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# Fighting Oil Addiction

## Ranking States' Gasoline Price Vulnerability and Solutions for Change

### Report Prepared by

David Gardiner & Associates, LLC

### Contributing Authors

Deron Lovaas

Justin Horner

*Natural Resources Defense Council*



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# Executive Summary

Unrest in the Middle East continues to raise concerns about our dependence on foreign oil at the same time that Americans have been suffering from the skyrocketing cost of gasoline.

To curb America's perilous oil addiction, we need effective government policies that will increase the availability and use of efficient vehicles and clean fuels, as well as promote smart growth and public transit.

This report updates the 2007, 2008, 2009, and 2010 research by the Natural Resources Defense Council (NRDC) identifying the states whose citizens feel the greatest economic pain from gasoline prices and those states that are doing the most to break their addiction to oil.

Like the previous editions, this report again ranks U.S. states in two critical areas related to our nation's continuing addiction to oil. First, it calculates gasoline price vulnerability—the percentage of personal income spent on gasoline by the average driver in each state. Second, it ranks states based on their adoption of solutions to reduce their oil dependence—measures they are taking to lessen their vulnerability and to bolster America's security. The data yield some clear conclusions:

- Oil dependence affects all states, but some states' drivers are hit harder economically than others. Drivers in almost every state in 2010 spent a higher percentage of their income on gasoline than they did in 2009, and drivers in the most vulnerable states spent more than twice as large a percentage of their income on gasoline as drivers in the least vulnerable states.
- Drivers are being hit even harder right now than they were in 2010.
- While some states are pioneering solutions and many are taking some action, many states are still taking few (if any) of the steps listed in this report to reduce their oil dependence.

## Gasoline Price Vulnerability

NRDC's vulnerability ranking is based on the average percentage of income that states' drivers spend on gasoline. The differences are significant. In 2010, average drivers in the least vulnerable state—which for the fifth year in a row is Connecticut—spent less than 3 percent of their income on gasoline. Average drivers in the most vulnerable state—which for the fifth year in a row is Mississippi—spent more than twice as large a percentage (more than 7 percent) of their income on gasoline.

Gasoline price vulnerability generally increased from 2006 through 2008. There was a striking reversal of that trend in 2009, due largely to much lower gas prices, with drivers in every state spending a lower percentage of their income on gasoline than in 2008 (and with drivers in all but five states spending a lower percentage than in 2006). The original trend then reasserted itself, with drivers in all but four states more vulnerable in 2010 than in 2009, though not quite as vulnerable as before the 2009 blip; drivers in 45 of the 50 states were still spending a lower percentage of their income on gasoline in 2010 than in 2008.

### Which States' Drivers Were Most at Risk in 2010?

NRDC research shows that the 10 states whose drivers spent the largest percentage of their income on gasoline in 2010—i.e., faced the highest degree of gasoline price vulnerability—were:

- |  |  |
|--|--|
| 1) Mississippi – 7.23% (also #1 in 2009, 2008, 2007, and 2006) | 6) Oklahoma – 5.80% (↓ from #4 in 2009)      |
| 2) South Carolina – 6.31% (↑ from #5 in 2009)                  | 7) North Dakota – 5.71% (↑ from #15 in 2009) |
| 3) Kentucky – 6.13% (↑ from #7 in 2009)                        | 8) Arkansas – 5.67% (↑ from #10 in 2009)     |
| 4) Georgia – 5.81% (↑ from #12 in 2009)                        | 9) Iowa – 5.60% (↑ from #24 in 2009)         |
| 5) Idaho – 5.81% (↑ from #9 in 2009)                           | 10) New Mexico – 5.48% (↑ from #16 in 2009)  |

The huge increases in gasoline prices in the first few months of 2011 have more than closed the rest of that gap. In fact, as of this April, drivers in every state but two were spending a larger percentage of their income on gasoline than in 2008—and often a good deal more. In Mississippi, for instance, average drivers in April spent more than 11 percent of their income on gasoline (compared with more than 9 percent in 2008 and more than 7 percent at the end of 2010).

As the economy slowly recovers, drivers clearly remain quite vulnerable—and citizens in the high-ranking states are feeling the pinch more.

### State Action on Oil Dependence: The Best and the Worst

Although some states are adopting strong measures to reduce their oil dependence, too many others are still taking little or no action.

The solutions rankings in this report are based on the range of key actions that states can take to reduce oil dependence, with particular focus on policies that can have substantial impact and can be replicated by other states.

NRDC research shows that the 10 states doing the *most* to wean themselves from oil are:

- |                  |                 |
|------------------|-----------------|
| 1) California    | 6) Maryland     |
| 2) Oregon        | 7) Connecticut  |
| 3) Massachusetts | 8) Rhode Island |
| 4) New York      | 9) Washington   |
| 5) New Jersey    | 10) Vermont     |

In contrast, the 10 states doing the *least* to reduce their oil dependence are:

- |                  |                  |
|------------------|------------------|
| 50) Nebraska     | 45) South Dakota |
| 49) North Dakota | 44) Indiana      |
| 48) Alaska       | 43) Missouri     |
| 47) Iowa         | 42) Wyoming      |
| 46) Arkansas     | 41) Ohio         |

The failure of these 10 states—and many others—to take meaningful action to reduce oil dependence exacerbates the national security, environmental, and economic harms associated with our current transportation habits. These and other states need to be drivers of change.

## The Benefits of Reducing Oil Dependence

Especially with the struggling economy, persistently high unemployment, and high gasoline and diesel prices, reducing oil dependence can yield significant benefits. These can include lowering the economic vulnerability that many residents face and creating new income from the sale of low-carbon fuels and efficient vehicles. As the recent unrest in the Middle East makes very clear, decreasing oil consumption also enhances America's national security by reducing dependence on sources of oil that are politically unstable or controlled by unfriendly national governments. In addition, reduced oil consumption decreases both air pollution and the carbon pollution that causes global climate change.

## State Policies for Reducing Oil Dependence

Although the Obama administration has taken some strong actions on energy and climate policy, states continue to be critical players in creating less oil-intensive transportation habits. State strategies include:

- **Clean and efficient vehicles.** Vehicles that cut global warming pollution reduce oil consumption considerably. Fourteen states, led by California, have adopted effective clean car rules. Twenty-two states have requirements for the efficiency of the state government fleet.
- **Clean fuels.** Three states have or are developing a low-carbon fuel standard (LCFS), seeking to reduce the greenhouse gas (GHG) intensity of motor vehicle fuel, and several states have signed a memorandum of understanding to explore a regional LCFS in the Northeast and Mid-Atlantic. The future of clean transportation energy, however, may be electrification. Twenty-six states have an incentive to spur greater deployment and use of plug-in hybrid and fully electric vehicles.
- **Transportation system efficiency.** An area where states can play a particularly large role in reducing oil dependence is promoting transportation system efficiency—i.e., integrating land use and transportation policies and designing them to reduce vehicle-miles traveled and promote alternatives to driving. Three states have codified or are implementing targets for reducing vehicle-miles traveled. Eight states have adopted telecommuting policies to encourage companies to enable their employees to opt out of driving. Seventeen states are taking action to encourage cars already on the road to use less gasoline by placing restrictions on idling. Sixteen states have adopted smart-growth/growth management policies to curb sprawl and reduce the associated traffic. Public investment can also be a critical strategy for states seeking to reduce oil dependence, and in 2010, New York, Massachusetts, and New Jersey led the way in prioritizing the funding of public transit through the allocation of state funds.

States that adopt cutting-edge plans to reduce oil dependence help make the nation more secure, protect drivers' wallets, and enhance global environmental health. These states' policies can serve as examples for the many states that have thus far taken little or no such action—and lead the way for national policies as well.

## Federal Recommendations for Reducing Gasoline Price Vulnerability

The Obama Administration must enact effective energy and transportation policies that complement and support the actions of leading states. The Administration has made progress, but there is more to do, including:

- Raising the bar for new light-duty vehicle and heavy-duty vehicle fuel economy and carbon dioxide pollution standards, aiming for the equivalent of 62 miles per gallon by 2025 for light-duty vehicles; and
- Overhauling the federal transportation program, with prioritization and investment for maintenance and repair of our decaying infrastructure, a national oil-savings objective, more investment in public transportation, and a new infrastructure bank for new projects

# Gasoline Price Vulnerability Rankings: Who Is Hardest Hit?

The economy is still struggling. Gasoline prices have been rising. The Middle East has been in tumult. The past year has seen a range of disasters tied to conventional fuels, most visibly the Gulf oil spill last year and the Japanese nuclear disaster this spring. A shocking number of extreme weather events around the globe are raising concerns about the impacts of climate change. Given all of these factors, oil dependence and its consequences continue to be highly salient issues.

America's dependence on oil is problematic in several ways, including the following:

- The United States uses several times more oil than it possesses. The United States produces about 11 percent of total world petroleum supplies and has less than 2 percent of the world's proved oil reserves—but is responsible for about 22 percent of the world's petroleum consumption.<sup>1</sup> We currently import more than half of our crude oil supply, and more and more of the world's future production will likely come from regions that are either politically unstable or unfriendly to U.S. interests.<sup>2</sup>
- Our unstable supply of oil threatens our national economy, particularly since about 94 percent of our transportation system is fueled by oil.<sup>3</sup>
- Oil consumption is a leading contributor to the carbon dioxide pollution that causes global climate change. In the United States, the oil-based transportation system is responsible for roughly one-third of carbon dioxide pollution.<sup>4</sup>

Our national addiction to oil affects every American in every state. However, the rankings in Table 1 (mapped in Figure 1) clearly show that oil dependence hits the drivers of certain states harder than it does others. These rankings reflect the proportion of the average driver's income spent on gasoline in each state in 2010.<sup>5</sup>

The most vulnerable state (Mississippi) and least vulnerable state (Connecticut) are again unchanged from prior years. (Appendix A contains the state vulnerability rankings for the past five years.) Citizens in Mississippi spent more than 7 percent of their income on gasoline, while citizens in Connecticut spent less than 3 percent of theirs.

Gasoline price vulnerability generally increased from 2006 through 2008. There was a striking reversal of that trend in 2009 due largely to much lower gas prices, with drivers in every state spending a lower percentage of their income on

Figure 1: Map of U.S. Oil Vulnerability, 2010

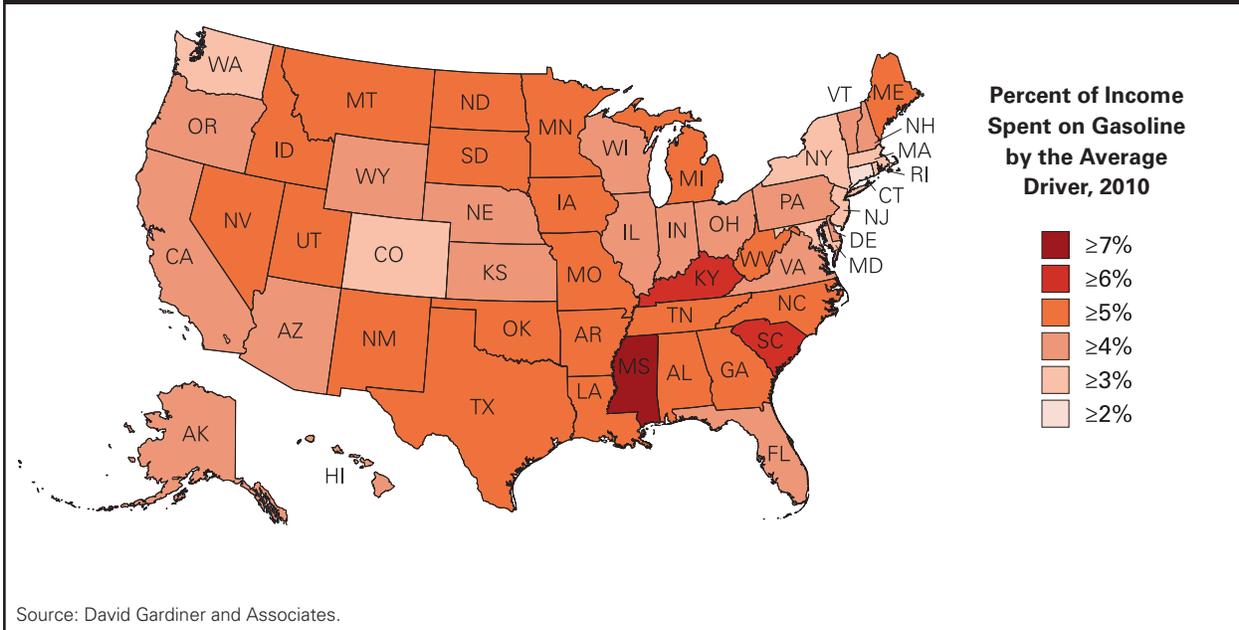


Table 1: Ranking of the Most Vulnerable States, 2010

Rank	State	Percent of Income (and \$ Amount) Spent on Gasoline by the Average Driver, 2010	Rank	State	Percent of Income (and \$ Amount) Spent on Gasoline by the Average Driver, 2010
1	Mississippi	7.23% (\$2,255)	26	Ohio	4.78% (\$1,738)
2	South Carolina	6.31% (\$2,093)	27	Arizona	4.68% (\$1,637)
3	Kentucky	6.13% (\$2,043)	28	California	4.65% (\$2,004)
4	Georgia	5.81% (\$2,062)	29	Vermont	4.64% (\$1,870)
5	Idaho	5.81% (\$1,873)	30	Wisconsin	4.61% (\$1,771)
6	Oklahoma	5.80% (\$2,113)	31	Indiana	4.56% (\$1,592)
7	North Dakota	5.71% (\$2,317)	32	Virginia	4.45% (\$1,994)
8	Arkansas	5.67% (\$1,879)	33	Delaware	4.41% (\$1,763)
9	Iowa	5.60% (\$2,145)	34	Nebraska	4.39% (\$1,735)
10	New Mexico	5.48% (\$1,856)	35	Alaska	4.37% (\$1,930)
11	Montana	5.48% (\$1,935)	36	New Hampshire	4.34% (\$1,913)
12	Alabama	5.47% (\$1,857)	37	Oregon	4.30% (\$1,593)
13	Missouri	5.36% (\$1,984)	38	Florida	4.21% (\$1,655)
14	Tennessee	5.35% (\$1,889)	39	Hawaii	4.11% (\$1,688)
15	North Carolina	5.34% (\$1,903)	40	Illinois	4.06% (\$1,754)
16	West Virginia	5.31% (\$1,734)	41	Pennsylvania	4.03% (\$1,659)
17	Texas	5.31% (\$2,096)	42	Kansas	4.03% (\$1,602)
18	Maine	5.28% (\$1,968)	43	Maryland	3.97% (\$1,947)
19	South Dakota	5.26% (\$2,044)	44	New Jersey	3.73% (\$1,894)
20	Utah	5.19% (\$1,692)	45	Washington	3.66% (\$1,596)
21	Minnesota	5.15% (\$2,205)	46	Colorado	3.58% (\$1,532)
22	Michigan	5.13% (\$1,825)	47	Rhode Island	3.43% (\$1,462)
23	Nevada	5.11% (\$1,890)	48	Massachusetts	3.24% (\$1,673)
24	Louisiana	5.07% (\$1,948)	49	New York	3.13% (\$1,527)
25	Wyoming	4.80% (\$2,295)	50	Connecticut	2.83% (\$1,586)

gasoline than in 2008 and with drivers in all but five states spending a lower percentage than in 2006. In 2010, the original trend reasserted itself, with drivers in all but four states—Kansas, Louisiana, Montana, and Rhode Island—more vulnerable in 2010 than in 2009, though not quite as vulnerable as before the 2009 blip; drivers in 45 of the 50 states (all but Alaska, Iowa, North Dakota, New Hampshire, and Nevada) were still spending a lower percentage of their income on gasoline in 2010 than in 2008. Examining the most and least vulnerable states (as shown in Table 2), Mississippi drivers in 2010 spent 7.23 percent of their income on gasoline, compared with 6.35 percent in 2009 but 9.14 percent in 2008, while Connecticut drivers were at 2.83 percent in 2010 compared with 2.56 percent in 2009 but 3.24 percent in 2008.

*Drivers in most states in 2010 spent a higher percentage of their income on gasoline than in 2009, but still less than in 2008.*

This report typically looks only at the past year, and the vulnerability rankings in this report are indeed based on the 2010 data. The current gas prices are so much higher than at the end of last year, however, that providing a snapshot solely of 2010 would not reflect current reality. Table 2 below therefore also provides figures for the percentage of income spent on gasoline by the average driver in each state as of April 2011. As that table makes clear, the huge increases in

**Table 2: Percent of Income Spent on Gasoline by the Average Driver (2006–April 2011)**

State	2006 %	2007 %	2008 %	2009 %	2010 %	APR. 2011 %	2011 v. 2010
U.S. AVG	4.54%	5.39%	5.58%	4.08%	4.81%	7.50%	2.70%
MS	6.87%	7.87%	9.14%	6.35%	7.23%	11.27%	4.04%
KY	5.77%	6.69%	6.84%	5.03%	6.13%	9.73%	3.61%
SC	6.03%	7.21%	7.59%	5.27%	6.31%	9.91%	3.60%
MI	4.53%	5.78%	5.58%	4.24%	5.13%	8.59%	3.47%
GA	5.67%	7.08%	6.71%	4.66%	5.81%	9.26%	3.45%
OK	5.47%	6.28%	7.50%	5.28%	5.80%	9.24%	3.44%
IA	5.04%	6.20%	5.25%	4.06%	5.60%	8.96%	3.36%
AR	5.38%	6.28%	6.68%	4.69%	5.67%	8.99%	3.32%
WV	5.17%	6.17%	5.62%	4.20%	5.31%	8.62%	3.31%
MO	5.02%	6.00%	5.94%	4.15%	5.36%	8.62%	3.26%
TX	5.16%	5.85%	6.80%	5.09%	5.31%	8.51%	3.20%
IN	5.04%	6.46%	6.44%	3.74%	4.56%	7.69%	3.13%
NC	4.92%	5.70%	5.93%	4.24%	5.34%	8.45%	3.11%
TN	4.85%	5.82%	6.25%	4.68%	5.35%	8.45%	3.10%
AL	5.03%	6.01%	5.68%	3.87%	5.47%	8.56%	3.09%
MN	5.00%	5.79%	5.50%	3.88%	5.15%	8.13%	2.98%
WI	4.30%	4.95%	5.18%	4.02%	4.61%	7.58%	2.97%
OH	4.54%	5.41%	5.50%	3.96%	4.78%	7.74%	2.96%
LA	5.34%	6.83%	7.00%	5.45%	5.07%	8.03%	2.96%
ND	5.09%	5.81%	5.64%	4.42%	5.71%	8.59%	2.88%
NM	5.66%	6.55%	6.79%	4.38%	5.48%	8.34%	2.86%
SD	4.70%	5.72%	5.93%	4.48%	5.26%	8.10%	2.84%
ME	5.15%	6.09%	6.36%	4.59%	5.28%	8.04%	2.76%
NV	4.57%	5.37%	4.66%	3.69%	5.11%	7.80%	2.69%
ID	4.64%	5.69%	6.20%	4.74%	5.81%	8.49%	2.68%
DE	4.25%	4.89%	5.37%	3.52%	4.41%	7.09%	2.68%
NE	3.95%	4.64%	4.69%	3.45%	4.39%	7.06%	2.67%
IL	3.84%	4.80%	4.78%	3.40%	4.06%	6.74%	2.67%
VA	4.35%	5.13%	5.14%	3.78%	4.45%	7.11%	2.66%
CA	4.31%	5.37%	5.16%	4.06%	4.65%	7.19%	2.54%
VT	4.17%	5.06%	4.66%	3.91%	4.64%	7.11%	2.47%
MT	4.84%	5.80%	8.07%	6.08%	5.48%	7.94%	2.46%
MD	3.83%	4.52%	4.19%	2.99%	3.97%	6.37%	2.40%
PA	3.57%	4.41%	4.56%	3.40%	4.03%	6.43%	2.40%
FL	3.74%	4.63%	4.65%	3.49%	4.21%	6.60%	2.39%
KS	3.65%	4.85%	5.86%	4.21%	4.03%	6.40%	2.37%
UT	5.04%	5.81%	6.61%	4.76%	5.19%	7.56%	2.37%
AZ	5.28%	6.06%	5.65%	3.65%	4.68%	7.03%	2.35%
NH	4.04%	4.65%	4.21%	3.10%	4.34%	6.69%	2.35%
WY	4.46%	5.21%	5.36%	4.34%	4.80%	7.06%	2.27%
OR	4.06%	4.83%	4.91%	3.71%	4.30%	6.45%	2.16%
NJ	3.53%	4.10%	4.49%	3.28%	3.73%	5.83%	2.10%
WA	3.77%	4.26%	4.43%	3.41%	3.66%	5.64%	1.98%
HI	3.98%	4.58%	5.19%	3.96%	4.11%	6.06%	1.95%
CO	3.77%	4.47%	4.29%	3.11%	3.58%	5.50%	1.92%
RI	3.25%	3.97%	5.40%	3.95%	3.43%	5.29%	1.85%
NY	2.79%	3.28%	3.44%	2.62%	3.13%	4.98%	1.85%
MA	3.11%	3.50%	3.66%	2.63%	3.24%	5.06%	1.81%
CT	2.78%	3.17%	3.24%	2.56%	2.83%	4.53%	1.70%
AK	3.55%	3.87%	4.33%	3.45%	4.37%	5.77%	1.40%

gasoline prices in the first few months of 2011 have made drivers much more vulnerable than at the end of 2010—and have more than closed the gap with 2008, when gas prices last spiked. In fact, as of this April, the average driver in every state but two (Montana and Rhode Island) was spending a larger percentage of income on gasoline than in 2008. Again, looking at the most and least vulnerable states, average drivers in Mississippi in April spent 11.27 percent of their income on gasoline, while Connecticut drivers were at 4.53 percent.

*As of April 2011, drivers in every state but two were spending a larger percentage of income on gasoline than in 2008, when gas prices last spiked.*

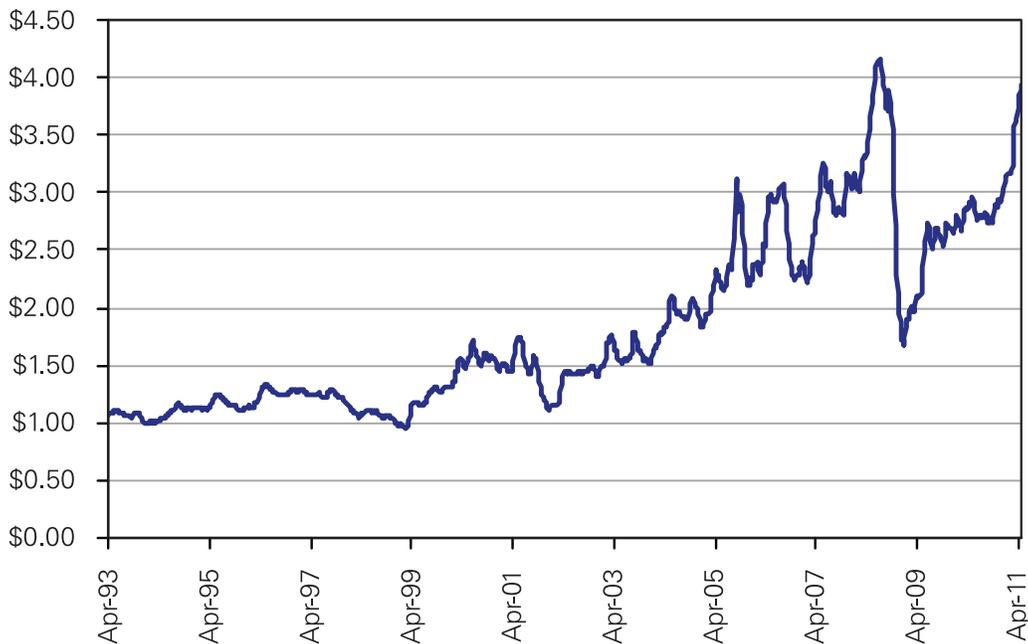
Clearly a large part of the reason for the marked decreases in all states from 2008 to 2009 was that gas prices spiked in 2008 (U.S. average \$3.30), but in 2009 dropped below anything seen in the previous few years (U.S. average \$2.41). In 2010, gas prices began to climb again, as shown in Table 3 and Figure 2.

**Table 3: Gasoline Prices (2006–April 2011) (gasoline, all grades, including taxes)**

Year	Avg U.S. Gas Prices (\$/Gal)
2006	\$2.62
2007	\$2.84
2008	\$3.30
2009	\$2.41
2010	\$2.84
2011 (through April)	\$3.45

Source data: EIA

**Figure 2: Retail Gasoline Prices (April 1993–April 2011)**



Source data: EIA

# Breaking Our Addiction: Solutions to Oil Dependence

Identifying the problem of oil addiction is only the beginning; the next step is to adopt workable solutions.

Some who frame the problem solely as one of energy security and reducing dependence on foreign oil propose that the United States merely drill for more oil domestically. Apart from the fact that this “solution” would exacerbate the problem of climate change, it also ignores several key points. Here are two:

- First, no country on earth has had its oil resources more thoroughly explored and developed than the United States; it is home to more than *half a million* producing oil wells—about 60 percent of all those in the world, more than 35 times the number in the Middle East, more than 14 times as many as OPEC, and more than all the other countries in the world put together.<sup>6</sup> And, again, the United States annually produces about 11 percent of total world petroleum, has less than 2 percent of the world’s proved oil reserves, and is responsible for about 22 percent of the world’s petroleum consumption.<sup>7</sup> The United States has drilled and drilled—and the math does not add up.
- Second, oil is a global commodity. America’s oil reserves are not big enough to ever really affect the price of oil by increasing production. Swings in oil prices will continue to affect the U.S. economy as long as our economy is so reliant on oil. Looking to Canada shows how beholden we are to a global marketplace—despite Canada having about nine times U.S. proven reserves and producing 1.5 times what they consume, Canadian prices at the pump track the global price of oil just as American prices do.<sup>8</sup>

The key solution is to reduce our dependence on oil. By promoting cleaner and more efficient vehicles, clean fuels, smart growth, and public transit, state governments can play an important role in putting an end to an unhealthy addiction that threatens our citizens’ wallets, our coastlines, our national security, our economy, and our environment.

## State Solutions Rankings: Who’s Getting It Right?

NRDC rankings of states’ adoption of solutions are based on the range of key actions that states can take to reduce oil dependence, particularly those that can have a substantial impact on oil dependence and can be replicated by other states. The rankings also take into account the level of priority being given to public transit as compared with highways. As Table 4 shows, some states have already adopted significant measures to promote clean vehicles, clean fuels, and smart growth, but far too many states are failing to take adequate action.

Table 4: Solutions Rankings #1 Through #25

Rank	State	VEHICLES			FUELS		TRANSPORTATION SYSTEM EFFICIENCY					
		Vehicle GHG Emission Standards	State Fleet Efficiency	Low-Carbon Fuel Standard	Incentives for Electric Vehicles & Charging Infrastructure	Vehicle-Miles Traveled Reduction Target	Telecommuting Policy	Idling Restrictions	Growth Management Policies	Transit Spending Prioritization Ranking (with percentage and dollars spent on transit)*		
1	California	●	▲	●●	▲	●	●	▲	●	●	●	9 (23.77%)/(\$106.08)
2	Oregon	●		●●	▲	●	●	▲	▲	●	●	19 (10.39%)/(\$52.12)
3	Massachusetts	●		●●	▲	●●	▲	▲	●	●	●	2 (48.13%)/(\$218.02)
4	New York	●		●	▲	●	▲	●	●	●	●	1 (84.79%)/(\$260.36)
5	New Jersey	●		●	▲	●	▲	▲	●	●	●	3 (39.31%)/(\$1664.11)
6	Maryland	●		●	▲	●	▲	▲	●	●	●	4 (37.12%)/(\$314.15)
7	Connecticut	●	▲	●	▲	●	▲	▲	●	●	●	5 (36.07%)/(\$155.95)
8	Rhode Island	●	▲	●		●						10 (20.39%)/(\$54.32)
9	Washington	●		●	▲	●	▲	▲	●	●	●	11 (20.23%)/(\$136.44)
10	Vermont	●	▲	●		●						31 (4.77%)/(\$89.59)
11	Maine	●	▲	●	▲	●	▲	▲	●	●	●	36 (2.81%)/(\$23.80)
12	Florida	●	▲									18 (10.50%)/(\$49.52)
13	Pennsylvania	●		●		●	▲	▲	●	●	●	7 (25.02%)/(\$129.63)
14	Hawaii		▲				▲					13 (14.06%)/(\$59.88)
15	Delaware		▲	●	▲	●	▲	▲	●	●	●	15 (12.81%)/(\$592.17)
16	Virginia		▲		▲	●	▲	▲	●	●	●	16 (12.14%)/(\$104.44)
17	Illinois		▲		▲	●	▲	▲	●	●	●	8 (23.82%)/(\$120.61)
18	Arizona	●			▲		▲					24 (7.43%)/(\$44.32)
19	Minnesota		▲									6 (28.01%)/(\$173.33)
20	New Mexico		▲									14 (13.25%)/(\$92.95)
21	Georgia		▲		▲		▲	▲	●	●	●	20 (9.83%)/(\$45.08)
22	Nevada										●	21 (9.76%)/(\$46.64)
23	New Hampshire			●		●	▲	▲	●	●	●	46 (1.37%)/(\$23.52)
24	Utah						▲	▲	●	●	●	22 (9.10%)/(\$56.01)
25	Wisconsin		▲		▲		▲	▲	●	●	●	23 (8.31%)/(\$57.35)

●● = 2 points   ● = 1 point   ▲ = 1/2 point   ▲ = 1/4 point

\* Ranking based on the ratio of 3-year average transit spending per metropolitan statistical area (MSA) resident to 3-year average highway spending per MSA resident.

Table 4: Solutions Rankings #26 Through #50

Rank	State	VEHICLES		FUELS		TRANSPORTATION SYSTEM EFFICIENCY						
		Vehicle GHG Emission Standards	State Fleet Efficiency	Low-Carbon Fuel Standard	Incentives for Electric Vehicles & Charging Infrastructure	Vehicle-Miles Traveled Reduction Target	Telecommuting Policy	Idling Restrictions	Growth Management Policies	Transit Spending Prioritization Ranking (with percentage and dollars spent on transit)*		
26	Texas		●		●							27 (5.70%)/(\$29.02)
27	Tennessee		●		●							30 (5.24%)/(\$18.03)
28	Louisiana		●		●							42 (2.01%)/(\$18.59)
29	West Virginia				●				●			49 (1.01%)/(\$13.22)
30	Colorado				●							12 (17.76%)/(\$82.71)
31	Michigan				●							17 (11.62%)/(\$48.74)
32	North Carolina		●									26 (6.24%)/(\$32.57)
33	Kentucky		●									32 (4.29%)/(\$47.24)
34	South Carolina								●			35 (2.94%)/(\$12.57)
35	Montana				●							40 (2.35%)/(\$44.60)
36	Kansas		●									43 (1.76%)/(\$23.00)
37	Oklahoma				●							44 (1.73%)/(\$12.22)
38	Alabama		●									45 (1.61%)/(\$9.07)
39	Idaho		●									47 (1.18%)/(\$9.42)
40	Mississippi		●									50 (0.99%)/(\$13.14)
41	Ohio				●							29 (5.44%)/(\$26.29)
42	Wyoming											25 (7.10%)/(\$252.11)
43	Missouri											28 (5.69%)/(\$32.18)
44	Indiana											33 (3.71%)/(\$30.64)
45	South Dakota											34 (3.50%)/(\$46.13)
46	Arkansas											37 (2.75%)/(\$16.61)
47	Iowa											38 (2.71%)/(\$23.36)
48	Alaska											39 (2.36%)/(\$38.12)
49	North Dakota											41 (2.15%)/(\$24.33)
50	Nebraska											48 (1.12%)/(\$13.62)

● = 2 points   ● = 1 point   ● = 1/2 point   ● = 1/4 point

\* Ranking based on the ratio of 3-year average transit spending per metropolitan statistical area (MSA) resident to 3-year average highway spending per MSA resident.

The categories in this year's report have been slightly changed or refined from prior years:

- In the 2010 report (on 2009 data), states did not receive credit for having vehicle greenhouse gas emission standards, as the federal government had largely taken the lead there. Given the continued importance of state leadership on vehicle fuel efficiency as the federal agencies develop the next round of standards, the clean car rule category has been reinstated.
- Hybrid incentives have been removed as a category, as hybrids are largely past the “early adopter” phase at this point.
- State-sponsored R&D grants on cars/fuels and the renewable fuel standard have been removed while incentives for electric vehicles and charging infrastructure have been added, to reflect an increasing focus on electrification of vehicles and the fact that a low-carbon fuel standard is a potent way to promote both clean, advanced biofuels and electrification.
- The criteria for receiving credit for having a vehicle-miles traveled (VMT) reduction target were tightened, requiring states to have codified such targets in state law or be actively working towards achieving the target.
- The smart-growth agency category has been removed and Growth Management Act category refined to focus instead on smart-growth/growth management policies that are actually being implemented or having some effect.
- The category reflecting the percentage of funds from the American Recovery & Reinvestment Act flexed to transit has been removed, as the stimulus funding has largely passed now.
- The transit prioritization category has been refined to focus on the amount spent on transit per urban/suburban resident compared with the amount spent on highways per urban/suburban resident.

There have been changes such as these to the criteria occasionally over the past five years, reflecting an effort to be as fair and accurate as possible while keeping the focus on the most effective policies and investments states can make to reduce oil dependence. (Appendix C tracks the incidence of some of these policies over time.)

The removal of some categories this year, it should be noted, noticeably affected the rankings of some states. Colorado, for instance, had been ranked between 12 and 19 for the previous four years, but fell to 30 this year; the policies it received credit for last year were hybrid incentives, state-sponsored R&D on cars/fuels, and a state smart-growth agency, all of which fell out of the solutions list in this year's report. Iowa, too, had been ranked between 15 and 27 but fell to 47 in 2010, in part because having a renewable fuel standard is no longer a source of credit in this report. (Appendix B contains all solutions rankings for the past five years.)

All changes in rank have many sources—states enacting new policies, states repealing policies or allowing them to expire, states increasing or decreasing transit investment levels, and categories being added, removed, refined, or weighted differently in this report. Despite these changes, however, some things have stayed constant. The leaders remain the leaders—California, Connecticut, New York, Oregon, and Washington have been in the top 10 each of the past five years. And the laggards remain the laggards—with Wyoming being the only state to have been in the bottom 10 all five years, though frequently accompanied by states such as South Dakota, Mississippi, Nebraska, Alaska, and Arkansas.

## VEHICLES

The federal government has finally joined a large set of states in the driver's seat in terms of requiring development of cleaner, more fuel-efficient vehicles. States still can play a role, however, in enacting policies to promote vehicles that use less gasoline. For example:

- Fourteen states have clean car programs.** California led the way in 2002, passing the nation's first law to require that all new cars, pickup trucks, sport-utility vehicles, and minivans sold in the state meet global warming pollution limits, starting with the 2009 model year. Under the federal Clean Air Act, states have the option of adopting California's pollution standards if the Environmental Protection Agency grants California a waiver. States that have done so represent well more than one-third of the U.S. car market. Cars that meet these pollution standards will have the additional benefit of using less gasoline or running on nonpetroleum fuels. Even as the Obama administration develops new rules for autos out to 2025, states with complementary programs should continue raising the performance bar for the benefit of their citizens.
- Twenty-two states are taking action to promote greater efficiency in state vehicles.** These states have policies mandating stronger fuel efficiency standards for the state fleet. While state fleets are usually fairly small relative to the overall number of vehicles in a state, state fleet efficiency standards represent a positive step forward. They do have to provide a good model, though, to get credit in this report. In prior years, New Hampshire and Montana got credit for their relatively weak state fleet efficiency requirements; however, this year, for states to get credit, they have to be leading what is otherwise happening in the private fleet. Montana's requirements just say that state vehicles must meet or exceed federal corporate average fuel economy (CAFE) standards, while the fuel efficiency levels set by New Hampshire basically are made moot by the increases in federal CAFE standards. In contrast, Tennessee set a goal of reducing or displacing 20 percent of the petroleum products consumed by state fleets between 2008 and 2010 by using alternative fuels and efficient vehicles and directed the Commissioner of General Services to encourage the acquisition of energy-efficient motor vehicles in the state fleet with a goal of having all new vehicles be energy efficient.<sup>9</sup>

#### PAY-AS-YOU-DRIVE INSURANCE

Pay-as-you-drive insurance (PAYD) ties insurance premiums directly to the amount policyholders drive. By making auto insurance a variable expense, like gasoline, PAYD insurance gives drivers a simple way to lower their transportation costs while reducing oil consumption, carbon pollution, and collisions and collision-related injury.

Over the past 10 years, more states have been removing regulatory barriers to PAYD insurance. Technological advances are making it easier and cheaper to use real mileage instead of inaccurate estimates.

Many states are taking a closer look at getting PAYD policies into drivers' glove compartments. Texas and Minnesota have both run pilots specifically aimed at reducing vehicle-miles traveled and oil use, and Washington is in the beginning stages of an even more comprehensive one. Groundbreaking research in Massachusetts has strengthened the understanding of the relationship between risk and the amount we drive. The City of New York's Department of Transportation is also looking at PAYD as a way to reduce congestion and pollution.

A number of studies have looked at the impact PAYD insurance could have nationwide, and they all point to real savings. At the lowest estimate, PAYD insurance has the potential to save 160 million barrels of oil per year while saving American households about \$100 per year in fuel and operating expenses alone.\* Households stand to save even more from reduced insurance premiums; for the two-thirds of households that would save under PAYD insurance, the average annual savings would be \$270 per household, according to a 2008 Brookings Institution report. Reductions in driving also mean declines in collisions, collision-related injury, and medical costs, plus benefits from reduced oil dependence.

\*Ferreira, Joseph and Eric Minikel, *Pay-As-You-Drive Auto Insurance in Massachusetts: A Risk Assessment and Report on Consumer, Industry and Environmental Benefits*, Conservation Law Foundation and Environmental Insurance Agency, November 2010.

## FUELS

There are a large number of alternatives to relying on oil to power our vehicles. Many of these alternatives have the potential to be good for both energy security and climate goals, although certainly not all. West Virginia, for example, provides an investment tax credit for coal-based synthetic fuels, which are incredibly carbon intensive. And debates

continue with respect to the climate benefits of some biofuels. Accordingly, credit here was given to states with strong efforts to promote low-carbon fuels and to provide incentives for electric vehicles and charging infrastructure.

- **California has a low-carbon fuel standard in place, and Oregon and Massachusetts are developing their own.** In 2007, Governor Arnold Schwarzenegger announced an executive order calling for the adoption of a low-carbon fuel standard (LCFS) for fuels sold in the state. This measure seeks to reduce the global warming pollution “intensity” of motor vehicle fuel by 10 percent by 2020.<sup>10</sup> The California Air Resources Board approved the state LCFS in 2009, and it went into effect in 2010. In July 2008, Massachusetts Governor Deval Patrick and state congressional leadership announced their support for adopting a similar LCFS, and the Clean Energy Biofuels Act directed consideration of one. In addition, Massachusetts has spearheaded the effort to get the other states in the Regional Greenhouse Gas Initiative (RGGI) to commit to creating a regional LCFS.<sup>11</sup> In July 2009, Oregon Governor Ted Kulongoski signed a bill into law authorizing the Oregon Environmental Quality Commission to adopt a low-carbon fuel standard with the same targets as California and Massachusetts, and rule development is under way.<sup>12</sup>

While Massachusetts and Oregon do not actually have their low-carbon fuel standards in effect yet, they have made important strides toward developing them, and their leadership is credited in the rankings. The RGGI states (plus Pennsylvania) get some credit for signing on to the December 2009 memorandum of understanding to develop a regional LCFS framework that could then be adapted into a model rule that each of the states could adopt. Promoting low-carbon fuels supports oil alternatives, since sustainably produced biofuels (especially those derived from plant cellulose using new techniques), plug-in hybrid-electric vehicles, and the like can yield substantial carbon pollution reductions. California estimates that achieving the 10 percent reduction goal will reduce motor vehicle petroleum consumption by about 20 percent.<sup>13</sup> Such a big effect makes the LCFS one of the most important policies a state can adopt to reduce oil dependence.

- **Twenty-six states provide incentives for purchase of electric vehicles or installation of charging infrastructure.** These states are looking to accelerate development of technologies that will help reduce oil dependence in the near future. For example, Georgia provides a tax credit for electric vehicles for up to 20 percent of the cost up to \$5,000, as well as a tax credit for 10 percent of the cost of electric vehicle supply equipment (up to \$2,500).<sup>14</sup> Some states (e.g., Massachusetts, Ohio) have established grant programs to allow people to purchase electric vehicles or install charging infrastructure, but funding is not available at this time, which greatly limits the programs’ usefulness.

## TRANSPORTATION SYSTEM EFFICIENCY

States can lower oil dependence through policies that reduce sprawl, reduce the number of miles we travel in vehicles, reduce the amount of time spent in our vehicles, and promote accessible public transit systems. Relevant strategies focus on issues such as transportation, land use, zoning, and building codes. By concentrating growth and redevelopment within already existing urban areas and communities, states can reduce the need to develop farther outside cities and towns, where entirely new infrastructure (roads, buildings, etc.) must be built. New development in suburban and rural areas also increases the distance that citizens must travel for work and other activities, increasing inconvenience and pollution. In general, the area of transportation efficiency is one in which states currently can have significantly more influence than the federal government.

- **Only three states have codified or taken steps to achieve targets for reducing vehicle-miles traveled (VMT).** The state of Washington has as part of its Growth Management Act a requirement for the state Department of Transportation to adopt broad statewide VMT-per-capita reduction goals of 18 percent by 2020, 30 percent by 2025, and 50 percent by 2050.<sup>15</sup> In September, the California Air Resources Board adopted GHG emissions reduction targets for passenger vehicles to reduce VMT in each metro region in the state (as required by a 2008 law).<sup>16</sup> New York’s Interagency Vehicle-Miles Traveled Reduction Work Group is charged with developing a plan

to reduce VMT statewide by 10 percent from projected levels within 10 years, and the state has taken several steps to achieve its VMT target.<sup>17,18</sup> Oregon is on the path toward joining these states, as it passed a law requiring its Department of Environmental Quality and its Department of Energy to calculate VMT reduction targets for each of the state's metropolitan service districts; that process is still underway.<sup>19</sup> In the past, states with VMT targets in their climate plans received credit, but the standards for credit were tightened this year to require codified targets. The Connecticut climate change plan, for example, recommended implementing a package of improvements and policies to achieve a 3 percent reduction in VMT below the 2020 baseline; the VMT target is not otherwise part of state policy, though it is still being considered and modeled as an option for the state to achieve its statewide GHG emissions reduction targets.<sup>20</sup>

- **Only eight states have policies to encourage telecommuting.** One way to reduce VMT is to reduce the number of people commuting to work. Telecommuting policies include tax incentives and reimbursements to employers for researching and establishing formal remote work programs. It is important to extend such policies to private sector employees as well; some states, such as Arizona, have excellent telecommuting incentives for state employees but do not extend them to the private sector. New York has some private sector incentives, but New York is also one of the few states that assesses income taxes on nonresident employees working for New York employers, which provides a disincentive to telecommuting.<sup>21</sup>
- **Seventeen states have policies restricting vehicle idling.** There is a great deal of variation among idling policies. Virginia, for instance, forbids commercial and public vehicles from idling for more than three minutes in commercial or residential urban areas and tour buses and diesel vehicles from idling more than 10 minutes.<sup>22</sup> Utah prohibits idling of any unattended vehicle, requires school bus drivers to turn off bus engines at loading and unloading areas, and otherwise encourages drivers to avoid excessive idling (defined, based on the circumstance, as between a few seconds and a few minutes).<sup>23</sup> The amount of oil saved is generally not very substantial, but such policies do have some effect and promote an ethic of efficiency.

#### IN PURSUIT OF SOME DEDICATED DOLLARS

In the face of growing oil insecurity and the slow tempo of federal efforts to improve and maintain our transportation system, states across the country are taking their own steps to raise vital new revenues. These efforts are focusing on two areas in particular: increasing state gas taxes and utilizing high occupancy toll (HOT) lanes.

Every state has a tax or fee on gas (and/or a sales tax on gas), which is added to the existing federal gas tax. The federal gas tax has not gone up since 1993, in spite of continued cost inflation for transportation maintenance and construction. According to the Federal Highway Administration, several states—including Kentucky, Minnesota, Nebraska, North Carolina, and Oregon—took a sober look at their infrastructure needs in 2010 and realized the necessity of raising their own gas taxes, a portion of which are dedicated to transit. Although it is difficult to raise taxes in tough economic times, what is remarkable is the diversity of states that have done so; they are in the East and West and Midwest, the North and South, urban and rural, blue and red. Raising taxes is not always unpopular—polls show that Americans can accept tax increases if they are clearly tied to specific uses. A gas tax to fund transportation infrastructure and services makes sense.

Another recent development has been states' embrace of HOT lanes as a strategy to finance road construction and maintenance. Much like HOV (or carpool) lanes privilege vehicles with more passengers, HOT lanes promise less congestion and higher speeds for those with multiple passengers or those willing to pay for the use of the lane. Proceeds from HOT lanes can be used to finance the construction of roads or to fund public transit and other oil-saving transportation approaches. Several states—including Washington, Colorado, Texas, Utah, Florida, Georgia, California, Minnesota, Virginia, and Maryland—are exploring HOT lanes. Again, innovations in transportation policy are not limited to one part of the country or any particular "type" of state.

- **Sixteen states have smart-growth/growth management policies that are actually being implemented or having some effect.** Among the most comprehensive ways of promoting smart growth is growth management legislation. This report focuses on states with smart-growth laws that have at least some potential or actual effect on patterns of development. For example, in 2009, Maryland enacted the “Smart, Green, and Growing” legislative package, which included a statewide smart-growth goal, requirements for localities to implement comprehensive plans and submit annual reports with specified smart-growth metrics and indicators, and 12 new Planning Visions (which guide local plans) addressing quality of life and sustainability, public participation, growth areas, community design, infrastructure, transportation, housing, economic development, environmental protection, resource conservation, stewardship, and implementation approaches. Some states still have such policies on the books despite their own best efforts. In last year’s report, Florida was the only state awarded negative points, based on then Governor Charlie Crist’s signing of SB 360, which revoked substantial components of the Florida Growth Management law, gutted the smart-growth components, and established conditions for increased sprawl. However, in August, SB 360 was ruled unconstitutional and efforts to enact similar provisions in a budget bill failed. Florida’s growth policy law therefore remained intact in 2010, though the state’s growth management system was scaled back substantially during the legislative session in 2011.<sup>24</sup>
- **Some states have prioritized the funding of public transit.** Public transit systems, such as bus, commuter rail, subway, and light rail programs, are important components in state efforts to promote smart growth and reduce oil dependence. By creating or expanding reliable and accessible public transit programs, states can reduce the number of single-passenger cars on the road, consequently lowering average driving per person. And accessible public transit provides an important transportation alternative as gas prices rise. While rural transit services are important, most transit passengers are in metropolitan areas, and many transit options are a better fit for urban and suburban neighborhoods.

States have the ability to “flex” certain federal funds that ordinarily would be spent on highway projects and instead use them to pay for public transit programs. States that choose not to transfer federal funds to transit programs are not necessarily neglecting transit funding, however, as they may be spending more state dollars on transit. The best way to understand state transit prioritization is to compare the amount of total state spending (including flexed federal funds) on mass transit with the total spent on highway programs. To be fairer to rural states, this year this report focuses on spending per urban resident, and to be fairer to all states, this report uses a rolling three-year average. By this measure, the top five states prioritizing public transit spending are New York, Massachusetts, New Jersey, Maryland, and Connecticut. Of course, transit investment is only useful if it is well targeted—getting people from where they live to where they need to go (e.g., work)—and states are encouraged not only to invest in transit, but to do so wisely.<sup>25</sup>

# Conclusion: States Must Take Action, Feds Must Step It Up

**D**rivers in all states are dependent on oil for their transportation needs. However, some states are more vulnerable to oil price increases than others, and some are taking significantly more action to curtail oil dependence.

Responsible states are making efforts to promote clean fuels, efficient vehicles, and smart growth and transit. These states are helping to make the nation more secure, protecting their citizens' wallets, and enhancing global environmental health. These states' policies serve as examples for the many states that have thus far taken little or no such action.

While states can take a great deal of initiative to reduce consumer gasoline bills, now more than ever the federal government needs to play a big role as well. The year 2011 could be a watershed for federal leadership on two powerful tools for reducing oil dependence: car and truck performance and an overhaul of the federal transportation program.

## **Raising the Bar on Vehicle Fuel Economy and Carbon Pollution Performance**

Early in his term, President Obama announced historic vehicle performance standards for cars and light trucks (e.g., SUVs, pickups, and vans) thanks to a collaborative rulemaking process between the Environmental Protection Agency (EPA) and the Department of Transportation (DOT). According to the agencies, the proposed standards will reduce carbon dioxide emissions by 960 million metric tons and save 1.8 billion barrels of oil over the life of the vehicles sold during 2012–2016, all while adopting the “size-based” standard favored by domestic automakers. The average vehicle sold in 2016 would achieve about 34.1 miles per gallon (mpg), up from today's average of about 27.9 mpg; over the life of the vehicle, drivers will see net savings of about \$3,000.<sup>26</sup>

This is the largest step forward since the 1970s, when the federal CAFE program was first put in place. The administration is currently working on a new standard for the post-2017 period. This new rule should continue raising the performance bar so our fleet keeps up with improvements in other industrialized nations. The EPA and DOT have already judged that this is technically possible—new cars and light trucks could cut carbon dioxide emissions and achieve fuel efficiency standards equivalent to at least 47 mpg and as high as 62 mpg by 2025, based on a proposed 3 to 6 percent rate of emissions improvement.<sup>27</sup>

The president and his team should aim for the high end of this range, given the massive benefits to consumers and the nation. A standard of 62 mpg would save drivers \$100 billion, save 45 billion gallons of oil, and reduce carbon pollution by 450 million metric tons by 2030—twice the oil savings and carbon pollution reductions as 47 mpg.<sup>28</sup> Automakers can do it. Consumers want it.

## **Tackling the Triple-Threat Posed by Outdated Federal Transportation Policy**

The federal transportation program is in desperate need of an overhaul and must be aligned with national objectives that we currently fail to achieve.

First, neglect by state transportation departments and elected officials' preference for new projects instead of essential maintenance have put existing assets in danger of collapse, as happened with the I-35W bridge in Minneapolis in 2007. Travelers across America are subject to similar dangers. Five hundred bridges failed between 1989 and 2003, and one in nine bridges are currently structurally deficient (for a troubling total of 69,223 nationwide).<sup>29</sup> Roads and transit also suffer from disrepair. Rather than focus on new roads, which only lead to increased driving and oil use, we need a strong "fix-it-first" rule. Substantial investment should be allocated exclusively to repairs, and states and regions must meet a "state of good repair" performance standard to receive further funding. The era of wasteful earmarks (such as the infamous "bridge to nowhere") must give way to ensuring the safety of Americans by fixing our decaying infrastructure.

Next, we must drive down the oil intensity of transportation and deliver more mobility choices to consumers by establishing a national oil-savings objective for our federal transportation program and requiring states and regions to help achieve it. The federal government should support public transportation and establish new, merit-based competitive programs for innovative fuel-saving projects.

Finally, we must seize the economic and employment benefits of addressing our oil addiction. The average commuter spends the equivalent of almost a full workweek per year stuck in traffic, costing American workers and businesses more than \$100 billion in wasted time and fuel.<sup>30</sup> Repair projects and public transportation investments create more jobs per billion dollars invested than new highways, with jobs created directly in project construction as well as indirectly through the manufacturing supply chain and worker re-spending of dollars domestically.<sup>31</sup> Boosting yearly investment in transit

#### **60 MPG WILL SAVE DRIVERS MONEY**

America is sending more than \$1 billion overseas every day to support our oil habit. That money could be better spent here at home, producing cars that go farther on less gasoline. This fall, President Obama has the single greatest opportunity to unleash this kind of investment: he can raise the clean car standards to 60 miles per gallon by 2020.

These new standards could cut drivers' costs at the pump in half. With gas at \$4.00 a gallon, a car that gets 60 mpg would save the average American \$513 this summer and \$8,900 over the life of the vehicle. Meanwhile, producing these cars would generate jobs and protect vital ecosystems like the Gulf of Mexico from drilling.

A 60 miles per gallon standard would also help us confront the climate crisis: it would cut at least 400 million metric tons of carbon pollution by the year 2030—that's the equivalent of taking over 100 coal-fired power plants off line.

Hybrid and electric cars will play a critical role in achieving the 60 mpg standard. Already 31 different models have hit the road, and more than 100 more are expected to follow within four years. With gas prices hovering above \$3.50 per gallon in March, hybrid sales shot up 46 percent compared to a year ago—about three times faster than market average.

This rising demand has translated into jobs. Across the Midwest, more than 20 factories have opened or expanded in the past two years in order to make advanced lithium car batteries and electric vehicle components.

Americans across the political spectrum overwhelmingly support stronger standards. A recent poll conducted by the Mellman Group found that 83 percent of respondents supported a 60-miles-per-gallon standard, even if it added \$3,000 to the price of a new car.

People know they will recoup that initial investment, typically in just four years. Indeed, drivers would see a net savings of more than \$7,500 over the life of their vehicles when gas prices average \$3.50. At today's prices, the savings would be even greater.

And with technological breakthrough happening right now, the initial investment could be substantially smaller. Several models of 2011 hybrids now use something called P2—a simple, elegant, next generation hybrid system that has two clutches, one for the gas engine and one for the electric motor. This innovation could provide 95 percent of the efficiency benefits while at the same time cutting the cost by one-third or more compared to traditional hybrids like the Toyota Prius.

Now is the time to set the 60 mpg standard that will make fuel-efficiency innovations like the P2 system as ordinary as seat belts and air bags.

May 2011 National Journal Energy Expert blog entry by NRDC Executive Director Peter Lehner

and intercity rail to \$40 billion could generate 3.7 million new jobs and increase annual GDP by \$60 billion.<sup>32</sup> This would also help stimulate metropolitan economies, with salutary effects rippling outward to benefit small towns and rural areas.

Investments in new passenger and freight capacity should rely on a not-so-new financing tool. The United States has helped build infrastructure around the world through special institutions such as the World Bank, in turn mobilizing a lot of private sector investment through innovative partnerships. We must leverage scarce taxpayer dollars right here at home with an infrastructure bank making loans to states and regions to build badly needed new roads and rail. Projects must be chosen based on specific results, such as higher economic productivity of cities and suburbs.

Solutions to our oil dependence are available today. Let's get to work.

# Methodology

## OIL VULNERABILITY RANKING

The oil vulnerability ranking is based on data from the following sources:

*Motor Gasoline Consumption* (2010):

Federal Highway Administration's Motor Fuel Reported by States  
<http://www.fhwa.dot.gov/ohim/mmfr/dec10/dec10.pdf>

*Gasoline Prices by State* (2010):

Energy Information Administration  
[http://www.eia.gov/dnav/pet/pet\\_pri\\_allmg\\_a\\_EPM0\\_PTA\\_dpgal\\_m.htm](http://www.eia.gov/dnav/pet/pet_pri_allmg_a_EPM0_PTA_dpgal_m.htm)

*Gasoline Taxes by State* (2010):

American Petroleum Institute's State Gasoline Tax Reports  
<http://www.api.org/statistics/fueltaxes/>

*Licensed Drivers by State* (2009):

Federal Highway Administration's Highway Statistics 2009  
<http://www.fhwa.dot.gov/policyinformation/statistics/2009/dl1c.cfm>

*Per Capita Personal Income by State* (2010):

Bureau of Economic Analysis  
[http://www.bea.gov/newsreleases/regional/spi/spi\\_newsrelease.htm](http://www.bea.gov/newsreleases/regional/spi/spi_newsrelease.htm)

The oil vulnerability ranking is based on the percentage of personal income spent on gasoline in each state in 2010. To calculate this percentage, the amount of motor gasoline consumed in each state is multiplied by average price to produce the total amount spent in each state on gasoline. This figure is then divided by the total number of licensed drivers to produce the amount spent on gasoline (including taxes) per driver. Finally, this number is divided by per capita income and multiplied by 100 to produce the average percentage of drivers' income spent on gasoline.

State taxes have again been included in the average cost of fuel per gallon in 2010, as they have been in the ranking report released the past three years. In addition, state taxes from 2006 have been added to the data from the original ranking report released in 2007, which had initially excluded state taxes from fuel costs. This addition allows for direct comparisons to be made year over year in the vulnerability of each state to the price of gasoline.

The data in Table 3 and that used to create Figure 2 came from the following source:

Energy Information Administration, *Weekly Retail Gasoline and Diesel Prices*  
[http://www.eia.gov/dnav/pet/pet\\_pri\\_gnd\\_dcus\\_nus\\_a.htm](http://www.eia.gov/dnav/pet/pet_pri_gnd_dcus_nus_a.htm)

## SOLUTIONS RANKING

The solutions ranking was based on data from the following sources:

### Vehicles

#### *State Fleet Efficiency Requirements*

Department of Energy, Office of Energy Efficiency and Renewable Energy, Alternative Fuels & Advanced Vehicles Data Center  
<http://www.afdc.energy.gov/afdc/laws/search>

#### *Vehicle GHG Emission Standards*

Clean Cars Campaign  
<http://www.cleancarscampaign.org/web-content/stateaction/stateaction.html>

### Fuels

#### *Low-Carbon Fuel Standard:*

Pew Center on Global Climate Change, U.S. States & Regions  
<http://www.pewclimate.org/states-regions>

Conservation Law Foundation  
<http://www.clf.org/our-work/clean-energy-climate-change/reducing-greenhouse-gas-emissions/low-carbon-fuel-standard-lcfs/>

#### *Incentives for Electric Vehicles & Charging Infrastructure*

Department of Energy, Office of Energy Efficiency and Renewable Energy, Alternative Fuels & Advanced Vehicles Data Center  
<http://www.afdc.energy.gov/afdc/laws/search>

### Transportation System Efficiency

#### *VMT Reduction Target*

The Center for Climate Strategies  
[http://www.climatestrategies.us/policy\\_tracker/state/index](http://www.climatestrategies.us/policy_tracker/state/index)

The Georgetown Transportation and Climate Initiative  
<http://www.georgetownclimate.org/transportation/files/TCI-SummaryofPolicyOptionsinClimateAction.PDF>

The Pew Center on Global Climate Change  
[http://www.pewclimate.org/what\\_s\\_being\\_done/in\\_the\\_states/vehicle\\_miles\\_traveled](http://www.pewclimate.org/what_s_being_done/in_the_states/vehicle_miles_traveled)

#### *Telecommuting Policies*

The Telework Research Network  
<http://www.teleworkresearchnetwork.com/resources>

Telework Arizona  
<http://www.teleworkarizona.com/mainfiles/visitor/voverview.htm>

#### *Idling Restrictions*

Department of Energy, Office of Energy Efficiency and Renewable Energy, Alternative Fuels & Advanced Vehicles Data Center  
<http://www.afdc.energy.gov/afdc/laws/search>

*Smart-Growth and Growth Management Policies*

NRDC & Smart Growth America, *Getting Back on Track*, Appendix C, Dec. 2010  
[http://www.nrdc.org/smartGrowth/files/GettingBackonTrack\\_report.pdf](http://www.nrdc.org/smartGrowth/files/GettingBackonTrack_report.pdf)

Smart Growth America, *Driving Down VMT*

<http://www.smartgrowthamerica.org/documents/smartgrowthclimatepolicies.pdf>

*State Transit Prioritization:*

Federal Highway Administration, *Highway Statistics 2009*

<http://www.fhwa.dot.gov/policyinformation/statistics/2009/mt1a.cfm>

<http://www.fhwa.dot.gov/policyinformation/statistics/2009/mt1b.cfm>

<http://www.fhwa.dot.gov/policyinformation/statistics/2009/stp1.cfm>

In order to calculate a solutions ranking of the 50 states, NRDC started by assigning a value of either a quarter point, half point, one point, or two points to each action in the table that a state currently takes. Actions with a bigger impact on oil dependence received more points:

- **2 points:** Low-carbon fuel standard in place or actively under development
- **1 point:** Vehicle GHG emission standards; signed on to low-carbon fuel standard MOU; vehicle-miles traveled reduction target codified or being implemented; smart-growth/growth management policies
- **1/2 point:** Incentives for electric vehicles and charging infrastructure; state fleet efficiency requirements; vehicle-miles traveled reduction targets in the process of being established; idling restrictions; telecommuting policies
- **1/4 point:** Unfunded incentives for electric vehicles and charging infrastructure; strong telecommuting policy, but only for state employees

NRDC then added a fraction of a point to states' scores based on how their transit prioritization compared with the highest state's transit percentage (New York: 84.79 percent). In other words, New York's transit prioritization of 84.79 percent was given a value of 1 point, and all other states were given a value proportional to this score. For example, Colorado's transit spending percentage of 17.76 was divided by New York's 84.79; the resulting 0.2095 was added to Colorado's total points.

## Appendix A

# State Vulnerability Rankings for the Past Five Years

STATE	2006	2007	2008	2009	2010
Alabama	34	37	31	20	39
Alaska	6	4	7	12	16
Arizona	42	38	30	15	24
Arkansas	44	43	41	41	43
California	21	24	18	28	23
Colorado	11	9	6	6	5
Connecticut	1	1	1	1	1
Delaware	19	18	23	14	18
Florida	9	12	11	13	13
Georgia	47	48	42	39	47
Hawaii	15	11	20	24	12
Idaho	27	26	36	42	46
Illinois	13	15	15	9	11
Indiana	35	44	39	18	20
Iowa	36	41	21	27	42
Kansas	8	17	32	31	9
Kentucky	48	46	45	44	48
Louisiana	43	47	46	48	27
Maine	39	39	38	38	33
Maryland	12	10	4	4	8
Massachusetts	3	3	3	3	3
Michigan	24	29	27	32	29
Minnesota	32	30	26	21	30
Mississippi	50	50	50	50	50
Missouri	33	36	35	29	38
Montana	29	31	49	49	40
Nebraska	14	13	14	11	17
Nevada	26	23	13	16	28
New Hampshire	16	14	5	5	15
New Jersey	5	6	9	7	7
New Mexico	46	45	43	35	41
New York	2	2	2	2	2
North Carolina	31	27	33	33	36
North Dakota	38	33	29	36	44
Ohio	25	25	25	25	25
Oklahoma	45	42	47	47	45
Oregon	17	16	16	17	14
Pennsylvania	7	8	10	8	10
Rhode Island	4	5	24	23	4
South Carolina	49	49	48	46	49
South Dakota	28	28	34	37	32
Tennessee	30	34	37	40	37
Texas	40	35	44	45	34
Utah	37	32	40	43	31
Vermont	18	20	12	22	22
Virginia	22	21	17	19	19
Washington	10	7	8	10	6
West Virginia	41	40	28	30	35
Wisconsin	20	19	19	26	21
Wyoming	23	22	22	34	26

## Appendix B

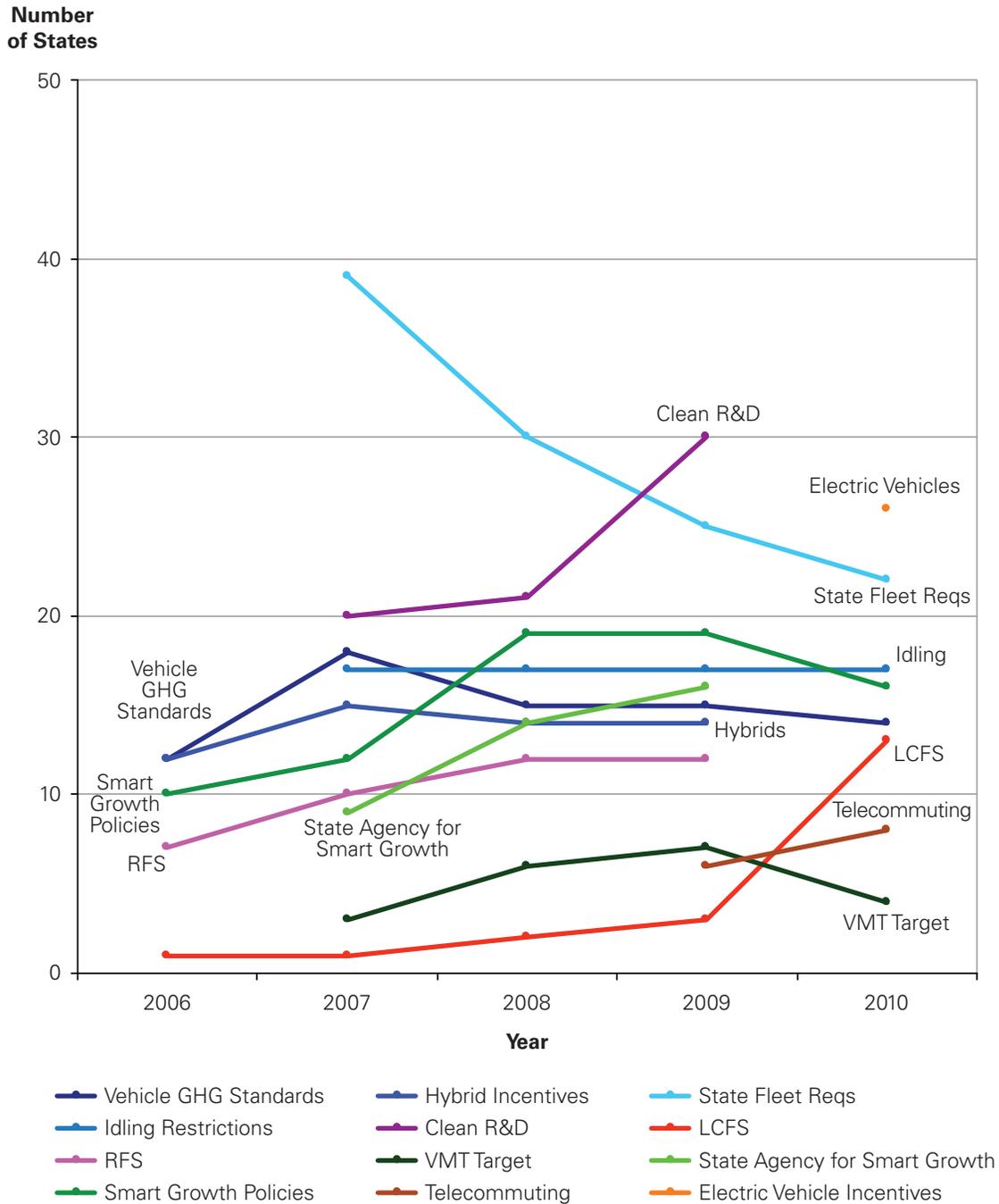
# State Solutions Rankings for the Past Five Years

STATE	2006	2007	2008	2009	2010
Alabama	43	48	44	42	38
Alaska	34	50	41	50	48
Arizona	38	24	13	33	18
Arkansas	28	42	43	40	46
California	3	1	1	1	1
Colorado	12	12	16	19	30
Connecticut	10	4	5	5	7
Delaware	36	45	28	22	15
Florida	13	17	10	11	12
Georgia	22	22	17	16	21
Hawaii	11	32	14	10	14
Idaho	32	33	49	37	39
Illinois	33	7	21	29	17
Indiana	25	29	33	32	44
Iowa	15	26	27	25	47
Kansas	16	27	39	43	36
Kentucky	44	38	36	30	33
Louisiana	6	20	19	21	28
Maine	7	11	20	27	11
Maryland	9	3	11	12	6
Massachusetts	18	21	2	3	3
Michigan	35	25	38	28	31
Minnesota	20	30	18	8	19
Mississippi	48	49	47	44	40
Missouri	27	41	22	34	43
Montana	17	44	34	24	35
Nebraska	46	34	40	48	50
Nevada	39	40	30	35	22
New Hampshire	45	39	25	20	23
New Jersey	2	10	9	13	5
New Mexico	30	6	4	9	20
New York	8	8	6	4	4
North Carolina	23	23	31	38	32
North Dakota	31	37	42	41	49
Ohio	41	28	32	47	41
Oklahoma	14	19	45	45	37
Oregon	5	5	8	2	2
Pennsylvania	19	9	7	7	13
Rhode Island	4	14	12	14	8
South Carolina	29	18	26	26	34
South Dakota	47	47	46	39	45
Tennessee	24	16	24	18	27
Texas	42	36	37	31	26
Utah	40	13	29	36	24
Vermont	26	15	15	23	10
Virginia	37	35	23	15	16
Washington	1	2	3	6	9
West Virginia	49	43	50	46	29
Wisconsin	21	31	35	17	25
Wyoming	50	46	48	49	42

## Appendix C

### Policy Trends

For informational purposes, the chart below traces the number of states credited with a given policy solution to oil dependence in the NRDC reports over the past few years. Further analysis on the reasons underlying these trends—whether changes in state policy or changes in report criteria—has not yet been done.



# Endnotes

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