

Telematics and Fleet safety Programs

- Telematics have operational benefits
- Are effective with some crash/loss types and less effective with others
- Need management engagement
- Solutions that highlight “training” as a control measure might not produce the desired results
- Telematics needs to be part of an overall program

Elements of Well Performing Fleet Programs

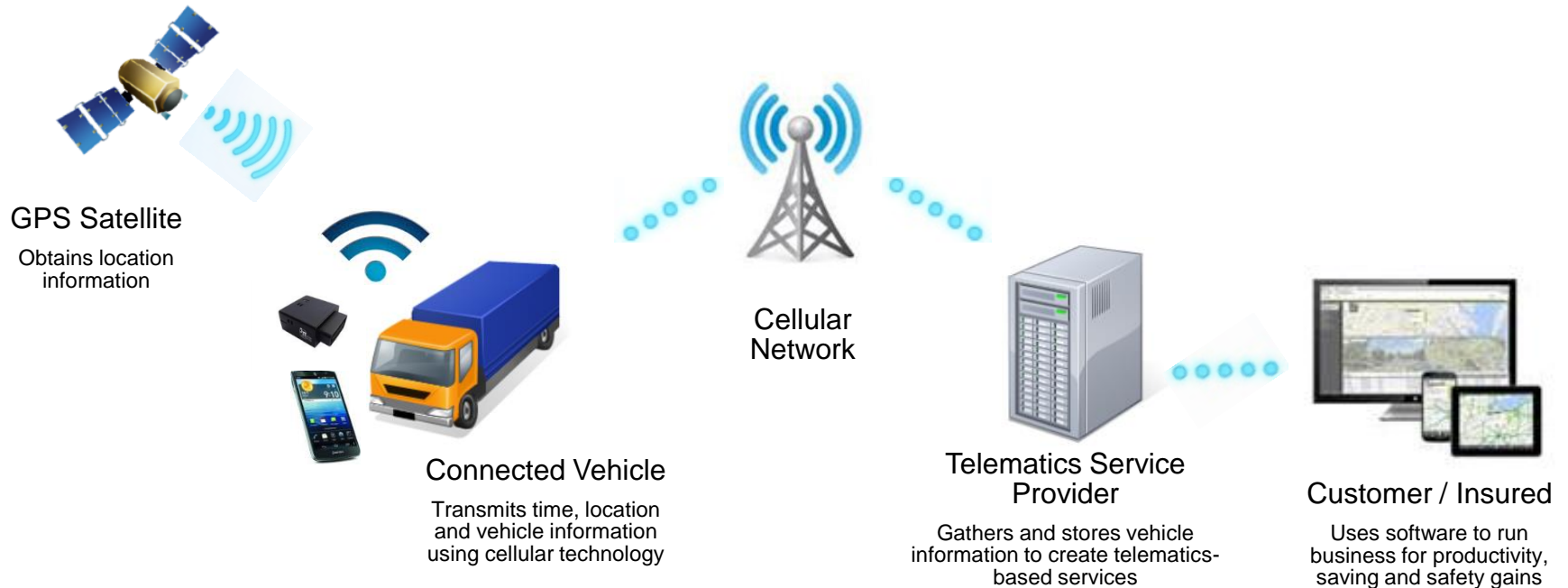
- Select drivers based on their history and ability to perform the job
- Establish and communicate expectations on how jobs should be performed
- **Monitor performance against the expectations**
- **Provide feedback on performance**
- **Change behaviors that do not meet expectations**
- Document actions taken as policy

Telematics Overview

Information

Connectivity

Intelligence



Technology Platforms

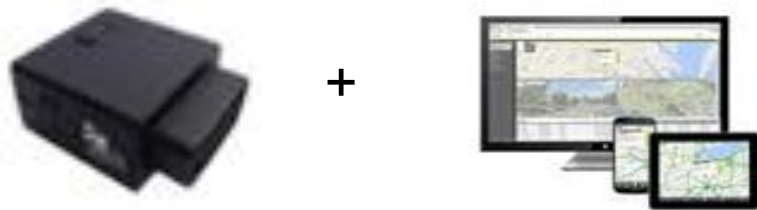
Smart Phone App or App tethered to OBDII



After Market Hardwired Professionally Installed Devices



Self Installed OBDII Device



OEM Built-In Solutions



Personal vs. Commercial Insurance Perspective

Personal Insurance

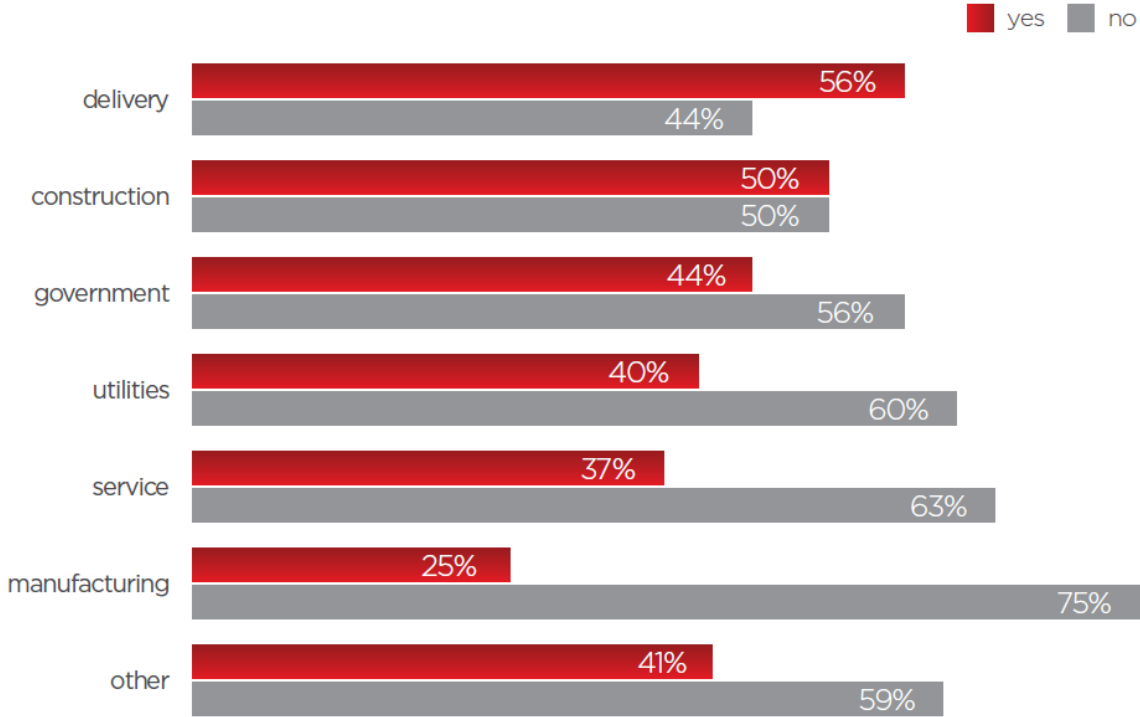
- Uses discounts for good drivers
- Price increase for poor drivers rarely used
- Miles, time of day and other factors in addition to driving behaviors used

Commercial Insurance

- Large fleets buy insurance differently
- Not used to price individual drivers
- Telematics is one part of fleet safety program
- Business use has different exposures

Telematics Adoption Rate by Industry

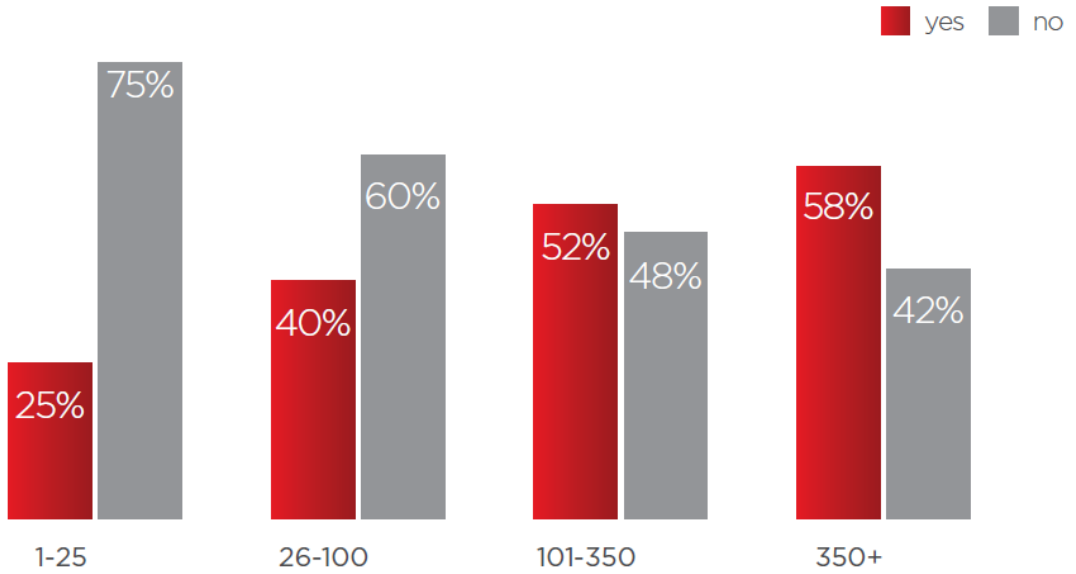
> adoption rate by **INDUSTRY**:



Source Fleet Management Technology Report by Bobit media publisher of Automotive Fleet Magazine and Government Fleet Magazine

Telematics Adoption by Fleet Size

> adoption rate by **FLEET SIZE**:



*based on 500 survey respondents

Source Fleet Management Technology Report by Bobit media publisher of Automotive Fleet Magazine and Government Fleet Magazine

Defining Needs or Objectives for Telematics

- Work productivity
- Fleet management
- Driver performance
- Fuel economy
- Vehicle location
- Security
- Route compliance

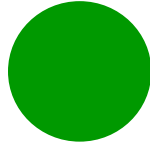
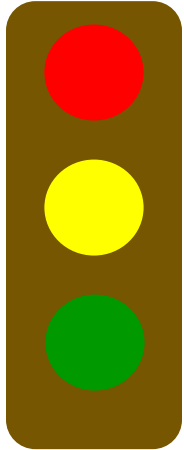
Aggressive Events

- Speeding can be measured in multiple ways
- Speed vs. posted limits frequently used
- Harsh acceleration may not tell much about large trucks
- Cornering is measured in G force
- Braking shows rapid speed changes
- Parameters are adjustable (speed and time prior to becoming an event)
- Parameter tolerance should be based on operations and equipment
- Comparing fleets requires similar parameters to provide a valid benchmark

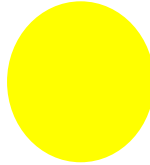
Compliance vs. Measuring Risk

- Speed risk from open interstate driving
- Running yellow lights vs. stopping
- Sudden stops can avoid a crash and be a good thing
- Focus on event rates rather than individual events
- Games and incentives could increase crash risk

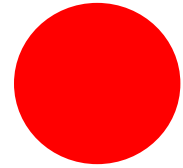
Scoring Systems



82% Low risk



10% Medium risk



8% High risk

Scoring systems can use standard deviations from the mean to identify ranges. A medium risk driver at one company could be better than a low risk driver at another company depending on the overall performance of the driver group.

Telematics Service Provider (TSP) Scorecards

- Scorecards can identify aggressive drivers
- Understand the scoring methodology (algorithm)
- A group of aggressive drivers can look average or one average driver can look aggressive depending on the comparisons
- Group like operations and similar vehicles when comparing performance (don't assume the TSP knows your operation that well)

Selecting a TSP

- Identify vendors based on achieving your objective
- Review sample reports to verify they will provide you with tools for employee discussions
- Review the amount of data you will get to avoid being overwhelmed with individual notifications
- Look at scorecards and web sites for ease of use
- Look for aggressive events per miles driven by driver and for the fleet
- Understand event parameters and if they can be adjusted
- Look for vendors that will let you test their products prior to buying or entering into a contract

Calculating Event Rates

- Events per 100 miles common
- Type of event (speed, braking, cornering and acceleration)
- % of time over posted

Event Rate Outliers

- Understand how your equipment works
- Management should have or test devices
- Review the range of event rates
- Compare a driver to the median or middle of the pack driver
- Establish company goals

Aggressive Event Rates- Example 100 Vehicle Fleet

Root
Cause
Analysis
Group

Vehicle Number	Event rate per 100 Miles
Vehicle 1	44.5
Vehicle 2	11.9
Vehicle 3	9.8
Vehicle 4	7.5
Vehicle 5	6.9
Vehicle 6	6.9
Vehicle 7	6.6

Minimum	0.0
Maximum	44.5
Median	1.6
Mean	2.5

* Minimum rates may include low or zero mile vehicles

Root Cause Analysis for Outliers

- Effectiveness of past coaching discussions and in vehicle observations
- Motor Vehicle Record (MVR)
- Driving Expectations
- Driver Knowledge
- Vehicle and Work Experience
- Fatigue
- Scheduling
- Routing
- Compensation Systems

Root Cause Analysis for Outliers

- Data Integrity/Telematics Device Performance
- Consequences for Performance
- Driver Outside Work Responsibilities/Situations
- Multiple Jobs
- Commuting Times
- On Time Departure at Start Of Work Day
- Distractions
- Vehicle Condition
- Breaks and Lost Time During The Work Day
- Work Flow or Scheduling Exceptions
- Health and Wellness

Setting Company Goals

- Look at the range of performance between drivers
- Understand the average and median scores
- Set realistic company goals for performance
- Use benchmarks from a telematics service provider if they exist
- Develop a plan to improve the drivers most in need of improvement
- Track goals over the course of the year for the company or each location

Developing Individual Action Plans

- Have expectations for the operation of vehicles
- Compare drivers to the median, average and company goals
- Involve supervisors in coaching
- Provide regular feedback
- Avoid distracting the driver while in the vehicle
- Avoid setting unrealistic expectations (“I ran the red light to avoid a hard brake”)
- Develop a culture of friendly competition
- Recognize the very best and use them as an example of what is possible

Process Summary

- Obtain event data and miles
- Calculate event rates
- Identify outliers
- Use root cause analysis
- Track fleet results over time

Vehicle	Miles	Events	Rate per 100 miles
Driver 1	49.48	22	44.5
Driver 2	293.7	35	11.9
Driver 3	10.23	1	9.8

Highest company driver
Middle/average company driver (median not mean)
Lowest company driver



Where does it belong

Last Year	This Year
2.9	2.2