

AUTOMOBILITY AND
FREEDOM PROJECT

**THE CENTRAL PLANNING OF
LIFESTYLES:**

**AUTOMOBILITY AND THE ILLUSION
OF FULL COST PRICING**

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EXECUTIVE SUMMARY

Over the past several years, the push to limit Americans' use of their automobiles has gained a great deal of momentum. Advocacy groups and government agencies have produced studies claiming Americans "overuse" their automobiles, relative to some "socially efficient" level of driving. Thus, if government could force people into new lifestyles with new working and living arrangements, we would all be better off.

The package of policies proposed includes higher gasoline and vehicle taxes, high-density land-use regulations, new road use charges, eliminating the tax-deductibility of employer-provided parking, and forcing owners of shopping malls to charge for parking. All this is meant to increase the cost of driving to Americans by \$300 billion annually. In true Orwellian fashion, it is argued that these proposals would enhance overall "economic efficiency" and increase economic growth.

The alleged overuse of automobiles is paternalistically referred to as "hypermobility." Like the hyperactive child, Americans are simply too mobile for their own good, and the prescribed remedies are the public policy equivalent of Ritalin. The purpose of the proposed makeover is to get us out of our evil cars and into kinder buses and subways and onto gentler bicycles and sidewalks.

The economic theory behind these conclusions, the "theory of market failure," calls for so-called "full-cost pricing" of automobiles. It is impossible to implement in the real world. Application of the theory is easily manipulated to promote ulterior motives that have little to do with advancing the economic well-being of society and much to do with remaking society to the liking of one or another environmental advocacy group.

In fact, the economic theory of market failure has no relevance to analyzing problems allegedly associated with driving. The roads are government-owned monopolies, financed by taxation. Driving takes place in a non-market, i.e., socialized, setting. It is therefore difficult to see how a theory of market failure would apply. Indeed, a theory of socialist or government failure would be more appropriate.

The real problem lies in the fact that truly free markets are prohibited. Any real social cost problems associated with the use of automobiles would be best handled through the privatization of roads. With modern technology that allows for low-cost monitoring of road usage and individualized pricing, this is a feasible proposition that is already being implemented in some states. It would ultimately allow for a resolution of pollution problems based on common law principles of justice, where the victims of harmful effects are compensated.

The idea that the government or some environmental advocacy group can determine the full-cost price of driving is not credible. If the vast amount of information for this exercise were possible to obtain, then a price system based on voluntary exchange of goods and services would be unnecessary. All decisions about the efficient allocation of resources could be made by central planners.

In fact, the actual motives of those expressing concern for full-cost pricing, economic efficiency, and making the polluter “pay” (though not for real damages, and not to those who have been damaged) are probably something other than those stated. Clearly, economics and practical experience tell us privatized markets are economically more efficient than government managed markets. Yet the prospect of privatization is not discussed in these studies. It might be that privatization of roads is not politically feasible. On the other hand, how politically feasible is a plan that would raise the price of gasoline to over three dollars a gallon and forcibly relocate people from their country homes to densely populated urban centers?

In spite of the fact that there is a stated concern for making the polluter pay, anti-car advocates make no mention of compensation for the victims of pollution. It is assumed that all payments meant to capture the ephemeral “social costs” of driving, in the form of higher taxes and congestion prices will go to the government. Once again, reforms that move toward the privatization of roads would make it easier for the victims of pollution, not the government, to collect for *actual* damages.

As Loren Lomasky demonstrates in *Autonomy and Automobility*, cars are a fundamentally liberating technology. Proposals to limit Americans’ use of cars would be no less fundamentally shackling. It is ironic that, for all their concern with social cost, these proposals fail to even consider the social costs associated with the loss of liberty that they would entail.

THE CENTRAL PLANNING OF LIFESTYLES: AUTOMOBILES AND THE ILLUSION OF FULL COST PRICING

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INTRODUCTION

Over the past several years, the movement to limit Americans' use of their automobiles has gained a great deal of momentum. Advocacy groups and government agencies have produced several studies which claim to demonstrate that Americans "overuse" their automobiles, relative to some "correct, socially efficient" level of driving.¹ The studies claim if government could force people into new lifestyles with new working and living arrangements, society as a whole would be better off. As a study by the World Resources Institute (WRI) proclaims, "The quest for personal mobility may now be interfering with the good life instead of contributing to it," (MacKenzie, et. al., p.1.).

The package of policies proposed include: a \$2.00 per gallon increase in gasoline taxes; new land use regulations requiring no fewer than nine housing units per acre of land (because this is the cost effective density for bus and light rail service); a mandatory insurance premium (tax) added to the price of gasoline; an annual "charge" (tax) on freight trucks based on a truck's weight and miles traveled; billing all drivers monthly (double tax) for their use of the road; the reduction or elimination of employer provided parking as a legitimate tax deductible element of employee compensation packages (tax increase); and forcing owners of shopping malls to charge shoppers for parking. All this is meant to increase the cost of driving to Americans by \$300 billion annually (MacKenzie, et.al.). Furthermore, in true Orwellian fashion, it is argued that these proposals would enhance overall "economic efficiency" and increase economic growth.

The alleged overuse of automobiles is paternalistically referred to as "hypermobility," (MacKenzie, et.al., p. 1.). Like the hyperactive child, Americans are simply too mobile for their own good, and the prescribed remedies are the public policy equivalent of Ritalin. The purpose of the proposed social makeover is to get us out of our evil cars and into kinder buses

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¹ See studies by Lee, 1993; MacKenzie, Dower, and Chen, 1992; and Miller and Moffet, 1993.

and subways and onto gentler bicycles and sidewalks. This will force us all to conform to the predetermined and, allegedly, scientifically calculated “optimal” level of automobile usage, advancing both economic efficiency and social welfare.

The economic theory behind these conclusions is referred to as the “Theory of Market Failure.” It calls for so-called “full cost pricing” of automobiles and is impossible to implement in the real world. Since it is impossible to implement in the real world, application of the theory is easily manipulated to promote ulterior motives that have little to do with advancing the economic well-being of society and much to do with remaking society to the liking of one or another environmental advocacy group.

The fact is the economic theory of market failure has no relevance in analyzing alleged problems associated with driving. The roads are government-owned monopolies, financed by taxation, and therefore, there is neither private ownership nor free exchange, the most basic requirements for the existence of a market. Driving takes place in a non-market, i.e., socialized, setting. It is difficult to see how a theory of market failure would apply. Indeed, a theory of government failure would be more appropriate (see Hayek, 1988; Buchanan and Tullock).

It will be argued that the real problem lies in the fact that truly free markets are prohibited. Any real social cost problems associated with the use of automobiles would be best handled through the privatization of roads. Road privatization may strike some as an impractical proposition, but it is not. Modern technology that allows for low cost monitoring of road usage and individualized pricing has made it an increasingly feasible proposition that is already being implemented in some states.² Furthermore, it would ultimately allow for a resolution of pollution problems based on common law principles of justice, where the victims of harmful effects are compensated.

**THE POLLUTER PAYS:
\$300 BILLION TO THE GOVERNMENT**

Most reasonable people would agree that if someone pollutes the air or water, causing harm to others, then the polluter should pay for the damages inflicted to those harmed. This is a sound moral and economic principle which guides much of what is called common law adjudication in the areas of tort and nuisance. It is based on the recognition and enforcement of property rights, which are necessary for both civil society and an efficient working economy. But this notion of “polluter pays” should not be confused with the kind of “polluter pays principle” (PPP) advocated by environmental

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² For an excellent discussion of this issue and how privatization is currently being implemented, see Fielding and Klein (1993), Roth (1996), and Samuel (1995).

policy makers and those critical of auto usage. This latter principle shows little concern for actual harm caused to real world victims of pollution.

Any notion of “polluter pays” would have to address three questions: what constitutes pollution; to whom is the payment made; and how much should the payment be? Under a traditional common law and common sense approach, emissions or other waste disposal would be considered polluting if it caused harm to other human beings or otherwise prevented people from freely choosing how to use their property or the fruits of their labor. The polluter would be obligated to compensate the injured parties and the payment would be made directly to those who are harmed.

This common sense view, which is rooted in basic principles of compensatory justice,³ has little to do with the polluter pays principle invoked by critics of automobile usage. From their perspective, pollution is often defined as anything that *they* find to be aesthetically displeasing (i.e., the look of a shopping mall or the loss of open spaces). The amounts the polluter must pay often have little to do with provable harm to individuals (see Green, 1995), and, typically, the payments go not to harmed individuals but to government in the form of taxes. The roots of this polluter pays principle are found not in common sense notions of compensation for provable damages, but in an unrealistic and ultimately unworkable economic theory.

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If advocates of PPP do not focus on actual damages caused by pollution as a basis for what the polluter pays, where does a number like \$300 billion per year come from? Advocates of PPP leap over actual victims of polluting activities and claim to be using the much more nebulous and malleable concept of “costs to society” or “social costs.” Their approach is based on a concept of economic efficiency which argues that in order for a production process or consumption activity to be “socially efficient,” the producer or consumer should consider all the “social costs” (and benefits) associated with the production or consumption activity. Only production levels that reflect the full cost of production will be optimal. If production levels are not reflecting all the costs of production then markets are said to be failing.

Therefore, if during the course of producing a product, a business is polluting the air and that pollution is imposing costs on the community, these costs would not ordinarily be included in the firm’s profit and loss statements. The business is only considering its private costs, such as the cost of labor, capital equipment and other inputs that it must pay for directly. This is less than the full “social cost” of production, which would include the costs that

³ Richard Epstein refers to this as “corrective justice” and defines the principle as “rendering to each person whatever redress is required because of the violation of his rights by another.” (Epstein, p. 50)

the pollution imposes on individuals living in the community. Because of this, the business is said to be overproducing and underpricing its product, i.e., there is market failure. If the pollution costs were being considered in the firm's decisions about how much to produce, output would be less and the price of the product would be higher. The optimal price/output combination is achieved when all costs are considered by the producer. If this standard is not met with regard to a particular activity, in this case driving, it is argued that the government both can and should correct for the market failure by coercively altering otherwise voluntary arrangements in order to see to it that "efficiency" is achieved. For example, if an excise tax that exactly equalled the pollution costs per unit of the product were imposed on the offending companies, the higher price and reduced production levels would, according to this theory, be efficient.

As will be discussed below, there are intractable problems associated with implementing the analysis just described. From an economics perspective neither the social costs nor the full effects of the policies can be identified or measured. Furthermore, from the perspective of social justice, there is no mechanism for compensating or even identifying actual victims of the pollution. Without tying the analysis to actual victims, the field is left wide-open for characterizing almost anything the analyst finds distasteful as a social cost problem.

In 1992, WRI published *The Going Rate: What It Really Costs To Drive* (MacKenzie, et.al.), which attempts to apply the market failure theory to social cost problems generated by driving. This study has become a standard reference for critics wishing to separate Americans from their automobiles. As stated in its foreword, the purpose of the study is to "explore the full costs of a transportation system dominated by private motor vehicles. The report estimates what the 'polluter pays' principle and its logical extensions would mean for the country. . ." (Speth, p.ii).⁴ The purpose of the radical makeover of American society that this study calls for, is to force automobile users – virtually all American adults – to bear the full costs of their driving.⁵

Without tying the analysis to actual victims, the field is left wide-open for characterizing almost anything the analyst finds distasteful as a social cost problem.

⁴ It should be noted that this study only calculates the costs of driving, which, even on its own terms, makes it useless for policy analysis. Any conclusions regarding public policy would need to examine net benefits of driving (full benefits minus full costs). Several critics of this and other studies attacking auto usage have noted this glaring error. (See Beshers, 1994; and Lomansky, 1995).

⁵ Other papers that pursue this same line of reasoning include Miller and Moffet (1993) and Lee (1993).

BEHIND THE DRIVE FOR FULL COST PRICING

As with its corollary, the polluter pays principle, if what was being referred to as “full cost pricing” meant that polluters should make compensation for harms done to others, then there would be no argument. There would also be no need for the litany of policy proposals noted above. If polluters were forced to compensate victims for actual harms, and only actual harms, prices would, to the extent possible and as a by-product of the simple protection of property rights, reflect the full costs of production and consumption. The focus, though, would not be on the price of the product *per se*, or even the cost of production, but on how best to arrange compensation for the harms that are being generated by the polluting activity.

On the other hand, behind the professed desire for full cost pricing is not a concern for justice, but an alleged concern for economic efficiency based on a particular economic theory. As noted above, this theory concludes that for markets to operate in a way that maximizes economic efficiency, and therefore social well-being, prices of products must reflect all the social costs and benefits associated with their production and consumption. From this perspective, any act by one person that another person finds distasteful could be chalked up as a social cost. For example, if I think strip malls are ugly, and someone builds a strip mall somewhere that I have to look at it, we now have a “social cost problem” that requires a public policy remedy. If, in a free and unregulated market, prices are not reflecting all such social costs, i.e., if the price of building the mall does not reflect my distaste for such malls, according to this theory, government can implement public policies such as excise taxes and regulations that would correct for these “distorted” prices. The policy is focused on correcting for distorted prices, not compensating for damages (See MacKenzie, et.al., p.5).

From this perspective, any act by one person that another person finds distasteful could be chalked up as a social cost.

To reiterate, this is presented as part of a theory of market failure. According to regulatory advocates, if it can be shown that free markets will not produce the theoretically efficient outcome, government action is legitimized. If the drivers of automobiles are not incurring all of the “social costs” of driving, then they are “overusing” their cars, hence “hypermobility.” Therefore, if it is somehow shown that there is annually \$300 billion in social costs that the prices of cars, gasoline, roads, and parking are not capturing (the markets are “failing”), then policies that raise the cost of producing and using these items or services by \$300 billion are justified. These higher, but more theoretically correct prices, allegedly make society better off.

Several analysts (Beshers, 1994; Green, 1995) argue that the studies which propose these drastic increases in the cost of driving are seriously flawed on their own terms. For example, MacKenzie, et. al. fail to balance the “full costs” of driving against the “full benefits” of driving before reaching their dramatic policy conclusions. In other words, drastic changes in lifestyle

and much higher gasoline and other taxes are advocated based on an analysis that examines only the costs of driving with no attempt to estimate the benefits.

Furthermore, many of the costs of driving calculated in these studies are misspecified within the context of the full cost pricing model.⁶ Separate critiques by Beshers and Green argue that the costs of driving are being overestimated; are being paid in indirect ways (free parking in shopping malls is paid for in the price of products sold at the mall)⁷; are not economically relevant costs but personal aesthetics (the loss of open spaces); or are highly uncertain and controversial (the alleged costs of global warming).

Ultimately, though, these critics fail to see the forest for the trees. They do not challenge the underlying assumptions that guide the anti-automobile studies. They instead argue that the market failure model discussed above does not include the social benefits of driving or that certain cost estimates are either exaggerated or irrelevant. While noting some of the points that will be made here (see Green, p. 6), they generally fail to recognize that the question of whose cost calculations are better or worse is, in reality, not only unanswerable but vacuous. Debates over numbers miss the point. This is because the real problem lies with the full cost pricing/market failure model itself. As is shown below, it is impossible to implement in a way that gives rise to what is supposed to be the desired result—to make society as a whole better off. The economically relevant costs cannot be measured and the net benefits associated with any reallocation of resources are unknowable. Because of this, so-called estimates of the full cost of driving, and even full-blown cost/benefit analyses of driving, can come to any conclusion the analyst desires. There is no way to scientifically verify the results. Indeed, any statements or conclusions about the enhancement of society's well-being as a result of the proposed policies will necessarily be arbitrary.

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WHY NOT FULL COST PRICING?

Let us assume, for the sake of argument, that there are no problems with actually measuring the full cost of driving (we will argue below that there are intractable problems), and that in fact the \$300 billion figure asserted by MacKenzie, et. al., is accurate. According to the theory, this implies that if, through tax and regulatory policies, the drivers of automobiles can be forced to pay an additional \$300 billion in conjunction with the use of their cars, the economy as a whole would be better off.

This conclusion involves a leap of faith. The assumption is that the population in general, including the over 90 percent of the population that

⁶ It will be argued below that the calculations of such costs is, in reality, conceptually impossible.

⁷ The free parking increases the value of store fronts in the mall, which in turn is reflected in rental rates for space. These rental rates, being part of the costs of providing the goods being sold, are ultimately reflected in the price of the products.

own and drive cars, will prefer the world after the policy changes to the world before the changes. To show the faith-based nature of this claim, let us also grant the assumption that the proposed policy changes would add precisely \$300 billion to the cost of driving. Still, no conclusion can be reached without knowing how the policies will alter the allocation of resources economy wide.

Our point can be made by examining just one aspect of the proposed policy, a \$2.00 per gallon gasoline tax increase. Assume that the tax increase is implemented and the price of gasoline rises to around \$3.00 per gallon. For the drivers of automobiles, there will be two effects. First, since the demand for gasoline is inelastic (usage will not decline by a great deal as price goes up), people will spend more in total on gasoline and, to a relatively small degree, people will drive less (the intended result). It will cost people more to drive and they will switch to what otherwise would be considered less preferred modes of transportation. Since gasoline is an input into nearly every production process in the country, costs of production economy-wide would increase, with special hardships for transportation dependent industries. This implies that not only the price of gasoline will go up but also the price of many other goods and services.

The legitimacy of the analysis does not depend on the accuracy of the cost calculations; the policy does not work, even if the cost calculations are completely accurate.

Here is where the leap of faith enters the picture. Advocates of the gas tax hike assume (without noting that any of the costs just cited exist) that certain benefits, or reductions in other costs, will be generated that will more than offset these hardships. Much of this would allegedly be due to the fact that people would drive less and some of this would be due to how the revenues from the tax are spent (on public transportation). The alleged cost reductions due to the tax increase would include less wear and tear on the roads, less smog in urban areas, reduced atmospheric CO₂ (allegedly reducing the costs of future global warming), and less road congestion. Also, over the long run it would supposedly discourage, to some extent, “unsightly” urban sprawl, because the higher cost of driving would encourage people to live closer to their work. As noted, our assumption is that all these costs are legitimate and accurately calculated. The point here is to demonstrate that the legitimacy of the analysis does not depend on the accuracy of the cost calculations, as some other critics have suggested. The policy does not work, even if the cost calculations are completely accurate.

To show that the policy change would be beneficial, it must be demonstrated that there is a greater preference for the allocation of resources, including the new array of prices, after the policy change than before. This is an impossible task. The information necessary to come to a conclusion is not only too complex but conceptually unknowable. The analyst would need to specify the new allocation of resources, entrepreneurial responses to that new allocation, and the preferences of all the individuals that the policy would affect, i.e., the entire population. This information would have to be

known not only for the present but for the indefinite future. It would necessitate knowing the preferences, entrepreneurial talents, and levels of knowledge of people who are not yet born.

The fact that the tax hike, and other proposed policies, would cause most people to spend a greater proportion of their income on gasoline and transportation implies that they will be spending less on other things. Clearly, the most immediate effect of the policy would be to make everyone worse off. People will consume less gasoline while spending more for it, having less income to spend on everything else that they purchase. In order to argue that people will ultimately be made better off, the analyst would need to know what these other things are and by how much their output would be reduced. Without being able to read the minds of consumers and without knowing the relative scarcities of all resources, this would be an impossible task.

These ambiguities exist even for determining the net effects on those who would benefit directly from any reductions in auto emissions. For example, imagine an asthmatic whose condition is worsened by automobile-generated air pollution. A reduction in automobile usage would presumably result in a reduction in these irritating pollutants and therefore directly benefit the asthma sufferer. However, this does not mean that this person will, on net, be better off or prefer the world that she faces after the tax to the world faced before the tax. Along with the benefits of reduced pollution would come a reallocation of resources that would likely result in higher prices for many of the goods and services that the asthma sufferer was purchasing in the pre-tax, higher pollution world. First, as noted, policy makers could not specify the post-tax allocation of resources and array of prices. Furthermore, they could not possibly know how this asthmatic and all other asthmatics, each with different preferences, would evaluate the alternatives. Without this information, there is no way to conclude that even asthmatics would, on net, be better off from the tax.

More complications arise when it is recognized that this reallocation of resources may reduce production costs in some other areas, creating greater pollution problems. For example, the reduction in gasoline consumption will make crude oil more available for uses in home heating or electricity generation, giving rise to a possible increase in the production of these items. While the benefits of these changes would have to be figured into the analysis, so would the pollution costs that might be associated with these activities. The details of these changes and of how people value them (for the present and the future) would all have to be specified.

Added into this mix, the analyst would also have to consider the costs, not just the benefits, associated with alternatives to driving that all of these policies are intended to promote. One must realize that people choose to drive, rather than take other modes of transportation, for a reason, i.e., the costs of not driving are too high. This is true even in many situations where

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public transportation is quite convenient, as is the case in the New York and Washington, DC metropolitan areas. First, there are both private and non-private, i.e., pollution, costs associated with building and using public modes of transportation. Light rail systems run on electricity which is typically generated with fossil fuels such as oil and coal. Many of the same people who complain about carbon emissions due to driving also argue that there is an “overconsumption” of electricity and that its use should also be more heavily taxed (see Repetto, Dower, et. al.). The process of manufacturing buses and railroad cars is energy intensive, which means a greater use of fossil fuels from this segment of manufacturing. Again, the pollution costs associated with these efforts must be considered.

Even walking and bicycling have costs to society. For example, more sidewalks and bicycle lanes would have to be built and more and better street lighting would have to be provided. Again, all of this involves production activities that themselves result in some pollution being generated. In addition, pedestrians and those who use public transportation are typically more vulnerable to crime. This implies that more and better police protection would have to be provided, with the accompanying increase in local taxes.

Finally, there is the loss of time and personal autonomy. For most of us, particularly as we get older, time is our most valuable resource. This is because it is the most nonrenewable of resources. Clearly, walking or bicycling, under most circumstances, are time wasters, unless we view these activities as something other than modes of transportation, i.e., we enjoy bicycling or walking for their own sake. Furthermore, the automobile allows people to come and go as they please. People do not have to stand and wait for a bus or train to arrive, or incur the time costs of waiting in line to buy tickets or tokens. In spite of the fact that the anti-auto crusaders seem particularly concerned about the conservation of natural resources, the only instance in which the loss of time is considered is when assessing the costs of highway congestion.

There is also the loss of personal autonomy that comes with the use of public transportation. As philosopher Loren Lomasky has noted, “automobility” enhances “the distinctively human capacity to be self-directing,” (Lomasky, 1995, “Executive Summary”). In doing so, it allows us more easily to participate in and enjoy all kinds of activities, from the arts and sports to far off parks and recreational facilities. All of this enhances our knowledge, our levels of education, and our overall enjoyment of life. Furthermore, many people place a high value on the privacy and solitude of driving and the extent to which personal automobility allows us to choose who we wish to spend travel time with. Public transportation always entails a sacrifice of privacy and personal decision making. Typically, we think of transportation as a means of facilitating our chosen lifestyle, and we choose modes of transportation that best do this.

Indeed, with proposals to change zoning regulations to require denser living arrangements, such as cramming nine families onto each acre of developed land, the anti-auto crusaders have stood this relationship on its head. They suggest that we must change our lifestyles to accommodate particular modes of transportation. Those who argue that Americans do not bear the full costs of driving completely discount the loss of freedom associated with their own policy proposals and the costs that this loss of freedom entails.

Ultimately, to conclude that the policy is, on net, beneficial, its advocates would have to consider the costs associated with transferring all of the new tax revenues from private to public sector allocation. For example, if these revenues were kept in the hands of the taxpayers, to some extent they would be saved and invested, which in turn would increase capital accumulation and future economic growth. These usages would be guided by market forces, consumer demands, resource scarcities, entrepreneurial insights, and ultimately profit and loss. Allegedly, when transferred to the government, these revenues would be used to subsidize alternatives to driving, such as buses and subways. Again, before this policy is implemented, it must be known how people would value the future growth that would come from leaving these resources in the private sector. To know this, one must know the nature of the products and services that these future investments and entrepreneurial insights would generate.

In summary, to claim that these policy changes would have net benefits, their advocates would have to show that people value the reduction in traffic congestion, the lower probability of global warming, the increased availability of public transportation, etc. to the losses that will be experienced, including lower real incomes, higher prices for many goods and services, changes in lifestyle, and the loss of personal freedom. Of course, this comparison would require, in addition to information about all current and future production activities, detailed knowledge of people's current and future preferences for all actual and potential goods and services. In other words, to demonstrate that these proposed policy changes would be socially beneficial, as their supporters claim, the analyst would have to be omniscient. It is clear that the problem of specifying and then netting out the effects of these proposals is an insurmountable hurdle to the analysis. Indeed, if this information could be obtained by policy makers, there would be no need for a market system to allocate resources at all—socialism would have been a rousing success.

The problem of specifying and then netting out the effects of these proposals is an insurmountable hurdle to the analysis.

THE PROBLEM OF SOCIAL COSTS

For the sake of argument, the above analysis assumed that the \$300 billion cost estimate that allegedly justifies the proposed makeover of American society and social structure was both accurate and economically

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meaningful. To implement the proposed policies, the policy makers must be able to calculate the “full costs” of driving. As noted, other critics have argued that many of the costs that are cited when calculating the “full costs” of driving are either overstated or irrelevant. But the real measurement problem is more fundamental than these arguments would suggest. In both principle and reality there is no scientific way to measure “social costs.” Ultimately, none of the calculations presented to justify the proposed policies are relevant to the problem at hand. When we go from the realm of demonstrable damages, as would be necessary in a court of law, to the economic concept of “costs,” we move from the objective to the subjective. From the perspective of economic analysis, costs, like beauty, are in the eyes of the beholder, i.e., those who perceive and bear the costs. This is because what is really relevant to people, and therefore to economic analysis, are “opportunity costs.” This expression refers to the value, in terms of personal satisfaction, that we forgo when we decide to pursue one course of action rather than another. This is not measurable because the concept of “satisfaction foregone” is subjective. It exists only in the mind of the person making the choice (Buchanan, 1969).

Pecuniary measurements, i.e., accounting costs, do not describe opportunity costs.⁸ This is a well-recognized truth in economics. Ronald Coase, who was awarded the Nobel Prize for his research into the significance of social costs and the economics of harmful effects, notes that “costs are not necessarily the same as payments. It is this fact that makes ‘costs’ disclosed by cost accountants something quite different from ‘opportunity costs,’” (Coase, 1981, pp. 108-109). Going directly to the issue at hand, Nobel Laureate James Buchanan, whose work in the areas of both “cost theory” (1969) and “externalities” (harmful effects) (Buchanan and Stubblebine, 1962) are seminal, states, “in order to estimate the size of the corrective tax . . . some objective measure must be placed on the external costs. But the analyst has no benchmark from which plausible estimates can be made. . . there is simply no means of determining, even indirectly, the value that [is placed] on the utility [satisfaction] loss that might be avoided” (1969, p.72).

In order for the \$300 billion figure to be a meaningful guide to public policy, it must be an accurate measure of opportunity costs. The reason it is not is because these costs are conceptually unmeasurable. This point is typically missed, even by those who are critical of the cost estimates made by the full cost pricing advocates. It is much more fundamental than any issues relating to whose cost estimates are “better” or “worse.” The implications of taking opportunity costs seriously goes to whether *any* such cost estimates are economically meaningful.

⁸ The only exception is in a world of “general equilibrium.” This is a wholly unrealistic and stylized model of the world that, by definition, cannot be obtained when any external effects are present anywhere in the economy.

The subjective nature of opportunity costs, while occasionally alluded to, is completely ignored by those claiming to calculate the full cost price of driving. For example, a Department of Transportation study titled *Full Cost Pricing of Highways*, concludes that “cost is an abstract concept, not an empirical fact . . . cost depends . . . on benefits foregone . . .” (Lee, 1993, p. 4). Nonetheless, the study then goes on to present pages of empirical facts, i.e., calculations, describing the “full cost of highways.”

To understand the nature of the barrier presented to measurement by a correct understanding of the nature of opportunity costs, we can look at WRI’s (MacKenzie, Dower, et. al.) measurement of the costs associated with auto congestion. After acknowledging that “a technical definition of [congestion] is surprisingly hard to pin down” (p. 17), the WRI study confidently proclaims that “the total market costs of congestion of the nation’s roadways total at least \$100 billion” (p. 19). Let us assume that these “market costs,” which by definition are not economically relevant opportunity costs, are accurately measured. The relevant opportunity cost question is: auto congestion imposes “costs” of 100 billion dollars compared to what alternative? The study never tells us this. For WRI, the opportunity costs of congestion would need to relate to *their* policy prescriptions. If implemented, these proposals would change people’s behavior through congestion pricing and rezoning in order to substitute “congestion living” for congestion driving. Their policy goal is “to encourage people to reschedule or reroute trips, try alternative modes of travel, or car pool” (p. 25).

In light of this, the relevant question becomes, “What are the opportunity costs of congestion when compared to WRI’s alternatives?” To know this, the analysts would have to know the subjectively determined preferences of all the individuals whose lives would be affected. Just part of the information that analysts would have to know, but could not possibly know, includes: How do individuals value the opportunities that they have to forgo when waiting at the corner for a bus or at the station for a subway train as compared to the opportunities that are foregone when waiting in traffic? How do people value the privacy associated with spending time alone in their cars as opposed to riding with three or four others, possibly total strangers, in a car pool? And ultimately, how do people value living in a 2000 square foot home on 3/4 acre of land compared to living in a 1000 square foot condo on 1/9 acre of land? The analyst would have to have this kind of knowledge of people’s personal preferences in order to begin to understand the “costs of auto congestion.” Since the costs cited by WRI’s study cannot possibly be based on this kind of information, it is not at all clear what the relevance of their numbers are. This is true for every calculation presented in all of the studies that purport to measure the full cost of driving.

How do people value living in a 2000 square foot home on 3/4 acre of land compared to living in a 1000 square foot condo on 1/9 acre of land?

FULL COST PRICING: ADVOCACY IN THE GUISE OF ECONOMIC SCIENCE

The fact that the full cost pricing model cannot be implemented in a way that is economically meaningful does not imply that it serves no purpose. Because there is no way to verify the “correctness” of the cost calculations, the economic theory is easily manipulated and presented as a “scientific” justification for new taxes and regulations. As Charles Wolf noted in the *Wall Street Journal*, “One of the great blessings of being a social scientist . . . is that there are rarely any penalties for being wrong.” This is particularly true when assessing something like the “full costs of driving,” where the answer to the question being asked is indeterminable.

One of the great blessings of being a social scientist is that there are rarely any penalties for being wrong.

This point is clearly demonstrated in what are alleged to be estimates of the costs associated with the global warming effects of driving. The WRI study, which candidly acknowledges that, “given large scientific uncertainties, it is not possible to accurately estimate the actual costs of the current buildup of greenhouse gases,” (p. 14), goes on to attach a number of \$27 billion to these costs. If this number is not an “accurate estimate of actual costs,” then it has no place in a study that purports to show the full costs of driving. But as noted above, it is just the pseudo-scientific smoke screen needed to justify hefty new taxes on a gallon of gasoline.

To show the irrelevance of this number (however it was determined), we need to examine what an economically relevant cost calculation would have to represent. Assume for the moment that increased atmospheric CO₂ will actually generate costs. This in and of itself is controversial, since many scientists are suggesting that such a build-up could generate external benefits in the form of increased crop yields and a larger, less expensive world food supply (Culotta, 1995). Few today are suggesting that human-induced global warming (if it even is occurring) has in the past or is currently imposing costs on anyone. Therefore, any estimates of the opportunity costs of global warming would, for the most part, have to be made with regard to future individuals, such as those who have not yet been born. This would entail having intimate knowledge in the present of the preferences and desires of people living in the future and all those who are yet to be born. Furthermore, any costs associated with dealing with future global warming problems would depend greatly on the state of future technology. Therefore, such a cost study would also have to be omniscient with respect to the development of technological knowledge into the indefinite future. Anyone that purports to be providing such a cost estimate is engaging in what Nobel Laureate F.A. Hayek has called a “pretense of knowledge” (Hayek, 1978). Such an estimate requires information that the analyst can only “pretend” to have, since there is no humanly possible way to obtain it. Indeed, it is information that has yet to come into existence.

Adding to these complications are controversies over whether increased CO₂ will ultimately cause any significant increase in global temperatures and whether any warming that might occur would be harmful at all. First, if increased atmospheric CO₂ has net social benefits, which some evidence suggests, then the same full cost pricing model that is being invoked to justify a tax on driving would support a driving subsidy. Any economist invoking this model out of a genuine concern for enhancing economic efficiency would have to account for this possibility.⁹ If future global warming is insignificant, as many scientists suggest will be the case, then the sincere full cost pricing model advocate would have to conclude that new taxes would simply bring about a reduction in living standards with no offsetting benefits. Needless to say, none of these possibilities are considered in the advocacy-based, some of which is government-sponsored, full-cost-pricing literature. The point here is not to solve the global warming controversy but to demonstrate how the vagueness of the economic model lends itself to use as camouflage for the advancement of other goals.

PRIVATIZATION AND MAKING THE POLLUTER PAY

The above discussion is not just a criticism of analyses purporting to show the full costs of driving. Ultimately, it is a criticism of the full cost pricing model itself. But even if one accepts the model and its implications, studies such as those produced by WRI and others misuse the model on its own terms. As an application of the “theory of market failure,”¹⁰ the full cost pricing model argues that when all costs and benefits are not being captured by producers and consumers, *free markets* will “fail” to generate efficient outcomes. A free market, though, requires private ownership of the means of production and voluntary exchange. While cars and gasoline are bought and sold in such a setting, the use of these products, which is what generates the alleged social costs, occurs completely within a non-privatized (socialized) pocket of our economy. By and large, the roads are government owned monopolies financed by taxation where there is neither private ownership nor free exchange. Given that no market exists, a theory of “market failure” has no relevance. Indeed, the solution to dealing with truly harmful effects caused by automobiles is to recognize that these are problems of government, not market, failure, and to reinstate the free market by privatizing the roads.

One of the arguments that can be made for privatizing the roads stems directly from the “market failure” theory invoked by those who seek greater government control. The standard academic argument for government provision of roads (for taking roads out of a market setting), is based on this

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The point here is not to solve the global warming controversy but to demonstrate how the nebulosity of the economic model lends itself to use as camouflage for the advancement of other goals.

⁹ It should be noted that WRI has invoked similarly spurious analysis to justify the possibility of hundred of billions of dollars in across-the-board carbon taxes (see Repetto, Dower, et.al.).

¹⁰ For a fully developed criticism of the model itself, see Cordato (1992).

theory, but it is an argument which claims that there are *external benefits* associated with the use of roads, not external costs. The traditional argument is that roads are inherently a “public good” because of the great number of social benefits that they generate. Therefore, the free market will *underproduce* roads and government provision is justified. The argument being made for more intervention, amounting to the near nationalization of lifestyles, is that roads are generating social costs and are therefore being overproduced, in this case by the government. What is known as the “economic theory of second best,” which also is derived from the theory of market failure, suggests that when both external benefits and external costs are generated by a production/consumption process, the best solution would be to keep the market in private hands, with no government intervention. Therefore, even from the perspective of the “full cost pricing model” the correct solution would be to privatize the roads.

Focusing on actual damages would rule out many of the “social cost” problems that the full cost pricing advocates claim are associated with the use of cars.

Privatization, though, can be justified on more common sense grounds. If one were truly concerned about making the polluter pay, the privatization of roads would be the best way to accomplish this. It is typically argued that the common law tort system cannot work in the case of auto pollution because “transaction” costs are too high. With each driver contributing an infinitesimal amount to the overall pollution problem, whom do you sue? But this problem is due to the fact that the roads are not privately owned. If there is a great deal of noise and commotion coming from a neighborhood night spot, it is the owner of the establishment that is held responsible, not the patrons. Indeed, under a system of private ownership any business is responsible for the nuisances that are generated in the act of providing its service or product. If the roads were privately owned, the owners of the road would be responsible for harms caused by the use of the road. The polluter would pay, not to the government, but to those who actually suffer demonstrable damages. As noted in a study by the Reason Foundation (Green), focusing on actual damages would rule out many of the social costs that the full cost pricing advocates claim are associated with the use of cars.

Recognizing many of the benefits that markets could generate, most of the studies cited here propose that the existing government owned system attempt to mimic a privatized system, but curiously never suggest privatization. Rather, they prefer what might be called a “market socialist” approach to the problems they perceive. Most of the analyses, including some that defend automobile usage (Beshers, 1994), call for congestion pricing of roads. A privatized system would probably also have congestion pricing of road usage. But as failed market socialist systems around the world have demonstrated, what is actually needed is a privatized system where road owners respond to actual consumer demands and the profit motive.¹¹ In this

¹¹ For a comparative analysis of so-called market based approaches to environmental problems and actual free markets, see Cordato (1997).

institutional setting, it is market forces that will determine the extent to which congestion pricing is worthwhile, not political advocacy or bureaucratic power seeking. Government bureaucrats, responding to political and not market incentives, will have no idea what the efficient congestion price should be or even which roads should be congestion priced and which should not. In a privatized system we might see both congestion and non-congestion pricing, even on the same highway. As with HOV lanes, certain lanes may be congestion priced and move very quickly while other lanes are priced at a lower, flat rate and move slowly. Indeed, this may be why actual privatization is not recommended by those who claim to be concerned about full cost pricing. When people are left free to make voluntary decisions, they may not act in accordance with the master plan. With private ownership comes the loss of political control and of the power of interest groups.

As the WRI study points out in support of congestion pricing, the individualized pricing of road usage would not be a problem. MacKenzie, et.al., note that “the technology for rapidly scanning vehicles for billing purposes already exists . . . sensors in the road read each vehicle’s code as it passes over the toll site and a monthly bill . . . is sent to each driver” (p. 25).¹² With private billing and the privatization of roads would come the added benefit of the elimination of all taxes associated with the building and maintenance of roads. This would include about forty cents per gallon on the price of gasoline.

CONCLUSION

The idea that the government or some environmental advocacy group can determine the “full cost” price of driving is not credible. If the vast amount of information for this exercise were possible to obtain, then a pricing system based on voluntary exchange of goods and services would be unnecessary. All decisions about the efficient allocation of resources could be made by central planners.

In spite of this fact, both private advocacy groups and government agencies are “pretending” to have the necessary information and are making cost calculations based on, as Hayek puts it, this “pretense of knowledge.” Using these numbers as a justification, proposals are being made to radically restrict liberties and, to a great extent, effect a transformation of American society. To add insult to injury, we are told that this will enhance economic efficiency and, ultimately, make us better off.

The analysis here suggests that the actual motives of those expressing concern for full cost pricing, economic efficiency, and making the polluter pay could be something other than those that are stated. Clearly, economics

Both private advocacy groups and government agencies are “pretending” to have the necessary information and are making cost calculations based on this “pretense of knowledge.”

¹² For a discussion of how privatization is already being implemented in Washington, California, and Virginia, see Samuel (1995); see also above.

and practical experience tell us that if one is concerned about economic efficiency then privatized markets work better than government managed markets. Yet, the prospect of privatization is not discussed in these studies. It might be argued that this is because privatization of roads is not politically feasible. On the other hand, how politically feasible is a plan that would raise the price of gasoline to over three dollars a gallon and forcibly relocate people from their country homes to densely populated urban centers?

The proposals to limit Americans' use of cars would be shackling. The loss of liberty and freedom of choice is itself a social cost.

Furthermore, in spite of the fact that there is a stated concern for “making the polluter pay,” there tends to be no mention of compensation for the victims of pollution. It is assumed that all payments meant to capture the ephemeral “social costs” of driving, such as higher taxes, congestion prices, etc., will go to the government. Once again, reforms that seek to move toward the privatization of roads would make it easier for the victims of pollution, not the government, to collect *actual* damages.

As extensively discussed by Lomasky (1995), automobiles have been liberating. Consequently, the proposals to limit Americans' use of cars would be shackling. The loss of liberty and freedom of choice is itself a social cost (See Cordato, 1992B). This society was founded on liberty as its highest moral value. Yet the social costs associated with the loss of liberty that these proposals would entail are never considered. Implicitly, these policies are contemptuous of the freedom that Americans have exercised to come and go as they please and live where they desire. If this contempt is allowed to manifest itself as law, then the issue of whether or not automobile users are bearing the full cost of driving will be the least of our problems.

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