



Data Privacy vs. Insurance Discount: Which Will Policyholders Choose?

Casualty Actuarial Society Special Interest Seminar

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Is data privacy an issue?

National Security Administration and Verizon

- NSA collected phone records of millions of Verizon customers
- Data collected for three months
- Data included phone numbers of both parties, location, call duration, and time
 - Contents of conversations were not covered
- Debate over governmental authority in domestic surveillance
- Not UBI related, but an example of why data privacy is a concern

What is UBI?

Usage-based auto insurance

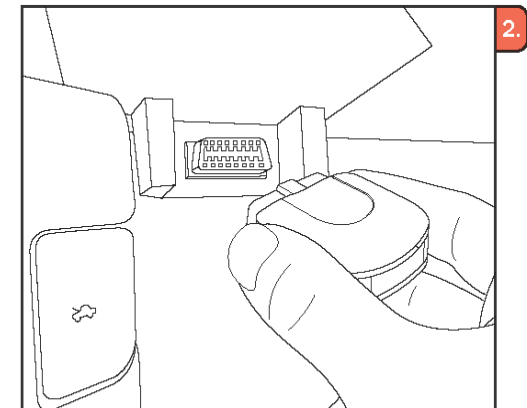
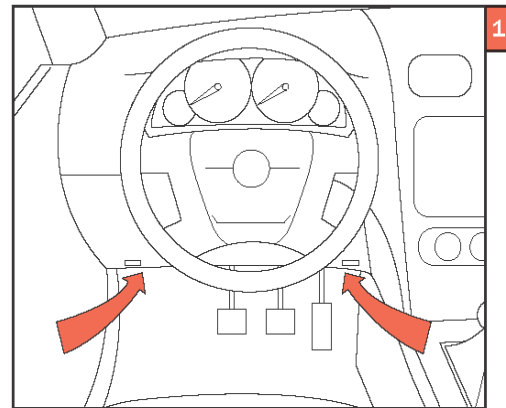
What it is

- 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

Customer Installation Experience



Insurers often ask customers to explicitly opt-in by signing Terms and Conditions. The voluntary act of plugging in devices is an unusual level of participation and acceptance in insurance.

What is does UBI data look like?

Simple example UBI data for 2½ minute trip

TRIP:	1													
DATE:	12-Jun													
Time	MPH	Time	MPH	Time	MPH	Time	MPH	Time	MPH	Time	MPH	Time	MPH	
0:00:00	2	0:00:25	12	0:00:50	9	0:01:15	2	0:01:40	0	0:02:06	30			
0:00:01	2	0:00:26	11	0:00:51	12	0:01:16	0	0:01:41	0	0:02:07	32			
0:00:02	0	0:00:27	10	0:00:52	14	0:01:17	2	0:01:42	0	0:02:08	32			
0:00:03	0	0:00:28	9	0:00:53	15	0:01:18	5	0:01:43	0	0:02:09	33			
0:00:04	0	0:00:29	9	0:00:54	14	0:01:19	7	0:01:44	0	0:02:10	33			
0:00:05	2	0:00:30	9	0:00:55	12	0:01:20	9	0:01:46	0	0:02:11	34			
0:00:06	6	0:00:31	9	0:00:56	12	0:01:21	11	0:01:47	0	0:02:12	35			
0:00:07	7	0:00:32	10	0:00:57	11	0:01:22	13	0:01:48	0	0:02:13	35			
0:00:08	9	0:00:33	11	0:00:58	9	0:01:23	15	0:01:49	0	0:02:14	35			
0:00:09	9	0:00:34	12	0:00:59	8	0:01:24	17	0:01:50	0	0:02:15	35			
0:00:10	8	0:00:35	12	0:01:00	6	0:01:25	18	0:01:51	1	0:02:16	35			
0:00:11	8	0:00:36	14	0:01:01	5	0:01:26	19	0:01:52	7	0:02:17	33			
0:00:12	7	0:00:37	14	0:01:02	5	0:01:27	19	0:01:53	11	0:02:18	30			
0:00:13	7	0:00:38	15	0:01:03	5	0:01:28	17	0:01:54	12	0:02:19	28			
0:00:14	7	0:00:39	14	0:01:04	4	0:01:29	15	0:01:55	13	0:02:20	24			
0:00:15	7	0:00:40	12	0:01:05	4	0:01:30	14	0:01:56	13	0:02:21	21			
0:00:16	7	0:00:41	11	0:01:06	4	0:01:31	13	0:01:57	12	0:02:22	17			
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0:00:18	9	0:00:43	10	0:01:08	4	0:01:33	7	0:01:59	13	0:02:24	11			
0:00:19	12	0:00:44	9	0:01:09	4	0:01:34	3	0:02:00	15	0:02:25	7			
0:00:20	13	0:00:45	7	0:01:10	2	0:01:35	0	0:02:01	18	0:02:26	5			
0:00:21	14	0:00:46	7	0:01:11	2	0:01:36	0	0:02:02	20	0:02:27	3			
0:00:22	15	0:00:47	6	0:01:12	3	0:01:37	0	0:02:03	23	0:02:28	0			
0:00:23	15	0:00:48	6	0:01:13	4	0:01:38	0	0:02:04	26	0:02:29	0			
0:00:24	14	0:00:49	7	0:01:14	5	0:01:39	0	0:02:05	28	0:02:30	0			

UBI data is different...

- Consider a typical commuter
 - 20 minute commute

1,200 records of data

- Twice daily commute, 5 days a week, one year

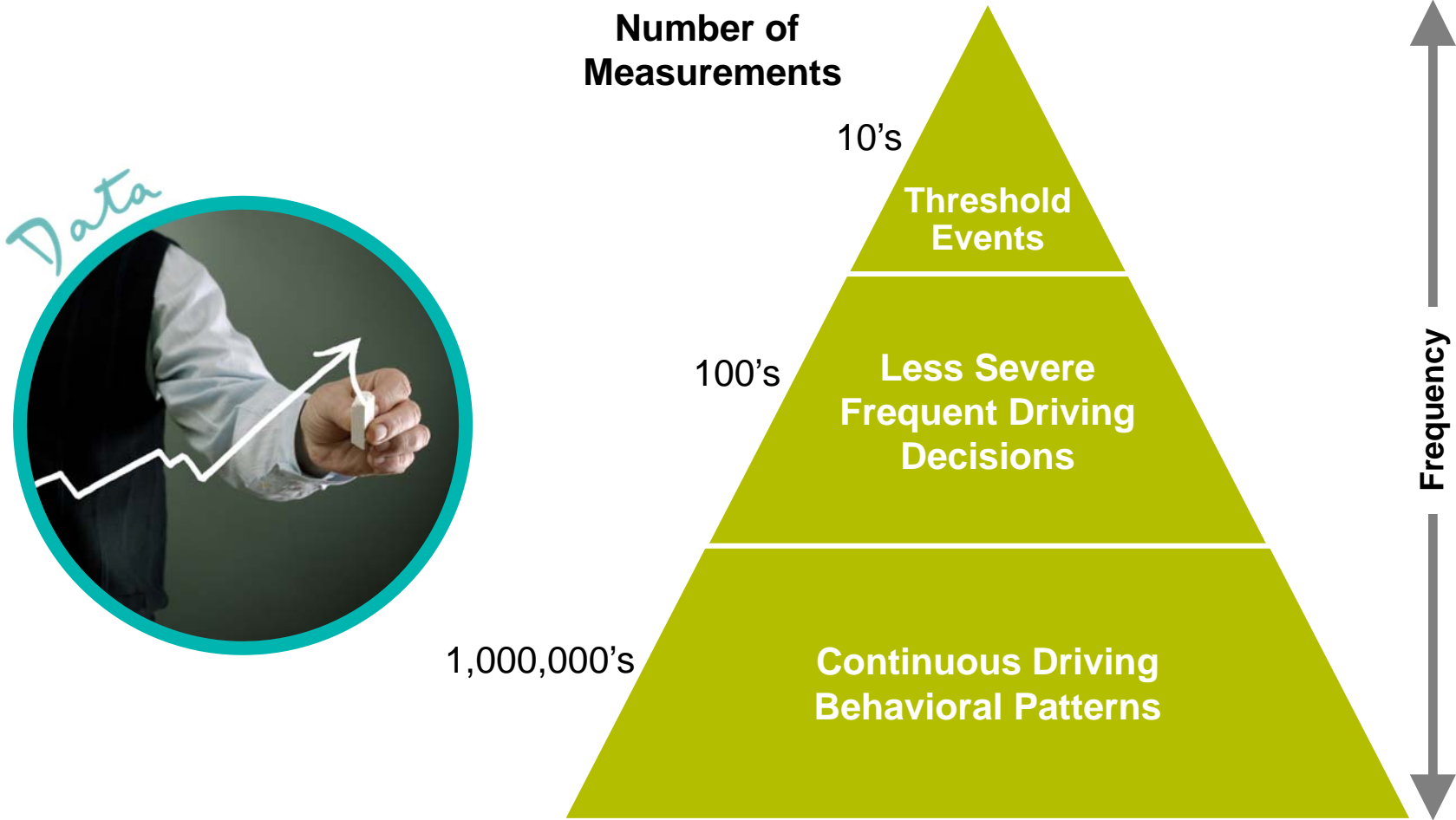
500,000 records of data

That's just one vehicle!

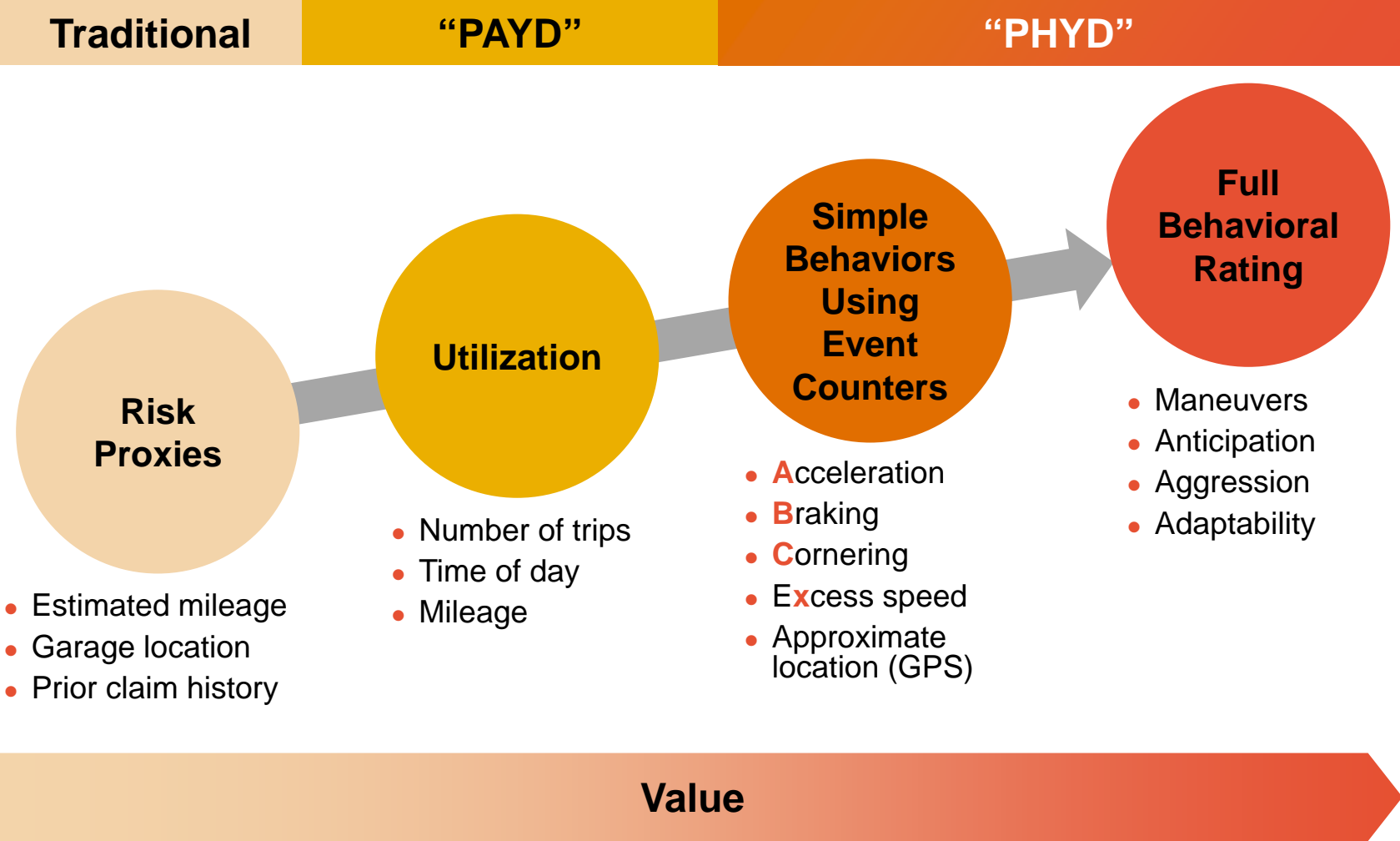
... and exceptionally challenging

	Without UBI	With UBI
Update frequency	Semi-annual	Real time, trip, daily
Data quality	Renewal UW	Daily scrubbing
Variables	Dozens	Hundreds
Records per policy	Dozens	Millions
File size	Gigabytes	Terabytes [Petabytes?]

Generally three levels of driving data



Data granularity and the consumer proposition



What do customers think about sharing their data?

UBI in the social world

- Sharing is becoming the norm
 - Facebook has 1.06 billion monthly active users
 - 680 million of them are mobile users
 - Twitter has 200 million active users
- We already use devices that track our data
 - Phones
 - Cars
 - Services – OnStar and Sync
 - Safety – “Black Boxes”

Customer may share their data if the benefits appeal to them

A UBI proposition provides the opportunity to offer customers a **tangible product proposition**, including:

- **Control** — based on transparency of rating factors
- **Options** — based on use of vehicle, driving activity, travel needs and lifestyle
- **Promises** — of service and support when needed
- **Engagement** — no longer based around once a year

with

- **Flexibility** — to swap product, switch on/off, change or upgrade
- **Feedback** — designed to suit target audience interests
- **Features** — not previously available to the motor insurance customer



UBI offers many features



**Pricing Accuracy
Based On Risk**



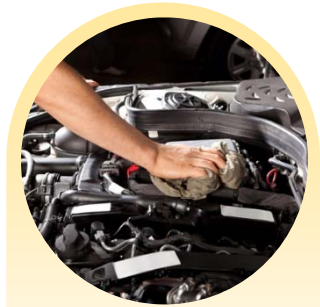
**Behavioral
Modification
Programs**

(teens, mature market, etc.)



**Safety
Features**

Emergency response,
roadside assistance,
stolen vehicle recovery



**Vehicle
Maintenance
Reporting**



**Green Driving and
Fuel Management**



**Concierge
Services**

Door unlock,
navigation, location
assistance



**Safer Roads
and Lives Saved**

Towers Watson UBI Consumer Survey



The marketplace is ready for widespread adoption of UBI

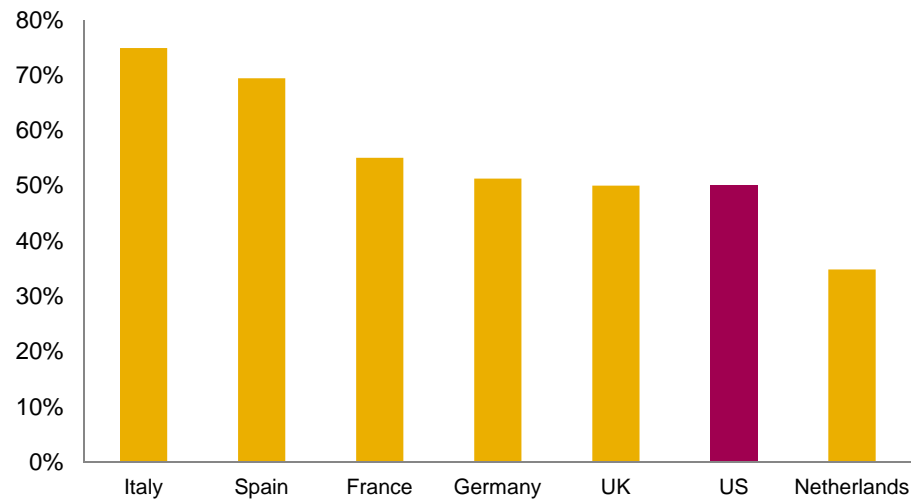
50%

Definitely or probably interested in U.S.

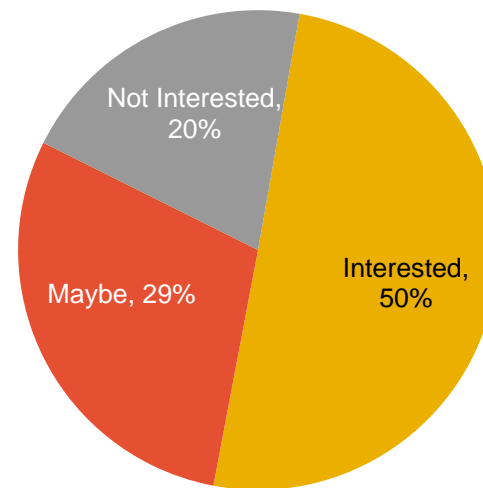
79%

Would be open to UBI in the U.S.

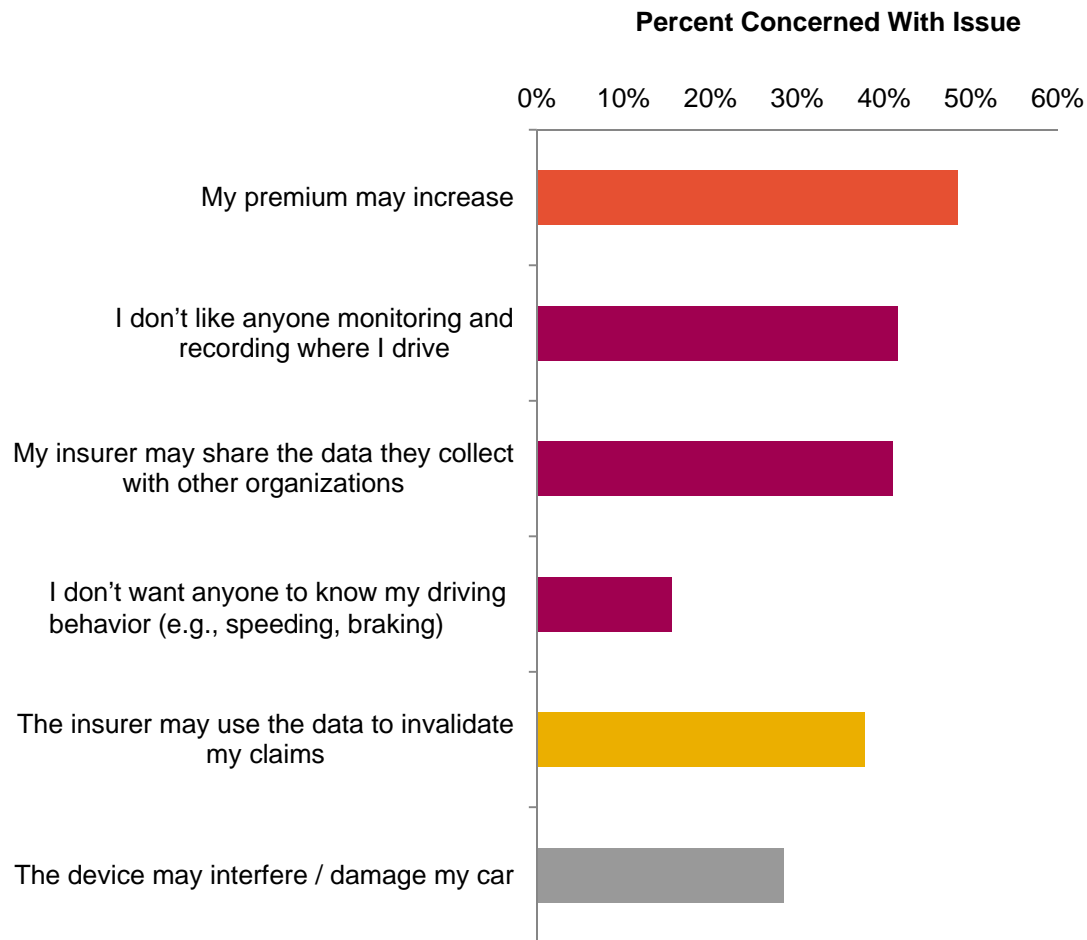
Percent interested in UBI, by Country



U.S. Interest in UBI



What are insureds' main concerns with UBI?



Money

49% worried that premium will increase

Privacy

~40% worried about sharing their data

Claims

38% worried claims will be invalidated

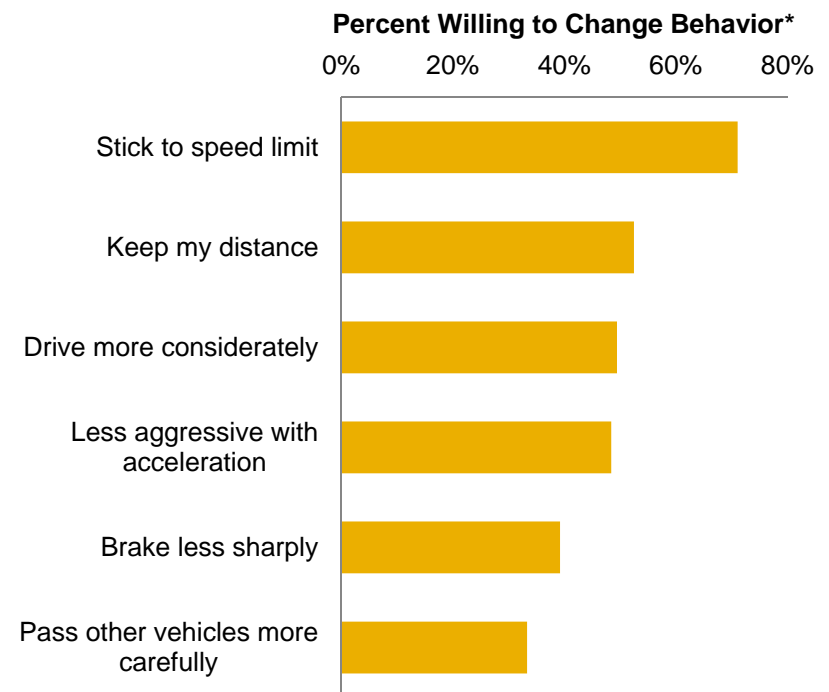
There is a large appetite for behavioral change features

60%

of those interested in UBI are willing to change their driving behavior

- Sticking to speed limit
 - keeping distance
 - driving more considerately
- are top three behaviors people are willing to change

Behaviors Willing to Change



*Percentage taken of those that indicated they are willing to change behavior (i.e. ignores those that are not willing to change behavior).

Are data privacy concerns impacting UBI implementation?

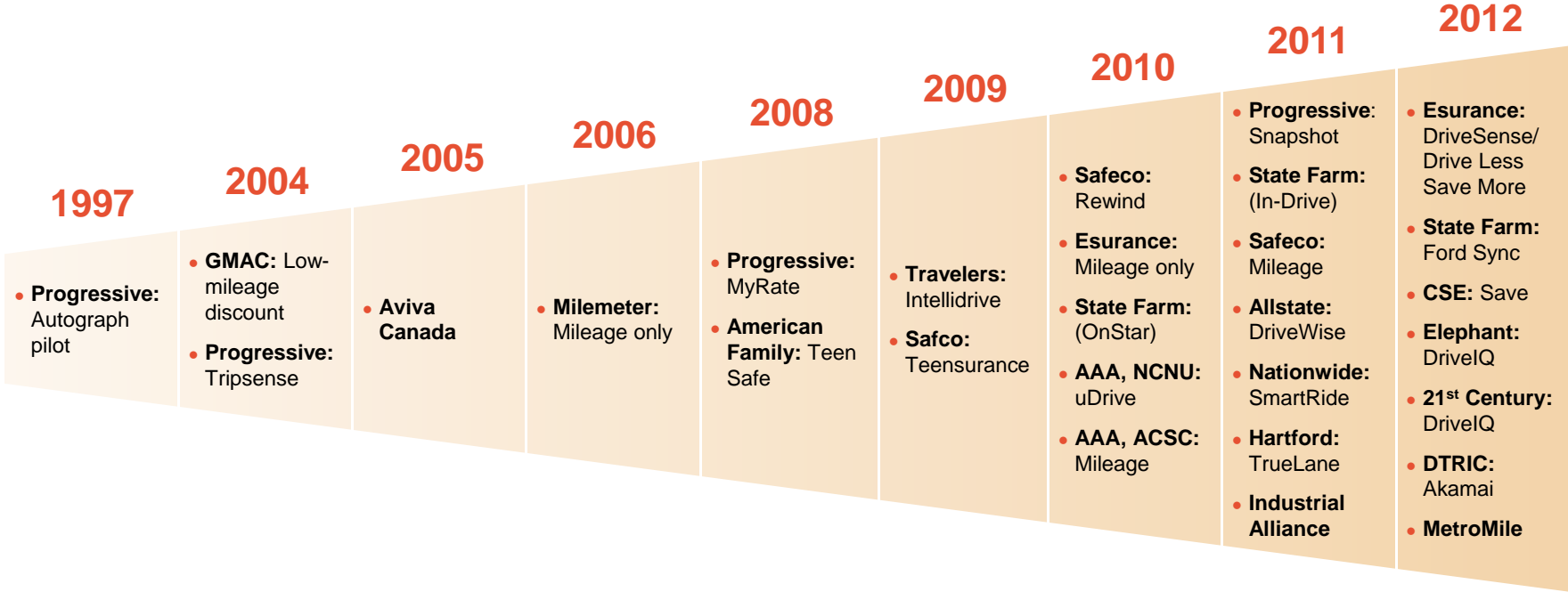
Product design

- UBI programs are voluntary
 - Policyholder must choose to enroll
- Terms and conditions
 - Policyholder must plug device into vehicle (or install app)
 - Another form of product terms and conditions acceptance
- Web portal
 - Policyholder can log-in to see how they are doing and how they can improve
 - Data can be shared with the policyholder to help them understand the risk they represent to the insurer
- Benefits must out-weigh the risks
 - Customer value proposition
 - Target market

Product design

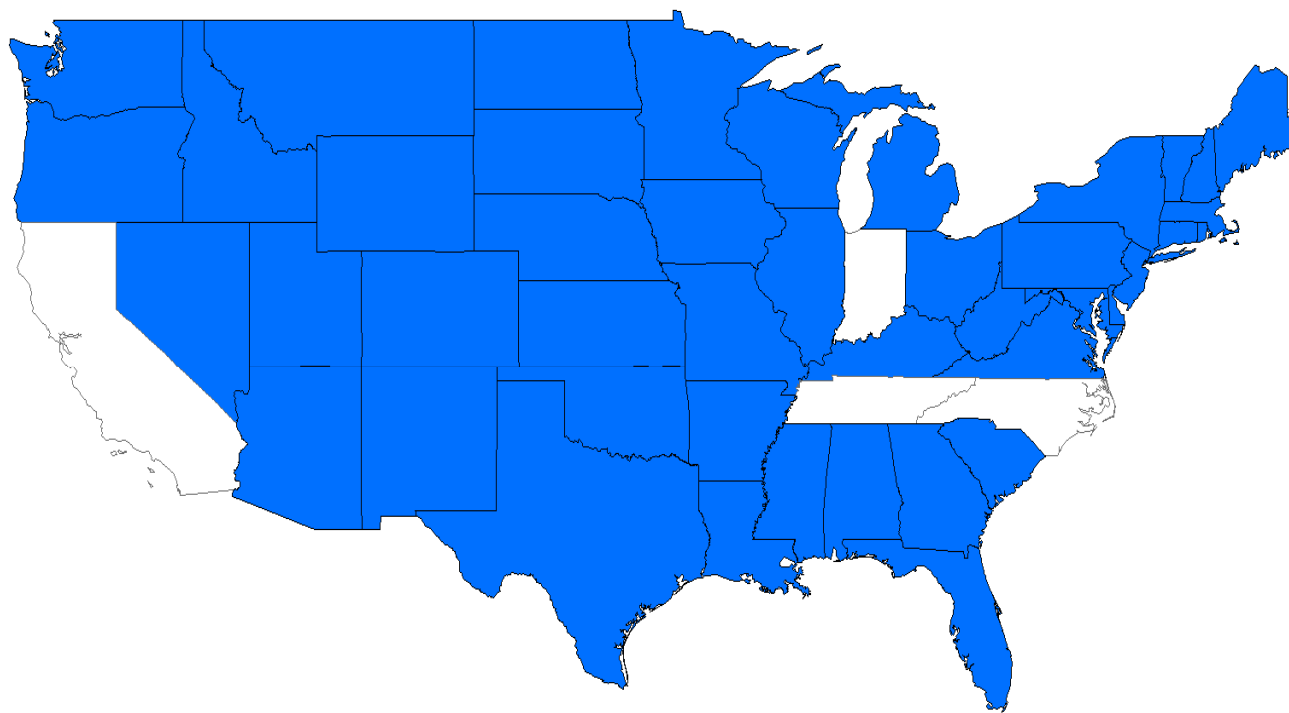
- Policyholders will expect:
 - Transparency in how data is used
 - Transparency in who has access to the data
 - Data will be secured
- Insurance company needs to gain and keep the policyholder's trust

UBI programs have proliferated in North America despite concerns over data privacy





Progressive Snapshot Discount™ — 44 States + DC



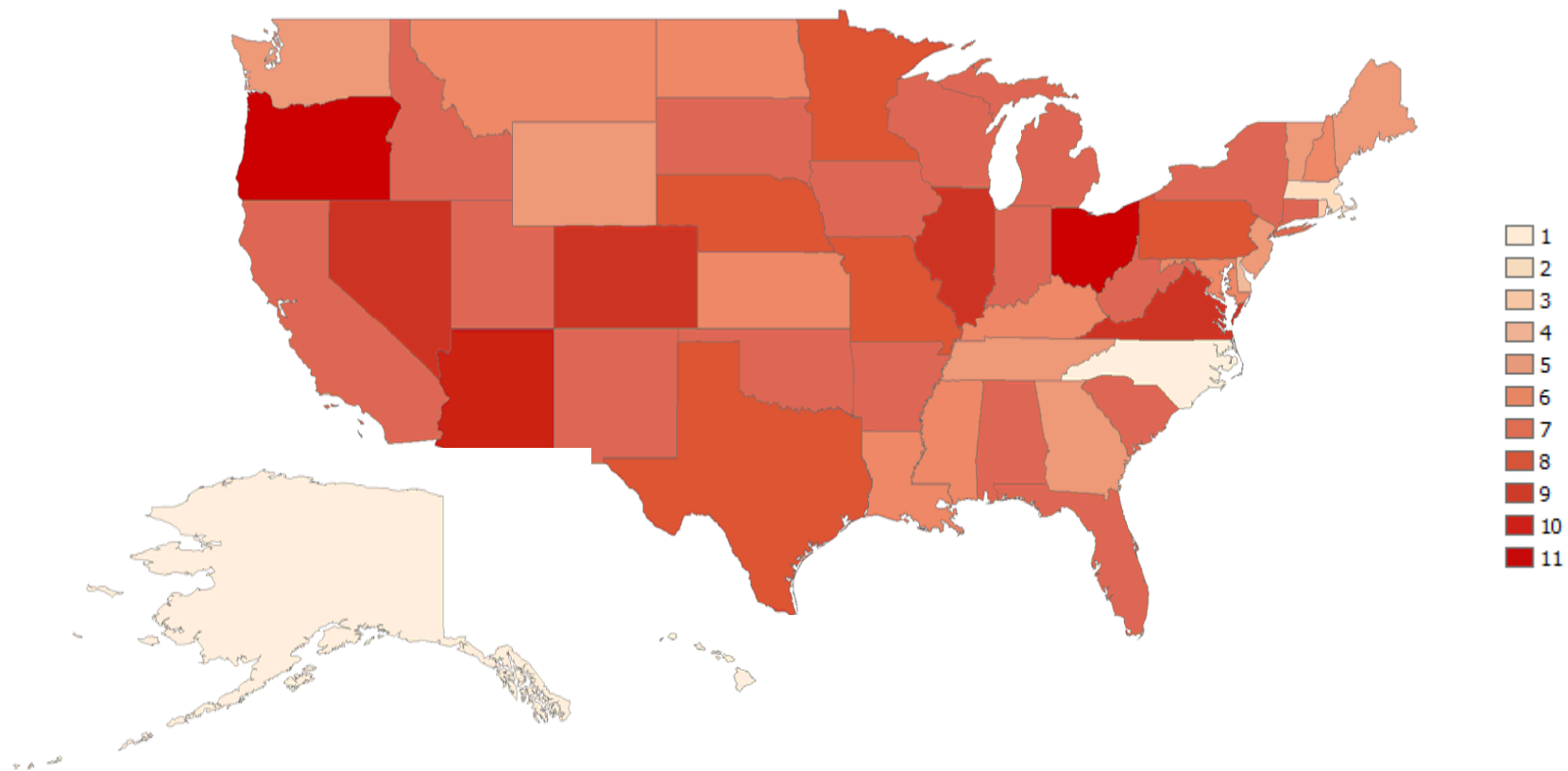
More than \$1.4 billion of Snapshot premium

“The name of the game is the quantity of data and the quality of analysis and insight. We’ve got a 15-year, five billion-mile head start on other insurers, and we’ll only extend our lead as more drivers try Snapshot.”

— Richard Hutchinson, Snapshot General Manager

Widespread presence of personal lines programs in US

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



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