

### Change boxed numbers to see resulting changes in revenue

VEIA applied to 2001 purchases		What if purchases change?	
average purchased MPG	21.4	average purchased MPG	<b>24.0</b>
number of cars	56,000	number of cars	<b>60,000</b>
zero point(MPG) =	<b>26</b>	zero point(MPG) =	26
rate (\$/GP100M) =	<b>\$500</b>	rate (\$/GP100M) =	\$500
revenue per purchase =	\$427	revenue per purchase =	\$167
net revenue collected =	\$24,000,000	net revenue collected =	\$10,000,000
total fees collected =	\$27,000,000	total fees collected =	\$16,000,000
total rebates paid =	\$3,000,000	total rebates paid =	\$6,000,000
number of fees =	43,000	number of fees =	31,000
number of rebates =	12,000	number of rebates =	21,000
number of zero feebate =	1,000	number of zero feebate =	8,000
Round all feebates to the nearest =			<b>\$100</b>

Figure 3: Revenue calculations for shifts in average purchased fuel economy.

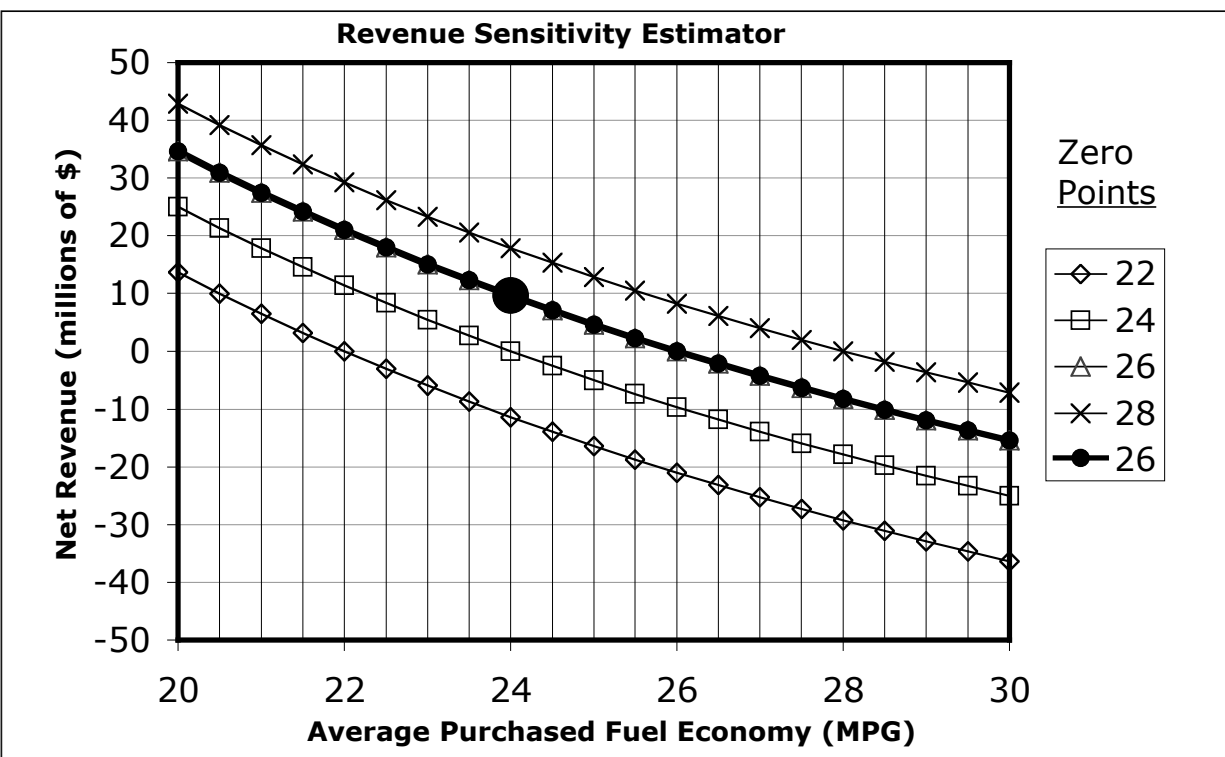


Figure 4: Revenue variation for different zero points and consumer behavior. (\$500 slopes)

Initial Fuel Economy (MPG) -> 21.4  
 Annual Efficiency Increase ->   
 Annual Total VMT Change -> 0.0%

Initial Fuel Economy (MPG) -> 21.4  
 Annual Efficiency Increase -> 2.5  
 Annual Total VMT Change -> 0.0%

data year	Rounded Values in MPG			relative emissions
	new cars	new cars	fleet	
2005	26	26.3	22	0.99
2006	26	26.3	22	0.98
2007	26	26.3	22	0.96
2008	26	26.3	23	0.95
2009	26	26.3	23	0.94
2010	26	26.3	23	0.93
2011	26	26.3	23	0.92
2012	26	26.3	24	0.90
2013	26	26.3	24	0.89
2014	26	26.3	24	0.88
2015	26	26.3	24	0.87
2016	26	26.3	25	0.87
2017	26	26.3	25	0.86
2018	26	26.3	25	0.85
2019	26	26.3	25	0.84
2020	26	26.3	26	0.83

data year	Rounded Values in MPG			relative emissions
	new cars	new cars	fleet	
2005	22		21	1.00
2006	23		22	1.00
2007	23		22	0.99
2008	24		22	0.98
2009	24		22	0.98
2010	25		22	0.97
2011	26		22	0.96
2012	26		23	0.94
2013	27		23	0.93
2014	28		23	0.92
2015	28		24	0.90
2016	29		24	0.89
2017	30		25	0.87
2018	31		25	0.85
2019	31		26	0.84
2020	32		26	0.82

Figure 5: Different fuel economy scenarios that meet GHG reduction goals.

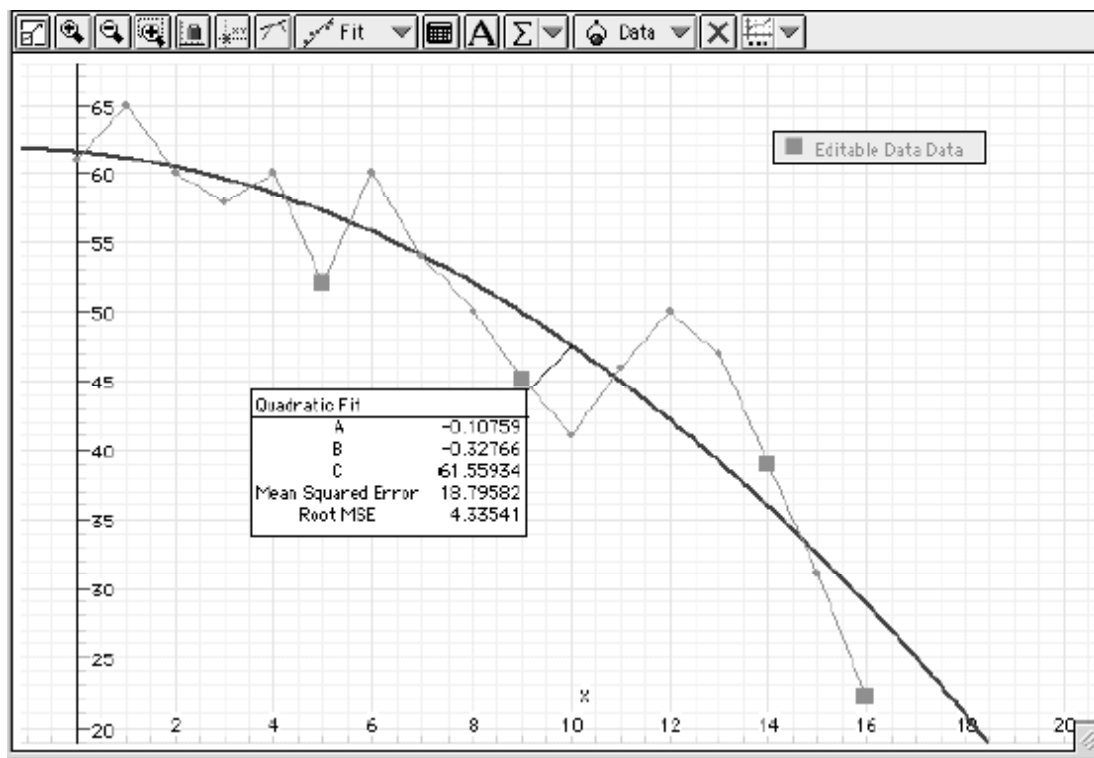


Figure 6: A constant age distribution was assumed for GHG reduction model.

Initial Fuel Economy (MPG) -> 21.4  
 Annual Efficiency Increase -> 5 percent  
 Annual Total VMT Change -> 1.0%

**Fifteenth Year Fuel Consumption Change = -21%**

data	Rounded Values in MPG		relative emissions
	new cars	new cars/fleet	
2005	23	21	1.01
2006	24	22	1.01
2007	25	22	1.01
2008	26	22	1.01
2009	28	22	1.00
2010	29	23	0.99
2011	31	23	0.98
2012	32	24	0.97
2013	34	25	0.95
2014	36	25	0.94
2015	38	26	0.92
2016	40	27	0.89
2017	42	28	0.87
2018	44	29	0.85
2019	46	30	0.82
2020	49	32	0.79

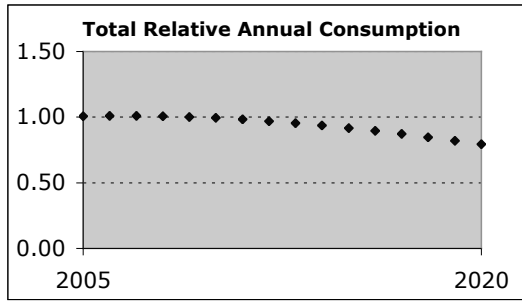
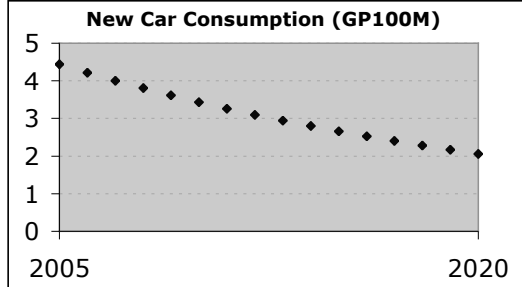


Figure 7: Increases in vehicle miles traveled are also modeled.

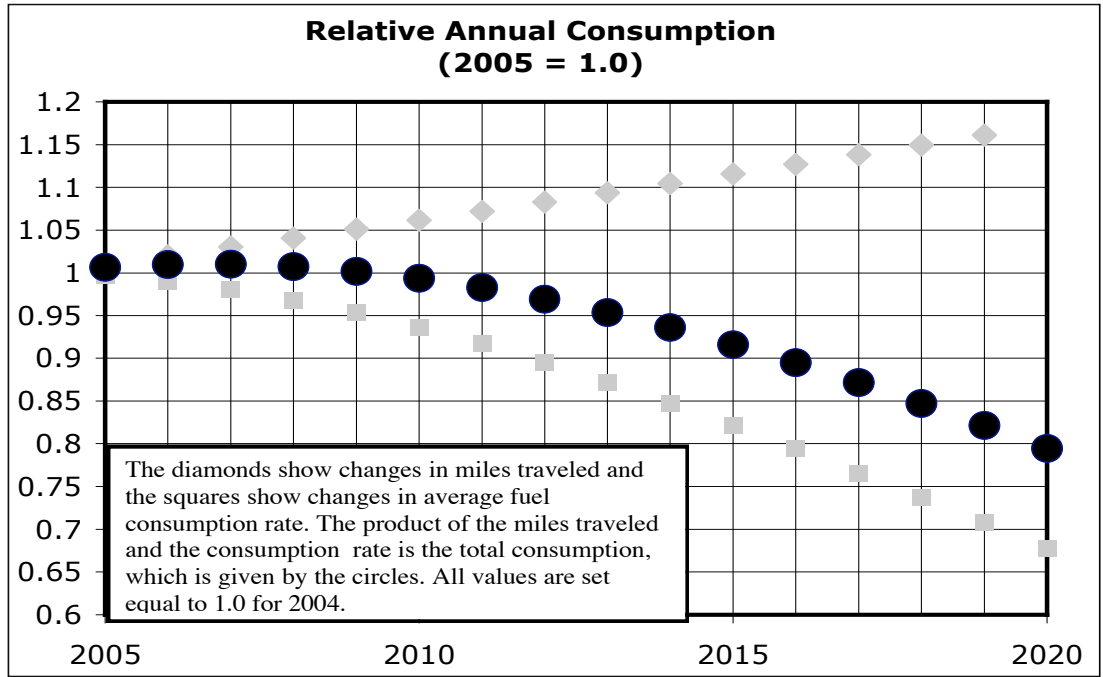


Figure 8: Consumption depends on fuel economy and vehicle miles traveled.

Make Model	Toyota Camry	Buick Century	Ford Taurus	Mercury Grand Marquis
city MPG*	23	20	19	17
highway MPG*	32	30	26	25
combined MPG	26	24	22	20
list price**	\$22,775	\$22,305	\$20,490	\$24,795
gas 120,000mi @ \$1.40	\$6,380	\$7,140	\$7,771	\$8,459
feebate (26 MPG/\$500)	<b>\$0</b>	<b>\$200</b>	<b>\$400</b>	<b>\$600</b>
metric tons C (120k mi)	10.72	11.99	13.05	14.21
<b>Alternate Feebate</b>				
	Enter Slope (\$/100GPM) ---->			1000
	Enter Zero Point (MPG) ----->			22
alternate feebate	<b>-\$700</b>	<b>-\$300</b>	<b>\$100</b>	<b>\$500</b>

Figure 9: Feebate amounts for selected specific large automobiles.

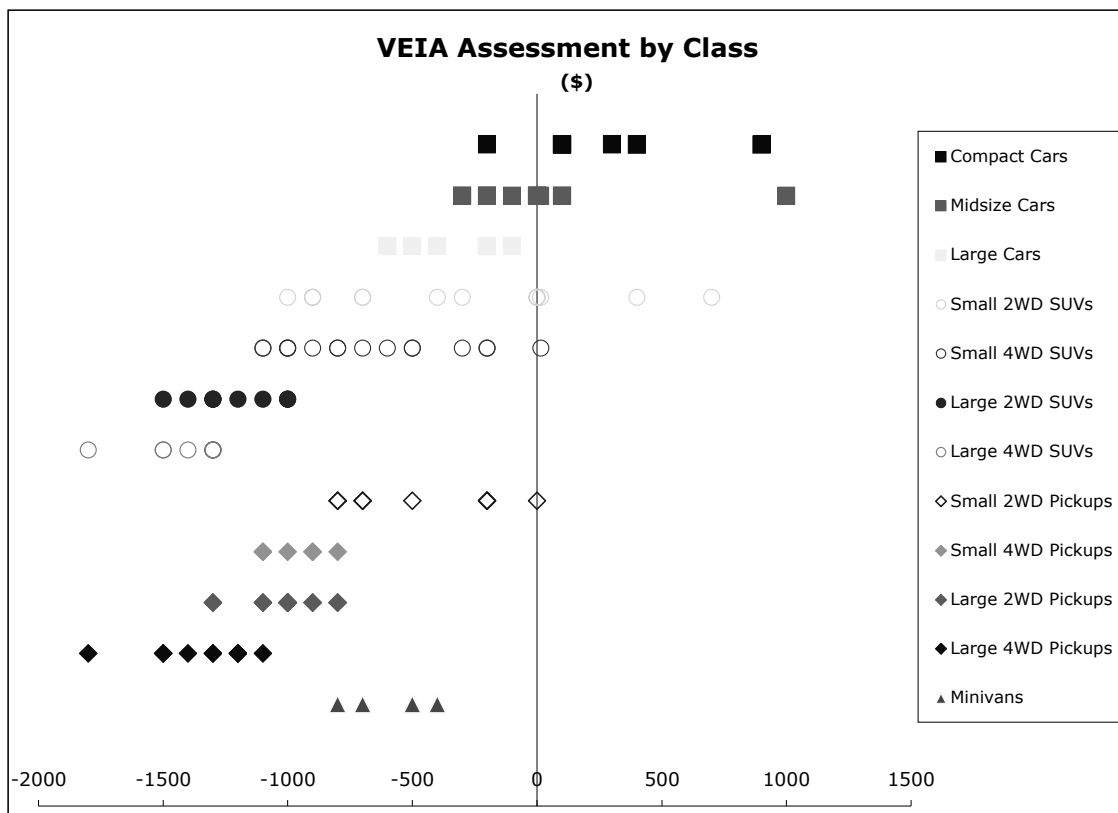


Figure 10: Distribution of VEs by vehicle class. (26/\$500)