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# Telematics Survey

Uses, Challenges, and Opportunities



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## Overview

Telematics and GPS (global positioning systems) provide significant benefits to fleet leaders. Many companies utilize these technologies to help control costs and increase efficiency and productivity, as well as improve driver behavior and safety.

In the rapidly growing market of telematics and GPS, understanding the ways in which fleet managers use such systems is crucial for both fleet leaders and the companies that create these programs.

An online survey of fleet leaders regarding their use of telematics is helpful to fleet professionals as well as telematics and GPS providers, as the survey results offer valuable insights into industry trends.

A total of 64 fleet professionals from a range of industries, fleet types and sizes participated in the survey. Survey participants were almost evenly divided between fleet leaders for government agencies, and publicly or privately held commercial operations. While participants represent fleets of all sizes, majority of them work in companies with a fleet size of 1000 – 5000 units. The respondents represent a range of industries from government, utility and retail to route delivery, pharmaceutical and agriculture.

The survey had some interesting findings:

- **Most fleet leaders were either utilizing or plan to utilize telematics.** 64% of respondents used telematics or GPS. Of the 36% who do not use telematics or GPS, a majority of them stated that they were currently considering or plan to look for a system in the future.
- **Idle time is the top metric that fleets are monitoring.** The top metric that fleets are monitoring with the use of telematics or GPS is idle time (85%). Other most commonly monitored metrics are speed against posted speed limit (70%) and miles driven (65%).
- **A majority of fleet leaders saw improvement in driver behavior.** Among the respondents, 66% indicated that they saw improvement in driver behavior after utilizing fleet telematics or GPS solutions. Increased fuel savings (59%) and improved driver safety (46%) were also among the most commonly experienced benefits.
- **One of the biggest struggles fleet leaders faced when implementing telematics or GPS is the underutilization of such systems.** Almost 50% of

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respondents stated that their biggest challenge when using telematics or GPS is its full utilization. 42% of respondents indicated that the inconsistency of data makes using telematics or GPS solutions a struggle.

- **Poor Return on Investment but good satisfaction rating.** Of the respondents who utilized fleet telematics or GPS, only 33% of them received an ROI. Despite that, the majority of them indicated that they were either satisfied or extremely satisfied with their systems.
- **The most compelling factors influencing the selection of a telematics or GPS provider were related to costs.** Respondents ranked device cost, followed by monthly data cost as the top two factors influencing their choice of provider.

So what does this mean for telematics or GPS providers and the fleet leaders who use the products they provide?

- Fleet managers need to give the systems sufficient time before determining the ROI.
- More personalized education is needed on the various ways telematics systems can help fleets achieve an ROI. It is important to tailor education toward each organization's goals and objectives since the measurement of ROI is different for each organization.
- Providers offering telematics systems need to ensure that their customers know how to interpret and use the data they receive. Providers should also help their customers identify areas where they can maximize the use of telematics systems.
- Finally, fleet leaders shopping for telematics systems should find a program that offers intuitive data delivery and good technical and service support so they can maximize their use of the system.

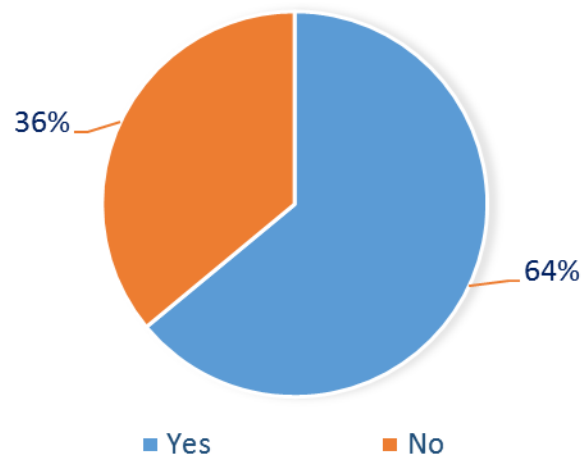
In light of these excellent benefits, fleets should move forward with confidence in selecting a telematics or GPS service provider.

This is part 1 of the telematics and GPS survey report. [Part 2](#) of the survey report focused on factors influencing selection of providers, barriers to adopting telematics or GPS, types of media sources fleet managers use to learn about fleet services and effectiveness of communication methods.

## Telematics or GPS Usage

A majority of the fleet leaders surveyed (64%) work with fleets that have telematics or GPS installed in them.

Proportion of Fleets with Telematics/GPS solutions



Of these fleet leaders, the top reason for using telematics or GPS is to monitor and improve driver behavior such as idling, speeding, miles driven, and unauthorized use of vehicles.

Obtaining location information of units in real time and accessing accurate odometer and engine hours are the second and third most commonly cited reasons for using telematics or GPS.

### Reasons Fleets Are Using Telematics/GPS Solutions

Reasons	Rank <sup>1</sup>
Driver Behavior	1
Location Information	2
Accurate Odometer/Engine Hours	3
Fuel Management	4

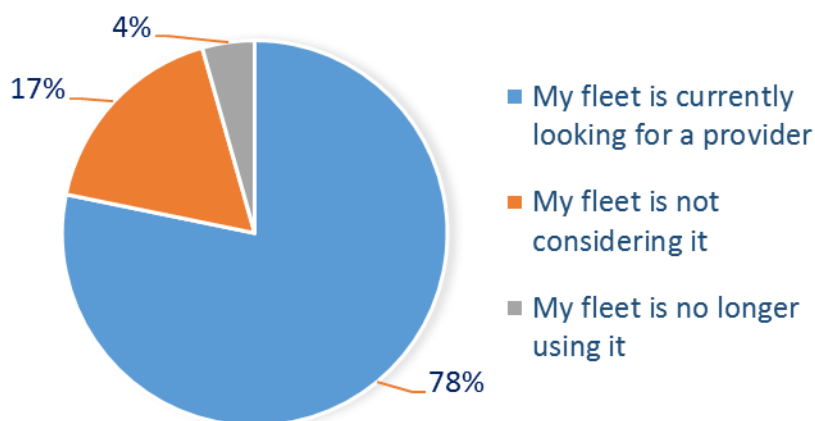
<sup>1</sup> Score is a weighted calculation. Items ranked first are valued higher than the following ranks. The score is the sum of all weighted rank counts.

Asset Utilization	5
Fuel Codes & Analytics	6
Customer Service	7
Route Management	8
Insurance Claims Analysis	9
Others	10

Other reasons behind telematics or GPS use among fleet leaders include electronic vehicle inspection report, capturing IFTA/IRP mileage by state, seatbelt usage, plug-in vehicle charge time, labor management, winter maintenance activities, car sharing information, emergency management, and operator safety when working alone in remote locations.

Of the fleet leaders surveyed, 36% do not use fleet telematics or GPS. Of this group, a sizeable majority (78%) is currently considering or are open to the possibility of installing telematics or GPS devices in their fleet in the future.

**Reasons for not having Telematics/GPS solutions**



17% of the non-using group are not interested in introducing such technologies and systems, citing reasons such as the nature of fleet use within the company.

For example, one fleet leader said, *“Although (we) haven't done a detailed cost/benefit analysis, because we don't do routes or dispatch in a manner that demands quick redirection, GPS in particular and telematics in general are unlikely to be cost effective.”*

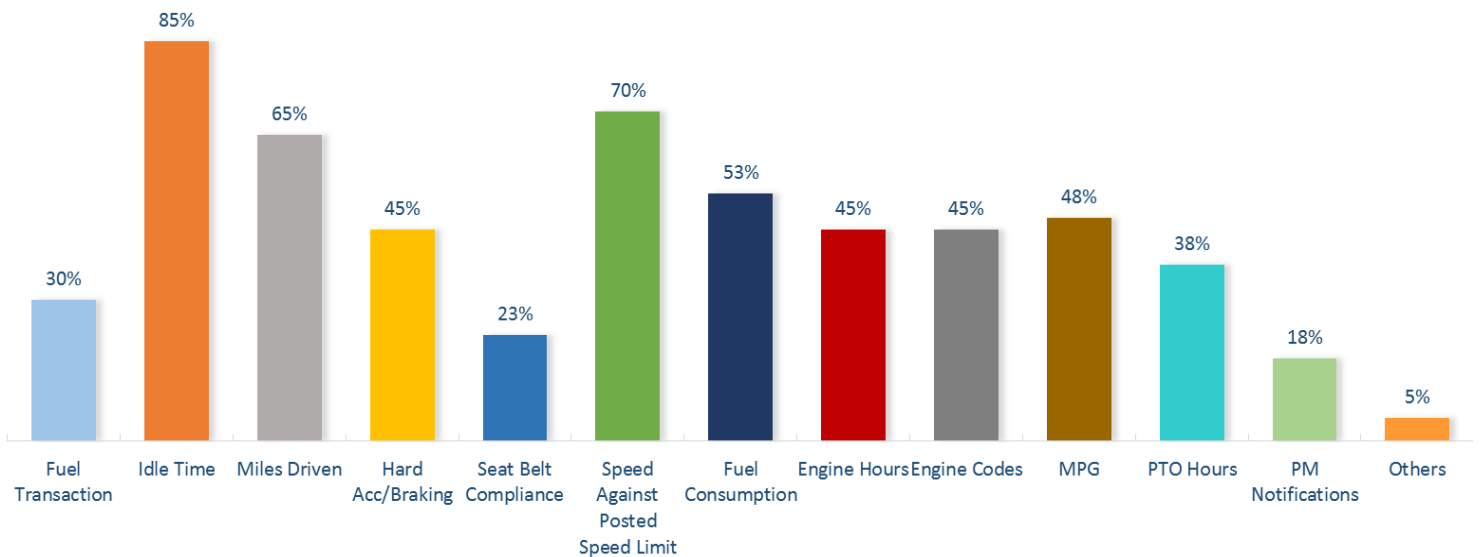
## Key Performance Indicators

Part of the benefits of using fleet telematics or GPS is the wealth of data generated from these technologies. Each organization monitors different performance metrics and prioritizes them depending on their business or operation goals. Fleet leaders were asked to indicate the types of performance metrics they were monitoring.

The top three key performance indicators that fleet leaders are monitoring through telematics or GPS are idle time (85%), speed against posted speed limit (70%) and miles driven (65%).

Other performance indicators commonly monitored \ include fuel consumption (53%), miles per gallon (48%), hard acceleration/braking (45%), and engine hours and codes (both 45%).

Key Performance Indicators that Fleets are Monitoring

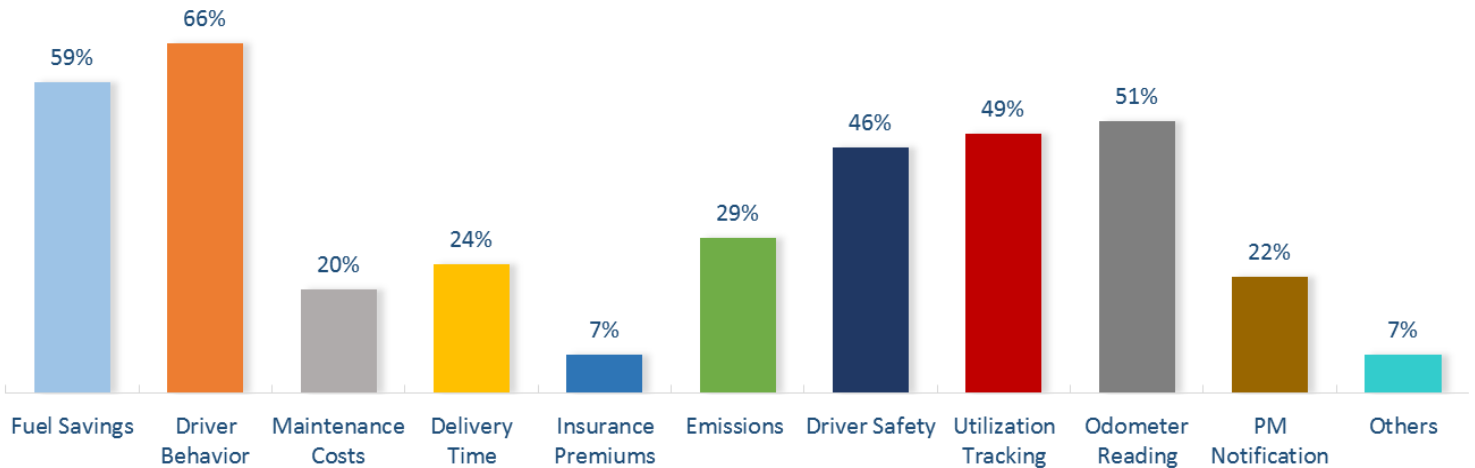


## Key Benefits from Using Telematics or GPS

Fleet leaders have enjoyed considerable benefits using telematics or GPS in their fleet.

The biggest benefit or result is an improvement in driver behavior (66%). Other commonly experienced benefits include increased fuel savings (59%) and accurate odometer or engine hour readings (51%).

Key Benefits from Utilizing Telematics/GPS



Fleet leaders were asked to specify which benefits they felt were most important to them. Increased fuel savings ranked the highest, with improved driver behavior coming in second. Accurate utilization tracking, accurate odometer and engine hour readings, and improved driver safety were all within the top five as well.

### Benefits that were Most Important

Benefits Fleet Leaders Felt Were Most Important	Rank <sup>2</sup>
Increased Fuel Savings	1
Improved Driver Behavior	2
Accurate Utilization Tracking	3
Accurate Odometer/Engine Hour Readings	4
Improved Driver Safety	5

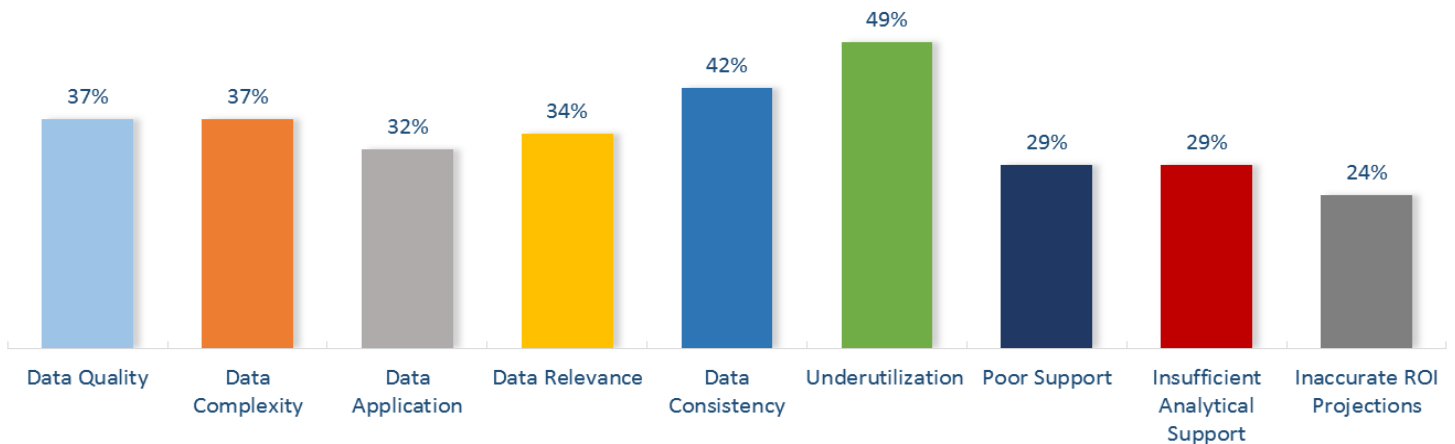
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Reduced Emissions	6
Shorter Delivery Time	7
Preventive Maintenance (PM) Notification	8
Reduced Maintenance Costs	9
Other	10
Lower Insurance Premiums	11

## Struggles and Challenges

The most common challenge fleet leaders faced when using telematics or GPS is underutilization (49%), followed by inconsistency of data (42%). Tied for the third most common challenge are lack of data quality - lack of depth and scope (37%), and data being too much, complex, or tedious to analyze (37%).

Struggles and Challenges when Using Telematics/GPS



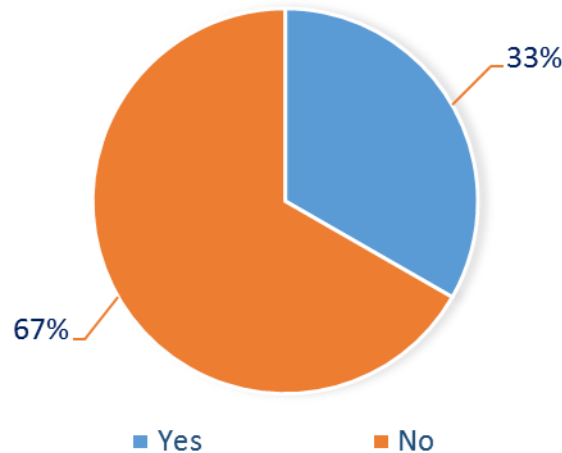


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## Return on Investment

Of the fleet leaders who answered the question, 33% indicated that they had received an ROI on their fleet telematics or GPS. The remaining 67% stated that they had not.

Proportion of Fleets that Have Received an ROI



The formula used to measure ROI varied greatly from one fleet leader to the next. Some leaders had detailed calculations while others were still developing a formula for or in the process of calculating their ROI.

There was also a number of fleet leaders who were not concerned about ROI from telematics or GPS, stating reasons ranging from “no ROI for municipal governmental fleets” and “ROI is not the appropriate calculation for non-revenue generating government fleets” to “ROI is not a factor on the current units equipped with GPS.”

For example, one fleet leader said, “No ROI calculations have been developed. Telematics use has been directed for use as a best practice without concern for ROI.” Another fleet leader wrote, “Our ROI is employee safety.”

Fleet leaders’ varied responses point to their different expectations when utilizing telematics or GPS.

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## Verbatim Comments: How ROI Is Determined

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% MPG improvement over baseline MPG

Fuel Savings 2008 (6 months) 22K gallons less consumed than 2007. 2010 - 18K gallons less than 2009. 40K gallons X \$4.00/gallon more than paid for system.

Reduction in fuel (gallons) over last 3 years

Cost per Km, accident reduction, compliance to PM program

Tracking past MPG compared to current MPG in the corresponding month from last year. So compare June 2012 to June 2013. Also tracking seatbelt use, idle time, speeding over posted speed limits, drivers' basic score and aggressive driving behaviors. Set up trend analysis that shows how these have changed each month through driver training and reporting.

Via fuel, maintenance, and accident data versus benchmark

It is mostly for labor management. Fuel savings is a by product

Increased fuel savings and reduction of under-utilized vehicles

Fuel consumption YTD

Idle and fuel used compared to before GPS to after installation and training

Fuel savings. Number of assets removed from fleet. Annual analysis.

Fuel, maintenance, and capital savings to offset investment

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### Time Taken to Achieve ROI

According to the fleet leaders who have seen an ROI on their telematics or GPS, it took the majority at least 6 months to see a return on their investment.

33% indicated that they achieved ROI in a year while 25% indicated that it took them 6 months. The remaining fleet leaders all had different responses of 2 months, 4.5 months, and sometime in the year.

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## Reasons for Not Receiving ROI

Fleet leaders who did not receive an ROI from their telematics or GPS explained the reasons they think that may be so.

### Verbatim Comments: Reasons Preventing Fleet Leaders from Receiving an ROI

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Data issues with telematics devices

Monthly cell service does not offset fuel or other savings

Reporting capabilities of our vendor

ROI is not the appropriate calculation for non-revenue generating government fleets

High cost of telematics and diminishing returns the longer you use it

1) Diagnostic trouble code Alerts are not always reliable 2) Engine Hours and Mileage is not accurate on light duty vehicles and older trucks 3) We have not been able to get engine hours and mileage into our fleet database yet

Our ROI is not fully received because of the short time we have had telematics installed

Limited in analyzing data

Immaterial fuel savings

Early in the pilot. Limited data set

Driver repercussions

The implementation has been limited to date (500 vehicles) and we have various vendors that we are dealing with, so there hasn't been a comprehensive look at the ROI to date. We are just looking at doing a full scale implementation across our fleet (1800 vehicles)

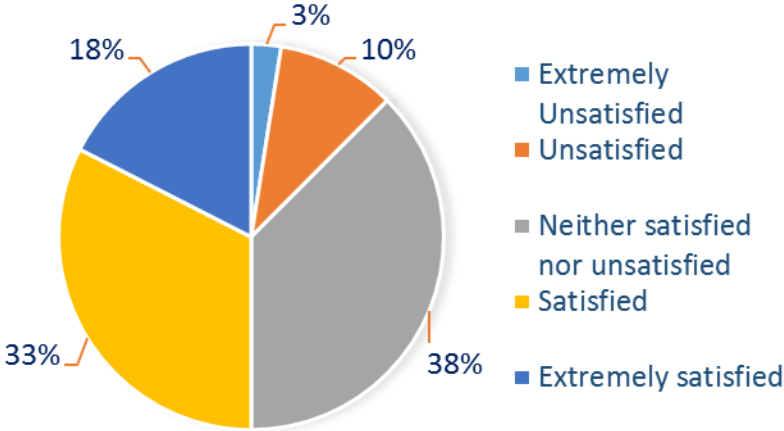
Limited number of vehicles using technology

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# Overall Satisfaction Level

On a scale of 1 (extremely unsatisfied) to 5 (extremely satisfied), the majority of fleet leaders indicated that their satisfaction level fell at a 3 (neither satisfied nor unsatisfied) or a 4 (satisfied). 18% of fleet leaders were extremely satisfied with their telematics or GPS in their fleet, and only 3% were extremely unsatisfied.

Satisfaction Level when Using Telematics/GPS



Though not all fleet managers are seeing a ROI, perhaps the goal is not a return on investment as much as better fuel efficiency or safety, as most managers were at least a little bit satisfied with their purchases.

While the majority of fleet leaders were largely satisfied with their telematics or GPS, some expressed disappointments and complaints.

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## Verbatim Comments: Biggest Disappointments or Complaints from Using Telematics or GPS

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(Lack of) Quality of data and time for analysis

(Lack of) User acceptance, data integrity, and management support.

Lack of a "standard" platform

Inability of various providers to keep pace with and provide requirements i.e. RFID, Driver Feedback - All (vendors) promise that they can and will provide but getting there is/has been painful

Sales staff

Discrepancies between salesman promises compared to actual product capabilities

Random location errors that question the validity of data

Results of data are inaccurate

Unreliable reporting

Complexity and overall performance. Not giving us the ROI (that was) promised.

1) Diagnostic trouble code alerts are not always reliable 2) Engine Hours and Mileage are not accurate on light duty vehicles and older trucks 3) We have not been able to get engine hours and mileage into our fleet database yet 4) managing telematics is a full time job

Operator tampering and reporting

Lack of fuel consumption savings and system unable to run a large quantity of data

The data is not easily accessible and is not a priority for manager's to enforce with staff.

Another provider purchased our original GPS provider and their customer support has been extremely poor

(Problems) gaining usable data

(No) time to get the reporting correct

Need to give more information

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# Factors Influencing Selection of Providers

Of all the factors that influenced fleet leaders' choice of providers, the most compelling reasons were related to costs. Device cost was ranked first and monthly data cost ranked second. Ease of configuration and integration, depth and scope of analytics and quality of customer service also ranked among the top five reasons.

## Factors Influencing Current Selection of Telematics or GPS Company

Factors	Rank <sup>3</sup>
Device Cost	1
Monthly Data Cost	2
Ease of Configuration and Integration	3
Depth and Scope of Analytics/Reporting	4
Quality of Customer Service	5
Reputation of Service Provider	6
Scalable Solutions with Proven Results	7
Strong Support Team	8
Other	9

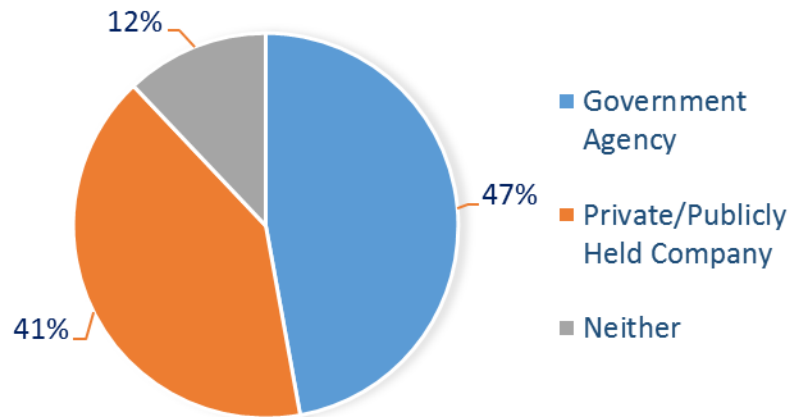
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## Demographics

Respondents work in roles and positions where they have the capacity to propose, plan, evaluate, and approve fleet investments and projects. They are directors, managers, or supervisors.

47% of survey respondents work in a government agency or organization, and 41% work in a private or publicly held company or organization. 12% of survey respondents who chose 'neither' work in positions such as fleet analysts, quality assurance, project management and sales.

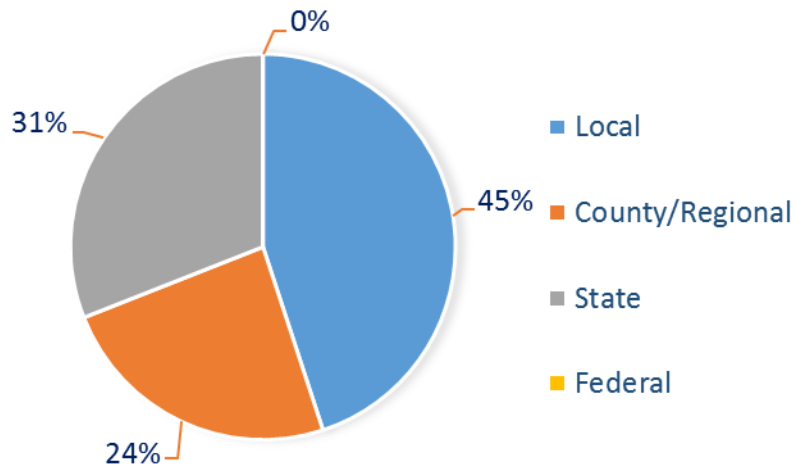
**Proportion of Respondents Based on Industry**



### Proportion of Respondents Based on Agency and Vertical

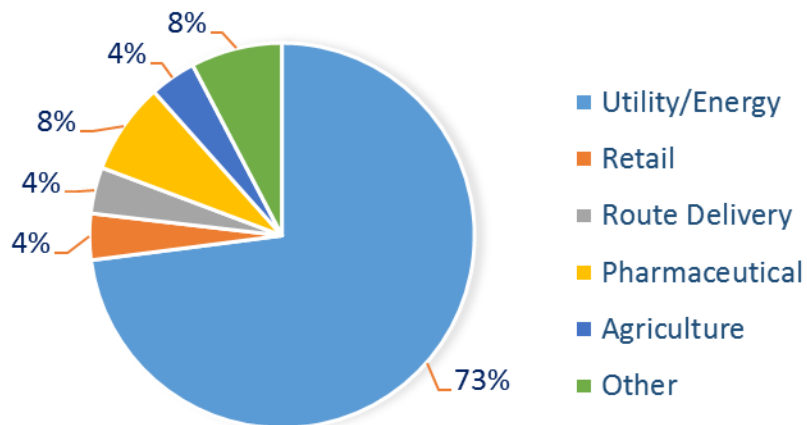
Of all the respondents who hold professional positions within government agencies, 45% of them work for a local government agency and 31% work for the state. 24% of respondents who work for government agencies belong to the county or regional agencies. None of the respondents work for the federal government.

### Proportion of Respondents Based on Government Agency



Of all the respondents who hold professional positions within publicly or privately held companies, the majority of them work for the utility and energy industry (73%), followed by the pharmaceutical industry (8%) and others (8%) such as car sharing and maintenance services. The rest of the respondents who work in publicly or privately held companies are in industries such as retail (4%), route delivery (4%), and agriculture (4%).

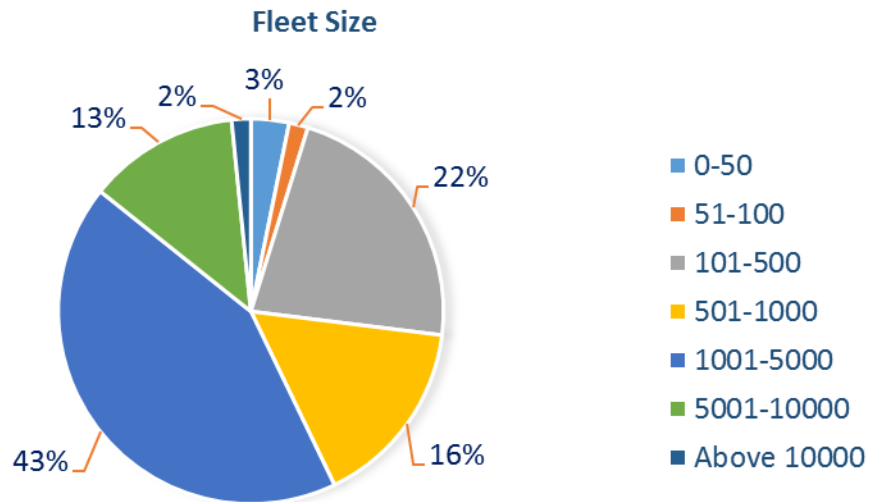
### Proportion of Respondents Based on Vertical





## Proportion of Respondents Based on Fleet Size

The majority of fleet leaders who responded to this survey work for companies with a fleet size of 1001 – 5000 units (43%), followed by a fleet size of 101 – 500 units (22%).



## Do you have survey topics to suggest?

If you have survey topics that you would like us to cover, or have questions regarding any of our surveys, please contact [mchen@fleetanswers.com](mailto:mchen@fleetanswers.com).

To access more surveys, please visit our [Research section](#).

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