Like many CBO reports it’s a mile wide and inch deep and large portions of the report can and should be dismissed. The report offers various parameters for how a VMT could be designed in terms of which vehicle types are taxed, which roads the tax is applied to and how the tax is collected.

Vehicle types are either all commercial trucks (6 or more tires or a GVW of 10,000 lbs or more); or only tractor-semitrailers. They appeared to choose these 2 options because VMT data for these vehicle types is readily available. The problem is that these options are too broad in the first case and too narrow in the second. A vehicle with 6 tires, for example, would include dual-tire pickup trucks. However, it would be an unreasonable policy to only tax tractor-semitrailers (the RI toll example notwithstanding), so that option should be excluded.

Options for which roads are taxed are Interstates only, Interstates and arterials, or all public roads. Certainly applying the tax to only Interstates would be problematic from both a fairness standpoint and the fact that this would likely cause massive diversion. These concerns are somewhat less problematic in the case of Interstates and arterials, but it would be hard to make a cohesive argument for why local roads should be excluded. The only reasonable argument is that they are not federal-aid eligible. On the other hand, nobody gets a federal fuel tax rebate for travel on local roads. So I think we can assume that the tax would likely apply to all public roads.

The report presents three options for tracking miles: An odometer tax, tracking through RFID (i.e. a transponder-based toll system), and an onboard device (e.g. an ELD or some other GPS based system). The first 2 options should be dismissed. There would be way too much evasion in an odometer-based system without a tracking system for verification. The NY weight-distance tax, for example, has evasion rates of up to 50%. An RFID system would be too expensive. According to a TRB report, limiting this to the Interstate system (3% of the system) would cost $55 billion. So the only feasible option is some sort of on-board tracking device in every vehicle.

Taking these together it’s only worth looking at the report’s analysis of a system that’s applied to all trucks on all public roads using an on-board tracking device. With respect to the design of such a system, the analysis in the CBO report is sparse, some of the data is incomplete or suspect, and it doesn’t address many important questions.

In coming up with revenue estimates, CBO used a simplified rate structure, either charging the same rate on all trucks or having a two-tier system, with different rates for tractor-semitrailers and single-unit trucks. This does not reflect the current federal user fee structure, under which heavier trucks generally pay a higher fee due to lower fuel efficiency and higher heavy vehicle use tax rates. The estimates also assume a baseline 90% compliance rate, without any explanation of how this figure was chosen. The document itself acknowledges that current weight-distance tax evasion rates could be as high as 50%.

Most troubling, it is unclear whether CBO factored collection costs into its calculations. There is some discussion of the Oregon weight-distance tax’s reported cost of $20 per truck, which CBO calculated would translate to a 0.4% collection cost if applied to a federal tax. However, there are several problems associated with making this assumption. First, the Oregon analysis was done in 1996, and is reportedly highly suspect. Second, in order to assume the same costs, CBO would also have to assume that an identical system is implemented at the federal level, and in no way does the report do so. Therefore,
CBO’s report essentially fails to include collection costs, which could be exceedingly high. For example, according to the report, the German truck VMT tax system pays a private company 13% of revenue for administration. The German rate is 19-54 cents per mile, at least twice as high as the rate suggested by this report. Even at the low end, if the German example’s collection costs were applied to the U.S., at a minimum these costs could reduce revenue by at least a quarter. **Taken into consideration CBO’s failure to sufficiently account for collection costs, together with what appears to be an artificially low assumed evasion rate, CBO’s revenue projections are likely overestimated by as much as 50%, and even that could be low.**

There is some discussion in the report which touches on the possibility of using ELDs for tracking truck miles. While there are many reasons for dismissing this option that are not discussed in the report, what is there is sufficient to conclude that this is not an option. Critically, only 28% of CMVs are legally required to be equipped with ELDs. Furthermore, federal law prohibits government agencies from using ELDs for any purpose other than HOS compliance.

The report is effectively a basic literature review of current truck VMT options, and its revenue calculations are at best back of the envelope estimates, with several gaping holes. It raises far more questions than it answers, including:

- What are carriers’ capital and administrative costs?
- How would applying differentiated rates affect agency administrative costs and compliance rates (e.g. based on time of day, real-time congestion levels, type of truck, road type, etc.)? And what effect would these differentiated rates have on freight costs, safety (if trucks changed routes), congestion, supply chain efficiency, labor supply, etc.?
- How would data be protected?
- If VMT fees replaced the diesel tax, how would other diesel powered vehicles not subject to a VMT fee be taxed?

These are just a few of the questions the report failed to answer. The errors I’ve pointed out are based on a fairly surface analysis, and a more detailed analysis would likely find more issues. All in all, the report only serves to illustrate the complexity of implementing a truck VMT program, and how little is known at this point about its feasibility.