

POWERED BY DONLEN



Understanding total cost of ownership

Take control of your TCO in 6 steps

Tackling TCO

As a fleet professional, understanding and managing your fleet's total cost of ownership is likely one of your biggest responsibilities. It may be difficult to pin down which cost components drive up your TCO, and even more difficult to identify ways to control those costs. That's why we've put together this guide to help you get started.

Through insights and experience gained with more than 50 years in the fleet industry, Donlen will demonstrate the cost components that make up your fleet's TCO, and provide the most effective recommendations for reducing it. Those best practices include:

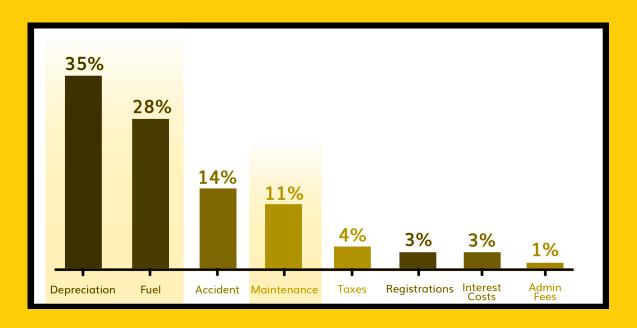
- 1. Keep acquisition costs down
- 2. Minimize your depreciation
- 3. Keep up with preventative maintenance
- 4. Determine and adhere to optimal cycling parameters
- 5. Control fuel usage and spend
- 6. Monitor each cost component

By understanding which fleet costs make up the biggest portion of your total cost of ownership, you can begin implementing new steps to take control of your fleet spend. So let's dive in!

What is total cost of ownership?

Total Cost of Ownership, or TCO, refers to the total cost of owning a vehicle—essentially, it includes your vehicle's acquisition cost, any operational costs incurred over the vehicle's lifetime, as well as any proceeds from resale.

There are several components that go into determining a vehicle's TCO, which we will outline here.



Depreciation

Depreciation is the largest component of any vehicle's TCO. Depreciation refers to the resale value of the vehicle lost over time, either due to wear and tear on the vehicle or simply changing market demand. Depreciation is inevitable for any vehicle, but we will later explore ways to minimize your vehicle's depreciation (and, by extension, improve your TCO).

Fuel

Fuel is the second-largest component of a vehicle's TCO. As we will later demonstrate, there are several best-practices you can take advantage of to decrease fuel spend within your fleet.

Accident

The costs incurred from accidents are the third-largest component of a vehicle's TCO. It is important to have an accident management program in place to minimize these costs.

Maintenance

Maintenance is another significant component of vehicle TCO, and refers to both scheduled and non-scheduled maintenance. We will look at some maintenance best-practices later in this white paper that can help you lower your TCO, but in general, it is important to have a good preventive maintenance program in place to attack costly problems before they occur.

Taxes, registration, interest cost and administrative fees

It is a common misconception that items like taxes, vehicle registration, and administrative fees drive up the costs of your fleet. It is important to note here that while those fees and charges do contribute to the total cost of ownership of your vehicle, as demonstrated in the previous chart,in comparison to the four major components of TCO, those ancillary costs are very small. Further, in most cases there is not a whole lot you can do to control the cost of items like taxes and vehicle registration.

However, the good news is that there are things you can start doing right now to control the costs of the other, larger components of your vehicle's TCO, which will ultimately help you realize the most savings across your fleet.

With a full understanding of what makes up the total cost of ownership of your fleet vehicles, now we will outline six ways that you can minimize your TCO and reduce your fleet spend.

1. Keep acquisition costs down

The first and most obvious component of TCO that people think of is the cost of acquiring the vehicle, or how much that vehicle is worth when you initially lease or purchase it. In keeping acquisition costs down, it is important to consider what purpose the vehicle will be serving in your fleet.

For example, your drivers may accumulate a lot of mileage each month, in which case it might make more sense to purchase a fuel-efficient hybrid vehicle. You may need to transport medical equipment, in which case you would have to keep in mind the sort of storage space you want in the vehicle.

Knowing up-front what kind of vehicle and vehicle features you need for your fleet purposes can help you more accurately forecast your TCO and, in the long run, better manage your TCO and keep costs down. It can also keep you from spending more money unnecessarily on features you don't need.

When you are determining the specifications for your fleet vehicles, consider two things:

- 1. Which features do you need?
- 2. Are there features you can add that will give your vehicles a better resale value?

In general, you only want to consider items that are necessary for your fleet, which is the best way to keep your acquisition costs down. The exception to that rule would be if you wanted to add features that will improve the resale value of your vehicles, such as a sunroof. While adding those features may increase your initial cost of acquisition, maximizing the resale value of your vehicle when you select it will ultimately help you minimize depreciation, which we will discuss further in the next section.

2. Minimize depreciation

Ultimately, every vehicle is going to depreciate, and depreciation will likely be the largest component of your vehicle's TCO. While you cannot do much to control the depreciation rate, you can keep your vehicle from depreciating more than it has to.

Keep your vehicle in good shape

One of the most significant factors in a vehicle's depreciating value is wear-and-tear on the vehicle. We will talk more about implementing a preventive maintenance schedule later in this document, but it is good to keep in mind as we go through these strategies for managing depreciation. By maintaining your vehicle, you can better maintain its resale value on the market.

Aside from mechanical maintenance, some companies implement a vehicle cleanliness policy, requiring their drivers to maintain the cleanliness of the vehicle (inside and out) from dirt and clutter. It may also be a good idea to prohibit smoking in the vehicle, as this can potentially make the vehicle dirtier on the inside. Make sure your drivers take responsibility for the cleanliness of their vehicles while those vehicles are in their possession to minimize the value lost from wear-and-tear and other factors that make the vehicle less attractive to future buyers.

Choose a vehicle that retains its value

Your vehicle will be worth less when it comes time to remarket it than it was when you initially purchased (or leased) that vehicle. However, you can retain some control over that vehicle's depreciation by choosing a vehicle that retains its value in the market.

Obviously, what exactly "retains its value" is going to change based on the market and new technology. We will talk about why you should cycle your vehicles regularly to both update your fleet and avoid significantly decreased resale value of past vehicles a little later in this white paper. By paying attention to market demands, you can better predict if a vehicle will be worth more than another by the time you cycle it.

For example, it should go without saying that a newer model of vehicle will be worth more in four years than a vehicle that has already been on the market for ten years. You can look beyond those basics with the help of a fleet management company, as FMCs have valuable insight into the vehicle market and the data you need to more accurately predict the eventual resale value of your vehicle. For example, if fuel prices are low (and if they will likely continue to be low until you cycle the vehicle), a hybrid vehicle may not retain its value in the market as well as an SUV.

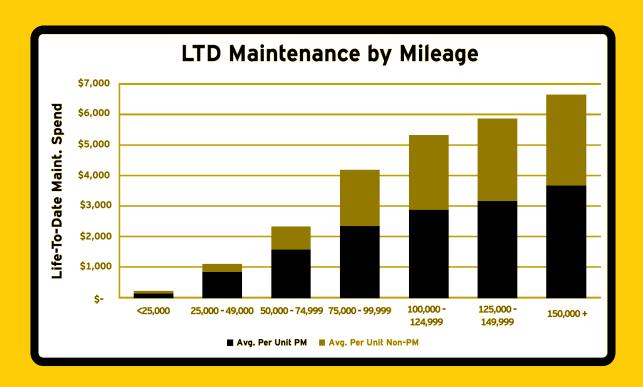
The bottom line is that you want to keep your vehicle's future in mind. By maintaining your vehicle and predicting how it will be valued in the market by the time you cycle, you can minimize the largest cost component of that vehicle's TCO.

3. Keep up with preventive maintenance

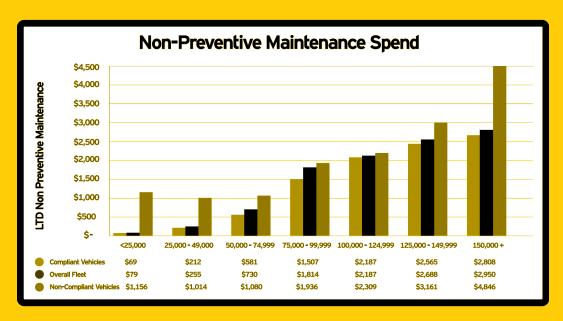
Make sure you keep up with scheduled maintenance on your vehicles to stop problems before they happen. Repairs and accidents are costly. By keeping up with preventive maintenance, you minimize the maintenance, accident, and depreciation components of your TCO.

When you keep up with scheduled vehicle maintenance, you reduce the likelihood that the vehicle will encounter mechanical malfunctions. You may be thinking to yourself, "but if I am paying to have my vehicles serviced more often, won't that increase my maintenance costs?" The answer to that is: yes, at first, but not in the long term. In fact, by routinely performing preventive maintenance on your vehicles, you avoid the more costly repairs that can be incurred with more serious vehicle breakdowns, such as transmission or battery failure.

To see how that plays out, take a look at the graph on the following page. This data comes from an analysis of maintenance spend that we performed for one of our customers, a large utility provider with more than 5,000 vehicles in their fleet. We compiled the data by analyzing the life-to-date maintenance spend for all of the vehicles in our customer's fleet.



You can see in this chart that the average total maintenance cost for vehicles increases as the vehicle ages, due to the vehicle incurring more non-scheduled maintenance repairs. To understand how the average maintenance cost shakes out, we can look at things a bit more granularly by drilling down to the average spend for non-scheduled maintenance across this fleet.



The cost of non-preventive maintenance drastically increases for vehicles that do not stick to a preventive maintenance schedule. By adhering to a preventive maintenance schedule this customer was able to save \$430 per vehicle lifecycle, or \$107 per vehicle per year, equating to an opportunity for roughly \$830,000 in savings annually.

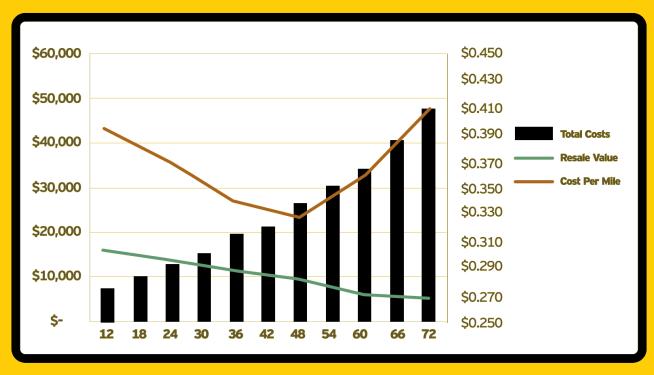
In the event that the vehicle does need a non-scheduled repair, get the repair done promptly. The longer you allow a vehicle to remain in operation with a mechanical defect, the worse that defect will be and, eventually, the more costly the repair. It may begin to affect other areas of the vehicle as well and, by extension, cause your vehicle to depreciate more in value, and more importantly put your drivers at risk.

4. Determine and adhere to optimal cycling parameters

Every vehicle has an optimal lifecycle, and cycling needs will vary based on your fleet and corporate goals. By cycling your vehicles, you keep updated, safer, more fuel-efficient vehicles on the road—ultimately, you tackle several TCO components at once. So when should you cycle your vehicles for the best returns for your specific fleet?

Since the best cycling parameters vary by vehicle, the best way to identify the right time to cycle your specific fleet vehicles is to conduct a lifecycle breakeven analysis. Nearly every vehicle has a point in its lifecycle at which the cost per mile "bottoms out," or gets the lowest it will be before it begins increasing again. This is because the cost per mile for a vehicle starts high due to the cost of acquiring the vehicle and decreases over time, but once vehicle reaches a certain point, the cost per mile starts increasing again as the vehicle ages. The point in the lifecycle where the cost per mile is the lowest is the breakeven point, and that is the optimal time to cycle your vehicles.

For example, let's take a look at a lifecycle analysis that we performed for a typical fleet sedan within our portfolio with an annual mileage of 20,000, interest rate of 2.8%, and depreciation rate of 2.25%.



To find the breakeven point, we're looking at the red line in the chart above, which indicates the cost per mile. As you can see, the lowest point in that line is at 48 months, where the cost per mile is \$0.329. Therefore, for these vehicles the best time to cycle would be at 48 months.

By cycling out your vehicles when they hit the breakeven point you are able to replace your vehicles before they become more expensive for your fleet, saving you money on fuel, maintenance, and depreciation – the biggest components of your TCO!

5. Control fuel usage and spend

We mentioned in the previous section that cycling your vehicles can reduce your fuel spend, but what else can you do to control the costs of the second-largest component of your total cost of ownership?

Ensure you're getting good fuel economy

On average, fuel economy can range from 16 MPG to 50+ MPG, and the better your vehicles' fuel economy, the less money you will spend on fuel across your fleet. The approach to optimizing the fuel economy of your fleet is two-pronged: you can select vehicles with good fuel economy during the acquisition phase, and as we've mentioned, cycle your vehicles in order to retain good fuel economy for your fleet over time.

Track fuel usage with telematics

Another way that you can take control of your fleet's fuel spend is by tracking how your fleet uses fuel through a telematics solution. There are a few things you can do to reduce your fuel spend with a telematics solution like Donlen's DriverPoint® Telematics. The first thing you can do is use telematics to identify the optimal routes for your vehicles to cut down the mileage of your fleet. Another key feature of telematics devices that can help you reduce your fuel spend is tracking the idle time and rapid accelerations of your vehicles. By running exception reports you can identify drivers who spend the most time idling and those

who accelerate at rapid speeds, and assign training courses to cut down on those behaviors, which will reduce your fuel costs.

6. Monitor each cost component

Ultimately, the best and only way to control your TCO is to understand the components that go into it, and monitor them to continually identify new ways to cut costs in each area. That may sound like a lot of work, but most FMCs offer tools for monitoring. TCO, such as fleet management software. In fleet management platforms such as Donlen's FleetWeb®, you can get a full picture of your vehicle's TCO. By easily accessing your fleet's overall cost per mile, MPG, maintenance spend, and other important data points relevant to your total cost of ownership, you can quickly identify areas where spend could be reduced, improving your TCO.

Donlen's fleet management platform also includes a robust, customizable reporting suite that grants access to true, real-time data to help drive your fleet decisions.

Other valuable tools that you can only get through a fleet management company like Donlen include lifecycle analysis and vehicle comparison tools. For example, Donlen offers our Vehicle Optimization Model® (VOM) which allows users to efficiently compare the total cost of ownership of many fleet friendly vehicles in just a few clicks. With the VOM, you can conduct powerful "what-if" analyses to determine the most cost effective vehicles for your fleet by exploring the impact rising fuel prices, various interest and depreciation rates, and cycling parameters have on your TCO. When you continuously monitor your fleet for savings opportunities using fleet management technology, you can keep every aspect of your total cost of ownership under control from acquisition to resale.

Conclusion

There is no cookie-cutter approach to reducing total cost of ownership, as each fleet has unique challenges and goals. However, by understanding which components make up your total cost of ownership you can use the best practices outlined in this white paper as a starting point to reduce your TCO.

When tackling your total cost of ownership, keep in mind that your largest areas of focus should be depreciation, fuel, and maintenance. As demonstrated in this white paper, there are many ways that you can start taking action today to take control of those cost components that make up the biggest portion of your TCO.

At Donlen, we conduct total cost of ownership analyses for our customers regularly to identify areas of opportunity and achieve savings across all aspects of their fleets. We'd be happy to perform a similar analysis for you! To receive a TCO analysis for your unique fleet, contact us at 1-847-714-1400.