THE STARTING POINT FOR REFORM: BRIBES, SUBSIDIES OR PERSONAL ACCOUNTABILITY FOR THE COSTS WE INFLICT

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INTRODUCTION

The American ground transportation system is breaking down. The dominant model – characterized by a small and declining transit market share, increasing auto miles driven per person and users who are paying less and less of the direct and external costs of system use (transit and auto) - is not working and will not work in the future. Most transportation professionals know this; most citizens sense this; most elected officials are scared of this.

In 1902 John Muir, my favorite historical person and wrote:

"Fortunately, nature has a few big places beyond man's power to spoil--the ocean, the two icy ends of the globe, and the Grand Cañon." [The Grand Canyon of the Colorado (John, 1838-1914 Muir)]

Obviously the great conservationist was wrong. Our increasing wealth and technology have enabled us to screw things up in scope and scale that could not be anticipated one hundred and seven years ago: **that** the Grand Canyon is threatened by the externalities of electrical power and storage of water behind the Glen Canyon dam which has changed the ecology of the Canyon; **that** the icy ends of the globe are threatened by the externalities of carbon use; and **that** the oceans are threatened by the externalities of waste and lack of private ownership of fisheries to provide incentives not to over-fish.

Why have we been unable to keep this from happening? Because, I would submit, the way we conceive and visualize the solution to mitigating our ever-increasing externalities has not evolved past a 1902 understanding about economics, especially about externalities.

Rather than dealing with negative externalities up front and honestly by putting in place mechanisms which hold us individually accountable for the costs we inflict on others and

the environment we have feebly attempted to mitigate externalities by bribing people to do the right thing – such as use transit, produce alternative fuels etc. And bribery based policies are ineffective and costly ways to influence behavior.

PURPOSE OF PRESENTATION

Hence my first point: Reform is about how to most effectively manage and mitigate externalities and to create an honest demand for what we consume. **Reform is all about externalities** – not about which **transportation mode** should be funded; the **form of growth** we should have or which **alternative fuels** are needed.

The task - is to design public policies which influence consumers to make individual choices which, in aggregate, achieve societal values of clean air, a stable planet, reasonable mobility and equity.

My presentation is about how we think, conceptually, about reform, i.e. what policy tools should be deployed. Time is short. I won't be subtle; I will generalize and I will be harsh. But I am deadly serious.

This presentation is based on the premise that our traditional approaches to reform and public policy, which are primarily based on subsides and bribery, are intellectually and morally flawed.

I view the shift away from transportation user fees as the primary method of funding transportation services as a progressive, fatal disease – though it is curable. Transportation has become a "stealth" entitlement. Over the past 30 years our implicit and explicit policies have been to hold the user of the transportation system – transit and highway users – less and less accountable for the costs of these systems. This has been an "anti-accountability" policy.

I will argue that the way we traditionally frame the tools of reform with the intent to achieve clean air, a climatically stable planet, less congestion, (i.e. How public policy can influence individual behavior to achieve in aggregate what we desire as a society.) can not possibly achieve these goals

I will not talk in detail about specific "solutions," though several are listed at the end of this paper. The solutions are obvious if I am successful in convincing you to accept that reform must be based on principles of personal accountable and equity. The solutions are not obvious, or even possible, if we continue to believe that the right mix of bribery, subsidies and planning will make a positive difference.

WE HAVE TWO CHOICES AS THE POINT OF DEPARTURE WHEN FRAMING POLICY OPTIONS: BRIBERY OR PERSONL ACCOUNTIBILITY

That is: 1) provide public subsidies funded by third party payees to induce (bribe) the correct behavior or 2) hold users accountable for **all** costs - including externality costs.

We can use government tools and spending to mitigate the externality. Or, we can hold individuals accountable for the cost of the externality. I would submit that the latter choice is cheaper and more effective.

My vision of the solution is different than someone who advocates that our goal is to "get people out of their cars;" to have "freedom from their cars." I like my car. What business is it for government to try to remove or extract me from my car **if** I pay the full cost of using my car. Let me have the freedom of choosing but hold me accountable.

In this sense, I do not begin the search for the appropriate policy by "knowing the answer," i.e. the "right choice." I start with the notion that honest prices will create a demand for the right choices. This is a fundamental distinction.

Examples:

Bribery: Permit for single occupant use of HOV lane
Subsidy to wind energy or ethanol

Clunker program

Accountability: 1) Impose a direct carbon use fee, which is in reality an atmospheric "using-up" fee, rather than subsidize alternative fuels which we "think" will reduce carbon use.)

2) Impose a time of day toll charge to offset the cost of congestion

THE CHALLENGE

Open public debate about policies to mitigate externalities, especially those which would assign the user more of the direct external costs of using the system, is stifled by political correctness, fear of public reaction to higher use fees and by the make-no-waves mindset of federal, state and local transportation administrators; the later of whom are rewarded primarily for acquiring the most transportation funds possible for their agency or mode. (And prior to retiring I counted myself among these).

I hope to make clear that the solution to our externality mitigation challenges is much more of a moral and ethical issue than a technical issue. Advocating more of the same, with its implicit entitlement mentality, is doomed to fail.

THE PREMISE

In its simplest form this is the point/counter point of my thesis:

We have two distinct and contradictory policy choices: public subsidies funded by third party payees or holding users accountable for **all** costs.

The first policy choice (bribery) attempts to overpower negative externalities by spending tax payer money to "bribe" or motivate the desired behavior. The second choice (accountability) "corrects" the market price of the consumption of products and resources to include the cost of the externalities to achieve the desired behavior. This is a **demand** approach, rather than a **supply** approach, as will be discussed later.

Boiled down further these two distinct policy choices are: "I am held accountable for the costs I inflict on others and society". Or, "Someone else's money should pay for the costs I inflict on others and society." I believe this distinction is of profound importance. If there is agreement that the above first choice is preferred we will have a chance for meaningful reform. *In any case understanding this distinction must be the starting point of reform efforts.*

CHARACERISTICS OF BRIBERY-BASED POLICIES AND PROGRAMS

These are some characteristics/indictments of bribery-based policies:

1. They rely on subsidies to induce the desired consumption behavior (i.e. use transit, produce alternative fuels)

2. They perpetuate the long term trend in which the user of the transportation system is paying less and less of the cost of system use.

3. They attempt to justify public subsidies on grounds that they achieve certain public benefits (such as improving air quality, reducing congestion) often with no evidence or quantification that the total public benefits are greater than the total cost of the public subsidy.

4. They pretend to protect those in need by keeping the real price of a service or resource artificially low to everyone, thus guarantying that the most affluent will benefit disproportionately.

5. They assume (wrongly) that there will be sufficient new tax revenues available to fund enough subsidies that will change our behavior in significant ways.

6. They result in a windfall to many consumers who would have acted "correctly" without the subsidy. This means the taxpayer overpays.

EXAMPLES OF BRIBERY-BASED POLICIES

The following programs are a few examples of bribery based programs. The analysis demonstrates that such programs are ineffective, extraordinarily expensive and inequitable compared to smart prices/ internalizing externalities.

These examples, taken individually, may appear to be aberrations and some will be tempted to dismiss them as unrepresentative, stray anecdotes. In reality they are in microcosm representative of what is wrong with most proposed public policy "solutions."

Income tax deductions for home mortgage and taxes –

These tax subsidies lead to: the over-consumption of housing, i.e. larger homes, more heating and air conditioning requirements; to more disbursed development; and the benefits go proportionately the more affluent

Specifically, the cost of home ownership is distorted by the income tax deductibility of mortgage and real estate taxes. The vast share of the benefits go to the more affluent who own more expensive homes and whose tax bracket generates proportionately greater tax benefits to the owner for every housing dollar spent. And because the value of the tax benefit has been capitalized into the price of the house, homes are more expensive than they otherwise would be. Furthermore, the traditional argument supporting the deduction is that it increases home ownership and greater equity build up for American families. With the advent of home equity loans this argument is completely spurious. Entirely aside from today's housing market collapse, home ownership for a great many is a mechanism to go deeper into debt. Finally there is evidence that these tax policies encourages "over-consumption" of housing compared to a neutral tax system and that this also leads to a more dispersed form of urban development. The Economist (August 27, 1999) cited a study that concluded the tax subsidies reduce population densities in urban areas by 15 %.)

Bribery schemes cancel each other out: subsidize contradictory policy goals

Same Congress – increased transit subsidies to entice people out of cars and also approved the clunker program – facilitated more miles driven at less cost than old car

Congress likes to make everyone happy – and the inevitable result is that the subsidy programs cancel each other out.
Think about it: $1.00 of my taxes goes to people to get them out of their car. And $1.00 of my taxes goes to facilitate people driving more.

Same Congress – mandated non-renewable production and appear to support cap and trade – what is mandated won't be consistent with cap and trade reductions.

High speed rail

1. Public benefits will be dwarfed by total public costs: no real time savings vs. air;

2. Capital subsidy – tax payers will pay at least 50% of total cost of building and operating high speed rail in California.

3. The promised reduction of air and auto externalities are a minute savings compared to the public investment (Professor Kanafani)

4. High speed rail will result in massive public subsidy primarily to business travelers and to our state's most affluent citizens. – more than 50% of diverted miles will be from air.

Thus high speed rail will convert air passengers who now pay their own way (who are being personally accountable) to rail passengers subsidized by general taxpayer.

5. The contention by supporters that "That high speed rail costs less than one-half as much as the alternatives – building more lanes, bridges and ramps and terminals." is fallacious and borders on dishonesty; not just error.

> The High Speed Rail Commission estimates that at most a 3% diversion of long distance auto traffic to rail. A great many of these miles driven are not driven at peak and thus not all diverted miles convert into congestion relief.
>
> The Commission's preposterous claim that high speed rail is less costly than the highway and air alternative is based on assuming that there would be no benefit of expanding the highway corridor to anyone but the fraction of drivers diverted to high speed rail. This vastly overstates the so-called savings.
>
> A Reason Foundation "Due Diligence" report concluded that high speed rail would reduce highway construction needs by only approximately $900 million compared to the **$66 billion claimed**. The study further pointed out that the highway alternative would reduce congestion 20.6% and will need to be built with or without high speed rail. The study concluded: "Highway congestion would be considerably worse with high speed rail than with the highway alternative."

Light rail transit subsidies – especially rail: subsidize a longer trip; marginal if any air pollution reduction; cold start to free parking space; benefits most affluent; operating cost per mile has increased with new investment; number of passengers per mile has declined.

Hybrid use of HOV lanes

Solo hybrid access to High Occupancy Vehicle (HOV) lanes results in a windfall to affluent citizens are given access to the most expensive road space because they own a car which they would have purchased anyway. Furthermore this purchase is unlikely to produce improvement in air quality.

> a.. Allowing single-occupancy hybrids automatic access to HOV lanes reduces the capacity of the HOV lanes and reduces the number of **people** moved per hour.
>
> b. In all likelihood there has been no improvement in air quality as a result of this program for the following reasons:

> California's stringent Partial Zero Emission Vehicle (PZEV) standards for new cars come very close to emissions from hybrids. It is likely that a hybrid purchaser would have purchased a PZEV vehicle in the absence of the hybrid product.

> A solo passenger hybrid will produce almost double the air pollution per passenger mile than from a newer model automobile with two passengers.

> An implicit and fallacious assumption is made about the incentive effects of most subsidy-based programs: that no recipients of the subsidy would have changed their behavior, such as buying a hybrid, without the subsidy. **Not properly estimating the real incentive effect of subsidy programs is a common dishonesty when the benefit estimates for subsidy programs give credit to the subsidy for all changed behaviors.**

>When the hybrid program was adopted in California the demand for hybrids was exceeding supply. To assume that the 75,000 consumers would not have purchased a hybrid without the HOV permit subsidy is ludicrous. Even if as much as 10% of the hybrid purchases were a result of the free permits (and that is very generous) the state gave away free permits to 68,500 new owners and received no public benefit. Conversely it means that the state subsidized 68,500 owners in order to produce 7,500 hybrid purchases. But it is commonly assumed that the program resulted in 75,000 environmentally-friendly car purchases.

c. The hybrid program, typical of most non-means tested subsides gave most of the benefit to the most affluent. Poor people don't buy new hybrids. Affluent people do.

d. And it gets worse. The hybrid permit has increased the **net worth** of the 75,000 primarily affluent hybrid owners by $4000 to $5000. (This appears to be the value as reflected in the market for second-hand hybrids with a permit). This is so because the permit can be transferred upon sale; with the increased value of a hybrid with a permit accruing to the seller.

Using sales taxes to fund highways/ allocation from Federal general fund vs. gas tax fund:

Reduces the cost of driving; increases consumption of highways; third-party subsidies results in the user paying less.

Alternative energy subsidies: 2009 bill allocation to wind, green energy, carbon capture: "Far more expensive than would be chosen by private sector if had meaningful cap and trade or carbon fee in place.

$69-$137 per ton vs. $13 per ton

Wind energy – learning curve

It can be argued that there is a role for public funding to spur technologies which have the promise of returning public benefits in the future. These are frequently justified when learning curve for the subsidized activity is steep. But too often the political process is unable to turn off the subsidy spigot when the learning curve flattens and we end up simply subsidizing the costs of energy consumption or transportation for some at taxpayer's expense. This is clearly true of our wind energy subsidies.

Ethanol subsidies The mandated use of ethanol is a prime example of the disastrous effects which a subsidy-based policy intervention can produce. As noted in the Economist, "The fact is ethanol is a scam that allows farm states to extract revenues from everybody else pretend to be virtuous in doing so."

Smart growth policies – even if "get the plan right" will only influence 2% per year at most; no analysis of total public costs to achieve specific benefits. Triumph of vision over substance.

HONEST PRICES VERSES BRIBERY-BASED PUBLIC POLICY

We have two choices in dealing with externalities: We can use government tools and spending to mitigate the externality. Or, we can hold individuals accountable for the cost of the externality. (Example: Impose a direct carbon use fee, which is in reality an atmospheric "using-up" fee, rather than a weak cap and trade scheme.)

However, most often we use government policy as a way to keep us from being personally accountable. Most of our public initiatives relating to resource use and transportation actually attempt to shield individual citizens and businesses from paying the full cost of our consumption – by subsidizing our consumer behaviors or by not acknowledging by price that externalities are a cost of consumption. Because government does not make me pay directly for the costs I inflict we spend a lot more money collectively and we as a society still don't solve our problems of pollution, congestion and scarcity.

Bribery-based policies perpetuate the long term trend (especially in regard to transportation finance) in which the user of the transportation system is paying less and less of the cost of system use. They justify public subsidies on grounds that they achieve certain public benefits (such as improving air quality, reducing congestion) with no evidence or quantification that the public benefits are greater than the cost of the public subsidy. They subsidize those in need by keeping the real price of a service or resource low to everyone, thus guarantying that the most affluent will benefit disproportionately. They assume that there will be sufficient new tax revenues available to fund enough subsidies that will change our behavior in significant ways.

Perhaps the most dangerous implication of bribery-based policies is that one can advocate almost any conceivable subsidy or public works project by citing a public benefit with no analysis justifying that the subsidy or project will yield **total** public benefits **in excess** of the **total** public cost. (This is the public policy of "good ideas." And "good ideas" often prove to be very expensive.)

There are four basic ways by which bribery-based public policy is implemented:

1. Direct subsidies such as grants, tax credits, welfare payments, tax expenditures etc.
2. Cross subsidies among users (auto insurance, wind energy).
3. Cause the public to endure conditions (negative externalities) such as air pollution, climate change etc. which results in lower production costs to manufacturers.
4. Build or provide free or discounted public facilities and services.

It should be made clear that subsidy policy as discussed, most often pejoratively, refers to non-means tested entitlements or tax credits, discounts, refunds which are aimed at changing consumption behavior such as to drive less, use less energy, save more etc. On the other hand, targeting subsidies to those deemed in need for income maintenance or to enable access to basic needs is clearly a proper function of government and is an important element of how honest prices can be equitably implemented.

IMPLICATIONS OF THE "ACCOUNTIBILITY" PRINCIPLE

These are some of the policies which follow from the "accountability" principle:

1. Implement user fees for all services and consumption for which the beneficiary is directly identifiable.
2. Internalize the cost of externalities into the price of consuming the service or resource. (This can be viewed as form of a user fee – such as a fee attached to the "using up" of clean air or our atmosphere.)
3. Evaluate and account for the total costs of public subsidies (income transfers, public works projects, tax credits or public payments for specified consumption behavior) versus the public benefits (such as reduced externalities).
4. Target assistance directly to those deemed in need rather than keep true cost of resources artificially low to everyone.

Generally bribery-based policies will fail or perform inefficiently because they do not directly confront our personal behavior. Because we are unwilling to take responsibility for the real cost of our behavior we use hopelessly expensive and futile strategies which may make us feel good or satisfy the needs of a particular constituent special interest group but which achieve little. The transportation community itself has pretty much given up the idea that we really can solve our transportation dilemmas and spends most of it's

time defending particular modes, knowing full well that we are catering to short-term symbolic actions which at the most make progress around the edges.

This is not to say that "my" solution is politically feasible at the moment but that doesn't make it wrong. I respect the political process and have been involved in non-partisan politics my entire career. However, at this point I am convinced that the politics of both the right and the left have not evolved to adapt to the changing reality that the consequences of our collective miss-behavior, the manufacture of increasing negative externalities, has overwhelmed our outdated, traditional public policy tools of spending, bribing, planning and regulating. And though our technology has facilitated our ability to create externalities (and sometimes mitigate them) it is our moral failure; our inability to hold ourselves personally accountable for **all** of the costs of our behavior which is the fundamental cause of our failure to achieve a sustainable country and planet.

Most of our reforms try to do it the easy way: perpetuate the idea that no economic pain is required.

After 40 years of public policy involvement I am convinced that most of our present policies which attempt to influence consumption behavior can only achieve marginal improvements – but a great cost and increased inequity. Most of the time we play the game of symbolic politics – allowing our elected officials to pretend they have solved a problem while keeping all of us from being responsible for the costs we inflict on others.

A couple of years ago at this conference Steve Heminger (Executive Director of the Metropolitan Transportation Commission in the Bay Area) made the observation that "A free lunch is what the political class wrongly thinks the public wants." If Steve is right, and I hope he is, my suggestions may not be as impossible as some of you may find them.

I am convinced that public policy relating to transportation, resource use and other policy goals are doomed from the start because the underlying assumptions are intellectually dishonest and not based on moral principle.

We are not intentionally dishonest or immoral but we like to fool ourselves that fundamental transportation and resource use reform can be achieved by bribing people to do the right thing.

WHY THE LEFT AND THE RIGHT ARE BOTH WRONG

Everything has to do with how we view externalities: Do they exist? How can we mitigate them?

Presently American politics is divided into two camps, each with a different perspective about how we should address issues of pollution, resource scarcity and transportation. Neither of them have it right.

Generalizing, on one hand, Democrats support "supplying" government programs and subsidies (which are most often pet programs and "good ideas" which have not undergone rigorous analysis) to mitigate perceived social, resource and environmental problems. User fees are deemed either to be bad or unimportant. They don't mind subsidizing everyone, especially the more affluent, and believe that the revenue needed to fund these programs can always be raised by increasing tax rates on the rich.

On the other hand, Republicans, who believe in the market and don't trust government intervention, do not recognize that externalities distort the market. They view taxes and user fees as the same thing; both evil. Often they are reluctant to support targeted welfare assistance programs. They claim to distain government handouts but as a generally more affluent group are benefited disproportionately by virtually all government subsidy (including tax expenditures) programs.

There is also much about with which those on the left and right can agree. I am proposing reform principles which start with the idea that Democrats and Republicans want clean air and water, mobility, a stable planet; that at least in general we all believe we should be personally accountable for our actions. And that the values of equity, stewardship and personal choice are important concepts though we will argue about definitions.

FOUR PRINCIPLES UPON WHICH TO BASE REFORM

The fundamental principle upon which honest reform can be built is this:

PRINCIPLE #1: **ROLE OF GOVERNMENT - The role of government must shift from just providing services to creating opportunities and an environment for all of us to become more directly responsible and accountable for the costs we inflict on others – rather than someone else should pay for my resource use indiscretions.**

Unless we commit to the ethic of holding the user (consumer) more directly accountable for the consequences of one's use, we have no chance in the long term – maybe in the short term – to solve and mitigate some of our region's, country's and earth's most challenging issues and dangers.

Norm's axiom: The inevitable legacy of externalities is that a cost which is not accounted for in the private economy will turn up, sooner or later, as a public cost to our government or our society in the form of pollution or congestion.

We try to manage or treat the externality with the traditional governmental toolbox of spending tax money (as opposed to user fees), regulation or planning. These tools have their place but inevitably increasing externalities spawned by our technological advances will overpower our traditional governmental interventions and mechanisms designed to mitigate the externality.

The real solution will be to charge the user (beneficiary) more directly the total cost of one's consumption choices which continue to be choices for bigger houses, bigger cars, more frequent and longer trips.

An example: When I drive I create costs (pollution and congestion) for which I am not held directly accountable and thus these costs are passed onto society or to the environment as a whole.

Another example: The T.V. passing through the Port of Southern California on its way to Iowa creates pollution and congestion for which the ultimate user (beneficiary) in Iowa does not pay and thus these costs are passed to those of us in Southern California – in the form of unfunded grade separations, freeway congestion, higher road and highway maintenance costs, and air and water pollution risks.

I am advocating a way to use price to better allocate our resource use.

This requires nothing less than a new definition of the role of government.
I repeat: The role of government must shift from just providing services to creating opportunities and an environment for all of us to become more directly responsible and accountable for the costs we inflict on others.

By interpreting issues of pollution, congestion, global warming as **governmental problems** (and thus requiring new government programs) and not as issues of **individual** responsibility and accountability, we perpetuate the false notion that the solution lies in better governmental decisions or more spending or better planning as opposed to better personal decisions.

We have a system in which prices do not hold us individually accountable for the true cost of many of our personal behaviors. Change the price system and we become more individually accountable for our behavior as it affects others. Become individually accountable for our actions via our pocketbook and we begin to achieve those values we say we want: less smog, les congestion, enough water, adequate basic government services.

The governmental system is overpowered by the consequences of our private decisions. We are asking too much of our government and too little of ourselves. If we want to continue to ask too little of ourselves (by not holding ourselves accountable for the full cost of our actions), the only choice is to increase governmental authority over our lives and for government to spend more money to "buy" our way out. I have doubts that this alternative is ultimately fundable or acceptable in a free society.

Rarely – with one important exception – is there disagreement with this principle per se. The exception is the concern raised about the effect of such policy on the poor. This is a legitimate concern with which I will deal later. At the moment I would suggest that if we are serious about providing access to all people to basis transportation and resource

needs that targeting such assistance for those deemed in need is far more effective and equitable than our present practice of subsidizing everyone.

Implications of Principle #1:

The new definition of the role of government (shifting from just providing services to crating opportunities and an environment for all of us to become more directly responsible and accountable for the cost we inflict on other) has a number of important implications:

a. The "costs we inflict on others" are externalities and externalities can be reduced if prices of consumption reflect the cost of the externality.

b. The role of technology: Our governmental tools dealing with these issues have not evolved to compete effectively with the perverse unintended (and under-appreciated) impact of technological progress. The increasing ability of technology enables all of us to impose (external) costs on others as a consequence of our daily consuming lives.

c. Nothing is local anymore and scale of externalities is increasing. An example: Two hundred years when one traveled to work one generated very little impact; virtually no externalities. Horses or walking were the modes. Trips were short. And, yes, horses do produce some localized side effects.

Such commuter behavior was quite different from driving – which has **global** effects; oil spills 3000 miles away; climate change and air pollution which endangers human health and even enables plants to grow in places they couldn't before – from airborne nitrates- and thus endangering native plants and animals.

d. The relative portion of externality costs is increasing**.** I would submit, and this a quite different way of looking at why we are having difficulty mitigating many of our externalities, that as a percentage of the total actual cost of consuming a product (i.e. both direct costs and externalities) externality costs are increasingly a greater proportion of the total cost of a product or its usage. This fact is largely ignored by our economic and political system, especially when trying to treat the social costs of over-consumption. Technology has enabled us to foist ever increasing costs on others. In other words technology, for all its benefits, is the driving force behind the increase of negative externalities in our economy.

e. Thus, the user pays, ever since the advent of the industrial revolution, less and less of the real, total cost of consuming and this has two consequences:

1) It provides an incentive to over-consume.

2) It causes government to try to intervene to treat the externality at a higher cost than prevention, using inadequate, expensive, and inefficient tools.

Basically our dominant governmental approach to mitigating externalities of all kinds is to treat or mitigate the pollution or congestion after it has occurred. This is **"pooper-scooper"** government – in which the function of government is to run behind us spending a lot of money to clean up after our spills.

To repeat: The basic premise is that the inevitable legacy of externalities is that a cost which is not accounted for in a private economy will turn up, sooner or later, as a public cost to government or society in the form of pollution or congestion. And, the role of government must shift from just providing services to creating opportunities and an environment for all of us to become more directly responsible and accountable for the costs we inflict on others. This means internalizing externalities into our prices**.**

PRINCIPLE #2: **DEMAND MANAGEMENT - We cannot reduce or stabilize the cost of government unless we focus attention on how to reduce the demand for government services and for resources which are finite and/or whose consumption imposes costs on others.**

Demand management is a different way of perceiving the role of government. The old paradigm is supply management. If the problem is "not enough of," the solution is to provide "more of."

Assume for the moment that we all agree that our overall objective is to be good stewards of our resources. From a policy perspective this means reducing the negative impacts of our lifestyles – or said another way – to use government initiatives to reduce negative externalities. In a very broad way the attempt to reduce externalities is clearly an essential, if not the most essential, reason for governments to exist.

The dominant view, the supply management paradigm, frames the problem and solution this way: There is too much driving, energy use, sprawl and congestion and the solution to supply government resources by bribing, subsidizing, providing programs and regulation to change our behavior.

The demand management paradigm defines the problem differently. The problem is not that there is not enough of a resource, a governmental service or tax money, but rather that there is too much demand for finite resources and government services. The solution then becomes to reduce demand: to focus on policies which reduce demand for resources and government services. This is a fundamental reformulation of the problem of government.

The demand management view is that the demand for products, the consumption of which, produces effects which we do not want in aggregate and that the solution is to reduce demand by holding the user accountable for all the costs of one's consumption.

The difference in these approaches is between trying to overpower the externality with government intervention versus creating honest prices (and hence an honest demand) by assessing externality fees and reducing direct subsidies paid for my third parties.

Failure to Distinguish Between Public and Private Costs

In other words we have incorrectly defined the role of government. Instead of viewing externalities as a **private** cost we assume that the responsibility of mitigating is a **public** obligation and that we need to supply programs, subsidies and regulations to treat the externality rather than assigning the cost of the externality to the private individual responsible, i.e. privatizing the externality. Supply management tools will always be necessary in some degree. However, I am suggesting that in the absence of privatizing the cost of externalities such tools will always be overpowered by dishonest prices.

The contrary view is deeply imbedded in our collective mind set about the role of government. Recently an academic journal was soliciting proposals for a symposium on "Integrity in American Public Administration and Policy." One possible subject was, "Displaced public resource stewardship posed by the privatization of public obligations."

The inherent assumption here is that the ethical solution to "resource stewardship" is to make it a "public obligation." In my view the solution is to **privatize** the cost of resource stewardship by charging the polluter and resource consumer directly. In other words, "my" **solution** is what the traditional view of public policy assumes is the **problem** or as an impediment to the solution. The difficulty is that we are so pre-conditioned to assuming that government spending or subsidizing is the solution; rather than placing the cost burden directly on the private behavior which generates the problems we are trying to overcome.

Even our language implies a bias toward direct government action to incentivize or subsidize. The words "incentive" and "disincentive" imply an action or program to either convey a benefit (incentive) or penalty (disincentive). We have no word to describe a public policy outcome which is not produced by either an "incentive" or a "disincentive" but instead is the outcome of a neutral policy which seeks neither to bribe or to penalize but does seek to hold the consumer financially accountable for the costs of consumption. I would suggest the word "non-centive"; meaning government is not picking winners and losers or specific solutions but rather has established an honest price playing field for all. Yes, this will require governmental intervention to correct the market place. This is a function which only government can do. A dishonest market can not yield an honest outcome.

This role of government is different than the traditional role, but if applied would lead to less direct government spending and regulation. Heretofore, instead of viewing externalities as a private cost, we assume that government needs to "supply" programs, bribes, subsidies to reduce or treat the externality. This as opposed to explicitly assigning the cost of the eternality to the private individual responsible; i.e. privatizing the cost rather than charging the tax payer the cost.

PRINCILE #3: **HONEST PRICES - Price provides the best education. If prices reflect total costs of consumption we consumers are instantly educated to be**

accountable for the consequences of our actions. When prices do not convey accurate information (i.e. external costs and direct subsidies) they are dishonest prices and the consumer behaves in ways which are inconsistent with public policy goals.

Good planning, smart growth, regulation, supply management policies and spending money will always be overpowered by dishonest prices.

The purpose of price is to provide information. People make better decisions when they are fully informed. When externalities are present the market place will not, left alone, provide honest (accurate) information about the total cost of consuming the product or service. Dishonest prices allow us to fool ourselves that we are paying the real cost of a product– when in effect we are passing some costs to others. It is not honest or responsible that I don't pay for the costs I inflict. Lack of transparency in government is created when government allows dishonest prices to occur or provide services, subsidies or tax expenditures which mask the true cost of consumption.

When market prices are deceptive, dishonest and do not include all costs of consumption market forces encouraging responsible behavior (stewardship) will be underutilized. The political process will lurch toward greater governmental intervention to "solve" the externality. In this context creating honest prices – which convey all costs - becomes a basic moral and ethical imperative.

The penalty for not having honest prices is to either suffer collectively from the negative impacts (congestion, global warming, cancer etc) of our behavior and/or to increase taxes to fund public investments to mitigate the externality. Neither will produce a solution.

Honest prices are created when we internalize the cost of the externality. Externality fees are user fees – the objective is to privatize the external cost by including these costs in the price of the private transaction – as opposed to shifting the costs of the externalities to present day tax payers or future generations.

<u>Honest Prices Are an Essential Tool of Demand Management</u>

Honest prices are a primary tool of demand management. Prevention is generally more cost effective than treatment. Public funding and subsidy approaches tend to focus on treatment of the problem or externality. Our private consumption decisions will always try to avoid or minimize the cost of both treatment and prevention. However, if the external costs are factored into the costs of consumption prevention will become attractive. Conservation investments will become feasible as relative cost will direct new technologies to produce substitutes for the now more costly polluting and energy intensive products and services.

The problem with our traditional public policy mentality is that it starts with the implicit intent to overpower consumer decisions which are made based on dishonest prices by inducing consumers to change their behavior through bribery, subsidies, public spending

or regulation. These "indirect" interventions to induce less consumption of "bad" resources will rarely succeed. Such policies are like scattershot – picking and choosing favored causes - and most often creating unanticipated secondary consequences which generate a new set of problems.

Smart Growth or Smart Prices?

If we had smart prices we would have smart growth. Smart growth is a hodgepodge of indirect policies which requires using tax payer money to subsidize more dense residential structures and to subsidize transit. Smart growth policy (to the extent that it can be defined) attempts to induce someone to live somewhere they would not otherwise choose by implementing various subsidy or regulatory policies which may produce marginal, at best, reductions in external costs of dispersed growth patterns.

Nor will smart growth keep me from living stupidly. That is, I may be attracted to live downtown by discounted transit fares and perhaps a redevelopment-subsidized condo. And though I was previously an "average" car commuter and I am now an "average" transit commuter my time to getting to work has doubled. But perhaps I also enjoy going to Europe two or three times a year and my carbon use on these trips will be greater than my previous annual auto trips to work. In other words our present public policy makes artificial choices that some BTU's are more equal than others with no documentation that the external effects are different.

Maximizing Personal Choice and Becoming Accountable for the Costs of Our Choices

Our public policy task is to reconcile personal choice and the impacts of those personal choices. Just because some choices may be more energy intensive than others does not mean that these are bad decisions from the perspective of the consumer or society. I may choose a vacation in Hawaii, a big house in a suburb, or a swimming pool and in making these choices I must deal with tradeoffs among competing desires and the costs thereof. Government should insure that I pay the full costs of these choices; not attempt to unevenly coerce my choices in a hit and miss fashion through regulation or subsidy.

I do not want legislators or special interest groups to tell me, by coercion or bribery, how I should use "my" BTU. But I do want my government to ensure an honest market in which I will be charged the full costs of my BTU consumption. I advocate a government ethic of making sure that when I choose to consume I will pay for the costs I inflict on others and assist those who can't pay; not a government which tries to artificially restrain or coerce my choices

The fallacy of smart growth and other "supply" management policies is that they can focus only on certain aspects of our energy use, on only a portion of our damaging behavior, and thus do not address the externalities of carbon consumption from non-targeted activities. In other words traditional public policy does not treat all BTU's equally. Conversely, if all BTU's were honestly priced, as a consumer I would pay for the costs I inflict regardless of how I choose to use my BTU's.

Thus, I would be free to choose how I live my life and I would pay for the costs I inflict on others. Furthermore, the burden on those who pay taxes would be decreased by the reduced need for subsidies, tax credits, and public spending to coerce my choices.

PRINCILE #4: **EQUITY AND STEWARDSHIP - When the total cost (including externalities) of consuming resources and products are not included in the price charged to consumer the more affluent are those most benefited and we are unlikely to sustain the long-term health of the human race and the planet.**

The most common concern about the greater implementation of user fees and full cost pricing is raised by those who are concerned about the effects on the poor – things will cost more to those who have the least. This is a legitimate concern.

The more affluent who consume a greater proportion of virtually every product or resource receive by far the greatest benefit by not having to pay the full cost. We can look at almost any type of consumption – gasoline, water, auto use, electrical use, use of the disposal (waste) system and inevitably we find that the top 20% will consume around 35% to 38% of the total resource or product; that that bottom 20% will consume about 5% to 8%.

The solution to the equity issue raised above is to target assistance to those who consume 5% to 8% of the resource without subsidizing everyone. We don't subsidize all food at the supermarket; we provide food stamps to those deemed in need. Our rhetoric, not to charge honest prices, in the name of protecting the poor, coupled with the massive increase in non-means tested entitlements and tax subsidies, has resulted in a tremendous amount of government spending mostly benefiting the most affluent and resulting in powerful incentives for most of us to over-consume**.**

Our proclivity to create direct and tax subsidies which most often benefit the more affluent disproportionately creates a secondary inefficiency: On one hand instead of assessing the costs we inflict on those who generate most of the costs (which would be the more affluent who generate far more externalities), we often create subsidy programs to encourage the "right" behavior, and later discover that the more affluent are benefited disproportionately. And, then in an effort to raise revenues necessary to pay for the increased public expenditures resulting from these subsidies it is frequently proposed to raise marginal tax rates on the more affluent. It would be far better to toll consumption which would simultaneously dampen the consumption of polluting products, would decrease need for greater public expenditures and would raise revenues proportionately more from the more affluent. Furthermore, the negative aspects of high marginal tax rates – disincentive to work and to invest – would be moderated.

IMPLEMENTING ACCOUNTIBLITY: HONEST REFORM

The purpose of this presentation is to provide an ethical framework by which to evaluate transportation reform policy options. If I have been successful it will be obvious that the following initiatives would be among the favored policy options of "honest" reform. It is not a coincidence that most of these have been advocated at the Arrowhead Symposiums over the years.

1. Partial facility congestion tolls – HOT lanes, time-of-day pricing

2. Full facility congestion lanes – toll roads, time-of-day pricing

3. Cordon (area) congestion fees – London

4. Weight-distance-axle-based truck fees

5. Vehicle mileage based tolls

6. Parking related fees: parking cash out, variable curb side parking fees

7. Mileage-based auto insurance

8. Freight container fees

9. Carbon fee ("atmospheric using-up fee")

10. Express bus lanes and facilities in certain corridors

11. Point-to-point electronically routed van/shuttle public transit (possibly privatize some services)

12. Truck toll lanes

13. Convert all non-user fee revenues allocated to road and highways to direct user fees on auto use of the types described about (i.e. shift local sales taxes and non-gas tax Federal and State highway spending to highway user fees.)

14. Phase out tax deductibility for house mortgage and interest expenses.

15. Align the cost of using air space and airports with beneficiaries; charge for actual use; variable peak-congestion pricing, eliminate weight-based landing fees.

16. Don't build high speed rail in California unless the user will pay at least most of the total cost to build and operate.

17. Allocate a portion of use and externality fees to target assistance directly to those who need help to pay for the increased cost of "honest" prices rather than keep the price of consumption artificially low for everyone.

18. Impose consumed-income tax (consumption taxes) and use funds to off-set and reduce income taxes. (Can still retain progressive tax rates.)

WHEN DO SUBSIDIES MAKE SENSE: RECONCILING PUBLIC BENEFITS AND PUBLIC COSTS

Bribery-based proposals enable the advocacy of almost any conceivable subsidy program or public works project by citing a public benefit without having to justify that the subsidy or project will yield total public benefits in excess of the public cost. Most good ideas will produce a public benefit – but at a cost which far exceeds the value of the public benefits.

Just because something is a good idea – and has some benefits - does not mean it is a good idea for society to subsidize it. There is no justification to spend taxpayer money unless the total benefits to society are greater than the tax payer investment. This is not a principle to which we adhere.

This presentation clearly advocates that the preferred first public policy choice will always be to internalize the externality. In the real world, that choice will not always be politic or possible. Bribery based policies may be the only practical alternative. In this circumstance it is still essential that the externalities, along with all direct costs, be quantified because only by doing so is there a basis for determining if the cost of the public subsidy to mitigate the externality is exceeded by the public benefit – that is the value of reducing the externality. In other words, even if it is not possible to internalize the externality, information about the cost of the externality is essential for the purpose of evaluating the efficacy of a proposed subsidy program: Does the public subsidy reduce externalities (and direct costs) in sufficient scope to justify the public expenditure?

Discussion of and measurement of productivity and benefit/cost in transportation is an illusion unless the cost of the externality (or the costs to mitigate the externality) are included in the calculations along side direct costs. Presently most of our benefit-cost analysis is illusionary.

We often invest public funds inefficiently because the "least cost" option (such as, least cost per ton reduction of green house gas) is not likely to be the option favored by a particular interest group which wishes to have its particular mode or technology be subsidized. A particular mode or technology is advocated because it will "reduce congestion" or "reduce green house gases" – and it may – but in most cases the public costs of achieving a marginal improvement in reducing the externality comes at far greater cost than other alternatives which would become cost effective if externalities were internalized.

Clearly some benefits do accrue from our tax payer funded subsidy programs such as providing transit, building freeways from taxes rather than user fees, subsidizing

alternative fuels. But the critical issue – and the issue rarely addressed in the political environment of special interests and pet projects – is: Are the total benefits to society of such public investments/subsidies greater than the cost of these investments/subsidies and, even if they are, have opportunity costs been compared with other investments which may yield a higher rate of return to society? The implicit assumption is that the public benefits will be greater than the public costs. Why else would we make an investment of public dollars? But we rarely make these assessments; perhaps because the truth would be inconvenient.

For instance, some studies show that light rail may have lower carbon emissions per passenger mile than auto. Recently this has become the favorite argument of the rail boosters. But such a finding, even if true, does not mean that investment in light rail is a good investment.

There may be other public benefits which should be rolled into the analysis. And, there will also be costs such as direct subsidies for construction and operation of the light rail system. It appears that a light rail trip to work results in a longer average work trip, both in miles and time, than the average auto work trip. Does the passenger's light rail trip begin with an auto "cold start" at home and end at a free "publicly provided" parking space? These are costs to the public which, if not included in the feasibility analysis, will lead to understating the public cost and overstating the public benefit.

It can be argued that there is a role for public funding to spur technologies which have the promise of returning public benefits in the future. These are frequently justified when learning curve for the subsidized activity is steep. But too often the political process is unable to turn off the subsidy spigot when the learning curve flattens and we end up simply subsidizing the costs of energy consumption or transportation for some at taxpayer's expense.

This is clearly true of our wind energy subsidies. The mandated use of ethanol is a prime example of the disastrous effects which a subsidy-based policy intervention can produce. As noted in the Economist, "The fact is ethanol is a scam that allows farm states to extract revenues from everybody else pretend to be virtuous in doing so."

The subsidy amounts to about 50 cents per gallon and the cost could well escalate to near $40 billion per year in the next ten years. This would be a subsidy greater than the annual yield of the present Federal gas tax of 16 cents per gallon. Side effects of increased corn production include driving up the price of food world-wide, especially affecting third-world countries, creating dead zones in the Gulf of Mexico from the fertilizer washed down the Mississippi and increasing the price of gasoline to millions of drivers.

In its wisdom Congress has also imposed a 54 cent per gallon tax on imported ethanol. It takes 1700 gallon of water top produce one gallon of ethanol and many studies have shown that it takes more energy to produce a gallon of ethanol than what the final product will deliver. Around the world rainforests, peat lands and grasslands are being converted to produce food-based bio-fuels and according to Bob Poole at the Reason Foundation

such conversion will release 17 to 420 times more CO2 than annual greenhouse conversions provided by displacing fossil fuel.

The end result of public policy related to resource consumption is frequently a decision to allocate public funds to achieve a social benefit; an investment of public funds with the expectation of a return on the investment. Our failure is that most often we do not explicitly or correctly calculate either the full cost of the investment or the explicit anticipated benefits. Public policy based on "honest prices" would make the cost of mitigating our negative externalities explicit and thus provide all consumers and producers with the correct information upon which to make their own investments which will simultaneously maximize their own desires and achieve societal values of recourse stewardship.

Tests for Spending Government Money

With the above in mind here are some "tests" to assist when determining a subsidy intervention may be appropriate, or phrased another way: Under what conditions is it justified to take money from the public and spend it on government programs and projects?

1. Should not increase the demand for consumption of scarce resources and services or for which consumption of such resources and services generates negative externalities.

2. Should not disproportionately benefit the more affluent.

3. Should not convert previously private costs into public costs unless such conversion yields net public benefits – such as equity considerations, reducing congestion etc.

4. Should always first evaluate if charging user fees is feasible and target a portion of the fees to enable those deemed in need to access the service or resource.

5. Should determine that the value of the public benefits to be created by the public expenditure (such as reduced congestion, reduced air pollution) will be greater than the cost of the public expenditure.

The scope of the analysis proposed above requires that the cost of externalities or the cost to mitigate them be calculated. This means assigning a cost for impacts which are difficult to estimate. The results will not be perfect. There will be disagreement over assumptions and methodology. However, compare this to our present process in which, knowing it or not, we are implicitly assuming that a public expenditure results in a net social benefit which we do not attempt to calculate. We may estimate the total public costs but rarely are these costs compared to specific public benefits. As long as we allow the public policy debate to revolve around "good ideas" which do not undergo full-

costing analysis, anyone's good idea can be implemented at public expense. The winner will be the special interest with the most political clout.

When external costs are not explicitly part of the benefit/cost calculation we operate in an" unreal" world in which many "real" costs are treated as if they don't exist. The real world is a world increasingly filled with externalities. We can't pretend they don't exist. They do and they are real.

If we had to pay the real cost of our energy use – per each BTU - consumer demand, based on honest energy prices, would unleash private investment to produce products which will reduce our energy usage and which will produce energy more benignly. These innovations will produce products and services which will reduce total costs to society**. However, t**hese investments will not be cost effective when prices are dishonest. This is the point: only honest prices provide a defense from special interests which will always have their hand out to fund their "good idea" solution if our public policy is based on bribery rather than honest prices.

Productivity or performance analysis of transportation alternatives is not possible when the costs of externalities are not accounted for. Many public subsidies or public works projects achieve public benefits – including mitigating externalities. But unless a value, a specific dollar amount, is assigned to the public benefit of the mitigating measure, there is no way to truly evaluate the efficiency of the public expenditure. Such a calculation would not be viewed fondly by special interest groups, with preconceived notions of what constitute the solutions.

Public subsidies to affect behavior or consumption are justified only if the benefits to society are greater than the cost of the subsidy and furthermore that this particular subsidy investment has a greater return than any other public investment to accomplish the same objective.

Public subsidies to provide economic well-being to those in need are also justified if targeted to this specific group. However, as noted typically our subsidy programs are allocated disproportionately to the more affluent.

The Economist (November 8, 2008, p.15) describes the difficulties of a subsidy approach as follows:

> "Making polluters pay is unpopular with companies. Politicians don't much like it either, because it means a fight with business. But it's the efficient way to discourage pollution, because it shifts the costs onto those who should bear them, and allows the market to pick the best way of cutting emissions.
>
> Subsidies are more popular but both theory and practice argue against them. Subsidizing clean energy requires politicians to decide on the best way of delivering it, and their judgment is likely to be worse than the market's. America's huge ethanol subsidies, for instance, have let to overinvestment in the

businesses, which is now experiencing a sharp bust, and helped drive up the price of food, with painful consequences for the world's poor."

In summary our subsidy-infused public policy not only reflects the difficulty of being honest about the costs of our behavior, it also is a outcome of our desire to create tangible programs or spend money rather than to trust that people will make good choices for society and themselves if prices were honest. We would rather spend tax payer's money on something tangible and visible – which won't work – than to change our fee and price structure to produce individual decisions which will improve our quality of life and reduce the total cost to our society.

CONCLUSION

In conclusion my advice to reformers is: Don't dream of or visualize an idealized world as you think it should look; the **shape** of the urban form – dense or dispersed growth; the triumph of a particular **mode** of transport – auto, bus or train; the implementation of a chosen **technology**.

Rather, **re-formulate** the way by which externalities are accounted for – by converting the costs we inflict on others into honest prices which hold the user accountable for these costs. Take care of the poor without subsidizing everyone. Give up the politics of symbolism and good ideas. Recognize the futility of basing public policy on bribery to motivate "correct" behavior.

Create an honest demand and let this demand define the transportation modes, the fuels and the form of urban development which maximize stewardship of our finite resources. And then plan well because now the economic incentives will be the reformer's and the planner's ally.

This discussion has been based on the premise that our traditional approaches to reform and public policy, which I contend are primarily based on subsides and bribery, are intellectually and morally flawed; that the way we traditionally frame the tools of reform with the intent to achieve clean air, a climatically stable planet, less congestion, (i.e. how public policy can influence individual behavior to achieve in aggregate what we desire as a society.) can not possibly achieve these goals.

If I have not convinced you I hope I have at least been disturbing enough to stimulate further thought on these fundamental issues.

ADDENDUM #1

WHAT THE GOVERNOR IS REALLY SAYING:
A COMMENTARY ABOUT OUR TRANSPORTATION DELUSIONS

Maryland Governor Parris Glending wrote these words in an editorial published in USA Today (June 24, 2001, "HOT Lanes are Unfair").

WHAT THE GOVERNOR SAID:

"HOT lanes will encourage more people to drive instead of using transit and will provide an incentive for people to move further away from established communities. . . . Our strategy is to aggressively seek and promote other innovative and environmentally sound solutions, including allowing ultra-low-emission vehicles with solo drivers to use High Occupancy Vehicle (HOV) lanes, which are normally reserved for carpoolers. . . . In Maryland we spend nearly as much on public transit as we do on road construction. It is fundamentally unfair to give wealthy people the opportunity to buy a faster commute."

I selected this statement, not to malign the former governor who no doubt had good intentions, but to illustrate that his policy perspective is so convoluted that it would result in outcomes which he would not desire. I use his words as an example of how policies which have not been subject to the criteria which are advocated in this paper will likely result in increased demands for tax funded resources and which will achieve results opposite to what is expected.

If we approach each issue with a bribery-based mentality reflected in the governor's statement we will not resolve our pressing environmental, transportation and resource challenges. Only when we recognize that our traditional bribery-based public policy is fundamentally flawed ethically will we be able to shift to a policy framework upon which to design and evaluate government interventions which will be productive.

MY CRITIQUE OF WHAT THE GOVERNOR SAID:

(1) All evidence indicates that time-of-day toll roads increase the number of passengers per car. Furthermore, the shift to ride share is achieved at no public cost (subsidy) and avoids a hefty public subsidy necessary to shift a driver or passenger from auto to transit. Most new light rail systems (especially in California) have resulted in an average trip to work which is longer by distance. Furthermore the average transit trip by rail is at least twice as long in time than the average work trip in an automobile.

(2) Solo hybrid access to High Occupancy Vehicle (HOV) lanes results in a windfall to affluent citizens are given access to the most expensive road space because they own a car which they would have purchased anyway. Furthermore this purchase is unlikely to produce improvement in air quality.

a. The primary purpose of transportation investment is mobility. Allowing hybrids automatic access to HOV lanes reduces the capacity of the HOV lanes and reduces the number of **people** moved per hour. This has occurred in both California and Virginia.

The increased delay which occurs when single occupant hybrids are allowed on HOV lanes is a cost. When this cost is factored into the lack of any or significant air quality improvement noted below it is likely that the hybrid permit program produces no benefits and only costs. It is highly likely that the hybrid permit program has increased costs to society as a whole.

b. To my knowledge no calculations were performed to estimate the alleged potential air pollution reductions before the U.S. Congress and the State legislatures approved the hybrid HOV program. In all likelihood there has been no improvement in air quality as a result of this program for the following reasons:

> California's stringent Partial Zero Emission Vehicle (PZEV) standards for new cars come very close to emissions from hybrids. It is likely that a hybrid purchaser would have purchased a PZEV vehicle in the absence of the hybrid product.

> A solo passenger hybrid will produce almost double the air pollution per passenger mile than from a newer model automobile with two passengers.

> An implicit and fallacious assumption is made about the incentive effects of most subsidy-based programs: that no recipients of the subsidy would have changed their behavior, such as buying a hybrid, without the subsidy. Not properly estimating the real incentive effect of subsidy programs is a common dishonesty when the benefit estimates for subsidy programs give credit to the subsidy for all changed behaviors. The actual public cost per unit (such as the cost of achieving the reduced air pollution, reduced energy use etc.) of a subsidy must be increased to account for the fact that the subsidy will not affect the behavior of everyone who receives the subsidy. Most subsidy programs provide benefits to least some people who would have behaved in the desired way without the subsidy.

>When the hybrid program was adopted in California the demand for hybrids was exceeding supply. To assume that the 75,000 consumers would not have purchased a hybrid without the HOV permit subsidy is ludicrous – my guess is that no more than 10% of the hybrid purchases were a result of the free permits. In all likelihood the vast majority of new hybrid owners would have purchased this vehicle without the permit program. In California's case calculations of the incentive effect of the subsidy should not be based on the 75,000 hybrid permits but on, at most, perhaps the some 7,500 hybrids that might have been purchased as a result of the incentive program. This means

that the state gave away free permits to 68,500 new owners and received no public benefit. Conversely it means that the state subsidized 68,500 owners in order to produce 7,500 hybrid purchases. The actual per car subsidy was almost ten times more than if all cars were purchased as a result of the incentive. But in public parlance it is commonly assumed that the program resulted in 75,000 environmentally-friendly car purchases.

c. The hybrid program, typical of most non-means tested subsides gave most of the benefit to the most affluent. Poor people don't buy new hybrids. Affluent people do. HOV road space, because such lanes are in urban areas, is the most expensive of all road space – new HOV lanes will cost a minimum of $10 million per lane mile and probably much more. The hybrid program gave away access to the most expensive road space to the most affluent; it did so in a way which extends the benefit to **all** new hybrid owners (up to 75,000) in order to induce (at most) 10% of the new purchases.

d. And it gets worse. The hybrid permit has increased the net worth of the 75,000 primarily affluent hybrid owners by $4000 to $5000. (This appears to be the value as reflected in the market for second-hand hybrids with a permit). This is so because the permit can be transferred upon sale; with the increased value of a hybrid with a permit accruing to the seller.

(3) One wonders that if the Governor really believes that it is fundamentally unfair to enable a wealthy person to have a faster trip to work (by paying for it) why he would propose the free hybrid permit program which as noted above does just that. Hypocrisy or ignorance? Or lack of an ethical public policy framework based on personal accountability?

Nationwide light rail has received the greatest proportionate increase in transportation funding in the recent past and most studies show that light rail ridership is more affluent than the average population. The same is true of Amtrak ridership. Though there has been an increase in rail passengers over the past few years this is a result of substantially increased investment. The operating cost per passenger mile has increased and the number of passengers per mile of service has declined.

New toll roads have generally been financed primarily by the users. Wealthy or not these users are paying their own way and are not being "given" anything but the opportunity to spend their money. Secondly, especially where toll roads are not an exclusive lane choice, there is evidence that those not using toll lanes benefit from decreased congestion on the public lanes and at a minimum are not inconvenienced in any way. A study in California concluded that compared to using a sales tax to finance new road capacity that a toll road fee is less regressive.

Spending 50% of the state's transportation resources on transit which accounts for less than 10% of market share will assist some riders but there is no evidence that spending more on transit significantly decreases congestion. Taxpayers and auto users subsidize

transit to the tune of 80% to 97% of the real cost per trip. (National Surface Transportation Infrastructure Finance Commission, February, 2008) Exponential increases in funds devoted to transit would have to be obtained to increase transit even another 3%.

WHAT THE GOVERNOR IS REALLY SAID

With the above in mind I will re-phrase the Governor's statement into words which reflect the actual effects of the bribery-based public policy he has espoused.

The Governor's statement:

"HOT lanes will encourage more people to drive instead of using transit and will provide an incentive for people to move further away from established communities."

What he really is saying:

"In Maryland we will adopt an anti-rideshare policy even though increasing ride sharing on a toll road will cost the taxpayer nothing. Instead we will increase public spending to subsidize transit. For those choosing to ride our new light rail systems we will make sure to provide these riders with a work trip which is longer than average in distance and give them the opportunity to spend more time getting to work than the average person who drives to work."

The Governor's statement:

"Our strategy is to aggressively seek and promote other innovative and environmentally sound solutions, including allowing ultra-low-emission vehicles with solo drivers to use High Occupancy Vehicle (HOV) lanes, which are normally reserved for carpoolers."

What he really is saying:

"We will subsidize the most affluent people in our state by giving them a faster freeway trip to work in an HOV lane and a permit which they can sell for $4000. We have designed the program so that everyone who buys a hybrid will get a subsidy even though most new hybrid owners were going to buy one anyway. By signing this bill we will be able to increase congestion on HOV lanes and not improve air quality."

The Governor's statement:

"In Maryland we spend nearly as much on public transit as we do on road construction. It is fundamentally unfair to give wealthy people the opportunity to buy a faster commute."

What he really is saying:

“In Maryland we will not allow a wealthy person (or anyone) to personally pay for the cost of using a toll road even though that will not harm a non-user. Instead we will support ways to subsidize the wealthy by building more rail lines and advocating expansion of Amtrak. It is not that we object to helping the wealthy we just want to make sure that all taxpayers, including the poor, will have a chance to help them out.

We will continue to use funds largely paid by auto users to build facilities used by less than 10% of travelers. As we build additional light rail , heavy rail and extend Amtrak service we can ensure that these passengers will only have to pay 10% of the cost of their ride so that we can maximize the amount that taxpayers will pay for trips which most taxpayers will not take.”