



**REPORT EXTRACTS RELATING TO THE RECOMMENDATION  
FOR  
INSURANCE PREMIUM TAX RELIEF  
ON  
TELEMATICS MOTOR INSURANCE FOR YOUNG DRIVERS**

*In order to meet Treasury's consultation timetable for budget proposals, the RSF is releasing extracts from its wide review of road safety strategy to be launched in Parliament on November 3<sup>rd</sup> 2014.*

**SUMMARY**

**Young Drivers**

Road crashes are the leading cause of death and life changing injury amongst young people. In 2012, 32,400 reported crashes involved drivers under the age of 25 which resulted in 350 deaths and more than 4,100 seriously injured casualties. Once a young person passes their test and starts to drive without supervision, they are at their most vulnerable. They have yet to develop the foresight and experience to reliably read what is happening on the road ahead and negotiate potential hazards.

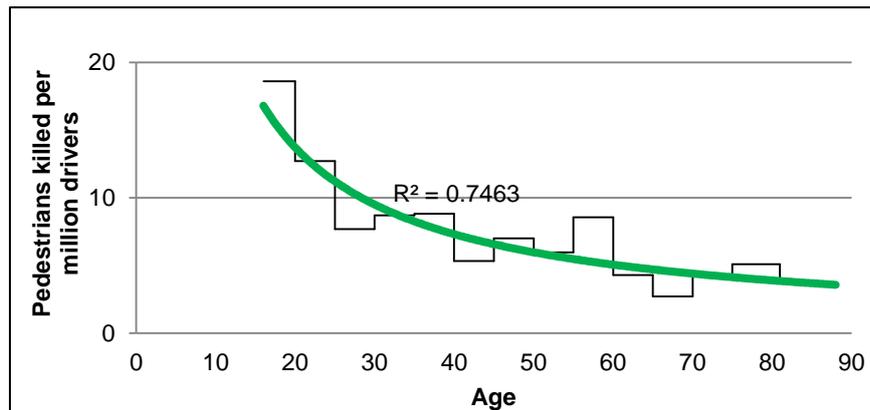
Young drivers, particularly males, are prone to take higher risks and commit more offences. The challenge is to create policy initiatives that incentivise all young drivers to choose to drive safely, detect and penalise those who choose not to, and reward the majority who strive to stay safe.

Currently, safety conscious young drivers and their families are faced with annual insurance premiums of £2,000 or more, largely in order to cover risk from a minority of unsafe young drivers. Telematics insurance has emerged in Britain as a significant new force which allows information to be monitored on how well a vehicle is being driven. This option is now offered by all major insurers and some 20% of young drivers (or their parents) choose it. Telematics insurance not only permits lower insurance costs but provides engaging, positive feedback. Where parents are paying the premium it can also provide reassurance - or an early warning.

A package of measures to support young driver safety should help incentivise the take up of telematics insurance and introduce other small, low cost improvements.

***The Government should introduce a zero Insurance Premium Tax (IPT) rate for insured vehicles fitted with a telematics unit for drivers under the age of 25 to signal societal support and defray the high cost of installing and operating telematics insurance. This rate should be maintained for a minimum period of 7 years until the telematics insurance market is mature.***

**Figure 3.3: Involvement of Pedestrians in Crashes by Age (2012)**



### **Young Driver Risk**

Road crashes are the leading cause of death and life changing injury in young people. Box 3.1 gives key statistics including the greater risks and greater number of offences involving male drivers.

Turning seventeen marks an important step towards personal freedom for many young people when they can apply for their provisional driving licence and learn to drive on public roads. In 2010/11, more than 40% of all 17 year olds both applied for a provisional licence and went on to take the theoretical test at age seventeen notwithstanding the global financial crisis.

During the learning period of supervised driving tuition and practice, learner drivers are at their safest. However when they pass their test and begin driving solo as novice drivers, they are at their most vulnerable. In their early solo post-test driving novice drivers have not developed the foresight or experience to read reliably what is happening on the road ahead, or to identify and negotiate potential hazards that are approaching or even on top of them. In the first few days, weeks and months of driving solo, novice drivers make mistakes. Most learn quickly from their experiences and their accident risk diminishes.

### Box 3.1: Young drivers<sup>a</sup> and novice drivers<sup>b</sup> facts

- Road crashes are the leading cause of deaths and life changing injuries in young people
- 8% of full driving licence holders are young drivers. On average they drive about half the distance of older drivers and their fatal crash rate is five times that of 40-70 year olds
- In 2012:
  - 32,400 reported crashes involved drivers under 25 and resulted in 350 deaths and more than 4,100 seriously injured casualties;
  - 63% of all drivers under 25 killed or seriously injured were male
  - Male young car drivers in crashes were more frequently cited by police as 'Exceeding speed limit' and 'Travelling too fast for conditions' than women
  - 80% of passenger casualties of young drivers were aged 15-24
  - Around 14% of serious crashes occurred overnight between 8pm and 4am on Friday/Saturday and Saturday/Sunday; 4% of young drivers were cited as "impaired by alcohol" compared with 2% of older drivers
  - 80% of young drivers cited by the police as 'impaired by alcohol' were male
- Research carried out for the Road Safety Foundation<sup>1</sup> observed young male drivers with male passengers drive faster than when alone and slower carrying females
- 23% of novice drivers who pass their test between the ages of 17-19 have been involved in at least one crash in their first year of driving compared with 12% who are over 25
- 38% of cars driven by male novice drivers aged 17-19 in serious crashes carried two or more passengers, compared with 16% for drivers 25-29 (see reference 4)
- Many young drivers have received three or six penalty points. Analysis by RSF showed that there were typically 3 times of more men with points than women at ages 17-19.
- The pattern of offences by gender mirrors the higher involvement of novice male drivers in death and injury on the road

#### Definitions:

<sup>a</sup> Young driver – driving test passed and aged between 17 and 24

<sup>b</sup> Novice driver – young driver with less than two years post-test driving experience

## Improving the Safety of Young Drivers

The challenge is to focus on policy initiatives that incentivise all young drivers to choose to drive safely, detect and penalise those who choose to drive recklessly (or without a driving licence) and reward the majority who strive to stay safe. Below we examine three initiatives aimed at increasing the safety of novice and young drivers that represent latest thinking and technology.

### Telematics based car insurance

Currently, safety conscious young drivers and their families are faced with annual insurance premiums of around £2,000<sup>2</sup>, in order to cover risk from a minority of unsafe young drivers. Telematics insurance enables driver behaviour to be monitored and information on how a vehicle is being driven to be transmitted to insurers. This offers the chance for much lower and affordable

<sup>1</sup> McKenna et al (1998) Male and Female Drivers – How Different Are They?

<sup>2</sup> Based on an average premium of between £1,000 to £2,000 for 17 year olds. Source Towers Watson and Confused Price Index and AA British Insurance Premium Index Q2 2014.

premiums to be awarded quickly to young safe drivers while financially penalising those who engage in unsafe driving behaviour.

Telematics technology not only provides young people with a financial incentive to drive safely, it provides opportunities to feedback and monitor their driving abilities and can provide an early warning for parents.

### **Box 3.2 Telematics Based Insurance<sup>9</sup>**

In-car black box technology measures the forces induced by braking, cornering, speed and acceleration in real time. Proprietary algorithms, or algorithms tailored for underwriters by market leading traffic safety companies, can differentiate how a vehicle is being driven.

The in-car unit can know the GPS location (i.e. road section) as well as time of day. Insurance companies use and interpret the data in different ways and collect very different volumes of data. Whatever the algorithms used, drivers who agree to have their day-to-day driving measured in real time by the black box can earn insurance discounts which reward them for safe driving.

At least fifteen insurance companies offer telematics based insurance in Britain. All major insurers have some form of telematics offering and it has quickly become a familiar feature of the insurance landscape for young drivers with new brands such as Ingenie and iCube. By mid-2013, industry sources suggest there were 300,000 active telematics policies. In terms of general motor insurance, these numbers are small but they account for more than 20% of all under-25s policies. Industry sources also suggest that in 2014, telematics based policies could reach around a quarter young drivers.

### **Box 3.3: Telematics Insurance Case Study - Ingenie**

- Ingenie was developed as a firm proposition from 2009 and launched on the market in 2011 for 17-25 year olds.
- Using only social media marketing, it offers initial insurance which it believes is 30% cheaper than conventional insurance. Its pricing still reflects postcode, occupation and vehicle and engine size.
- Pricing does not include time of day factors – in particular, the proprietary risk evidence does not support weighting driving at night.
- 80% of the market is under 21's, mainly students.
- Policyholders get immediate feedback on their driving via a phone app with twitter-like feeds. Engagement is high – 93% of policyholders check regularly how their doing.
- Ingenie offers quarterly adjustments to premiums – 70% of policyholders earn discounts of up to 20% and a no claim bonus is offered for the second year so policies can be 50% cheaper than the starting premium after 12 months.
- Over 300 proprietary algorithms are used to profile driving, risk and feedback.
- The aim is positive mentoring while those that continually ignore warnings see upward adjustments in premiums - up to 10%.
- The very small minority who commit “licence losing events” are contacted and counselled and can respond well; less than 1% of all policyholders are refused further insurance.
- Ingenie reports a reduction in catastrophic claims and losses “significantly” smaller than usual for the 17-25 age group which some will not insure.
- The telematics experience to date includes a reduction in fraudulent claims with 90% of stolen insured vehicles recovered within two hours.

Today, price comparison websites typically offer telematics products as the most competitive offer for under 25s with a typical 30% discount over the cost of conventional insurance (as the cheapest route to mandatory motor insurance, it also means the offering is likely to be appealing beyond those who choose to drive safe safely). A reduction in average claims cost of more than 25% is being reported by telematics insurers. The costs of providing telematics based insurance will fall if there is rising volume. Public policy needs to address how financial incentives can work to accelerate the introduction of this innovative technology which has high potential for further social and economic returns.

Encouraging and rewarding safe driving through real time monitoring of driving performance is a 21<sup>st</sup> century solution to the young driver safety problem. Incentivising its development and take-up has enormous road safety potential. However, currently, the costs of operating telematics systems are significant and are only cost justified for high risk groups with high premiums. Insurers need to be encouraged to continuously improve the engaging feedback to young drivers.

#### **Box 3.4: Telematics and Privacy**

The most obvious downside of telematics insurance is that it requires some sacrifice of personal privacy. This is a much wider issue than telematics insurance. As technology advances, our personal data is used in new ways, some clearly good and some more doubtful. We face these issues daily as we shop online and give our information to hundreds of bodies and organisations - the NHS, supermarket loyalty cards, Facebook, Twitter.

We sacrifice personal data for sometimes big and often trivial advantage. Telematics insurance can be argued to be among the most benevolent in this respect - it helps save lives, disabling injury and significant sums of money. It helps young drivers gain sound skills for life. Contracts are freely entered into with regulated companies.

The young are the least concerned about the privacy issues and some do not even 'get' the issue.

A tax incentive for using telematics insurance would not only help offset the operating cost and continuing development of the technology, it would permit public policy messaging and commercial marketing to raise awareness of the benefits of telematics insurance.

All motor insurance policies are currently subject to 6% Insurance Premium Tax. Zero rating the tax for telematics policy holders under 25 years old would send out a clear endorsement to parents and young drivers of the product and support the reduction of high installation and operating costs. The tax incentive proposed has a benefit cost ratio of over 3 (see Annex3. 1).

#### ***What should be done?***

The Government should introduce a zero Insurance Premium Tax (IPT) rate for insured vehicles fitted with a telematics unit for drivers under the age of 25. Telematics cuts insurance costs for the majority of young drivers who choose to drive safely. It provides engaging encouragement on safe driving and cuts crash rates. A zero IPT rate will help cover the high cost of installing and operating telematics insurance and signal societal support. The zero rate should last for a minimum 7 years until the telematics market is fully mature.

## ANNEX 3.1: INDICATIVE COSTS AND BENEFITS FROM IPT RELIEF FOR TELEMATICS INSURANCE

### Treasury Revenue Forgone

Assuming or taking:

- the current volume of telematics policies at 300,000 (of approximately 20m motor insurance policies in the UK market);
- of these 300,000, approximately 250,000 (20% of segment) are under 25 year olds, of a total under-25s market of 1.25m;
- there would be a natural market growth of 40,000 telematics policies per annum;
- the VAT exemption will encourage marketing activity based on the tax relief and societal approval, which will induce an additional annual growth of 35,000 additional under-25 telematics policies per annum (see note below);
- an average telematics insurance premium of £1,000;
- IPT rate at 6%,

then:

- the gross cost of the tax incentive to Treasury in lost IPT in the first year would be  $£1000 \times .06 \times (250,000 + 75,000) = £19.5m$ ;
- we would expect there to be 245,000 additional policies in place induced by the tax relief and associated marketing after the 7th year;
- lost IPT would rise to £46.5m in the 7th year with 775,000 under-25s policies in place (i.e. broadly two thirds of under-25s (62% penetration)).

**Expected total lost IPT over 7 years = £231m.**

### Reduction in road crashes

Assuming or taking:

- serious crash reduction of 30% for telematics policy holders;
- under-25s account for 22% of 20,000 serious crashes annually;
- the policy induces and retains an additional 35,000 policy holders in year 1 and 245,000 in total by year 7,

then, in year 1 we would expect a reduction of 37 serious crashes ( $20,000 \times .22 \times .3 \times 35,000/1,250,000$ ).

By year 7 this would be 259 (20,000 x .22 x .3 x 245,000/1,250,000). On the normal ratios, this means a reduction of 2,590 personal injury crashes per annum by year seven and 25,900 damage crashes.

### Cost savings

Taking:

- £0.4m as the average cost for a serious crash causing death or serious injury (this assumes that serious crashes involving young people are no more than expensive than the average notwithstanding longer long term care costs);
- all slight injury and damage crash costs equal to serious crash costs,

then it would be reasonable to expect the economic cost in year 1 saved to be £30m (37 x 0.4 x 2) and in year 7 is £207m.

**The total cost saved is £829m.**

### Net Present Value based on Treasury discount rate of 3.5%

- Present Value of Costs is £199m
- Present Value of Benefits is £699m
- Saving to economy is £500m
- Benefit Cost Ratio is above 3.

Year	Total	Policies					
	Policies	Lost IPT	Induced	ksi saving	Benefit	PVC	PVB
1	325,000	19.5	35,000	37	30	19	29
2	400,000	24	70,000	74	59	22	55
3	475,000	28.5	105,000	111	89	26	80
4	550,000	33	140,000	148	118	29	103
5	625,000	37.5	175,000	185	148	32	125
6	700,000	42	210,000	222	178	34	144
7	775,000	46.5	245,000	259	207	37	163
	<b>TOTAL</b>	<b>231</b>			<b>829</b>	<b>199</b>	<b>699</b>

### **Note**

*All assumptions used in this Annex are those of the Road Safety Foundation. Some estimates have been derived from non-attributable industry sources and the Foundation has endeavoured not to rely on a single source where this has occurred.*