could be made that in order to protect us from ourselves we should *want* the government to charge us, or our children who have not yet started smoking, an extra \$35 per pack in order to discourage smoking to the optimal degree. Why do we not do this? A libertarian streak, perhaps, and fear of political backlash from smokers who can no longer cease, many of whom will point to the regressive quality of the tax both come to mind. The organized influence of tobacco companies (or other groups) is a third possibility.

With this in mind, let us turn to obesity and consider, following very rough estimates, that the internal costs of severe obesity approach those attached to habitual smoking.⁸ A body mass index, or BMI, of 40 is associated with 6 years' loss of life, and that is also the mortality effect associated with regular smoking. A BMI of 35 is associated with half that expected loss of years, but also with a high rate of diabetes and other unpleasant issues.⁹ I am avoiding the question of whether obesity is the causal agent, rather than inactivity or the kinds of food eaten, but skeptical as we

⁶ Studies suggest that some 70% of current smokers desire to quit. Current smokers are obviously not quitting at the same rate. J.L. Schwartz, *Methods of Smoking Cessation*, 76:2 MED. CLIN. N. AM. 451 (1992).

⁷ Jonathan Gruber & Botond Koszegi, *Tax Incidence when Individuals are Time-inconsistent: The Case of Cigarette Excise Taxes*, 88 J. PUB. ECON. 1959, 1973-74 (2004); Jeff Strnad, *Conceptualizing the "Fat Tax": The Role of Food Taxes in Developed Economies* 22-23 (Stanford Law and Economics Olin Working Paper No. 286, 2004), available at <http://olin.stanford.edu/workingpapers/>.

⁸ Strnad, *supra* note 7, at 22-23.

⁹ Kevin R. Fontaine, et. al., *Years of Life Lost Due to Obesity*, 289 J. AM. MED. ASSOC. 187, 190 (2003); Rita P. Raman, *Obesity and Health Risks*, 21 J. AM. COLL. OF NUTR. 134S (2002) (detailing health risks related to obesity including heart disease, diabetes, and certain forms of cancer).

may be there is surely some level of obesity that poses a serious health risk. For listeners or readers unfamiliar with the struggles of dieting, a six-foot person who weighs in at 184 has a BMI of 25. Should this person gain a few pounds, the government's guidelines declare him or her to be overweight. At 221, and therefore a BMI of 30, he or she is regarded as obese. At 258, and a BMI of 35, the obesity is serious, and at 294 pounds, or a BMI of 40, the individual is regarded as severely, or morbidly, obese. Prior to 1988, a BMI of 27.8 was regarded as acceptable for males, so that declarations of national crisis are easily criticized, for much of the categorization is arbitrary. Still, a BMI of 35 is associated with substantial and negative health effects; a BMI of 40 is associated with an expected loss of 6 years of life. About one-third of American adults have BMIs>30; perhaps 4% have BMIs>40 (the level comparable to smoking one pack a day), and that is 30% higher than was found a decade earlier. It is this increase that worries public health officials and libertarians.

Obesity among children has also increased, and by similar percentages. Again, I should emphasize that the relationship between mortality and obesity is only striking for severe obesity, but that has increased as well. We lead the developed world in obesity rates, though Finland, Germany, Greece, Cyprus, the Czech Republic, and Malta appear to have male obesity rates exceeding ours, and in any event overeating and inactivity are now global phenomena. Government non-intervention is one possible predictor of obesity. Germany has our problem and France does not. Japan has very little obesity, as any visitor to that country can attest. It is interesting that Japan and France are two countries where there is relatively little competition in food marketing. In other words, in the U.S., we might blame some of our obesity on competition to shove potato chips and soda pop and candy and fast-food burgers into our gullets and shopping carts. I do not put too much stock in this correlation, but I mention it because it serves the interest group theme I have already sketched.

One person's over-eating or snacking or desk job may cause others to have higher health care costs in the future, and this adds costs to others in the same insurance pool. Eventually, and probably more dramatically, one person's costs will be forced on to most others because Medicare and disability programs will be strained. There is a school of thought that insists that we each have an equilibrium weight to which we return, and that no persuasion or diet or exercise regimen can pull us away from for long. But this view ignores the increases we have experienced in the last decade or two. I prefer to think of eating, snacking, or inactivity as a kind of habit or addiction, and just as no single treatment method is likely to cure more than 15% of a population habituated to cocaine, so too obesity is tough to tackle. Taxpayers might control one another's weight and health with education and with many other means, but we should not be terribly surprised to see movements for so-called "fat taxes" of various kinds. We might try to impose taxes on fast-food restaurants or on corn syrup, or on other inputs.¹⁰ Some of us might even be tempted to propose that we each be weighed each year in the public square, and that any "excess" be taxed in order to encourage individuals to do what is good for them – and other taxpayers. If this seems harsh and completely implausible, as I think it is,

¹⁰ See generally Strnad, *supra* note 7; Andre Leicester & Frank Windmeijer, *The 'Fat Tax': Economic Incentives to Reduce Obesity*, Institute for Fiscal Studies Briefing Note No. 49 (2004), available at http://www.ifs.org.uk/publications.php?publication_id=1797 (discussing the potential applicability of a fat tax in Great Britain).

then like all good lawyers we can turn every stick into a carrot, with the cost of those carrots hidden in the background. We can pay rewards to those whose eating and exercising and genetic makeup lead to trim shapes, and we can all pay higher taxes to finance these encouragements. We can not simply pay people to lose weight because of the moral hazard of people gaining weight in order to lose it and be paid.

We should not lose sight of the private sector. Dieting is a \$30 billion industry in the U.S., and the exercise industry weighs in at about \$12 billion, while the costs of obesity, direct and indirect, grew above \$100 billion ten years ago. So there is either underinvestment in obesity control or the market has been unable to come up with investments that work.¹¹ Most commercial diet plans are best described as faddish and only temporarily profitable for both sellers and buyers.

How do we explain the greater government involvement in college education and retirement planning than in controlling obesity? An optimistic possibility is that we intervene where we have good strategies for success. It is also true that in the case of college scholarships, the government shares rather quickly in the increased productivity of well-educated citizens. But the self-control argument is always close at hand. We went to college and law school, with or without the government's encouragement, but even there most of us do much better with external monitors who firm up our self control. We use grades, we enroll in schools which threaten us with failure and humiliation, and so we are accustomed to the idea that look for help in doing that which in most time periods we want to do anyway.

College scholarships have another advantage over obesity, so to speak, in that there is an organized and reasonably influential interest group pushing the government to funnel money into education. I speak, of course, of universities. In contrast, taxes on some foods (or subsidies to those who forsake it) would benefit no organized group, just dispersed fellow insureds, and would harm the makers and sellers of some processed foods as well as other organized interests. Interest groups may have effectively prevented smoking regulation for some time and then, as we already know, the threat of second-hand smoke was instrumental in bringing on more regulation.

We might imagine subsidies for healthy foods or for fitness centers, for some interest groups would love those. But we need to recognize that the organized interests in favor of current feeding and inactivity patterns are stronger and more identifiable than those opposed. The alignment of interest groups might in this way be critical to our project, for it can explain the regulatory pattern applicable to obesity, smoking, college scholarships, and even retirement savings.

Let us return now to self-control and to nongovernmental solutions. If many of our afflictions are problems of self-control, then why not more privately arranged solutions? In the case of addictive drugs, for example, why do more of us not approach third parties, like employers, and encourage or require monthly drug tests? Why do I not sign a contract with co-workers, perhaps, agreeing to monthly drug tests and providing that those who test negative for twenty consecutive months will

¹¹ AM Wolf and GA Colditz, *Current Estimates of the Economic Cost of Obesity in the United States*, OBESITY RESEARCH, Vol.6, No. 2, Mar. 1998, at 97-106; The American Obesity Association's website warns against fad diets and misguided spending on weight loss in their consumer protection section. The website states that Americans spend "about \$30 billion a year" on commercial weight loss. http://www.obesity.org/subs/fastfacts/Obesity_Consumer_Protect.shtml.

share in a pool of money created by everyone in the pool, risking, say, \$5,000 at the outset?

There are some obvious problems with this private solution to the self-control problem. Drug tests are imperfect and costly; \$5,000 may be required to deter usage, but it may be unaffordable upfront so that it discourages participation. Other self-control problems, including smoking, gambling, overeating, and under-exercising are even less amenable to this contractual approach because detection is extremely difficult. Even if we were to involve the government in enforcing our self-control contract, how could it be sure that a participant had not smoked or had truly exercised? With the government's help we can turn to the strategy of taxing each pack, or taxing trans-fats, but much as it would invite fraud to subsidize non-smokers or non-gamblers, it is impossible to subsidize the avoidance of certain food inputs, and only slightly easier to subsidize exercise.

On the other hand, if we can get over the hurdle of the personal invasion necessary to conduct weigh-ins, obesity could be influenced by taxes or subsidies on weight gains, losses, or maintenance.¹² We might not expect such regulatory change because of the interest group alignment mentioned earlier, but it could be done, and if our obesity statistics get worse and worse, the we might expect this sort of thing, though the interest group problem will be serious (the question of which inputs will escape taxation and which will be subsidized will feed the world inside the Beltway). With more time, I would discuss the additional and particular problems associated with childhood obesity but, suffice to say, that we might well find more governments offering iPods to fit and trim middle-schoolers.¹³

¹² See J.E. Oliver & T. Lee, *Public Opinion and the Politics of America's Obesity Epidemic* 3 (Harvard University, Kennedy School of Government, Working Paper No. RWPO2-017, 2002). This study shows that many feel obesity is a matter of individual self control and an appropriate target of government intervention.

¹³ Twenty-nine schools in Glasgow, Scotland attempted an experiment to reward students for healthy eating. Students could earn prizes that included iPods and Microsoft X-Box gaming systems. *iPod Lure to Cut Down Junk Food*, BBC NEWS, <http://news.bbc.co.uk/1/hi/scotland/4565923.stm>, (last visited August 20, 2005).

The general issue in influencing children is the role of schools and parents in intermediation. We do intervene and impose education requirements, and we also virtually compel vaccinations. Intervention is more objectionable the more it invades the home. It is one thing to teach about health in our schools, to require food labeling, and medical check-ups, and even weigh-ins (in "Healthy Arkansas." Virginia Anderson, *An Ounce of Prevention, or Pounds of Cruelty?* THE WICHITA EAGLE ONLINE, <http://www.kansas.com/mld/kansas/living/11075189.htm> (last visited Aug. 21, 2005). But it would likely be a political disaster to try and fine or tax parents for their role in their children's obesity. And it is difficult to fine the children directly. An optimist would say that if we could improve the health of our adult population, that behavior would trickle down to children. A pessimist would say that calorie consumption and activity levels are learned in one's early years and bad habits are difficult to alter in adulthood. It is possible that we could design some rewards for children or penalties for schools with poor food choices. Again, let me emphasize that mine is not a normative enterprise. I am trying to predict our likely reactions to an obesity crisis and to explain the beginnings of school and community prizes awarded to healthy students.

Let me return to the idea of mutual contracts and thus the possibility of opt-in regulation, public or private. Imagine a plan in which an employer or university said to its employees or students:

We know that many of your days are sedentary, and we take an interest in your long-term health. We also know that most of you are eager to be fit. We invite you voluntarily to subscribe to our health partnership for three years. As a subscriber you will pay \$2,000 per year into the plan, and we will match each contribution. At the end of each month if you have met the plan's goals for the month, you receive \$200, so that someone who always makes the goals earns \$400 on the \$2,000 investment in the course of the year. Someone who misses the goals in two of the months breaks even. If you never meet the monthly goal, you will lose the \$2,000 subscription – and you will have signed on to try again with another \$2,000 the next year, because the plan runs in three-year cycles. Weight loss and maintenance is, after all, a long term endeavor.

The monthly goals would include exercise and education as well as weight maintenance for those with desirable BMIs and modest weight loss, perhaps two pounds per month, for those who are overweight. The organizer uses the financial pool created by subscribers who fail to meet goals, as well as its own matching funds, to administer the program, guarantee the payouts, and install exercise equipment at the workplace or subsidize gym memberships.

One danger is that self-selection will be too good, and only those who would not have had obesity problems in the first place will join up. An antidote is to require high participation, or perhaps enroll all new employees or entering students. Another danger is that the organizer might wish for failure in order to keep the residual; this requires segregated funds and some rules like those we have for non-profit organizations. In short, we subscribers will make money if we maintain, or achieve and maintain, a healthy lifestyle, but the plan is voluntary. The motivating idea is that some of us might exercise better self-control if immediate financial rewards were added on to long-term health benefits.

I do not know whether I should defend this plan against the optimistic or the pessimistic critic. The optimist would say that there is no need for the organizer to promise matching funds. The idea of the matching funds is to encourage participation, but an optimist might say that subscribers will materialize anyway because they will overestimate their ability to achieve and maintain a healthy lifestyle, or simply because this is really about the self-control that people want for themselves. Either they think they have self control, or perhaps they are indeed very good at identifying themselves if they do have self control, or their self control is imperfect but the added economic incentive will help them decide to do what is good for them anyway. But of course if this is true, then we would already see the private market organizing plans of this kind. The organizer's injection of funds is designed to make the reward greater than that any mere intermediary could provide. This is more than a pari-mutuel pool in which those who meet their goals are paid at the expense of those who do not.

The pessimist's objection is that first danger noted earlier, that few people would opt in, and those volunteers are aware of their own excellent self-control or high metabolism. Here I think we simply need a large scale experiment of the kind that an employer or university could offer. Some employers would be excellent candidates

for such a plan because they provide long term health insurance to its employees well beyond retirement. They therefore have an incentive to care about employees' long term health. The matching funds component is a way of saying that the employer, or university, is not trying to exploit, but rather to share in the long-term health benefits that reduced obesity would likely provide. It is the injection by the organizer that I am counting on to overcome the first danger.

It is easy to see how the government could help bring about these plans. It could reward long term health coverage with subsidies or credits, on grounds that long term health care providers have more of an incentive to work on long term health issues; it could also make the successful subscriber's rewards tax free or tax favored.

And then of course the government - federal, state, or local - could be more direct. It could tax pounds or reward weight loss or weight maintenance, for as we have already seen it is probably easier to work with these markers, or outputs, than it is to tax inputs. But for the government to act directly requires it to overcome organized interest groups, and to overcome the strong disinclination for the government to get more involved in private lives.

I am at heart a positivist, more inclined to say what law does and will do than to say what it ought to do. I predict that our political and legal system will do very little about rising obesity. Interest groups are aligned the wrong way for such intervention; college scholarships are much more politically correct than are fat taxes. The negative externalities are not nearly as compelling as they are for tobacco smoking. The government will try its hand at education, and perhaps it will do better on that score than it has in the past. I do think, or perhaps I just hope, that some private entities or local governments will experiment with opt-in plans of the kind suggested here.¹⁴ Any of these programs would give us an idea of whether modest economic incentives had much impact.

By "taxing obesity - or perhaps its opposite," I meant two things. First, opposite in the sense of earning rewards rather than paying taxes. And second, privately organized and even voluntary penalties and rewards, as opposed to strong-arm government interventions. Much as safer automobiles have developed because of a remarkable array of government interventions, education, private market maneuvers, consumer decisions, false experiments, traffic police, alcohol taxes, gasoline taxes and spending on better roads, so too more healthy bodies are likely to be formed by more than individual decisions regarding tonight's menu or tomorrow's trip to the gym. As law grows, so do private markets and the ingenuity of their makers. I think we will see that obesity brings about such growth in both legal intervention and in private markets.

¹⁴ While most employers have little financial interest in the long-term health of their employees, some have experimented with economic incentives in an attempt to induce healthy choices. One common plan is to offer employees modest pay supplements if they cease smoking. For a general discussion of some of these plans, see Kenneth E. Warner & Hillary A. Murt, *Economic Incentives for Health*, in ANN. REV. PUBLIC HEALTH, Vol. 5, (1984), at 107-33. The authors draw some general conclusions. First, behavioral change seemed most likely when rewards are incremental. Second, positive changes were more likely when target groups were rewarded for the overall performance of the group rather than for individual behavior. The authors hypothesize that peer pressure explains the second result. It is not clear whether peer pressure could be marshaled to control obesity. *Id.*

A Lecture such as this is supposed to offer a deep and inspirational message, but I fear that I have chosen a depressing rather than an inspirational topic. On the other hand, there is the old-fashioned, progressive view that government and law is somehow supposed to solve all problems. My own perspective, influenced greatly by the study of public choice, is that law does get involved in most widely broadcast problems, whether or not that is a good thing. It makes sense in such a world to try to understand how law and private markets interact, and how they might be expected to change in the face of perceived problems. I have suggested here that both private markets and governments can be in the business of enabling self control. I have tried to suggest that this is indeed what our legal system does to a large degree with respect to higher education, retirement savings, and tobacco. In other work I will add to this list and show that law is indeed a tool of self-control. I do not think that obesity is qualitatively or quantitatively different from these other things that I have just listed, and previously discussed. Law as a system of self-control may not sound lofty, but it is in large part what we do and who we are.

