

CACHE COUNTY

Vehicle Fleet Analysis

2023



OFFICE OF THE COUNTY CLERK/AUDITOR

Audit Leadership:

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Project Name– Vehicle Fleet Analysis	Workpaper Index # 11
Workpaper Name – Final	As of 1 May, 2023

PURPOSE

To review the County’s vehicle fleet and analyze the different fiscal options available for its management. Evaluate the current fleet management processes to identify short falls. NOTE: This is an analysis of feasible options, rather than a compliance audit. This report is not intended for corrective-action.

PROCEDURES PERFORMED

The Auditor pulled several data sets to compile the reviews below to include the County Insurance Schedule, the County Title Book in the Clerk/Auditors office, open contracts between the County and ‘The Bancorp,’ department specific asset reports maintained by the Sheriff and Fire Departments respectively. A financial cost analysis has been completed on a sampling of common County vehicles to assist in the exploration of fleet management options.

SUMMARY

The number of departments involved in some portion of tracking the County’s vehicle fleet lacks fluidity and is causing a negative fiscal impact on the County. At present there is no actively used centralized data set nor a Fleet Manager role. This has led to confusion on what vehicle assets the County holds, their insurance status, location of title, maintenance needed, mileage, assigned users, etc. In the reviews enumerated in Part I, the Auditor has attempted, to the best of her discovery, to identify errors in insurance, VIN, and title location. In Part II, the Auditor presents the financial cost analysis of three potential fleet management options.

PART I, REVIEW:

1– Quantity of Vehicles

Of the original data remitted to the Auditor there was first the matter of identifying what the County owned. The list of Vehicle titles maintained by the Clerk/Auditor did not match the contents of the title binder held in the same office. Several vehicles in mainly the Fire & Sheriff's departments had annotations that a specific title was being held at that department. This made it difficult to do an actual assessment of quantity without seeking the externally maintained lists from both the Fire Chief and the Sheriff. Additionally, the number of items enumerated on the County insurance roll, exceeded the listed records in the Clerk/Recorders office.

The Clerk/Auditor's office had a listing of **383** titled assets. Of those, **23** were notated as surplus (past tense), **2** were notated as having been traded in, and **126** were trailers or equipment outside the scope of this analysis. That left **232** fleet vehicles on the rolls, where the insurance roster (that was not intended to include trailers and equipment) listed **312** fleet vehicles.

The Clerk/Auditor's listing of vehicles used in the Sheriff's Department showed a total of **80** assets to include **37** trailers or equipment; The Sheriff's Department provided their list which showed **145** to include **35** trailers or equipment. A total difference of **65** items, **2** of which were trailers or equipment unrelated to this analysis.

The Clerk/Auditor's listing of vehicles used in the Fire Department(s) and matched against the County's Insurance roll, showed a total of **62** assets. Of these assets the Clerk/Auditor's office did not have physical custody of **21** of the titles. The Fire Chief scrubbed the list and annotated **2** assets as unknown in their entirety, **8** as intended for surplus, and **2** as no longer an asset of the County.

2– Custody of Titles

As the Clerk/Recorder's title report had annotated that some of the titles were held and maintained by the Department's that used them; The next logical step was to reach out to the Sheriff and Fire districts to see if we could examine what titles they had and verify the vehicle identification numbers. It was determined that they did not keep any titles and only removed them from the Clerk/Recorder's office for the purpose of trade or surplus.

We knew that several titles are held by Bancorp, a financial institute that County historically uses for the financing/leasing of vehicles until the lien was paid in full. These were verified against the master lease agreements from 2016, 2021, and 2023.

The Auditor sought assistance from the Assessor's Department of Motor Vehicles to research if the County still owned the assets missing title documents. This resulted in three applications for duplicate title.

3– Vehicle Identification Number(s) VIN Errors

Part of the list analysis was decoding the VINs through the Department of Transportation which flagged several as incomplete or inaccurate. This is why having access to the actual title was pivotal to correcting these. Additionally, VINs didn't match across data sets specifically the Clerk/Auditors or Department lists against the Insurance list. Several were a simple correction of the letter O vs the number 0 and those corrections have been annotated to send to the Utah Trust, our Insurance provider. The additional 33 VIN corrections have also been annotated to be send yet 1 is on a vehicle the County no longer owns.

4– Vehicles Insured Discrepancy

Of the 312 listed on the insurance schedule, 36 had been previously traded or coded for surplus. There is additionally 1 item the Fire Chief does not feel the County needs to insure as it never leaves the training field. The Auditor reached out to the insurer to see what the cost difference on this asset (a 5,000-gallon freightliner tank). 11 of the 36 assets were marked in the insurance record as being terminated sometime after July 1, 2022 which is the insurance effective date. The Counties 2022-2023 premiums are credited by proration on the subsequent invoice. The total estimated cost of these terminations as well as that of the erroneously insured assets is \$16,896.30.

PART II, COST ANALYSIS:

It was requested by the Audit Committee that the Auditor review how similar sized Counties are managing their Vehicle Fleet. In this research there are three options that are used predominantly.

Option I. LEASE FOR 24-36 MONTHS AND THEN TRADE UP

This is new to all Counties that are implementing it so there is not sufficient historical data to do a cost comparison to the outright purchase. Additionally, in the lease option, the leasing company limits mileage to 12,000-15,000 per year which is in line with the current agreements the County

has with Bancorp. However, as you will see in the analysis below, the average annual mileage in the state of Utah is 15,516. Lease companies also do not allow for permanent modifications to their leased vehicles as would be necessary with the fleet vehicles used by the Fire Department, Sheriff, and some sub-departments of Public Works. Items such as decals of the County logo may be prohibited in a lease agreement.

The standard maintenance of the vehicle may be included in the lease agreement but is not standard. At the end of the lease the County has no cash asset in the vehicle but does have the option to purchase the lease at market value. Leases often include additional administration fees on top of the mileage overage fees, financing interest, and titling.

Option II. FLEET MANAGEMENT / CASH PAY

A "Fleet Manager" is either contracted, or a full time employee of the County. In the Counties similar in size that utilize a Fleet Manager, their duties usually include the monitoring and tracking of the County's fleet to include surplus, transfer, maintenance, etc. It appears to be common that a Fleet Manager would have experience as a mechanic so that the salary was partially offset by unnecessary repair costs as simple fixes and standard maintenance could be completed in-house. It was also mentioned that having a Fleet Manager who is also trained in auto mechanic, may reduce the time that vehicles are waiting at a repair shop. See Appendix B for Fleet Manager salary costs.

Currently in Cache, employees that are issued a county vehicle have 'personal mileage' (as defined by the IRS) withheld as a taxable benefit from their salary or pay.

Even with a Fleet Manager, Department heads or Elected Official will choose the make and model of vehicle that best suits the need for their specific department and purchases said vehicles with their annual budget allocation, the vehicles are then placed on the County's Comprehensive & Collision insurance, fuel is purchased with or provided by County funds, and annual GASB-34 depreciation is completed at the end of the County fiscal year.

Option III. VEHICLE ALLOWANCE

A vehicle allowance is a taxable benefit similar to the County's current cell phone allowance. A vehicle allowance is intended to compensate an employee for work-related mileage on their own personal vehicle. Note: It is consistent that the allowance is calculated for inside County mileage only. Longer trips such as conferences, the State Capital, etc. are reimbursed at whatever rate the

Council approved for the fiscal year in questions. By Statute the County’s mileage reimbursement rate may not exceed the Federal mileage rate.

The calculation of the allowance model below takes into consideration the following factors:

- The mileage rate as passed by code or statute.
- The percent of miles expected to be driven in a month based off published analytics of average miles driven in the State of Utah.
- The average gas price in Cache County as reported by AAA (Figure 1)
- The average miles per gallon (mpg) of a specific vehicle.
- The average maintenance cost of a specific vehicle.*
- Annual depreciation based off vehicle type. (Figure 2)
- Monthly insurance premium of a 50-year-old male driver in the Logan zip code. (Figure 3)

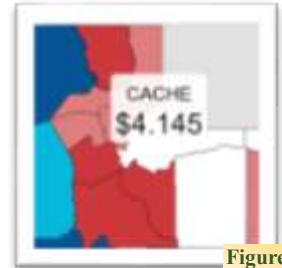


Figure 1

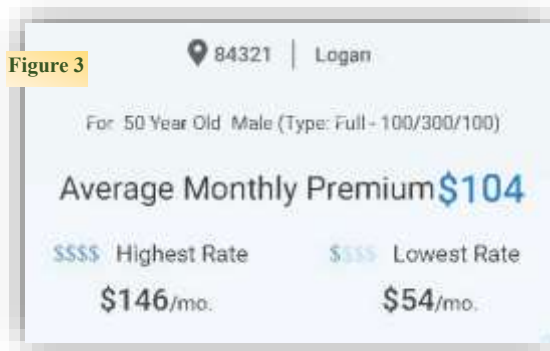


Figure 3

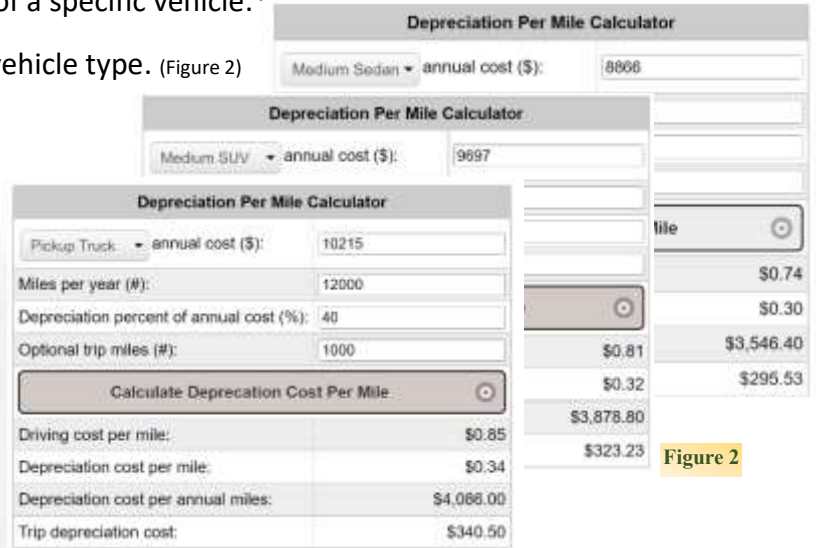



Figure 2

- The divisible monthly payment of a specific vehicle at its current Kelly Blue Book (KBB) value if paid over 36 months at a 0% interest rate – no down payment – 0% sales tax, and lastly the tax implications.

Work-Related Mileage Allowance	2023 IRS Rate	Mile Avg/ Month @ % Business use	AAA Gas Avg/ gal	Avg MPG	% Avg Annual Maint Cost	% Avg Monthly Insurance Premium	% Depreciation	% Monthly Payment at Current Value wo Int /36 mo	2022 Marginal Tax Rate (Fed, FICA, State)	Pre Tax Vehicle Allowance	Net Pre Tax Vehicle Allowance	w/ Tax Inflation Allowance	Net w/ Tax Inflation Allowance
70.000%	0.655	1293	4.145	8	8	118	8	8	24.50%	≈	≈	≈	≈
2018 Jeep Grand Cherokee	0.655	905.1	4.145	20	466.2	82.6	226.26	406.371	24.50%	1,534.50	1,158.55	2,032.42	1,534.48
2021 Ford Explorer	0.655	905.1	4.145	21	512.4	82.6	226.26	521.619	24.50%	1,644.67	1,241.73	2,178.33	1,644.64
2020 Chevy Silverado	0.655	905.1	4.145	22	499.8	82.6	238.35	602.294	24.50%	1,728.26	1,304.84	2,289.05	1,728.23
2017 Ford Fusion	0.655	905.1	4.145	23	406.7	82.6	206.87	264.404	24.50%	1,343.72	1,014.51	1,779.73	1,343.70
2021 Ford F-150	0.655	905.1	4.145	19	551.6	82.6	238.35	720.419	24.50%	1,877.63	1,417.61	2,486.88	1,877.59
2016 Dodge Durango	0.655	905.1	4.145	19	472.5	82.6	226.26	358.75	24.50%	1,497.28	1,130.45	1,983.12	1,497.25
2019 Ram 1500	0.655	905.1	4.145	17	483.7	82.6	238.35	610.946	24.50%	1,785.73	1,348.23	2,365.16	1,785.70
Average Miles Driven Annually in Utah: 15,516										1,630.26	1,230.84	2,159.24	1,630.23


To run this analysis, the Auditor pulled seven of the common vehicles in the County Fleet. All calculated rates and values came from links found in the sources section at the end of this report.

PER YEAR	70% Allw.	Financed	Cash
2018 Jeep Grand Cherokee	18,414.05	23,830.64	2,715.80




The Jeep Grand Cherokee Reliability Rating is **3.5 out of 5.0**, which ranks it 15th out of 26 for midsize SUVs.

The average annual repair cost is \$666 which means it has average ownership costs. The severity of repairs is average, and major issues are less frequent than average, so major repairs are not common for the Grand Cherokee.

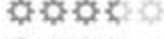
3¹/₂  Above Average

PER YEAR	70% Allw.	Financed	Cash
2021 Ford Explorer	19,736.04	25,490.27	2,760.15




The Ford Explorer Reliability Rating is **3.5 out of 5.0**, which ranks it 19th out of 26 for midsize SUVs.

The average annual repair cost is \$732 which means it has average ownership costs. The severity of repairs is average and the frequency of those issues is low, so major repairs are uncommon for the Explorer.


3¹/₂  Above Average

PER YEAR	70% Allw.	Financed	Cash
2020 Chevy Silverado	20,739.16	26,643.95	2,587.61



The Chevrolet Silverado 1500 Reliability Rating is **3.5 out of 5.0**, which ranks it 5th out of 17 for fullsize trucks.

The average annual repair cost is \$714 which means it has average ownership costs. While repairs tend to be more severe than average, the number of those issues is low, so major repairs are uncommon for the Silverado 1500.

3¹/₂  Above Average

PER YEAR	70% Allw.	Financed	Cash
2017 Ford Fusion	16,124.66	21,501.67	2,482.04




The Ford Fusion Reliability Rating is **4.0 out of 5.0**, which ranks it 18th out of 24 for midsize cars.

The average annual repair cost is \$581 which means it has average ownership costs. The frequency and severity of repairs are both fairly average when compared with all other vehicles.

4  Above Average

	PER YEAR	70% Allw.	Financed	Cash
2021 Ford F-150		22,531.57	28,625.34	2,686.51




The Ford F-150 Reliability Rating is **3.5 out of 5.0**, which ranks it 7th out of 17 for fullsize trucks.

The average annual repair cost is \$788 which means it has higher than average ownership costs. While repairs tend to be more severe than average, these issues occur less often, so major repairs are infrequent for the F-150.

3¹/₂ ⚙️⚙️⚙️⚙️⚙️
Above Average

	PER YEAR	70% Allw.	Financed	Cash
2020 Chevy Silverado		20,739.16	26,643.95	2,587.61




The Ram 1500 Reliability Rating is **3.5 out of 5.0**, which ranks it 1st out of 17 for fullsize trucks.

The average annual repair cost is \$691 which means it has average ownership costs. The severity of repairs is average and the frequency of those issues is low, so major repairs are uncommon for the 1500.

3¹/₂ ⚙️⚙️⚙️⚙️⚙️
Above Average

	PER YEAR	70% Allw.	Financed	Cash
2016 Dodge Durango		17,967.37	23,357.42	2,871.16



The Dodge Durango Reliability Rating is **3.5 out of 5.0**, which ranks it 3rd out of 14 for fullsize SUVs.

The average annual repair cost is \$675 which means it has average ownership costs. The severity of repairs is average and the frequency of those issues is low, so major repairs are uncommon for the Durango.

3¹/₂ ⚙️⚙️⚙️⚙️⚙️
Above Average

EXAMPLE COST ANALYSIS:

If there is a budget line item that allows for the purchase of a \$70,000 vehicle for Department fleet-use; and looking at the available local vehicles for sale the choice is made to purchase this 2023 F-150 Tremor 4WD SuperCrew 5.5' Box for the full \$70,000. We can run the three options listed above to compare costs. Please note that the cost analysis below does not include potential fleet manager salary.

Vehicle Fleet Cost Analysis	2023	Mile Avg/	AAA Gas	Avg	% Avg	% Avg	%	Cost of	Payment	Interest	Annual	Annual Total
	IRS Rate	Month @ 70%	Avg/ gal	MPG	Annual Maint Cost	Insurance Premium	Depreciation	Vehicle	Rate	Paid/ Month	Payment	Cost
	0.655	1293	4.145	δ	δ	118	δ	δ	δ	δ	δ	δ
Allowance @ 70% Usage	0.655	905.1	4.145	18	551.60	991.20	3100.32	70,000.00	36	92.36	23,333.33	28,870.08
Financing / 48 Month Lease	0.655	15516	4.145	18	788.00	518.16	2482.56	70,000.00	48	69.27	17,500.00	35,093.96
Cash Purchase	0.655	15516	4.145	18	788.00	518.16	3998.28	70,000.00	PIF; Usable Life ~8 years		8,750.00	27,790.41

SOURCES

<https://www.mburse.com/blog/how-to-calculate-a-fair-car-allowance>

<https://www.calculator.net/auto-loan-calculator>

<https://www.kbb.com/car-prices/>

<https://repairpal.com/cars>

<https://gasprices.aaa.com/?state=UT>

<https://www.policygenius.com/auto-insurance/average-miles-driven-by-state/>

<https://smartasset.com/taxes/utah-tax-calculator>

APPENDIX A – F150 Tremor Data

Specifications	
Stock Number	132T23
VIN	1FTEWIE85PFBI6441
Vehicle Status	In Stock
Exterior	Oxford White
Interior	Black
Engine	Regular Unleaded V6 3.5 L EcoBoost
Transmission	Automatic
Body Style	Tremor 4WD SuperCrew 5.5' Box
Cylinders	6
Doors	4
Fuel Type	Gas

2023 F-150 Tremor 4WD SuperCrew 5.5'



4.7 ★ Expert 4.3 ★ Consumer



Ford F-150 Depreciation

Years Old	Depreciation	Residual Value	Resale Value	Mileage	Resale Year
1	\$4,392	93.73%	\$65,608	15,000	2022
2	\$7,974	88.61%	\$62,026	30,000	2023
3	\$8,301	86.71%	\$60,699	45,000	2024
4	\$8,930	85.81%	\$60,070	60,000	2025
5	\$17,994	74.29%	\$52,006	75,000	2026
6	\$21,824	68.82%	\$48,176	90,000	2027
7	\$24,776	64.61%	\$45,224	105,000	2028
8	\$31,986	54.31%	\$38,014	120,000	2029
9	\$35,523	49.25%	\$34,477	135,000	2030
10	\$41,526	40.68%	\$28,474	150,000	2031

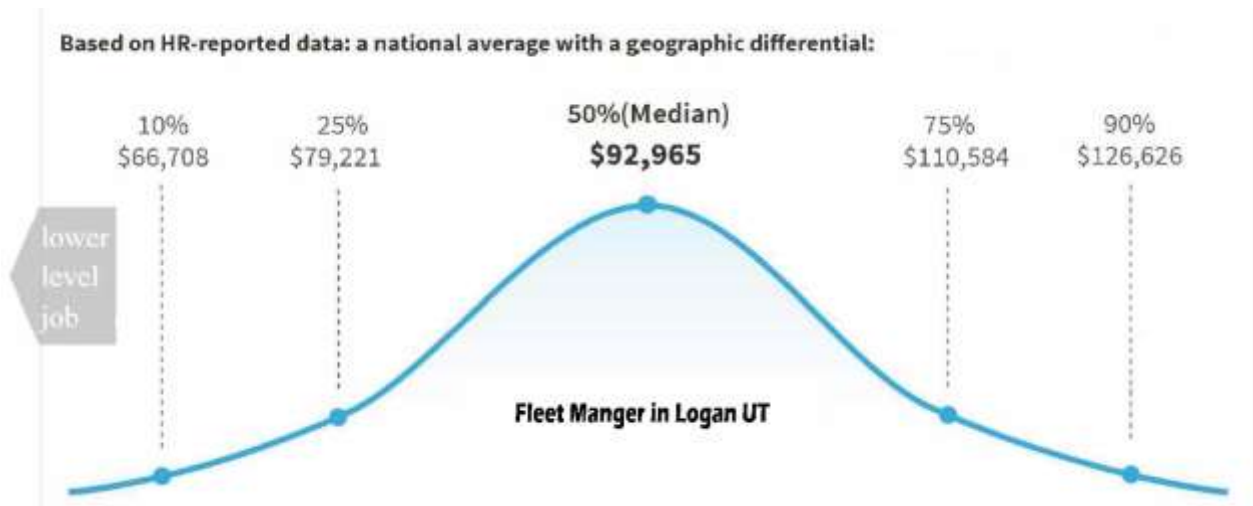
Ford F-150 Projected Resale Value vs Loan Balance

Year	Resale Value	Loan Balance	Difference
0	\$70,000	\$25,200	+\$44,800 (64%)
1	\$65,769	\$20,628	+\$45,141 (69%)
2	\$62,318	\$15,832	+\$46,486 (75%)
3	\$61,040	\$10,802	+\$50,238 (82%)
4	\$60,434	\$5,530	+\$54,904 (91%)
5	\$52,665	\$0	+\$52,665 (100%)

Basic Warranty
 3 years or 36000 miles

Fuel Economy
 City 17/Hwy 22/Comb 19 MPG

APPENDIX B – Fleet Manager Salary & Job Description



Fleet Manager manages the acquisition, operations, and maintenance of the organization's fleet of motor vehicles. Oversees scheduling and dispatch operations for vehicles and drivers. Being a Fleet Manager evaluates, purchases, leases, and disposes of vehicles to maintain the fleet. Develops and maintains vendor and service provider relationships for fuel, maintenance, and other essential services. Additionally, Fleet Manager administers insurance policy coverage, negotiates agreements, and participates in claim resolution. Develops and implements safety, preventive maintenance, and accident prevention programs. Knowledge of OSHA, DOT, and fleet-specific regulations, licensing, registration, and reporting requirements. Manages the fleet expense reporting and budgets. May require a bachelor's degree or equivalent. Typically reports to a head of a unit/department. The Fleet Manager manages subordinate staff in the day-to-day performance of their jobs. True first level manager. Ensures that project/department milestones/goals are met and adhering to approved budgets. Has full authority for personnel actions. To be a Fleet Manager typically requires 5 years experience in the related area as an individual contributor. 1 - 3 years supervisory experience may be required. Extensive knowledge of the function and department processes.