APR. 14, 2008

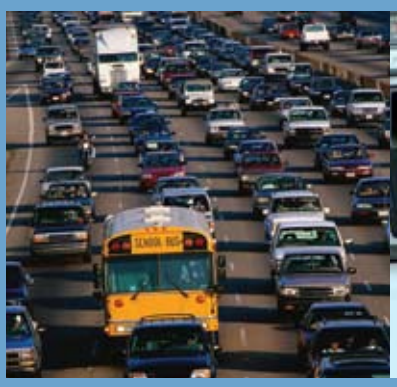
Illinois Climate Action Network

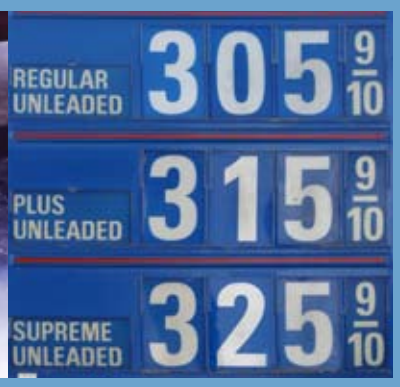
Dollars and Sense:

The Economic Impacts of Adopting a Clean Cars Program in Illinois

ENVIRONMENT ILLINOIS

Clean air. Clean water. Open spaces.





Dollars and Sense:
Consumer Savings for Illinois Drivers Resulting from Adoption of the Clean Car Program

Environment Illinois Research and Education Center
For the Illinois Climate Action Network

Rebecca Stanfield

April 2008

Acknowledgements

The author wishes to acknowledge Lauren Ketchem of the Environment New Mexico Research and Policy Center, and Joe Shacter of the Environmental Law & Policy Center for substantial contributions to this report.

The Environment Illinois Research and Education Center thanks the Energy Foundation for its generous support of this project.

The author bears responsibility for any factual errors. The recommendations are those of the Environment Illinois Research and Education Center. The views expressed in this report are those of the author's and do not necessarily reflect the view of our foundation supporters or those who provided editorial review.

Cover photos: cgc imagery, shutterstock.com;
Graphic design: Alec Meltzer, MeltzerDesign.com.

In 2006, Environment Illinois Research & Education Center became the new home of the Illinois Public Interest Research Group Education Fund's environmental work, focusing on protecting Illinois' air, water and open spaces. Drawing on more than 30 years of experience, our professional staff combines independent research, practical ideas and effective educational campaigns to overcome the opposition of special interests and win real results for Illinois' environment.

For additional copies of this report, visit our website: www.EnvironmentIllinois.org or send $10 (including shipping) to:

Environment Illinois Research and Education Center
407 S. Dearborn, Suite 701
Chicago, Illinois 60605

Table of Contents

Executive Summary –

With summer driving season and the resulting spikes in gasoline prices just around the corner, Illinois consumers are already paying over $3.50 a gallon at the pump due to the dramatically increased price of crude oil. In the Midwest, where the average household uses 1176 gallons of gasoline per year for transportation,[i] families will have to budget more than $4100 per year for motor vehicle fuel.

Finding relief from high gas prices is no easy task. For many Illinoisans today, public transit, biking or walking to work are just not realistic options. While there is broad consensus that dramatic improvements in transit availability and transit oriented community design are needed, redesigning our communities and building out our transit systems will take years. Meanwhile, if recent history is a guide, the total vehicle miles traveled in Illinois could continue to increase by about 1.5% annually for the next several decades.

In the near term, making cleaner, more efficient vehicles available to Illinois drivers is the most effective way to reduce the burden of high gas prices on Illinois consumers.

This report estimates the economic benefits we could achieve as individuals, statewide and on a county-by-county basis, if Illinois were to adopt the same Clean Car Program that has already been adopted in 13 states across the nation.

What is the Clean Car Program?

Automobile tailpipe emissions make up a substantial proportion of the air pollution and global warming pollution emitted nationally and in Illinois. Automobile emissions standards set limits on the levels of pollution that can be emitted by *new* cars sold by automakers. Under federal law, automakers must follow the national emissions standards except in states that opt for California's more protective standards. The California emission standards achieve deeper cuts in air pollution than the federal standards, and include limits on global warming pollution that the federal standards lack entirely.

Thirteen states--California, Connecticut, Maine, Maryland, Massachusetts, New Jersey, New Mexico, New York, Oregon, Pennsylvania, Rhode Island, Vermont and Washington--have adopted the stronger California standards. Meanwhile, in the Midwest, clean car standards have been recommended by the Illinois Climate Change Advisory Group, the Iowa Office of Energy Independence, and are under consideration in the Minnesota legislature.

How much money can Illinoisans save on gasoline by adopting the Clean Car Program here?

The Clean Car Program provides an extremely cost-effective way of reducing pollution. In fact, when the program was first adopted in California, the state estimated that for every ton of global warming pollution avoided by the program, consumers would *save* a net $126 that would otherwise be spent on gasoline. In other words, addressing global warming by reducing vehicle emissions has a negative cost (a savings) to consumers that provides a boost to the economy.[ii] With today's gas prices, those savings are even greater.

Specifically, if Illinois adopts the Clean Car Program --

Individual Driver: Assuming fuel costs of $3 per gallon, a figure that is quickly becoming unrealistically low, Illinois consumers buying a clean car using a five-year loan, would see a net savings of $115-$170 per year during the period of their loan, and after the loan is paid off, would see $360 to $410 per year in savings at the gas pump. For a person purchasing the car with cash up-front, the payback period would be 2.2 to 2.5 years.

Statewide: Assuming a more realistic $3.50/gallon, when the Clean Car Program is fully phased-in so that the average Illinois car was meeting the 2020 standards, Illinois consumers could save an estimated ***$1.24 billion per year*** on gasoline costs, over and above the savings we will see under the federal fuel economy standards;

County-by-County: When the Clean Car Program is fully phased in:

- Drivers in eighteen Illinois counties would save an additional $10 million or more at the gas pump if Illinois adopts the Clean Car Program. These counties are – Cook, DuPage, Lake, Will, Kane, Madison, St. Clair, Winnebego, McHenry, Sangamon, Champaign, McClean, Peoria, LaSalle, Tazewell, Rock Island, Macon and Kankakee.
- Drivers in 94 of Illinois 102 counties would save more than $1 million per year at the gas pump under the Clean Car Program;
- In Cook County alone, drivers would save an additional $385 million at the gas pump if Illinois adopts the Clean Car Program.

The Clean Car Program's Environmental and Public Health Benefits

Of course, the primary purpose and policy goals of the Clean Car Program would be to reduce air pollution, improve public health, and help fight global warming. The economic benefits are incidental to the substantial air quality and environmental benefits.

The Clean Car program is one of the most effective tools to combat the growing threat of global warming. Nationally, one million more drivers are on today's roads than there were just two years ago.[iii] America's cars and trucks already produce more than 360 million metric tons of greenhouse gas emissions each year; these emissions are expected to rise another 50 percent by 2015.[iv] In Illinois, the transportation sector is the second largest source of carbon dioxide pollution, making up nearly one-third of the state's emissions.

Air pollution like smog, soot and cancer-causing air toxics from our cars, trucks and SUVs worsen asthma and lung disease and have been linked to an increased risk of stroke, heart attack and cancer. Nationally, our vehicles are responsible for more than 50 percent of all volatile organic compound and nitrogen oxide emissions—precursors to smog.[v]

By adopting the Clean Cars program, Illinois can set a course toward cleaner air, lower global warming emissions, and do so while saving consumers money, and improving our economy.

I. Origins of the Clean Car Program

The Clean Cars program being considered in Illinois has two main components: the Low Emission Vehicle II (LEV II) program, which regulates conventional air pollutants, and the Global Warming Pollution Standards (GWPS).[vi]

The program originated in the mid-1960s when California developed the first tailpipe emission rules in response to its severe smog problem. When Congress made its first attempt to comprehensively regulate air pollution the U.S. with the 1970 Clean Air Act, it preempted states from developing their own auto pollution rules. However, given California's severe air quality problem and pioneering work on this issue, Congress preserved California's ability to adopt more stringent standards for automobiles sold in the state.

By 1977, with more U.S. cities facing smog problems similar to those in California, Congress gave the states- through Section 177 of the Clean Air Act – the opportunity to adopt California's low-emission vehicle standards instead of staying with the federal standards.

The LEV standards, which were most recently updated in 1998 (LEV II) sets more stringent standards for traditional smog-forming air pollutants such as non-methane organic gases (NMOG) and nitrogen oxides (NOx). As the main driver of air pollution reductions, LEV II set a fleet-average standard for NMOG on a grams/mile basis, and requires automakers to ensure that, on average, their fleet of cars sold in the state meets the standards.

In 2002, California expanded the Clean Cars Program, adding the nation's first automobile emissions limit for global warming pollutants. Under Assembly Bill 1493 (called the "Pavley bill" after lead-sponsor Assemblywoman Fran Pavley) California regulators were charged with creating global warming pollution standards, taking into consideration the economic impacts, including job creation, low-income consumer impacts, business competition and other implications. The rules they adopted in 2005, applicable to cars built in model-year 2009 and beyond, will achieve a fleetwide 31.5% cut in global warming pollution by 2016 with a net economic savings for the state.

The Clean Air Act requires that before California's emissions standards can take effect, U.S. EPA must grant a waiver from federal preemption. U.S. EPA has granted that waiver for the LEV II component of the program, and every previous version of California's program going back for three decades without a single denial. However, last December the Bush Administration denied the waiver for the global warming emission standards. Subsequently, 15 states, including Illinois, petitioned the 9th Circuit to reverse U.S. EPA's waiver denial so that the standards can go into effect as intended. This issue is discussed in more detail in the section of this report entitled "Clean Cars in the Courts."

II. How the Clean Car Program Works

A. **Air pollution standards:**
The Clean Car Program regulates smog-forming and toxic air pollutants, including hydrocarbons (NMOG), nitrogen oxides, carbon monoxide, formaldehyde, particulate matter, and several air toxics.

The primary driver of the air pollution standards is a fleet-average NMOG (non-methane organic gas) standard that declines over time. In addition, vehicles sold in states that have adopted the Clean Car Program must be certified to various degrees of control or "bins," based on grams/mile emission rates for each of the pollutants. The bin levels, from least to most stringent, are --

LEV (or Low Emission Vehicle) standards,
ULEV (or Ultra Low Emission Vehicle) standards,
SULEV (or Super-Ultra Low Emission Vehicle) standards,
PZEV (or Partial Zero Emission Vehicle) standards,
AT-PZEV (or Advanced Technology-Partial Zero Emission Vehicle) standards, and
ZEV (or Zero Emission Vehicle) standards.

The fleet-average NMOG standard determines how many cars automakers certify to the various bin levels. Cars and light trucks under 3750 pounds must achieve a fleet average of .035 grams per mile of NMOG in 2010 and after, while heavier trucks between 3751 and 8000 pounds must meet an NMOG standard of .043 grams per mile by 2010 and after.

B. **Global warming pollution standards:** The Clean Car Program will also regulate global warming pollutants, including carbon dioxide, methane, N2O, refrigerants and upstream emissions. The rules establish separate fleet-average emissions standards for different categories of vehicles based on weight, as follows:

a. **Passenger cars and light trucks under 3750 pounds--**
Beginning in 2009, manufacturers must ensure that the sales-weighted average emission rate of all of their fleet of passenger cars and light trucks is no greater than 323 grams/mile. That standard steadily declines until 2016 when it reaches 205 grams/mile. In this category of vehicles, the rate of emissions per mile driven will be cut by about 34%.

b. **Medium sized passenger trucks over 3750 pounds**
Beginning in 2009, manufacturers must ensure that the sales-weighted average emission rate of all of their fleet of passenger cars and light trucks is no greater than 439 grams/mile. That standard steadily declines until 2016 when it reaches 332 grams/mile. In this category of vehicles, the rate of emissions per mile driven will be cut by about 25%.

III. Costs of Producing Cleaner Cars --

A. Costs of the LEV II air pollution standards:

There does not appear to be any additional cost for vehicles currently meeting the LEV II standards in clean car states, compared to the same model sold in other states.

An analysis by the Pennsylvania Department of Environmental Protection in 2006 compared the cost of vehicles meeting federal Tier 2 standards in Ohio and those meeting LEV II California standards in Pennsylvania and New York (see Table 1). In almost every case, the Manufacturer's Suggested Retail Price (MSRP) was identical. There were a few exceptions. Audi charges a $150 fee for LEV versions of their vehicles. Honda and Volkswagen also suggested there may be a premium.[vii] Pennsylvania's findings are shown below.

Table 1. Comparison of Automobile Prices in Tier 2 states (Ohio) and LEV II states (New York and Pennsylvania)[viii], [ix]

Manufacturer	Model & Style	NY Price	PA Price	OH Price	Difference
Ford	F-150 XLT Super Cab	$31,175	$31,175	$31,175	$0
Lincoln	Town Car Signature Ltd	$44,920	$44,920	$44,920	$0
Mercury	Grand Marquis LS 4-dr Sedan 4.6L OHC V8	$30,065	$30,065	$30,065	$0
Volvo	XC90 2.5T	$36,770	$36,770	$36,770	$0
Dodge	Ram 1500 SLT Quad Cab 4X4 SWB 5.7L Hemi	$31,660	$31,660	$31,660	$0
Jeep	Grand Cherokee Laredo 4X4 3.7l V6 Auto	$29,830	$29,830	$29,830	$0
Chevrolet	Silverado 1500 4WD Reg. Cab 4WD Vortec V6	$20,145	$20,145	$20,145	$0
Cadillac	DTS Sedan Standard	$41,990	$41,990	$41,990	$0
Pontiac	Grand Prix Sedan 3.8L Series III V6 4WD Auto	$21,990	$21,990	$21,990	$0
Buick	Rendezvous CX FWD – 3.5 L SFI V6	$24,990	$24,990	$24,990	$0
GMC	Sierra 1500HD 4WD Crew Cab, Vortec 6.0L V8	$33,990	$33,990	$33,990	$0
Chrysler	Town & Country 3.3L V6 OHV 4 spd Auto	$21,735	$21,735	$21,735	$0
*Toyota	Camry 4-dr LE V6 Sedan 5 spd auto	$22,780	$22,780	N/A	$0
Saturn	Vue AWD V6 3.5L SOHC v6, 5 spd auto	$23,650	$23,650	$23,650	$0
Ford	Focus ZX4 4 door, 2.0L Automatic	$13,750	$13,750	$13,750	$0
Chevrolet	Aveo 4-door SVM E-Tecil 1.6L	$11,990	$11,990	$11,990	$0

	DOCH				
Chevrolet	Impala Sedan LT Automatic 3.5L SFI V6	$21,490	$21,490	$21,490	$0
Cadillac	STS Sedan Luxury II	$43,695	$43,695	$43,695	$0
Chevrolet	Malibu Sedan LT 2.2L 4 cyl. Automatic	$18,990	$18,990	$18,990	$0
Audi	Website states that any purchase in CA or CA standard adopting states will pay $150 fee				
Mazda	Website states Mazda may charge a $100 fee for CA emissions				
Volkswagen	Website states that "emissions" are not included in MSRP				
Honda	Website no longer allows specific site comparisons. 2005 prices provided. Webpage states that CA and New England vehicles may cost more.				
Mercedes	Website now says dealers may charge fee for CARB certification proof.				

B. Costs of the Global Warming Pollution Standards –

The technological changes needed to meet the global warming pollution reduction standards—which have not yet been phased in Clean Car states because of the aforementioned ongoing litigation—may increase vehicle prices modestly, although those up front costs will easily be recovered by consumers in the form of reduced fuel expenses.

CARB projects that cars attaining the 34 percent reduction and trucks attaining a 25 percent reduction in global warming pollution required at full phase-in of the program in 2016 would cost approximately $1,000 more for consumers to purchase.[x] In 2012, the average vehicle in the passenger car/light duty truck (PC/LDT1) category would cost approximately $367 more and the average heavier light duty truck (LDT2) would cost $277 more.

Tier	Year	Table 2. Average Cost Per Vehicle of Global Warming Controls[xi]	
		PC/LDT1 (Passenger cars and light-duty trucks)	LDT2 (Large light-duty trucks/SUVs)
Near-term	2009	$17	$36
	2010	$58	$85
	2011	$230	$176
	2012	$367	$277
Mid-term	2013	$504	$434
	2014	$609	$581
	2015	$836	$804
	2016	$1,064	$1,029

IV. Clean Car Program's Consumer Savings and Economic Benefits to Illinois

A. Savings to the Individual Driver

Whether you purchase your car with cash up-front, or finance with a car loan, consumers save far more on vehicle operation costs under the Clean Car Program than the modest incremental vehicle purchase price increase, providing a substantial financial benefit to drivers.

For example, while vehicles would cost about $1,000 more in 2016 as a result of incorporated technology, a consumer buying a new car in 2016 and paying $20 more per month on the car loan, would save an average of $43 per month due to fuel savings for a total of $23 net savings/month (assuming gas prices of $3.00 per gallon). The increased cost of the vehicle is entirely offset by operating cost savings; the payback on the extra cost of the vehicle is only 2.2 to 2.5 years, after which the consumer will be saving the full $43 per month.[xii]

B. Statewide and County-by-County Economic Benefits

The savings to individual consumers add up to substantial statewide economic benefits as the Clean Car program phases-in over time. How much savings in any given year depends on four factors: (1) The price of gasoline; (2) The number of miles driven by Illinoisans; (3) The percentage of older cars that have been replaced with cars complying with the new standards; and (4) The average efficiency of the new vehicles.

To get a sense of the savings achievable on a statewide and county-by-county basis, we looked at a hypothetical year in the future when:

1. The price of gasoline is $3.50 per gallon, as it is today;
2. Illinoisans are driving 25% more than they drove in 2006 in each County and statewide;
3. 100% of older passenger vehicles have been replaced by vehicles meeting the Clean Car Standard (either the 2016 or the 2020 standard in the two scenarios below);
4. The average fuel efficiency of new cars under the Clean Cars Program would be 32.3 miles/gallon by 2016, and 39.2 miles/gallon by 2020.[xiii]

We compared the total amount that drivers in Illinois would be spending on gasoline if Illinois adopted the Clean Car Program, to the amount they would spend if we did not, in which case automobiles sold here would be solely subject to the federal fuel economy standards.

Findings:

1. As shown in Table 1 below, when the 2016 Clean Car global warming pollution standard is fully phased in:

- Statewide, Illinois consumers could save an estimated ***$1.10 billion per year*** on gasoline costs over and above the savings we will see under the federal fuel economy standards.

- Drivers in 17 Illinois counties would save an additional $10 million or more at the gas pump if Illinois adopts the Clean Car Program. These counties are – Cook, DuPage, Lake, Will, Kane, Madison, St. Clair, Winnebego, McHenry, Sangamon, Champaign, McLean, Peoria, LaSalle, Tazewell, Rock Island and Macon.
- Drivers in 90 of Illinois 102 counties would save more than $1 million per year at the gas pump under the Clean Car Program;
- In Cook County alone, drivers would save an additional $341 million at the gas pump if Illinois adopts the Clean Car Program.

2. When the 2020 Clean Car global warming pollution standard is fully phased in:
   - Statewide, Illinois consumers could save an estimated ***$1.24 billion per year*** on gasoline costs, over and above the savings we will see under the federal fuel economy standards;
   - Drivers in eighteen Illinois counties would save an additional $10 million or more at the gas pump if Illinois adopts the Clean Car Program. These counties are – Cook, DuPage, Lake, Will, Kane, Madison, St. Clair, Winnebego, McHenry, Sangamon, Champaign, McClean, Peoria, LaSalle, Tazewell, Rock Island, Macon and Kankakee.
   - Drivers in 94 of Illinois 102 counties would save more than $1 million per year at the gas pump under the Clean Car Program;
   - In Cook County alone, drivers would save an additional $385 million at the gas pump if Illinois adopts the Clean Car Program.

TABLE 1: Est. Gas Pump Savings of Clean Car Program Over Federal Fuel Economy Standards, After Fleet Turnover to 2016 Standards

		Gas consumption (gallons)	Gas costs to consumers	Gas consumption (gallons)	Gas costs to consumers	Incremental savings
	Miles driven by passenger vehicles	2016 Federal CAFE Program	2016 Federal CAFE Program	2016 State Clean Cars Program	2016 State Clean Car Program	Under Clean Car Program
County Name	25% increase over 2006	29.7 MPG		32.3 MPG		
Cook	35,977,501,868	1,211,363,699	$4,239,772,947	1,113,854,547	$3,898,490,914	$341,282,033
DuPage	9,463,237,927	318,627,540	$1,115,196,389	292,979,502	$1,025,428,258	$89,768,130
Lake	6,298,764,984	212,079,629	$742,278,702	195,008,204	$682,528,713	$59,749,988
Will	5,795,817,750	195,145,379	$683,008,826	179,437,082	$628,029,787	$54,979,039
Kane	3,909,119,476	131,620,184	$460,670,645	121,025,371	$423,588,798	$37,081,848
Madison	3,036,270,299	102,231,323	$357,809,631	94,002,176	$329,007,618	$28,802,014
St. Clair	2,837,633,554	95,543,217	$334,401,261	87,852,432	$307,483,512	$26,917,749
Winnebago	2,771,698,578	93,323,184	$326,631,146	85,811,101	$300,338,855	$26,292,290
McHenry	2,355,602,434	79,313,213	$277,596,246	72,928,868	$255,251,038	$22,345,209
Sangamon	2,279,389,398	76,747,118	$268,614,912	70,569,331	$246,992,659	$21,622,253
Champaign	2,073,280,554	69,807,426	$244,325,991	64,188,252	$224,658,884	$19,667,108
McLean	1,970,219,545	66,337,358	$232,180,754	60,997,509	$213,491,282	$18,689,472
Peoria	1,858,402,779	62,572,484	$219,003,694	57,535,690	$201,374,914	$17,628,780
LaSalle	1,538,109,139	51,788,187	$181,258,653	47,619,478	$166,668,173	$14,590,480
Tazewell	1,394,457,968	46,951,447	$164,330,064	43,172,073	$151,102,257	$13,227,807

Rock Island	1,302,860,746	43,867,365	$153,535,778	40,336,246	$141,176,861	$12,358,917
Macon	1,054,743,622	35,513,253	$124,296,386	32,654,601	$114,291,105	$10,005,282
Kankakee	1,015,785,227	34,201,523	$119,705,330	31,448,459	$110,069,607	$9,635,723
DeKalb	929,555,599	31,298,168	$109,543,589	28,778,811	$100,725,839	$8,817,750
Williamson	894,795,824	30,127,806	$105,447,319	27,702,657	$96,959,300	$8,488,020
Vermilion	874,620,652	29,448,507	$103,069,774	27,078,039	$94,773,136	$8,296,638
Kendall	837,558,974	28,200,639	$98,702,236	25,930,618	$90,757,164	$7,945,072
Jefferson	778,863,665	26,224,366	$91,785,280	24,113,426	$84,396,992	$7,388,289
Ogle	760,773,917	25,615,283	$89,653,492	23,553,372	$82,436,802	$7,216,690
Henry	753,812,825	25,380,903	$88,833,161	23,337,858	$81,682,504	$7,150,657
Effingham	741,675,888	24,972,252	$87,402,882	22,962,102	$80,367,356	$7,035,526
Grundy	730,457,785	24,594,538	$86,080,884	22,614,792	$79,151,772	$6,929,111
Lee	652,440,461	21,967,692	$76,886,923	20,199,395	$70,697,883	$6,189,040
Boone	625,797,146	21,070,611	$73,747,138	19,374,525	$67,810,836	$5,936,302
Livingston	622,208,547	20,949,783	$73,324,240	19,263,422	$67,421,979	$5,902,261
Whiteside	602,774,539	20,295,439	$71,034,037	18,661,750	$65,316,126	$5,717,910
Knox	602,388,605	20,282,445	$70,988,556	18,649,802	$65,274,307	$5,714,249
Coles	587,109,673	19,768,002	$69,188,009	18,176,770	$63,618,695	$5,569,313
Bureau	583,378,203	19,642,364	$68,748,273	18,061,245	$63,214,356	$5,533,917
Iroquois	578,774,430	19,487,355	$68,205,741	17,918,713	$62,715,496	$5,490,245
Franklin	568,929,486	19,155,875	$67,045,562	17,613,916	$61,648,706	$5,396,856
Adams	561,057,346	18,890,820	$66,117,869	17,370,196	$60,795,688	$5,322,181
Logan	554,747,626	18,678,371	$65,374,299	17,174,849	$60,111,972	$5,262,328
Montgomery	550,879,018	18,548,115	$64,918,403	17,055,078	$59,692,773	$5,225,630
Jackson	532,914,286	17,943,242	$62,801,347	16,498,894	$57,746,130	$5,055,217
Marion	532,888,404	17,942,371	$62,798,297	16,498,093	$57,743,326	$5,054,971
Woodford	528,380,057	17,790,574	$62,267,010	16,358,516	$57,254,805	$5,012,205
Fayette	475,130,287	15,997,653	$55,991,785	14,709,916	$51,484,706	$4,507,079
Macoupin	471,890,163	15,888,558	$55,609,952	14,609,603	$51,133,609	$4,476,343
Stephenson	465,778,883	15,682,791	$54,889,767	14,420,399	$50,471,396	$4,418,371
Clinton	410,675,687	13,827,464	$48,396,125	12,714,418	$44,500,461	$3,895,663
Clark	402,020,175	13,536,033	$47,376,115	12,446,445	$43,562,558	$3,813,557
Morgan	395,681,590	13,322,612	$46,629,144	12,250,204	$42,875,714	$3,753,430
Washington	395,012,583	13,300,087	$46,550,304	12,229,492	$42,803,221	$3,747,083
Monroe	386,266,327	13,005,600	$45,519,601	11,958,710	$41,855,484	$3,664,116
Christian	366,348,926	12,334,981	$43,172,432	11,342,072	$39,697,252	$3,475,180
Fulton	350,325,162	11,795,460	$41,284,110	10,845,980	$37,960,931	$3,323,179
Cumberland	350,178,232	11,790,513	$41,266,795	10,841,431	$37,945,010	$3,321,785
Douglas	330,810,513	11,138,401	$38,984,404	10,241,812	$35,846,340	$3,138,063
Bond	313,744,563	10,563,790	$36,973,265	9,713,454	$33,997,089	$2,976,176
Shelby	301,351,985	10,146,531	$35,512,860	9,329,783	$32,654,240	$2,858,620
Wayne	290,982,612	9,797,394	$34,290,880	9,008,750	$31,530,624	$2,760,257
Randolph	289,136,503	9,735,236	$34,073,325	8,951,595	$31,330,581	$2,742,744
McDonough	288,962,619	9,729,381	$34,052,834	8,946,211	$31,311,739	$2,741,095
Pike	280,674,387	9,450,316	$33,076,106	8,689,610	$30,413,633	$2,662,473
Johnson	275,943,130	9,291,014	$32,518,551	8,543,131	$29,900,958	$2,617,592
Saline	274,173,492	9,231,431	$32,310,007	8,488,343	$29,709,202	$2,600,806
Union	271,519,150	9,142,059	$31,997,206	8,406,166	$29,421,580	$2,575,627
Piatt	262,388,906	8,834,643	$30,921,252	8,123,496	$28,432,234	$2,489,017
JoDaviess	247,511,614	8,333,724	$29,168,035	7,662,898	$26,820,144	$2,347,891
Massac	243,018,015	8,182,425	$28,638,487	7,523,778	$26,333,221	$2,305,265
White	242,080,811	8,150,869	$28,528,042	7,494,762	$26,231,667	$2,296,375
Marshall	231,558,883	7,796,595	$27,288,084	7,169,006	$25,091,520	$2,196,564
Warren	230,384,960	7,757,069	$27,149,743	7,132,661	$24,964,315	$2,185,428
Hancock	230,069,649	7,746,453	$27,112,585	7,122,899	$24,930,148	$2,182,437
Perry	225,304,436	7,586,008	$26,551,028	6,975,370	$24,413,793	$2,137,234
Jersey	218,422,473	7,354,292	$25,740,022	6,762,306	$23,668,070	$2,071,952
DeWitt	209,836,157	7,065,190	$24,728,167	6,496,475	$22,737,664	$1,990,503

Edgar	189,833,074	6,391,686	$22,370,901	5,877,185	$20,570,147	$1,800,754
Crawford	189,239,117	6,371,687	$22,300,906	5,858,796	$20,505,787	$1,795,119
Lawrence	185,060,868	6,231,006	$21,808,520	5,729,439	$20,053,035	$1,755,485
Ford	184,025,530	6,196,146	$21,686,510	5,697,385	$19,940,847	$1,745,663
Moultrie	170,995,083	5,757,410	$20,150,936	5,293,965	$18,528,879	$1,622,057
Richland	170,993,225	5,757,348	$20,150,717	5,293,908	$18,528,678	$1,622,039
Clay	164,349,544	5,533,655	$19,367,791	5,088,221	$17,808,774	$1,559,017
Carroll	163,636,941	5,509,661	$19,283,815	5,066,159	$17,731,557	$1,552,258
Mercer	152,850,647	5,146,486	$18,012,703	4,732,218	$16,562,764	$1,449,939
Mason	148,368,903	4,995,586	$17,484,551	4,593,464	$16,077,126	$1,407,425
Jasper	142,150,930	4,786,227	$16,751,793	4,400,958	$15,403,352	$1,348,442
Pulaski	141,072,794	4,749,926	$16,624,740	4,367,579	$15,286,526	$1,338,214
Alexander	129,871,620	4,372,782	$15,304,736	4,020,793	$14,072,776	$1,231,960
Henderson	126,489,164	4,258,894	$14,906,130	3,916,073	$13,706,256	$1,199,874
Greene	126,257,837	4,251,106	$14,878,870	3,908,911	$13,681,190	$1,197,680
Cass	120,262,007	4,049,226	$14,172,290	3,723,282	$13,031,487	$1,140,804
Menard	111,326,703	3,748,374	$13,119,308	3,446,647	$12,063,265	$1,056,043
Wabash	104,637,966	3,523,164	$12,331,073	3,239,566	$11,338,479	$992,594
Scott	104,190,315	3,508,091	$12,278,320	3,225,706	$11,289,972	$988,348
Schuyler	101,492,600	3,417,259	$11,960,407	3,142,186	$10,997,650	$962,757
Hamilton	97,244,755	3,274,234	$11,459,820	3,010,674	$10,537,357	$922,462
Gallatin	84,131,198	2,832,700	$9,914,451	2,604,681	$9,116,384	$798,067
Edwards	78,621,890	2,647,202	$9,265,206	2,434,114	$8,519,400	$745,806
Stark	75,554,005	2,543,906	$8,903,671	2,339,133	$8,186,966	$716,704
Putnam	74,901,251	2,521,928	$8,826,747	2,318,924	$8,116,235	$710,512
Brown	57,307,510	1,929,546	$6,753,410	1,774,226	$6,209,792	$543,618
Pope	52,343,885	1,762,420	$6,168,471	1,620,554	$5,671,938	$496,533
Hardin	43,672,593	1,470,458	$5,146,602	1,352,093	$4,732,324	$414,278
Calhoun	42,447,297	1,429,202	$5,002,207	1,314,158	$4,599,552	$402,654
Statewide	116,180,190,928	3,911,790,940	$13,691,268,291	3,596,909,936	$12,589,184,775	$1,102,083,516

TABLE 2: Est. Savings of Clean Car Program Over Fed. Fuel Economy Standards, After Fleet Turnover to 2020 Standards

		Gas consumption (gal)	Gas costs to consumers	Gas consumption (gal)	Gas costs under	Incremental savings
	Miles driven by passenger vehicles	2020 Federal CAFE program	2020 Federal CAFE program	2020 Clean Cars Program	2020 Clean Car Program	Under Clean Car Program
County Name	25% increase over 2006	35 MPG	$3.50/gallon	39.2 MPG	$3.50/gallon	
Cook	35,977,501,868	1,027,928,625	$3,597,750,187	917,793,415	$3,212,276,952	$385,473,234
DuPage	9,463,237,927	270,378,226	$946,323,793	241,409,131	$844,931,958	$101,391,835
Lake	6,298,764,984	179,964,714	$629,876,498	160,682,780	$562,389,731	$67,486,768
Will	5,795,817,750	165,594,793	$579,581,775	147,852,494	$517,483,728	$62,098,047
Kane	3,909,119,476	111,689,128	$390,911,948	99,722,436	$349,028,525	$41,883,423
Madison	3,036,270,299	86,750,580	$303,627,030	77,455,875	$271,095,562	$32,531,467
St. Clair	2,837,633,554	81,075,244	$283,763,355	72,388,611	$253,360,139	$30,403,217
Winnebago	2,771,698,578	79,191,388	$277,169,858	70,706,596	$247,473,087	$29,696,770
McHenry	2,355,602,434	67,302,927	$235,560,243	60,091,899	$210,321,646	$25,238,598
Sangamon	2,279,389,398	65,125,411	$227,938,940	58,147,689	$203,516,911	$24,422,029
Champaign	2,073,280,554	59,236,587	$207,328,055	52,889,810	$185,114,335	$22,213,720
McLean	1,970,219,545	56,291,987	$197,021,954	50,260,703	$175,912,459	$21,109,495
Peoria	1,858,402,779	53,097,222	$185,840,278	47,408,234	$165,928,820	$19,911,458
LaSalle	1,538,109,139	43,945,975	$153,810,914	39,237,478	$137,331,173	$16,479,741
Tazewell	1,394,457,968	39,841,656	$139,445,797	35,572,907	$124,505,176	$14,940,621
Rock Island	1,302,860,746	37,224,593	$130,286,075	33,236,244	$116,326,852	$13,959,222
Macon	1,054,743,622	30,135,532	$105,474,362	26,906,725	$94,173,538	$11,300,825
Kankakee	1,015,785,227	29,022,435	$101,578,523	25,912,888	$90,695,110	$10,883,413

DeKalb	929,555,599	26,558,731	$92,955,560	23,713,153	$82,996,036	$9,959,524
Williamson	894,795,824	25,565,595	$89,479,582	22,826,424	$79,892,484	$9,587,098
Vermilion	874,620,652	24,989,161	$87,462,065	22,311,751	$78,091,130	$9,370,936
Kendall	837,558,974	23,930,256	$83,755,897	21,366,300	$74,782,051	$8,973,846
Jefferson	778,863,665	22,253,248	$77,886,367	19,868,971	$69,541,399	$8,344,968
Ogle	760,773,917	21,736,398	$76,077,392	19,407,498	$67,926,243	$8,151,149
Henry	753,812,825	21,537,509	$75,381,283	19,229,919	$67,304,717	$8,076,566
Effingham	741,675,888	21,190,740	$74,167,589	18,920,303	$66,221,061	$7,946,527
Grundy	730,457,785	20,870,222	$73,045,778	18,634,127	$65,219,445	$7,826,333
Lee	652,440,461	18,641,156	$65,244,046	16,643,889	$58,253,613	$6,990,434
Boone	625,797,146	17,879,918	$62,579,715	15,964,213	$55,874,745	$6,704,969
Livingston	622,208,547	17,777,387	$62,220,855	15,872,667	$55,554,335	$6,666,520
Whiteside	602,774,539	17,222,130	$60,277,454	15,376,901	$53,819,155	$6,458,299
Knox	602,388,605	17,211,103	$60,238,860	15,367,056	$53,784,697	$6,454,164
Coles	587,109,673	16,774,562	$58,710,967	14,977,288	$52,420,506	$6,290,461
Bureau	583,378,203	16,667,949	$58,337,820	14,882,097	$52,087,340	$6,250,481
Iroquois	578,774,430	16,536,412	$57,877,443	14,764,654	$51,676,288	$6,201,155
Franklin	568,929,486	16,255,128	$56,892,949	14,513,507	$50,797,276	$6,095,673
Adams	561,057,346	16,030,210	$56,105,735	14,312,687	$50,094,406	$6,011,329
Logan	554,747,626	15,849,932	$55,474,763	14,151,725	$49,531,038	$5,943,725
Montgomery	550,879,018	15,739,401	$55,087,902	14,053,036	$49,185,627	$5,902,275
Jackson	532,914,286	15,226,122	$53,291,429	13,594,752	$47,581,633	$5,709,796
Marion	532,888,404	15,225,383	$53,288,840	13,594,092	$47,579,322	$5,709,519
Woodford	528,380,057	15,096,573	$52,838,006	13,479,083	$47,176,791	$5,661,215
Fayette	475,130,287	13,575,151	$47,513,029	12,120,671	$42,422,347	$5,090,682
Macoupin	471,890,163	13,482,576	$47,189,016	12,038,014	$42,133,050	$5,055,966
Stephenson	465,778,883	13,307,968	$46,577,888	11,882,114	$41,587,400	$4,990,488
Clinton	410,675,687	11,733,591	$41,067,569	10,476,421	$36,667,472	$4,400,097
Clark	402,020,175	11,486,291	$40,202,018	10,255,617	$35,894,659	$4,307,359
Morgan	395,681,590	11,305,188	$39,568,159	10,093,918	$35,328,713	$4,239,446
Washington	395,012,583	11,286,074	$39,501,258	10,076,852	$35,268,981	$4,232,278
Monroe	386,266,327	11,036,181	$38,626,633	9,853,733	$34,488,065	$4,138,568
Christian	366,348,926	10,467,112	$36,634,893	9,345,636	$32,709,726	$3,925,167
Fulton	350,325,162	10,009,290	$35,032,516	8,936,866	$31,279,032	$3,753,484
Cumberland	350,178,232	10,005,092	$35,017,823	8,933,118	$31,265,914	$3,751,910
Douglas	330,810,513	9,451,729	$33,081,051	8,439,044	$29,536,653	$3,544,398
Bond	313,744,563	8,964,130	$31,374,456	8,003,688	$28,012,907	$3,361,549
Shelby	301,351,985	8,610,057	$30,135,199	7,687,551	$26,906,427	$3,228,771
Wayne	290,982,612	8,313,789	$29,098,261	7,423,026	$25,980,590	$3,117,671
Randolph	289,136,503	8,261,043	$28,913,650	7,375,931	$25,815,759	$3,097,891
McDonough	288,962,619	8,256,075	$28,896,262	7,371,495	$25,800,234	$3,096,028
Pike	280,674,387	8,019,268	$28,067,439	7,160,061	$25,060,213	$3,007,226
Johnson	275,943,130	7,884,089	$27,594,313	7,039,366	$24,637,779	$2,956,534
Saline	274,173,492	7,833,528	$27,417,349	6,994,222	$24,479,776	$2,937,573
Union	271,519,150	7,757,690	$27,151,915	6,926,509	$24,242,781	$2,909,134
Piatt	262,388,906	7,496,826	$26,238,891	6,693,595	$23,427,581	$2,811,310
JoDaviess	247,511,614	7,071,760	$24,751,161	6,314,072	$22,099,251	$2,651,910
Massac	243,018,015	6,943,372	$24,301,801	6,199,439	$21,698,037	$2,603,764
White	242,080,811	6,916,595	$24,208,081	6,175,531	$21,614,358	$2,593,723
Marshall	231,558,883	6,615,968	$23,155,888	5,907,114	$20,674,900	$2,480,988
Warren	230,384,960	6,582,427	$23,038,496	5,877,167	$20,570,086	$2,468,410
Hancock	230,069,649	6,573,419	$23,006,965	5,869,124	$20,541,933	$2,465,032
Perry	225,304,436	6,437,270	$22,530,444	5,747,562	$20,116,467	$2,413,976
Jersey	218,422,473	6,240,642	$21,842,247	5,572,002	$19,502,007	$2,340,241
DeWitt	209,836,157	5,995,319	$20,983,616	5,352,963	$18,735,371	$2,248,245
Edgar	189,833,074	5,423,802	$18,983,307	4,842,680	$16,949,382	$2,033,926
Crawford	189,239,117	5,406,832	$18,923,912	4,827,528	$16,896,350	$2,027,562
Lawrence	185,060,868	5,287,453	$18,506,087	4,720,941	$16,523,292	$1,982,795

Ford	184,025,530	5,257,872	$18,402,553	4,694,529	$16,430,851	$1,971,702
Moultrie	170,995,083	4,885,574	$17,099,508	4,362,119	$15,267,418	$1,832,090
Richland	170,993,225	4,885,521	$17,099,323	4,362,072	$15,267,252	$1,832,070
Clay	164,349,544	4,695,701	$16,434,954	4,192,590	$14,674,066	$1,760,888
Carroll	163,636,941	4,675,341	$16,363,694	4,174,412	$14,610,441	$1,753,253
Mercer	152,850,647	4,367,161	$15,285,065	3,899,251	$13,647,379	$1,637,686
Mason	148,368,903	4,239,112	$14,836,890	3,784,921	$13,247,223	$1,589,667
Jasper	142,150,930	4,061,455	$14,215,093	3,626,299	$12,692,047	$1,523,046
Pulaski	141,072,794	4,030,651	$14,107,279	3,598,796	$12,595,785	$1,511,494
Alexander	129,871,620	3,710,618	$12,987,162	3,313,052	$11,595,680	$1,391,482
Henderson	126,489,164	3,613,976	$12,648,916	3,226,764	$11,293,675	$1,355,241
Greene	126,257,837	3,607,367	$12,625,784	3,220,863	$11,273,021	$1,352,763
Cass	120,262,007	3,436,057	$12,026,201	3,067,908	$10,737,679	$1,288,522
Menard	111,326,703	3,180,763	$11,132,670	2,839,967	$9,939,884	$1,192,786
Wabash	104,637,966	2,989,656	$10,463,797	2,669,336	$9,342,676	$1,121,121
Scott	104,190,315	2,976,866	$10,419,032	2,657,916	$9,302,707	$1,116,325
Schuyler	101,492,600	2,899,789	$10,149,260	2,589,097	$9,061,839	$1,087,421
Hamilton	97,244,755	2,778,422	$9,724,475	2,480,734	$8,682,567	$1,041,908
Gallatin	84,131,198	2,403,749	$8,413,120	2,146,204	$7,511,714	$901,406
Edwards	78,621,890	2,246,340	$7,862,189	2,005,660	$7,019,812	$842,377
Stark	75,554,005	2,158,686	$7,555,400	1,927,398	$6,745,893	$809,507
Putnam	74,901,251	2,140,036	$7,490,125	1,910,746	$6,687,612	$802,513
Brown	57,307,510	1,637,357	$5,730,751	1,461,926	$5,116,742	$614,009
Pope	52,343,885	1,495,540	$5,234,389	1,335,303	$4,673,561	$560,827
Hardin	43,672,593	1,247,788	$4,367,259	1,114,097	$3,899,339	$467,921
Calhoun	42,447,297	1,212,780	$4,244,730	1,082,839	$3,789,937	$454,792
Statewide	116,180,190,928	3,319,434,027	$11,618,019,093	2,963,780,381	$10,373,231,333	$1,244,787,760

Conclusion: As policymakers face the dual threats of global warming, and rising energy costs, they should embrace the dual benefits of the Clean Cars Program. Getting cleaner cars on Illinois roads will save Illinois consumers more than a billion dollars a year. Those dollars will stay here in Illinois to drive economic growth, rather than going for to pay for out-of-state gasoline. Moreover, as we save money our air quality will improve, and we will reduce by 30% the enormous global warming pollution impact of the transportation sector.

---

[i] U.S. Energy Information Administration, Household Vehicles Energy Use: Latest Data and Trends, November 2005, Table A2. Available at http://www.eia.doe.gov/emeu/rtecs/nhts_survey/2001/index.html.
[ii] California Air Resources Board, Regulations to Control Greenhouse Gases from Motor Vehicles, Final Statement of Reasons, August 4, 2005, page 12.

[iv] Overberg, Paul and Larry Copeland. "Drivers Cut Back—A First in 26 Years," USA Today, May 17, 2007. http:///www.usatoday.com/news/nation/2007-05-17-gas-prices_N.htm
[iv] Union of Concerned Scientists, "Creating Jobs, Saving Energy and Protecting the Environment: An Analysis of the Potential Benefits of Investing in Efficient Cars and Trucks," July 2004.
[v] *Report of the Senate Committee on Environment and Public Works on H.R. 8, Border Smog Reduction Act of 1998*, Report 105-355, September 28, 1998.
[vi] A third component of the California emissions program called the Zero Emission Vehicle (ZEV) standard is not part of the Illinois Clean Cars Act so will not be discussed in this report.

[vii] McGinty, Kathleen A. Secretary of the Pennsylvania Department of Environmental Protection. Statement on Pennsylvania's Clean Vehicles Program before the House Environmental Resources and Energy Committee. February 8, 2006. http://www.depweb.state.pa.us/dep/cwp/view.asp?a=3&q=487616.

[viii] Compared Ohio (Federal program), New York (LEVII and ZEV), and Pennsylvania (LEVII only). Based on MSRP for automakers most popular 2005 models and randomly selected 2005 and 2006 mid-size and luxury vehicles. MSRP does not include options, tax, title, transfer or destination fees.

[ix] Reproduced from McGinty, Kathleen A. Secretary of the Pennsylvania Department of Environmental Protection. Statement on Pennsylvania's Clean Vehicles Program before the House Environmental Resources and Energy Committee. February 8, 2006. http://www.depweb.state.pa.us/dep/cwp/view.asp?a=3&q=487616.

[x] California Environmental Protection Agency, Air Resources Board, *Staff Report: Initial Statement of Reasons for Proposed Rulemaking, Public Hearing to Consider Adoption of Regulations to Control Greenhouse Gas Emissions from Motor Vehicles*, 6 August 2004; California Environmental Protection Agency, Air Resources Board, *Addendum Presenting and Describing Revisions to: Initial Statement of Reasons for Proposed Rulemaking, Public Hearing to Consider Adoption of Regulations to Control Greenhouse Gas Emissions from Motor Vehicles*, 10 September 2004.

[xi] Provided by the California Air Resources Board Fact Sheet, December 2004. In developing its global warming pollution standards, CARB looked at five different MY 2002 representative vehicles that best fit the average attributes of its class: (1) Chevrolet Cavalier (2.2L 1-4) for the "small car" class, which EPA defines as sub-compact and compact sedans; (2) Ford Taurus (3.0 L V6) for the "large car" class, which EPA defines as mid-size and large sedans; (3) DaimlerChrysler Town and Country (3.3L V6) for the "minivan" class; (4) Toyota Tacoma (3.4 L V6) for the "small truck" class, defined by EPA as small SUVs and pick-ups; and (5) GMC Sierra (5.3 I V8) for the "large truck" class, defined by EPA as standard pick-ups and large SUVs. To determine the cost of various technologies on consumers, CARB multiplied the initial cost (the incremental additional cost of the technology or package of technologies) by 1.4 (to account for a 40 percent mark-up rate to account for the overhead costs associated with the research, development and manufacturing of the technologies). This retail price multiplier falls within the range of those conventionally utilized in such studies. Volume assumptions—which, in part, determine the cost of the technologies—assumed that vehicles would be produced in volumes to provide vehicles for export to other states and countries, besides California. For a more detailed explanation of CARB's analysis, please review their Initial Statement of Reasons.

[xii] Meszler Engineering Services, GHG Emission Standards for Vehicles: An Overview of California's Pavley Requirements

[xiii] California Air Resources Board. Comparison of Greenhouse Gas Reductions for the United States and Canada Under U.S. CAFE Standards and California Air Resources Board Greenhouse Gas Regulations, An Enhanced Technical Assessment, February 25, 2008.