

# Victoria Transport Policy Institute

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"Efficiency - Equity - Clarity"

## Pay-As-You-Drive Vehicle Insurance

### Summary

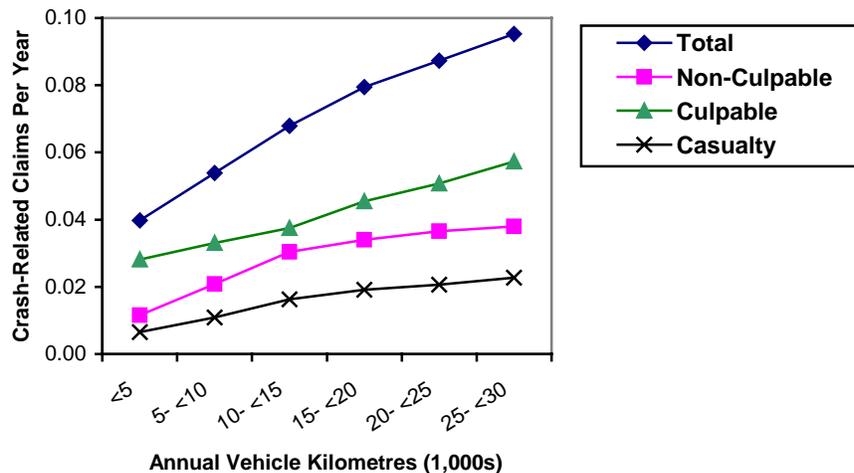
3 October 2005

#### Description

*Pay-As-You-Drive Insurance (PAYD, also called Distance-Based Vehicle Insurance, Mileage-Based Insurance and Per-Mile Premiums)* means that a vehicle's insurance premiums are based directly on how much it is driven during the policy term. The more you drive the more you pay and the less you drive the more you save. Existing rating factors are incorporated so higher-risk motorists pay more per mile than lower-risk drivers. For example, a \$375 annual premium becomes 3¢ per mile, and a \$1,250 annual premium becomes 10¢ per mile. An average motorist would pay about 6¢ per mile.

Research indicates that within existing price categories, annual claims increase with annual vehicle mileage (Figure 1). Mileage is just one of several factors affecting crash rates. It would not improve actuarial accuracy (how well premiums reflect claim costs for a particular vehicle) to use mileage *instead* of other rating factors, for example, to charge all motorists the same per-mile fee, but accuracy improves significantly if annual mileage is incorporated *in addition* to existing rating factors, as with PAYD pricing.

**Figure 1** Crash Rates by Annual Vehicle Mileage (Litman, 2001)



*Crashes per vehicle tend to increase with annual mileage.*

Pay-As-You-Drive can be optional, so motorists choose the price structure they prefer, just as consumers choose different rate structures for telephone and Internet service, and between al-a-carte and all-you-can-eat restaurant pricing. By providing a new opportunity to save money, PAYD insurance typically reduces affected vehicles' annual mileage by 10-15%.

## Why PAYD

Pay-As-You-Drive pricing can provide many benefits:

- Increases insurance affordability, by giving motorists a new opportunity to save money. It allows motorists to choose the insurance price structure that best meets their needs.
- Benefits lower-income households, because they tend to drive their vehicles less than average.
- Reduces crash risk to all road users by giving motorists, particularly higher risk drivers, a new financial incentive to reduce their mileage and therefore accident exposure.
- Reduces traffic and parking congestion, and roadway costs.
- Reduces per capita fuel consumption and pollution emissions.
- Increases fairness, by making the premiums better reflect the insurance claim costs of each individual vehicle.
- It reduces the need for cross-subsidies currently required to provide “affordable” unlimited-mileage coverage to high-risk drivers.

## Responding to Misconceptions About PAYD

*“Other rating factors are more important than mileage, so PAYD is unfair.”*

Untrue. Because PAYD includes other risk factors in addition to mileage, it makes premiums more accurately reflect the claim costs of individual vehicles.

*“Most motorists would pay more.”*

Untrue. PAYD gives consumers a new opportunity to save money by returning to individual motorists the insurance cost savings that result when they drive less. Motorists who continue their current mileage are no worse off on average, while those who reduce their mileage save money.

*“Suburban and rural residents drive more and would pay more with PAYD.”*

Untrue. Because PAYD rates incorporate territory factors, suburban and rural residents would only pay more if they drive more than average among suburban and rural motorists.

*“It is a radical change that requires expensive vehicle tracking technology.”*

Untrue. Several insurers now offer PAYD pricing. Although some early programs used vehicle-tracking technology, current systems simply measure total vehicle-miles during the policy term.

## For More Information

Aaron Edlin, *Per-Mile Premiums for Auto Insurance*, Department of Economics, University of California at Berkeley (<http://emlab.berkeley.edu/users/edlin>), 1999.

Laura Kramer, “Pay As You Drive Insurance,” Auto Buying Advice (<http://autoadvice.about.com/od/insurance/a/PayAsYouDrive.htm>), 2005.

Todd Litman, “Distance-Based Vehicle Insurance as a TDM Strategy,” *Transportation Quarterly*, Vol. 51, No. 3, Summer 1997, pp. 119-138; available at [www.vtpi.org/dbvi.pdf](http://www.vtpi.org/dbvi.pdf).

Todd Litman, *Pay-As-You-Drive Pricing For Insurance Affordability*, Victoria Transport Policy Institute, 2004; available at [www.vtpi.org/payd\\_aff.pdf](http://www.vtpi.org/payd_aff.pdf).

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