

LESSONS LEARNED FROM THE CALIFORNIA ROAD PRICING FIELD TEST

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The way we finance the transportation system has evolved over a hundred years into a surprisingly complicated partnership involving many institutions. The partnership changes continually but works remarkably well despite its complexity. Citizens finance the purchase and use of our own vehicles, and the infrastructure for transit and highways is paid for partly by direct user fees through fares and tolls and taxes on travel; partly by indirect user fees like vehicle registration fees and fuel taxes; partly by general taxes and fees including income, property, payroll, and sales taxes – in some but not all cases approved by voters. There are roles in this complex system for local, regional, state and the federal governments. When we go through legislative hearings and draft bills it all seems like a mess but if you look down from thirty thousand feet it also can look like a brilliantly crafted system that works well most of the time ... sort of.

State and federal motor fuel taxes have for a hundred years been an element of this complex mix of revenue sources and they have had some wonderful characteristics. They are easy to collect, embedded in numerous small transactions and almost unnoticeable to consumers who have no idea that a large part of what they are paying for transportation infrastructure is hidden in the price of gas. MBUFA recognizes that the days are numbered for this huge source of revenue as fuel efficiency and alternative fuels are becoming ever more necessary in the face of global warming.

Because moving from motor fuel taxes to direct mileage based user fees, often just called road charges, is embedded in this complex system, and because the people we are trying to serve have no idea about what we are doing, those of us who are interested in making this happen face TWO huge challenges.

The first challenge, and it is a big one, is making it work technically – with literally millions of moving parts and facing a transition that will take decades. What agency or private firm will actually collect the fee; what hardware and software will be in our vehicles, which vehicles will we include in the earliest

programs, will we charge differently for different classes of vehicles or to use different roads at different times of day, how will we transfer revenues between jurisdictions? As we learned from trials in Oregon, California, and elsewhere, these are all complicated questions, there are few objective answers to them, and there are many opinions about the best courses of action. The road charge trials have pretty much proven that several options are feasible, but some can be much more expensive than others and the options differ in terms privacy, security, and ease of administration.

Without meaning in any way to minimize the importance of this first challenge, my experience in California over several years leads me to the conclusion that the SECOND challenge is really the greater one. The general public and elected officials don't understand or appreciate the complexity of the existing transportation revenue system, don't understand the necessity and implications of the alternatives we're considering, don't appreciate how long the transition from fuel taxes to road charges will take, and repeatedly mischaracterize the programs we are exploring because of their misunderstanding. Here are just four examples of what I mean by misunderstanding and mischaracterization.

First, most people in California when polled did not know how much they pay in fuel taxes, whether those taxes are levied by federal, state, or local governments, what they are used for, or how roads are paid for. And, while the road charge pilot was required by California legislation to be a "revenue neutral" transition from fuel taxes, lay citizens in substantial numbers came before the Road Charge Technical Advisory Committee to testify that they understood road charges were to be added taxes in addition to fuel taxes rather than their replacement. Some argued that rich people would avoid the road charges by driving expensive electric cars when obviously the intent of the transition is in part to capture fees from rich people who drive expensive electric cars and pay no fuel taxes. The public's mischaracterization of what we are about is breathtaking and gives us strong signals that there is a lot of work to be done to inform people of what is actually being considered.

Second, most rural elected officials almost instinctively object to mileage based fees for road use because people in rural areas have to drive more miles

than urbanites and thus will have to pay more. But, at least half a dozen empirical studies have shown that because rural vehicles are less fuel efficient than urban vehicles – think rural pickup trucks versus urban Priuses - it is urban drivers that will have to pay MORE for driving their fuel efficient vehicles under mileage based fees. Despite data that are quite clear, a rural legislator actually said in response to evidence I showed him: "I don't believe you."

Third, fuel taxes greatest weakness is that they are indirect – they do not vary based on which roads we use at which times of day or how much they cost governments to provide or whether or not the road on which we drive is or not paid for by property taxes. Direct road charges can, in contrast, ultimately differ by road class, time of day, congestion level, or class of vehicles. California legislation specified that at least in the short run we must exactly replicate the shortcomings of the fuel tax by charging only one uniform flat rate per mile of driving. We were specifically forbidden to capitalize on one of the most promising features of direct charges and there is widespread concurrence among elected officials that addressing their flexibility in public debates will likely doom road charges rather than lead to their adoption. To to be fair, quite a few proponents of road charges say the adoption of flat fees first may well lead to the later adoption of more varied charges responsive to financial and environmental policy. Their argument is that we shouldn't do too much too soon.

Fourth and last of what could be many more points, California legislators were far more interested in the field trials of direct road charges two years ago than they appear to be now. The state implemented a major fuel tax and vehicle fee increase when it approved Senate Bill 1 in 2017 and then sighed loudly in relief when voters defeated in a referendum a ballot proposition that would have rolled back those increases. Perhaps convinced that the new revenue will solve our problem, perhaps terrified by the effort to repeal the increases – or most likely both - the California legislature and new governor have not mentioned the transition to direct fees much in the last year or two. If we bought some time by raising more revenue by traditional means, that time is critical for testing and building the transition because forecasts show that within a decade we will need to increase revenue again just to keep even with rising costs.

What I take away from observing public debates, election campaigns, voting outcomes, and reading technical reports of the California and Oregon trials is that field trials of direct road user charges are more necessary than I might have imagined a few years ago. Technical research and development is of course necessary, but field trials are central to addressing BOTH of these challenges and the educational function they serve may be the more important.

Because of the technical complexity of information collection, storage, and billing and payment systems, field trials reveal what works and where there are hidden pitfalls that we find difficult to anticipate. But most of us, even I, understood that when we started with the very first field trials.

Even more importantly - this may have been obvious to many of you though I only came to realize gradually over time - is that field trials are enormously important because they inform the public and elected officials about what a full-fledged system of direct road charges may actually be like in the future. Experience and familiarity leads them to be more accepting of the concept, and that leads to more informed positions about the options even when opinions differ. This is really important. One of the very most important outcomes of the California field trial was that, when they were surveyed after the trials, a huge majority of the participants reported that direct road user charges seemed a completely appropriate way to charge for road use, though prior to the trials a majority of Californians – not the same people – thought the concept was not worthy of their support.

I'm reminded of what happened in Stockholm with congestion pricing. A candidate for Mayor proposed congestion pricing to alleviate peak hour congestion and there was quite a lot of push back. She persisted and eventually there was agreement to try it for some months and then remove it. After that, a referendum was held and the citizens voted by a narrow margin but a clear majority - to bring back congestion pricing which is now in place.

I'm often asked what I've learned from serving on the California Road Charge Technical Advisory Committee and from doing research on potential future road charges. My answer is that direct road charges are a necessary to the future of transportation finance. I learned how huge the gap is between those of us inside these programs and those of us outside of them who think we are crazy

or out to cheat them or that it will never work. The lesson learned from the trials is that we need more and bigger field trials of many sorts in many locations to prove that the technology works and to improve the data security and privacy measures. But, the field trials are needed even more because they familiarize, educate, inform, and gradually win the acceptance of a skeptical, distrusting public and their super cautious elected representatives.