Screenshots

Fuel Economy Data

David Rowe

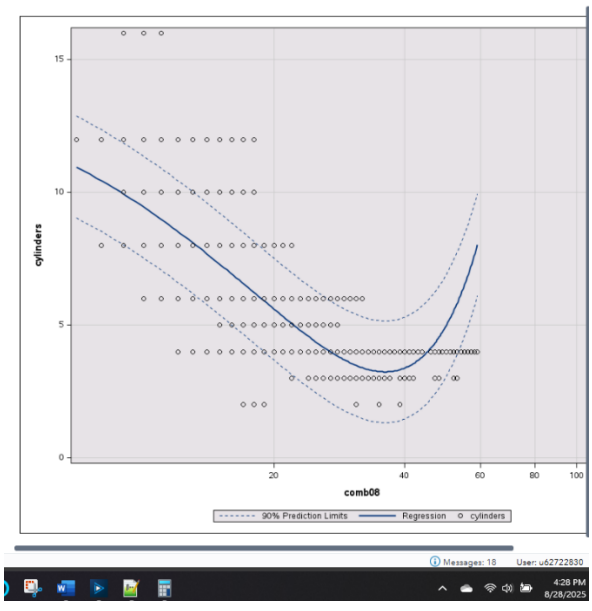
Colorado State University Global

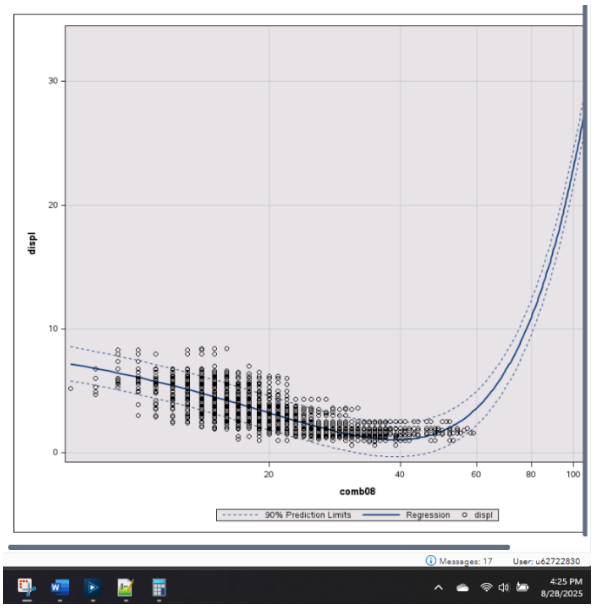
25FA-MIS580-1: Capstone - Business Intelligence and Data Analytics

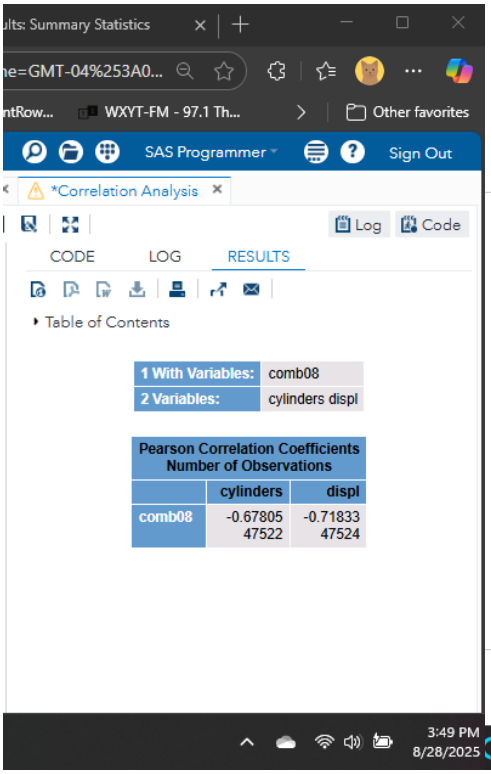
Dr Jamia Mills

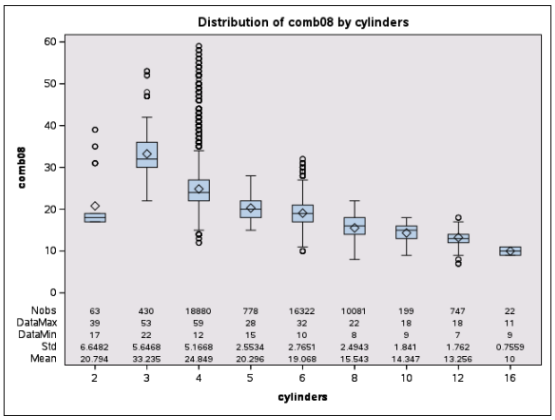
9/6/2025

Captone Screenshots

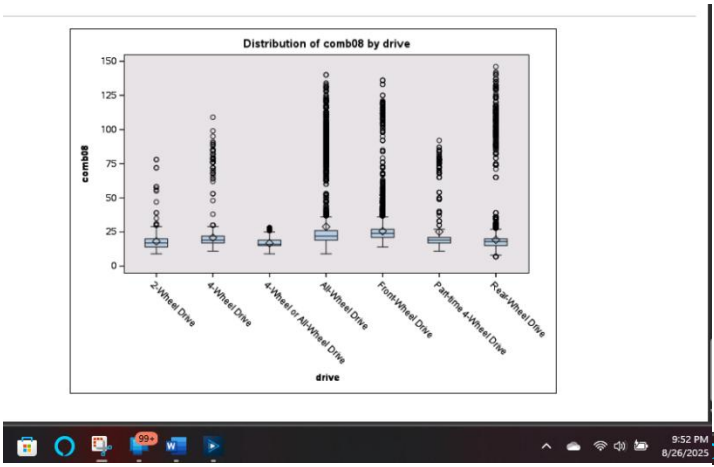


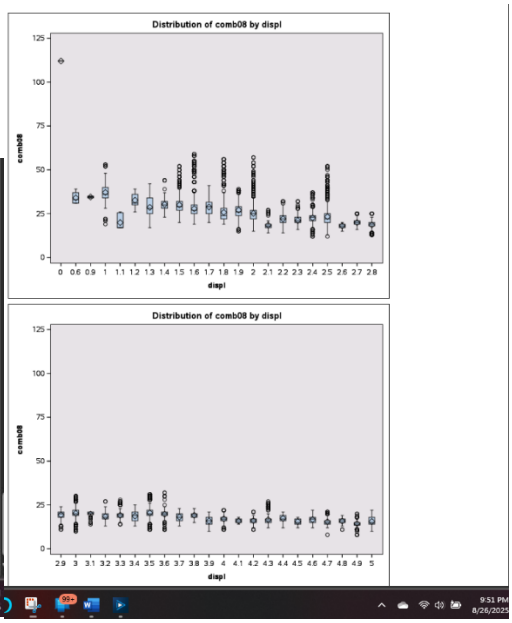


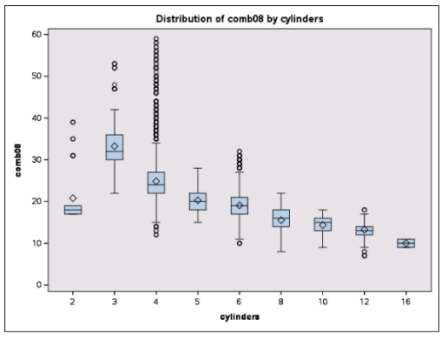


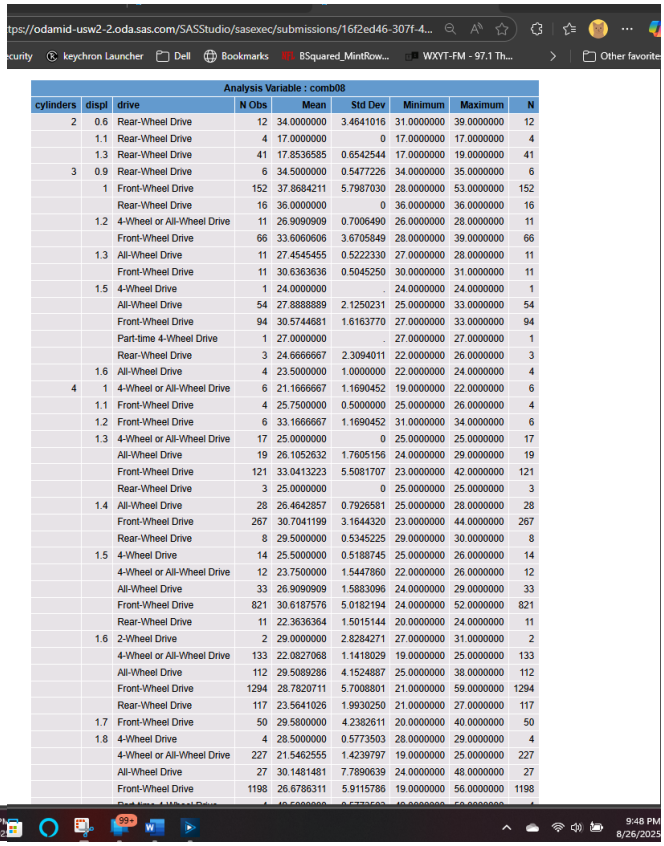


Captone Screenshots









Analysis Variable : comb08

cylinders	displ	drive	N Obs	Mean	Std Dev	Minimum	Maximum	N
2	0.6	Rear-Wheel Drive	12	34.0000000	3.4641016	31.0000000	39.0000000	12
	1.1	Rear-Wheel Drive	4	17.0000000	0	17.0000000	17.0000000	4
	1.3	Rear-Wheel Drive	41	17.8536585	0.6542544	17.0000000	19.0000000	41
3	0.9	Rear-Wheel Drive	6	34.5000000	0.5477226	34.0000000	35.0000000	6
	1	Front-Wheel Drive	152	37.8684211	5.7987030	28.0000000	53.0000000	152
		Rear-Wheel Drive	16	36.0000000	0	36.0000000	36.0000000	16
	1.2	4-Wheel or All-Wheel Drive	11	26.9090909	0.7006490	26.0000000	28.0000000	11
		Front-Wheel Drive	66	33.6060606	3.6705849	28.0000000	39.0000000	66
	1.3	All-Wheel Drive	11	27.4545455	0.5222330	27.0000000	28.0000000	11
		Front-Wheel Drive	11	30.6363636	0.5045250	30.0000000	31.0000000	11
	1.5	4-Wheel Drive	1	24.0000000	.	24.0000000	24.0000000	1
		All-Wheel Drive	54	27.8888889	2.1250231	25.0000000	33.0000000	54
		Front-Wheel Drive	94	30.5744681	1.6163770	27.0000000	33.0000000	94
		Part-time 4-Wheel Drive	1	27.0000000	.	27.0000000	27.0000000	1
		Rear-Wheel Drive	3	24.6666667	2.3094011	22.0000000	26.0000000	3
	1.6	All-Wheel Drive	4	23.5000000	1.0000000	22.0000000	24.0000000	4
4	1	4-Wheel or All-Wheel Drive	6	21.1666667	1.1690452	19.0000000	22.0000000	6
	1.1	Front-Wheel Drive	4	25.7500000	0.5000000	25.0000000	26.0000000	4
	1.2	Front-Wheel Drive	6	33.1666667	1.1690452	31.0000000	34.0000000	6
	1.3	4-Wheel or All-Wheel Drive	17	25.0000000	0	25.0000000	25.0000000	17
		All-Wheel Drive	19	26.1052632	1.7605156	24.0000000	29.0000000	19
		Front-Wheel Drive	121	33.0413223	5.5081707	23.0000000	42.0000000	121
		Rear-Wheel Drive	3	25.0000000	0	25.0000000	25.0000000	3
	1.4	All-Wheel Drive	28	26.4642857	0.7926581	25.0000000	28.0000000	28
		Front-Wheel Drive	267	30.7041199	3.1644320	23.0000000	44.0000000	267
		Rear-Wheel Drive	8	29.5000000	0.5345225	29.0000000	30.0000000	8
	1.5	4-Wheel Drive	14	25.5000000	0.5188745	25.0000000	26.0000000	14
		4-Wheel or All-Wheel Drive	12	23.7500000	1.5447860	22.0000000	26.0000000	12
		All-Wheel Drive	33	26.9090909	1.5883096	24.0000000	29.0000000	33
		Front-Wheel Drive	821	30.6187576	5.0182194	24.0000000	52.0000000	821
		Rear-Wheel Drive	11	22.3636364	1.5015144	20.0000000	24.0000000	11
	1.6	2-Wheel Drive	2	29.0000000	2.8284271	27.0000000	31.0000000	2
		4-Wheel or All-Wheel Drive	133	22.0827068	1.1418029	19.0000000	25.0000000	133
		All-Wheel Drive	112	29.5089286	4.1524887	25.0000000	38.0000000	112
		Front-Wheel Drive	1294	28.7820711	5.7008801	21.0000000	59.0000000	1294
		Rear-Wheel Drive	117	23.5641026	1.9930250	21.0000000	27.0000000	117
	1.7	Front-Wheel Drive	50	29.5800000	4.2382611	20.0000000	40.0000000	50
	1.8	4-Wheel Drive	4	28.5000000	0.5773503	28.0000000	29.0000000	4
		4-Wheel or All-Wheel Drive	227	21.5462555	1.4239797	19.0000000	25.0000000	227
		All-Wheel Drive	27	30.1481481	7.7890639	24.0000000	48.0000000	27
		Front-Wheel Drive	1198	26.6786311	5.9115786	19.0000000	56.0000000	1198

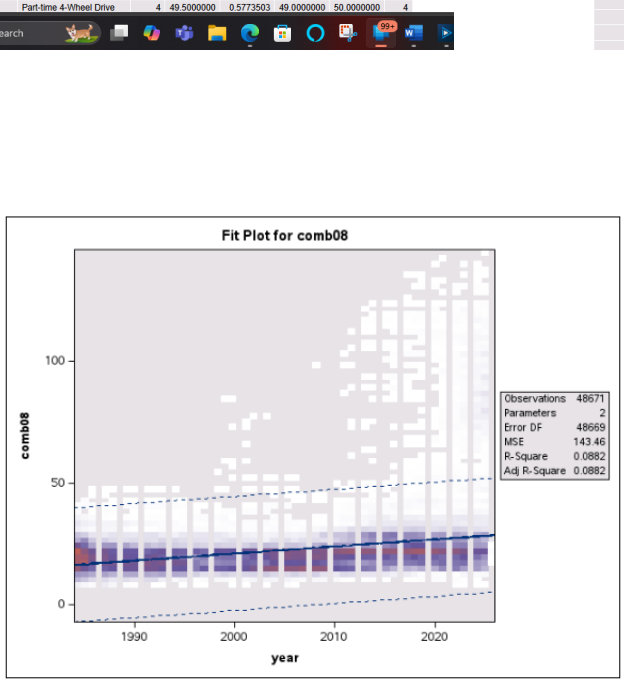
Captone Screenshots

Analysis Variable : comb08

cylinders	displ	drive	N Obs	Mean	Std Dev	Minimum	Maximum	N
2	0.6	Rear-Wheel Drive	12	34.0000000	3.4641016	31.0000000	39.0000000	12
	1.1	Rear-Wheel Drive	4	17.0000000	0	17.0000000	17.0000000	4
	1.3	Rear-Wheel Drive	41	17.8536585	0.6542544	17.0000000	19.0000000	41
3	0.9	Rear-Wheel Drive	6	34.5000000	0.5477226	34.0000000	35.0000000	6
	1	Front-Wheel Drive	152	37.8684211	5.7987030	28.0000000	53.0000000	152
		Rear-Wheel Drive	16	36.0000000	0	36.0000000	36.0000000	16
	1.2	4-Wheel or All-Wheel Drive	11	26.9090909	0.7006490	26.0000000	28.0000000	11
		Front-Wheel Drive	66	33.6060606	3.6705849	28.0000000	39.0000000	66
	1.3	All-Wheel Drive	11	27.4545455	0.5222330	27.0000000	28.0000000	11
		Front-Wheel Drive	11	30.6363636	0.5045250	30.0000000	31.0000000	11
	1.5	4-Wheel Drive	1	24.0000000	.	24.0000000	24.0000000	1
		All-Wheel Drive	54	27.8888889	2.1250231	25.0000000	33.0000000	54
		Front-Wheel Drive	94	30.5744681	1.6163770	27.0000000	33.0000000	94
		Part-time 4-Wheel Drive	1	27.0000000	.	27.0000000	27.0000000	1
		Rear-Wheel Drive	3	24.6666667	2.3094011	22.0000000	26.0000000	3
	1.6	All-Wheel Drive	4	23.5000000	1.0000000	22.0000000	24.0000000	4
4	1	4-Wheel or All-Wheel Drive	6	21.1666667	1.1690452	19.0000000	22.0000000	6
	1.1	Front-Wheel Drive	4	25.7500000	0.5000000	25.0000000	26.0000000	4
	1.2	Front-Wheel Drive	6	33.1666667	1.1690452	31.0000000	34.0000000	6
	1.3	4-Wheel or All-Wheel Drive	17	25.0000000	0	25.0000000	25.0000000	17
		All-Wheel Drive	19	26.1052632	1.7605156	24.0000000	29.0000000	19
		Front-Wheel Drive	121	33.0413223	5.5081707	23.0000000	42.0000000	121
		Rear-Wheel Drive	3	25.0000000	0	25.0000000	25.0000000	3
	1.4	All-Wheel Drive	28	26.4642857	0.7926581	25.0000000	28.0000000	28
		Front-Wheel Drive	267	30.7041199	3.1644320	23.0000000	44.0000000	267
		Rear-Wheel Drive	8	29.5000000	0.5345225	29.0000000	30.0000000	8
	1.5	4-Wheel Drive	14	25.5000000	0.5188745	25.0000000	26.0000000	14
		4-Wheel or All-Wheel Drive	12	23.7500000	1.5447860	22.0000000	26.0000000	12
		All-Wheel Drive	33	26.9090909	1.5883096	24.0000000	29.0000000	33
		Front-Wheel Drive	821	30.6187576	5.0182194	24.0000000	52.0000000	821
		Rear-Wheel Drive	11	22.3636364	1.5015144	20.0000000	24.0000000	11
	1.6	2-Wheel Drive	2	29.0000000	2.8284271	27.0000000	31.0000000	2
		4-Wheel or All-Wheel Drive	133	22.0827068	1.1418029	19.0000000	25.0000000	133
		All-Wheel Drive	112	29.5089286	4.1524887	25.0000000	38.0000000	112
		Front-Wheel Drive	1294	28.7820711	5.7008801	21.0000000	59.0000000	1294
		Rear-Wheel Drive	117	23.5641026	1.9930250	21.0000000	27.0000000	117
	1.7	Front-Wheel Drive	50	29.5800000	4.2382611	20.0000000	40.0000000	50
	1.8	4-Wheel Drive	4	28.5000000	0.5773503	28.0000000	29.0000000	4
		4-Wheel or All-Wheel Drive	227	21.5462555	1.4239797	19.0000000	25.0000000	227
		All-Wheel Drive	27	30.1481481	7.7890639	24.0000000	48.0000000	27
		Front-Wheel Drive	1198	26.6786311	5.9115786	19.0000000	56.0000000	1198
		Part-time 4-Wheel Drive	4	49.5000000	0.5773503	49.0000000	50.0000000	4

Analysis Variable : comb08

cylinders	displ	drive	N Obs	Mean	Std Dev	Minimum	Maximum	N
2	0.6	Rear-Wheel Drive	12	34.0000000	3.4641016	31.0000000	39.0000000	12
	1.1	Rear-Wheel Drive	4	17.0000000	0	17.0000000	17.0000000	4
	1.3	Rear-Wheel Drive	41	17.8536585	0.6542544	17.0000000	19.0000000	41
3	0.9	Rear-Wheel Drive	6	34.5000000	0.5477226	34.0000000	35.0000000	6
	1	Front-Wheel Drive	152	37.8684211	5.7987030	28.0000000	53.0000000	152
		Rear-Wheel Drive	16	36.0000000	0	36.0000000	36.0000000	16
	1.2	4-Wheel or All-Wheel Drive	11	26.9090909	0.7006490	26.0000000	28.0000000	11
		Front-Wheel Drive	66	33.6060606	3.6705849	28.0000000	39.0000000	66
	1.3	All-Wheel Drive	11	27.4545455	0.5222330	27.0000000	28.0000000	11
		Front-Wheel Drive	11	30.6363636	0.5045250	30.0000000	31.0000000	11
	1.5	4-Wheel Drive	1	24.0000000	.	24.0000000	24.0000000	1
		All-Wheel Drive	54	27.8888889	2.1250231	25.0000000	33.0000000	54
		Front-Wheel Drive	94	30.5744681	1.6163770	27.0000000	33.0000000	94
		Part-time 4-Wheel Drive	1	27.0000000	.	27.0000000	27.0000000	1
		Rear-Wheel Drive	3	24.6666667	2.3094011	22.0000000	26.0000000	3
	1.6	All-Wheel Drive	4	23.5000000	1.0000000	22.0000000	24.0000000	4
4	1	4-Wheel or All-Wheel Drive	6	21.1666667	1.1690452	19.0000000	22.0000000	6
	1.1	Front-Wheel Drive	4	25.7500000	0.5000000	25.0000000	26.0000000	4
	1.2	Front-Wheel Drive	6	33.1666667	1.1690452	31.0000000	34.0000000	6
	1.3	4-Wheel or All-Wheel Drive	17	25.0000000	0	25.0000000	25.0000000	17
		All-Wheel Drive	19	26.1052632	1.7605156	24.0000000	29.0000000	19
		Front-Wheel Drive	121	33.0413223	5.5081707	23.0000000	42.0000000	121
		Rear-Wheel Drive	3	25.0000000	0	25.0000000	25.0000000	3
	1.4	All-Wheel Drive	28	26.4642857	0.7926581	25.0000000	28.0000000	28
		Front-Wheel Drive	267	30.7041199	3.1644320	23.0000000	44.0000000	267
		Rear-Wheel Drive	8	29.5000000	0.5345225	29.0000000	30.0000000	8
	1.5	4-Wheel Drive	14	25.5000000	0.5188745	25.0000000	26.0000000	14
		4-Wheel or All-Wheel Drive	12	23.7500000	1.5447860	22.0000000	26.0000000	12
		All-Wheel Drive	33	26.9090909	1.5883096	24.0000000	29.0000000	33
		Front-Wheel Drive	821	30.6187576	5.0182194	24.0000000	52.0000000	821
		Rear-Wheel Drive	11	22.3636364	1.5015144	20.0000000	24.0000000	11
	1.6	2-Wheel Drive	2	29.0000000	2.8284271	27.0000000	31.0000000	2
		4-Wheel or All-Wheel Drive	133	22.0827068	1.1418029	19.0000000	25.0000000	133
		All-Wheel Drive	112	29.5089286	4.1524887	25.0000000	38.0000000	112
		Front-Wheel Drive	1294	28.7820711	5.7008801	21.0000000	59.0000000	1294
		Rear-Wheel Drive	117	23.5641026	1.9930250	21.0000000	27.0000000	117
	1.7	Front-Wheel Drive	50	29.5800000	4.2382611	20.0000000	40.0000000	50
	1.8	4-Wheel Drive	4	28.5000000	0.5773503	28.0000000	29.0000000	4
		4-Wheel or All-Wheel Drive	227	21.5462555	1.4239797	19.0000000	25.0000000	227
		All-Wheel Drive	27	30.1481481	7.7890639	24.0000000	48.0000000	27
		Front-Wheel Drive	1198	26.6786311	5.9115786	19.0000000	56.0000000	1198
		Part-time 4-Wheel Drive	4	49.5000000	0.5773503	49.0000000	50.0000000	4

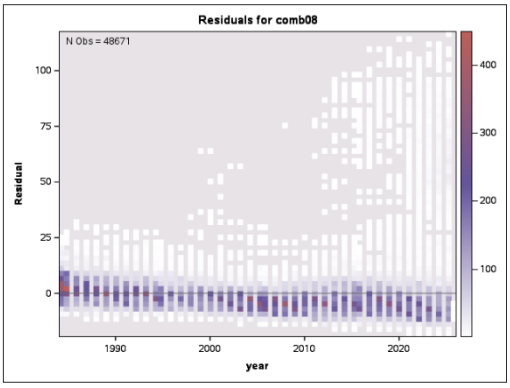


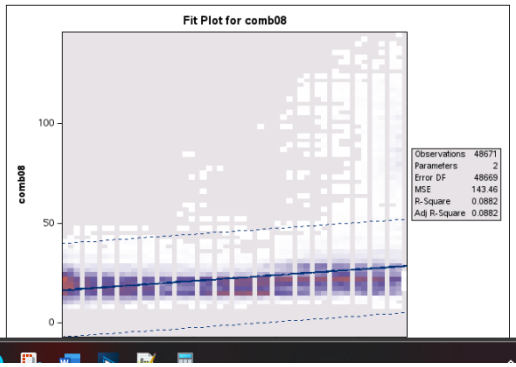
2 of 2 Fields | Cell Viewer | 30 records display

Record	Min_year	make
1	2011	Chevrolet
2	2012	Toyota
3	2012	Fisker
4	2013	Ford
5	2014	Honda
6	2014	Cadillac
7	2014	BMW
8	2014	McLaren Automotive
9	2014	Porsche
10	2015	Mercedes-Benz
11	2016	Volvo
12	2016	Hyundai
13	2016	Audi
14	2017	Kia
15	2017	Chrysler
16	2018	MINI
17	2018	Mitsubishi
18	2018	Karma
19	2019	Land Rover
20	2019	Subaru
21	2020	Lincoln
22	2020	Bentley
23	2020	Polestar
24	2021	Ferrari

Captone Screenshots

Model: MODEL1
Dependent Variable: comb08





Selected Model

The selected model is the model at the last step (Step 1).

Effects: Intercept year

Note: The p-values for parameters and effects are not adjusted for the fact that the terms in the model have been selected and so are generally liberal.

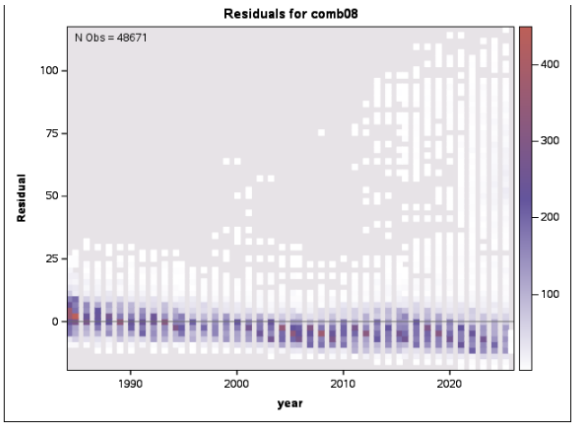
Analysis of Variance					
Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	1	675358	675358	4707.64	<.0001
Error	48669	6982051	143.45993		
Corrected Total	48670	7657410			

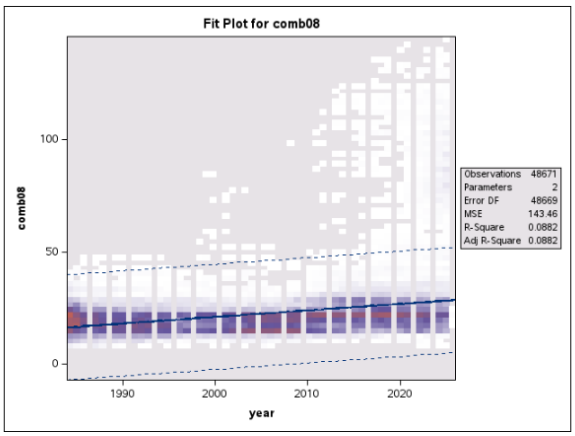
Root MSE	11.97748
Dependent Mean	22.34063
R-Square	0.0882
Adj R-Sq	0.0882
AIC	290378
AICC	290378
SBC	241722

Parameter Estimates					
Parameter	DF	Estimate	Standard Error	t Value	Pr > |t|
Intercept	1	-562.178377	8.519335	-65.99	<.0001
year	1	0.291561	0.004249	68.61	<.0001

Model: MODEL1
Dependent Variable: comb08

Captone Screenshots





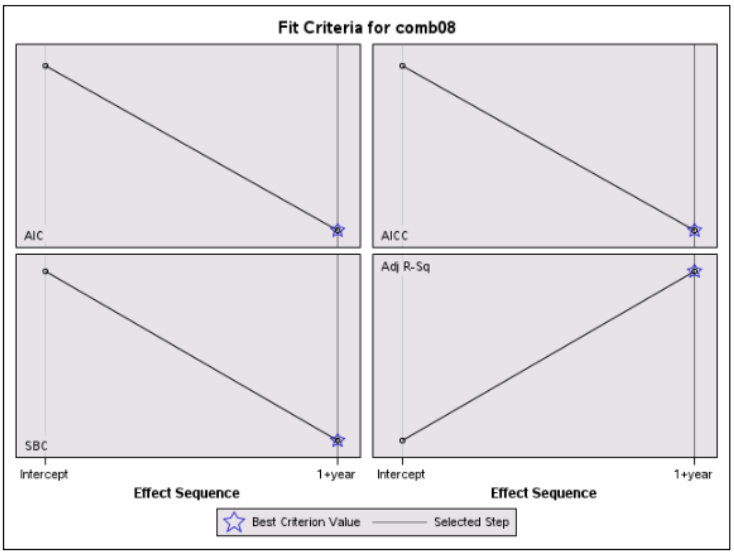
Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	1	675358	675358	4707.64	<.0001
Error	48669	6982051	143.45993		
Corrected Total	48670	7657410			

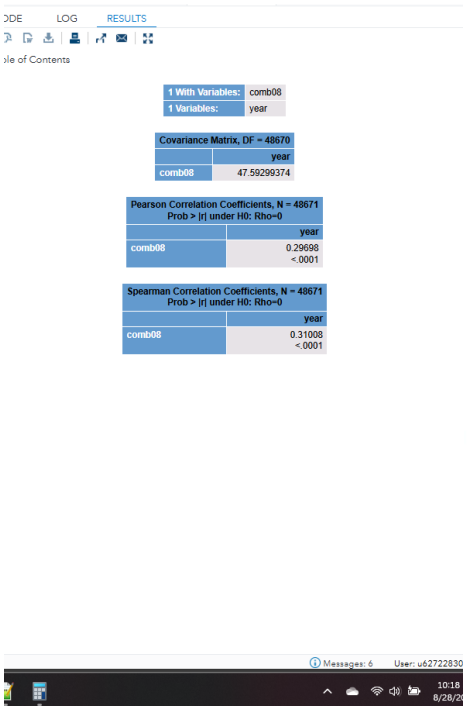
Root MSE	11.97748
Dependent Mean	22.34063
R-Square	0.0882
Adj R-Sq	0.0882
AIC	290378
AICC	290378
SBC	241722

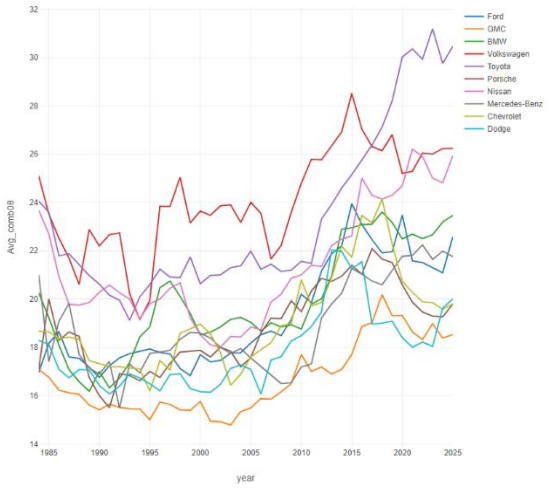
Parameter Estimates

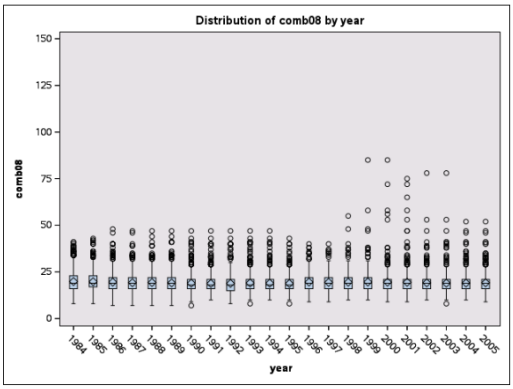
Parameter	DF	Estimate	Standard Error	t Value	Pr > |t|
Intercept	1	-562.178377	8.519335	-65.99	<.0001
year	1	0.291561	0.004249	68.61	<.0001

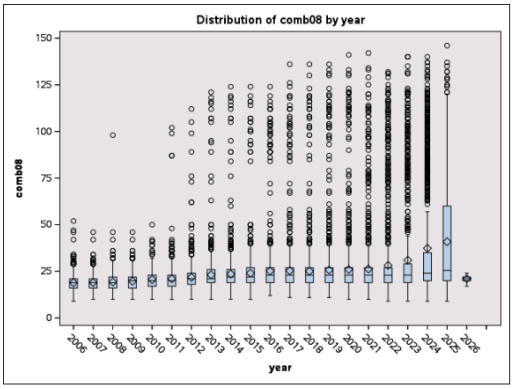


Captone Screenshots









Captone Screenshots

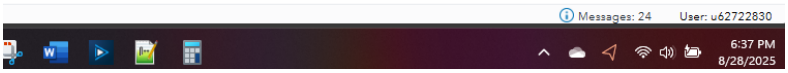
Effects: Intercept cylinders displ

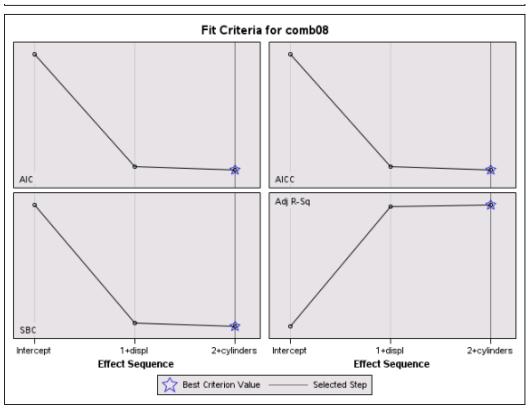
Note: The p-values for parameters and effects are not adjusted for the fact that the terms in the model have been selected and so are generally liberal.

Analysis of Variance

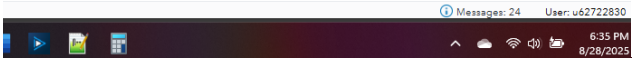
Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	72	941515	13077	1169.57	<.0001
Error	47449	530514	11.18072		
Corrected Total	47521	1472029			

Root MSE	3.34376
Dependent Mean	20.65208
R-Square	0.6396
Adj R-Sq	0.6391
AIC	162324
AICC	162324
SBC	115440





Selected Model

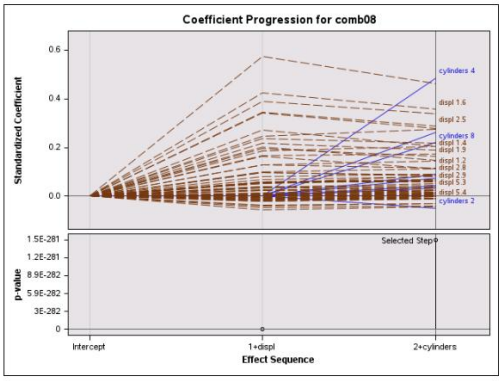


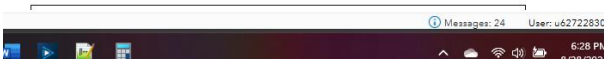
Note: The p-values for parameters and effects are not adjusted for the fact that the terms in the model have been selected and so are generally liberal.

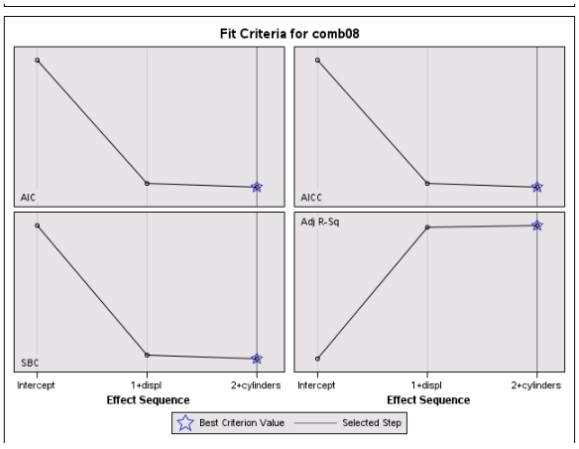
Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	72	941515	13077	1169.57	<.0001
Error	47449	530514	11.18072		
Corrected Total	47521	1472029			

Root MSE	3.34376
Dependent Mean	20.65208
R-Square	0.6396
Adj R-Sq	0.6391
AIC	162324
AICC	162324
SBC	115440



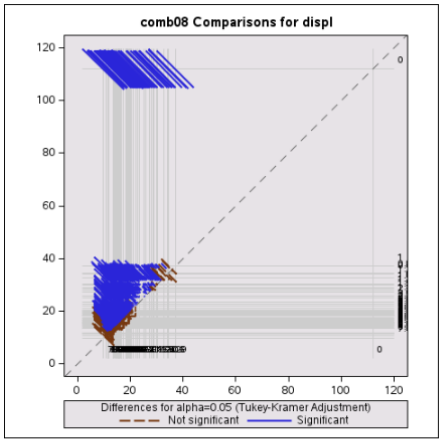


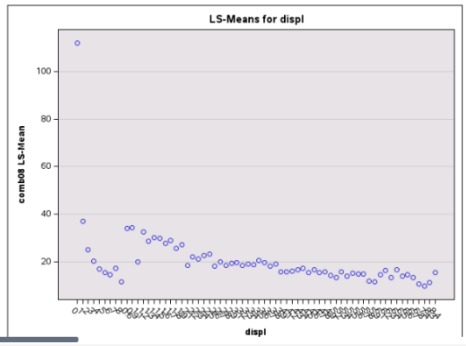


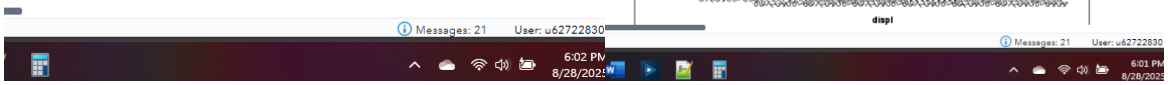
Captone Screenshots

Stepwise Selection Summary							
Step	Effect Entered	Effect Removed	Number Effects In	Number Parms In	SBC	F Value	Pr > F
0	Intercept		1	1	163163.515	0.00	1.0000
1	displ		2	65	116684.764	1259.17	<.0001
2	cylinders		3	73	115440.274*	168.42	<.0001
* Optimal Value of Criterion							

Selection stopped because all effects are in the final model.







Dependent Variable: comb08

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	65	934688.634	14379.825	1250.59	<.0001
Error	47458	545692.117	11.498		
Corrected Total	47523	1480380.751			

R-Square	Coeff Var	Root MSE	comb08 Mean
0.631384	16.41784	3.390932	20.65394

Source	DF	Type I SS	Mean Square	F Value	Pr > F
displ	65	934688.6343	14379.8251	1250.59	<.0001

Source	DF	Type III SS	Mean Square	F Value	Pr > F
displ	65	934688.6343	14379.8251	1250.59	<.0001

Captone Screenshots

f Contents

Number of Observations Read	48671
Number of Observations Used	47524

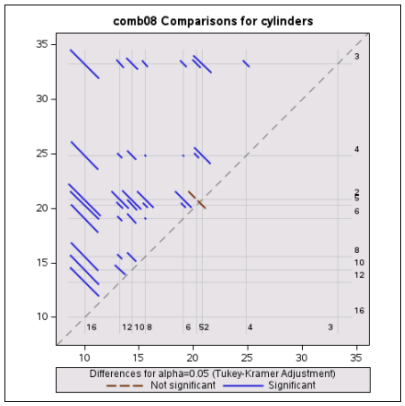
Dependent Variable: comb08

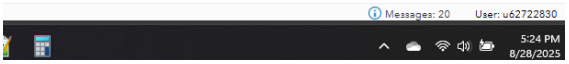
Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	65	934688.634	14379.825	1250.59	<.0001
Error	47458	545692.117	11.498		
Corrected Total	47523	1480380.751			

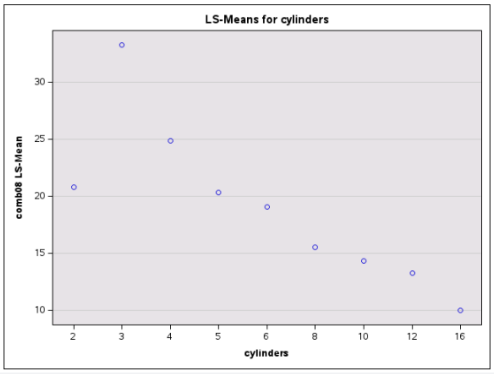
R-Square	Coeff Var	Root MSE	comb08 Mean
0.631384	16.41784	3.390932	20.65394

Source	DF	Type I SS	Mean Square	F Value	Pr > F
displ	65	934688.6343	14379.8251	1250.59	<.0001

Source	DF	Type III SS	Mean Square	F Value	Pr > F
displ	65	934688.6343	14379.8251	1250.59	<.0001







Dependent Variable: comb08

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	8	756051.302	94506.413	6271.54	<.0001
Error	47513	715978.138	15.069		
Corrected Total	47521	1472029.440			

R-Square	Coeff Var	Root MSE	comb08 Mean
0.513612	18.79663	3.881894	20.65208

Source	DF	Type I SS	Mean Square	F Value	Pr > F
cylinders	8	756051.3024	94506.4128	6271.54	<.0001

Source	DF	Type III SS	Mean Square	F Value	Pr > F
cylinders	8	756051.3024	94506.4128	6271.54	<.0001

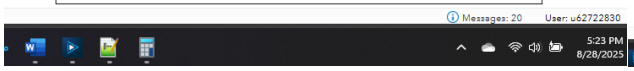
Levene's Test for Homogeneity of comb08 Variance
ANOVA of Squared Deviations from Group Means

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
cylinders	8	4607908	575989	241.97	<.0001
Error	47513	1.131E8	2380.4		

Welch's ANOVA for comb08

Source	DF	F Value	Pr > F
cylinders	8.0000	7040.64	<.0001
Error	366.4		

Level of cylinders	N	comb08 Mean	comb08 Std Dev



Class Level Information		
Class	Levels	Values
cylinders	9	2 3 4 5 6 8 10 12 16

Number of Observations Read	48671
Number of Observations Used	47522

Dependent Variable: comb08

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	8	756051.302	94506.413	6271.54	<.0001
Error	47513	715978.138	15.069		
Corrected Total	47521	1472029.440			

R-Square	Coeff Var	Root MSE	comb08 Mean
0.513612	18.79663	3.881894	20.65208

Source	DF	Type I SS	Mean Square	F Value	Pr > F
cylinders	8	756051.3024	94506.4128	6271.54	<.0001

Source	DF	Type III SS	Mean Square	F Value	Pr > F
cylinders	8	756051.3024	94506.4128	6271.54	<.0001

Levene's Test for Homogeneity of comb08 Variance
ANOVA of Squared Deviations from Group Means

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
cylinders	8	4607908	575989	241.97	<.0001
Error	47513	1.131E8	2380.4		