

Right-Sizing of Southern California Courier Fleet – Reducing Dependency on Petroleum-based Fuels

Environmental and Human Health Impact: Reduced dependency on petroleum fuel and driving-related air emissions by eliminating 20,786 gallons of gasoline.
Business Impact: Avoided spending \$79,610 dollars on fuel by transitioning 37 routes to smaller, more efficient vehicles.

Challenge

Emissions from vehicles have been linked to climate change and human health problems such as asthma. In addition, gasoline prices have steadily risen over the past few years to levels that have led fleet managers to rethink their way of doing business. In 2007, the cost of operating and fueling the Kaiser Permanente Southern California (SCAL) vehicle fleets reached a threshold that triggered a reexamination of the efficiency of operations. The reexamination revealed that vehicle capacity was substantially greater than load requirement in 50 percent of the courier fleet. The use of oversized vehicles with low fuel-economy meant wasted money and unnecessary air emissions.

Aim/Goal

- To assess the primary functions and actual load capacity of the fleet to identify where routing and vehicle size could be altered to reduce total consumption of fuel.
- To save money by reducing spend on fuel and reduce contributions to climate change by increasing the average miles per gallon for the fleet.

Team

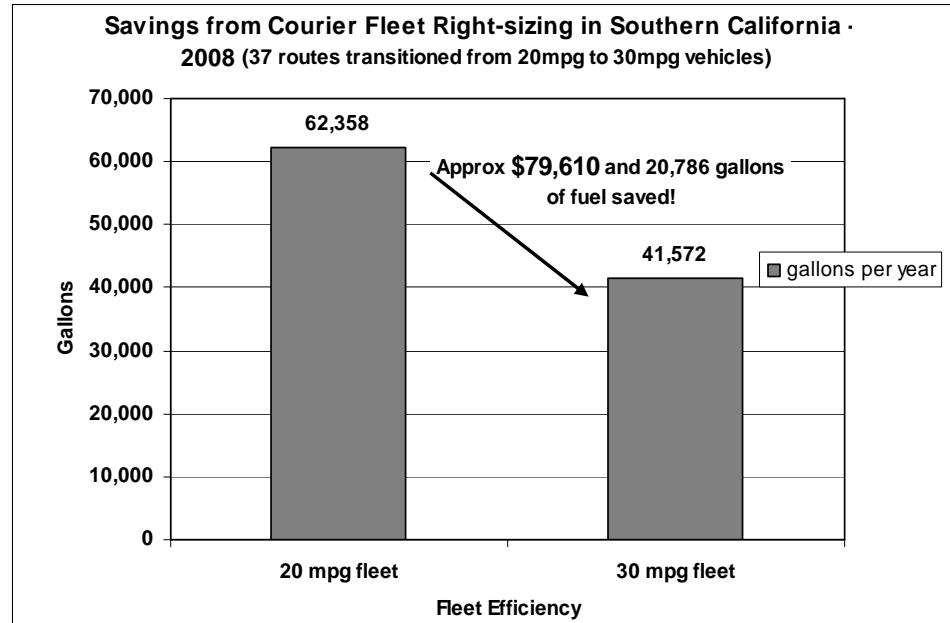
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Actions Taken

- ✓ Persuaded fleet stakeholders such as Security Directors and Materials Managers to compare vehicle load capacity with actual load requirements
- ✓ Evaluated data gathered on actual load requirements, uncovering an opportunity to down-size 50 percent of the courier fleet
- ✓ Researched alternative courier vehicles, including electric, to replace large vans
- ✓ Identified two preferred vehicle models, a small van and small SUV, which were purchased to replace 24 large vans. The vehicles were not only less expensive than previous fleet vehicles,

and reduce unnecessary fleet capacity by two-thirds, thereby increasing efficiency from an average of 20 mpg up to 30mpg.

Results



Lessons Learned

- ✓ Critical to gather data on current and projected fleet requirements; don't simply rely on historic capacity assumptions.
- ✓ Evaluate and consider commodity and any special transport needs, such as refrigeration, in vehicle selection.
- ✓ Be aware of vehicle model year turnover during specification process.
- ✓ If necessary, install bulk-head barriers between cargo and driver areas to prevent injuries to driver during transport.

Next Steps

- ✓ Transition SCAL security fleet, totaling 24 vehicles, to electric.
- ✓ Assess opportunity to right-size 350 other vehicles in the region.