



ENVIRONMENTAL LAW & POLICY CENTER

Protecting the Midwest's Environment and Natural Heritage

SAVING \$6.75 BILLION EACH YEAR FOR ILLINOIS' ECONOMY: HOW WOULD YOU SPEND IT?

With Gas Heading Toward \$5.00 Per Gallon, Better Mileage and Cleaner Cars Will Pump Up Illinois' Economy, Create Thousands of Jobs, and Improve Our Public Health and Environment

Chicago now has the nation's highest gas prices. The average price of a gallon of gasoline in Chicago is \$4.33 today, which is more than \$1 higher than the price this time last year and \$2 higher than in 2009. Some analysts predict that gas prices will reach \$5.00 per gallon in Chicago before the end of the summer. ELPC has issued previous White Papers explaining that increased market penetration of new cleaner car technologies capable of producing less pollution, while achieving better miles per gallon, will be a boon to the Illinois economy. As this new White Paper explains, increasing the Illinois vehicle fleet's fuel efficiency to an average of 30 miles per gallon (MPG) can save \$6.75 billion for Illinois' economy and create about 72,000 jobs according to modeling from the University of Illinois' Regional Economics Applications Laboratory (REAL).

While gas prices have increased sharply since our first White Paper in 2003, the overall average fleet average fuel efficiency of 21.7 MPG for passenger vehicles driven in Illinois is largely unchanged. What has changed is the condition of the automobile manufacturing industry, as well as the public's demand for different kinds of personal vehicles. Plant closures worldwide have hit close to home with major plants shutting down in the Midwest, especially those making SUVs and light trucks.

We are at a turning point. The automobile industry is restructuring in ways that, if supported by both consumer buying preferences and sound public policies, can reduce America's dependence on foreign oil and mitigate the pain caused by higher gas prices. The burst of energy and investment around cleaner, higher-performing car technologies is a bright spot in the Midwest's manufacturing belt. Auto plants in Detroit, Holland and Wayne, Michigan are producing plug-in electric vehicles and advanced batteries. The Ford plant on the south side of Chicago has added a second shift with 1,200 new jobs to ramp up production of the new fuel-efficient 2011 Ford Explorer. The CEOs of GM and Ford have emphasized the importance of fuel efficiency, consumer choices and the development of electric-drive vehicles as the key to their corporate sustainability strategies. They recognize the turning point and are working to position their companies to remain competitive in a global economy that is ever more oriented towards clean technology innovation.

35 East Wacker Drive, Suite 1600 • Chicago, Illinois 60601

(312) 673-6500 • www.ELPC.org

Harry W. Drucker, Chairperson • Howard A. Learner, Executive Director

Columbus, OH • Des Moines, IA • Jamestown, ND • Madison, WI • Minneapolis, MN • Sioux Falls, SD • Washington, D.C.

That is one reason why the major auto manufacturers supported the groundbreaking fuel economy standards that President Obama signed into law last May. National standards for improved fuel efficiency and greenhouse gas pollution reduction mean that automobile companies have a clear incentive and policy direction to develop cleaner vehicles. Since the federal Clean Car Standards took effect, the companies are competing on a relatively level playing field with common objectives: design cars that save people money by using less gas, increase America's energy independence by reducing our need for oil, and breathe new life into an industry that has been struggling with job losses and factory shut-downs for years.

Now, even though this transition is well underway, some politicians are nonetheless seeking to stall or overturn Clean Air Act standards that can save American consumers and businesses billions of dollars and prevent nearly one billion tons of greenhouse gas pollution. High gas prices only reinforce the importance of these standards, as well as new policies to: (1) encourage more high-efficiency, low-polluting, innovative electric and compressed natural gas vehicles, (2) accelerate federal investment in high-speed rail development, which is much more fuel efficient and less polluting on a per-passenger basis, and (3) advance investment in better public transit that likewise is much more fuel efficient and less polluting on a per passenger basis. All of these policies will reduce consumer demand for gasoline and thus create economic pressure for lower pump prices, and they will reduce pollution and keep dollars in Illinois' economy, thereby spurring job creation and economic vitality.

This updated White Paper presents the economic and job creation benefits achieved in Illinois under six different cases reflecting two potential levels of overall fuel efficiency and three different gas prices. We first look at the impacts of improvements to an overall fleet fuel efficiency average of 30 MPG with gas prices of \$4.00, \$5.00, and \$6.00 per gallon. Next, we consider an overall fleet fuel efficiency average of 35 MPG with the same gas price alternatives. Smart public policies and investments in transportation innovations and more choices can, over time, help insulate us from the economic shock of higher gas prices and achieve economic benefits for Illinois and the nation as a whole.

Saving On Gas - Pumping Up the Illinois Economy:

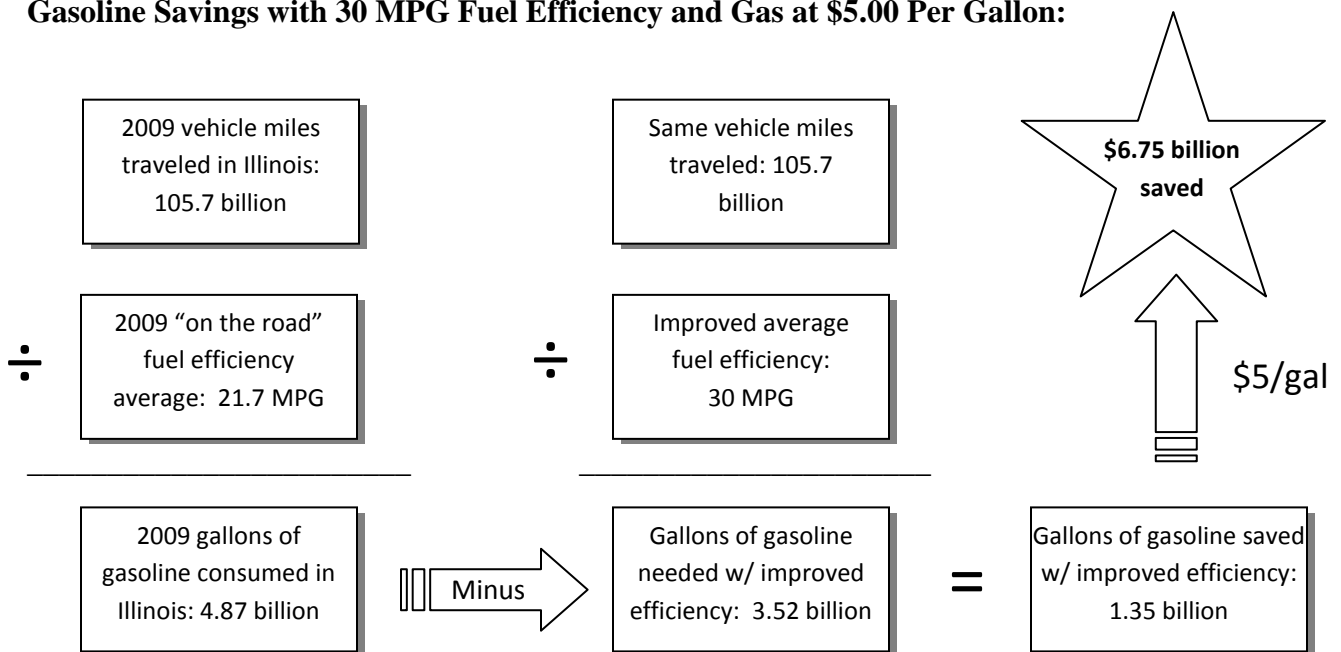
The federal Clean Car Standards require that Corporate Average Fuel Economy (CAFE) will reach 34.1 MPG by 2016.¹ That represents a 23.5% improvement over the model year 2011 standards – a truly game-changing figure. Fuel economy standards only apply to the mix of vehicles sold during a given model year, so it will take time before the Illinois vehicle fleet turns over and approaches that level of fuel efficiency overall. However, as the data below show, the more fuel-efficient Illinois vehicles become, the more significant the boost to Illinois' economy. Higher gas prices reinforce the economic imperative of better fuel efficiency.

¹ The greenhouse gas standards for cars and light trucks will require actual fuel efficiency to reach a slightly higher standard of 35.5 MPG by 2016.

Here’s how all of this works. When we buy gasoline at the pump in Illinois, we’re really enriching oil companies and fueling the economies of other states, countries and continents. Because Illinois does not produce oil, the vast majority of every dollar spent on gasoline in Illinois exits the state. When we spend less on gasoline, however, we can use the savings to spend more on food, clothing, entertainment and other local goods and services.

For example, when the overall “on-the-road” vehicle fleet in Illinois reaches an average fuel efficiency of 30 MPG, we will need 1.35 billion fewer gallons of gasoline to drive the same number of miles that we do when the average fuel efficiency is 21.7 MPG. If the average gas price is \$5.00 per gallon, then Illinois residents and businesses will save \$6.75 billion each and every year on gasoline.

Gasoline Savings with 30 MPG Fuel Efficiency and Gas at \$5.00 Per Gallon:



Job Creation and Economic Activity:

Economic modeling done by the University of Illinois’ Regional Economics Applications Laboratory (REAL) informs us that most of the dollars saved on gasoline – about 67% or \$4.5 billion in the scenario above – will be spent locally. REAL’s assessment of the macro-economic impacts of consumer spending indicates that every new dollar spent in Illinois triggers a total of \$2.50 in consumer spending. This is because new spending triggers additional income for businesses, which triggers additional job development, which triggers additional spending. As a result, the real economic impact of raising average “on-the-road” fuel efficiency levels to 30 MPG at \$5.00 per gallon gasoline will be \$11.5 billion per year in Illinois, including \$3.1 billion in new household income. Considering both direct and indirect employment, this translates into more than 72,000 new net jobs across a wide variety of business sectors.

The chart below details results for six modeled scenarios. We assume that the federal Clean Car Standards are fully implemented and that the “on-the-road” fuel efficiency levels reach 30 MPG and then 35 MPG. We look at the economic impacts of avoided spending on gasoline with gas prices at \$4.00, \$5.00 and \$6.00 per gallon, respectively. The chart also breaks down anticipated new jobs by industry sector.

THE IMPACT OF FUEL EFFICIENCY & GAS PRICES ON THE ILLINOIS ECONOMY

Assumptions

2009 Vehicle Miles Traveled held constant	105.7	billion
2009 Illinois average fuel efficiency	21.7	mpg
2009 gallons of gas consumed	4.8	billion

Summary of Calculations

	30 Miles Per Gallon			35 Miles Per Gallon		
	<u>\$4/gal.</u>	<u>\$5/gal.</u>	<u>\$6/gal.</u>	<u>\$4/gal.</u>	<u>\$5/gal.</u>	<u>\$6/gal.</u>
Gas Needed (billions of gals.)	3.52	3.52	3.52	3.02	3.02	3.02
Gas Savings (billions of gals.)	1.35	1.35	1.35	1.85	1.85	1.85
Gas Cost Savings (\$-billions)	\$5.4	\$6.7	\$8.1	\$7.4	\$9.2	\$11.1
Addl. Direct Spending in IL (\$-billions)	\$3.7	\$4.6	\$5.5	\$5.1	\$6.3	\$7.6
<i>Multiplier from REAL (constant)</i>	2.5	2.5	2.5	2.5	2.5	2.5
Total New Spending in IL (\$-billions)	\$9.2	\$11.5	\$13.8	\$12.7	\$15.8	\$19.0
New Direct Household Income in IL (\$-billions)	\$1.2	\$1.5	\$1.8	\$1.7	\$2.1	\$2.5
<i>Multiplier from REAL (constant)</i>	2.04	2.04	2.04	2.04	2.04	2.04
Total New Household Income in IL (\$-billions)	\$2.5	\$3.1	\$3.7	\$3.4	\$4.3	\$5.1
Total New Jobs Created in Illinois	58,025	72,531	87,037	79,701	99,626	119,551

Breakdown of Net Jobs Created

	30 Miles Per Gallon			35 Miles Per Gallon		
	<u>\$4/gal.</u>	<u>\$5/gal.</u>	<u>\$6/gal.</u>	<u>\$4/gal.</u>	<u>\$5/gal.</u>	<u>\$6/gal.</u>
Direct						
Services	15,676	19,595	23,514	21,532	26,915	32,297
Manufacturing	6,391	7,988	9,586	8,778	10,972	13,167
Wholesale/Retail	4,618	5,773	6,927	6,343	7,929	9,515
Fire, Insurance, Real Estate	2,960	3,699	4,439	4,065	5,081	6,098
All Other	1,057	1,321	1,585	1,452	1,815	2,178
Total Direct Jobs	30,702	38,376	46,051	42,170	52,712	63,255
Direct + Indirect (using REAL multiplier of 1.89)						
Services	45,303	56,628	67,954	62,226	77,783	93,340
Manufacturing	18,469	23,086	27,703	25,368	31,710	38,052
Wholesale/Retail	13,346	16,683	20,020	18,332	22,915	27,498
Fire, Insurance, Real Estate	8,553	10,691	12,830	11,748	14,685	17,622
All other	3,055	3,818	4,582	4,196	5,245	6,294
Total Direct and Indirect Jobs	58,025	72,531	87,037	79,701	99,626	119,551

The Road to Cleaner Cars and Better Transportation Choices:

The economic gains explained above will be achieved if: (1) The federal clean car standards are fully implemented; (2) The Illinois on-the-road fleet modernizes as technology improves; and (3) Increased car travel doesn't zero out fuel use reductions from improved fuel efficiency. In addition to the economic gains, the benefits of the Clean Car Standards also include better public health and improvements in environmental quality, stemming from reduced air pollution.

Illinois residents and businesses should let their Congressional members and other politicians know that it makes no sense to reverse these standards. To do so would be moving in the wrong direction for American consumers and businesses that are hurt by rising gas prices and need more and better choices of fuel-efficient vehicles. It would be moving in the wrong direction for America's energy independence and would increase our reliance on foreign oil. And it would be moving in the wrong direction for American car companies, which are working to rebuild consumer confidence with a new generation of innovative, highly efficient cars.

There are steps we can take to ensure a smooth transition to cleaner vehicles, especially electric vehicles. The economics of electric vehicles will work well for consumers, especially if they are able to take advantage of lower off-peak electricity rates for at-home charging. The table below illustrates the estimated fuel costs of driving an all-electric vehicle, versus a plug-in hybrid, versus a typical gas-fueled vehicle with a fuel efficiency rating of 25 MPG:

Estimated Annual Fuel Costs Per Vehicle

Type of Vehicle	\$4/gal	\$5/gal	\$6/gal
All-Electric	\$286	\$286	\$286
Plug-In Hybrid	\$640	\$750	\$861
Conventional Automobile (25 MPG)	\$1,920	\$2,400	\$2,880

Assumptions: (1) all vehicles travel 12,000 miles per year, (2) plug-in vehicles charge off-peak at an average rate of 7¢/kWh, and (3) the plug-in hybrid runs on its electric battery for 2/3 of annual mileage.

Creating a network of publicly accessible charging stations, as Chicago is planning to do, will improve consumer confidence in electric vehicles and boost demand among apartment and condominium dwellers that might not have a private garage available for overnight charging. Integrating all types of renewable energy into the electric grid, and installing on-site solar panels at public charging locations will multiply the environmental benefits. A mile driven on electric power produces fewer emissions than a mile driven on gasoline, regardless of what fuel the electricity comes from, though, of course, cleaner is better.

Investing in modern, fast, comfortable and convenient high-speed passenger rail will improve mobility, reduce pollution, create new jobs and spur economic growth. Public transit, car sharing and walkable, bikeable urban environments are also essential elements of a better, clean and diverse transportation system. We need to improve mobility without forcing people to drive more. It is time for the nation to focus on clean transportation solutions that benefit local economies and improve quality of life in our communities. Illinois has much to gain by leading the way.

The Bottom Line:

Clean, less polluting and more fuel-efficient cars will:

- ⇒ Save billions of dollars for Illinois drivers who will have to spend less at the filling station.
- ⇒ Add billions of dollars to the Illinois economy.
- ⇒ Create a net gain of new jobs in Illinois.
- ⇒ Improve air quality benefits for public health and the environment while reducing global warming pollution.

The national security benefits of less reliance on Mideast oil are also clear. It's time for Illinois to advance clean transportation solutions that will help us all to obtain these benefits.

For more information, please contact the Environmental Law & Policy Center:

Howard A. Learner, Executive Director – (312) 673-6500, HLearner@elpc.org

Madeleine Weil, Policy Advocate – (312) 795-3743, MWeil@elpc.org

April 26, 2011