



Lean 6-Sigma Program



Department of General Services

*Office of Fleet
and Asset
Management*

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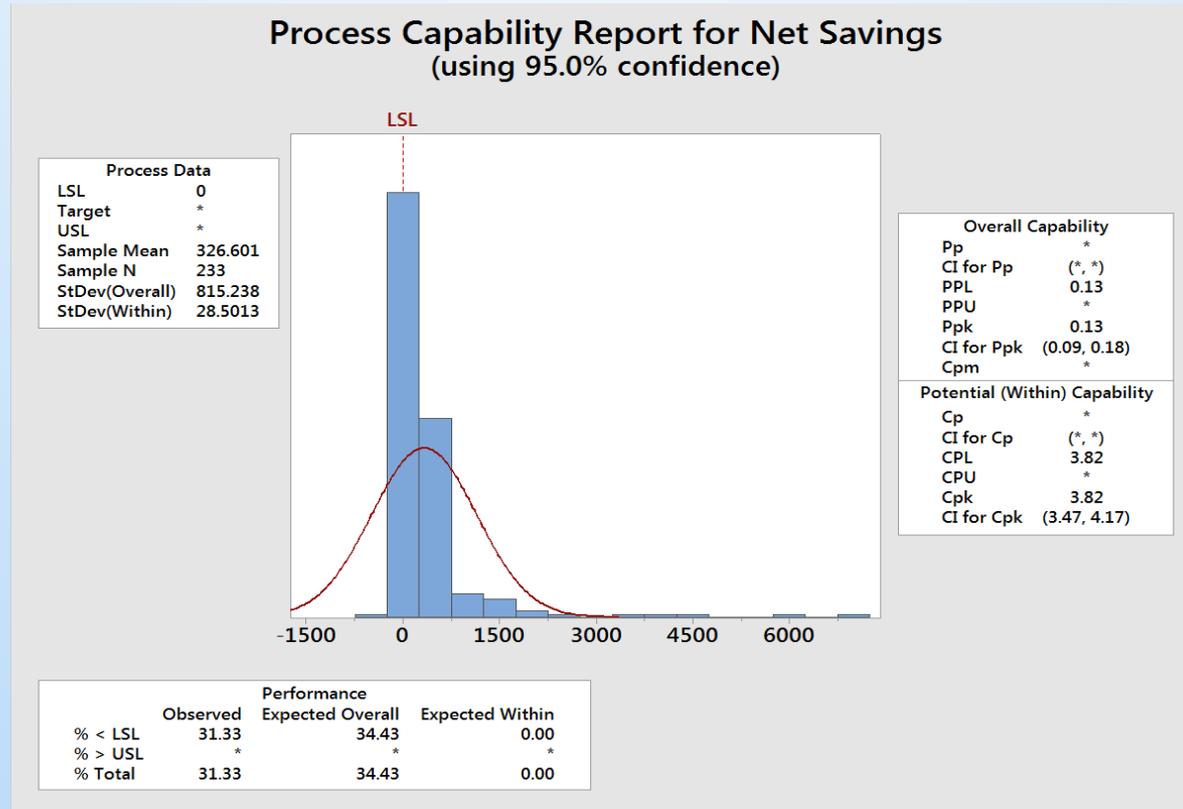


Increase Fleet Net Savings per Automotive Repair

- ❖ **Problem Statement:** *The Office of Fleet and Asset Management is seeking to identify efficiencies and cost savings in our automotive repair process.*
- ❖ **Objective:** *Increase average net savings of repair services*
- ❖ **Project Team:**
 - ❖ *Sam Munoz, Senior Inspector of Automotive Equipment*
 - ❖ *Chad Spivey, Inspector of Automotive Equipment*
 - ❖ *Tim Corkill, Inspector of Automotive Equipment*
 - ❖ *Phil Baker, Inspector of Automotive Equipment*
 - ❖ *David Montoya, Staff Services Manager I*
 - ❖ *Eric Mayes, Associate Governmental Program Analyst*
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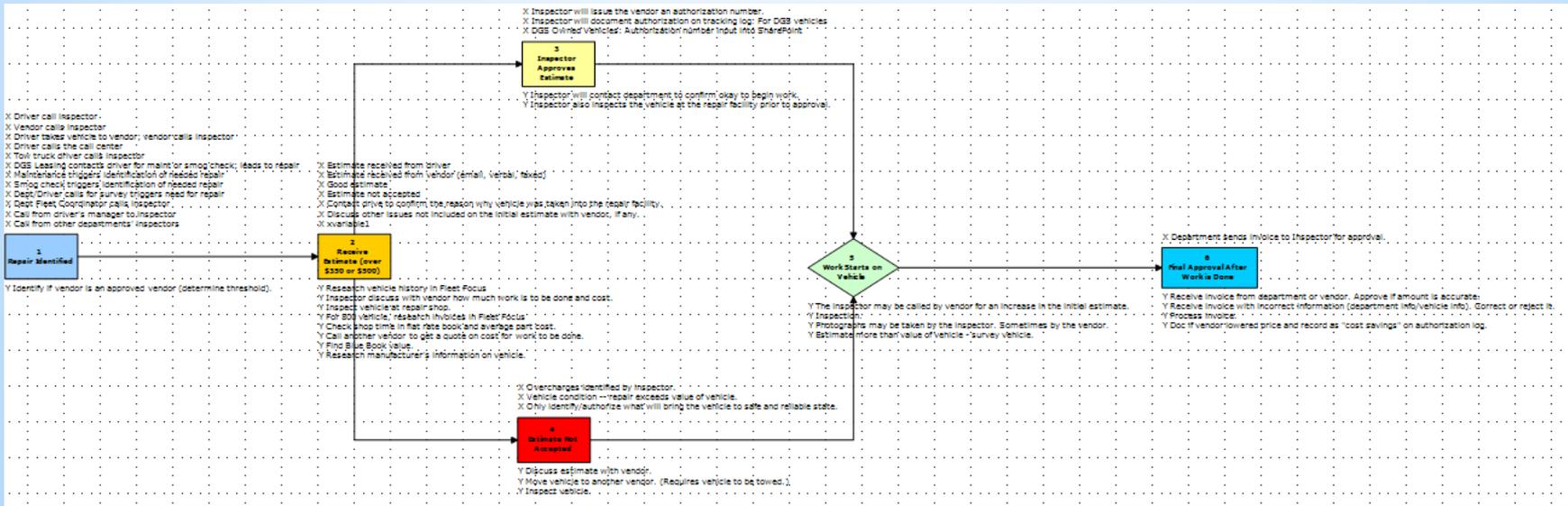


Baseline Capability



- ❖ Current average net savings \$326.60
- ❖ Currently 31.33% of repair inspections result in zero or negative net savings (under LSL)

Initial Process Map



- ❖ The team identified 6 basic steps to the automotive repair process
- ❖ Out of the 6 processes, the final step “invoice approval” was identified as non-value added.

Analysis Tools

- ❖ To determine critical x's we conducted the following analysis:
 - ❖ Fishbone diagram
 - ❖ FMEA
 - ❖ Hypothesis testing
 - ❖ One Way ANOVA
 - ❖ 2 Sample T Tests



Key Analytical Finding 1

- ❖ Net savings on average for estimates above \$1,000 yielded \$411.57 more than estimates below \$1,000

Estimate Category	Average Net Savings	Observations
All Estimates	\$326.60	263
\$350-\$1000	\$31.71	84
\$1000+	\$443.26	179

Additional Key Findings

- ❖ Variables not impacting net savings:
 - ❖ Approved vendors v. non-approved vendors
 - ❖ Variation across individual inspectors
 - ❖ DGS owned vehicles v. non-DGS owned vehicles



Critical X's (root causes of problems)

- ❖ Automotive repair estimate amount
- ❖ Time spent on non-value added step in process (final invoice approval)

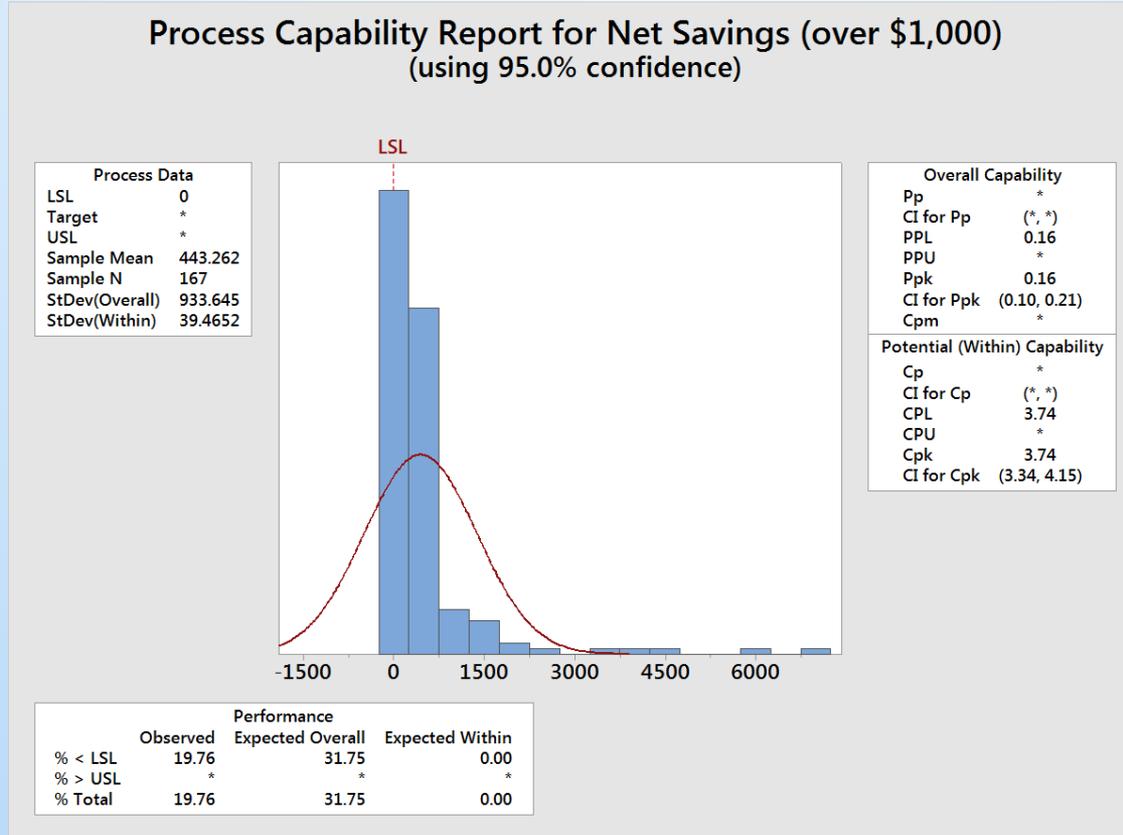


Improvement Techniques

- ❖ Raise approval threshold to \$1,000 for all vendors
 - ❖ Pilot program on DGS-owned vehicles
- ❖ By increasing the threshold it is projected that we will see a 36% increase in net savings on average



New Capability Analysis



- ❖ Expected average net savings to increase to \$443.26 (increase of \$116.66 per repair)
- ❖ Indicates a net savings in 80.24% of the observations

Control Plan

- ❖ Identify the overall average estimates for the past year on repair estimates \$1,000 or less
- ❖ Once the threshold is changed, continue to track the average estimates on a monthly basis
- ❖ Identify if there is a statistically significant increase in the average estimate amount
 - ❖ If there is no statistically significant increase, conclude that as a whole the vendors are not increasing their estimates
 - ❖ If there is a statistically significant increase, investigate which vendors are responsible
- ❖ Random sample audit automotive repair invoices that fall below the new \$1,000 threshold to identify any unnecessary services rendered



Additional Benefits

- ❖ Focus inspector time on more expensive, complex repairs in order to more efficiently utilize their expertise
- ❖ Potential faster automotive repair service turnaround time for work under \$1,000
 - ❖ Routine services would not require authorizations and approvals by inspectors



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