1. Does CSAT ratings change depending on in-network vs. out-of-network?

SELECT

`In vs. Out of Network Service Provider`,

SUM(`CSAT Rating`) / COUNT(\*) AS average\_csat\_score\_out\_of\_5

FROM

`tridentmotors`.`trident motors jobs (3) (1)`

WHERE

`CSAT Rating` IS NOT NULL

AND `CSAT Rating` BETWEEN 1 AND 5

AND `In vs. Out of Network Service Provider` IS NOT NULL

GROUP BY

`In vs. Out of Network Service Provider`;

# In vs. Out of Network Service Provider, average\_csat\_score\_out\_of\_5

'In-Network', '4.638349514563107'

'Out-of-Network', '4.409240924092409'

From this we can determine that there is not much difference between IN-network and OUT-of-network when it comes to CSAT rating.

1. What is the average difference between estimated time of arrival and actual time of arrival for each service type?

SELECT

`Service Type`,AVG(`Actual Time of Arrival (Min)` - `Estimated Time of Arrival (Min)`) AS average\_time\_difference

FROM

`tridentmotors`.`trident motors jobs (3) (1)`

WHERE

`Estimated Time of Arrival (Min)` IS NOT NULL

AND `Actual Time of Arrival (Min)` IS NOT NULL

group by `Service Type`;

# Service Type, average\_time\_difference

'Towing', '-3.4080858851674667'

'Flat Tire', '-4.057931234668848'

'Auto Lockout', '-5.583098325991189'

'Fuel', '-4.238427777777779'

'Jump Start', '-3.937865263157895'

'Winch', '-13.972219444444441'

'Heavy Duty TOW', '-5.3367512820512815'

'Medium Duty TOW', '-6.016463855421688'

'Accident Tow', '1.0797055555555555'

'Medium/Heavy Duty RSA', '-3.825546666666667'

These calculations indicate most services happen sooner then estimated which is a positive trend.

1. Is there a specific State that have higher demand?

SELECT

`State`,

COUNT(`Service Type`) AS demand\_count

FROM

`tridentmotors`.`trident motors jobs (3) (1)`

GROUP BY

`State`

ORDER BY

demand\_count DESC

# State, demand\_count

'Arizona', '4299'

'Kansas', '2135'

'Utah', '816'

'Hawaii', '732'

'Puerto Rico', '652'

'Iowa', '337'

'New York', '309'

'Colorado', '291'

'DC', '218'

'Michigan', '21'

'Australia', '1'

Arizona seems to be the most service demanded area.

1. What are the statistics for the service type?
2. What service is requested most often?

SELECT

`Service Type`,

COUNT(\*) AS request\_count

FROM

`tridentmotors`.`trident motors jobs (3) (1)`

GROUP BY

`Service Type`

ORDER BY

request\_count DESC;

# Service Type, request\_count

'Towing', '5852'

'Flat Tire', '1223'

'Jump Start', '1140'

'Auto Lockout', '1135'

'Accident Tow', '216'

'Medium Duty TOW', '83'

'Fuel', '72'

'Heavy Duty TOW', '39'

'Winch', '36'

'Medium/Heavy Duty RSA', '15'

The most requested service requested is definitely towing.

1. What service is the least requested?

Medium/Heavy Duty RSA is the least requested service.

1. What are the average times for each type of service?

SELECT

`Service Type`,

COUNT(\*) AS request\_count,

Avg(`Customer Wait Time (Min)`) AS average\_wait\_time

FROM

`tridentmotors`.`trident motors jobs (3) (1)`

GROUP BY

`Service Type`

ORDER BY

request\_count DESC;

# Service Type, request\_count, average\_wait\_time

'Towing', '5852', '66.24364579630891'

'Flat Tire', '1223', '51.307591741619035'

'Jump Start', '1140', '44.88007368421052'

'Auto Lockout', '1135', '50.4350817621145'

'Accident Tow', '216', '70.51156990740742'

'Medium Duty TOW', '83', '83.1853409638554'

'Fuel', '72', '50.44305972222221'

'Heavy Duty TOW', '39', '94.12478974358974'

'Winch', '36', '62.093061111111105'

'Medium/Heavy Duty RSA', '15', '73.81333333333333'

1. How long does it take to assign a job depending on the job acceptance channel?

SELECT

`Job Accept Channel`,`Service Type`,

AVG(`Time to Assign Job (Min)`) AS average\_time\_to\_assign

FROM

`tridentmotors`.`trident motors jobs (3) (1)`

GROUP BY

`Job Accept Channel`,`Service Type`;

# Job Accept Channel, Service Type, average\_time\_to\_assign

'Digital', 'Towing', '3.6367434936350698'

'Call Center', 'Towing', '37.91296142857144'

'Digital', 'Flat Tire', '3.593241325966853'

'Digital', 'Auto Lockout', '3.2845736353077815'

'Call Center', 'Flat Tire', '33.667142138364795'

'Call Center', 'Fuel', '32.99638260869565'

'Call Center', 'Auto Lockout', '34.1574810218978'

'Digital', 'Jump Start', '2.4037232776617943'

'Call Center', 'Winch', '43.12666800000001'

'Call Center', 'Jump Start', '25.800458791208783'

'Call Center', 'Heavy Duty TOW', '56.93656451612904'

'Call Center', 'Medium Duty TOW', '50.5644891304348'

'Digital', 'Heavy Duty TOW', '1.745825'

'Digital', 'Fuel', '4.288781632653061'

'Call Center', 'Accident Tow', '41.48576041666667'

'Digital', 'Medium Duty TOW', '10.02117027027027'

'Digital', 'Accident Tow', '6.972080833333335'

'Digital', 'Winch', '3.198490909090909'

'Call Center', 'Medium/Heavy Duty RSA', '42.82499166666667'

'Digital', 'Medium/Heavy Duty RSA', '26.894433333333335'

Digital for job acceptance channel is much quicker in most categories.

1. Is there a correlation between tow miles and a specific service type?

select `Service Type`,avg(`Tow Miles`)

from `tridentmotors`.`trident motors jobs (3) (1)`

group by `Service Type`;

# Service Type, avg(`Tow Miles`)

'Towing', '10.769480519480519'

'Flat Tire', '0'

'Auto Lockout', '0'

'Fuel', '0'

'Jump Start', '0.009649122807017544'

'Winch', '0'

'Heavy Duty TOW', '25.46153846153846'

'Medium Duty TOW', '21.36144578313253'

'Accident Tow', '12.666666666666666'

'Medium/Heavy Duty RSA', '0'

So, tow miles are only attributed to anything to do with towing. No other services.

1. Is there a correlation between the hour of day and wait times?
2. Vote cast for CSAT ratings

SELECT

CASE

WHEN `CSAT Rating` IS NULL THEN 'No Vote'

ELSE CAST(`CSAT Rating` AS CHAR)

END AS rating,

COUNT(\*) AS vote\_count

FROM

`tridentmotors`.`trident motors jobs (3) (1)`

WHERE

`CSAT Rating` BETWEEN 1 AND 5

GROUP BY

rating

ORDER BY

rating;

# rating, vote\_count

'1', '85'

'2', '45'

'3', '57'

'4', '186'

'5', '1578'

The amount of votes for 5 stars is astronomically higher.