Hoelscher, Michelle

From: Scheppers6@aol.com
Sent: Thursday, December 18, 2008 8:43 PM
To: Committee 2030
Subject: Report Economics

Here is a very big picture economic question that I think could substantially change the assessment of the outcome of the study. Please review carefully, a response on a matter seems appropriate to me. Of course the discretion of the committee and staff can choose not to respond and leave me to my assessment of the quality of the study.

In looking at the draft executive summary report. It appears that the largest benefit identified was the economic benefits of construction (as determined by looking at rural capacity increases, urban mobility details were not provided). I would suggest that such economic activity of construction may exist but such reasoning does not take into account the decrease in economic activity that is necessarily reduced by reassigning resources by taxes and user fees. I point to Frederic Bastiat's work way back in the 1800's that has not been taken into account. Attached is a link to his article.
http://www.econlib.org/library/Bastiat/basEss1.html

It seems unreasonable to go into great detail and attribute great value to all the multipliers of economic construction activity unless the same level of detail is gone into regarding the effect of increase taxes or user fees dividing into the economy.

I would suggest that the appropriate economic treatment should be that economic value be assessed as present value based on return on investment. Unless valid detail studies provide a factor that takes into account both the multipliers of construction and the divider effect of additional taxes and user fees, the base assumption should be that these two effects balance each other out. Mr. Bastiat would probably be disappointed that I would concede to the man of system so quickly but this simple change will get you closer to the appropriate economic analysis.

If you leave the positive economic effect of construction in the study, please provide the justification of how you take into account the negative accounts of taxes and user fees.

Will the complete draft study be made available on the web or sent to me upon request?

I thank your if you take my comment seriously, and work to address citizens concerns and needs for transportation.

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With respect to the 2030 plan, I would like to make the following comments:

1. Having all roads in good or better conditions sounds good in general. Ninety percent of roads in good condition a little less good, but still like a wonderful goal. I would suggest a slightly more nuanced view of having the specific percentage of on system VMT be on good condition roads. This changes the focus from miles of road to character of the miles traveled.
2. However, the tougher question is what is the market value of going from 80% to 85% to 90% of VMT on roads in good condition? Do the costs to go from 80% to 85% to 90% exceed the market value of the increase maintenance levels? What is the current level and what does that cost in market value to the users of the roadway? In summary 90% of roads in good conditions sounds good, but quantitative language would be better to gauged decisions in the form of market value.
3. Doubling maintenance spending seems like a huge increase based on fuzzy words like good.
4. For bridges comment similar comments to the maintenance section apply. What are the market value benefits of upgrading all the bridges so they are not structurally deficient or functionally obsolete? Safety impacts clearly plays into the analysis that I suggest. My concern would be the potential for large cost corrections for minor improvements to functionality or large cost for structurally deficient bridges with minor traffic. My gut sense is that the recommended improvements are close in order of magnitude, but requirement to remedy all likely goes too far. I would however feel much better deferring to a good cost benefit analysis.
5. Providing a specific question to exemplify the issue raised in comment 4: What is the market cost of have a bridge with a 8 foot shoulder versus a 10 shoulder on a freeway facility? The substandard shoulder would make the bridge functionally obsolete, but what are the costs of this facet of obsolescence. Does the cost of upgrading the substandard shoulder exceed the cost currently imposed by the impact of have such a substandard shoulder?
6. With the expect population growth being stated as varying from 7 to 17 million, that being equal to a 30% to 70% increase in population. I would expect that the transportation infrastructure needed growth would vary with population growth. The one simple number is an over simplification. What is the expect population growth used in the model?
7. Based on FHWA Transportation Statistics 12 month moving average nationwide the November 2008 Vehicle Miles Traveled (VMT) for the US is approximately equal to the January 2004 VMT (2.89 trillion VMT). The change in the last year is highly correlated to the higher gas prices. One should also look at the trend line of VMT growth over time and look at the trend growth.
    a. January 83 to January 88 average annual VMT growth 3..8%
    b. January 88 to January 93 average annual VMT growth 3.1%
    c. January 93 to January 98 average annual VMT growth 2.7%
    d. January 98 to January 03 average annual VMT growth 2.2%
    e. January 03 to January 08 average annual VMT growth 1.0%

8. Note the Brookings Institutes "The Road Less Traveled" takes these data and applies population data to determine the per capita VMT is the same as 10 years ago.
9. What is the VMT trend growth assumed in the modeling provided and does it take into account the general trend that VMT growth rate has been decreasing over the past 25 years. I concur that the data I used is not exclusively from Texas, if trend data is available from Texas consideration of that data would be reasonable.
10. The report makes a statement that toll roads are self-sustaining. How does that statement apply to the report? Does that mean that additional cost would be collected from the users that are not shown in the Cost Benefit Analysis for the different options?
11. This is my most important comment. The cost benefit analysis seems highly flawed. It confuses on multiple occasions economic activity and benefits. The report uses the every opportunity to look at the good impacts and avoids consideration of any negative impacts.
    a. When you go to the store and buy a loaf of bread you likely pay a market price. The bread provider likely provides jobs to wheat farmers, truckers, grocers, bakers and those folks in the supply chain likely spend the money that they earn from their services. Given those factors buying a loaf of bread creates a multiplier affect just as claimed for the transportation construction activity in the 2030 report. I see no evidence presented that the multiplier on buy a loaf of bread or any other product is material different than the multiplier applied to construction activity. I would sight Ronald Reagan, Milton Freidman and George Bush who would all think that private spending is more efficient than public spending. Work done by UC Berkeley Economist Christina Romer points to a multiplier of 3 for tax cuts. (I acknowledge that I take the liberty of applying a tax (gas tax, vmt tax or toll) increase as likely the equal negative impact to positive economic activity as a tax cut.) It would be nonsensical to make your bread buying decision with a 3.4 multiplier over the personal valuation because of all the good it will do. Note also that roads are not free and that prices reallocate resources and only if the cost benefit ratio is greater than 1 is any new value create. **Resulting comment:** Economic Activity is inappropriately used in the cost benefit ratios
    b. Here is the gotcha that hopefully will get your attention and compel the committee to take seriously my comments. I suggest that the optimal infrastructure improvement is when the incremental cost is equal to the incremental benefit or the incremental B/C ratio equals 1. With the report's assumed value of economic activity for each dollar of construction there are no amounts of improvements that have a benefit cost ratio lower than 1. It is nonsensical to think that there are no levels of infrastructure spending that go to far and waste resources. I challenge the committee and their technical experts to enumerate the funding level that sets incremental cost benefit ratio equal to 1.
    c. Gotcha No. 2. It does not appear that "maintain the existing system" with no added capacity was not modeled in the work to establish cost benefit

ratios. The report in Exhibit M-8 shows no time savings, no fuel savings, no reduced cost of goods and no increased profitability for 70 billion in investments for the scenario maintain current funding level and yet because the methodology applies economic benefit of construction and associated sales tax still finds a Benefits cost ratio of 3.4. I will not go any further than saying clearly it does not make sense that there are no time saving benefits for 70 billion in investment. But on the multiplier affect I will re-assert the point that such use of the multipliers implies that just digging a hole and filling it up with construction contractors is a good use of public money. In my opinion, it clearly is not.

d. There is an overestimation of cost that should be noted as well. The capital cost shown for mobility is treated as expenses rather than capital investments. For example the money spent in 2029 for infrastructure investments recorded as an expense really has some aspects such as land that don't depreciate and most other physical aspect that depreciate over 20 to 30 year time frame. Clearly the investment made in 2029 will provide benefits far past 2030. It is more appropriate to apply a cost of capital that represents the opportunity cost of not being invested or used otherwise. I suggest that 8.0% rate of return minus 2.5% inflation adjustment to keep the values in 2008 dollars is the appropriate. This would lead to 5.5% interest rate applied to the cumulative total of capital investments. My rough calculation shows a 35% lower capital cost for each scenario applying my suggest methodology.
e. Note also that if PPP or Public toll roads are used significantly different development and operational cost should be considered. I would rank the tax road as least expensive, Public toll roads and next expensive and PPP as the most expensive. The fully annualized costs of these different forms would find very different optimum funding levels based on how much of each mechanism is used. Back the point 10 listed above. I do not oppose PPP or toll roads in principle, but not enough effort has been placed on analyzing the risk to the customer or maximizing the value to the customer. The traveling public never shows up on the chart of risk holders on TxDOT charts of who is holding the risk. The operational and maintenance need to be accounted for in the cost benefit ratios.
f. My guess at the ratios annualized cost including capital, operations and maintenance of these different types:
    i. Gas tax / fee roads - 1.8 times annualized capital costs
    ii. Public toll roads - 2.5 times annualized capital costs
    iii. PPP - 5 times annualized capital costs.

    My point is not that these are exactly correct but that the costs are significant and need to be considered.
g. When considering the benefits to cost of goods the benefits should be based on the net benefit (benefit –cost) and therefore the method used significantly over estimated these benefit because it appears that costs are not accounted for in the calculations. One could also argue that these costs of goods benefits would materialize if other economic activity

produced profits and propagated through the economy and therefore is not usually included in cost benefit relationships.

h. The State Government is only the agent of the People of the State and the risk for both of these groups needs to be considered in developing solutions.
i. One should note the assumed relationship between time and fuel. Was the basis for the time assumption done on behavior of drivers while using fuel? It would be expected that an ordinary market participant would change his value of time by the amount fuel was costing the participant per time. I don't have knowledge of how the value of time was determined for the report, but a clear statement that the value of time was done independent of the impact of fuel costs incurred would be necessary to treating fuel as a separate independent costs. **Resulting comment:** Fuel costs should be adjusted for any overlap with the cost associated with the value of time.

Conclusion:

Great care needs to be taken in over promoting the value of transportation investments. It creates sense in the developers of transportation systems that anything they provide is of value and discourages truly weighing the costs and benefits. It place citizens/customers in a difficult positions when the developers presume that the customers are not well informed of the value they are receiving.

Reference 1:

"Kansas Business Review" Vol 12, No. 3, Spring 1989

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Introduction

At one time, economic multipliers were arcane technical devices used by academic economists; now they appear frequently in the business news, in political discourse, and even on the front page of the local newspaper. The new multipliers reported in this paper are often smaller than previously published multipliers for Kansas, even though the new multipliers account for more effects. They were derived using the Kansas Long-Term Model (or KLTM), a dynamic input-output model under development at the Institute for Public Policy and Business Research. In this paper, I will discuss the significance of the new multipliers, their uses, and limitations.

The range of results is summarized in Table 1. As shown, a typical or median income multiplier is around 0.46; a typical output multiplier is around 1.6; a typical wage-wage multiplier is around 1.9; and a typical employment multiplier is around 1.9. As the table shows, however, multipliers for individual industries can vary over a substantial range. There are several reasons for treating these extreme values with caution.

Multiplier Abuse

It sometimes seems that the bigger a multiplier is, the more often it is quoted.(1) In any case, some distinctly one-sided political and economic motives encourage the propagation of exaggerated multipliers.

In particular, economic multipliers are used to justify public concessions to private industry. Such assistance for business may include land acquisition, new roads and sewers, job training programs, subsidized loans, and tax incentives.(2) The extent of public concessions is determined through bargaining between government and industry, and in the course of the bargaining those who stand to gain most from the new enterprise have a natural tendency to inflate the relevant multipliers.(3)

The inflation of multipliers may stem less from venality than from an innate optimism, which seems to be necessary in the risky business of development. Since multipliers are costly to measure, of uncertain accuracy, varied in their meanings, and multifarious in their origins, a convenient range of multiplier values is always available; discriminating users are free to choose the best values for their purposes.

This paper will add to the low range of multiplier values, rather than to their usefulness to optimists. That is, these multipliers are significantly smaller than those that tend to appear in the press. While they do not approach perfect accuracy, our results do provide good evidence against the routine use of large multipliers.

Reference 2

Economic Competitiveness Transportation Performance measures for Transportation
New York State Paaswell, Peters and Berechman
http://gulliver.trb.org/news/blurb_detail.asp?id=9899

My interpretation: Findings of New York State study find no agreed upon multiplier and in fact encourage specific case studies prior to applying multipliers.