

Pay as You Drive Insurance – a Cheap Way to Slow Global Warming

People can be given a substantial incentive to reduce driving simply by changing the way insurance is billed, at no cost whatsoever to the average driver. People currently buy car insurance on an “all you can eat” basis. No matter how much they drive, they pay pretty much the same amount for auto insurance. (Some insurers offer modest low mileage discounts, but these discounts are generally small relative to the cost of the policy.) Therefore, drivers have little incentive to take into account the cost of their insurance when they decide whether to drive their car.

In fact, the risk of an accident does increase if people drive more miles. This means that insurance would more accurately reflect risk, if the price of an insurance policy was proportional to the number of miles driven. In other words, people who drive twice as many miles would pay twice as much for insurance. Switching from the current “all you can eat” insurance pricing to a pay-by-the-mile system would also have the advantage that it would give people a strong incentive to avoid driving.

The average insurance policy costs around \$900 a year. Since the average car is driven 11,000 miles a year, the cost per mile would come to about 8 cents on average. The charge per mile could still vary in accordance with factors that insurers currently use to assess risk such as driving history, age, employment security etc

If people were billed for their insurance at the rate of 8 cents per mile driven, it would provide the same incentive to drive fewer miles as a \$2 per gallon gas tax for a car that gets 25 miles per gallon. For example, someone who faced a 50 mile round-trip commute could effectively save \$4 on their insurance if they arranged to car pool or some other form of transportation, instead of driving to work. The change in incentives from shifting to pay as you drive insurance would reduce miles driven by almost 10 percent annually.¹

Unlike a gas tax, there would be no increase in costs at all, on average. (Actually, average costs should fall, because less driving would lead to fewer accidents.) High mileage drivers will pay somewhat more for their insurance, low mileage drivers will pay somewhat less.

States can help foster a switch to pay as you drive insurance [PAYD] through a variety of measures. The most obvious would be a modest subsidy to insurers (e.g. \$100 to \$200) for each PAYD policy issued. This would almost certainly be a relatively small expenditure, since there would be no need to offer the subsidy if a very large segment of drivers opted for PAYD policies.

Also, market logic should lead a switchover from standard policies to PAYD policies once PAYD policies gain a foothold. The reason is that PAYD policies will be most attractive to low mileage, relatively low risk drivers. If these low-mileage drivers leave the standard pool and switch to PAYD policies, then the price of standard insurance

¹ (I. Parry, 2005, “Is Pay-As_You-Drive Insurance A Better Way To Reduce Gasoline Consumption Than a Gas Tax,” [<http://www.rff.org/documents/RFF-DP-05-15.pdf>]

policies will rise, since the average driver will in the standard pool will now be a higher mileage, higher risk driver. This would cause more relatively low mileage drivers to leave the standard pool, leading to further increases in insurance rates. Eventually, the standard pool would only have the highest mileage and highest risk drivers causing standard policies to be very expensive.

States could take other steps to facilitate PAYD policies. They can increase penalties for tampering with odometers, since this would presumably be the main mechanism for assessing fees. (Some insurers are experimenting with electronic trackers – these are more accurate, but raise privacy issues.) States could also transmit odometer readings that are part of annual or biannual car inspections to insurers. States could even require that all policies be PAYD in the extreme case.

States could also assess car registration fees on a per mile basis. This would be a small additional incentive to discourage driving, with fees averaging a bit less than \$100 per year, the per mile fee would come to around 0.8 cents a mile, the equivalent of a 20 cent per gallon increase in the gas tax for a car getting 25 miles per gallon. Since pay-as-you drive car registration fees would require collecting data on driving, this also could be passed on to insurers.

There would be some distributive impacts in this switch, but it is not clear whether it would make insurance costs more or less progressive. Higher income people tend to drive more miles, but miles driven is not proportionate to income. However, high income people also tend to have more expensive cars, which are more costly to insure. It is not likely that the net distributional effect of this change would be very larger in either direction.

PAYD has received considerable interest around the country. For example, California is considering legislation (with the support of Governor Schwarzenegger) that will facilitate PAYD insurance policies. Oregon passed a law providing subsidies for PAYD insurance policies two years ago. There is currently a large pilot project in place in Washington State that was sponsored by the Department of Transportation.

On net, PAYD is a relatively painless way to quickly achieve substantial reductions in emissions and gasoline consumption.