Things That Make You More Likely to Be in an Accident

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Some Facts About Non-Driving Factors

Why Insurers Don’t Rely Solely on Driving Record
Most People Don’t Know Their Risk Profile

Do You Consider Yourself a Better-Than-Average Driver?

- Better Than Avg.: 42%
- Much Better Than Avg.: 34%
- Average: 23%
- Worse Than Average: 1%
- Don't Know: 1%

Most Drivers Have Clean Driving Records

In One Year. . .

- In Accident: 5.7%
- Ticketed: 5.3%
- Clean Record: 89.0%

In Three Years. . .

- Ticket or Accident or Both: 29.5%
- Clean Record: 70.5%

Three-year calculation makes conservative assumption that no ticketed driver in a year is in an accident that year.

Underwriting: ‘Gut’ vs. Data

- Underwriters Got a Sense for Which Risks Were Better
- Imperfect System
  - Subjective
  - Potential for Bias
  - Adverse Selection (I Know Something You Don’t)
How to Differentiate Among Drivers?

- Actuarial Risk Classification
  - Uses Rating Variables to Create Risk Profile
    - Verifiable
    - Predictive
    - Age vs. Miles Driven

- Fairer for Insurer and Policyholder
  - Objective – Uses Data to Predict
  - Rate Follows Risk
Early Factors Were Non-Driving

- **Age**
- **Gender**
- **Territory/State**

**Crashes per 100,000 Drivers, By Gender**

<table>
<thead>
<tr>
<th>Gender</th>
<th>Crashes per 100,000 Drivers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>5,285</td>
</tr>
<tr>
<td>Female</td>
<td>4,056</td>
</tr>
</tbody>
</table>

**Crashes per 100,000 Drivers, By Age**

- < 16: 24,797
- 16-20: 10,418
- 21-24: 8,018
- 25-34: 5,746
- 35-44: 4,608
- 45-54: 3,946
- 55-64: 3,239
- 65-74: 3,598
- > 74: 2,444

**Sources:** U.S. Department of Transportation, National Highway Traffic Safety Administration, Federal Highway Administration.
### Rating Plans Have Grown Complex

<table>
<thead>
<tr>
<th>Year</th>
<th>Estimated Number of Rating Classifications</th>
<th>Estimated Rating Possibilities</th>
<th>Licensed Motor Vehicles in the US</th>
<th>Ratio of Rating Possibilities to Motor Vehicles</th>
</tr>
</thead>
<tbody>
<tr>
<td>1960</td>
<td>9</td>
<td>2,688,000</td>
<td>74,000,000</td>
<td>0.04</td>
</tr>
<tr>
<td>1990</td>
<td>16</td>
<td>3,145,728,000</td>
<td>189,000,000</td>
<td>16.6</td>
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<tr>
<td>2013</td>
<td>20</td>
<td>2,264,924,160,000</td>
<td>250,000,000</td>
<td>9059</td>
</tr>
</tbody>
</table>

**New Variables Include**
- Credit Scores
- Payment Method
- Tenure With Prior Company
- Homeowners Losses

There Are No Two Identical Risks. Everybody Pays A Different Premium

Calculations by Jeffrey Kucera, FCAS
State of the Art: Credit Scores

Paid Loss by Insurance Score, Collision Coverage

Drivers With Low Scores Nearly 2x More Likely to Be in Accident

Impact of Credit Scores on Consumers

- Increase 14.8%
- No Change 45.9%
- Decrease 39.3%


Common Variables

- Payment History
- Bankruptcy
- Amt of Credit Used
- Number, Type of Account
- Length of Credit History

Relativity Controlled for Ethnicity, Neighborhood Income.

The Future: Telematics

- Monitor Drivers As They Drive
  - Snapshot ($2.6B in 2014 premium)
  - Many (most?) insurers offer
  - Not CA, NC

- Monitoring Devices
  - ‘Dongle’
  - Smartphone
  - OnStar etc.
Q. Would You Allow Insurer to Collect Driving Information to Set Premium?¹

- Would not allow: 49%
- Don’t know: 2%
- Allow if premium went down: 14%
- Allow whether or not premium went down: 35%


Market is Poised to Grow, But Some Reluctance Remains.

Policy Projections:

- Millions of Policies Worldwide:
  - 2014: 7.7
  - 2015: 12.0
  - 2023: 140.0

Source: IHS Automotive.

¹Asked of those who auto insurance.
Summary

- Some Drivers Are Better Than Others
- Classify Drivers by Risk Profile is Important Insurance Job
- Classification is Difficult, Sometimes Controversial
- Telematics Allows Classification by Driving Skill That Has Never Been Seen Before
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Thank you for your time and your attention!

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