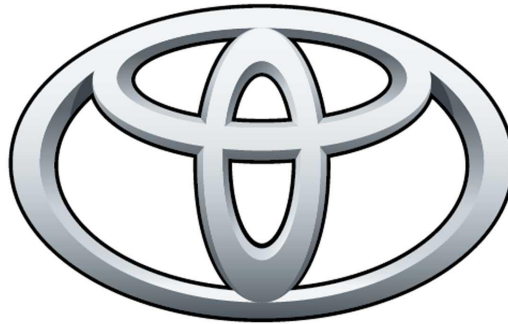
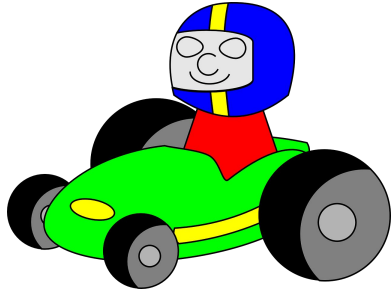


# Gabriel's New Car

A data analysis on 2023 Toyota cars  
based on gas mileage



# Purpose for Data Exploration

CNN writes in August 2023 that “U.S. gas prices climb to the highest level in nearly 10 months.”

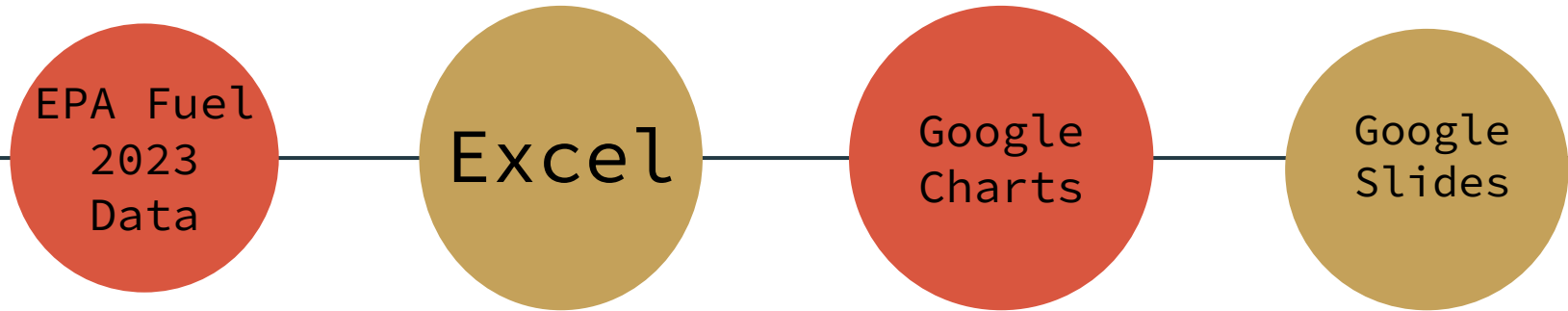
While the news is informative I did not need to read the article to see the cause of that headline. I feel it everytime I’m at the gas pump refueling my early 2000s car. And any American will tell you the same, “Gas is not gassing like it used to!”

As a result, I have decided to do a data exploration in order to find the most gas efficient car within my favorite car brand, Toyota. By the end of this analysis I will visually show what’s the best car to get based on car type and mileage.

Not only will my pockets be protected at the pump, but also the environment with fewer emissions and less reliance on natural gas.

# Data Source Pathway

I began by sourcing data from the EPA. They test every car's efficiency sold in the United States. I then cleaned & filtered the data on Excel in order to create visual charts using google tools. Finally, I utilized Google Slides to showcase my deliverables and project.



Model	Displ	Cyl	Trans	Drive	Fuel	Cert Region	Stnd	Stnd Description	Underhood ID	Veh Class	Air Pollution Score	City MPG	Hwy MPG	Cmb MPG	Greenhouse Gas Score	SmartWay	Comb CO2
ACURA Integra	1.5	4	SCV-7	2WD	Gasoline	CA	L3SULEV30	California LEV-III SULEV30	PHNXV01.54EC	large car	7	30	37	33	6	No	269
ACURA Integra	1.5	4	SCV-7	2WD	Gasoline	FA	T3B30	Federal Tier 3 Bin 30	PHNXV01.54EC	large car	7	30	37	33	6	No	269
ACURA Integra A-Spec	1.5	4	Man-6	2WD	Gasoline	CA	L3ULEV50	California LEV-III ULEV50	PHNXV01.55DC	large car	6	26	36	30	6	No	293
ACURA Integra A-Spec	1.5	4	Man-6	2WD	Gasoline	FA	T3B50	Federal Tier 3 Bin 50	PHNXV01.55DC	large car	6	26	36	30	6	No	293
ACURA Integra A-Spec	1.5	4	SCV-7	2WD	Gasoline	CA	L3SULEV30	California LEV-III SULEV30	PHNXV01.54EC	large car	7	29	36	32	6	No	277
ACURA Integra A-Spec	1.5	4	SCV-7	2WD	Gasoline	FA	T3B30	Federal Tier 3 Bin 30	PHNXV01.54EC	large car	7	29	36	32	6	No	277
ACURA MDX	3.5	6	SemiAuto-10	2WD	Gasoline	CA	L3ULEV70	California LEV-III ULEV70	PHNXT03.5CCC	small SUV	5	19	26	22	5	No	411
ACURA MDX	3.5	6	SemiAuto-10	2WD	Gasoline	FA	T3B70	Federal Tier 3 Bin 70	PHNXT03.5CCC	small SUV	5	19	26	22	5	No	411
ACURA MDX	3.5	6	SemiAuto-10	4WD	Gasoline	CA	L3ULEV70	California LEV-III ULEV70	PHNXT03.5CCC	small SUV	5	19	25	21	4	No	423
ACURA MDX	3.5	6	SemiAuto-10	4WD	Gasoline	FA	T3B70	Federal Tier 3 Bin 70	PHNXT03.5CCC	small SUV	5	19	25	21	4	No	423
ACURA MDX Type-S	3	6	SemiAuto-10	4WD	Gasoline	CA	L3ULEV70	California LEV-III ULEV70	PHNXT03.0HTC	standard SUV	5	17	21	19	4	No	474
ACURA MDX Type-S	3	6	SemiAuto-10	4WD	Gasoline	FA	T3B70	Federal Tier 3 Bin 70	PHNXT03.0HTC	standard SUV	5	17	21	19	4	No	474
ACURA RDX	2	4	SemiAuto-10	2WD	Gasoline	CA	L3ULEV50	California LEV-III ULEV50	PHNXT02.08VC	small SUV	6	22	28	24	5	No	370
ACURA RDX	2	4	SemiAuto-10	2WD	Gasoline	FA	T3B50	Federal Tier 3 Bin 50	PHNXT02.08VC	small SUV	6	22	28	24	5	No	370
ACURA RDX	2	4	SemiAuto-10	4WD	Gasoline	CA	L3ULEV50	California LEV-III ULEV50	PHNXT02.08VC	small SUV	6	21	27	23	5	No	385
ACURA RDX	2	4	SemiAuto-10	4WD	Gasoline	FA	T3B50	Federal Tier 3 Bin 50	PHNXT02.08VC	small SUV	6	21	27	23	5	No	385
ACURA RDX A-SPEC	2	4	SemiAuto-10	2WD	Gasoline	CA	L3ULEV50	California LEV-III ULEV50	PHNXT02.09VC	small SUV	6	22	27	24	5	No	375
ACURA RDX A-SPEC	2	4	SemiAuto-10	2WD	Gasoline	FA	T3B50	Federal Tier 3 Bin 50	PHNXT02.09VC	small SUV	6	22	27	24	5	No	375
ACURA RDX A-SPEC	2	4	SemiAuto-10	4WD	Gasoline	CA	L3ULEV50	California LEV-III ULEV50	PHNXT02.09VC	small SUV	6	21	26	23	5	No	388
ACURA RDX A-SPEC	2	4	SemiAuto-10	4WD	Gasoline	FA	T3B50	Federal Tier 3 Bin 50	PHNXT02.09VC	small SUV	6	21	26	23	5	No	388
ACURA TLX	2	4	SemiAuto-10	2WD	Gasoline	CA	L3SULEV30	California LEV-III SULEV30	PHNXV02.0AEC	small car	7	22	31	25	5	No	352
ACURA TLX	2	4	SemiAuto-10	2WD	Gasoline	FA	T3B30	Federal Tier 3 Bin 30	PHNXV02.0AEC	small car	7	22	31	25	5	No	352
ACURA TLX	2	4	SemiAuto-10	4WD	Gasoline	CA	L3SULEV30	California LEV-III SULEV30	PHNXV02.0AEC	small car	7	21	29	24	5	No	369
ACURA TLX	2	4	SemiAuto-10	4WD	Gasoline	FA	T3B30	Federal Tier 3 Bin 30	PHNXV02.0AEC	small car	7	21	29	24	5	No	369
ACURA TLX AWD A-SPEC	2	4	SemiAuto-10	4WD	Gasoline	CA	L3SULEV30	California LEV-III SULEV30	PHNXV02.0AEC	small car	7	21	29	24	5	No	371
ACURA TLX AWD A-SPEC	2	4	SemiAuto-10	4WD	Gasoline	FA	T3B30	Federal Tier 3 Bin 30	PHNXV02.0AEC	small car	7	21	29	24	5	No	371
ACURA TLX FWD A-SPEC	2	4	SemiAuto-10	2WD	Gasoline	CA	L3SULEV30	California LEV-III SULEV30	PHNXV02.0AEC	small car	7	22	30	25	5	No	357
ACURA TLX FWD A-SPEC	2	4	SemiAuto-10	2WD	Gasoline	FA	T3B30	Federal Tier 3 Bin 30	PHNXV02.0AEC	small car	7	22	30	25	5	No	357
ACURA TLX Type-S	3	6	SemiAuto-10	4WD	Gasoline	CA	L3ULEV70	California LEV-III ULEV70	PHNXV03.0GCC	small car	5	19	25	21	4	No	420
ACURA TLX Type-S	3	6	SemiAuto-10	4WD	Gasoline	FA	T3B70	Federal Tier 3 Bin 70	PHNXV03.0GCC	small car	5	19	25	21	4	No	420
ACURA TLX Type-S Perf Tire	3	6	SemiAuto-10	4WD	Gasoline	CA	L3ULEV70	California LEV-III ULEV70	PHNXV03.0GCC	small car	5	19	24	21	4	No	421
ACURA TLX Type-S Perf Tire	3	6	SemiAuto-10	4WD	Gasoline	FA	T3B70	Federal Tier 3 Bin 70	PHNXV03.0GCC	small car	5	19	24	21	4	No	421
ALFA ROMEO Giulia	2	4	Auto-8	2WD	Gasoline	CA	L3ULEV70	California LEV-III ULEV70	PCRXJ02.05P2	midsize car	5	24	33	27	5	No	330
ALFA ROMEO Giulia	2	4	Auto-8	2WD	Gasoline	FA	T3B70	Federal Tier 3 Bin 70	PCRXJ02.05P2	midsize car	5	24	33	27	5	No	330
ALFA ROMEO Giulia	2.9	6	Auto-8	2WD	Gasoline	CA	L3ULEV125	California LEV-III ULEV125	PCRXJ02.95P0	midsize car	3	17	25	20	4	No	436
ALFA ROMEO Giulia	2.9	6	Auto-8	2WD	Gasoline	FA	T3B125	Federal Tier 3 Bin 125	PCRXJ02.95P0	midsize car	3	17	25	20	4	No	436
ALFA ROMEO Giulia AWD	2	4	Auto-8	4WD	Gasoline	CA	L3ULEV70	California LEV-III ULEV70	PCRXJ02.05P2	midsize car	5	23	31	26	5	No	348

Data prior To being cleaned and filtered.

Over 700 entries.

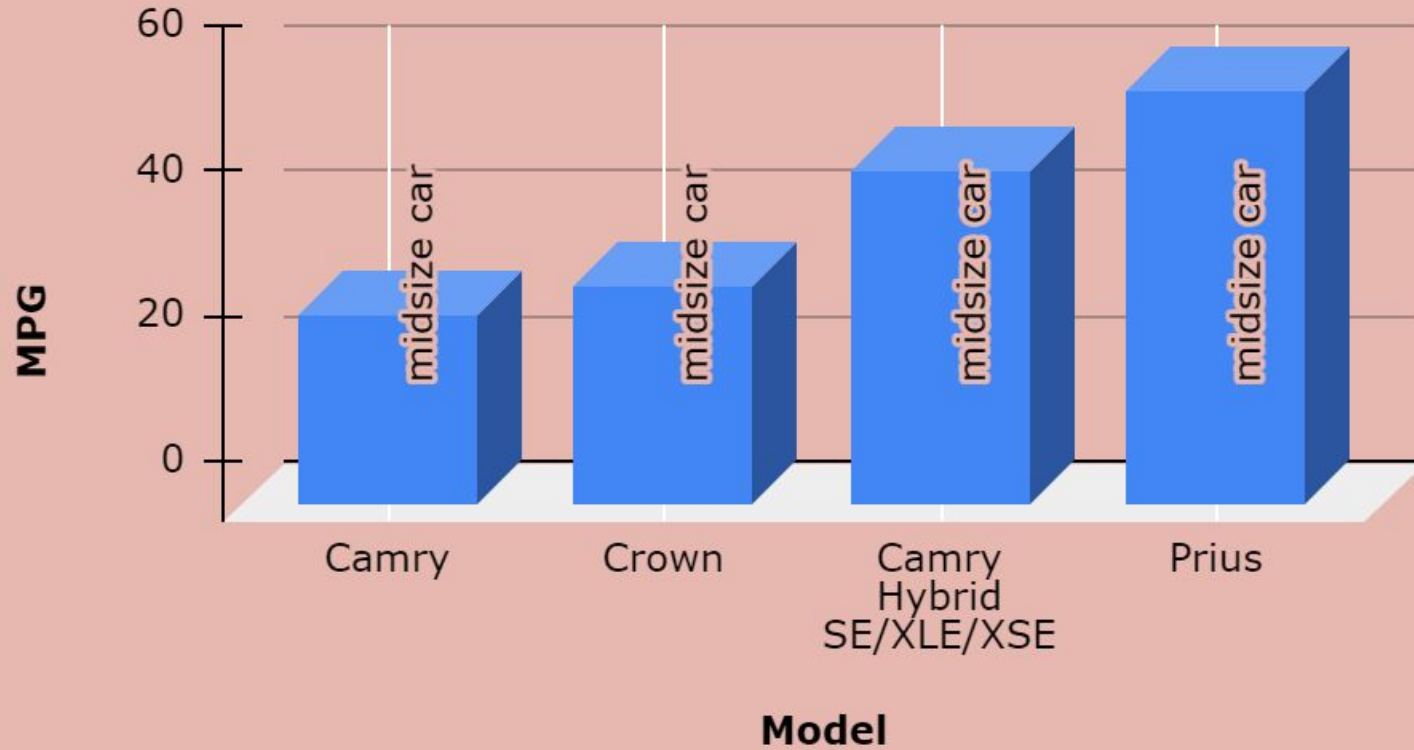
Used excel tools such as filter, replace, vlookup, & pivot tables.



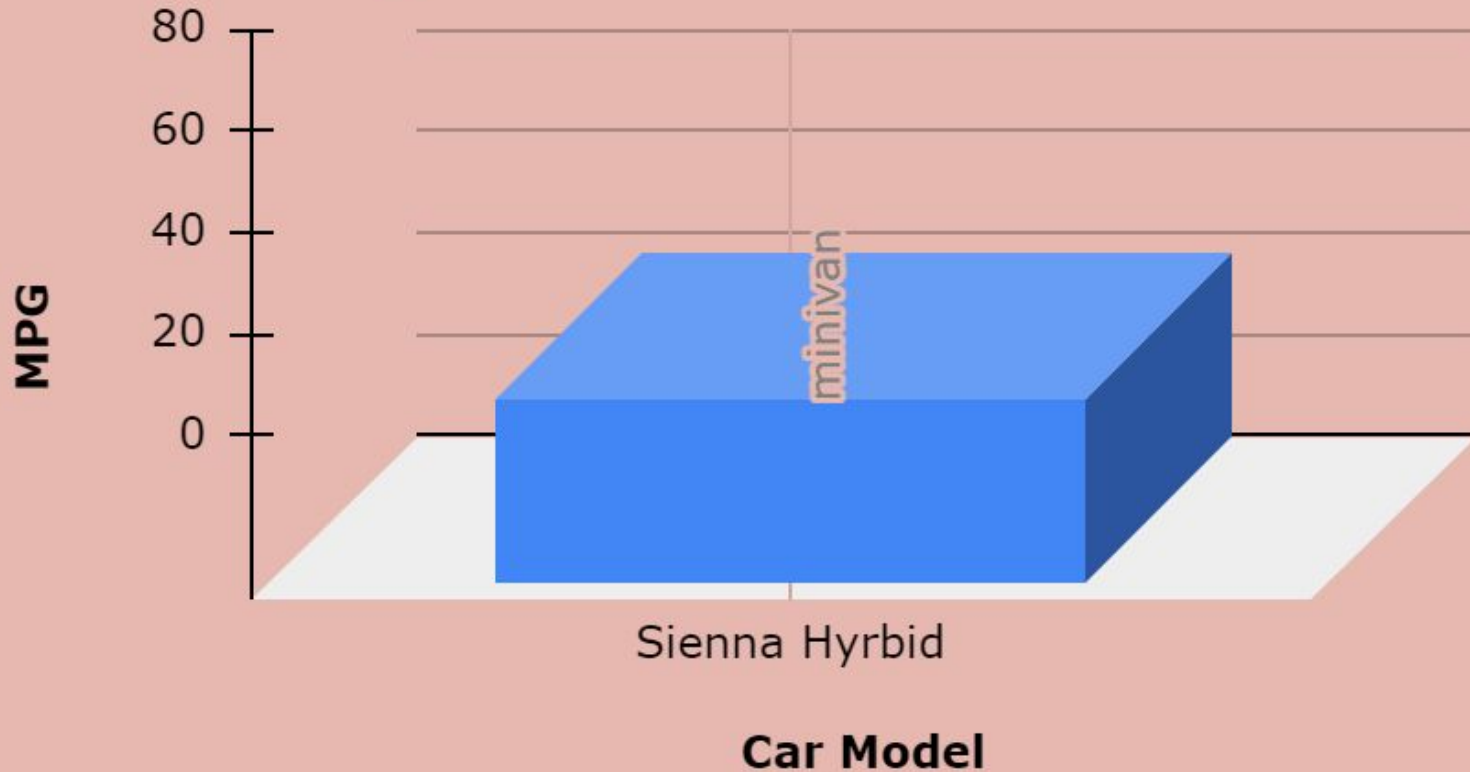
	A	B	C
1	Model	Veh Class	Cmb MPG
2	Camry	midsize car	26
3	Crown	midsize car	30
4	Camry Hybrid S	midsize car	46
5	Prius	midsize car	57
6	Sienna	minivan	36
7	Tacoma	pickup	21
8	Tundra	pickup	22
9	GR86	small car	22
10	GR Corolla	small car	24
11	Supra 3.0	small car	26
12	Supra 2.0	small car	27
13	Corolla	small car	34
14	Corolla Hatchb	small car	35
15	Corolla Hybrid	small car	47
16	Highlander	small SUV	24
17	RAV4 TRD Offro	small SUV	28
18	RAV4	small SUV	30
19	Corolla Cross	small SUV	32
20	Highlander Hyt	small SUV	36
21	Venza	small SUV	39
22	RAV4 Hybrid	small SUV	40

Data after being cleaned and sorted on Excel. Note that the focus variable is combined gas mileage.

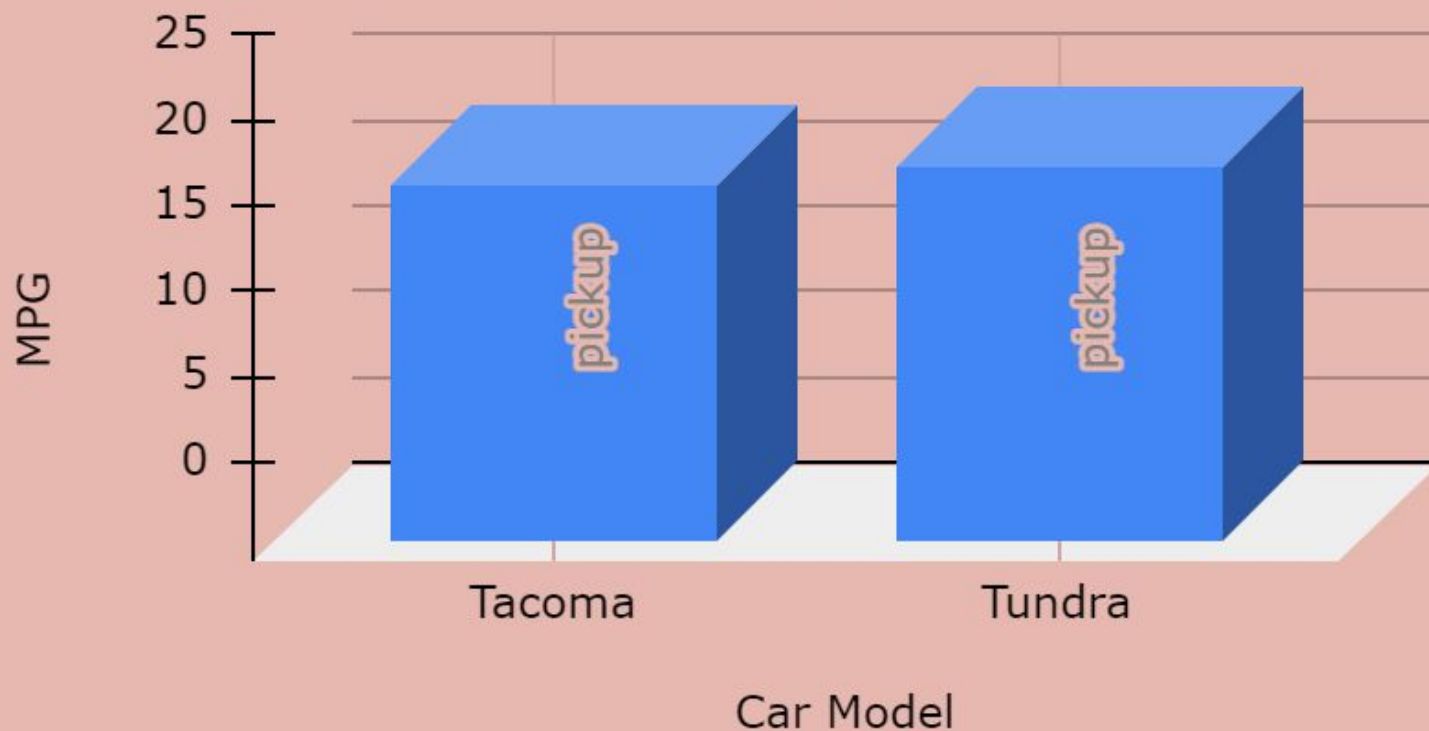
## Toyota 2023 Midsize Cars MPG



## Toyota 2023 Minivan MPG

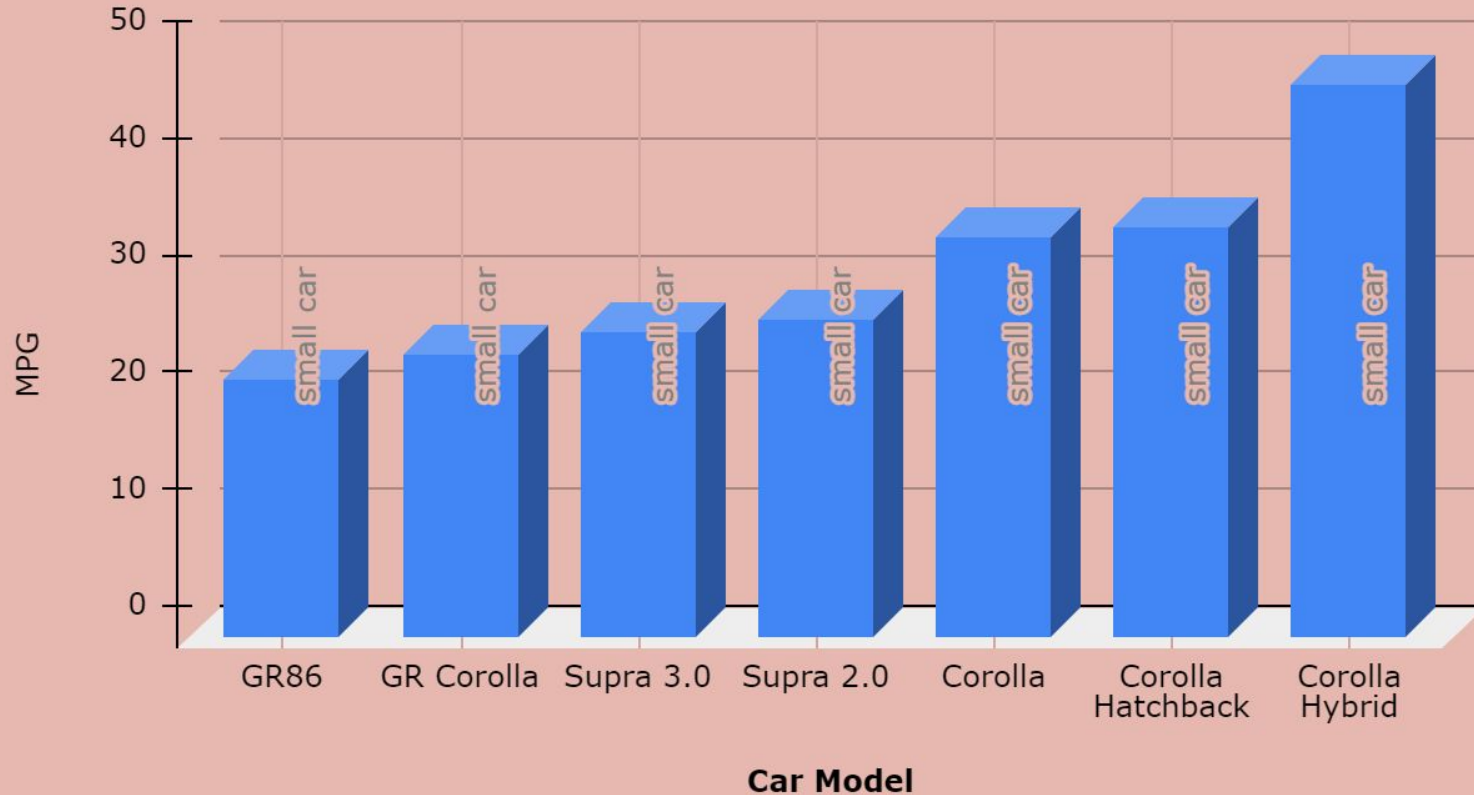


# Toyota 2023 Pickup Trucks MPG

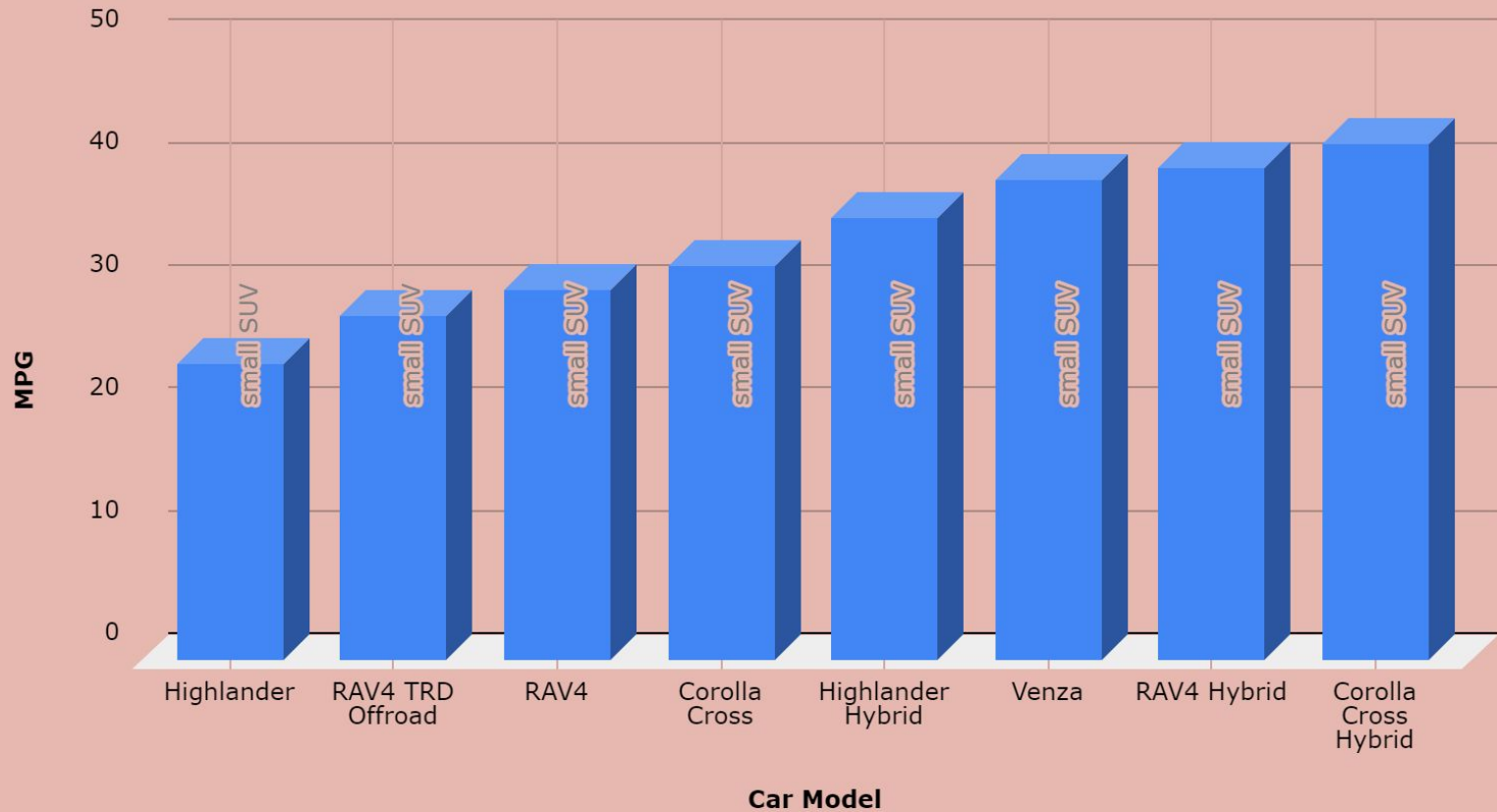




## Toyota 2023 Small Cars MPG



## Toyota 2023 Small SUVs MPG



## Toyota 2023 Standard SUVs MPG



# The best cars based on MPG and vehicle type

**Sienna  
Minivan  
(Hybrid) 36  
MPG**



**Corolla Small  
Car (Hybrid)**



**Prius Midsize  
(Hybrid) 57  
MPG**



# The best cars based on MPG and vehicle type (continued)

**Tundra (Pickup Truck) 22 MPG**



**Corolla Cross Small SUV (Hybrid) 42 MPG**



**Sequoia Standard (Hybrid) 22 MPG**

