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# IFoA PPO Working Party

## An update

Peter Saunders, Chair IFoA PPO WP  
Lydia Rhodes, Lloyd's  
Fiona Annandale, PWC

GIRO 2016, Dublin

# Working Party Progress



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## Survey

- YE 2014 report published. YE 2015 presented here

## Information Paper

- Published awaiting BAJ review, Sessional meeting held

## Mortality

- No longer able to access data – trying to use Big data projects

## BI Classification

- Please continue to use it – for PPO and non PPO

## BI Almanac

- Presented here - website

## Reinsurance

- Work ongoing

## Market Solutions

- Presented earlier

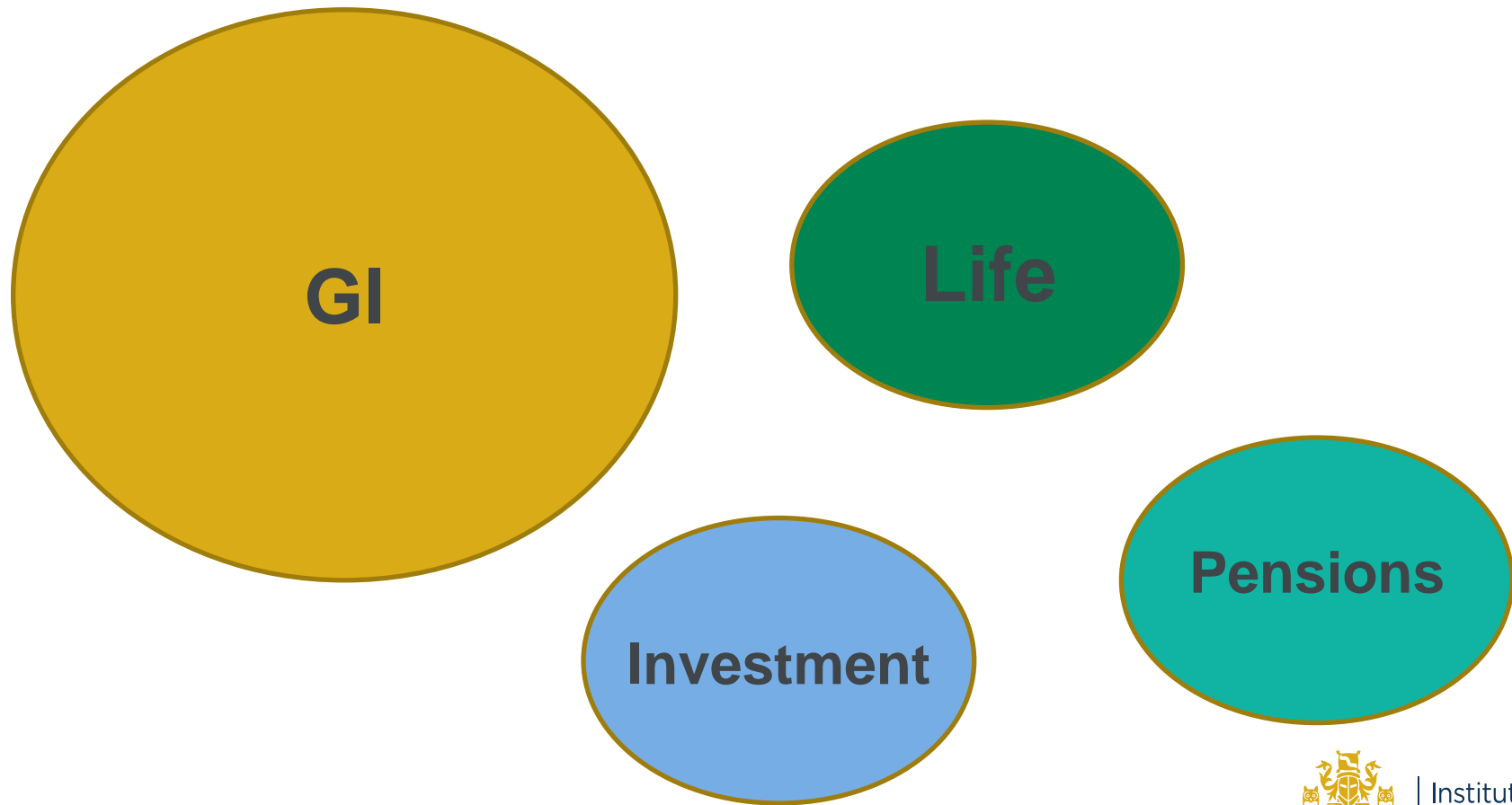
## Capital

- Work ongoing

## Index Paper

- Nearly complete

# Working Party Make up





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# PPOs – we’ve got a graph for that

Peter Saunders, Chair IFoA PPO WP  
Lydia Rhodes, Lloyd’s

GIRO 2016, Dublin

# Agenda

## Introduction



- What data are we looking at? How is the current analysis progressing?

## Propensity



- Most recent PPO propensity analysis

## Motor/Liability



- The headlines from the most recent Motor and Liability analysis

## Reserves



- The headlines from the most recent analysis of PPO reserves

## Going Forward



- What's next? How are we updating our analysis?

Questions

Comments



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# Introduction

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# Survey Introduction

- Thank you to all our contributors!
- By a larger proportion of you using our injury and care regime categorisations we intend to produce more in-depth results



# Survey Introduction

- Data taken as at 31 December 2015
  - The current batch of data covers more insurers than ever before
  - >90% of PRA-regulated market
- Hope to make the 2016 analysis the most comprehensive to date
- Quickening the analysis of the data to enable us to produce report within a shorter time frame
- Looking to expand on our current analysis and produce a more succinct offering through the IFoA
- None of the following analyses contain MIB PPOs or Large Claims







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# We've got graphs for propensity...

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# PPO Propensity

- Please note, all of the following propensity graphs involve Motor large claims from 2008 onwards ONLY, unless otherwise stated

## Large claim size

- Large claims are defined as losses  $>£1\text{m}$  in 2011, using a 7% inflation assumption and with PPO's valued using a 2.5% Discount Rate

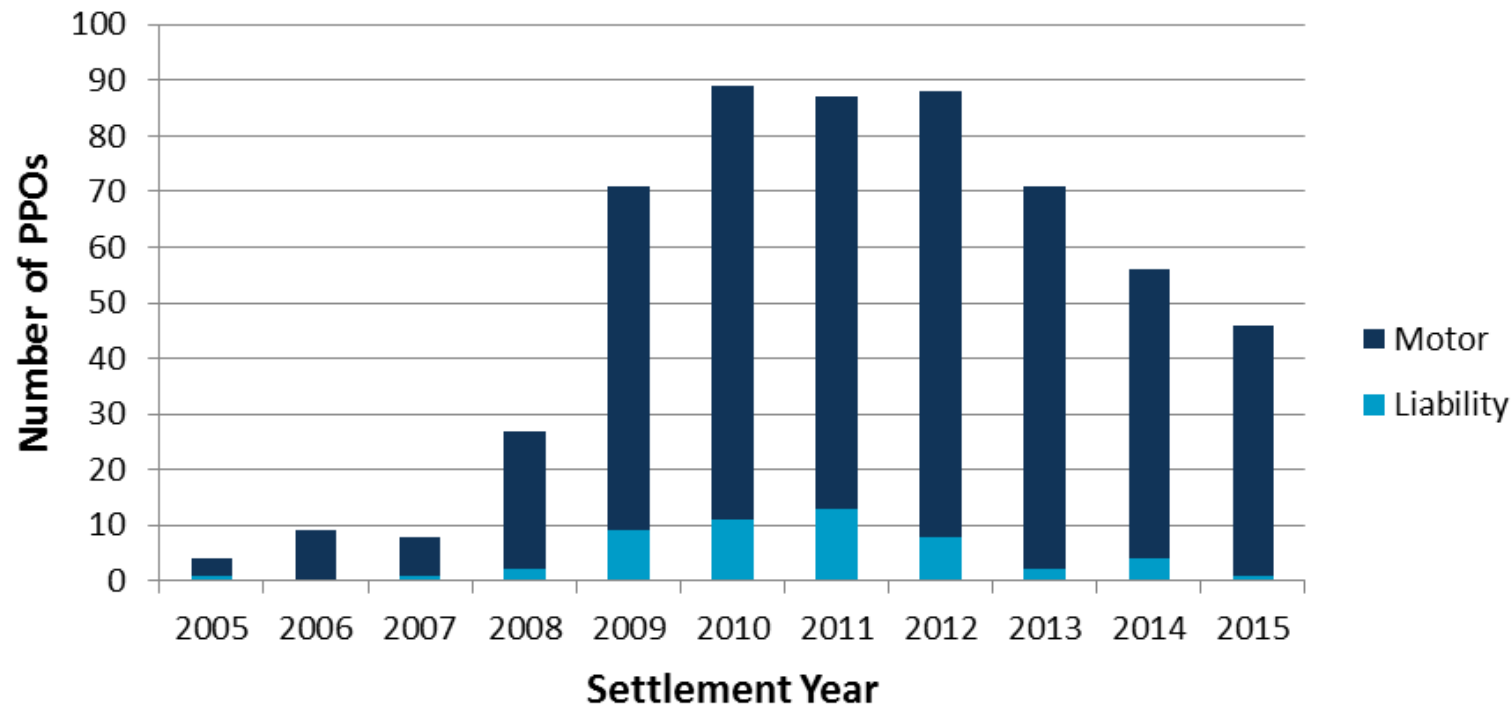
## Caveat

- All graphs and results presented are draft and therefore subject to change



## Number of PPOs has fallen third year in a row

### Number of PPOs by Settlement Year



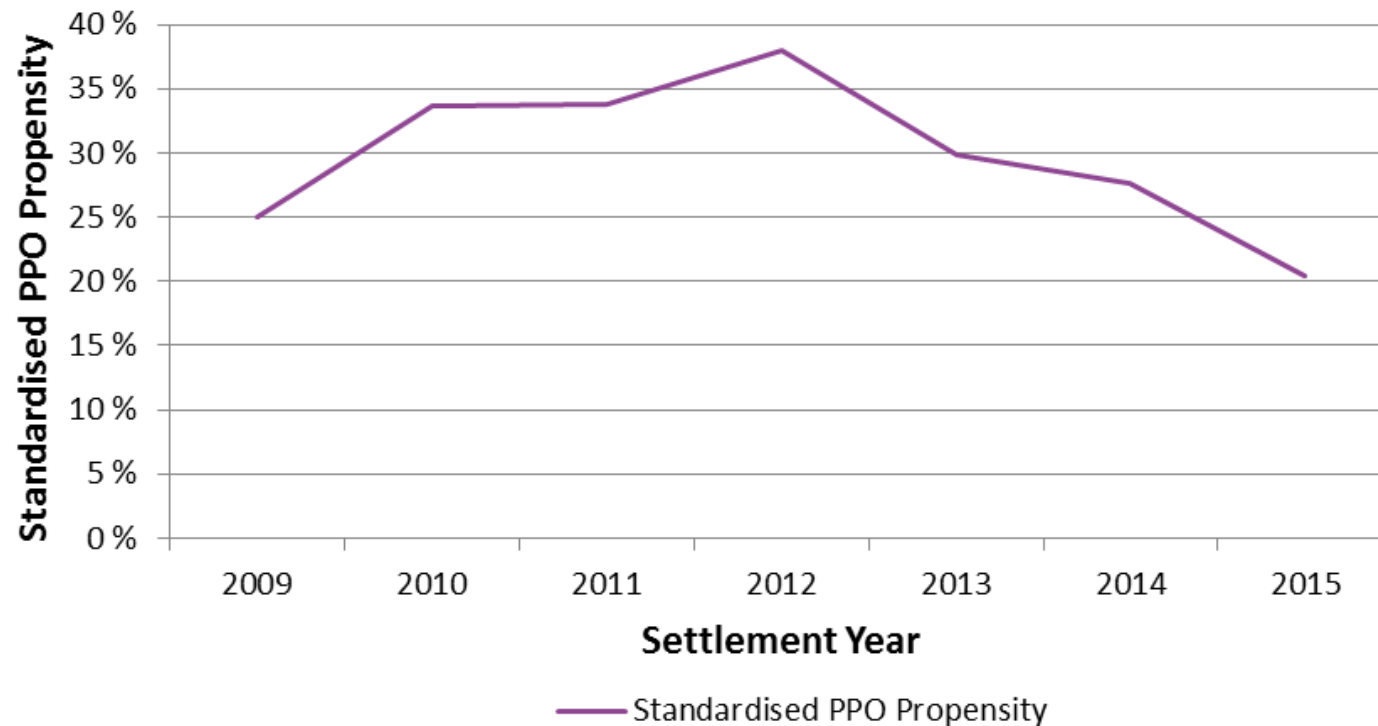
**Caveat: All graphs are draft and subject to change**



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# Standardised Propensity is down for 2015

## Standardised PPO Propensity by Settlement Year

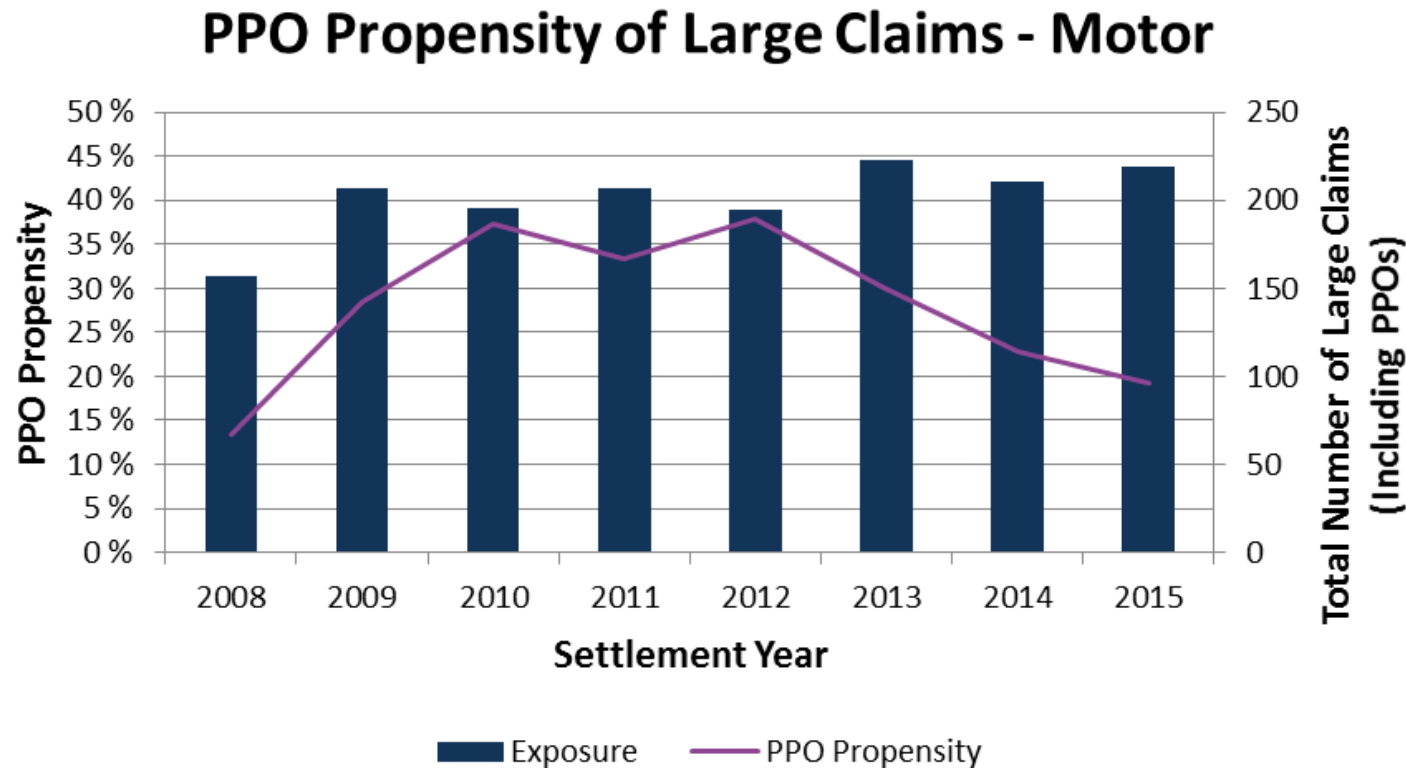


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## Non standardised PPO Propensity is down also

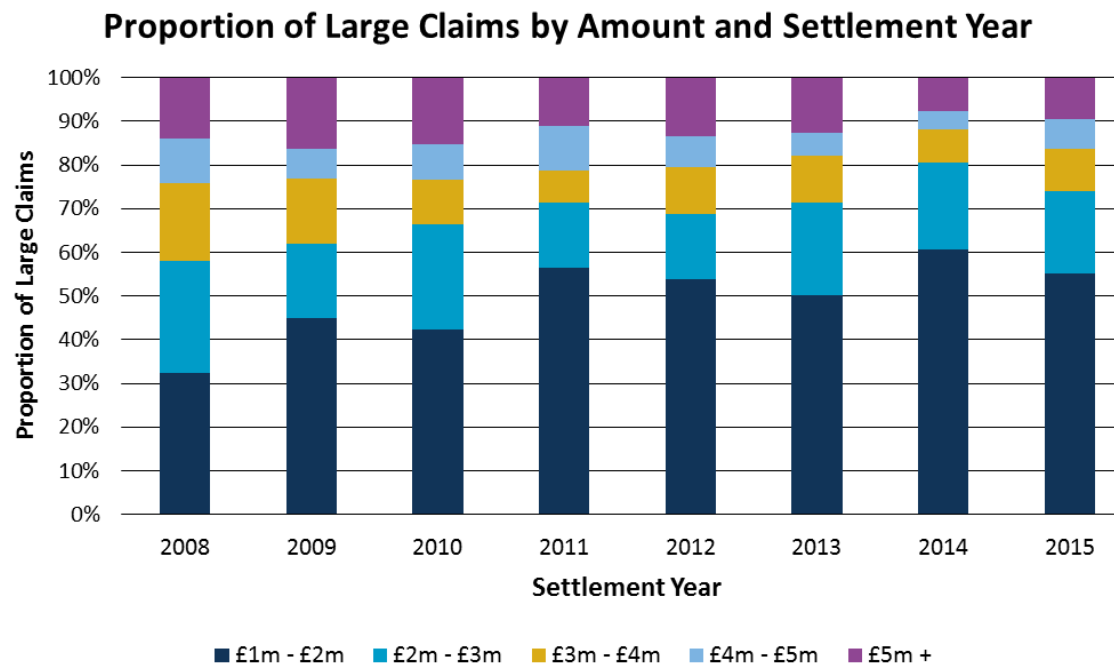


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# Proportion of Large Claims



- The proportion of claims between £1 million and £3 million actually fell by ~7% from 2014 to 2015

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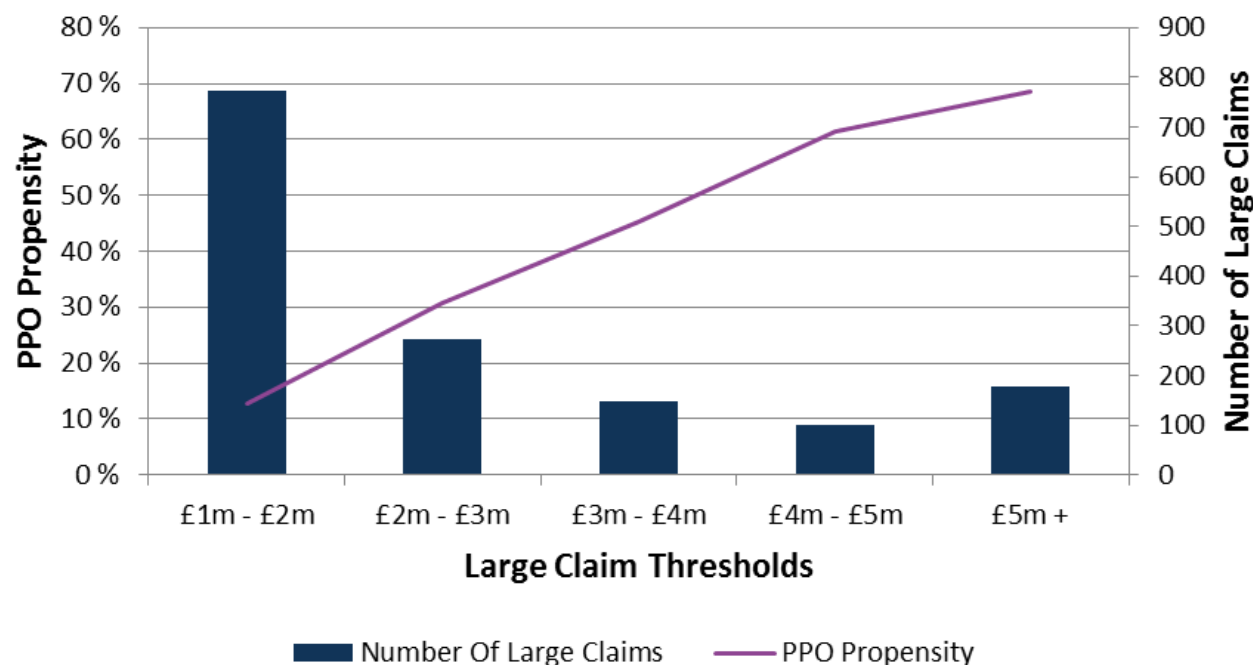
# Why are the Number of PPOs Dropping?

- Reasons that have been highlighted in previous presentations which may still be applicable are:
  - Insurers' claims management behaviour
  - Claimant appetite
  - Old stock clearance
- Other reasons may include:
  - Discount rate consultation: As consultation asked whether risk free rate was appropriate for a claimant taking lump sum and whether more should be done to prevent PPOs, are individuals taking a lump sum now rather than a risking a higher discount rate?
  - Late data: previously some of the most recent PPOs haven't been included in data collections. However we believe this not to be an issue for this review
  - Note: 2014 has not increased as a result of the 2015 year-end update



# Propensity by Large Claim Threshold

PPO Propensity at Different Large Claim Thresholds - Incremental Thresholds



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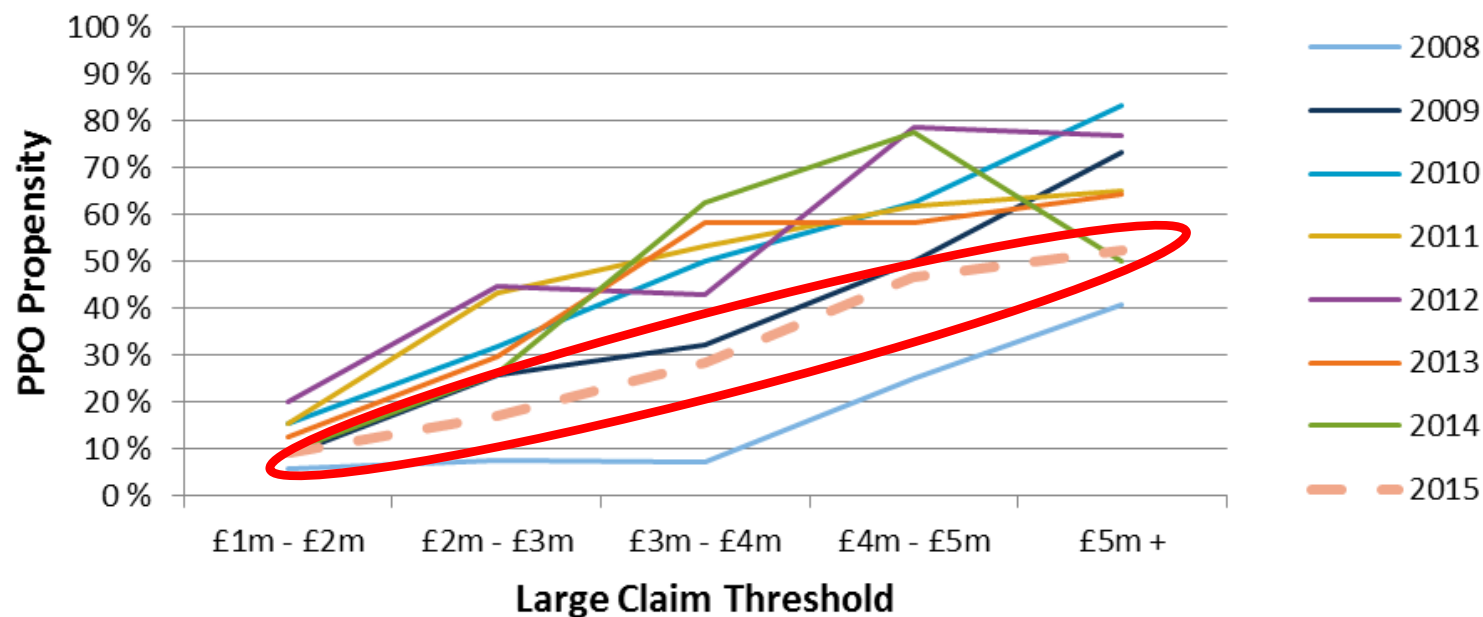


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# Propensity by Large Claim Threshold

## PPO Propensity by Settlement Year - Incremental Thresholds



- 2015 sits at the bottom of the recent years

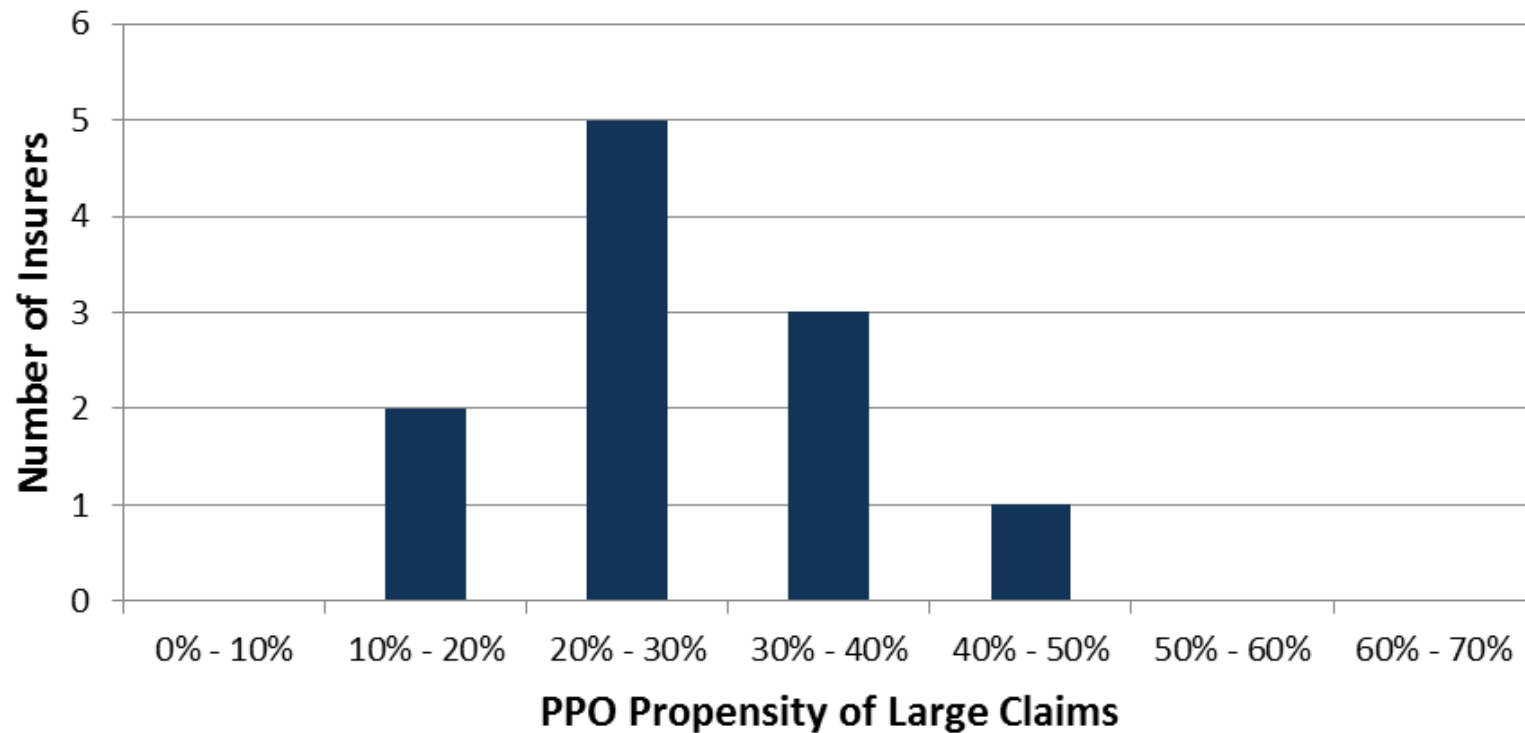
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# Distribution of Propensity

## Distribution of PPO Propensity by Insurer - Motor



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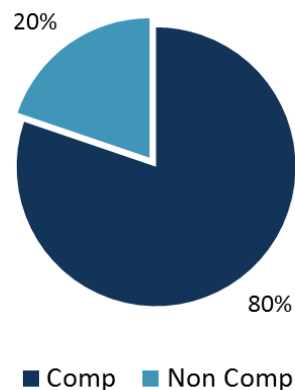


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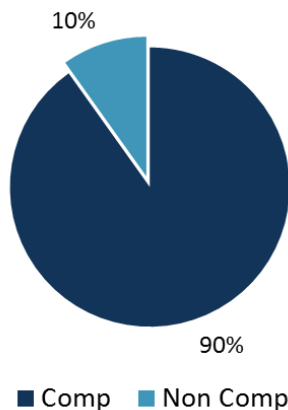
**And we've got all these Motor  
graphs too..**

# Breakdown of Motor PPOs – Comp and Non Comp

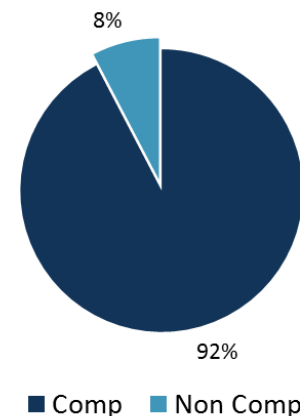
Split of Private Motor PPOs



Premium Split



Vehicle Year Split



- Third party only claimants make up a disproportionate number of the PPOs in our analysis
  - Despite only accounting for 10% of the premium and 8% of the earned vehicle years, Non-Comp claimants account for 20% of PPOs

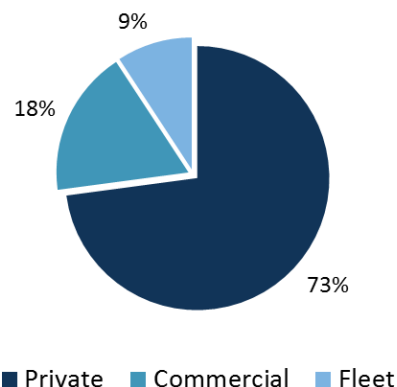
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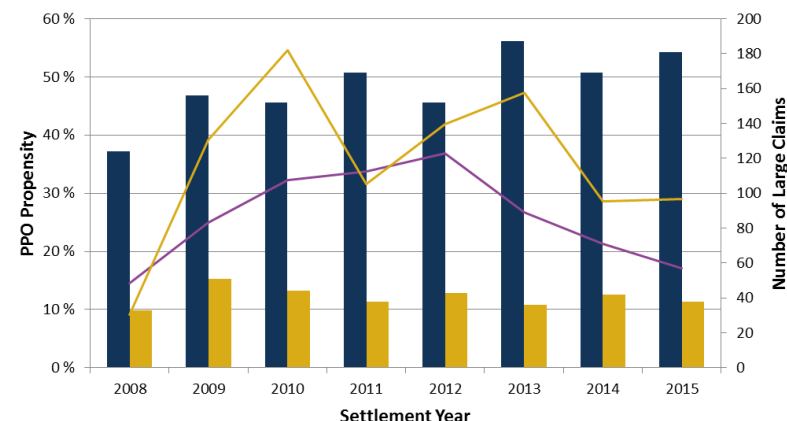
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# Breakdown of Motor PPOs – Commercial and Private

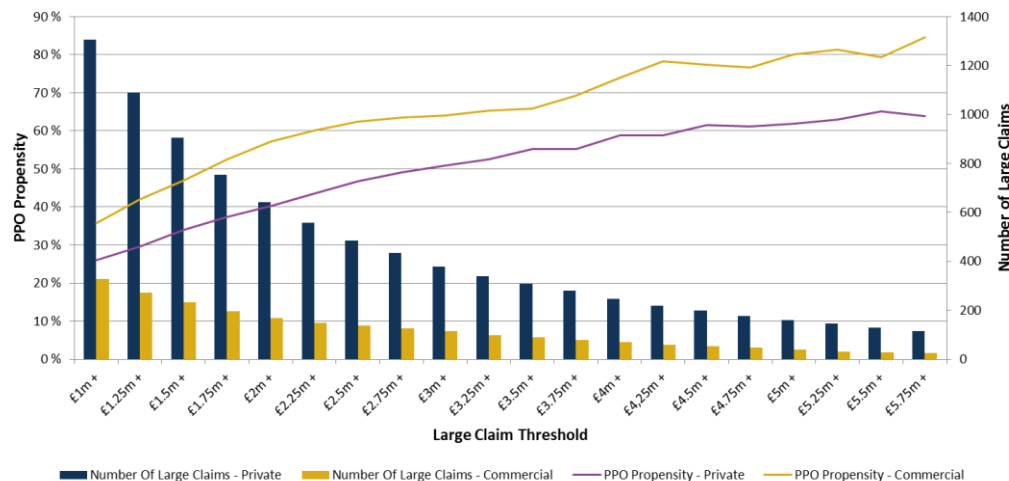
Split Of Motor PPOs by Cover Type



Private/Commercial Propensity by Settlement Year



Private/Commercial Propensity by Large Claim Threshold



Commercial claimants have a significantly higher chance of their claim settling as a PPO

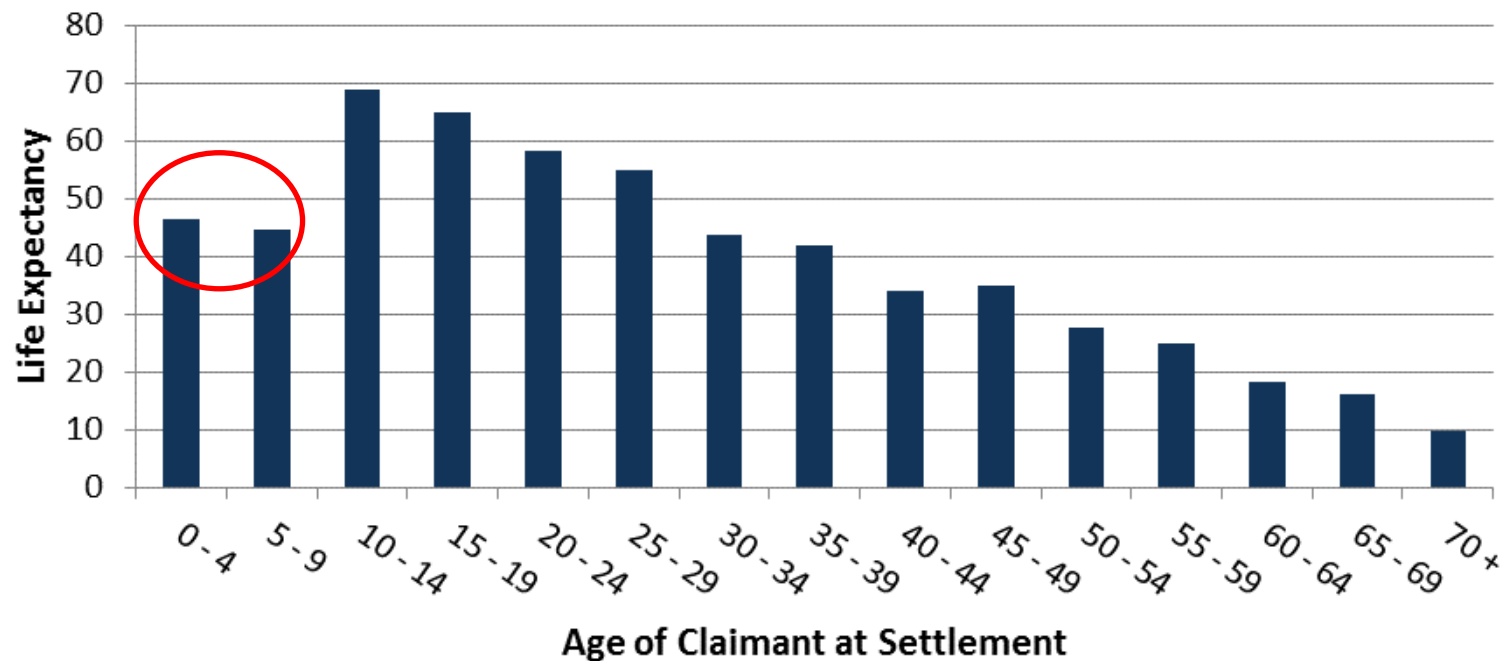
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# Future Life Expectancy by Age - Motor

**Average Life Expectancy from Settlement by Age of Claimant at Settlement**

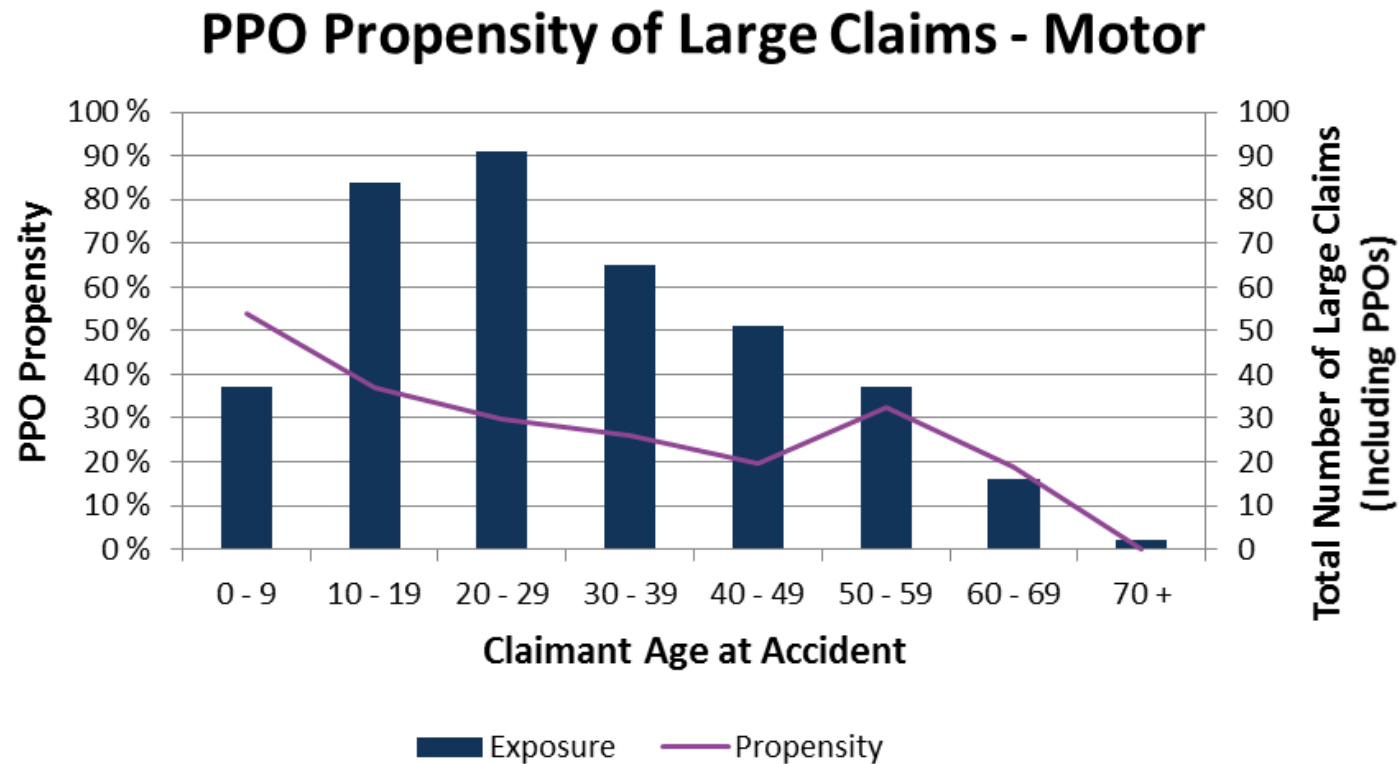


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## Propensity decreases as age increases



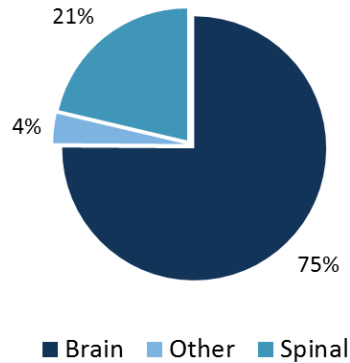
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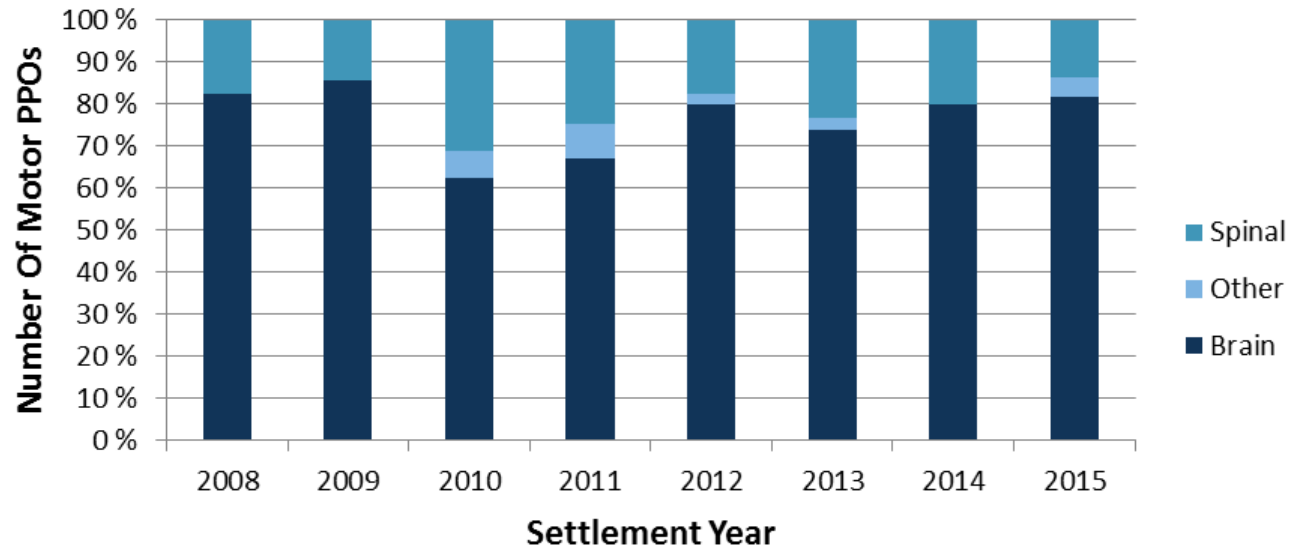
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# High Level Injury Split - Motor

Nature Of Primary Injury - Motor



Proportion Of Motor PPOs By Settlement Year And Injury Type



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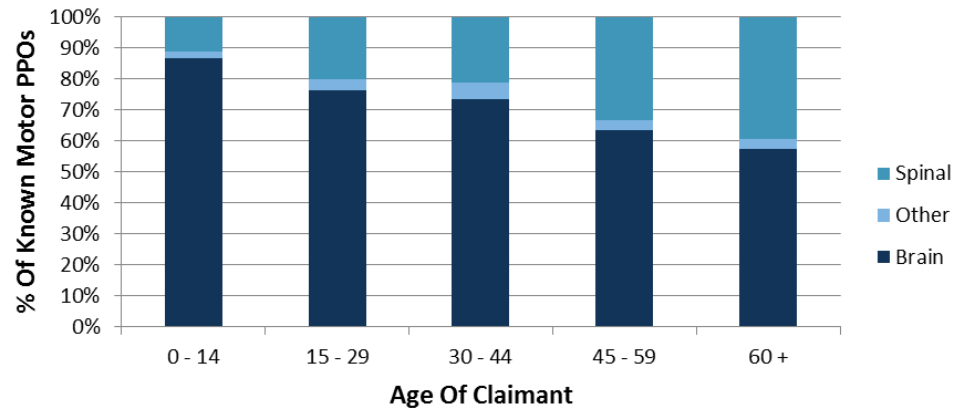


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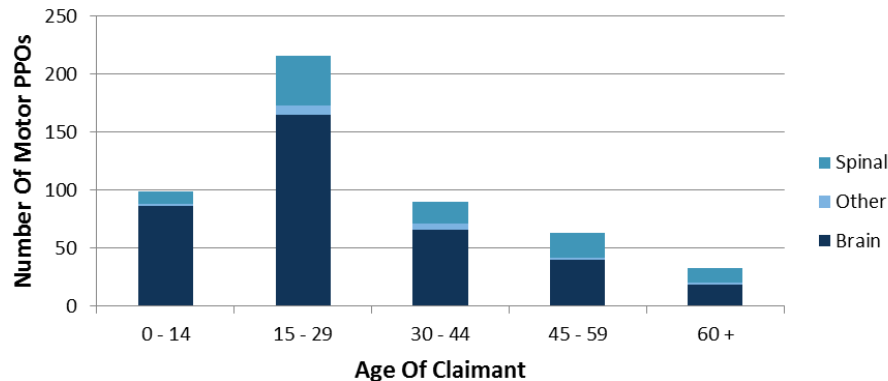
# High Level Injury Split -Motor

Proportion Of Injury Type By Claimant Age at Accident



- Brain injuries are more prevalent for younger aged claimants
- ~40% of PPOs awarded to claimants over 60 years old are as a results of Spinal injuries

Number Of PPOs By Injury Type And Claimant age at Accident



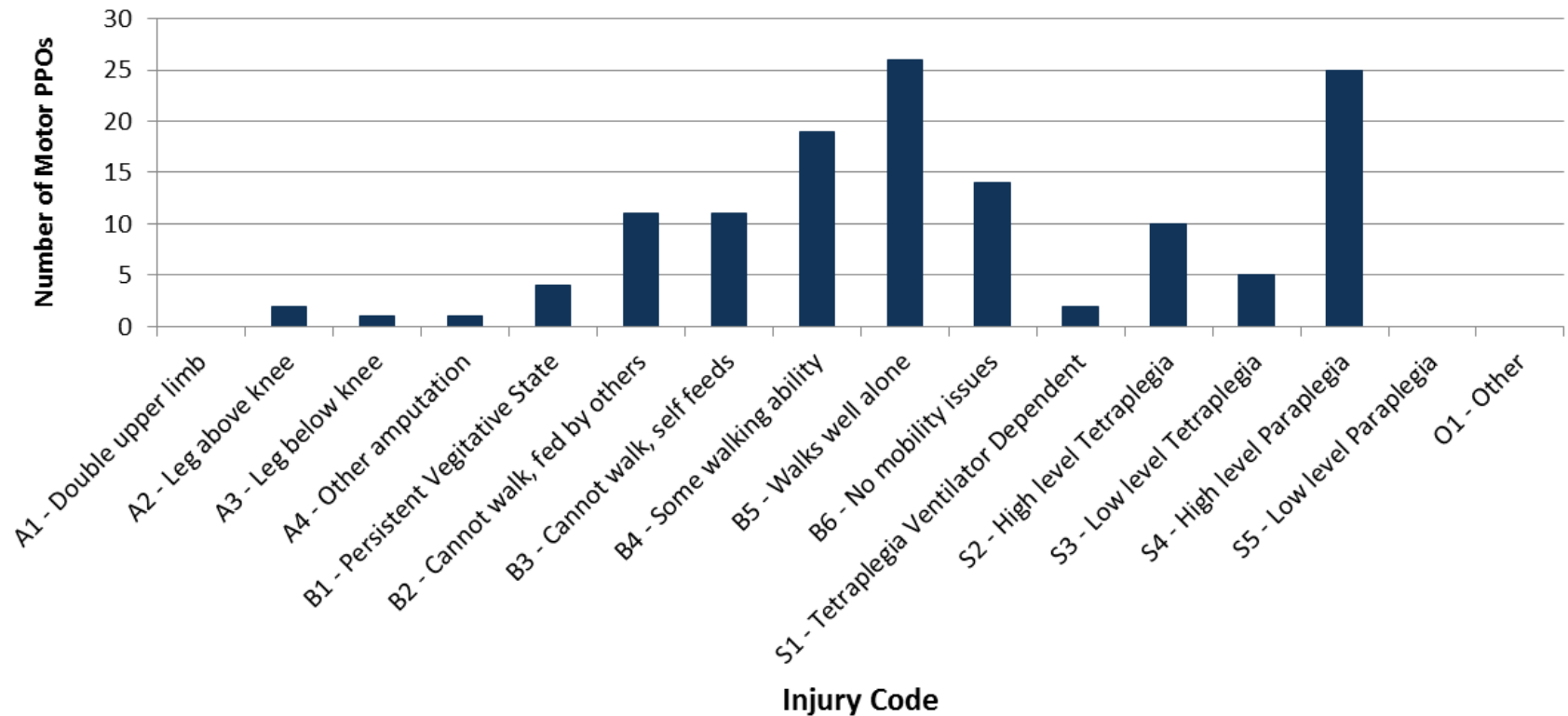
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# Injury Categorisation - Motor

**Distribution of Motor PPOs by Injury Categorisation**



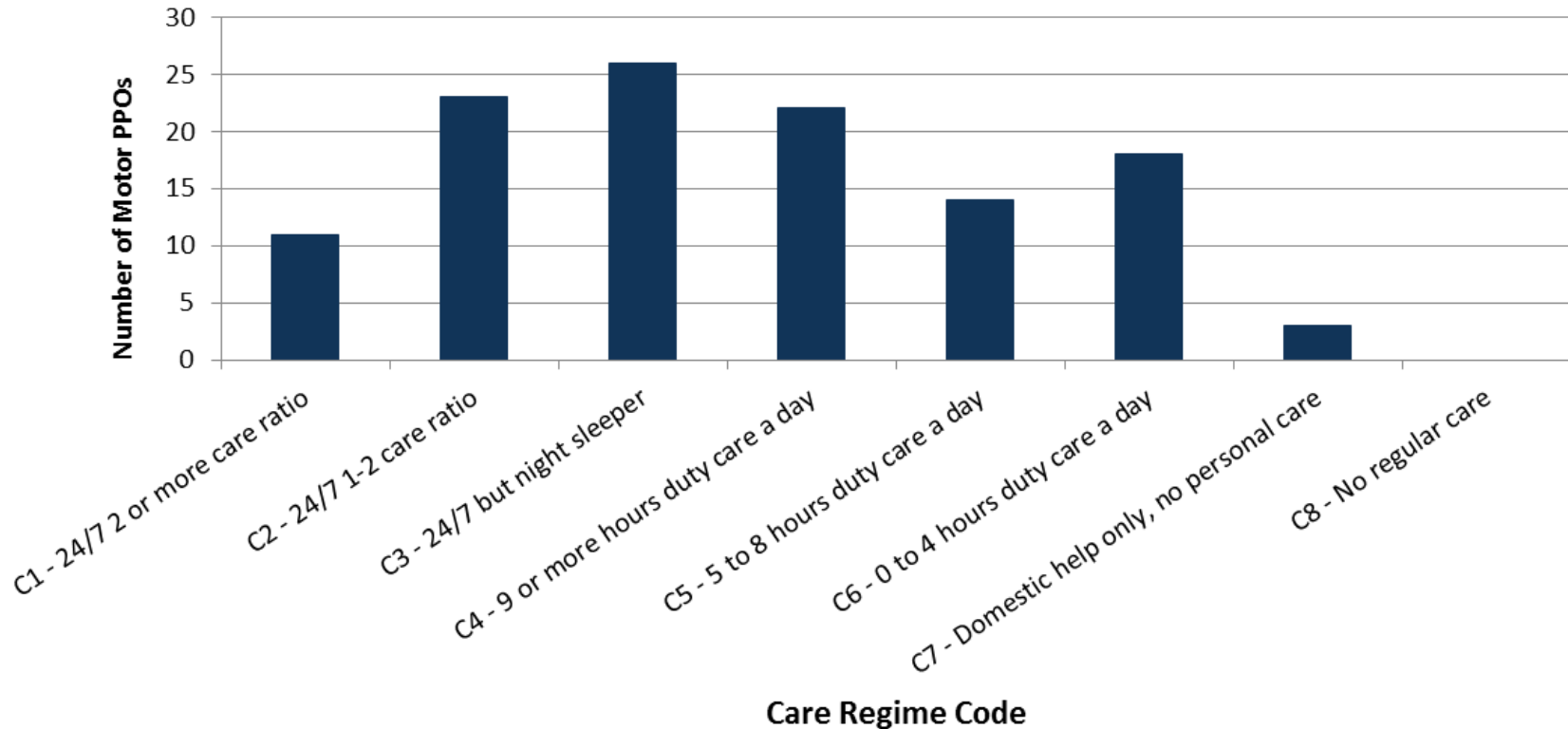
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# Care Regime Categorisation- Motor

## Distribution of Motor PPOs by Care Regime Categorisation



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# And finally these graphs for reserves

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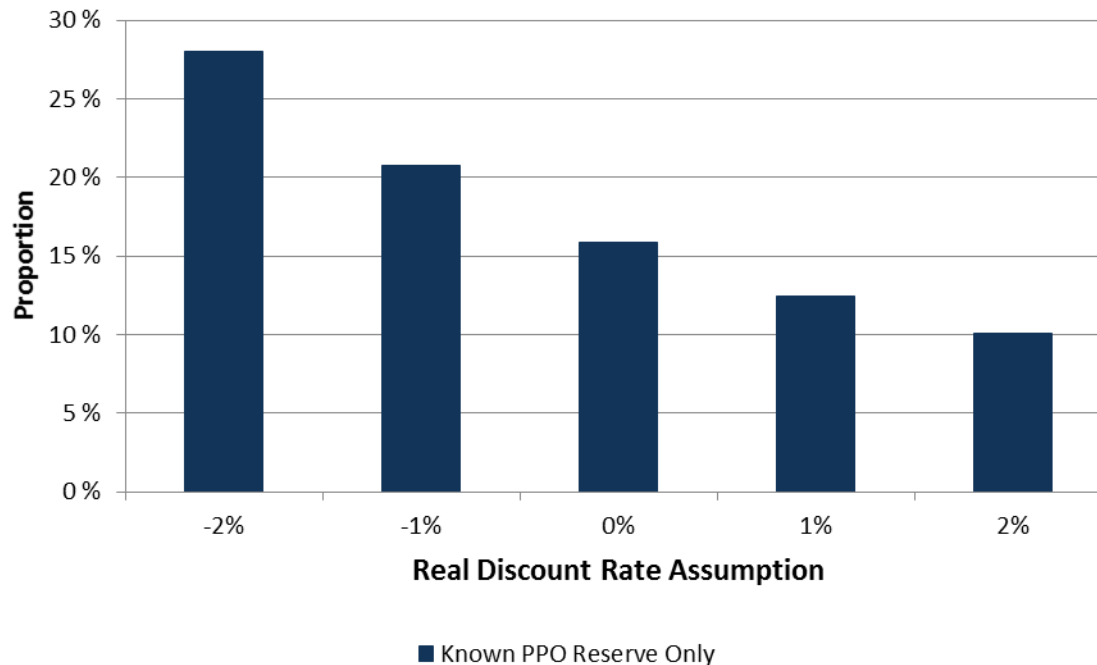
# Reserves

- All reserves presented in this section are as at 31<sup>st</sup> December 2015
  - That is to say, only cash flows after 2015 year end have been considered, and these have been discounted to the date stated above



# Reserves as a Proportion of Outstanding

## PPO Reserves as a Proportion of Outstanding Reserves



- Suggests that PPOs already in payment may currently make up somewhere between 10% and 28% of UK Motor case estimates, depending on the real discount rate assumed

$$\frac{\text{Reserves of PPOs in payment}}{\text{Outstanding reserves from PRA returns}}$$

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# Going Forward

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# What's next?

- GIRO 2016 Survey Report (based on data as at 31<sup>st</sup> December 2015)
  - To be completed by the end of this year (hopefully!)
  - Structure is likely to be different to previous reports with more emphasis on the main results and an appendix containing all other information
  - New analyses to be added
  - Potentially an Excel workbook with numbers underlying key charts and tables to be published
- Any ideas for new graphs or content please let us know!
  - Email
  - [Patrick.Tingay@WillisTowersWatson.com](mailto:Patrick.Tingay@WillisTowersWatson.com)
  - [Peter\\_Saunders@swissre.com](mailto:Peter_Saunders@swissre.com)







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# Bodily Injury Almanac

Fiona Annandale, PWC  
GIRO 2016, Dublin



# Introduction

As part of the working party and in conjunction with the profession, we have been looking into the equality in society within the UK of treatment of bodily injury claims. We have collated our understanding of the current situation in the UK where the needs of the claimant are identical however the cover and security of that cover may be very different depending on the cause. We intend to use the rest of this session to communicate what we have collated and discuss some of the key questions which arise from it.

We are also collating information from various other countries to understand how bodily injury claims in society are treated outside the UK. We are hoping to use this information to leverage what is done in other jurisdictions in conjunction with the profession in order to potentially facilitate improving the current system within the UK.

The information we have gathered to date is collated at: [www.bodilyinjuryclaimfacts.com](http://www.bodilyinjuryclaimfacts.com). We would very much appreciate if you are able to provide any further insight into any jurisdiction or spot an errors to contact the following email address: [bodilyinjuryclaimfacts@gmail.com](mailto:bodilyinjuryclaimfacts@gmail.com) and we will be able to update accordingly.

## History behind current status of compulsory insurance in the UK

- Initially expected to be sharing a road dominated by horses.
- Road Traffic Act 1930 introduced most of the structure that exists today, including compulsory third party insurance without expectation of limits on liability, and the removal of the speed limits that applied to locomotives.
- Only other compulsory insurance covered by Employer Liability (Compulsory Insurance) Act 1969.
- 1988 Act consolidated and updated, but the insurance requirement was left broadly unchanged.
- The Government stated that it would only expect to change the unlimited liability requirement following failure of the vehicle insurance market.



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## Where is there significant cost of care

Type of Bodily Injury	Significant Possibility cost > £1m	Employer Liability	Public Liability	Medical Malpractice (state / private care)	Motor / Vehicle	Travel	Significant likelihood of a claim
Brain Damage	YES						Possible likelihood of a claim
Para / Quadraplegia	YES						
Broken Bones	NO						Insignificant likelihood of a claim
Loss of Limb	NO						
Damage or loss of sense	NO						
Animal Attack	YES						
Whiplash	NO						
Genetic Disorder	YES						
Soft Tissue Injury	NO						

# Paraplegia / Quadraplegia and Brain Damage in the UK

In each case below, the potential claim and need of the individual may be the same, however the pay out, security and response under each type of insurance will be different.

We have considered in particular the limit on the liability and whether or not a PPO would be granted under each.

<b>Travel</b>	<ul style="list-style-type: none"><li>• Limited Liability</li><li>• Typically insurer will repatriate with cost of medical and future care then falling to NHS or PMI</li></ul>
<b>Medical Malpractice Private cover</b>	<ul style="list-style-type: none"><li>• Discretionary cover generally along with some limited liability in Lloyds</li><li>• Unlikely to be granted a PPO – discretionary providers do not typically grant PPOs</li></ul>
<b>Employers Liability</b>	<ul style="list-style-type: none"><li>• Limited Liability</li><li>• PPO is a possibility but can be granted by the courts but is impacted by the limited liability</li></ul>
<b>Public Liability</b>	<ul style="list-style-type: none"><li>• Limited Liability</li><li>• PPO is a possibility but can be granted by the courts and is impacted by the limited liability</li></ul>
<b>Medical Malpractice State cover</b>	<ul style="list-style-type: none"><li>• Unlimited Liability</li><li>• Generally cover is provided through a PPO (style) arrangement</li></ul>
<b>Motor</b>	<ul style="list-style-type: none"><li>• Unlimited Liability</li><li>• PPO can be granted by the courts</li></ul>



# Is society equitable?

## Consider a brain damaged child...

### Accident on Holiday

- Some cover potentially provided by travel insurance along with repatriation
- Limited Liability
- Additional care provided through the state without a PPO settlement

### Operation in private

- Covered by doctors personal insurance
- Can be unlimited / limited or discretionary liability covered by a DMO
- PPO settlements possible, but not enforced by the courts

### Accident in public play area

- Cover provided by public liability cover in place
- Limited liability
- PPO can be enforced by the courts

### Car Accident

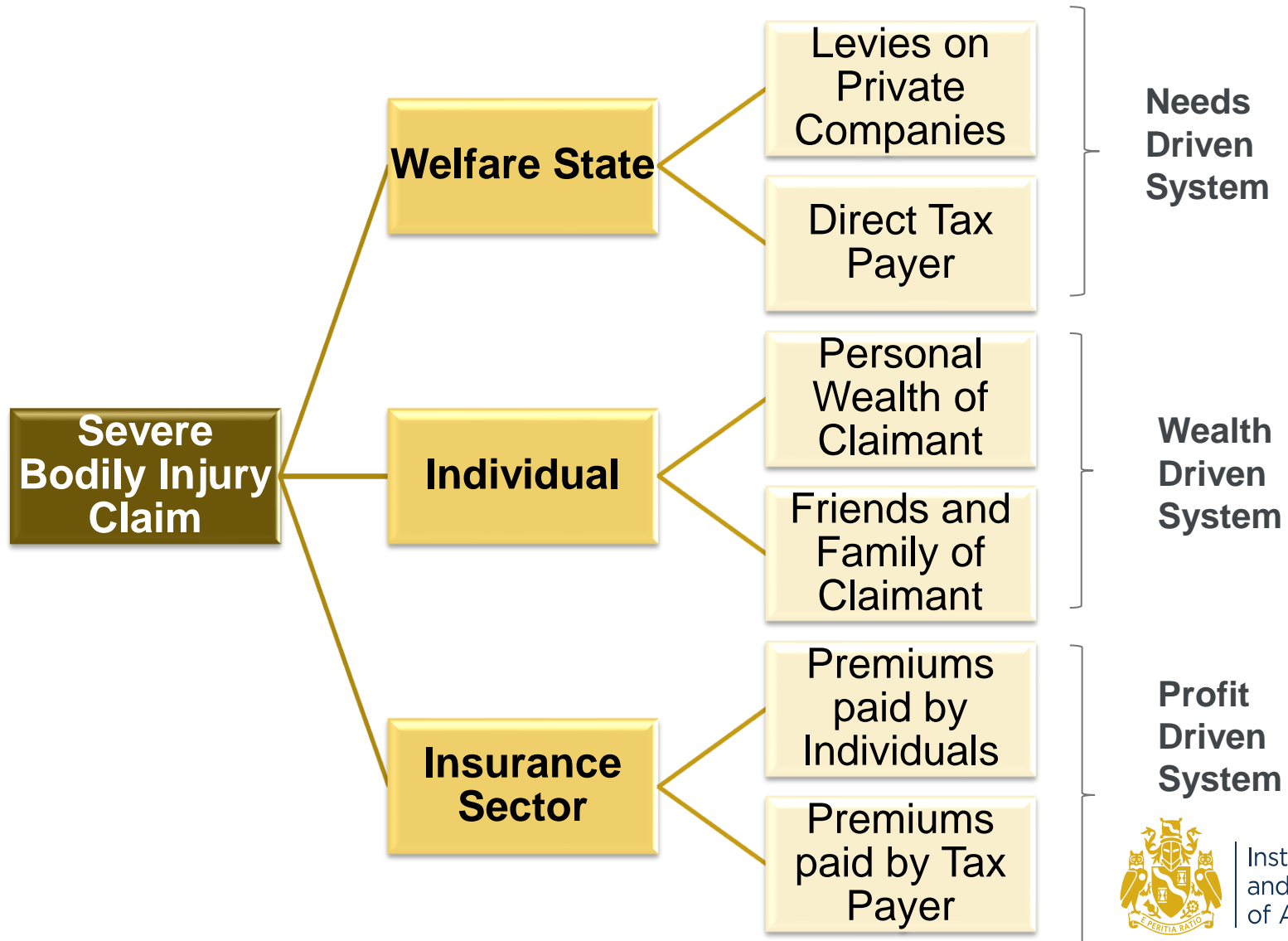
- Covered by drivers motor insurance
- Unlimited liability
- PPOs can be enforced by the courts

### Operation in the NHS

- Covered by NHS funded by the UK Tax payer
- Unlimited Liability
- PPOs always used to settle claims with long term cost of care



# Possible Frameworks to deal with Severe Bodily Injury in Society



# Discussion

1. Should the availability and quality of care vary if its your own fault or not?
2. Should cover ever be limited for incidents involving minors?
3. Is it the role of the insurance market or the state to provide unlimited cover?
4. If other classes are not unlimited, should 3<sup>rd</sup> party motor be?
5. What should we do about it?



# Questions

# Comments

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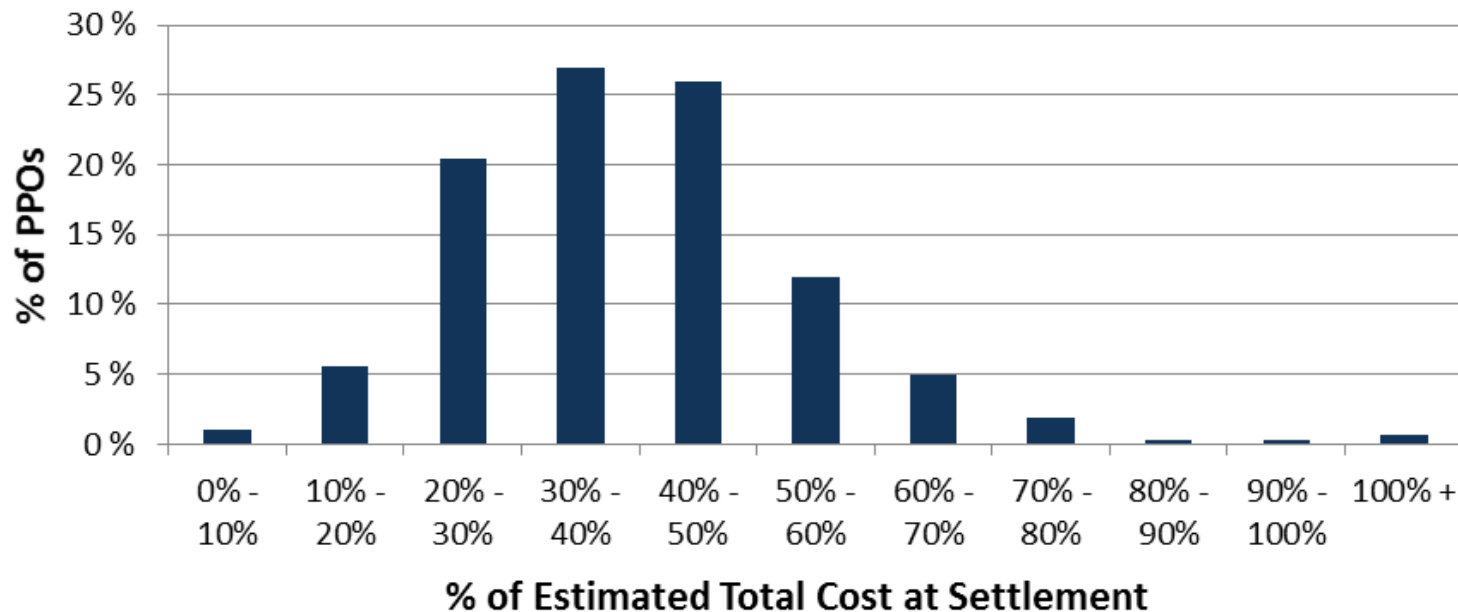
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# Appendices

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# Lump Sum as a Proportion of Total Cost

## Distribution of Lump Sum as a Proportion of Total PPO Cost at 0% Real Discount Rate



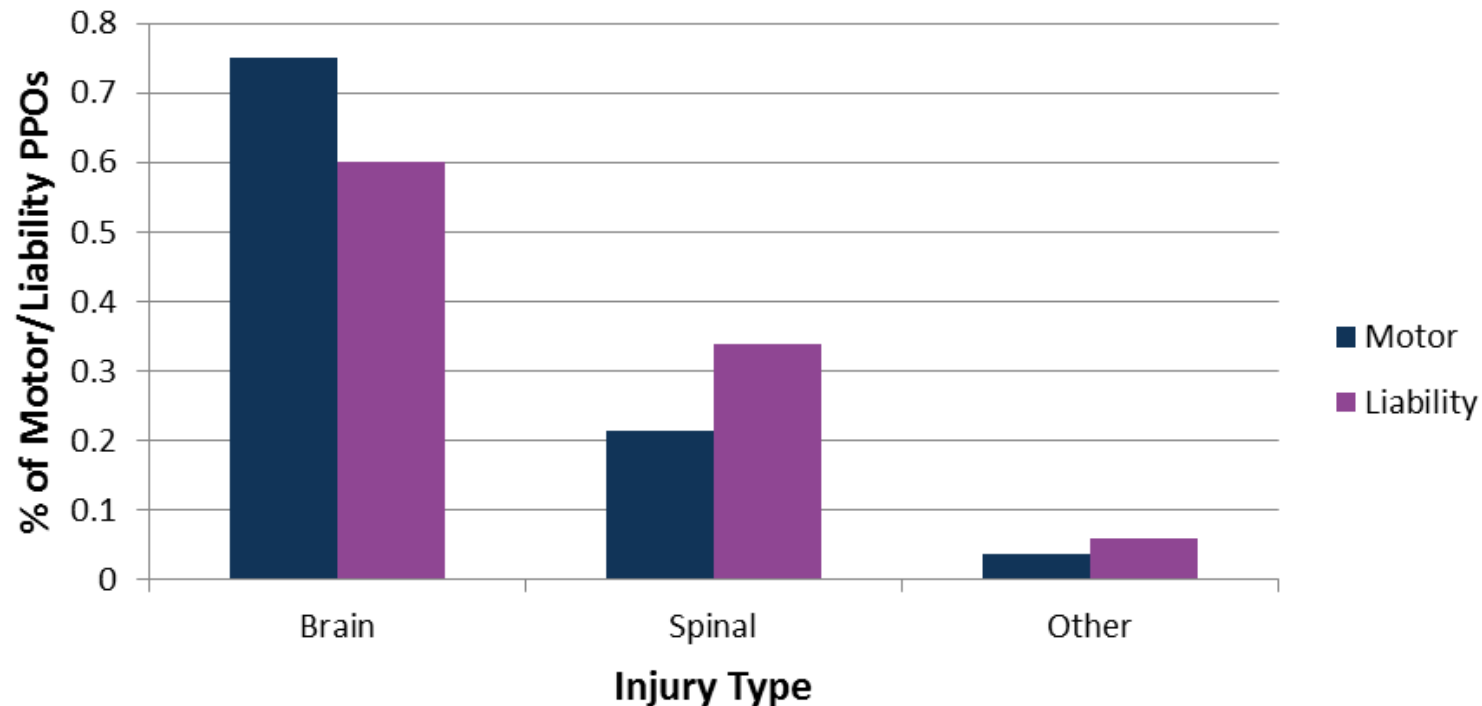
**Caveat: All graphs are draft and subject to change**



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# Injury Type - Motor vs Liability

Distribution by Injury Type



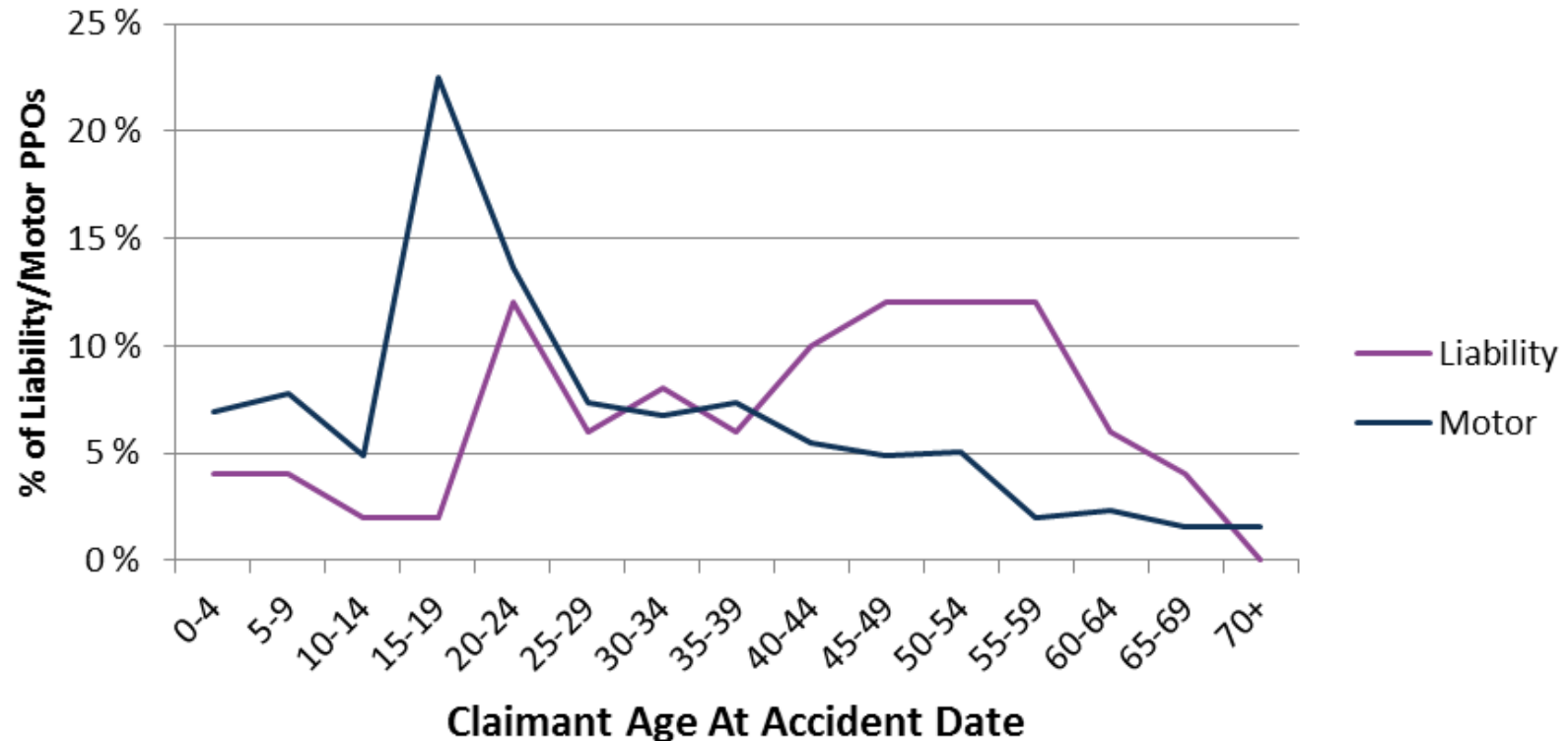
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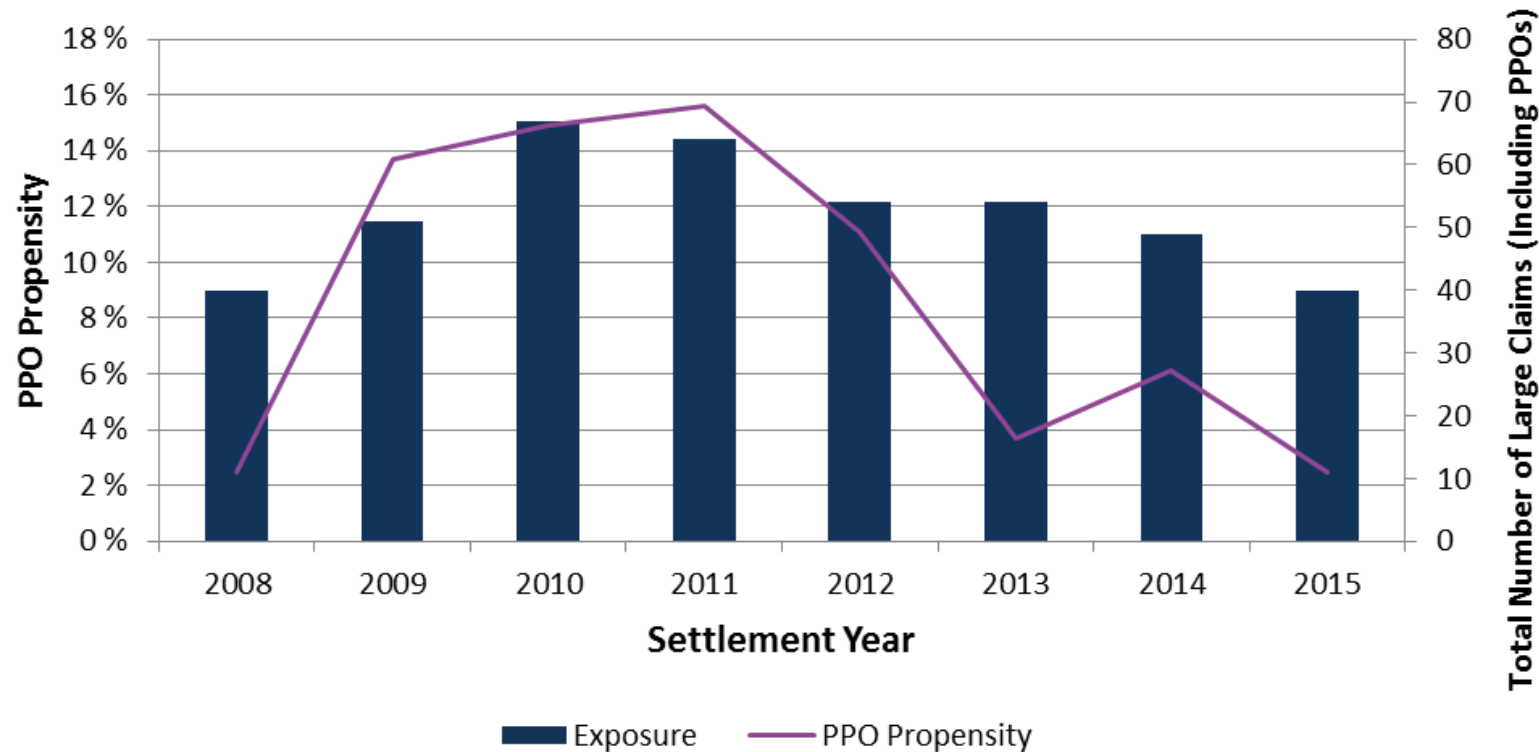
# Injury Type - Motor vs Liability

## Distribution Of Claimant Age At Accident



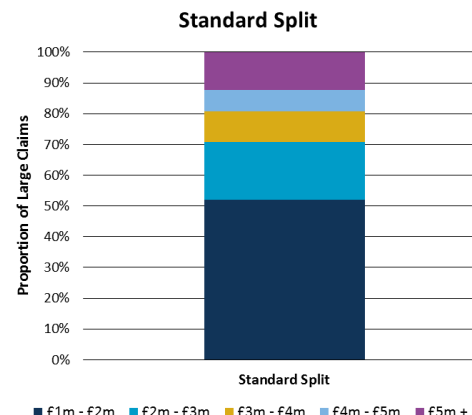
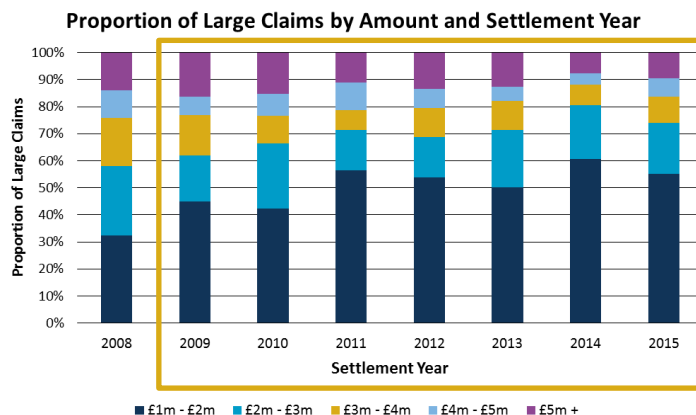
# Liability Propensity

## PPO Propensity of Large Claims - Liability

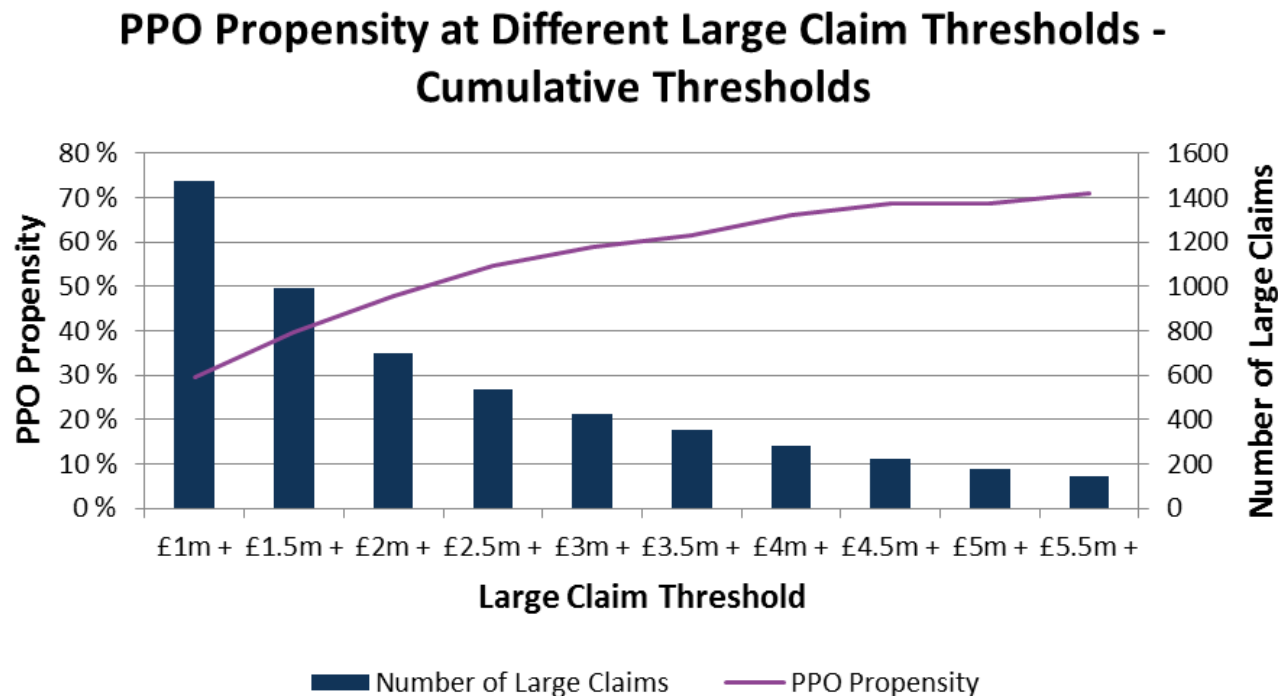


# Standardised Propensity

- By taking the propensities by settlement year from the graph on the previous slide, it is possible to create a standardised propensity graph
  - We will ignore 2008 as the PPO propensity is very different to other years
- The data in the graph below is used to come up with a “standard” split of PPOs by amount across the settlement years since 2009



# Propensity by Large Claim Threshold

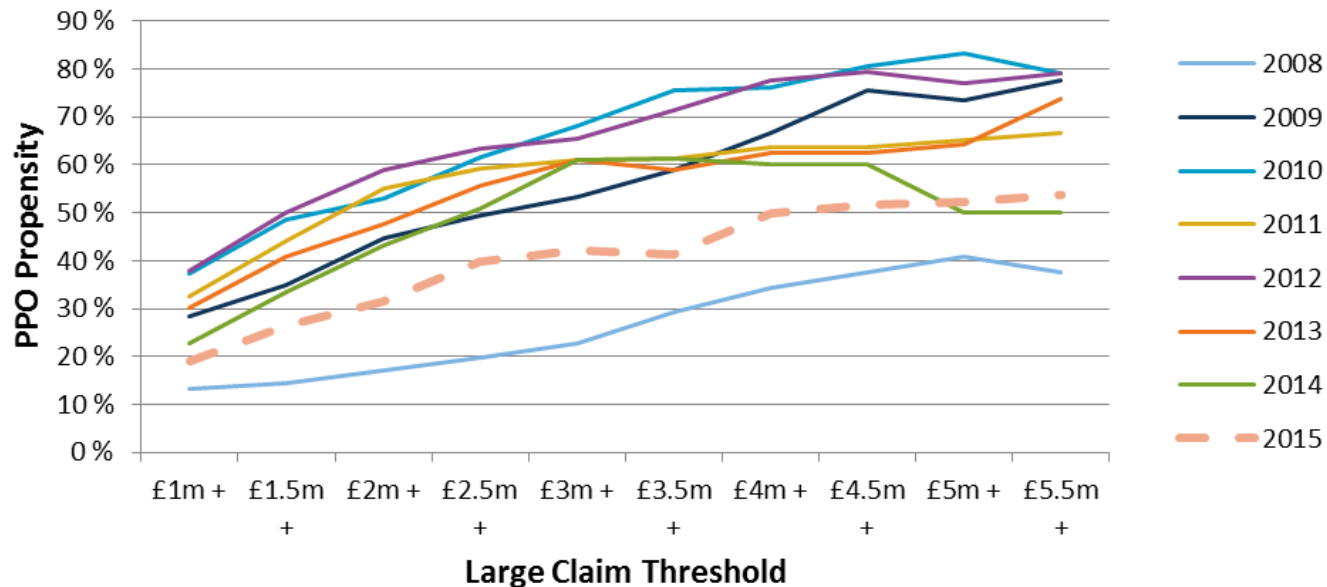


- PPO propensity increases parabolically to 71% for all those claims > £5.5 million
  - 2008 year propensities excluded



# Propensity by Large Claim Threshold

**PPO Propensity by Settlement Year - Cumulative Thresholds**

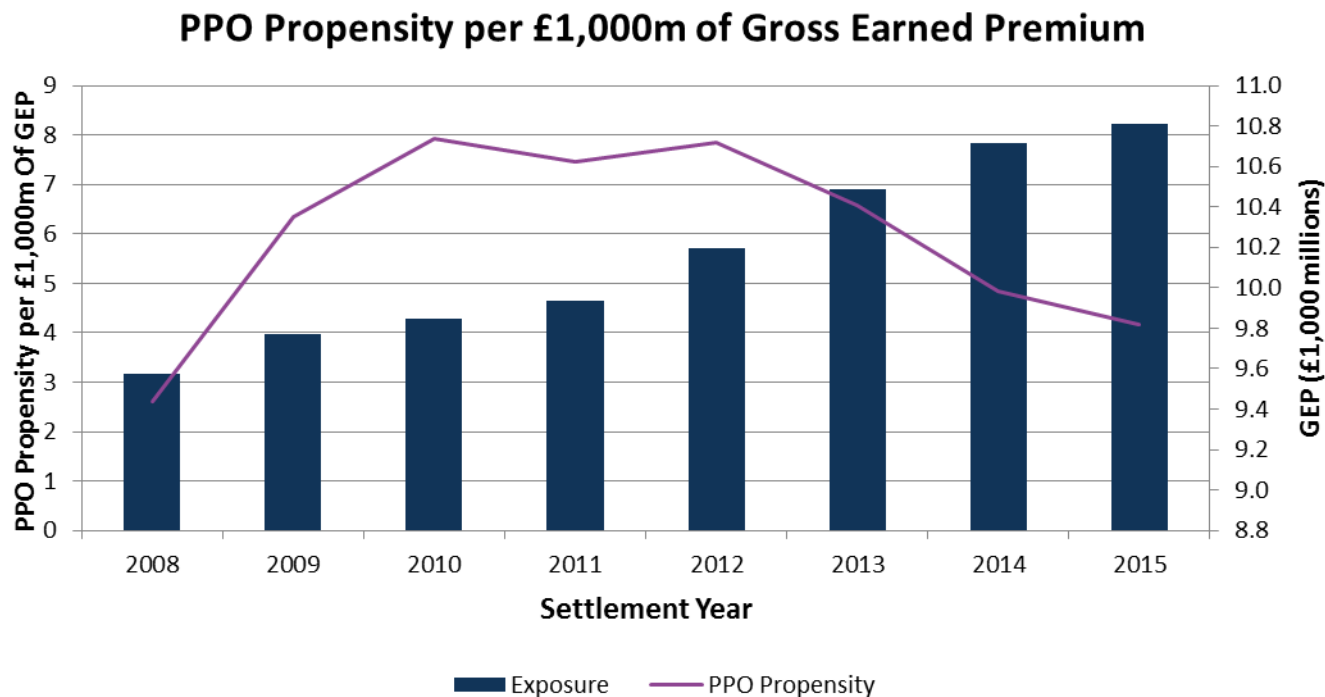


- The PPO propensity is lowest for 2015
  - 2014 is rather anomalous in its behavior





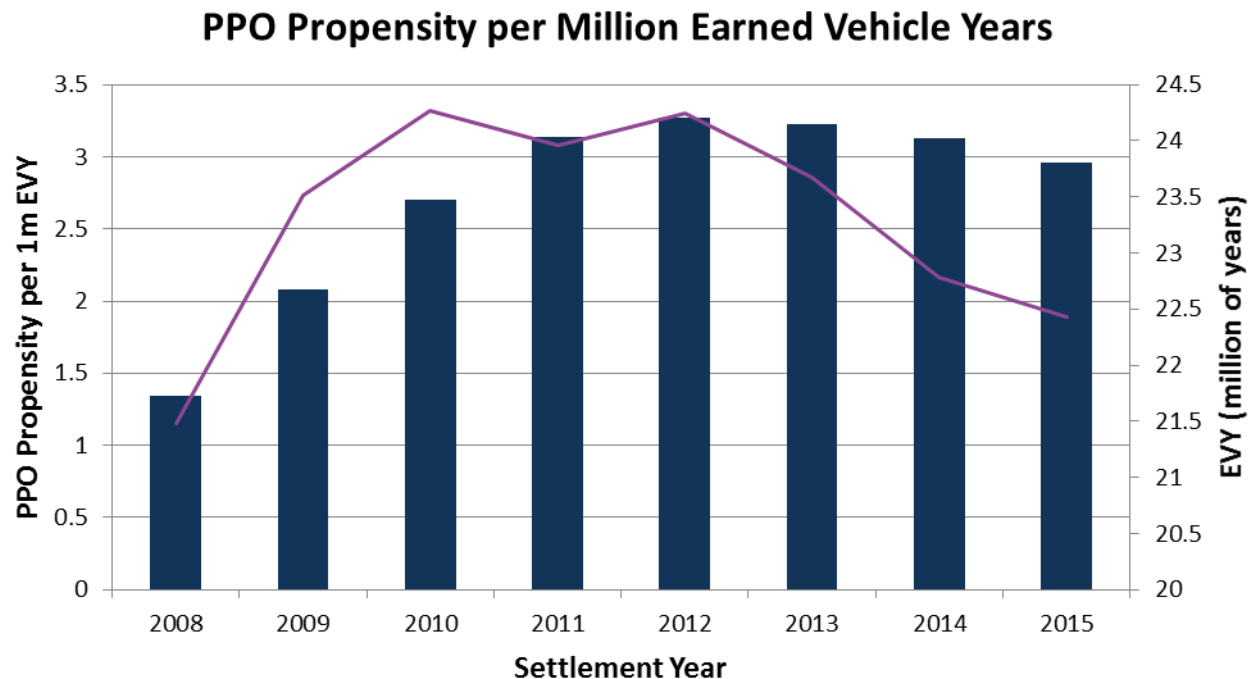
# Propensity per GEP



- When observing PPO propensity by Gross Earned Premium, we see that a decreasing trend is also prevalent



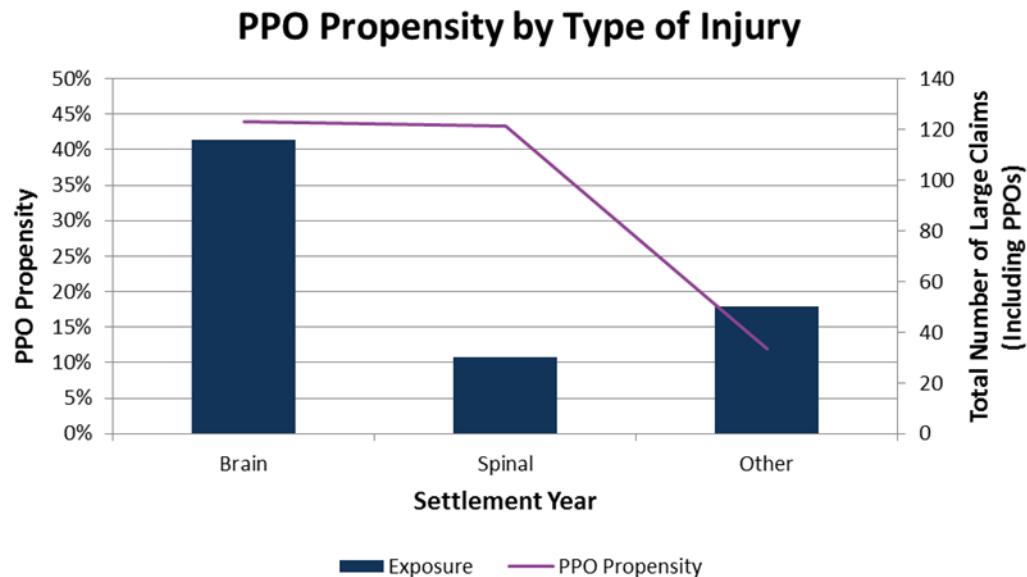
# Propensity per EVY



- When observing PPO propensity by Earned Vehicle Years we get the same picture for propensity



# Propensity by Injury



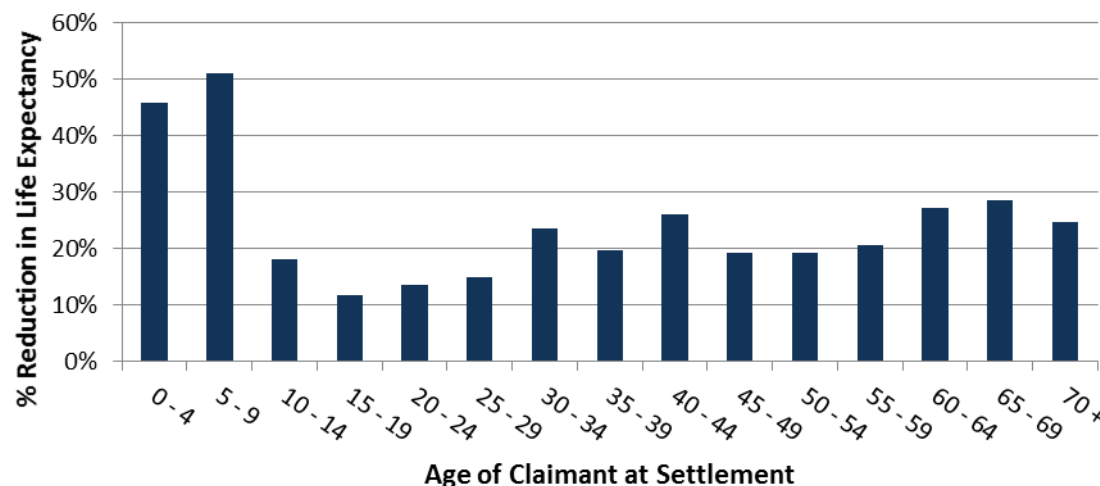
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# Reduction in Future Life Expectancy by Age - Motor

Average Reduction in Life Expectancy by Age of Claimant at Settlement

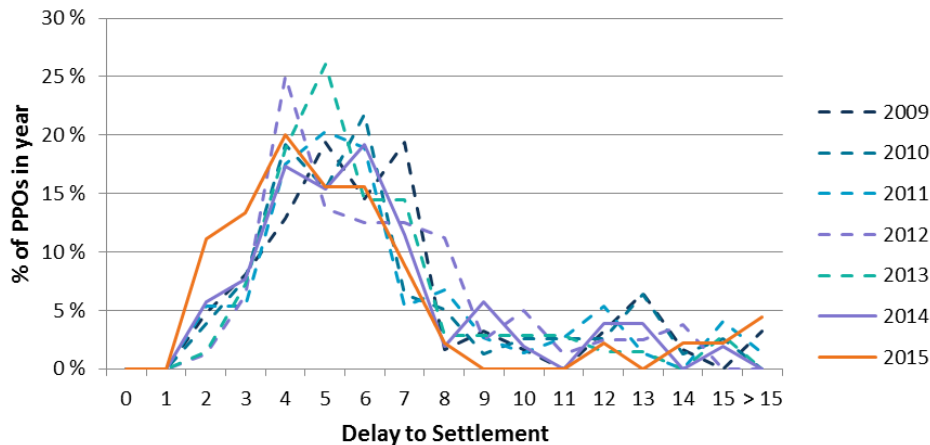


- In line with the previous graph, the greatest reduction in life expectancy is seen for infants with the lowest reduction for slightly older children.
- From 30 onwards, the reduction in future life expectancy varies around an average of ~20%
- Delay to settlement should be taken into account



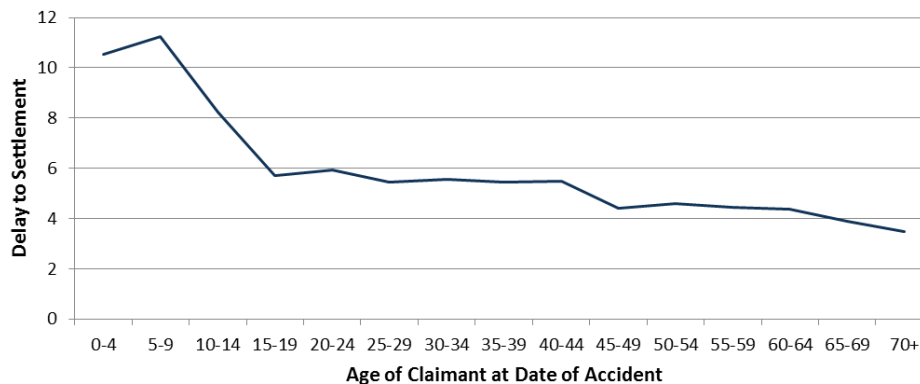
# Delay to Settlement - Motor

Distribution of Delay to Settlement



- The delay to settlement for large claims settling as PPOs in 2015 seems to have reduced slightly when compared to previous settlement years
  - The average delay to settlement is less than 6 years for the first time since 2009

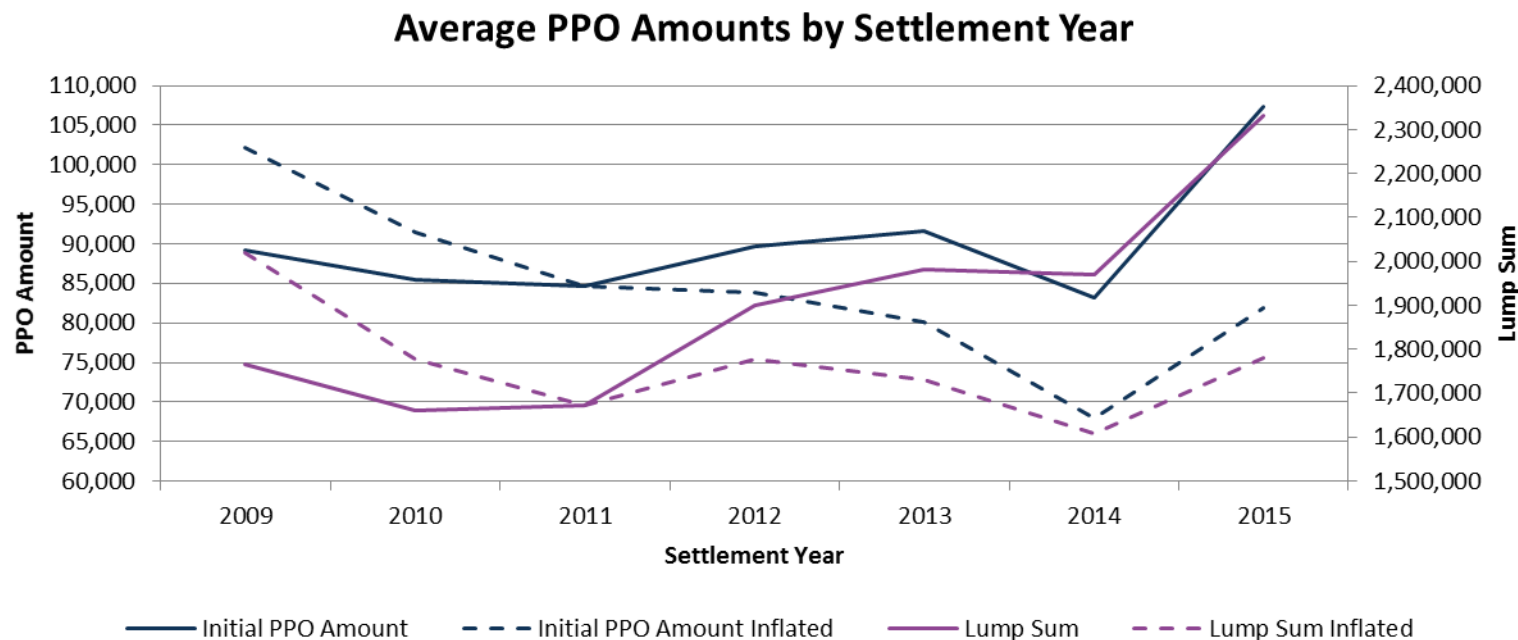
Average Delay to Settlement



- Large claims relating to younger claimants take far longer to settle



# Average Claim Amounts - Motor



- On a nominal basis it would appear that initial PPO payments and lump sums have been increasing over time
- When rebased to 2011 using a 7% inflation rate, there has actually been fairly little change

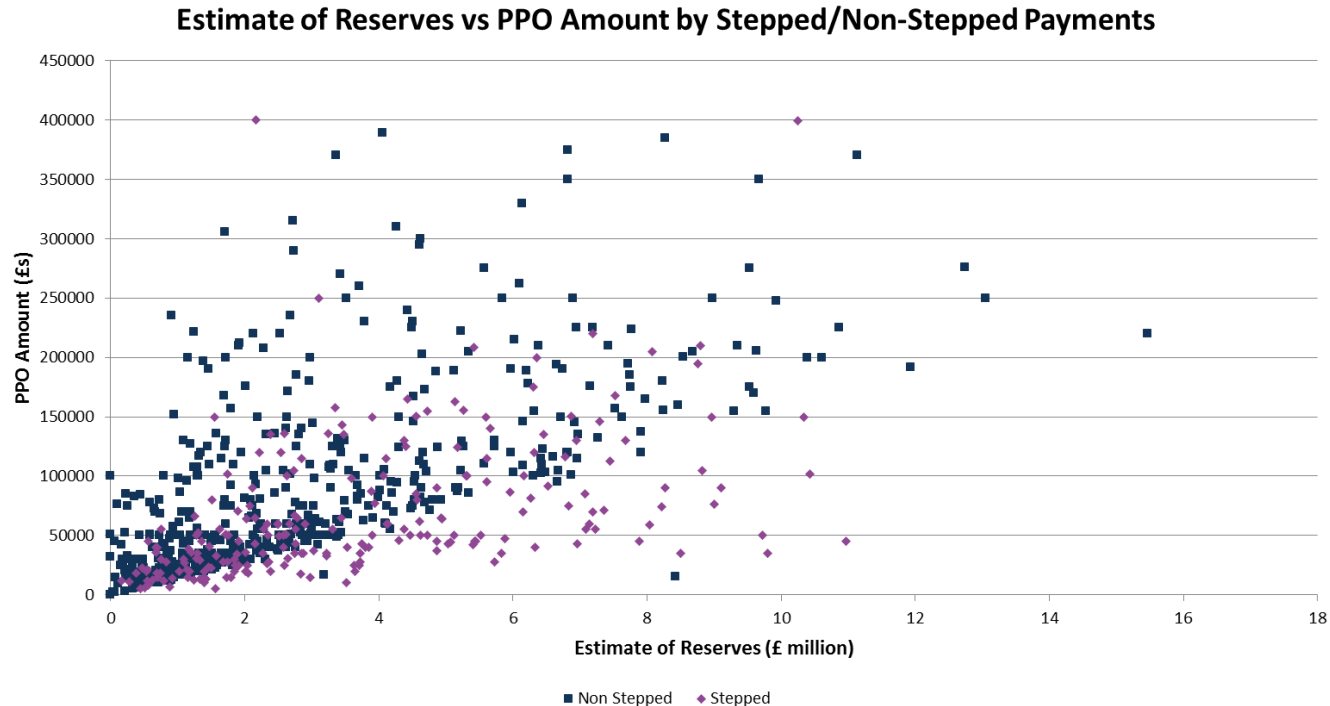
— Perhaps even a decrease, particularly for 2014

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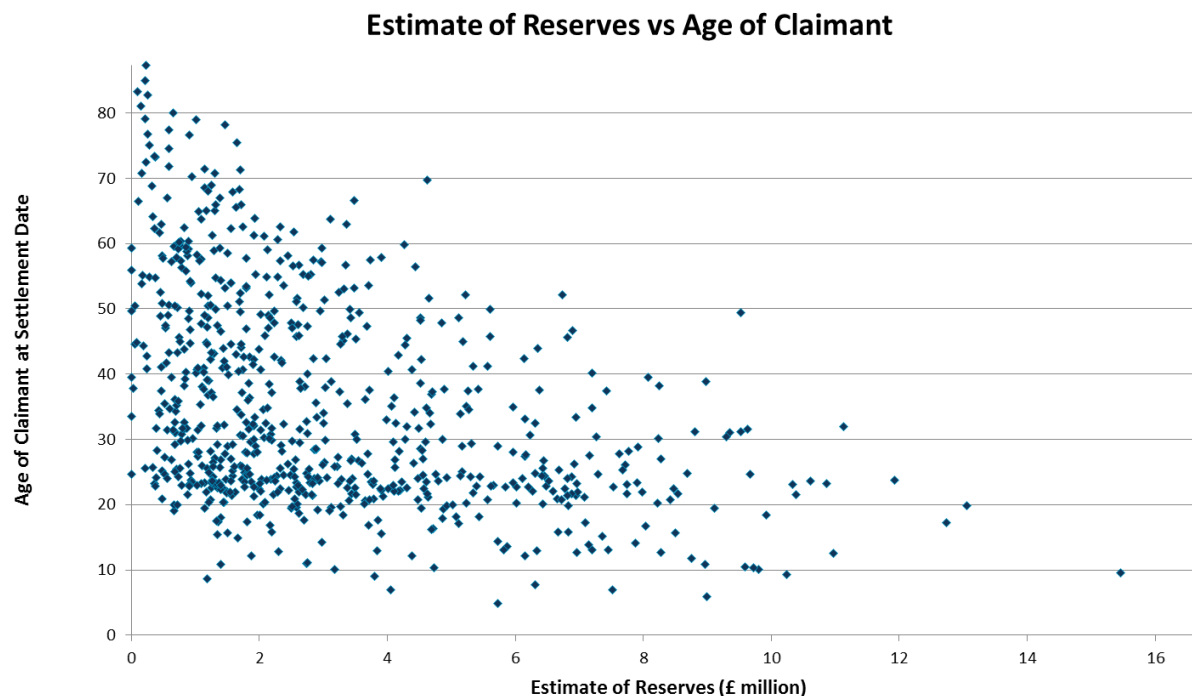
# Reserves vs PPO Amount



- The estimate of reserves using a 0% real discount rate appears to be larger for PPOs with stepped payments compared to PPOs with similar initial annual payment amounts that do not involve steps



# Age of Claimant vs Estimated Reserve



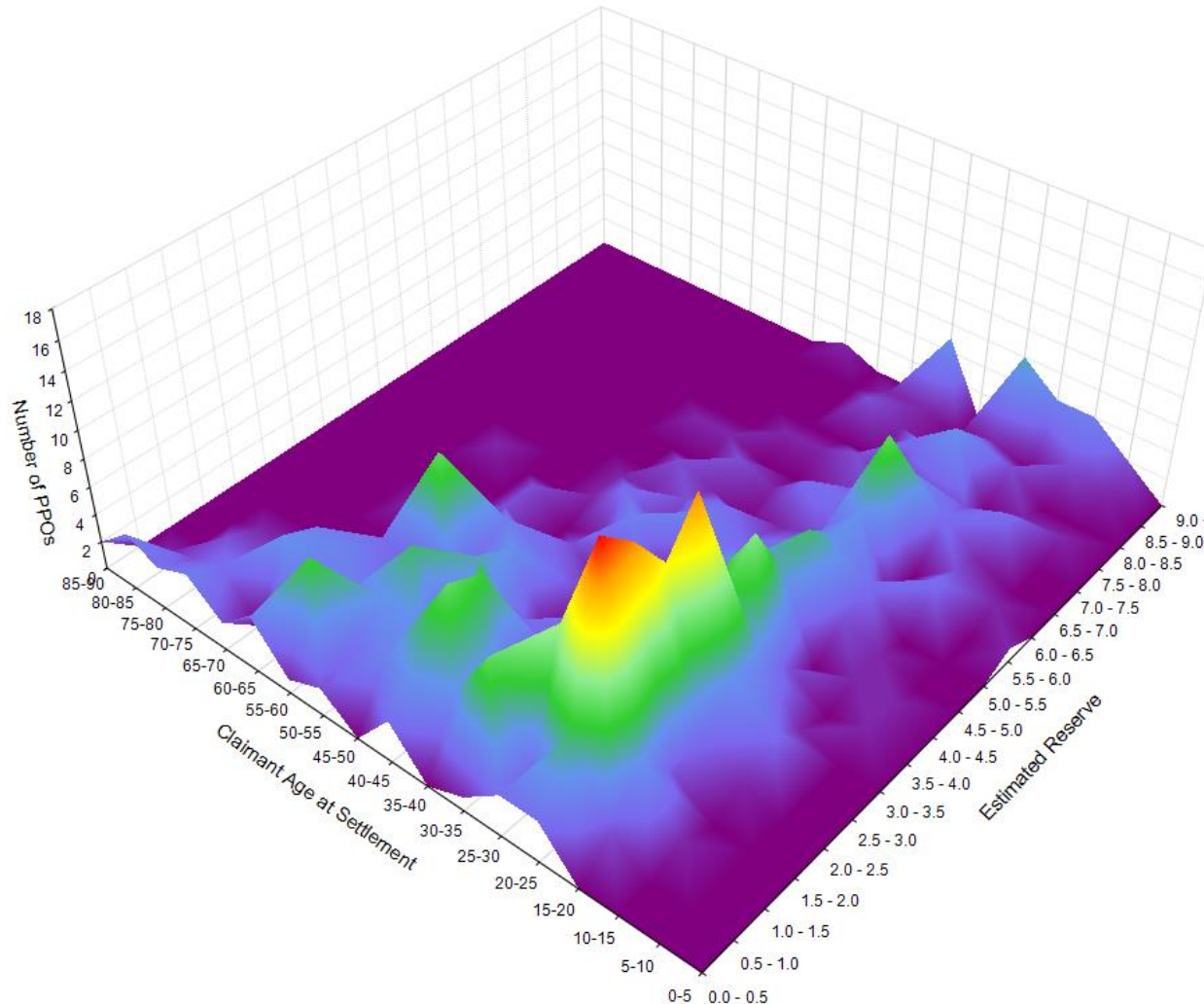
- Not much correlation can be seen between age of claimant at settlement and the reserve being placed on the PPO
- There is far wider range in the reserve for young claimants due to there being a large range of future life expectancies
  - Difficult to tell the extent of this uncertainty from this plot





# Age of Claimant vs Estimated Reserve

Age of Claimant at Settlement vs Estimate of Reserve (0%)



- By looking at a contour plot, it is evident that, although there is a wide spread in reserves for younger aged claimants, the majority of reserves are less than £3 million



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