



Usage-Based Insurance

Casualty Actuarial Society Spring Meeting

Kelleen Arquette

May 2013

What is UBI?

Usage-based auto insurance

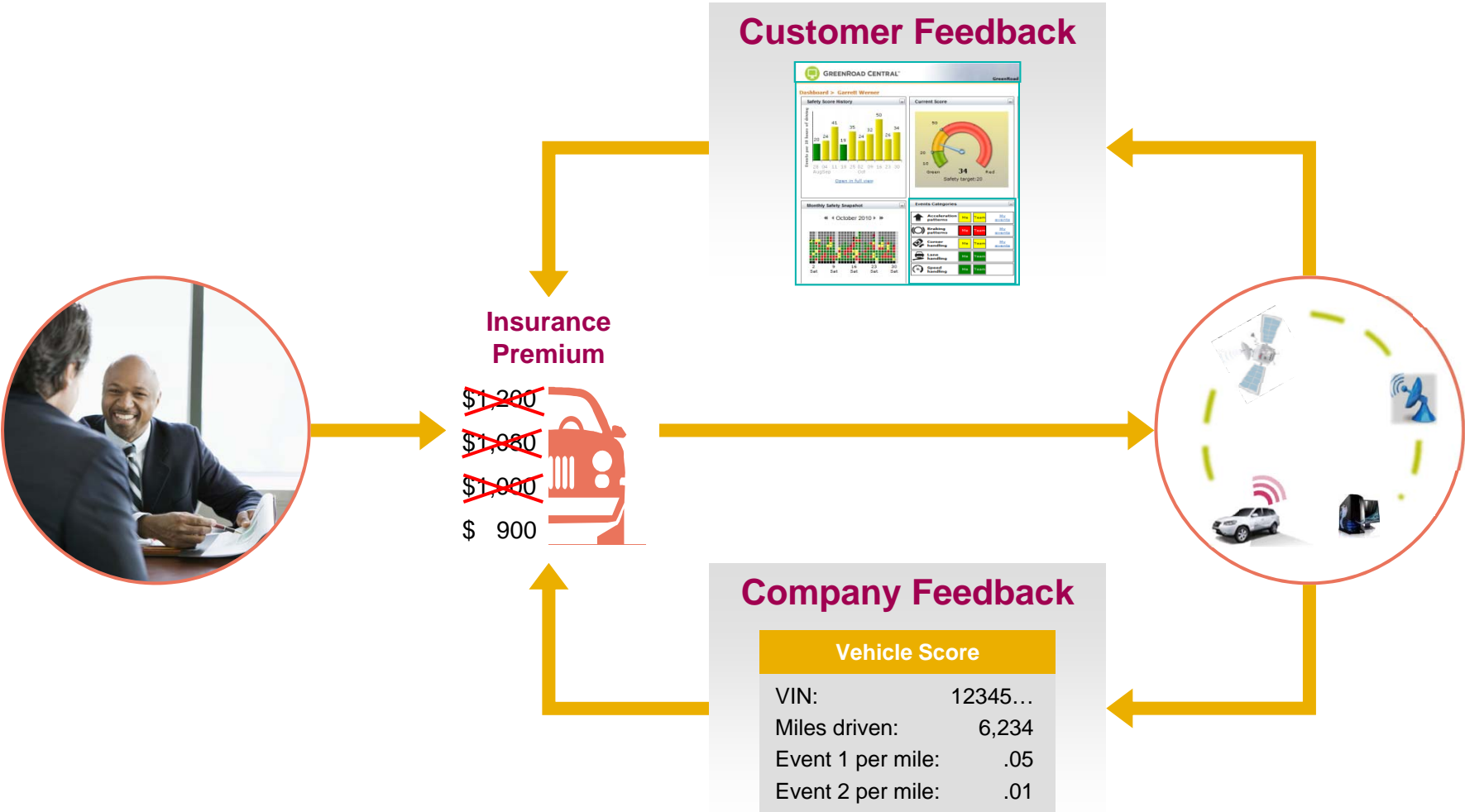
What it is

- A device collects **real-time driving data**
 - Date and time, trip duration, speed, turning forces, and even location (optional)
 - Additional data can be merged including weather, traffic, and more
- Data is sent to the insurance company who uses it to **rate the driver on actual driving behaviors**

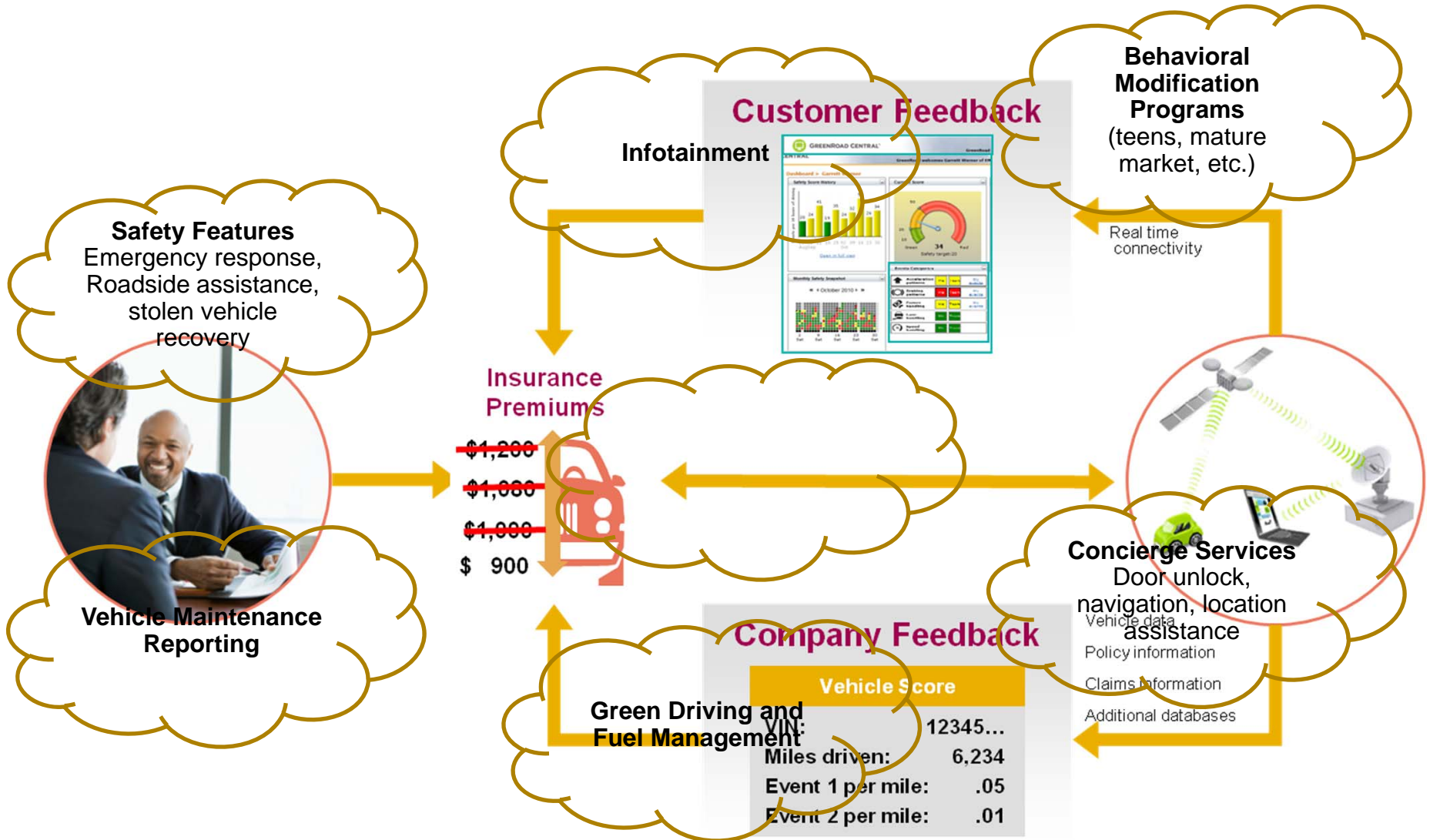
What it offers insurers

- Enhanced risk **segmentation** & improved **pricing accuracy**
- Reduced loss costs & **reduction in claims**
- Increased **consumer retention** & satisfaction
- Product differentiation & brand awareness

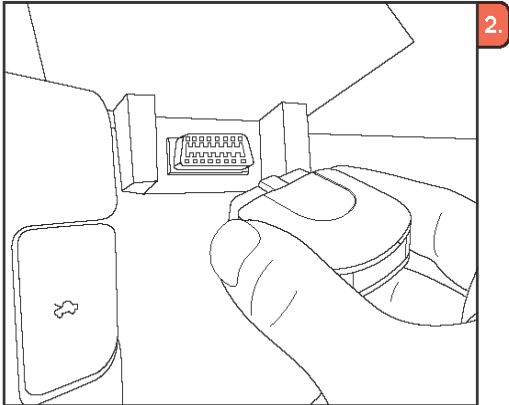
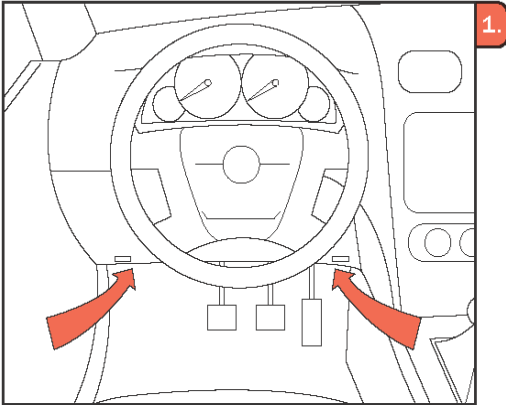
Usage-based insurance (UBI)



But what is the potential?

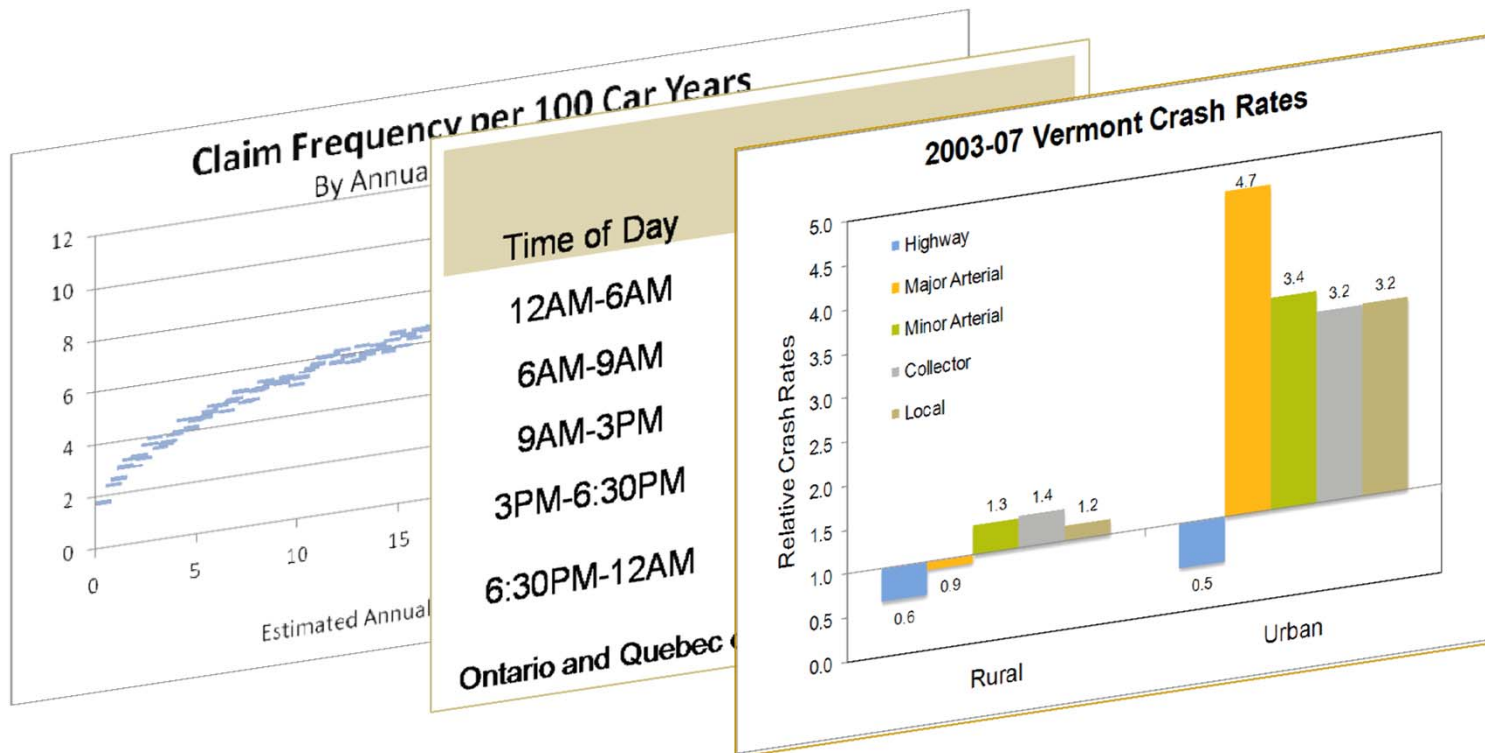


Customer Installation Experience



Telematics data is predictive

- Various studies demonstrate predictive potential



- Companies gain competitive advantage through better segmentation
- Elimination of cross-subsidization is more “fair”

What is the perspective of the consumer?

Understand it and like to control their premium

- Consumers don't like the use of credit scores because it doesn't make sense
- Generally speaking, "good" drivers opt in, get participation discounts, and have the opportunity for even greater discounts

Want access to useful driving feedback

- Accidents are the leading killer of teens; UBI programs give parents a variety of tools to help monitor and counsel their teen drivers
- Many adults are faced with elderly parents whose driving is deteriorating. UBI can help evaluate skill deterioration and provide helpful safety tips

Like options for value-added services

- Consumers generally like options
- Programs vary from basic to deluxe in their service offerings

Value companies that are "green" and "progressive"

- Society is becoming increasingly environmentally conscious, and consumers value companies that are "green"
- Younger consumers like new and different products even when the product may not appeal to them

Most consumers view UBI favorably and participants are very satisfied

How do regulators in the U.S. feel about UBI?

Want variables that are “fairly” discriminatory

- Most states require that rates are adequate and not excessive or unfairly discriminatory
- UBI varies rates based on driving behavior, which has been proven to be predictive and is clearly “fair”

Like that UBI makes sense and is controllable

- Regulators are concerned with factors like credit that don’t “make sense” to consumers; UBI makes sense
- Regulators prefer variables that give the consumer “control” to reduce costs without reducing coverage

Support “green” initiatives

- Safer driving and fewer miles significantly reduce emissions
- 14 states have pay-as-you-drive specifically listed in their climate plans

Endorse efforts to save lives

- Highway accidents result in approximately 3M injuries and 35K fatalities in the U.S. each year, and the government seeks to reduce that through various programs
- Driver feedback significantly reduces risky driving

For these reasons, regulators are anxious to approve UBI programs

What does it mean for the company?

Better pricing

- The predictive power of the telematics data is undeniable
- Initial programs included relativities from 0.39 to 1.09 on top of the existing rating plan, highlighting the additional segmentation power

Product differentiation and brand awareness

- Some programs are very basic discount programs that will appeal to price-sensitive groups; more sophisticated programs offer a wide variety of value-added services that differentiate the product
- UBI programs promote the idea that the company is “modern” and “green”

Reduced loss costs

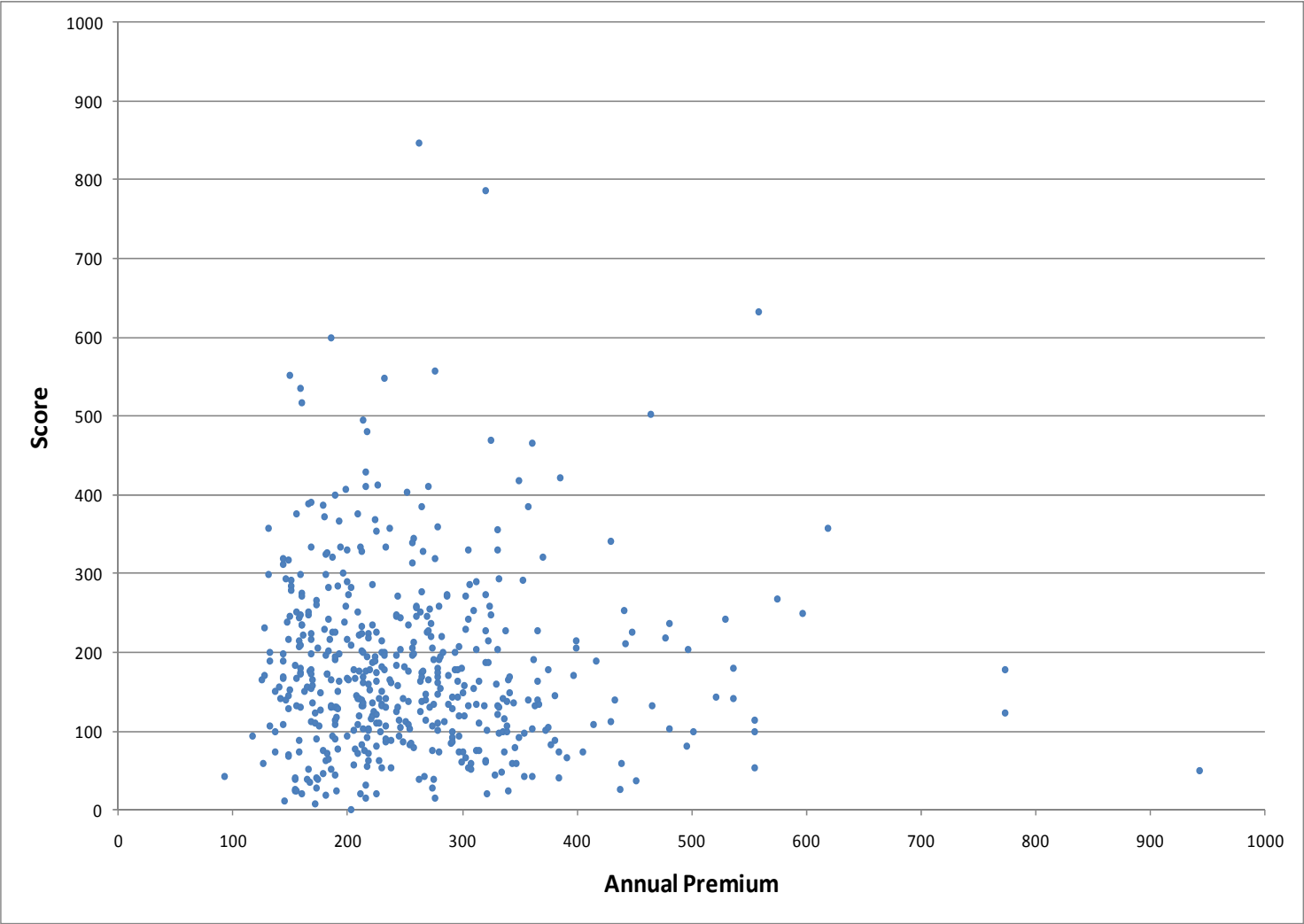
- Consumers understand UBI, so there is a significant self-selection effect
- Behavioral modification programs have been shown to significantly reduce risky driving and, consequently, accident frequency
- Potential for further reduction by using data in claims handling

Consumer satisfaction and retention

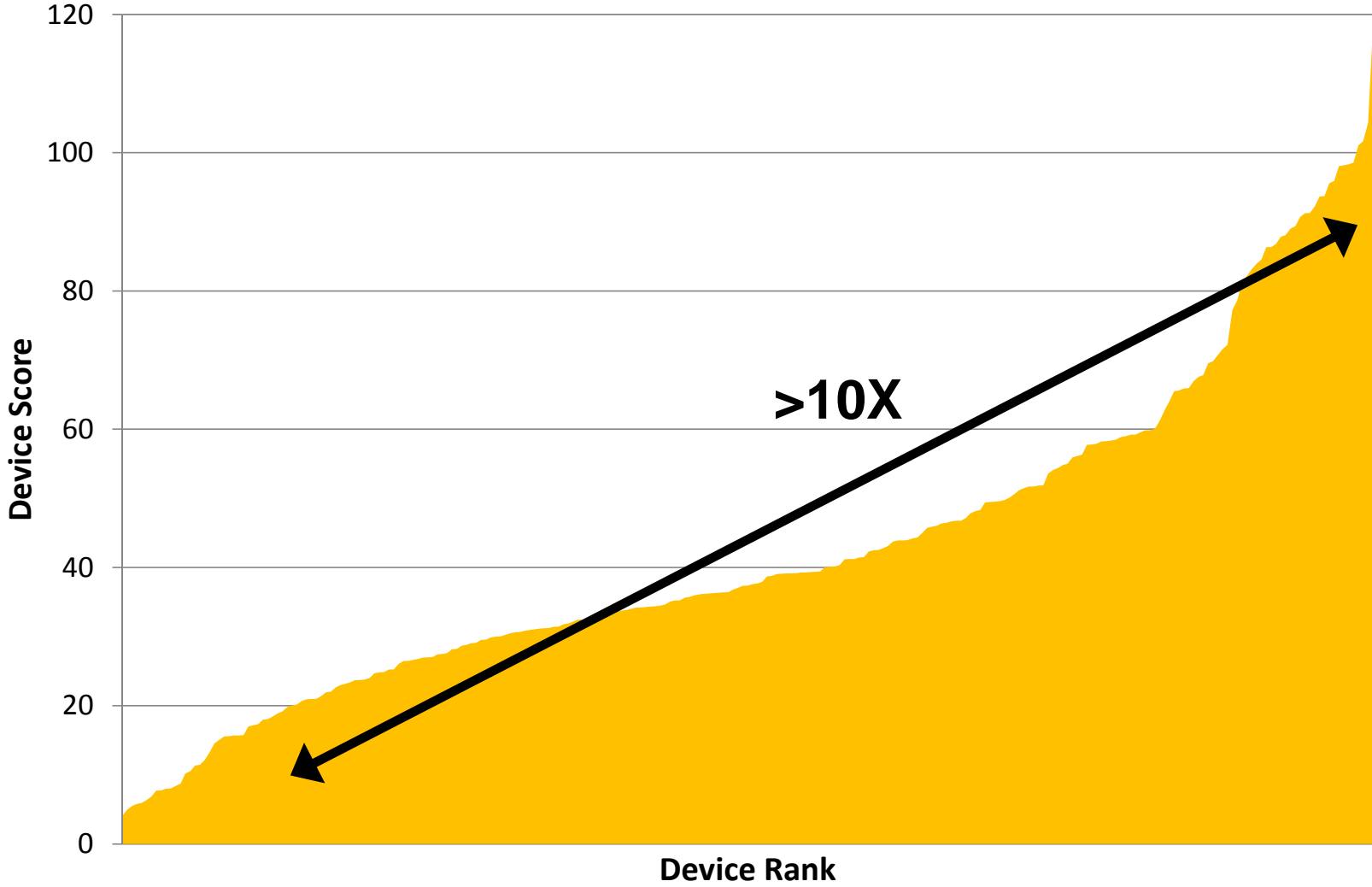
- Consumers want to pay less for their insurance and UBI gives discounts that only their current carrier can offer (as others don't know their driving behavior)
- Ancillary services (e.g., teen tracking) greatly appeal to certain consumers and make the insurance product more valuable to them
- Retaining existing customers is significantly cheaper than adding new ones

UBI programs lead to better retention and greater profits

UBI is virtually uncorrelated with current premiums...



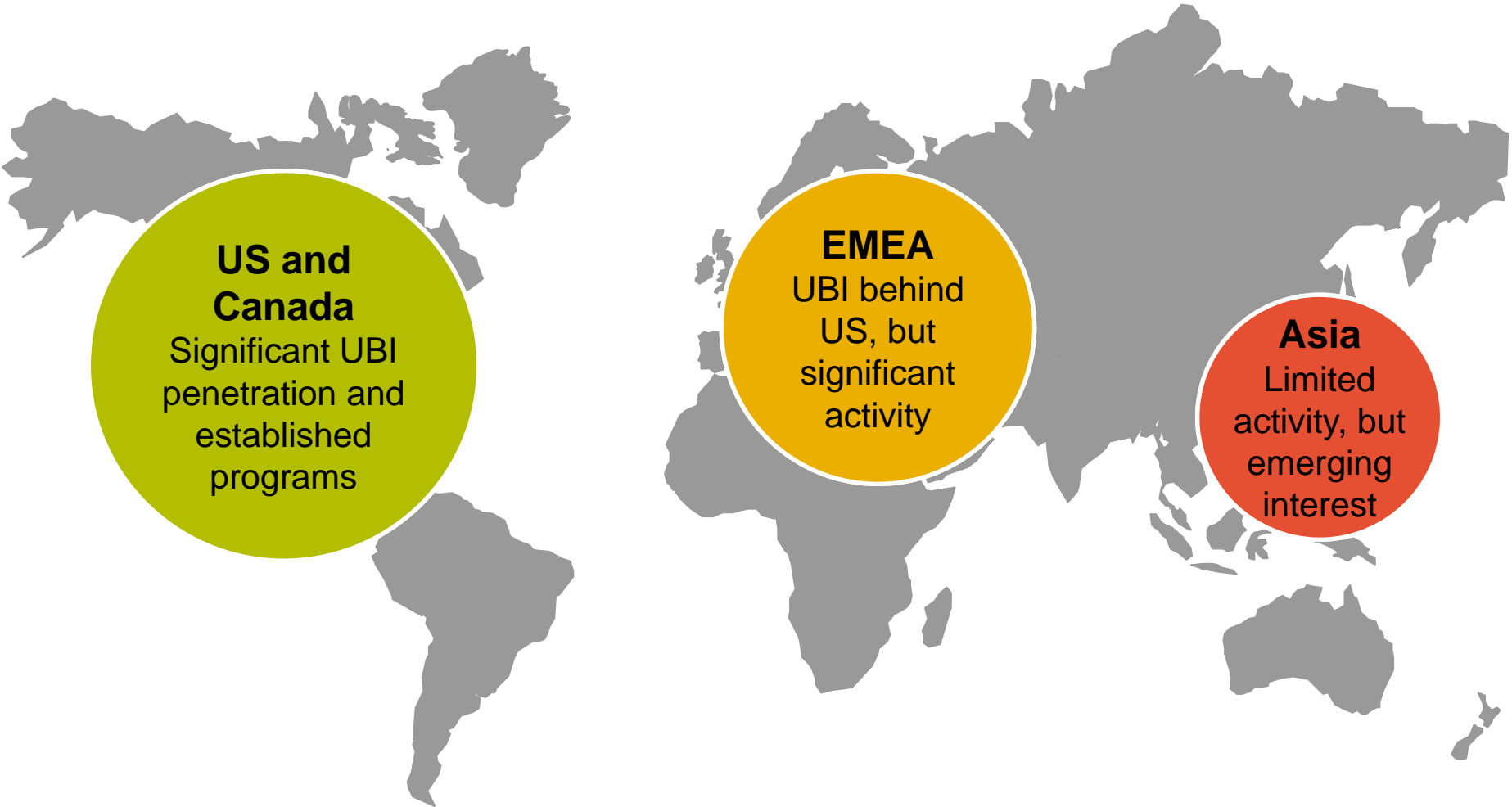
And provides significant lift



Market Update

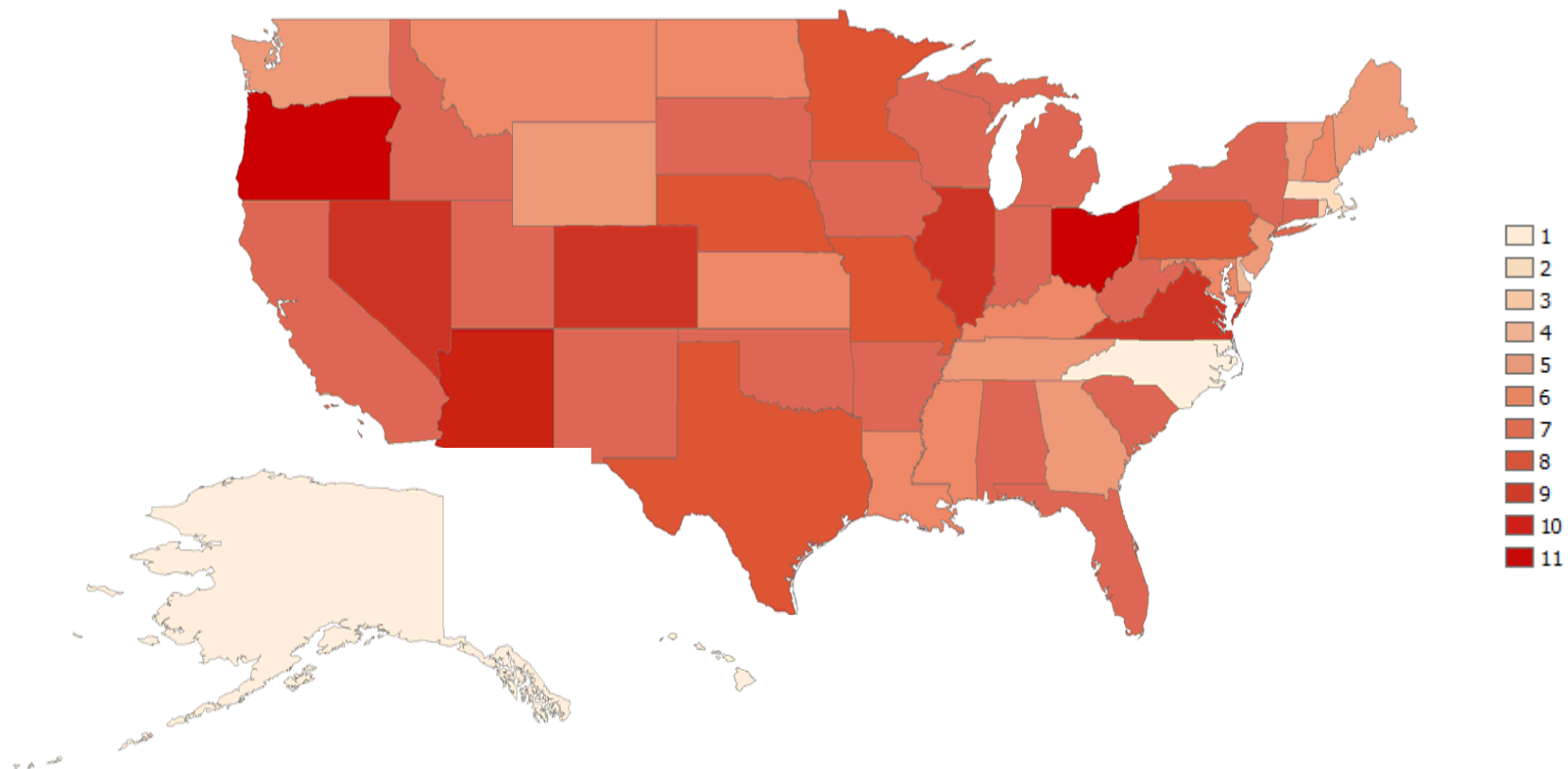
Widespread global development

Adoption still varies by region



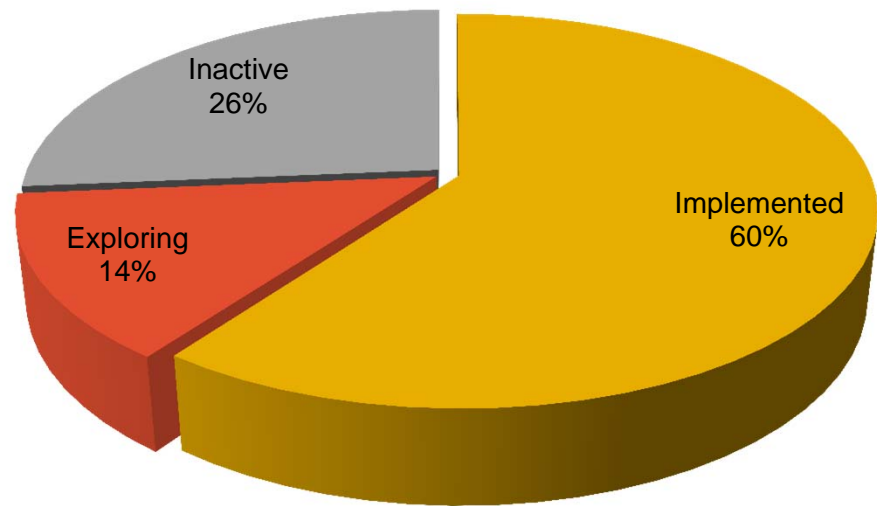
Widespread presence of personal lines programs in US

- Forty-seven states have 4+ personal auto UBI programs implemented



Top 50 U.S. private passenger auto companies

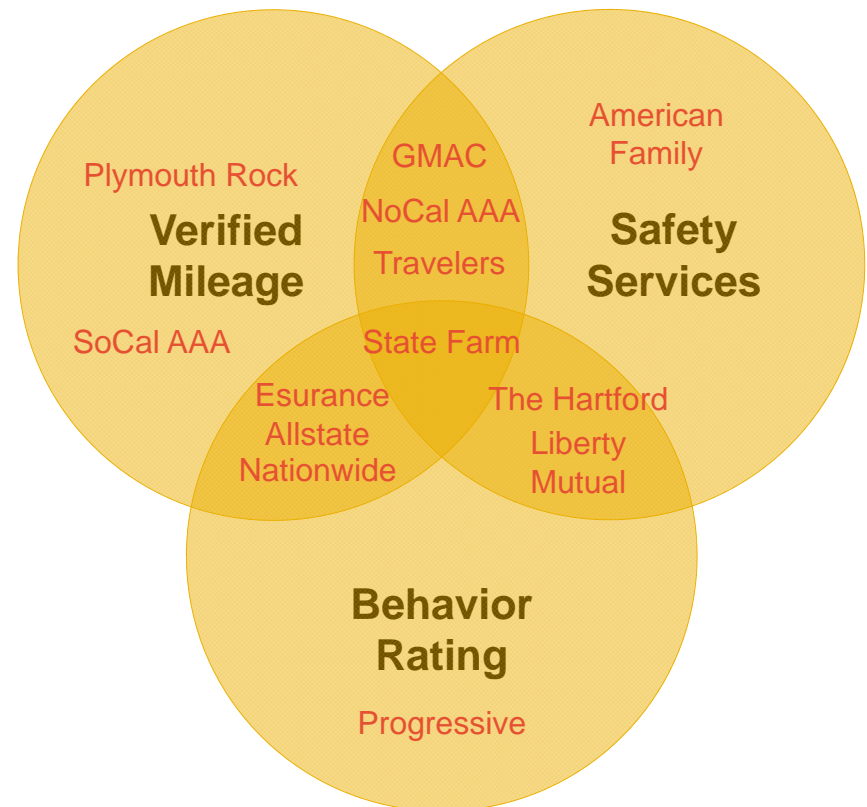
- At least eight top 10 personal auto insurers have implemented programs to insureds in at least one state
- U.S. companies representing nearly 75% of the market already have programs or are actively pursuing them



“UBI device sales rocketing from \$50 million in 2011 to approximately \$2.6 billion by 2015.”
— FC Business Intelligence

Telematics in personal auto

- Several UBI business models exist
- Many other companies, including small companies, are moving toward implementation
- Companies of all sizes and geographic distribution



Progressive's consumer proposition

PROGRESSIVE

Snapshot

PROGRESSIVE

Home

Signing Up

How It Works

Current Participants

You could get an
EXTRA 30% OFF
our best rate!

Sign up for a free, no-obligation trial of Snapshot® to get the savings you deserve for your good driving.



Sign Up in Minutes!

ZIP Code

Try It Now

Or, skip the trial.
[Quote & get Snapshot today.](#)

Here's how you try Snapshot before you decide to buy a Progressive policy!

1 Plug in the snapshot device.

Once you get your devices in the mail, plug them into each of your cars. It's easy.

2 Drive like you normally do.

For the next 30 days, we'll collect [information](#) about your good driving habits.

3 Get your personalized rate.

See how much you could save off Progressive's best rate as a good driver!

“Just earned a 22% discount on my car insurance from participating in the Snapshot program—how cool is that!”
—Chad H. via Twitter

Source: Progressive website

Progressive's program



- Optional program with customer selecting which vehicle:
- Wireless device plugged into OBD II port records time, speed and harsh braking
- Discount calculated based on first 30 days, then applied for remainder of term
- Device removed after first term and discount is fixed until significant endorsement
- Maximum discount of 30% and no surcharge in most states
- Approved in 44 states and Washington, D.C.
- Consumers can try before buying

State Farm In-Drive®

- Drive Safe & Save Program with
 - OnStar in 44 states
 - Ford Sync in 44 states
 - In-Drive® in 47 states
- Discount up to 50% based on mileage, turns, acceleration, braking, speed and time of day; 40% for mileage only
- Free 6-month introductory period, and \$6.99 to \$11.99/month standard pricing depending on additional features
 - Emergency response
 - Stolen vehicle location assistance
 - Vehicle diagnostic alerts and maintenance reminders
 - Speed alerts
 - Website and smartphone app for remote and mobile access

Existing smart phone integration

Vehicle Locator

Daily Drive Summary

- Including mileage, time, stops, trips and MPG



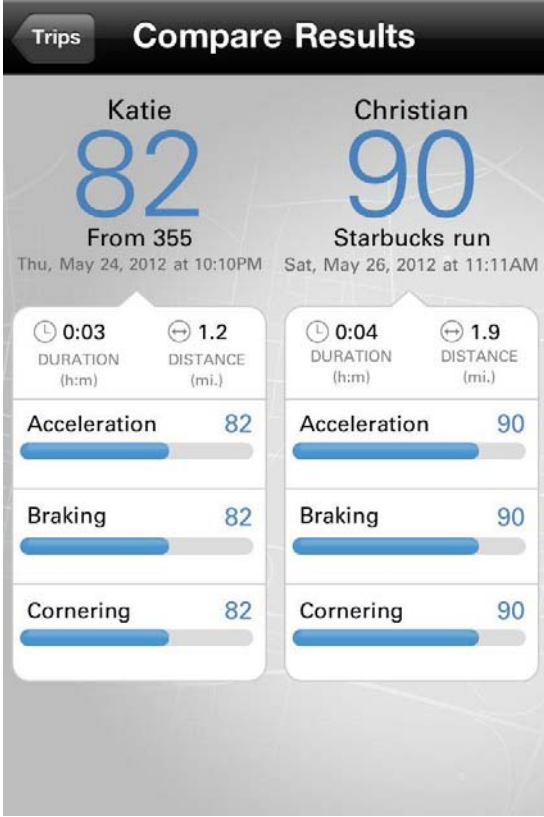
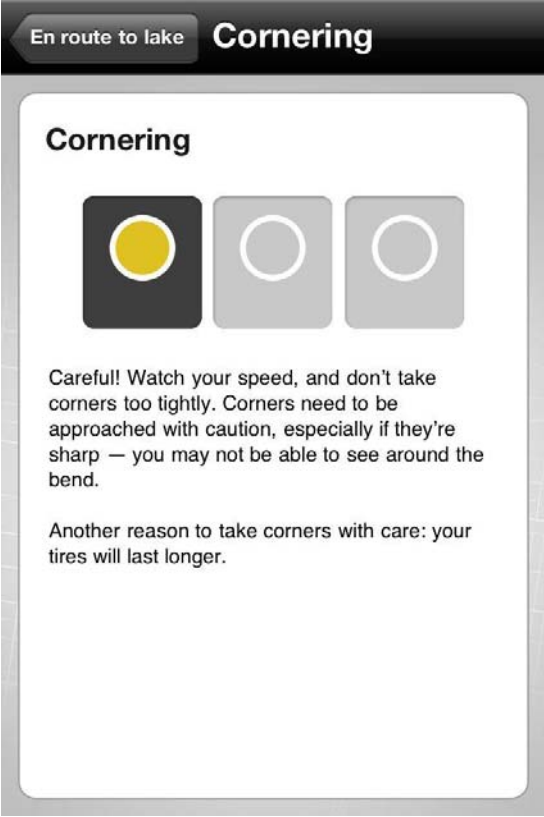
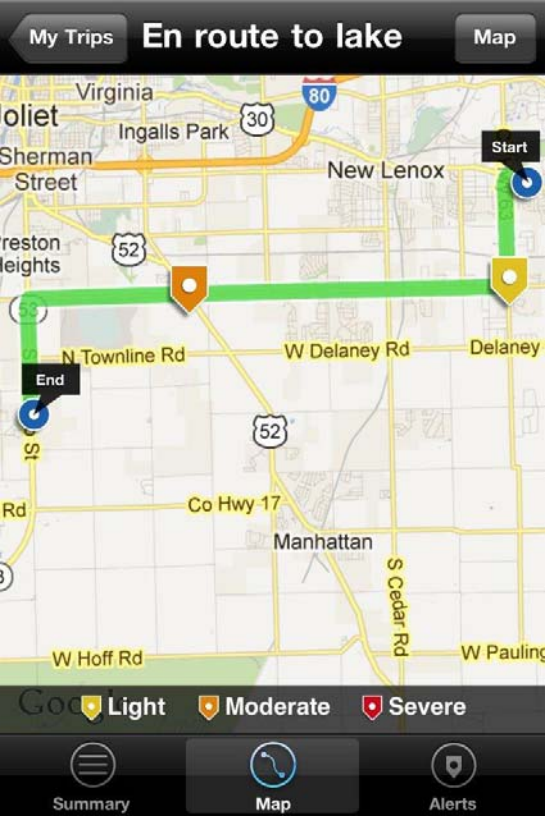
Real-time Vehicle Diagnostics

- Battery status
- Emission status
- Engine trouble codes

Accident Assistance

- Expedited claims handling
- Location and information documentation

Example of State Farm iPhone application



Device platform for 'added value' customer services

Emergency call

- Use 3D-Accelerometer and OBD speed to detect significant impacts
- Use cellular connection to post an SMS with details
- Require a back-end real-time service to pick up the event and dispatch help

Breakdown service

- Ability to trigger a 'Where am I' SMS message from the server, to assist a customer breakdown call

Limited phone capability

- To pre-defined numbers for call center support

Satellite navigation

- If linked to a PND screen in car

Business trip log

- Distinguish business travel from personal use

Theft service

- Detect motion without ignition start-up
- Tracking and call for help (in extreme implementations, disable the car)

Remote safe mode activation

- Activates Geo-fence and other driving thresholds via an SMS message

Geo-fence service

- Detect location outside boundary zone
- Trigger notification (in extreme implementations, disable the car)
- Notification of driving exceeding other thresholds (speed, braking)

Driver feedback


- Real-time buzzer in car facility
- Reports and mapping in customer portal website

Subscription services could enhance claims management, address fraud, subsidize cost of launch and generate revenue

Shift in product vs. price focus unclear

Convenient Mobile Application

- ▶ Access to your savings and driving Report Card
- ▶ Real-time access to vehicle location on-the-go
- ▶ Detailed breakdown of miles per gallon and vehicle diagnostics



Progressive



Sign up for a **FREE** trial

Now you can test drive Snapshot to see how much you can save. No purchase necessary.

[Learn more](#)

FEATURE FOCUS

PRICE PROPOSITION

- Opportunity to de-commoditize the product
- Product/service focus including driver coaching require an understanding of driving behavior and the key influencing factors

- Will price remain king with more powerful risk segmentation?
- Price focus will require strong analytic insight with more data to create new risk factors from telematics data

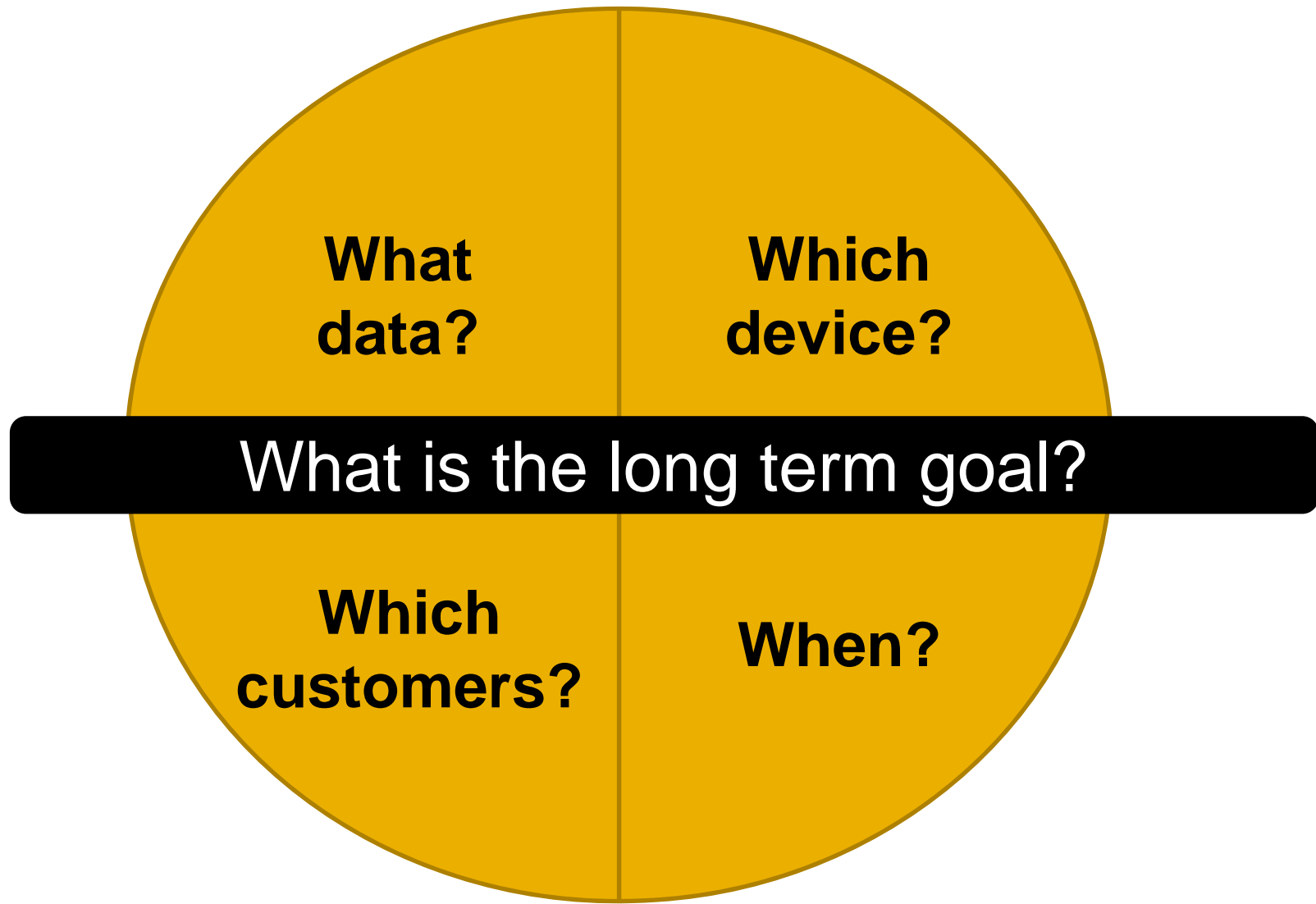
Telematics in commercial auto

- Implementation varies widely dependent on type and size of fleet
 - Large, long haul trucking has significant penetration – ~80%
 - Small, artisan fleets - <10%
- Primarily used for fleet management, not insurance
- Many telematics manufacturers and distributors; professional installation typically required
 - Annual maintenance provides opportunity
 - High average premium justifies cost
- Commercial auto insurers are moving quickly to catch up with personal auto insurers
 - At least four top 10 commercial auto insurers have implemented programs with others in exploration phase
 - A third of the top 50 insurers are exploring or implementing programs; the size of the segment is increasing quickly

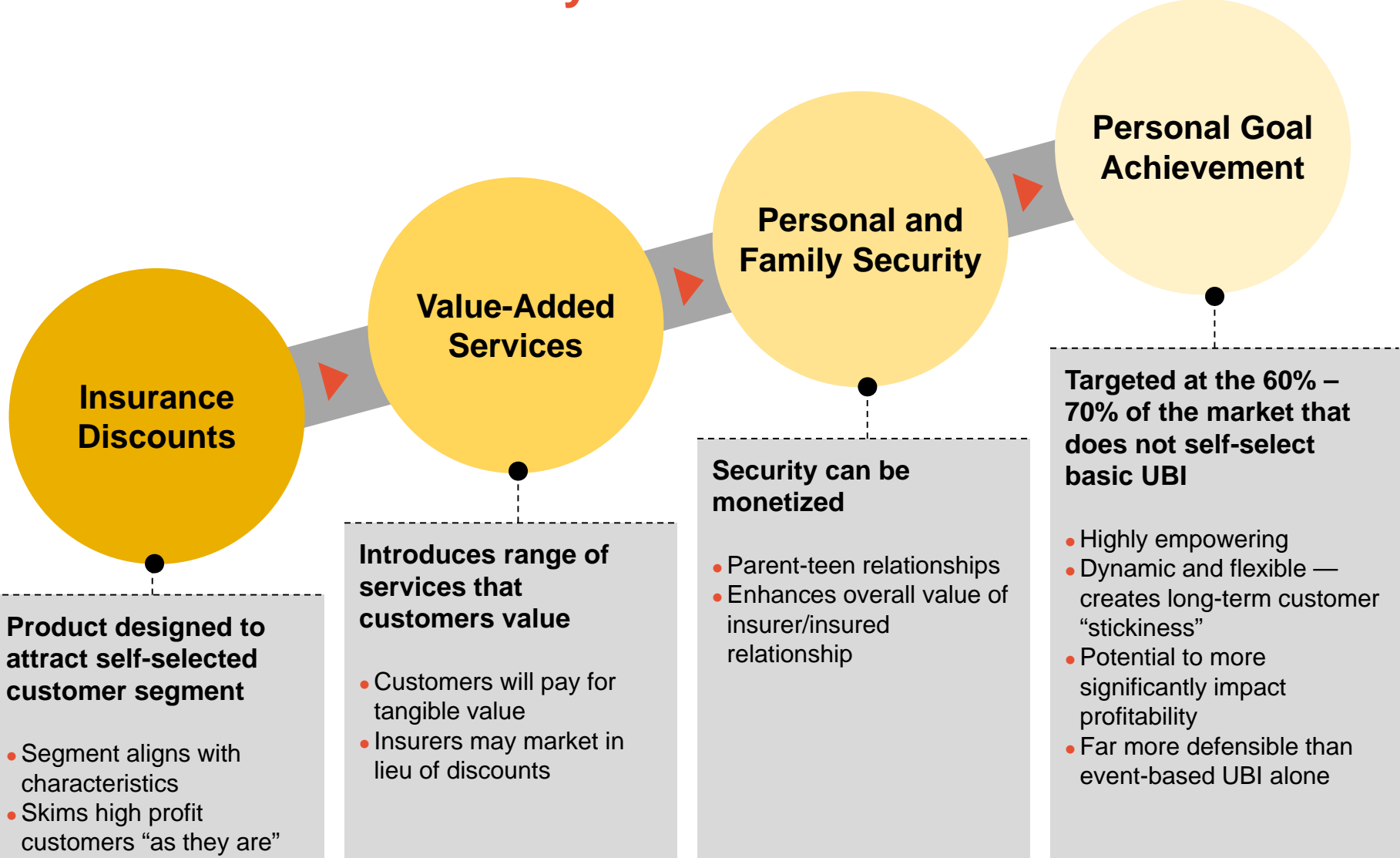


The Challenges of UBI

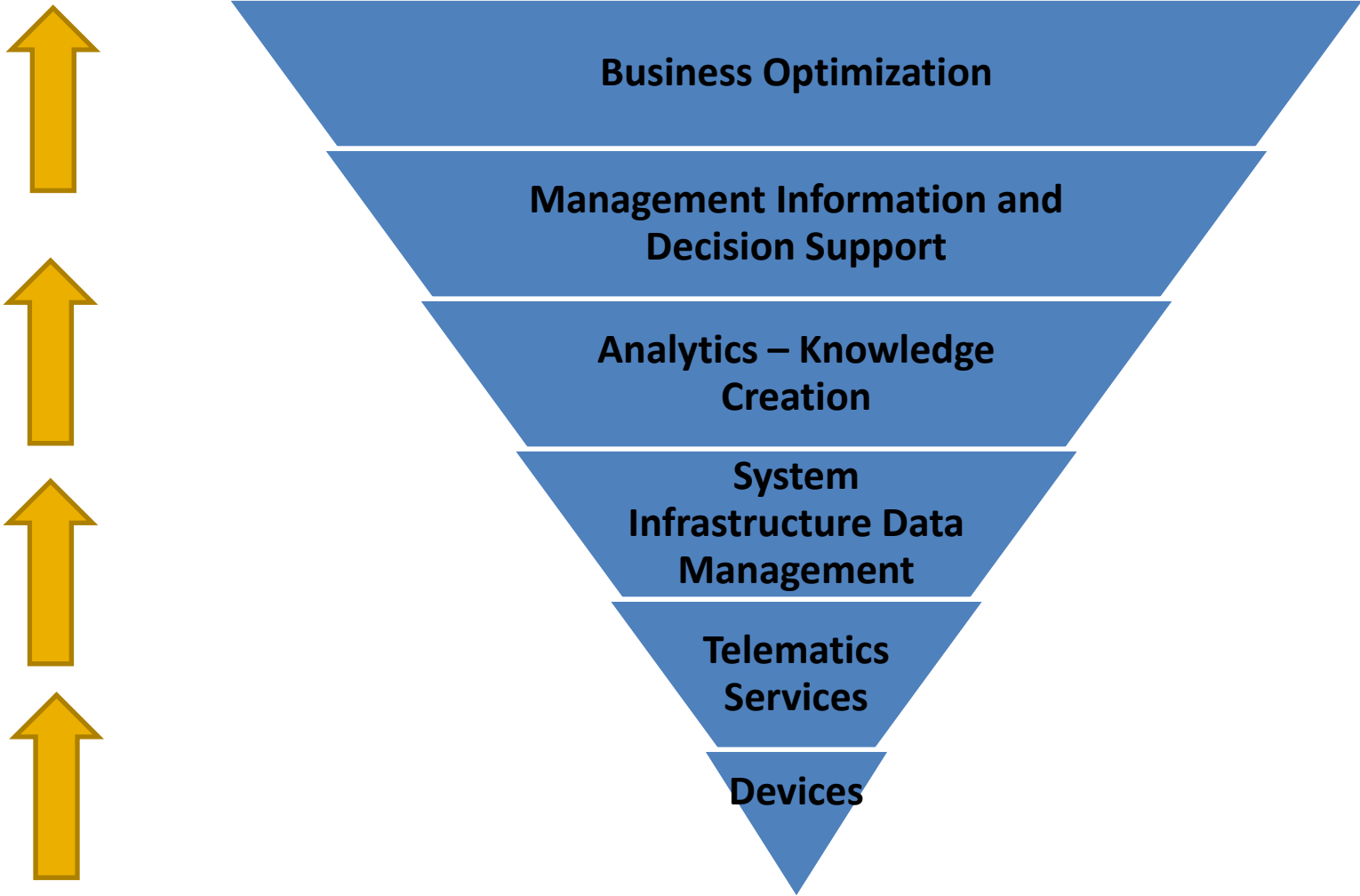
Problems to Overcome



Evolution of value — Beyond discounts



UBI Value Pyramid



Learning from Mistakes

- Don't overspend on initial infrastructure
- Devices are just a tool, not the solution
- Find the right solution for your value proposition
- Get the data you need, not the data you're given
- Understand the consumer need
- Consumers will want choice
- Test, learn, and adapt



Contact information

Kelleen Arquette, FCAS, MAAA

(509) 258-8876

Kelleen.Arquette@towerwatson.com

Towers Watson

www.towerwatson.com