



Vehicle Allocation Methodology

MERCURY

Mercury Associates Inc.

Vehicle Allocation Methodology (VAM)

- VAM Tool
 - An automated vehicle justification protocol that uses utilization and survey responses to automatically make *preliminary* recommendations for vehicle actions such as:
 - Eliminate (high potential for removal)
 - Questionable (moderate potential for removal)
 - Retain

VAM Background

- Objective criteria examples:
 - per vehicle mileage
 - trips per vehicle
 - mission, terrain, climate
 - fleet condition and down-time
- Subjective criteria example:
 - user opinion of vehicle “criticality” (relative importance to agency mission)
- Input methods: surveys and/or stakeholder interviews

Utilization

- Utilization
 - Defined as number of trips, hours used, and/or miles traveled. (Trip: When the driver takes the vehicle from its normal parking area, leaves the premises, and then returns it to the premises at a later time.)
- Objective
- A data-driven performance measure
- A best practice for right-sizing
- Sets the bar for vehicles allocated to an organization

Utilization Analysis Steps

Goal:

Identify vehicles “potentially under-utilized” in comparison with others of the same type and/or use.

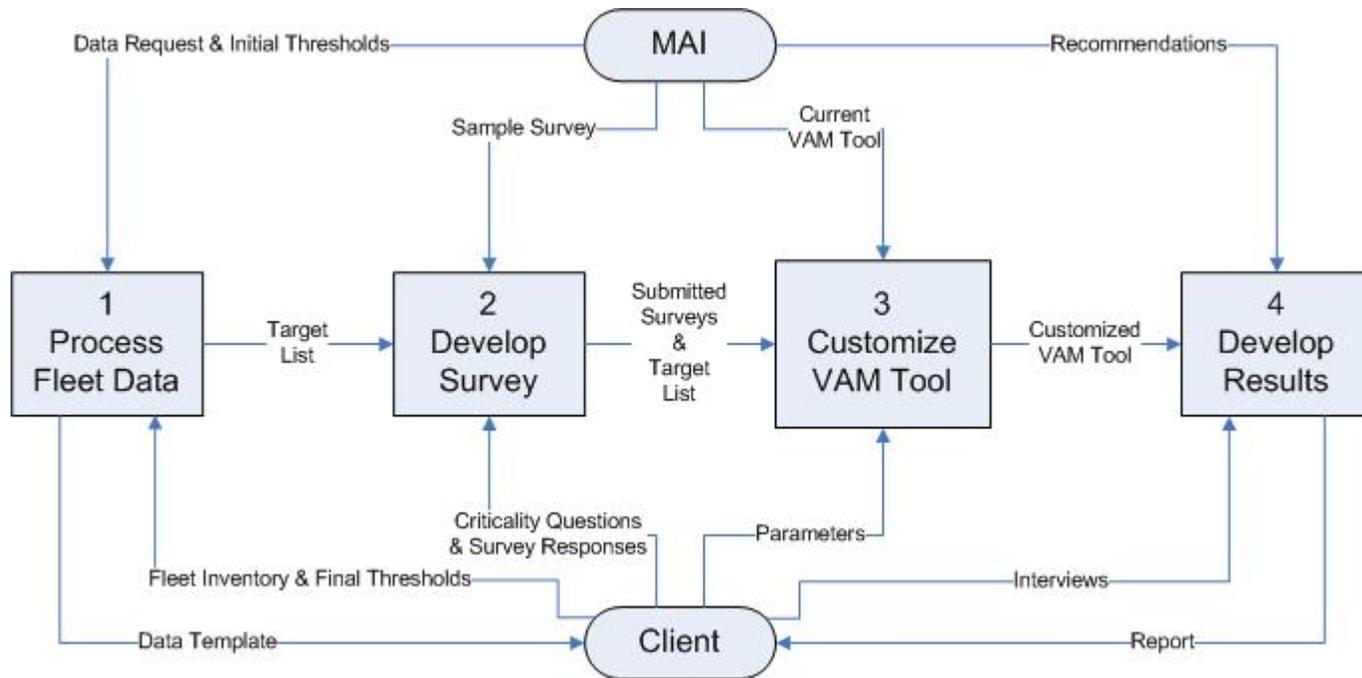
1. Segregate inventory by vehicle type and/or department/operational unit
2. Calculate 50%* of the average annual mileage (the “threshold”)
3. Identify vehicles by type that fall below the “threshold” (aka the “Target List”)

*50% is typical however the threshold can be adjusted for each vehicle type and/or department/ operational unit.

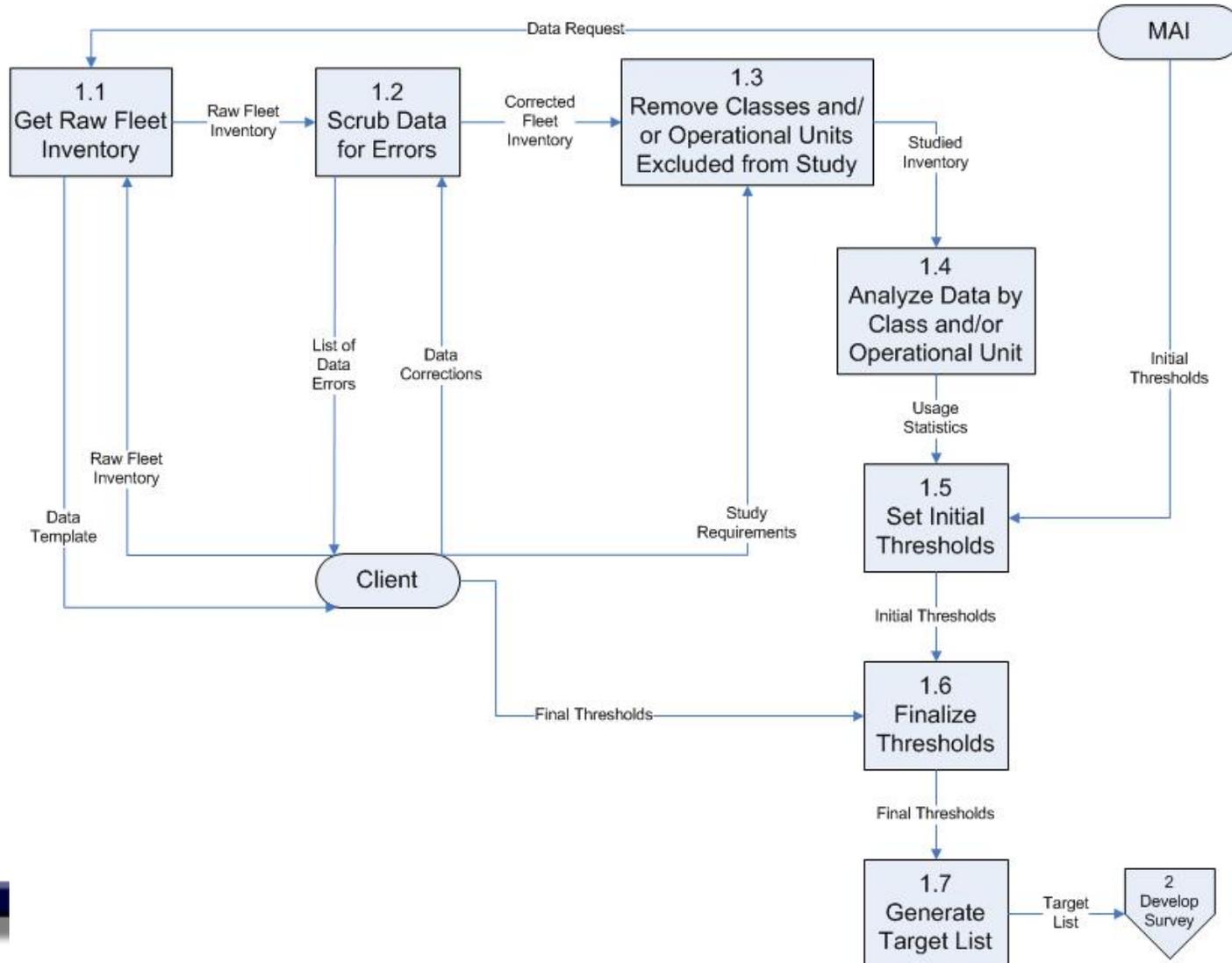
VAM Process Basics

- The VAM consists of 3 basic components:
 - Utilization analysis of inventory and identification of **target list**
 - Web-based **survey** of vehicle users
 - Excel-based “**VAM Tool**” that uses survey responses to recommend:
 - Vehicle retention/elimination
 - Vehicle type
 - Potential for use of alternative fuels
 - The survey is tailored to *your* fleet
 - The Tool is highly configurable
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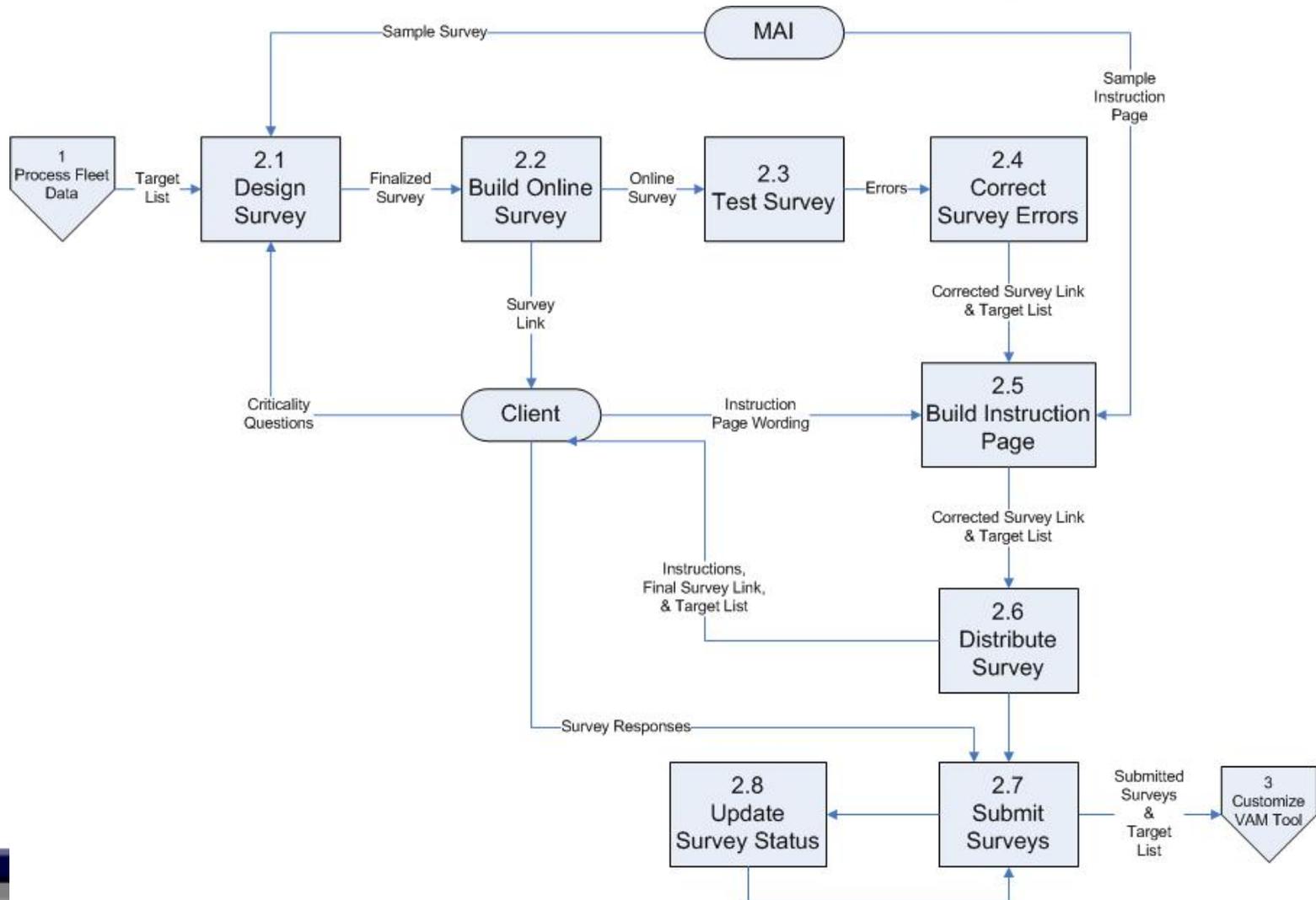
VAM Flowchart



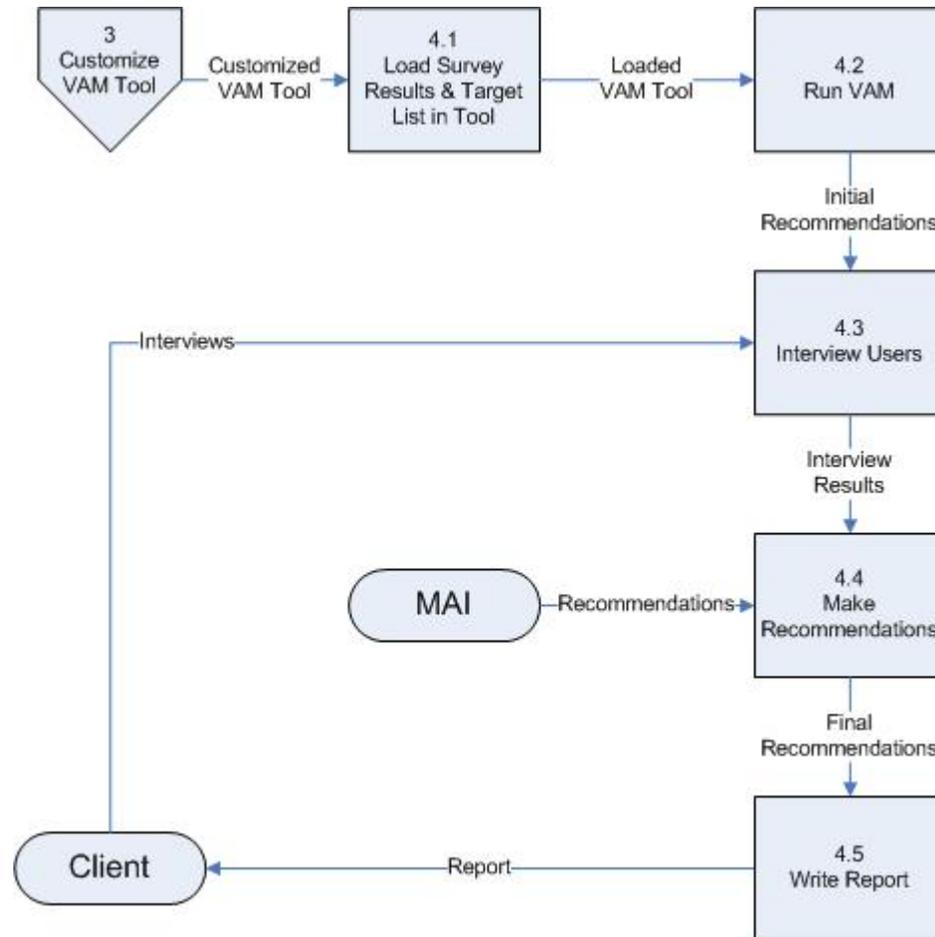
VAM Flowchart - Data Process



VAM Flowchart - Survey Process



VAM Flowchart - Results Process

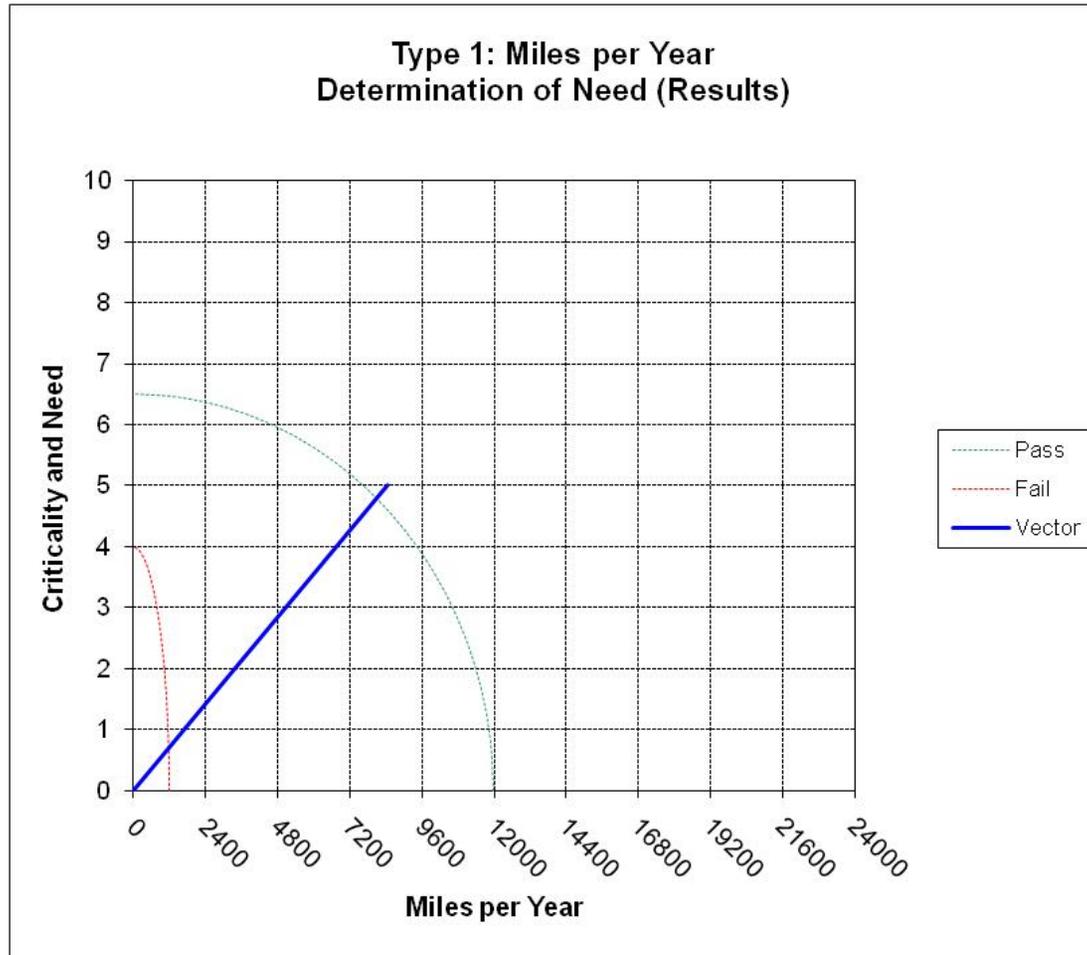


VAM Recommends Actions

| CLASS & TAG # | Answer | Current Age (Years) | Current Miles / Year | Hours / Year | Trip / Year | Criticality |
|---------------|-----------------|---------------------|----------------------|--------------|-------------|-------------|
| G10-17404 | Blank-No Survey | No Survey | 6000 | | | |
| G10-25359 | Eliminate | 4.1 | 1123 | 27 | 12 | 3 |
| G42-41531 | Eliminate | 7.1 | 614 | 3 | 12 | 3.5 |
| G10-5294A | Eliminate | 4.1 | 5381 | 60 | 60 | 3 |
| G41-65494 | Eliminate | 6.1 | 6633 | 67.5 | 30 | 3 |
| G10-6424D | Eliminate | 2.1 | 1779 | 135 | 60 | 1 |
| G63-22589 | Eliminate | 13.2 | 580 | 12 | 12 | 3 |
| G61-2089B | Questionable | 2.2 | 6100 | 281.25 | 125 | 4.5 |
| G10-9909A | Questionable | 3.1 | 3594 | 125 | 125 | 6 |
| G11-06736 | Questionable | 4.1 | 3350 | 360 | 90 | 6 |
| G11-3591F | Questionable | 1.2 | 2425 | 281.25 | 125 | 6 |
| G11-03980 | Questionable | 8.1 | 3052 | 12 | 12 | 5 |
| G41-71020 | Questionable | 4.2 | 2803 | 180 | 180 | 5.5 |
| G11-0015D | Questionable | 2.1 | 4628 | 360 | 90 | 5 |
| G11-1229B | Questionable | 3.2 | 5538 | 67.5 | 30 | 5 |
| G11-0007D | Questionable | 2.1 | 2109 | 31.25 | 125 | 4 |
| G10-28239 | Retain | 4.2 | 7798 | 120 | 30 | 9 |
| G10-28435 | Retain | 4.1 | 7831 | 22.5 | 90 | 9 |
| G10-29338 | Retain | 4.1 | 3646 | 81 | 36 | 9 |
| G10-5771A | Retain | 4.1 | 7317 | 500 | 125 | 9 |

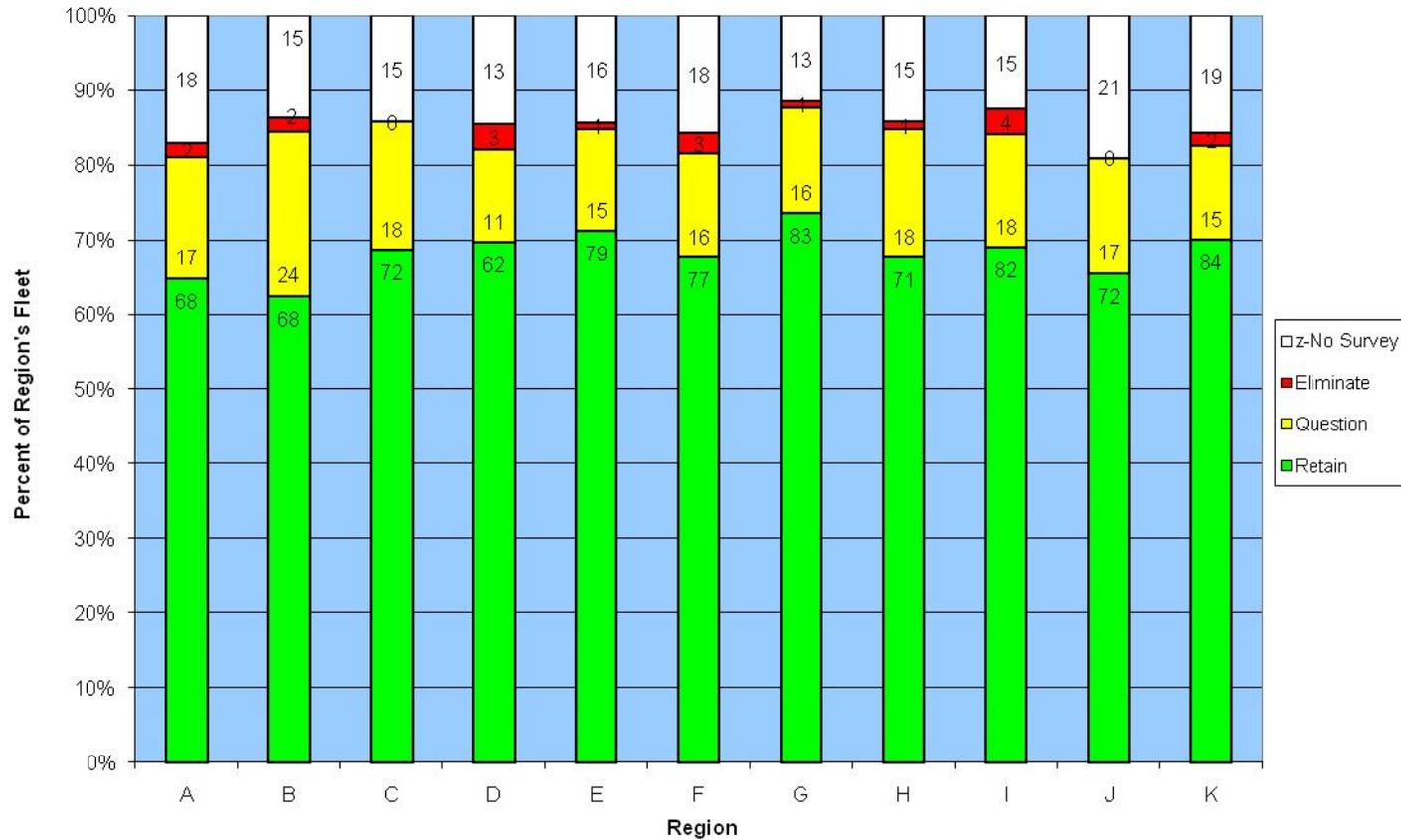
VAM Tool

Applies Utilization *and* Criticality



VAM Output Recommends Fleet Size

VAM Justification Answer by Region



Sample VAM Survey Questions

6) What is the current odometer reading of this vehicle?

miles

7) When was this reading taken (date)?

Format: YYYY-MM-DD

8) Was this vehicle acquired new?

- Yes
- No

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9) What was the odometer at time of acquisition?

miles

10) How many trips per week does this vehicle average? (Trip: When the driver takes the vehicle from its normal parking area and then returns it to that same general area.)

- 1
- 2 to 3
- 4 to 6
- 7 to 12
- 13 or more

11) How many weeks per year is this vehicle used?

- 1 to 24
- 25 to 47
- 48 to 52

12) How many hours does a typical trip take for this vehicle?

- 0 to 0.5
- 0.5 to 1.5
- 1.5 to 3
- 3 to 5
- More than 5