Reason

Reducing Greenhouse Gases from Personal Mobility: State Vignettes

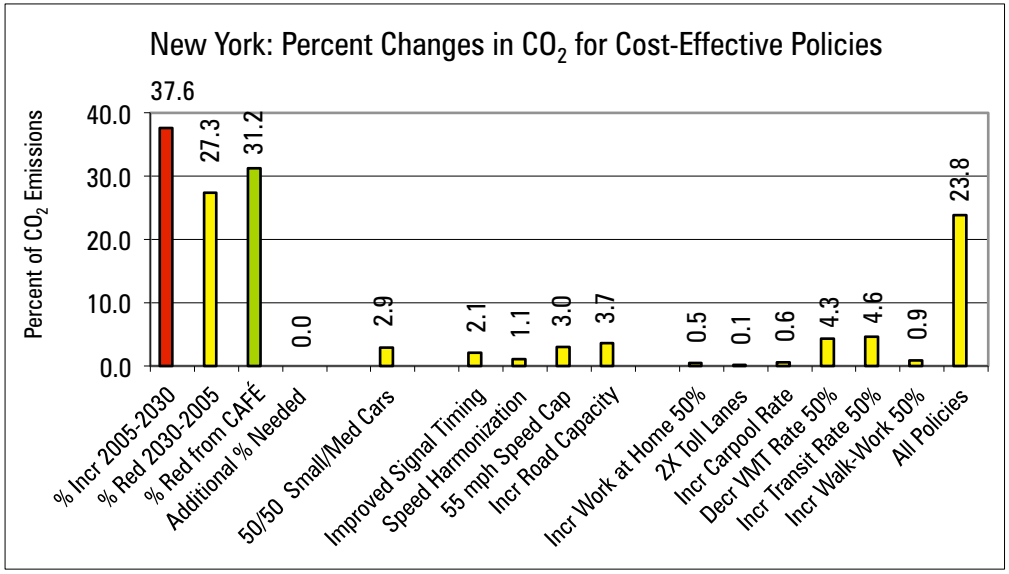
In Alphabetical Order

Reason

Order of Appearance

New York-Newark: Cost-Effective CO_2 Reduction Policies														
	Vehicle Fleet Mix			Highway System Improvement				Travel Behavior Shift						
New York-Newark	Effect of New CAFE Standards	Additional CO_2 Reduction Needed to Return to 2005 CO_2 Emission Levels	50/50 Small/Med Cars	Improved Signal Timing	Speed Harmonization	55 mph Speed Cap	Incr Road Capacity	Incr Work at Home 50%	2X Toll Lanes	Incr Carpool Rate	Decr VMT 5%	Incr Transit Rate 50%	Incr Walk-Work 50%	All Policies
2030 CO_2, K Tons/Day	129.6													
Daily CO_2 Emission Reduction, K Tons/Day	58.9	0.0	3.8	2.9	1.5	4.1	4.9	0.7	0.2	0.8	5.6	6.0	1.1	31.4
% CO_2 Emission Reduction	31.2	0.0	2.9	2.1	1.1	3.0	3.7	0.5	0.1	0.6	4.3	4.6	0.9	23.8
Annual Cost, $M	$813		-	$133	$92	$0.18	$4,591	$861	$250	$1,241	$5,462	$5,836	-	$18,467
Cost per Ton CO_2 Emissions Reduced, in $	55			186	245	0.18	3,739	5,209	6,123	6,545	3,931	3,922		

New York City forecasts moderate growth in vehicle miles traveled (VMT) and CO_2 emissions. By 2030 it will generate about 51,500 more tons of CO_2 emissions per day than the 2005 level of 137,000 tons per day. However, 58,900 tons more stringent CAFE standard CO_2 emissions per day are likely to be reduced due to more stringent CAFE standards, which more than offsets the increase. Therefore no actions are needed.



Los Angeles-Long Beach: Cost-Effective CO_2 Reduction Policies														
	Vehicle Fleet Mix			Highway System Improvement				Travel Behavior Shift						
Los Angeles-Long Beach	Effect of New CAFE Standards	Additional CO_2 Reduction Needed to Return to 2005 CO_2 Emission Levels	50/50 Small/ Med Cars	Improved Signal Timing	Speed Harmoni-zation	55 mph Speed Cap	Incr Road Capacity	Incr Work at Home 50%	2X Toll Lanes	Incr Carpool Rate	Decr VMT 5%	Incr Transit Rate 50%	Incr Walk-Work 50%	All Policies
2030 CO_2, K Tons/Day	166.1													
Daily CO_2 Emission Reduction, K Tons/Day	75.5	4.7	4.6	4.3	4.5	6.8	15.2	0.9	3.6	1.4	6.8	1.4	0.6	50.1
% CO_2 Emission Reduction	31.2	1.9	2.8	2.4	2.5	3.8	8.5	0.5	2.2	0.9	4.1	0.8	0.3	28.7
Annual Cost, $M	$998		-	$112	$50	$0.10	$8,976	$1,013	$500	$1,196	$6,638	$1,202	-	$19,686
Cost per Ton CO_2 Emissions Reduced, in $	53			104	45	0.06	2,366	4,501	548	3,339	3,923	3,499		

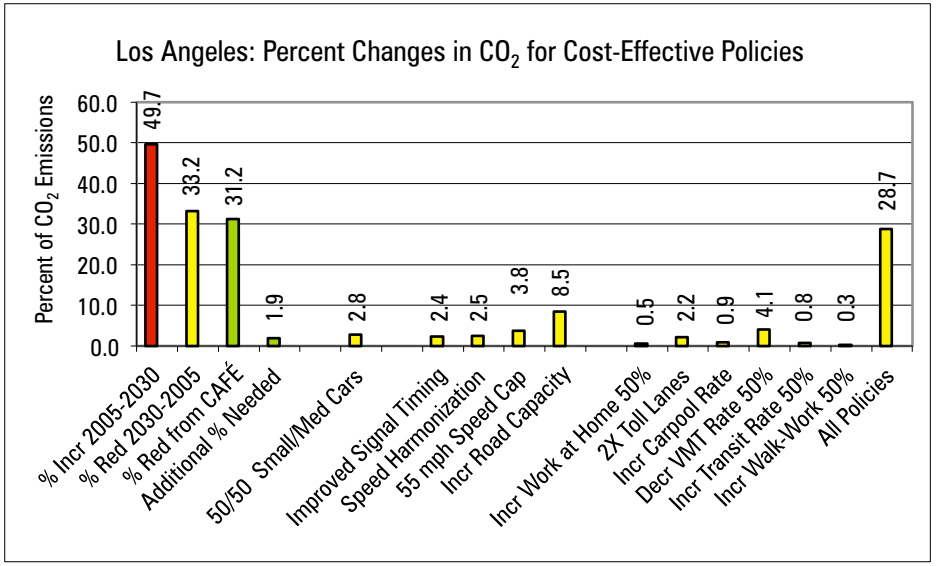
The Los Angeles region is predicted to experience moderate growth in vehicle miles traveled (VMT) and CO_2 accordingly. By 2030 this growth is predicted to generate an extra 80,200 tons of CO_2 emissions per day above the 2005 level of 161,500 tons per day. Countering such an increase in emissions would require reducing emissions by 33.2% to bring levels equal to those generated in 2005.

The new, more stringent CAFE standards will reduce CO_2 emissions by about 75,500 tons per day, leaving only 4,700 tons per day (1.9%) to be reduced via other actions. If Los Angeles takes action to decrease CO_2 emissions to 2005 levels, it should consider these most cost-effective measures, which would reduce CO_2 emissions by 8,800 tons per day:

- improving signal timing, reducing CO_2 emissions by 4,300 tons per day (2.4% CO_2 emission reduction, costing government annually $104 per ton of CO_2 emissions reduced daily), leaving a reduction of only 400 tons of emissions per day to reach 2005 CO_2 emission standards.

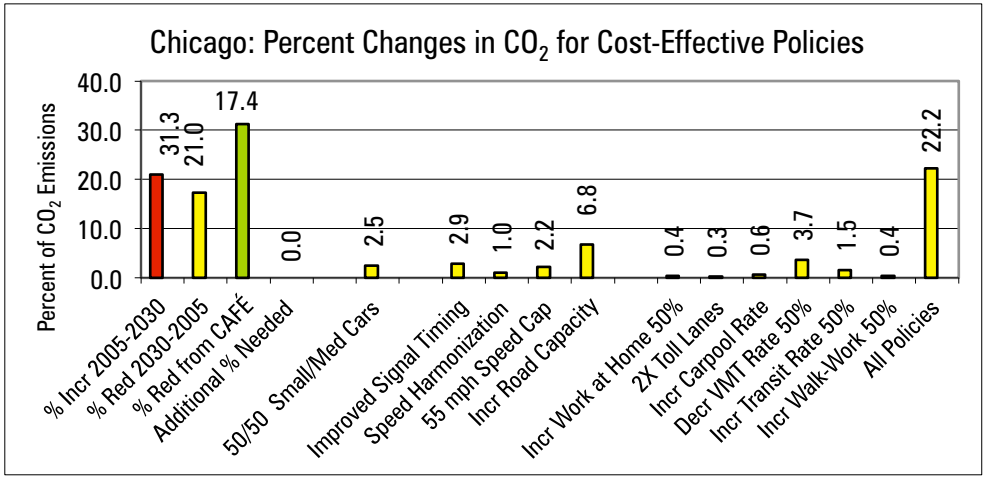
- enacting speed harmonization, reducing CO_2 emissions by another 4,500 tons per day (2.5% CO_2 emission reduction, costing government annually $45 per ton of CO_2 emissions reduced).

Actual costs may be more or less than these amounts based on the various methods used to accomplish the policies. Please see the main study for details of the range and cost of each policy option, and for explanations of the policies discussed.



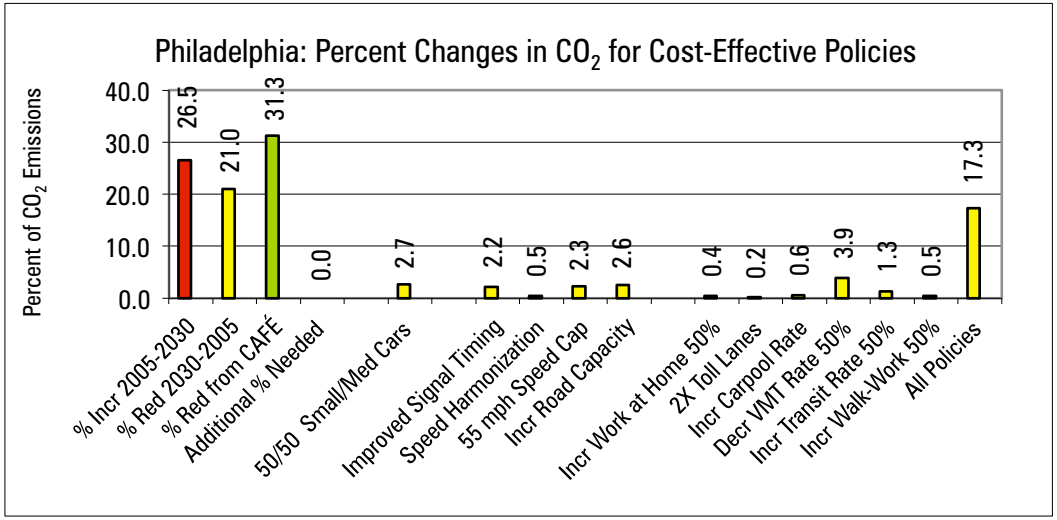
Chicago: Cost-Effective CO_2 Reduction Policies														
	Vehicle Fleet Mix			Highway System Improvement				Travel Behavior Shift						
Chicago	Effect of New CAFE Standards	Additional CO_2 Reduction Needed to Return to 2005 CO_2 Emission Levels	50/50 Small/ Med Cars	Improved Signal Timing	Speed Harmon-ization	55 mph Speed Cap	Incr Road Capacity	Incr Work at Home 50%	2X Toll Lanes	Incr Carpool Rate	Decr VMT 5%	Incr Transit Rate 50%	Incr Walk-Work 50%	All Policies
2030 CO_2, K Tons/Day	65.5													
Daily CO_2 Emission Reduction, K Tons/Day	29.8	0.0	1.7	2.0	0.7	1.5	4.7	0.3	0.2	0.4	2.4	1.0	0.2	15.2
% CO_2 Emission Reduction	31.3	0.0	2.5	2.9	1.0	2.2	6.8	0.4	0.3	0.6	3.7	1.5	0.4	22.2
Annual Cost, $M	$361		-	$77	$36	$0.07	$6,613	$386	$500	$204	$2,399	$1,623	-	$11,838
Cost per Ton CO_2 Emissions Reduced, in $	49			153	208	0.19	5,579	5,504	11,287	2,004	3,952	6,422		

The Chicago region is expected to grow relatively slowly in vehicle miles traveled (VMT) and CO_2 emissions. By 2030 Chicago will generate about 16,500 more tons of CO_2 emissions per day than the 2005 level of 78,700 tons per day. However, 29,800 tons of CO_2 emissions per day are likely to be reduced due to more stringent CAFE standards, which is almost twice the increase. Therefore no actions are needed.



Philadelphia: Cost-Effective CO_2 Reduction Policies														
	Vehicle Fleet Mix			Highway System Improvement				Travel Behavior Shift						
Philadelphia	Effect of New CAFE Standards	Additional CO_2 Reduction Needed to Return to 2005 CO_2 Emission Levels	50/50 Small/ Med Cars	Improved Signal Timing	Speed Harmonization	55 mph Speed Cap	Incr Road Capacity	Incr Work at Home 50%	2X Toll Lanes	Incr Carpool Rate	Decr VMT 5%	Incr Transit Rate 50%	Incr Walk-Work 50%	All Policies
2030 CO_2, K Tons/Day	45.9													
Daily CO_2 Emission Reduction, K Tons/Day	20.9	0.0	1.2	1.0	0.2	1.1	1.2	0.2	0.1	0.3	1.8	0.6	0.2	8.0
% CO_2 Emission Reduction	31.3	0.0	2.7	2.2	0.5	2.3	2.6	0.4	0.2	0.6	3.9	1.3	0.5	17.3
Annual Cost, $M	$268		-	$57	$35	$0.07	$1,889	$214	$500	$148	$1,787	$1,008	-	$5,638
Cost per Ton CO_2 Emissions Reduced, in $	51			223	592	0.26	6,147	4,349	26,928	2,004	3,945	6,557		

The Philadelphia region forecasts relatively modest growth in vehicle miles traveled (VMT) and CO_2 emissions. By 2030 Philadelphia will generate about 14,000 more tons of CO_2 emissions per day than the 2005 level of 52,800 tons per day. However, 20,900 tons of CO_2 emissions per day are likely to be reduced due to more stringent CAFE standards, which will more than offset the increase in emissions. Therefore, no actions are needed.



Miami: Cost-Effective CO_2 Reduction Policies														
	Vehicle Fleet Mix			Highway System Improvement				Travel Behavior Shift						
Miami	Effect of New CAFE Standards	Additional CO_2 Reduction Needed to Return to 2005 CO_2 Emission Levels	50/50 Small/ Med Cars	Improved Signal Timing	Speed Harmonization	55 mph Speed Cap	Incr Road Capacity	Incr Work at Home 50%	2X Toll Lanes	Incr Carpool Rate	Decr VMT 5%	Incr Transit Rate 50%	Incr Walk-Work 50%	All Policies
2030 CO_2, K Tons/Day	55.3													
Daily CO_2 Emission Reduction, K Tons/Day	25.1	2.7	1.5	1.7	0.4	1.3	2.6	0.2	0.2	0.4	2.2	0.3	0.1	11.0
% CO_2 Emission Reduction	31.2	3.4	2.8	3.0	0.6	2.2	4.5	0.4	0.4	0.7	4.0	0.5	0.2	19.4
Annual Cost, $M	$330		-	$26	$25	$0.05	$6,509	$328	$500	$274	$2,190	$487	-	$10,339
Cost per Ton CO_2 Emissions Reduced, in $	52			60	282	0.16	10,000	5,415	8,899	2,672	3,921	6,924		

The Miami region is expected to experience strong growth in vehicle miles traveled (VMT) and CO_2 emissions accordingly. By 2030 this growth is predicted to generate an extra 27,800 tons of CO_2 emissions per day above the 2005 level of 52,600 tons per day. Countering such an increase in emissions would require reducing emissions by 34.6% to bring levels equal to those generated in 2005.

The new, more stringent CAFE standards will reduce CO_2 emissions by about 25,100 tons per day, leaving 2,700 tons per day (3.4%) to be reduced via other actions. If Miami decides to take action to decrease CO_2 emissions to 2005 levels, it should consider these most cost-effective measures, which would reduce CO_2 emissions by 3,400 tons per day:

- improving signal timing, reducing CO_2 emissions by 1,700 tons per day (3% CO_2 emission reduction, costing government annually $60 per ton of CO_2 emissions reduced daily).
- enacting speed harmonization policies, reducing CO_2 by 400 tons per day (.6% CO_2 emission reduction, costing government annually $282 per ton of CO_2 emissions reduced)
- enacting speed caps, reducing CO_2 by 1,300 tons per day (2.2% CO_2 emission reduction, costing government annually $.16 per ton of emissions reduced). However, speed caps increase the amount of time that people and goods take to get to their destinations and therefore this action has significant costs to people and business.

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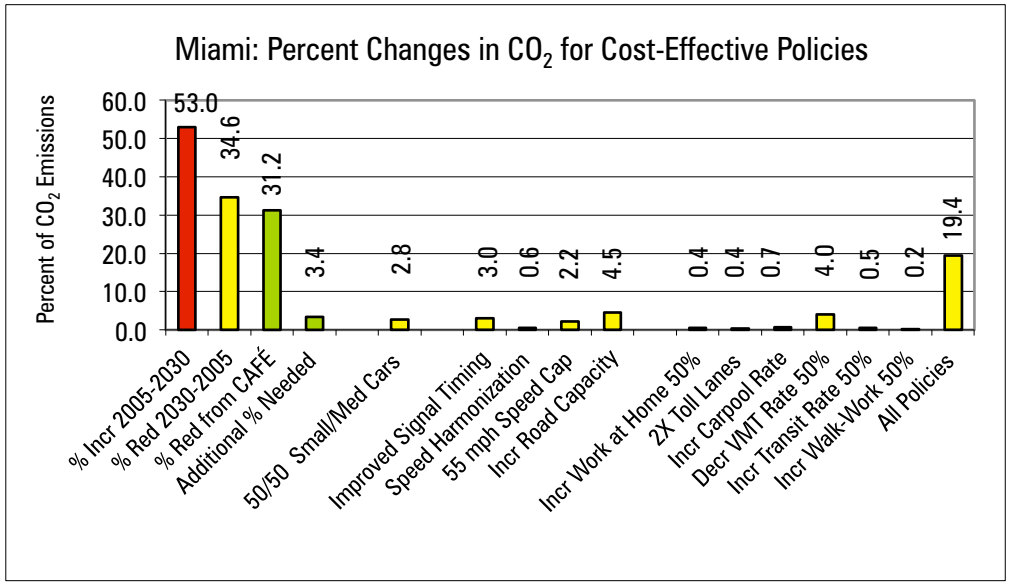
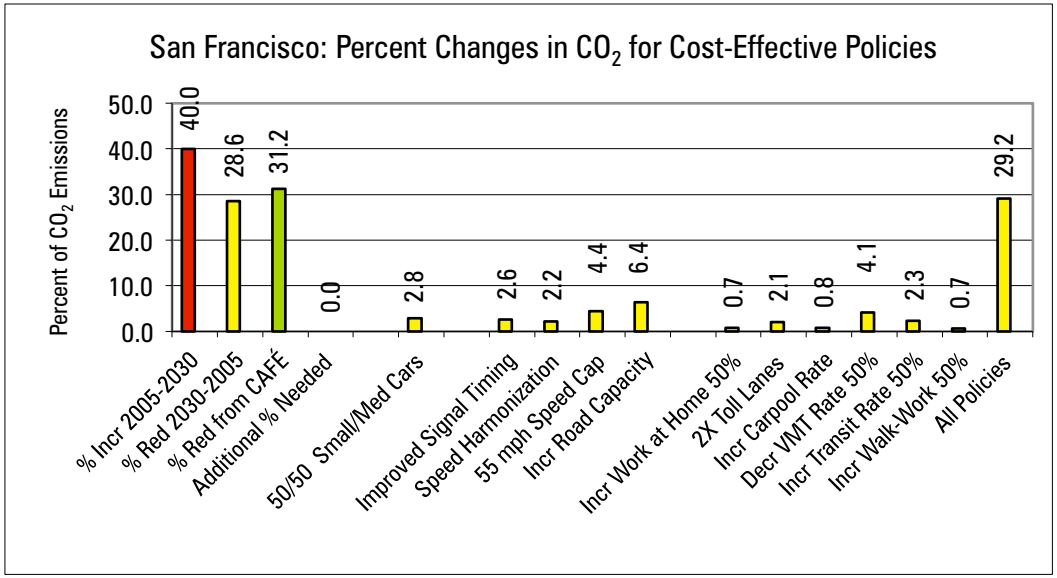


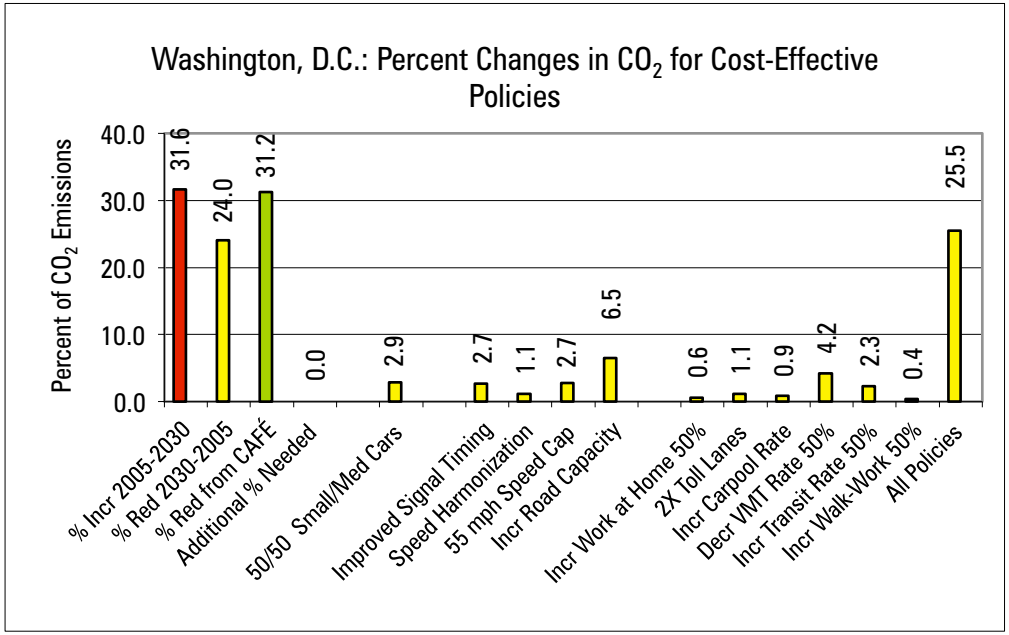
San Francisco-Oakland: Cost-Effective CO_2 Reduction Policies															
	Vehicle Fleet Mix			Highway System Improvement				Travel Behavior Shift							
San Francisco-Oakland	Effect of New CAFE Standards	Additional CO_2 Reduction Needed to Return to 2005 CO_2 Emission Levels	50/50 Small/Med Cars	Improved Signal Timing	Speed Harmonization	55 mph Speed Cap	Incr Road Capacity	Incr Work at Home 50%	2X Toll Lanes	Incr Carpool Rate	Decr VMT 5%	Incr Transit Rate 50%	Incr Walk-Work 50%	All Policies
2030 CO_2, K Tons/Day	68.6													
Daily CO_2 Emission Reduction, K Tons/Day	31.2	0.0	1.9	1.9	1.6	3.2	4.7	0.5	1.4	0.6	2.8	1.6	0.4	20.6
% CO_2 Emission Reduction	31.2	0.0	2.8	2.6	2.2	4.4	6.4	0.7	2.1	0.8	4.1	2.3	0.7	29.2
Annual Cost, $M	$417		-	$34	$20	$0.04	$4,556	$553	$150	$461	$2,794	$470	-	$9,039
Cost per Ton CO_2 Emissions Reduced, in $	54			72	51	0.05	3,917	4,354	422	3,339	3,930	1,188		

San Francisco is predicted to experience moderate growth in vehicle miles traveled (VMT) and CO_2 emissions. By 2030 San Francisco will generate about 28,500 more tons of CO_2 emissions per day than the 2005 level of 71,200 tons per day. However, 31,200 tons of CO_2 emissions per day are likely to be reduced due to more stringent CAFE standards, which more than offsets the increase.



Washington, D.C.: Cost-Effective CO_2 Reduction Policies														
	Vehicle Fleet Mix			Highway System Improvement				Travel Behavior Shift						
Washington, D.C.	Effect of New CAFE Standards	Additional CO_2 Reduction Needed to Return to 2005 CO_2 Emission Levels	50/50 Small/Med Cars	Improved Signal Timing	Speed Harmoni-zation	55 mph Speed Cap	Incr Road Capacity	Incr Work at Home 50%	2X Toll Lanes	Incr Carpool Rate	Decr VMT 5%	Incr Transit Rate 50%	Incr Walk-Work 50%	All Policies
2030 CO_2, K Tons/Day	56.0													
Daily CO_2 Emission Reduction, K Tons/Day	25.5	0.0	1.6	1.6	0.7	1.6	3.9	0.3	0.6	0.5	2.4	1.3	0.2	14.8
% CO_2 Emission Reduction	31.2	0.0	2.9	2.7	1.1	2.7	6.5	0.6	1.1	0.9	4.2	2.3	0.4	25.5
Annual Cost, $M	$347		-	$34	$25	$0.05	$3,036	$354	$400	$404	$2,325	$1,422	-	$8,000
Cost per Ton CO_2 Emissions Reduced, in $	54			85	149	0.12	3,126	4,080	2,508	3,339	3,937	4,383		

The D.C. region predicts moderate growth in vehicle miles traveled (VMT) and CO_2 emissions. By 2030 Washington, D.C. will generate about 19,600 more tons of CO_2 emissions per day than the 2005 level of 61,900 tons per day. However, 25,500 tons of CO_2 emissions per day are likely to be reduced due to more stringent CAFE standards, which will more than offset the increase. Therefore no actions are needed.

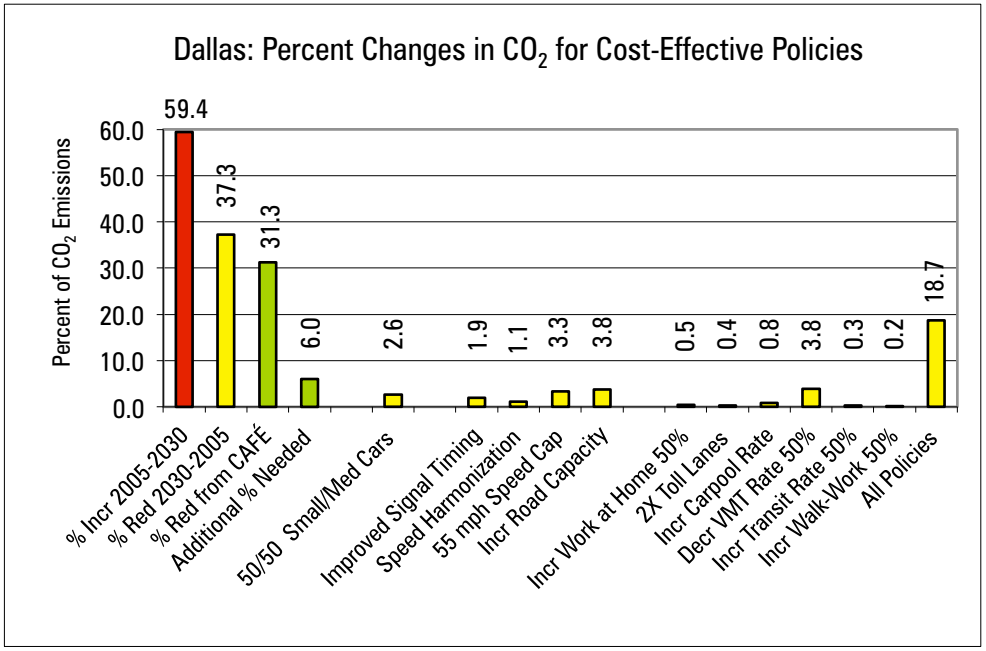


Dallas-Fort Worth: Cost-Effective CO_2 Reduction Policies														
	Vehicle Fleet Mix			Highway System Improvement				Travel Behavior Shift						
Dallas-Fort Worth	Effect of New CAFE Standards	Additional CO_2 Reduction Needed to Return to 2005 CO_2 Emission Levels	50/50 Small/ Med Cars	Improved Signal Timing	Speed Harmonization	55 mph Speed Cap	Incr Road Capacity	Incr Work at Home 50%	2X Toll Lanes	Incr Carpool Rate	Decr VMT 5%	Incr Transit Rate 50%	Incr Walk-Work 50%	All Policies
2030 CO_2, K Tons/Day	86.9													
Daily CO_2 Emission Reduction, K Tons/Day	39.5	7.6	2.3	1.7	1.0	3.0	3.4	0.4	0.3	0.7	3.3	0.2	0.2	16.6
% CO_2 Emission Reduction	31.3	6.0	2.6	1.9	1.1	3.3	3.8	0.5	0.4	0.8	3.8	0.3	0.2	18.7
Annual Cost, $M	$495		-	$40	$39	$0.08	$3,825	$385	$300	$476	$3,271	$432	-	$8,768
Cost per Ton CO_2 Emissions Reduced, in $	50			92	153	0.10	4,541	3,657	3,903	2,672	3,920	7,783		

The Dallas-Fort Worth region is predicted to experience very fast growth to 2030. The increase in vehicle miles traveled (VMT) and CO_2 emissions equate to an increase of 47,100 tons of CO_2 emissions per day above the 2005 levels of 79,300 tons per day. Countering such an increase in emissions would require reducing emissions by 37.3% to bring levels equal to those generated in 2005.

More stringent CAFE standards are expected to reduce about 39,500 tons per day (31.3%), leaving 7,600 tons per day (6%) to be reduced using other policies. If Dallas elects to reduce its CO_2 emissions, it should start with the most cost-effective measures. The following most cost-effective actions would reduce CO_2 emissions a total of 5,700 tons per day:

- enacting a 55mph speed cap, reducing CO_2 emissions by 3,000 tons per day (3.3% emission reduction, costing government annually $.10 per ton of emissions reduced). However, speed caps increase the amount of time that people and goods take to get to their destinations and therefore this action has significant costs to people and business.
- enacting speed harmonization to smooth traffic flow, reducing CO_2 emissions by 1,000 tons per day (1.1% emission reduction, costing government annually $153 per ton of CO_2 emissions reduced).
- improving signal timing to increase traffic flow, reducing CO_2 emissions by 1,700 tons per day (1.9% CO_2 emission reduction, costing government annually $92 per ton of emissions reduced). This action would also save drivers thousands of hours annually that would have otherwise been spent in traffic.



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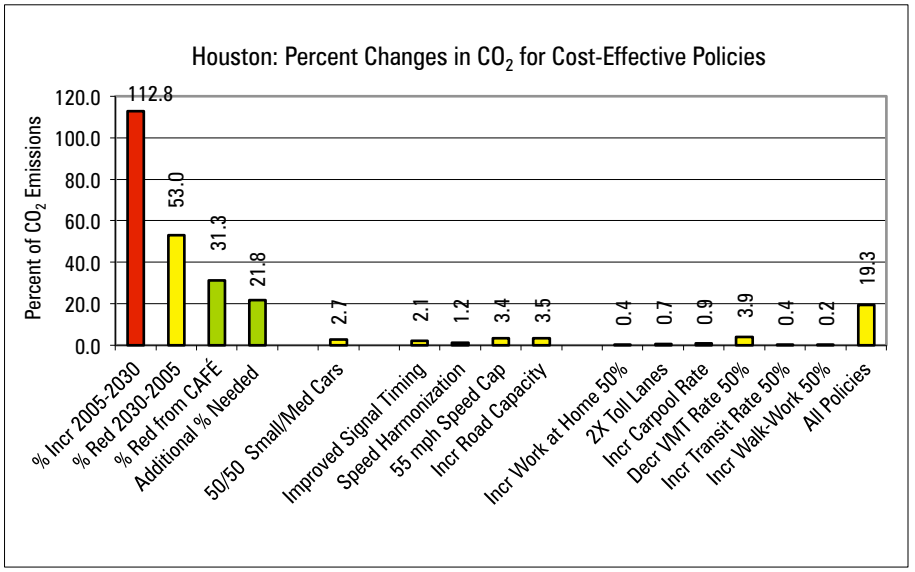
Houston: Cost-Effective CO_2 Reduction Policies														
	Vehicle Fleet Mix			Highway System Improvement				Travel Behavior Shift						
Houston	Effect of New CAFE Standards	Additional CO_2 Reduction Needed to Return to 2005 CO_2 Emission Levels	50/50 Small/ Med Cars	Improved Signal Timing	Speed Harmoni-zation	55 mph Speed Cap	Incr Road Capacity	Incr Work at Home 50%	2X Toll Lanes	Incr Carpool Rate	Decr VMT 5%	Incr Transit Rate 50%	Incr Walk-Work 50%	All Policies
2030 CO_2, K Tons/Day	94.2													
Daily CO_2 Emission Reduction, K Tons/Day	42.8	29.8	2.5	2.0	1.1	3.3	3.4	0.4	0.6	0.8	3.7	0.4	0.2	18.5
% CO_2 Emission Reduction	31.3	21.8	2.7	2.1	1.2	3.4	3.5	0.4	0.7	0.9	3.9	0.4	0.2	19.3
Annual Cost, $M	$547		-	$40	$28	$0.06	$3,351	$292	$300	$304	$3,596	$387	$-	$8,298
Cost per Ton CO_2 Emissions Reduced, in $	51			80	99	0.07	3,952	3,222	1,924	1,469	3,894	3,742		

The Houston region will experience very rapid growth, increasing vehicle miles traveled (VMT) and CO_2 emissions accordingly. By 2030, this growth is predicted to generate about 72,700 more tons of CO_2 daily than the 2005 level of 64,400 tons per day. Countering such an increase in emissions would require reducing CO_2 emissions by 53% to bring levels equal to those generated in 2005.

The new, more stringent CAFE standards will reduce emissions by 42,800 tons per day, leaving a 29,800 ton per day reduction, which is 21.8%, needed to hold emissions at 2005 levels. Unfortunately, even if all policies were implemented, only 18,500 tons per day could be reduced, which is still far short of the goal. Therefore, the Houston region is unlikely to hold CO_2 emissions at 2005 levels without extremely stringent actions that may not be cost-effective.

To the extent that Houston takes action to alleviate CO_2 emissions, it should take the most cost-effective measures possible. The following relatively cost-effective measures should reduce emissions by 6,400 tons per day :

- enacting a 55mph speed cap, reducing CO_2 emissions by 3,300 tons per day (3.4% emission reduction, costing government annually $.07 per ton of emissions reduced). However, speed caps increase the amount of time that people and goods take to get to their destinations and therefore this action has significant costs to people and business.
- enacting speed harmonization to smooth traffic flow, reducing CO_2 emissions by 1,100 tons per day (1.2% emission reduction, costing government annually $99 per ton of CO_2 emissions reduced).
- improving signal timing to increase traffic flow, reducing CO_2 emissions by 2,000 tons per day (2.1% CO_2 emission reduction, costing government annually $80 per ton of emissions reduced). This action would also save drivers thousands of hours annually that would have otherwise been spent in traffic.



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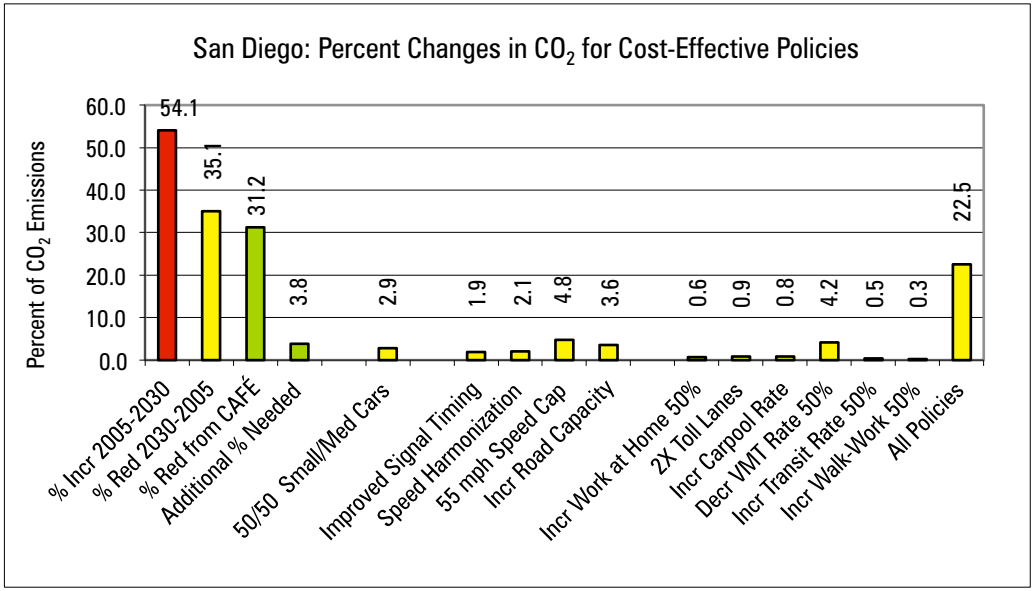
San Diego: Cost-Effective CO_2 Reduction Policies														
	Vehicle Fleet Mix			Highway System Improvement				Travel Behavior Shift						
San Diego	Effect of New CAFE Standards	Additional CO_2 Reduction Needed to Return to 2005 CO_2 Emission Levels	50/50 Small/ Med Cars	Improved Signal Timing	Speed Harmoniz ation	55 mph Speed Cap	Incr Road Capacity	Incr Work at Home 50%	2X Toll Lanes	Incr Carpool Rate	Decr VMT 5%	Incr Transit Rate 50%	Incr Walk-Work 50%	All Policies
2030 CO_2, K Tons/Day	36.4													
Daily CO_2 Emission Reduction, K Tons/Day	16.6	2.0	1.0	0.7	0.8	1.8	1.4	0.2	0.3	0.3	1.5	0.2	0.1	8.3
% CO_2 Emission Reduction	31.2	3.8	2.9	1.9	2.1	4.8	3.6	0.6	0.9	0.8	4.2	0.5	0.3	22.5
Annual Cost, $M	$224		-	$19	$21	$0.04	$1,937	$195	$300	$173	$1,496	$92	-	$4,232
Cost per Ton CO_2 Emissions Reduced, in $	54			110	106	0.09	5,719	3,394	3,612	2,371	3,919	2,212		

The San Diego region will experience a moderate rate of growth, increasing vehicle miles traveled (VMT) and CO_2 emissions accordingly. By 2030 this growth is predicted to generate about an extra 18,600 tons of CO_2 daily than the 2005 levels of 34,400 tons per day. Countering such an increase in emissions would require reducing emissions by 35.1%, to bring levels equal to those generated in 2005.

The new, more stringent CAFE standards can be expected to reduce that 18,600 tons per day by 16,600 tons per day, leaving only a 2,000 ton reduction per day, which is 3.8%, needed to hold emissions at 2005 levels. This relatively small reduction could be achieved by a combination of the following most cost-effective actions and policies:

- improving signal timing to increase traffic flow, reducing emissions by 700 tons per day (1.9% emission reduction, costing government annually $110 per ton of emissions reduced). This action would also save drivers thousands of hours annually that would have otherwise been spent in traffic.
- enacting a 55mph speed cap, reducing emissions by 1,800 tons per day (4.8% emission reduction, costing government annually $.09 per ton of emissions reduced). However, speed caps increase the amount of time that people and goods take to get to their destinations and therefore this action has significant costs to people and business.
- enacting speed harmonization to improve the flow of traffic, reducing CO_2 emissions by 800 tons per day (2.1% reduction, costing government annually $106 per ton of emissions reduced). Additionally, this policy would save drivers thousands of hours annually that would have otherwise been spent in traffic.



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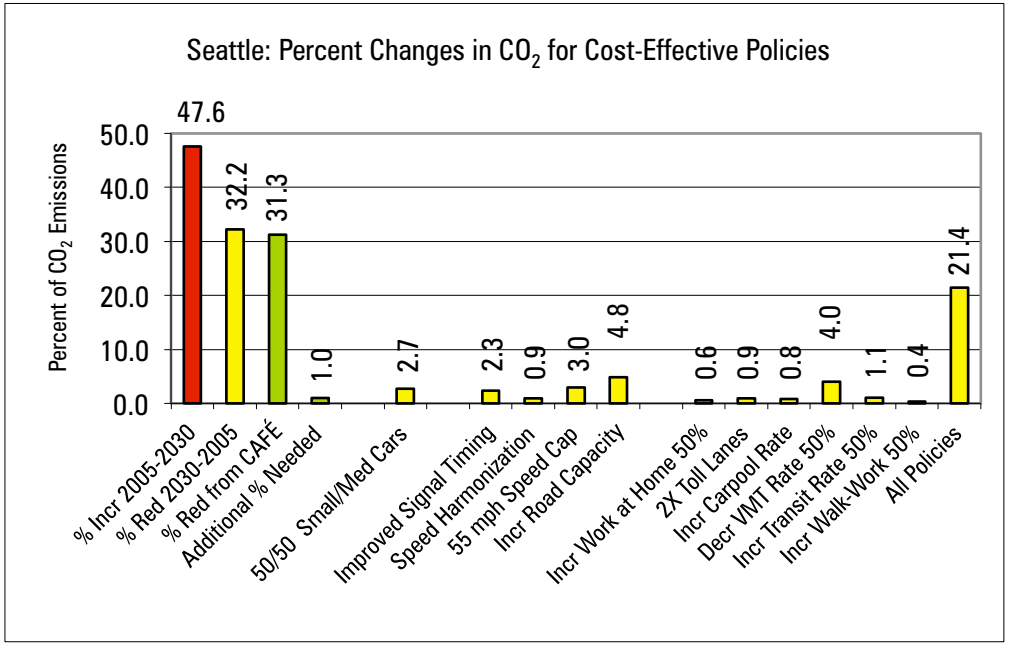
Seattle: Cost-Effective CO_2 Reduction Policies														
	Vehicle Fleet Mix			Highway System Improvement				Travel Behavior Shift						
Seattle	Effect of New CAFE Standards	Additional CO_2 Reduction Needed to Return to 2005 CO_2 Emission Levels	50/50 Small/ Med Cars	Improved Signal Timing	Speed Harmonization	55 mph Speed Cap	Incr Road Capacity	Incr Work at Home 50%	2X Toll Lanes	Incr Carpool Rate	Decr VMT 5%	Incr Transit Rate 50%	Incr Walk-Work 50%	All Policies
2030 CO_2, K Tons/Day	33.4													
Daily CO_2 Emission Reduction, K Tons/Day	15.2	0.5	0.9	0.8	0.3	1.0	1.7	0.2	0.3	0.3	1.3	0.4	0.1	7.3
% CO_2 Emission Reduction	31.3	1.0	2.7	2.3	0.9	3.0	4.8	0.6	0.9	0.8	4.0	1.1	0.4	21.4
Annual Cost, $M	$196		-	$30	$24	$0.05	$706	$242	$300	$173	$1,298	$503	-	$3,275
Cost per Ton CO_2 Emissions Reduced, in $	52			148	300	0.19	1,686	4,868	3,977	2,571	3,926	5,720		

The Seattle region forecasts a moderate rate of growth, increasing vehicle miles traveled (VMT) and CO_2 emissions accordingly. By 2030 this growth is predicted to generate about 15,600 more tons of CO_2 emissions per day than the 2005 level of 32,900 tons per day. Countering such an increase in emissions would require reducing emissions by 32.2% to bring levels equal to those generated in 2005.

The new, more stringent CAFE standards can be expected to reduce emissions by 15,200 tons of CO_2 per day, which is close to the increase, leaving only 400 tons per day to be reduced via other policies.

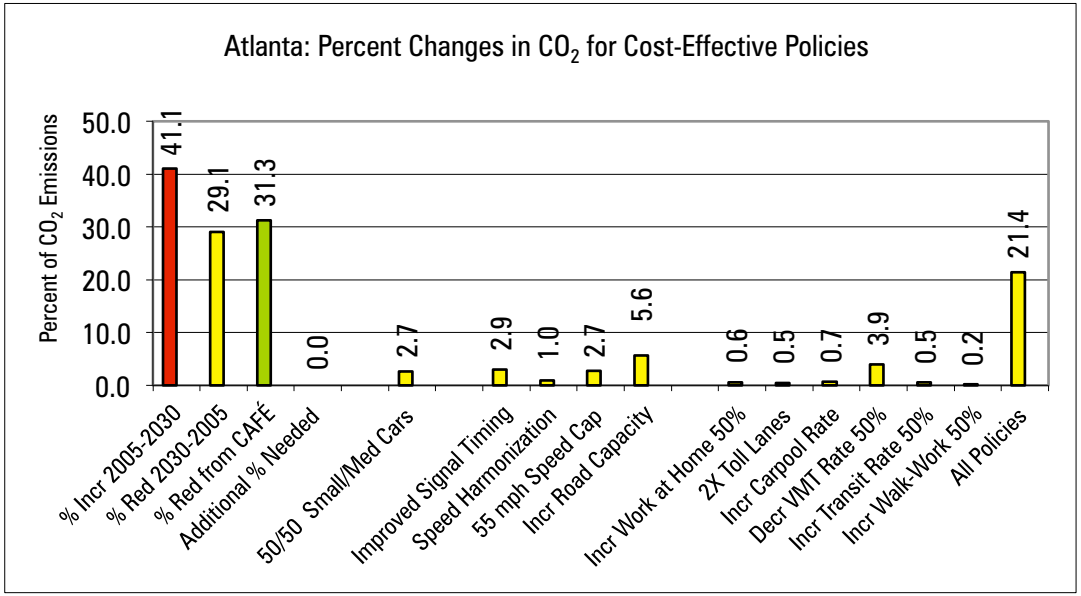
Improving signal timing, a very cost-effective policy, would reduce CO_2 emissions by 800 tons per day, more than offsetting the small remainder needed to bring Seattle's CO_2 daily emissions in line with 2005 standards. This action would generate a 2.3% emission reduction and cost government $148 annually per ton of CO_2 reduced.



Atlanta: Cost-Effective CO_2 Reduction Policies														
	Vehicle Fleet Mix			Highway System Improvement				Travel Behavior Shift						
Atlanta	Effect of New CAFE Standards	Additional CO_2 Reduction Needed to Return to 2005 CO_2 Emission Levels	50/50 Small/ Med Cars	Improved Signal Timing	Speed Harmonization	55 mph Speed Cap	Incr Road Capacity	Incr Work at Home 50%	2X Toll Lanes	Incr Carpool Rate	Decr VMT 5%	Incr Transit Rate 50%	Incr Walk-Work 50%	All Policies
2030 CO_2, K Tons/Day	67.6													
Daily CO_2 Emission Reduction, K Tons/Day	30.7	0.0	1.8	2.1	0.7	2.0	4.0	0.4	0.3	0.5	2.6	0.4	0.1	15.0
% CO_2 Emission Reduction	31.3	0.0	2.7	2.9	1.0	2.7	5.6	0.6	0.5	0.7	3.9	0.5	0.2	21.4
Annual Cost, $M	$392		-	$31	$27	$0.05	$2,897	$360	$300	$245	$2,596	$433	-	$6,889
Cost per Ton CO_2 Emissions Reduced, in $	51			59	152	0.11	2,873	3,382	3,482	2,037	3,932	4,688		

The Atlanta region will experience a moderate increase in vehicle miles traveled (VMT) and CO_2 emissions accordingly. By 2030 this growth is predicted to generate an extra 28,600 tons of CO_2 emissions per day more than the 2005 level of 69,700 tons per day.

The new, more stringent CAFE standards will reduce about 30,700 tons per day, which more than offsets the increase in emissions. Therefore no action is needed at this time.



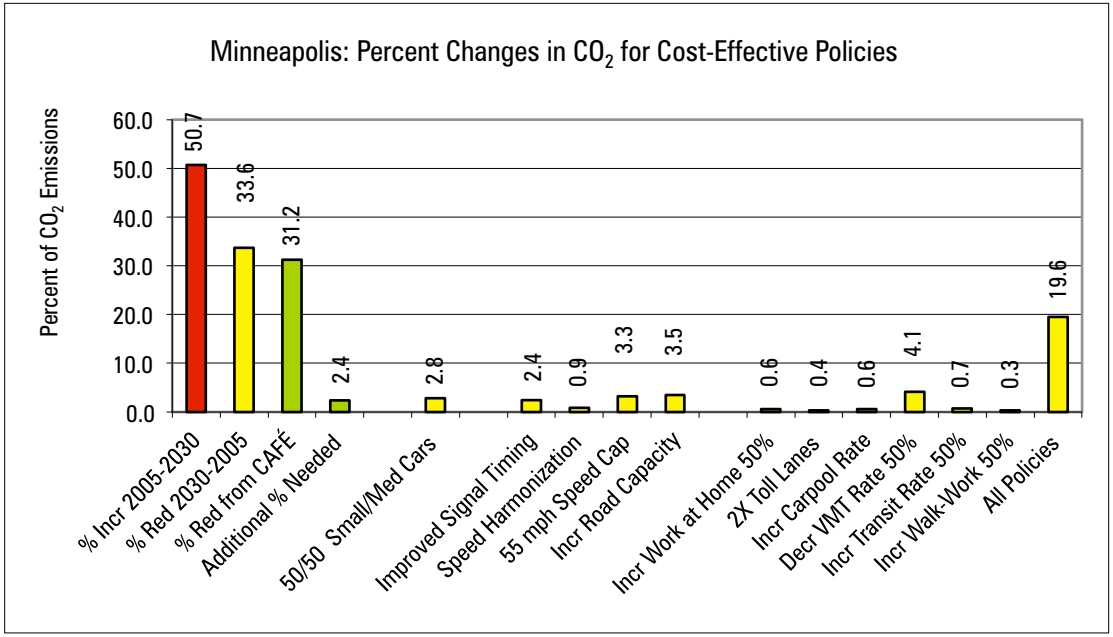
Minneapolis-St. Paul: Cost-Effective CO_2 Reduction Policies															
	Vehicle Fleet Mix			Highway System Improvement				Travel Behavior Shift							
Minneapolis-St. Paul	Effect of New CAFE Standards	Additional CO_2 Reduction Needed to Return to 2005 CO_2 Emission Levels	50/50 Small/ Med Cars	Improved Signal Timing	Speed Harmonization	55 mph Speed Cap	Incr Road Capacity	Incr Work at Home 50%	2X Toll Lanes	Incr Carpool Rate	Decr VMT 5%	Incr Transit Rate 50%	Incr Walk-Work 50%	All Policies
2030 CO_2, K Tons/Day	29.8													
Daily CO_2 Emission Reduction, K Tons/Day	13.6	1.0	0.8	0.7	0.3	1.0	1.1	0.2	0.1	0.2	1.2	0.2	0.1	6.0
% CO_2 Emission Reduction	31.2	2.4	2.8	2.4	0.9	3.3	3.5	0.6	0.4	0.6	4.1	0.7	0.3	19.6
Annual Cost, $M	$179		-	$30	$24	$0.05	$1,982	$164	$300	$175	$1,197	$242	-	$4,114
Cost per Ton CO_2 Emissions Reduced, in $	53			163	346	0.19	7,393	3,740	9,903	3,640	3,922	4,717		

The Minneapolis-St. Paul region is expected to experience modest growth in vehicle miles traveled (VMT) and CO_2 accordingly. By 2030 this growth is predicted to generate an extra 14,600 tons of CO_2 emissions per day more than the 2005 level of 28,800 tons per day. Countering such an increase in emissions would require reducing emissions by 33.6% to bring levels equal to those generated in 2005.

The new, more stringent CAFE standards will reduce CO_2 emissions by about 13,600 tons per day, leaving only 1,000 tons per day (2.4%) to be reduced via other actions. If Minneapolis-St. Paul elects to reduce its CO_2 emissions to 2005 levels, it should consider these most cost-effective measures, which would reduce CO_2 emissions by 1,000 tons per day:

- improving signal timing, reducing CO_2 emissions by 700 tons per day (2.4% CO_2 emission reduction, costing government annually $163 per ton of CO_2 emissions reduced daily).
- enacting speed harmonization to promote free-flow traffic, reducing CO_2 emissions by 300 tons per day (.9% CO_2 emission reduction, costing government annually $346 per ton of CO_2 emissions reduced).

Actual costs may be more or less than these amounts based on the various methods used to accomplish the policies. Please see the main study for details of the range and cost of each policy option, and for explanations of the policies discussed.

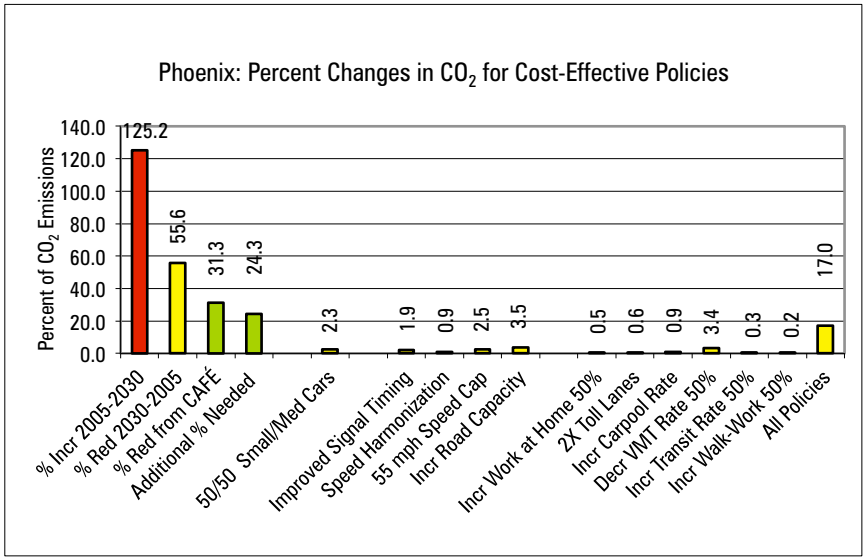


Phoenix-Mesa: Cost-Effective CO_2 Reduction Policies														
	Vehicle Fleet Mix			Highway System Improvement				Travel Behavior Shift						
Phoenix-Mesa	Effect of New CAFE Standards	Additional CO_2 Reduction Needed to Return to 2005 CO_2 Emission Levels	50/50 Small/Med Cars	Improved Signal Timing	Speed Harmonization	55 mph Speed Cap	Incr Road Capacity	Incr Work at Home 50%	2X Toll Lanes	Incr Carpool Rate	Decr VMT 5%	Incr Transit Rate 50%	Incr Walk-Work 50%	All Policies
2030 CO_2, K Tons/Day	74.6													
Daily CO_2 Emission Reduction, K Tons/Day	33.9	26.4	1.8	1.5	0.7	1.9	2.7	0.4	0.5	0.7	2.6	0.2	0.1	12.9
% CO_2 Emission Reduction	31.3	24.3	2.3	1.9	0.9	2.5	3.5	0.5	0.6	0.9	3.4	0.3	0.2	17.0
Annual Cost, $M	$388		-	$23	$15	$0.03	$2,728	$226	$150	$438	$2,501	$130	-	$6,210
Cost per Ton CO_2 Emissions Reduced, in $	46			62	92	0.06	4,064	2,516	1,305	2,672	3,900	2,321		

The Phoenix/Mesa region will experience very fast growth in vehicle miles traveled (VMT) and CO_2 emissions accordingly. By 2030 this growth is predicted to generate 60,300 additional tons of CO_2 emissions per day more than the 2005 level of 48,200 tons per day. Countering such an increase in emissions would require reducing emissions by 55.6% to bring levels equal to those generated in 2005.

The new, more stringent CAFE standards will reduce that amount by 33,900 tons of CO_2 emissions per day (31.3%), leaving 26,400 tons per day (24.3%) to be reduced by other means. At the current rate of growth, even the full package of extreme policies would reduce CO_2 emissions by just 12,900 tons per day at a whopping $6.2B annual cost to government. Clearly, on its current growth path, Phoenix/Mesa cannot cost-effectively reduce future CO_2 emissions below 2005 levels. To the extent that Phoenix/Mesa takes action to alleviate CO_2 emissions, it should take the most cost-effective measures possible. The following relatively cost-effective measures would reduce emissions by 4,100 tons per day:

- improving signal timing to increase traffic flow, reducing emissions by 1,500 tons per day (1.9% emission reduction, costing government annually $62 per ton of emissions reduced). This action would also save drivers thousands of hours annually that would have otherwise been spent in traffic.
- enacting a 55mph speed cap, reducing emissions by 1,900 tons per day (2.5% emission reduction, costing government annually $.06 per ton of emissions reduced). However, speed caps increase the amount of time that people and goods take to get to their destinations and therefore this action has significant costs to people and business.
- enacting speed harmonization to improve the flow of traffic, reducing CO_2 emissions by 700 tons per day (0.9% reduction, costing government annually $92 per ton of emissions reduced). Additionally, this policy would save drivers thousands of hours that would have otherwise been spent in traffic.

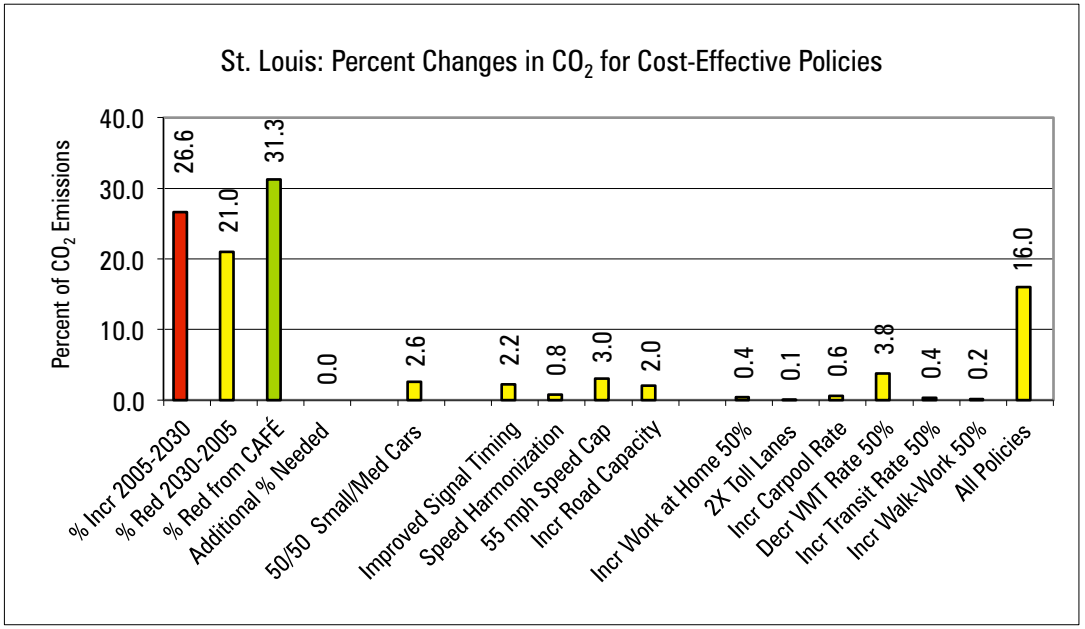


Actual costs may be more or less than these amounts based on the various methods used to accomplish the policies. Please see the main study for details of the range and cost of each policy option, and for explanations of the policies discussed.

St. Louis: Cost-Effective CO_2 Reduction Policies														
	Vehicle Fleet Mix			Highway System Improvement				Travel Behavior Shift						
St. Louis	Effect of New CAFE Standards	Additional CO_2 Reduction Needed to Return to 2005 CO_2 Emission Levels	50/50 Small/Med Cars	Improved Signal Timing	Speed Harmonization	55 mph Speed Cap	Incr Road Capacity	Incr Work at Home 50%	2X Toll Lanes	Incr Carpool Rate	Decr VMT 5%	Incr Transit Rate 50%	Incr Walk-Work 50%	All Policies
2030 CO_2, K Tons/Day	29.1													
Daily CO_2 Emission Reduction, K Tons/Day	13.2	0.0	0.8	0.7	0.2	0.9	0.6	0.1	0.0	0.2	1.1	0.1	0.1	4.7
% CO_2 Emission Reduction	31.3	0.0	2.6	2.2	0.8	3.0	2.0	0.4	0.1	0.6	3.8	0.4	0.2	16.0
Annual Cost, $M	$163		-	$27	$26	$0.05	$705	$77	$150	$82	$1,084	$219	-	$2,370
Cost per Ton CO_2 Emissions Reduced, in $	49			163	454	0.24	4,651	2,663	19,843	2,004	3,946	8,147		

St. Louis is predicted to experience modest growth, increasing vehicle miles traveled (VMT) and CO_2 emissions accordingly. By 2030 this growth is expected to generate about 8,900 additional tons per day of CO_2 compared to the 2005 level of 33,400 tons per day.

The new, more stringent CAFE standards will reduce emissions by 13,200 tons per day, which will more than offset the predicted increase. Therefore, no actions are necessary.

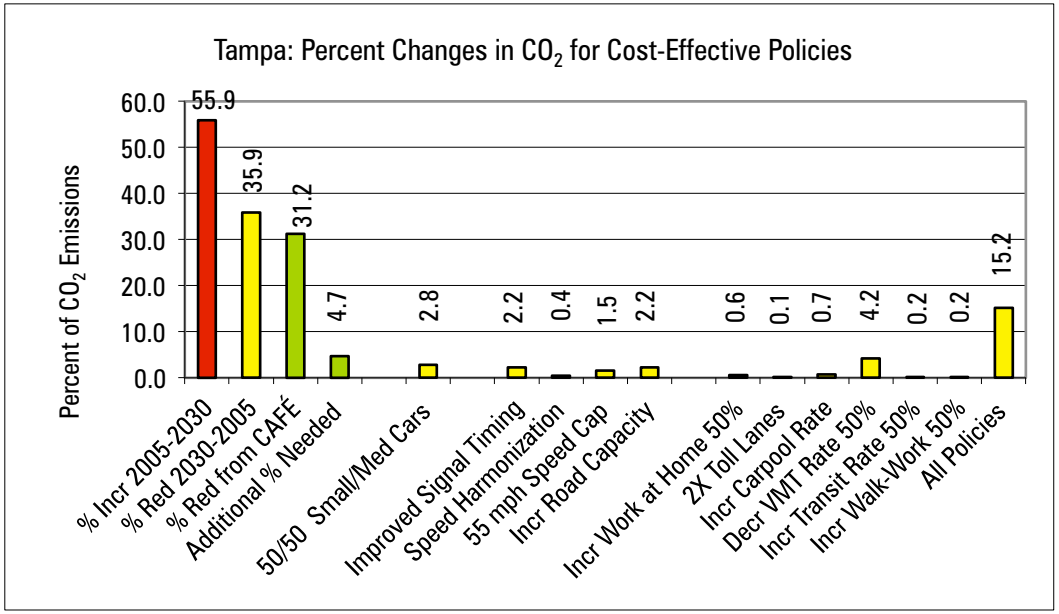


Tampa-St. Petersburg: Cost-Effective CO_2 Reduction Policies														
	Vehicle Fleet Mix			Highway System Improvement				Travel Behavior Shift						
Tampa-St. Petersburg	Effect of New CAFE Standards	Additional CO_2 Reduction Needed to Return to 2005 CO_2 Emission Levels	50/50 Small/Med Cars	Improved Signal Timing	Speed Harmonization	55 mph Speed Cap	Incr Road Capacity	Incr Work at Home 50%	2X Toll Lanes	Incr Carpool Rate	Decr VMT 5%	Incr Transit Rate 50%	Incr Walk-Work 50%	All Policies
2030 CO_2, K Tons/Day	33.7													
Daily CO_2 Emission Reduction, K Tons/Day	15.3	2.3	1.0	0.8	0.1	0.5	0.8	0.2	0.0	0.2	1.4	0.1	0.1	5.2
% CO_2 Emission Reduction	31.2	4.7	2.8	2.2	0.4	1.5	2.2	0.6	0.1	0.7	4.2	0.2	0.2	15.2
Annual Cost, $M	$206		-	$15	$12	$0	$344	$60	$100	$121	$1,371	$52	-	$2,076
Cost per Ton CO_2 Emissions Reduced, in $	54			77	345	0.18	1,802	1,115	9,685	2,004	3,918	3,014		

The Tampa/St. Petersburg area will experience a moderate rate of growth, increasing vehicle miles traveled (VMT) and CO_2 emissions accordingly. By 2030 this growth is predicted to generate about 17,600 more tons of CO_2 daily than the 2005 level of 31,500 tons per day. Countering such an increase in emissions would require reducing emissions by 35.9% to bring levels equal to those generated in 2005.

The new, more stringent CAFE standards can be expected to reduce that 17,600 tons per day by 15,300 tons per day, leaving only a 2,300 ton reduction per day, which is 4.7%, needed to hold emissions at 2005 levels. If Tampa elects to take action to decrease CO_2 emissions, it should consider these most cost-effective policies, which would reduce emissions by 1,400 tons per day:

- improving signal timing to increase traffic flow, reducing emissions by 800 tons per day (2.2% emission reduction, costing government annually $77 per ton of emissions reduced). This action would also save drivers an average of $2,156 annually in value of time that would have otherwise been spent in traffic.
- enacting speed harmonization policies, reducing emissions by 100 tons per day (.4% emission reduction, costing government annually $345 per ton of emissions reduced).
- enacting 55 mph speed caps, reducing emissions by 500 tons per day (1.5% emission reduction, costing government $.18 per ton of emissions reduced). However, speed caps increase the amount of time that people and goods take to get to their destinations and therefore this action has significant costs to people and businesses.



Actual costs may be more or less than these amounts based on the various methods used to accomplish the policies. Please see the main study for details of the range and cost of each policy option, and for explanations of the policies discussed.

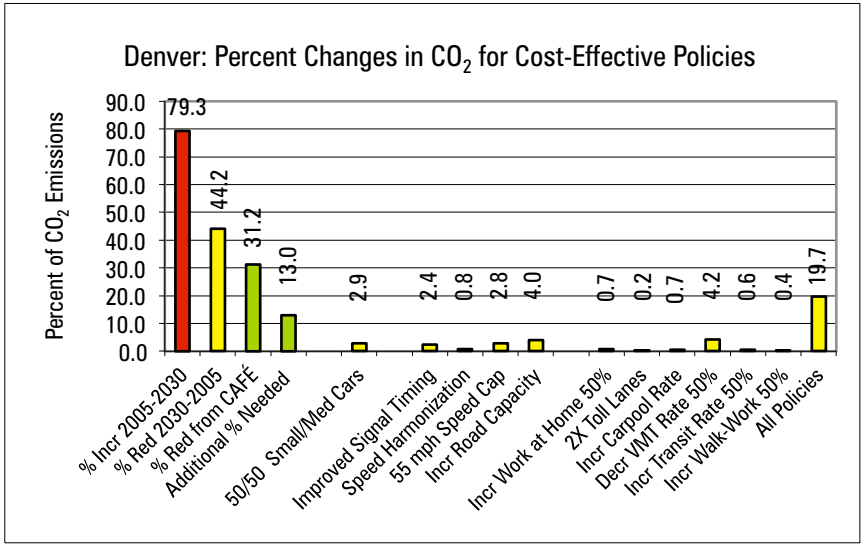
Denver-Aurora: Cost-Effective CO_2 Reduction Policies														
	Vehicle Fleet Mix			Highway System Improvement				Travel Behavior Shift						
Denver-Aurora	Effect of New CAFE Standards	Additional CO_2 Reduction Needed to Return to 2005 CO_2 Emission Levels	50/50 Small/ Med Cars	Improved Signal Timing	Speed Harmon-ization	55 mph Speed Cap	Incr Road Capacity	Incr Work at Home 50%	2X Toll Lanes	Incr Carpool Rate	Decr VMT 5%	Incr Transit Rate 50%	Incr Walk-Work 50%	All Policies
2030 CO_2, K Tons/Day	35.1													
Daily CO_2 Emission Reduction, K Tons/Day	16.0	6.6	1.0	0.9	0.3	1.0	1.5	0.2	0.1	0.2	1.5	0.2	0.1	7.1
% CO_2 Emission Reduction	31.2	13.0	2.9	2.4	0.8	2.8	4.0	0.7	0.2	0.7	4.2	0.6	0.4	19.7
Annual Cost, $M	$216		-	$20	$19	$0.04	$1,678	$183	$125	$98	$1,440	$440	-	$4,004
Cost per Ton CO_2 Emissions Reduced, in $	54			90	261	0.15	4,573	3,022	5,938	1,670	3,903	7,923		

The Denver/Aurora area is expected to experience a fast rate of growth, increasing vehicle miles traveled (VMT) and CO_2 emissions accordingly. By 2030 this growth is predicted to generate about 22,600 more tons of CO_2 daily than the 2005 level of 28,500 tons per day. Countering such an increase in emissions would require reducing emissions by 44.2% to bring levels equal to those generated in 2005.

The new, more stringent CAFE standards can be expected to reduce that 22,600 tons per day by 16,000 tons per day, leaving a 6,600 ton reduction per day, which is 13%, needed to hold CO_2 emissions at 2005 levels.

This reduction could be achieved by a full package of the most stringent measures, reducing 7,100 tons of emissions per day, but at a $4 billion annual cost to government. Instead, the measures we studied examined a combination of actions and policies to counter about half (6.7%) of the remainder of CO_2 emission reduction needed to reach 2005 levels. These measures focus on enacting speed controls, improving signal timing and encouraging work-at-home strategies, reducing emissions by 2,400 tons daily at a much lower cost of about $222 million annually. For greatest cost-effectiveness, Denver should consider these most cost-effective measures, which would reduce emissions by 2,200 tons per day:

- enacting a 55mph speed cap, reducing emissions by 1,000 tons per day (2.8% emissions reduction per day, costing government annually $.15 per ton of CO_2 emissions reduced). However, speed caps increase the amount of time that people and goods take to get to their destinations and therefore this action has significant costs to people and businesses.
- improving signal timing to increase traffic flow, reducing emissions by 900 tons per day (2.4% emission reduction, costing government annually $90 per ton of CO_2 emissions reduced). This action would also save drivers thousands of hours annually that would have otherwise been spent in traffic.
- improving speed harmonization, reducing emissions by 300 tons per day (.8% emission reduction, costing government annually $261 per ton of emissions reduced).

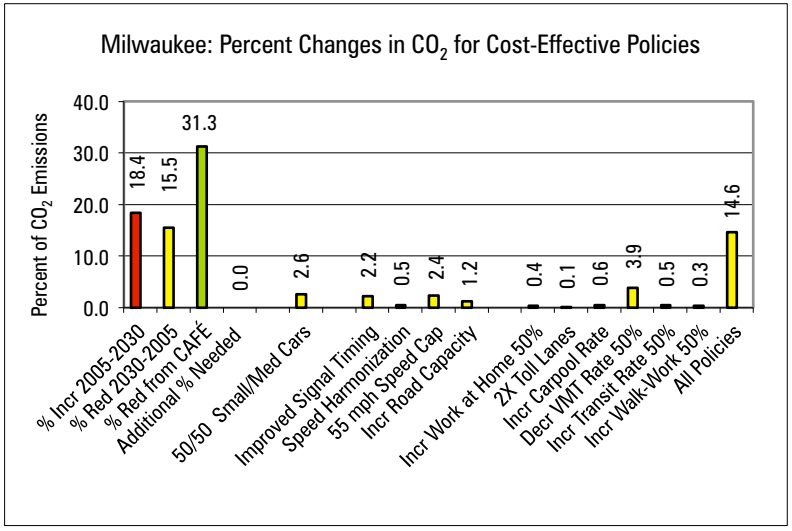


Actual costs may be more or less than these amounts based on the methods used to accomplish the policies. Please see the main study for details of the range and cost of each policy option, and for explanations of the policies discussed.

Milwaukee: Cost-Effective CO_2 Reduction Policies														
	Vehicle Fleet Mix			Highway System Improvement				Travel Behavior Shift						
Milwaukee	Effect of New CAFE Standards	Additional CO_2 Reduction Needed to Return to 2005 CO_2 Emission Levels	50/50 Small/ Med Cars	Improved Signal Timing	Speed Harmonization	55 mph Speed Cap	Incr Road Capacity	Incr Work at Home 50%	2X Toll Lanes	Incr Carpool Rate	Decr VMT 5%	Incr Transit Rate 50%	Incr Walk-Work 50%	All Policies
2030 CO_2, K Tons/Day	16.8													
Daily CO_2 Emission Reduction, K Tons/Day	7.7	0.0	0.4	0.4	0.1	0.4	0.2	0.1	0.0	0.1	0.7	0.1	0.1	2.5
% CO_2 Emission Reduction	31.3	0.0	2.6	2.2	0.5	2.4	1.2	0.4	0.1	0.6	3.9	0.5	0.3	14.6
Annual Cost, $M	$97		-	$23	$11	$0.02	$248	$64	$50	$31	$646	$148	-	$1,220
Cost per Ton CO_2 Emissions Reduced, in $	51			250	499	0.21	4,910	3,703	19,385	1,302	3,954	7,380		

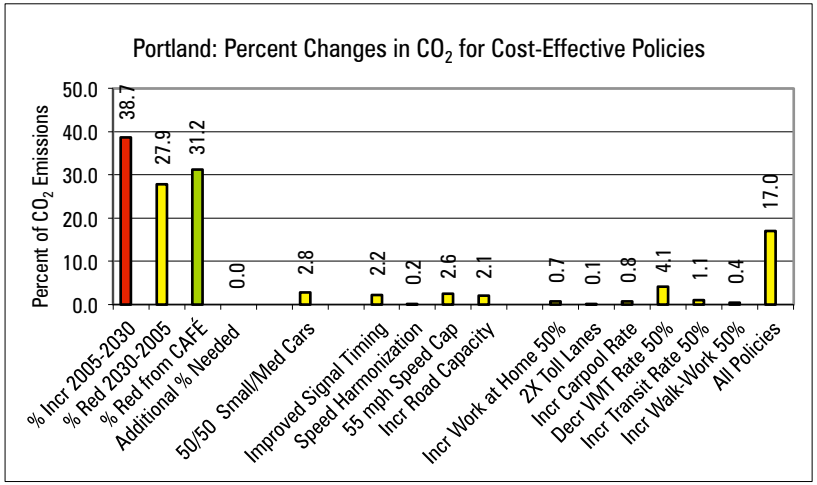
The Milwaukee region is predicted to experience only a modest rate of growth, increasing vehicle miles traveled (VMT) and CO_2 emissions accordingly. By 2030 this growth is predicted to generate only about 3,800 more tons of CO_2 daily than the 2005 level of 20,700 tons per day.

The new, more stringent CAFE standards can be expected to reduce emissions by 7,700 tons per day, which will more than offset the expected increase in emissions caused by Milwaukee's predicted growth. Therefore no actions are necessary.



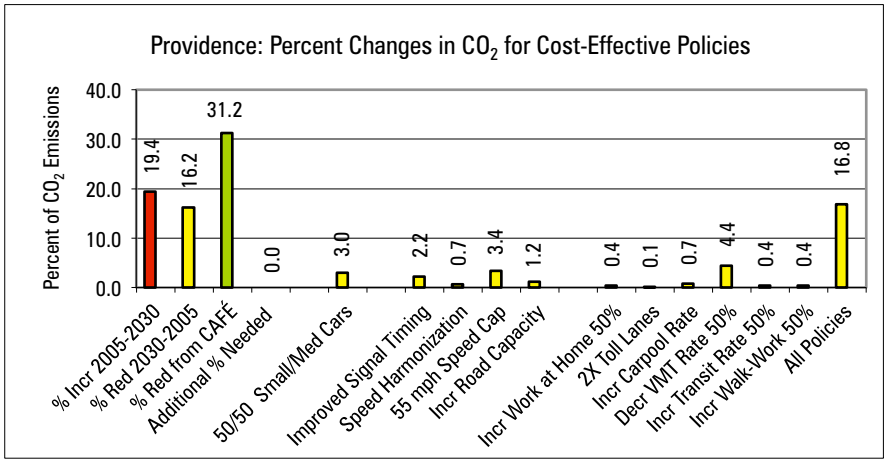
Portland: Cost-Effective CO_2 Reduction Policies															
	Vehicle Fleet Mix			Highway System Improvement				Travel Behavior Shift						
Portland, OR	Effect of New CAFE Standards	Additional CO_2 Reduction Needed to Return to 2005 CO_2 Emission Levels	50/50 Small/ Med Cars	Improved Signal Timing	Speed Harmonization	55 mph Speed Cap	Increase Road Capacity	Incr Work at Home 50%	2X Toll Lanes	Increase Carpool Rate	Decr VMT 5%	Incr Transit Rate 50%	Incr Walk-Work 50%	All Policies
2030 CO_2, K Tons/Day	9.6													
Daily CO_2 Emission Reduction, K Tons/Day	4.4	0.0	0.3	0.2	0.0	0.3	0.2	0.1	0.0	0.1	0.4	0.1	0.0	1.6
% CO_2 Emission Reduction	31.2	0.0	2.8	2.2	0.2	2.6	2.1	0.7	0.1	0.8	4.1	1.1	0.4	17.0
Annual Cost, $M	$58		-	$14	$11	$0.02	$767	$114	$75	$37	$384	$303	-	$1,706
Cost per Ton CO_2 Emissions Reduced, in $	53			265	2,132	0.36	15,215	6,680	27,713	2,004	3,932	11,655		

Inside its urban boundary, Portland, Oregon is predicted to grow modestly. By 2030 Portland's vehicle miles traveled (VMT) and CO_2 emissions are expected to increase by only about 3,900 additional tons of CO_2 daily over the 2005 level of 10,100 tons of emissions per day. However, more stringent CAFE standards will reduce CO_2 emissions by 4,400 tons/day, which more than compensates for the increase. Therefore, no actions are necessary.



Providence-Fall River: Cost-Effective CO_2 Reduction Policies															
	Vehicle Fleet Mix			Highway System Improvement				Travel Behavior Shift							
Providence-Fall River	Effect of New CAFE Standards	Additional CO_2 Reduction Needed to Return to 2005 CO_2 Emission Levels	50/50 Small/ Med Cars	Improved Signal Timing	Speed Harmonization	55 mph Speed Cap	Incr Road Capacity	Incr Work at Home 50%	2X Toll Lanes	Incr Carpool Rate	Decr VMT 5%	Incr Transit Rate 50%	Incr Walk-Work 50%	All Policies
2030 CO_2, K Tons/Day	8.3													
Daily CO_2 Emission Reduction, K Tons/Day	3.8	0.0	0.2	0.2	0.1	0.3	0.1	0.0	0.0	0.1	0.4	0.0	0.0	1.4
% CO_2 Emission Reduction	31.2	0.0	3.0	2.2	0.7	3.4	1.2	0.4	0.1	0.7	4.4	0.4	0.4	16.8
Annual Cost, $M	$53		-	$17	$14	$0.03	$226	$28	$50	$35	$356	$79	-	$804
Cost per Ton CO_2 Emissions Reduced, in $	56			371	1,014	0.39	9,345	3,366	32,617	2,338	3,950	8,622		

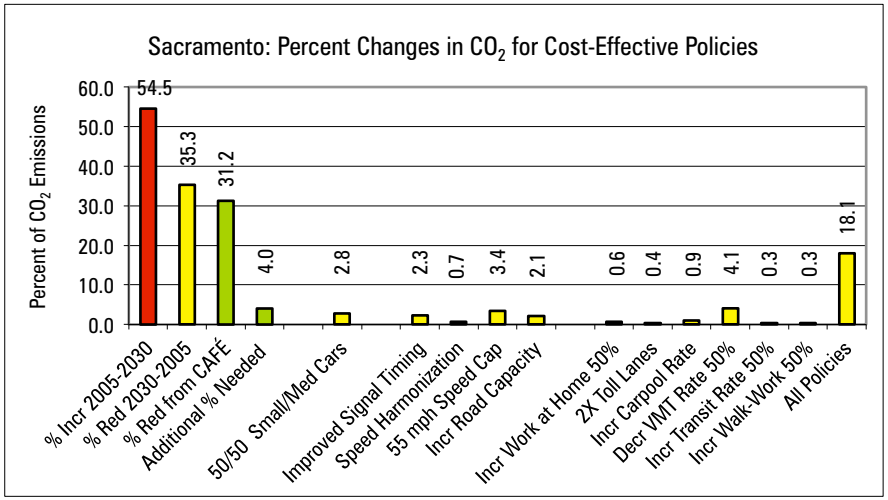
The Providence region forecasts relatively slow growth in vehicle miles traveled (VMT) and CO_2 emissions. By 2030 Providence will generate about 2,000 more tons of CO_2 emissions per day than the 2005 level of 10,100 tons per day. However, 3,800 tons of CO_2 emissions per day are likely to be reduced due to more stringent CAFE standards, which is almost twice the increase. Therefore, no actions are necessary.



Sacramento: Cost Effective CO_2 Reduction Policies														
	Vehicle Fleet Mix			Highway System Improvement				Travel Behavior Shift						
Sacramento, CA	Effect of New CAFE Standards	Additional CO_2 Reduction Needed to Return to 2005 CO_2 Emission Levels	50/50 Small/ Med Cars	Improved Signal Timing	Speed Harmonization	55 mph Speed Cap	Incr Road Capacity	Incr Work at Home 50%	2X Toll Lanes	Incr Carpool Rate	Decr VMT 5%	Incr Transit Rate 50%	Incr Walk-Work 50%	All Policies
2030 CO_2, K Tons/Day	29.2													
Daily CO_2 Emission Reduction, K Tons/Day	13.3	1.7	0.8	0.7	0.2	1.0	0.6	0.2	0.1	0.3	1.2	0.1	0.1	5.3
% CO_2 Emission Reduction	31.2	4.0	2.8	2.3	0.7	3.4	2.1	0.6	0.4	0.9	4.1	0.3	0.3	18.1
Annual Cost, $M	$176		-	$12	$9	$0.02	$680	$63	$50	$185	$1,177	$151	-	$2,326
Cost per Ton CO_2 Emissions Reduced, in $	53			70	168	0.07	4,274	1,328	1,707	2,672	3,919	5,989		

Sacramento forecasts a moderate rate of growth in vehicle miles traveled (VMT) and CO_2 emissions to 2030. Countering this increase would require reducing emissions by 15,000 tons of CO_2 daily (35.5%) to hold emissions at the 2005 level of 27,500 tons per day.

Since 13,300 tons (31.2%) are likely to be reduced by more stringent CAFE standards, only 1,700 (4%) tons of emissions per day need to be reduced via other actions. If Sacramento elects to reduce CO_2 emissions, it should enact the most cost-effective measures. The following most cost-effective actions would reduce CO_2 emissions by a total of 1,900 tons per day:



- improving signal timing to increase traffic flow, reducing emissions by 700 tons per day (2.3% emission reduction, costing government annually $70 per ton of emissions reduced). This action would also save drivers thousands of hours annually that would have otherwise been spent in traffic.

- enacting a 55mph speed cap would reducing emissions by 1,000 tons per day (3.4% emission reduction, costing government annually $.07 per ton of emissions reduced). However, speed caps increase the amount of time that people and goods take to get to their destinations and therefore this action has significant costs to people and business.

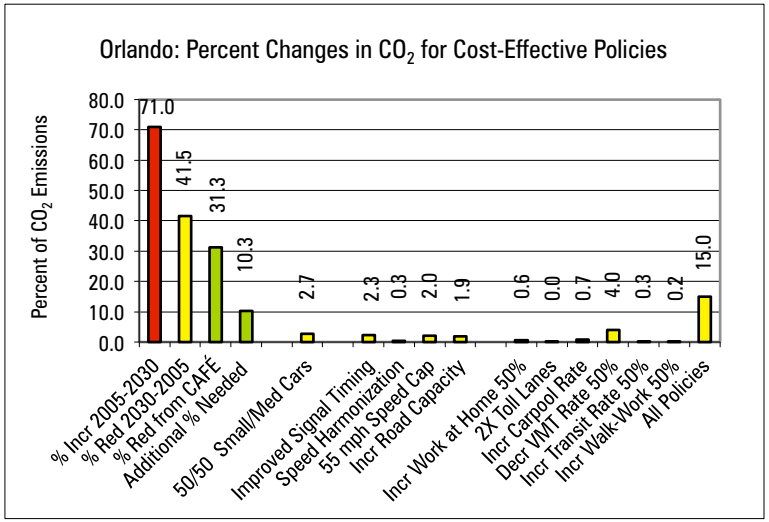
- enacting speed harmonization to smooth traffic flow, reducing emissions by 200 tons per day (.7% emission reduction, costing government annually $168 per ton of emissions reduced).

Actual costs may be more or less than these amounts based on the various methods used to accomplish the policies. Please see the main study for details of the range and cost of each policy option, and for explanations of the policies discussed.

Orlando: Cost-Effective CO_2 Reduction Policies															
	Vehicle Fleet Mix			Highway System Improvement				Travel Behavior Shift							
Orlando	Effect of New CAFE Standards	Additional CO_2 Reduction Needed to Return to 2005 CO_2 Emission Levels	50/50 Small/Med Cars	Improved Signal Timing	Speed Harmonization	55 mph Speed Cap	Incr Road Capacity	Incr Work at Home 50%	2X Toll Lanes	Incr Carpool Rate	Decr VMT 5%	Incr Transit Rate 50%	Incr Walk-Work 50%	All Policies
2030 CO_2, K Tons/Day	25.1													
Daily CO_2 Emission Reduction, K Tons/Day	11.4	3.7	0.7	0.6	0.1	0.5	0.5	0.1	0.0	0.2	1.0	0.1	0.0	3.8
% CO_2 Emission Reduction	31.3	10.3	2.7	2.3	0.3	2.0	1.9	0.6	0.0	0.7	4.0	0.3	0.2	15.0
Annual Cost, $M	$147		-	$11	$13	$0.03	$187	$46	$30	$94	$969	$98	-	$1,447
Cost per Ton CO_2 Emissions Reduced, in $	52			74	643	0.19	1,547	1,306	10,410	2,004	3,911	5,626		

The Orlando region is expected to experience very fast growth in vehicle miles traveled (VMT) and CO_2 emissions accordingly. By 2030 this growth is predicted to generate 15,100 additional tons of CO_2 emissions above the 2005 level of 21,300 tons per day. Countering such an increase in emissions would require reducing emissions by 41.5% to bring levels equal to those generated in 2005.

The new, more stringent CAFE standards will reduce that amount by 11,400 tons of CO_2 emissions per day, leaving 3,700 tons per day to be reduced by other means. At the current rate of growth, even the full package of extreme policies would reduce CO_2 emissions by just 3,800 tons per day at a whopping $1.45B annual cost to government. Clearly, on its current growth path, Orlando cannot cost-effectively reduce future CO_2 emissions below 2005 levels.



To the extent that Orlando takes action to alleviate CO_2 emissions, it should take the most cost-effective measures possible. These most cost-effective policies would reduce CO_2 emissions by 1,200 tons per day:

- improving signal timing to increase traffic flow, reducing emissions by 600 tons per day (2.3% emission reduction, costing government annually $74 per ton of emissions reduced). This action would also save drivers thousands of hours annually that would have otherwise been spent in traffic.
- enacting a 55mph speed cap, reducing emissions by 500 tons per day (2.0% emission reduction, costing government annually $.19 per ton of emissions reduced). However, speed caps increase the amount of time that people and goods take to get to their destinations and therefore this action has significant cost to people and business.
- enacting speed harmonization policies, reducing emissions by 100 tons per day (.3% emission reduction, costing government annually $643 per ton of emission reduced).

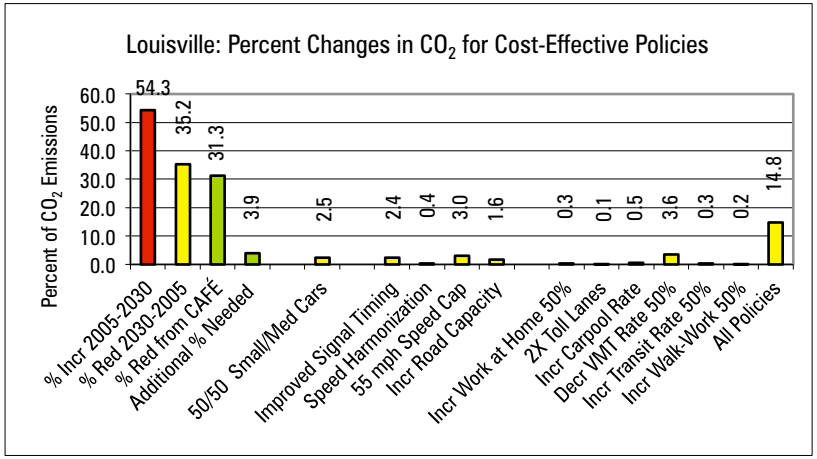
Actual costs may be more or less than these amounts based on the various methods used to accomplish the policies. Please see the main study for details of the range and cost of each policy option, and for explanations of the policies discussed.

Louisville: Cost-Effective CO_2 Reduction Policies															
	Vehicle Fleet Mix			Highway System Improvement				Travel Behavior Shift							
Louisville	Effect of New CAFE Standards	Additional CO_2 Reduction Needed to Return to 2005 CO_2 Emission Levels	50/50 Small/ Med Cars	Improved Signal Timing	Speed Harmonization	55 mph Speed Cap	Incr Road Capacity	Incr Work at Home 50%	2X Toll Lanes	Incr Carpool Rate	Decr VMT 5%	Incr Transit Rate 50%	Incr Walk-Work 50%	All Policies
2030 CO_2, K Tons/Day	17.8													
Daily CO_2 Emission Reduction, K Tons/Day	8.1	1.0	0.4	0.4	0.1	0.5	0.3	0.0	0.0	0.1	0.6	0.1	0.0	2.7
% CO_2 Emission Reduction	31.3	3.9	2.5	2.4	0.4	3.0	1.6	0.3	0.1	0.5	3.6	0.3	0.2	14.8
Annual Cost, $M	$96		-	$7	$11	$0.02	$344	$11	$30	$48	$629	$51	-	$1,132
Cost per Ton CO_2 Emissions Reduced, in $	47			67	690	0.17	4,734	927	11,284	2,004	3,926	3,927		

Louisville is predicted to have moderate growth in vehicle miles traveled (VMT) and CO_2 accordingly. By 2030 this growth is predicted to generate an extra 9,100 tons of CO_2 emissions per day above the 2005 level of 16,800 tons per day. Countering such an increase in emissions would require reducing emissions by 35.2% to bring levels equal to those generated in 2005.

The new, more stringent CAFE standards will reduce CO_2 emissions by about 8,100 tons per day, leaving only 1,000 tons per day to be reduced via other actions. The following most cost-effective measures would reduce CO_2 emissions by 1,000 tons per day:

- improving signal timing would reduce CO_2 emissions by 400 tons per day (2.4% CO_2 emission reduction, costing government annually $67 per ton of CO_2 emissions reduced daily).
- enacting speed harmonization policies would reduce CO_2 emissions by 100 tons per day (.4% CO_2 emission reduction, costing government annually $690 per ton of CO_2 emissions reduced daily).
- enacting speed caps would reduce CO_2 emissions by 500 tons per day (3% CO_2 emissions reduction, costing government annually $.17 per ton of CO_2 emissions reduced daily).). However, speed caps increase the amount of time that people and goods take to get to their destinations and therefore this action has significant costs to people and business.

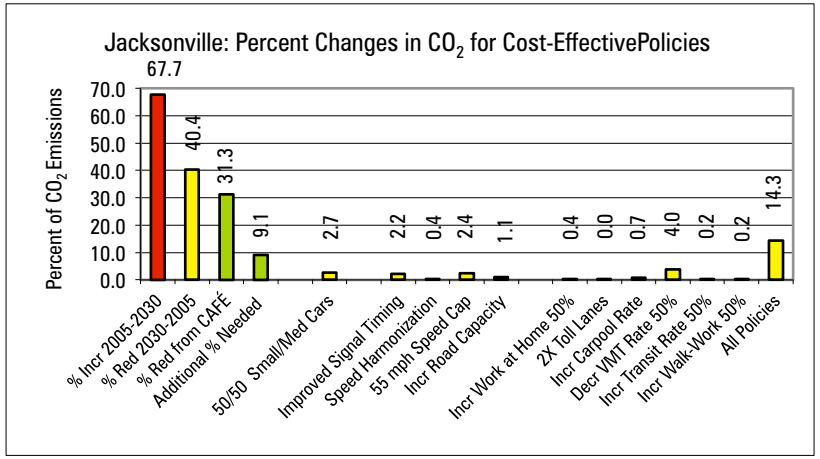


Actual costs may be more or less than these amounts based on the various methods used to accomplish the policies. Please see the main study for details of the range and cost of each policy option, and for explanations of the policies discussed.

Jacksonville: Cost-Effective CO_2 Reduction Policies															
	Vehicle Fleet Mix			Highway System Improvement				Travel Behavior Shift							
Jacksonville	Effect of New CAFE Standards	Additional CO_2 Reduction Needed to Return to 2005 CO_2 Emission Levels	50/50 Small/ Med Cars	Improved Signal Timing	Speed Harmonization	55 mph Speed Cap	Incr Road Capacity	Incr Work at Home 50%	2X Toll Lanes	Incr Carpool Rate	Decr VMT 5%	Incr Transit Rate 50%	Incr Walk-Work 50%	All Policies
2030 CO_2, K Tons/Day	18.9													
Daily CO_2 Emission Reduction, K Tons/Day	8.6	2.5	0.5	0.4	0.1	0.5	0.2	0.1	0.0	0.1	0.7	0.0	0.0	2.7
% CO_2 Emission Reduction	31.3	9.1	2.7	2.2	0.4	2.4	1.1	0.4	0.0	0.7	4.0	0.2	0.2	14.3
Annual Cost, $M	$111		-	$5	$12	$0.02	$179	$14	$30	$71	$733	$72	-	$1,116
Cost per Ton CO_2 Emissions Reduced, in $	51			49	695	0.21	3,272	777	17,539	2,004	3,913	7,825		

Jacksonville will experience very fast growth in vehicle miles traveled (VMT) and CO_2 emissions accordingly. By 2030 this growth is predicted to generate 11,100 additional tons of CO_2 emissions daily above the 2005 level of 16,400 tons per day. Countering such an increase in emissions would require reducing emissions by 40.4% to bring levels equal to those generated in 2005.

The new, more stringent CAFE standards will reduce that amount by 8,600 tons of CO_2 emissions per day, leaving 2,500 tons per day to be reduced by other means.



At the current rate of Jacksonville's growth, even the full package of extreme policies would reduce CO_2 emissions by just 2,700 tons per day at a whopping $1.11B annual cost to government. Clearly, on its current growth path, Jacksonville cannot cost-effectively reduce future CO_2 emissions below 2005 levels.

To the extent that Jacksonville takes action to alleviate CO_2 emissions, it should take the most cost-effective measures possible. The following most cost-effective policies would reduce emissions by 1,000 tons per day:

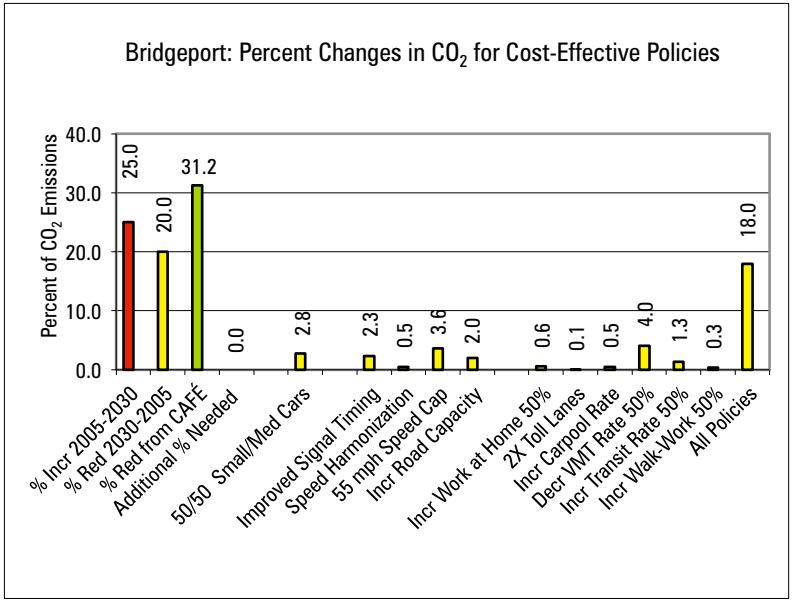
- improving signal timing to increase traffic flow, reducing emissions by 400 tons per day (2.2% emission reduction, costing government annually $49 per ton of emissions reduced). This action would also save drivers thousands of hours annually that would have otherwise been spent in traffic.
- enacting a 55mph speed cap, reducing emissions by 500 tons per day (2.4% emission reduction, costing government annually $.21 per ton of emissions reduced). However, speed caps increase the amount of time that people and goods take to get to their destinations and therefore this action has significant costs to people and business.
- enacting speed harmonization policies, reducing emissions by 100 tons per day (.4% emission reduction, costing government annually $695 per ton of emission reduced).

Actual costs may be more or less than these amounts based on the various methods used to accomplish the policies. Please see the main study for details of the range and cost of each policy option, and for explanations of the policies discussed.

Bridgeport-Stamford: Cost-Effective CO_2 Reduction Policies															
	Vehicle Fleet Mix			Highway System Improvement				Travel Behavior Shift							
Bridgeport-Stamford	Effect of New CAFE Standards	Additional CO_2 Reduction Needed to Return to 2005 CO_2 Emission Levels	50/50 Small/ Med Cars	Improved Signal Timing	Speed Harmonization	55 mph Speed Cap	Incr Road Capacity	Incr Work at Home 50%	2X Toll Lanes	Incr Carpool Rate	Decr VMT 5%	Incr Transit Rate 50%	Incr Walk-Work 50%	All Policies
2030 CO_2, K Tons/Day	9.1													
Daily CO_2 Emission Reduction, K Tons/Day	4.1	0.0	0.3	0.2	0.0	0.3	0.2	0.1	0.0	0.0	0.4	0.1	0.0	1.7
% CO_2 Emission Reduction	31.2	0.0	2.8	2.3	0.5	3.6	2.0	0.6	0.1	0.5	4.0	1.3	0.3	18.0
Annual Cost, $M	$54		-	$8	$9	$0.02	$149	$6	$20	$71	$363	$14	-	$641
Cost per Ton CO_2 Emissions Reduced, in $	52			148	740	0.22	3,297	504	12,295	5,844	3,945	472		

The Bridgeport-Stamford region is predicted to experience only a modest rate of growth of 25%, increasing vehicle miles traveled (VMT) and CO_2 emissions accordingly. By 2030 this growth is predicted to generate only about 2,700 more tons of CO_2 daily than the 2005 level of 10,600 tons per day.

The new, more stringent CAFE standards can be expected to reduce emissions by 4,100 tons per day, which will more than offset the expected increase in emissions caused by Bridgeport's predicted growth. Therefore no actions are necessary.

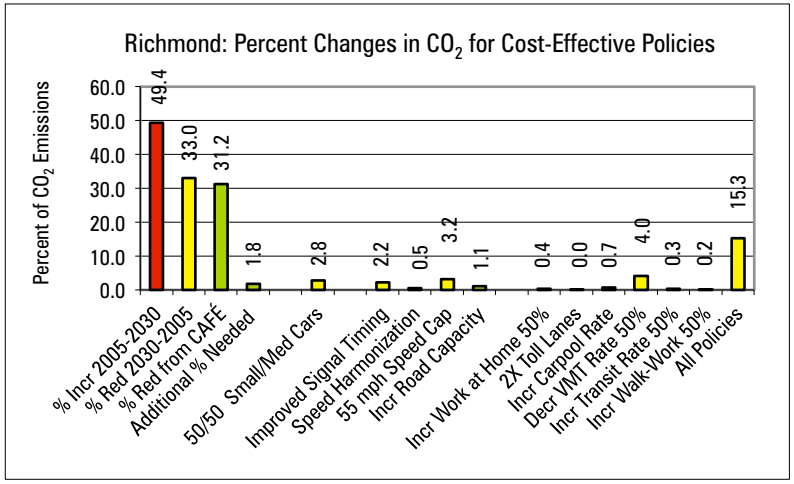


Richmond-Petersburg, VA: Cost-Effective CO_2 Reduction Policies															
	Vehicle Fleet Mix			Highway System Improvement				Travel Behavior Shift						
Richmond-Petersburg, VA	Effect of New CAFE Standards	Additional CO_2 Reduction Needed to Return to 2005 CO_2 Emission Levels	50/50 Small/ Med Cars	Improved Signal Timing	Speed Harmonization	55 mph Speed Cap	Incr Road Capacity	Incr Work at Home 50%	2X Toll Lanes	Incr Carpool Rate	Decr VMT 5%	Incr Transit Rate 50%	Incr Walk-Work 50%	All Policies
2030 CO_2, K Tons/Day	12.7													
Daily CO_2 Emission Reduction, K Tons/Day	5.8	0.3	0.3	0.3	0.1	0.4	0.1	0.1	0.0	0.1	0.5	0.0	0.0	2.0
% CO_2 Emission Reduction	31.2	1.8	2.8	2.2	0.5	3.2	1.1	0.4	0.0	0.7	4.0	0.3	0.2	15.3
Annual Cost, $M	$75		-	$10	$15	$0.03	$45	$17	$20	$33	$503	$32	-	$674
Cost per Ton CO_2 Emissions Reduced, in $	52			134	964	0.29	1,339	1281	24,014	1,503	3,924	3,451		

The Richmond-Petersburg region will experience a moderate rate of growth, increasing vehicle miles traveled (VMT) and CO_2 emissions accordingly. By 2030 this growth is predicted to generate about 6,100 more tons per day of CO_2 emissions than the 2005 level of 12,400 tons per day. Countering such an increase in emissions would require reducing emissions by 33.0% to bring levels equal to those generated in 2005.

The new, more stringent CAFE standards can be expected to reduce that 6,100 by 5,800 tons of CO_2 daily, which is 31.2%, leaving only 300 tons of CO_2 emissions per day to bring levels in line with 2005.

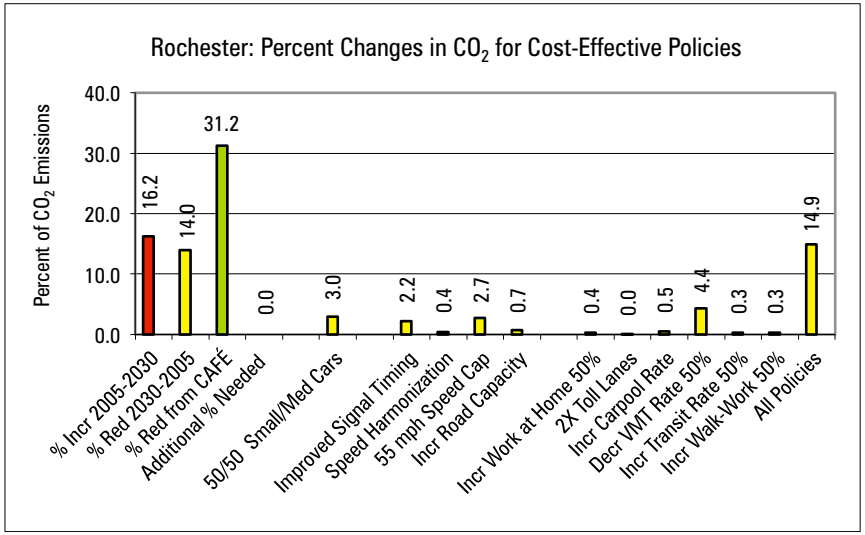
Improving signal timing, a very cost-effective measure, can be expected to reduce emissions by 300 tons per day, bringing levels equal to those in 2005, costing government $134 per ton of emissions reduced.



Rochester, NY: Cost-Effective CO_2 Reduction Policies														
	Vehicle Fleet Mix			Highway System Improvement				Travel Behavior Shift						
Rochester, NY	Effect of New CAFE Standards	Additional CO_2 Reduction Needed to Return to 2005 CO_2 Emission Levels	50/50 Small/Med Cars	Improved Signal Timing	Speed Harmonization	55 mph Speed Cap	Incr Road Capacity	Incr Work at Home 50%	2X Toll Lanes	Incr Carpool Rate	Decr VMT 5%	Incr Transit Rate 50%	Incr Walk-Work 50%	All Policies
2030 CO_2, K Tons/Day	8.5													
Daily CO_2 Emission Reduction, K Tons/Day	3.9	0.0	0.3	0.2	0.0	0.2	0.1	0.0	0.0	0.0	0.4	0.0	0.0	1.3
% CO_2 Emission Reduction	31.2	0.0	3.0	2.2	0.4	2.7	0.7	0.4	0.0	0.5	4.4	0.3	0.3	14.9
Annual Cost, $M	$54		-	$6	$8	$0.02	$189	$14	$20	$29	$367	$55	-	$688
Cost per Ton CO_2 Emissions Reduced, in $	56			131	853	0.25	11,791	1,813	20,205	2,672	3,954	8,516		

Rochester, New York is predicted to experience a slow growth rate, increasing vehicle miles traveled (VMT) and CO_2 emissions accordingly. By 2030 this growth is predicted to generate only about a 16.2% increase at 1,700 more tons of CO_2 emissions per day than the 2005 level of 10,700 tons per day.

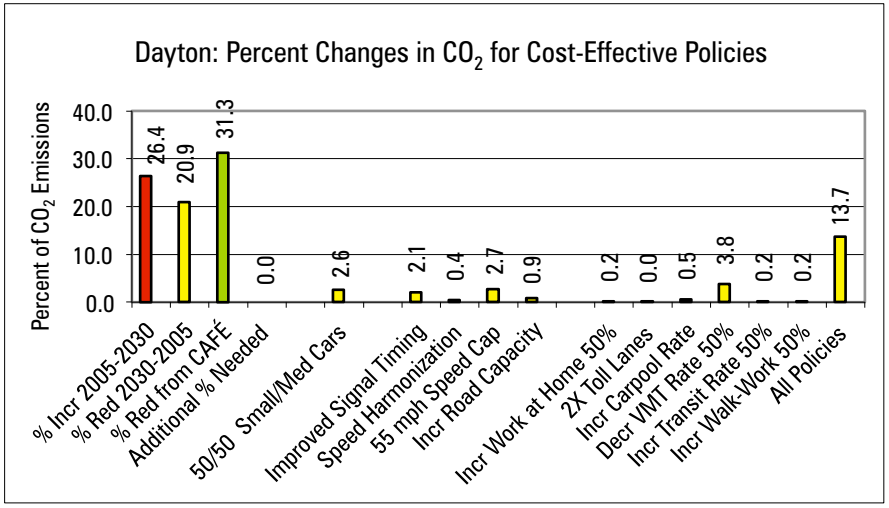
The new, more stringent CAFE standards can be expected to reduce emissions by 3,900 tons per day, which is more than twice the increase caused by Rochester's predicted growth. Therefore no actions are necessary.



Dayton, OH: Cost-Effective CO_2 Reduction Policies														
	Vehicle Fleet Mix			Highway System Improvement				Travel Behavior Shift						
Dayton, OH	Effect of New CAFE Standards	Additional CO_2 Reduction Needed to Return to 2005 CO_2 Emission Levels	50/50 Small/ Med Cars	Improved Signal Timing	Speed Harmonization	55 mph Speed Cap	Incr Road Capacity	Incr Work at Home 50%	2X Toll Lanes	Incr Carpool Rate	Decr VMT 5%	Incr Transit Rate 50%	Incr Walk-Work 50%	All Policies
2030 CO_2, K Tons/Day	8.8													
Daily CO_2 Emission Reduction, K Tons/Day	4.0	0.0	0.2	0.2	0.0	0.2	0.1	0.0	0.0	0.0	0.3	0.0	0.0	1.2
% CO_2 Emission Reduction	31.3	0.0	2.6	2.1	0.4	2.7	0.9	0.2	0.0	0.5	3.8	0.2	0.2	13.7
Annual Cost, $M	$49		-	$6	$8	$0.02	$110	$6	$20	$31	$328	$52	-	$562
Cost per Ton CO_2 Emissions Reduced, in $	49			136	860	0.28	5,406	1,258	22,980	2,672	3,946	9,900		

Dayton, Ohio is predicted to experience a relatively slow increase in vehicle miles traveled (VMT) and CO_2 emissions accordingly. By 2030 CO_2 emissions are expected to generate only about 2,700 more tons of CO_2 emissions daily than the 2005 level of 10,200 tons per day.

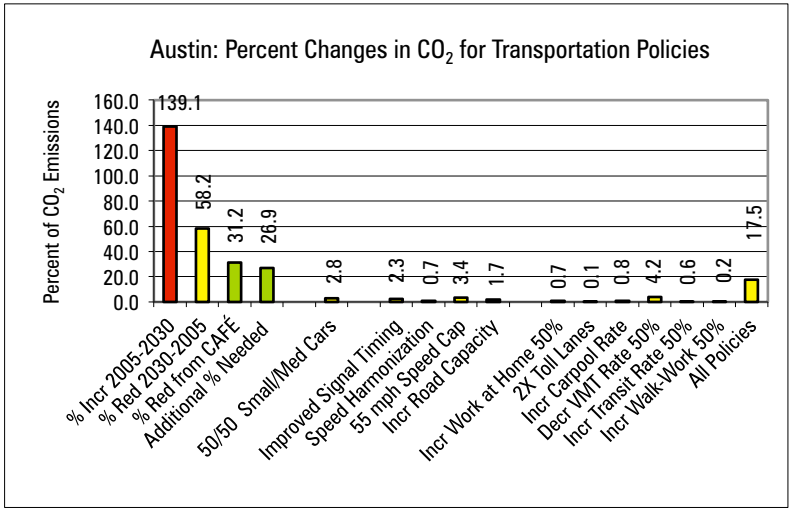
The new, more stringent CAFE standards can be expected to reduce emissions by about 4,000 tons per day, which is more than the increase caused by Dayton's predicted growth. Therefore no actions are necessary.



Austin TX: Cost-Effective CO_2 Reduction Policies														
	Vehicle Fleet Mix			Highway System Improvement				Travel Behavior Shift						
Austin, TX	Effect of New CAFE Standards	Additional CO_2 Reduction Needed to Return to 2005 CO_2 Emission Levels	50/50 Small/ Med Cars	Improved Signal Timing	Speed Harmonization	55 mph Speed Cap	Incr Road Capacity	Incr Work at Home 50%	2X Toll Lanes	Incr Carpool Rate	Decr VMT 5%	Incr Transit Rate 50%	Incr Walk-Work 50%	All Policies
2030 CO_2, K Tons/Day	25.0													
Daily CO_2 Emission Reduction, K Tons/Day	11.4	9.8	0.7	0.6	0.2	0.9	0.4	0.2	0.0	0.2	1.0	0.1	0.1	4.4
% CO_2 Emission Reduction	31.2	26.9	2.8	2.3	0.7	3.4	1.7	0.7	0.1	0.8	4.2	0.6	0.2	17.5
Annual Cost, $M	$153		-	$4	$8	$0.02	$430	$69	$20	$121	$1,008	$143	-	$1,803
Cost per Ton CO_2 Emissions Reduced, in $	54			30	173	0.07	3,954	1,555	4,906	2,438	3,880	4,130		

Austin, Texas will experience very rapid growth, increasing vehicle miles traveled (VMT) and CO_2 emissions accordingly. By 2030 this growth is predicted to generate about 21,200 more tons per day above the 2005 level of 15,200 tons per day. Countering such an increase in emissions would require reducing CO_2 emissions by 58.2% to bring levels equal to those generated in 2005.

The new, more stringent CAFE standards will reduce emissions by 11,400 tons per day, which is about half of the increase. To decrease the remainder, even a package of stringent actions would reduce just 4,400 tons per day, still short of the increase, at a cost of $18B annually. Therefore Austin is unlikely to hold CO_2 emissions at 2005 levels without extremely stringent actions that may not be cost-effective.



To the extent that Austin takes action to alleviate CO_2 emissions, it should use the most cost-effective measures possible. The following most cost-effective policies would reduce emissions by 1,700 tons per day:

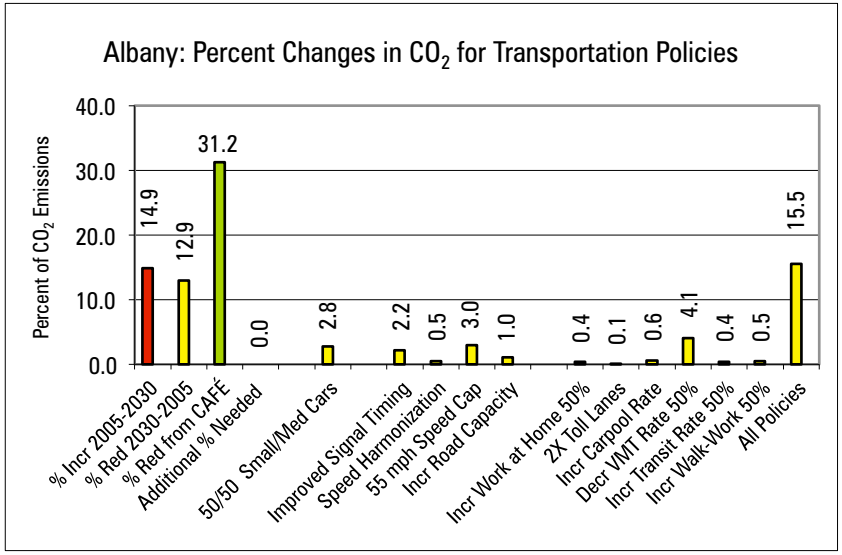
- enacting a 55 mph speed cap, reducing CO_2 emissions by 900 tons per day (3.4% emission reduction, costing government annually $.07 per ton of emissions reduced). However, speed caps increase the amount of time that people and goods take to get to their destinations and therefore this action has significant costs to people and businesses.
- improving signal timing to increase traffic flow, reducing CO_2 emissions by 600 tons per day (2.3% emission reduction, costing government annually $30 per ton of emissions reduced). This action would also save drivers thousands of hours annually that would have otherwise been spent in traffic.
- enacting speed harmonization to smooth traffic flow, reducing CO_2 emissions by 200 tons per day (.7% emission reduction, costing government annually $173 per ton of emissions reduced).

Actual costs may be more or less than these amounts based on the various methods used to accomplish the policies. Please see the main study for details of the range and cost of each policy option, and for explanations of the policies discussed.

Albany-Schenectady-Troy: Cost-Effective CO_2 Reduction Policies															
	Vehicle Fleet Mix			Highway System Improvement				Travel Behavior Shift							
Albany-Schenectady-Troy	Effect of New CAFE Standards	Additional CO_2 Reduction Needed to Return to 2005 CO_2 Emission Levels	50/50 Small/ Med Cars	Improved Signal Timing	Speed Harmonization	55 mph Speed Cap	Incr Road Capacity	Incr Work at Home 50%	2X Toll Lanes	Incr Carpool Rate	Decr VMT 5%	Incr Transit Rate 50%	Incr Walk-Work 50%	All Policies
2030 CO_2, K Tons/Day	9.1													
Daily CO_2 Emission Reduction, K Tons/Day	4.1	0.0	0.3	0.2	0.0	0.3	0.1	0.0	0.0	0.1	0.4	0.0	0.0	1.4
% CO_2 Emission Reduction	31.2	0.0	2.8	2.2	0.5	3.0	1.0	0.4	0.1	0.6	4.1	0.4	0.5	15.5
Annual Cost, $M	$55		-	$6	$8	$0.02	$171	$7	$15	$32	$370	$49	-	$658
Cost per Ton CO_2 Emissions Reduced, in $	53			121	651	0.23	7,098	822	12,903	2,338	3,957	5,208		

The Albany-Schenectady-Troy region is predicted to experience a slow growth rate, increasing vehicle miles traveled (VMT) and CO_2 emissions accordingly. By 2030 this growth is predicted to generate only about 1,700 more tons per day of CO_2 emissions above the 2005 level of 11,500 tons per day.

The new, more stringent CAFE standards can be expected to reduce emissions by 4,100 tons per day, which is more than twice the predicted increase. Therefore, no further actions are necessary.

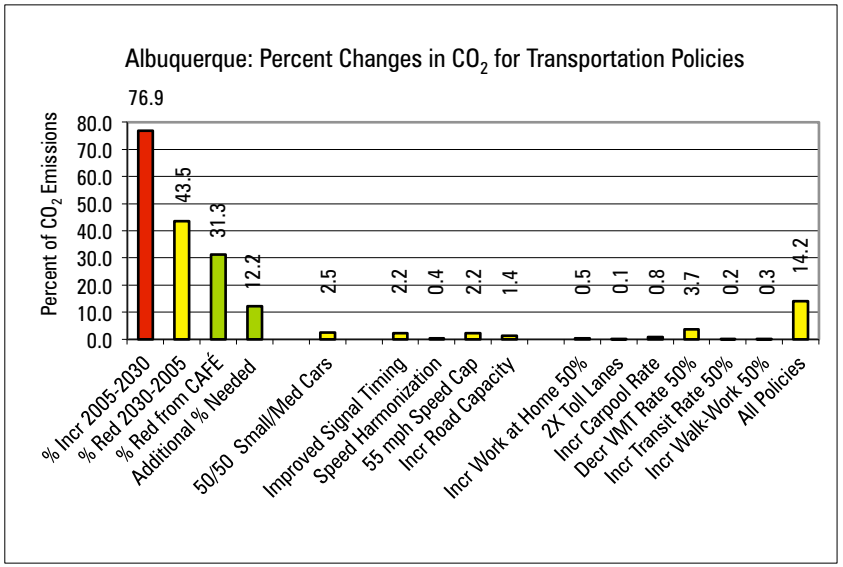


Albuquerque: Cost-Effective CO_2 Reduction Policies															
	Vehicle Fleet Mix			Highway System Improvement				Travel Behavior Shift							
Albuquerque	Effect of New CAFE Standards	Additional CO_2 Reduction Needed to Return to 2005 CO_2 Emission Levels	50/50 Small/ Med Cars	Improved Signal Timing	Speed Harmonization	55 mph Speed Cap	Incr Road Capacity	Incr Work at Home 50%	2X Toll Lanes	Incr Carpool Rate	Decr VMT 5%	Incr Transit Rate 50%	Incr Walk-Work 50%	All Policies
2030 CO_2, K Tons/Day	9.5													
Daily CO_2 Emission Reduction, K Tons/Day	4.3	1.7	0.2	0.2	0.0	0.2	0.1	0.0	0.0	0.1	0.3	0.0	0.0	1.3
% CO_2 Emission Reduction	31.3	12.2	2.5	2.2	0.4	2.2	1.4	0.5	0.1	0.8	3.7	0.2	0.3	14.2
Annual Cost, $M	$52		-	$5	$5	$0.01	$138	$17	$15	$33	$341	$42	-	$596
Cost per Ton CO_2 Emissions Reduced, in $	49			101	537	0.18	4,253	1,449	11,175	1,670	3,913	9,272		

Albuquerque is predicted to experience strong growth to 2030. The increase in vehicle miles traveled (VMT) and CO_2 emissions equate to 6,000 more tons of CO_2 emissions per day than the 2005 level of 7,800 tons per day. Countering such an increase would require reducing emissions by 43.5% to bring levels equal to those generated in 2005.

More stringent CAFE standards are expected to reduce about 4,300 tons per day, leaving 1,700 tons per day to be decreased by other actions.

However, even a package of stringent actions would save just 1,300 tons/day, 400 tons per day short of the increase, and at a cost of $596M annually. Therefore on its present growth path, Albuquerque is unlikely to be able to reduce CO_2 below 2005 levels even at very high cost.



To the extent that Albuquerque takes action to alleviate CO_2 emissions, it should use the most cost-effective measures possible. The following most cost-effective measures would reduce emissions by 400 tons per day:

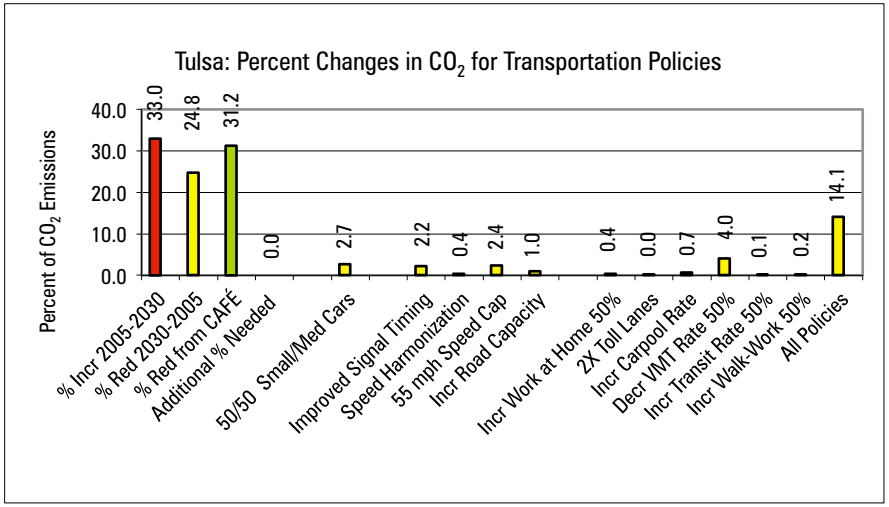
- improving signal timing, reducing emissions by 200 tons per day (2.5% reduction, costing government $101 per ton of emissions reduced). This action would also save drivers thousands of hours annually that would have otherwise been spent in traffic.
- enacting a 55 mph speed cap, reducing emissions by 200 tons per day (2.2% reduction, costing government $.18 per ton of emissions reduced). However, speed caps increase the amount of time that people and goods take to get to their destinations and therefore this action has significant costs to people and businesses.

Actual costs may be more or less than these amounts based on the various methods used to accomplish the policies. Please see the main study for details for the range and cost of each policy option, and for explanations of the policies discussed.

Tulsa OK: Cost-Effective CO_2 Reduction Policies														
	Vehicle Fleet Mix			Highway System Improvement				Travel Behavior Shift						
Tulsa, OK	Effect of New CAFE Standards	Additional CO_2 Reduction Needed to Return to 2005 CO_2 Emission Levels	50/50 Small/ Med Cars	Improved Signal Timing	Speed Harmonization	55 mph Speed Cap	Incr Road Capacity	Incr Work at Home 50%	2X Toll Lanes	Incr Carpool Rate	Decr VMT 5%	Incr Transit Rate 50%	Incr Walk-Work 50%	All Policies
2030 CO_2, K Tons/Day	9.8													
Daily CO_2 Emission Reduction, K Tons/Day	4.5	0.0	0.3	0.2	0.0	0.2	0.1	0.0	0.0	0.1	0.4	0.0	0.0	1.4
% CO_2 Emission Reduction	31.2	0.0	2.7	2.2	0.4	2.4	1.0	0.4	0.0	0.7	4.0	0.1	0.2	14.1
Annual Cost, $M	$58		-	$9	$11	$0.02	$245	$11	$15	$43	$388	$16	-	$738
Cost per Ton CO_2 Emissions Reduced, in $	52			163	1,234	0.38	10,047	1,177	24,870	2,672	3,938	5,694		

The Tulsa region is predicted to experience modest growth, increasing vehicle miles traveled (VMT) and CO_2 emissions accordingly. By 2030 this growth is expected to generate only about 3,500 more tons per day of CO_2 than the 2005 levels of 10,700 tons per day.

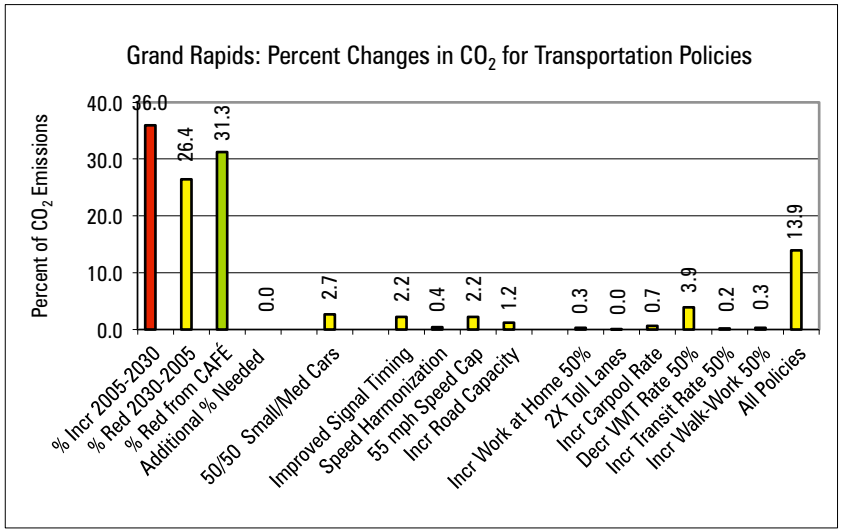
The new, more stringent CAFE standards can be expected to reduce emissions by 4,500 tons per day, which is more than the increase caused by Tulsa's predicted growth. Therefore no actions are necessary.



Grand Rapids: Cost-Effective CO_2 Reduction Policies															
	Vehicle Fleet Mix			Highway System Improvement				Travel Behavior Shift							
Grand Rapids	Effect of New CAFE Standards	Additional CO_2 Reduction Needed to Return to 2005 CO_2 Emission Levels	50/50 Small/ Med Cars	Improved Signal Timing	Speed Harmonization	55 mph Speed Cap	Incr Road Capacity	Incr Work at Home 50%	2X Toll Lanes	Incr Carpool Rate	Decr VMT 5%	Incr Transit Rate 50%	Incr Walk-Work 50%	All Policies
2030 CO_2, K Tons/Day	9.9													
Daily CO_2 Emission Reduction, K Tons/Day	4.5	0.0	0.3	0.2	0.0	0.2	0.1	0.0	0.0	0.1	0.4	0.0	0.0	1.4
% CO_2 Emission Reduction	31.3	0.0	2.7	2.2	0.4	2.2	1.2	0.3	0.0	0.7	3.9	0.2	0.3	13.9
Annual Cost, $M	$57		-	$6	$8	$0.02	$51	$10	$8	$58	$380	$30	-	$551
Cost per Ton CO_2 Emissions Reduced, in $	51			114	817	0.28	1,767	1,294	15,450	3,573	3,936	8,001		

The Grand Rapids, Michigan region is predicted to experience modest growth, increasing vehicle miles traveled (VMT) and CO_2 emissions accordingly. By 2030 this growth is predicted to generate only about 3,800 more tons of CO_2 daily than the 2005 level of 10,600 tons per day.

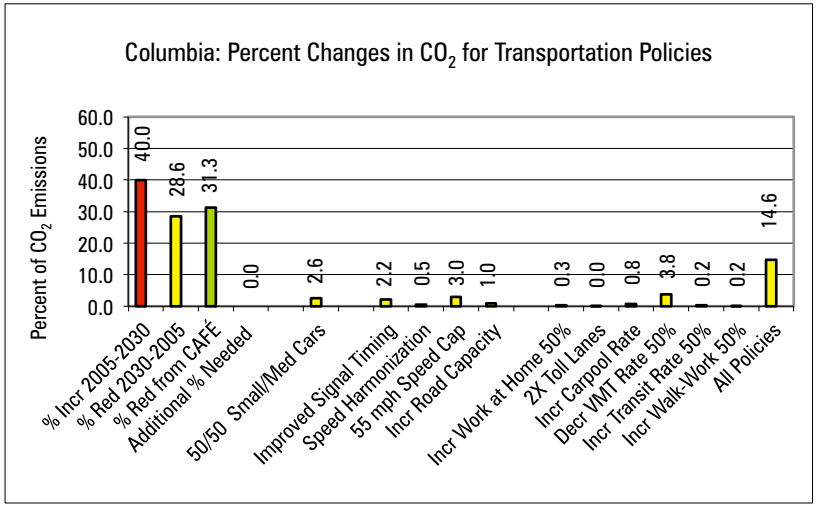
The new, more stringent CAFE standards can be expected to reduce emissions by 4,500 tons per day, which is more than the predicted increase. Therefore no actions are necessary.



Columbia, SC: Cost-Effective CO_2 Reduction Policies														
	Vehicle Fleet Mix			Highway System Improvement				Travel Behavior Shift						
Columbia, SC	Effect of New CAFE Standards	Additional CO_2 Reduction Needed to Return to 2005 CO_2 Emission Levels	50/50 Small/ Med Cars	Improved Signal Timing	Speed Harmonization	55 mph Speed Cap	Incr Road Capacity	Incr Work at Home 50%	2X Toll Lanes	Incr Carpool Rate	Decr VMT 5%	Incr Transit Rate 50%	Incr Walk-Work 50%	All Policies
2030 CO_2, K Tons/Day	5.1													
Daily CO_2 Emission Reduction, K Tons/Day	2.3	0.0	0.1	0.1	0.0	0.2	0.1	0.0	0.0	0.0	0.2	0.0	0.0	0.7
% CO_2 Emission Reduction	31.3	0.0	2.6	2.2	0.5	3.0	1.0	0.3	0.0	0.8	3.8	0.2	0.2	14.6
Annual Cost, $M	$29		-	$6	$7	$0.01	$59	$7	$8	$17	$189	$9	-	$301
Cost per Ton CO_2 Emissions Reduced, in $	49			206	969	0.34	4,522	1,987	38,796	1,670	3,934	2,988		

The Columbia, South Carolina region is predicted to experience moderate growth, increasing vehicle miles traveled (VMT) and CO_2 emissions accordingly. By 2030 this growth is predicted to generate only about 2,100 more tons per day than the 2005 level of 5,300 tons per day.

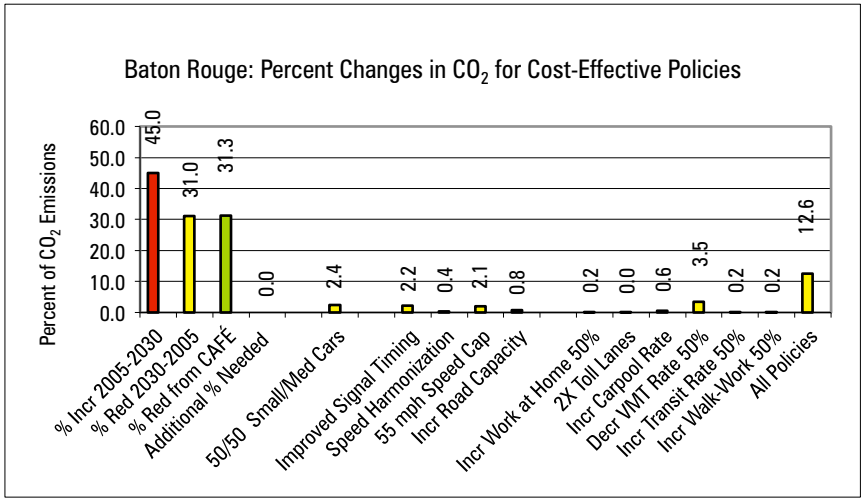
The new, more stringent CAFE standards can be expected to reduce emissions by 2,300 tons per day, which is more than the increase caused by Columbia's growth. Therefore no actions are necessary.



Baton Rouge: Cost-Effective CO_2 Reduction Policies														
	Vehicle Fleet Mix			Highway System Improvement				Travel Behavior Shift						
Baton Rouge	Effect of New CAFE Standards	Additional CO_2 Reduction Needed to Return to 2005 CO_2 Emission Levels	50/50 Small/ Med Cars	Improved Signal Timing	Speed Harmonization	55 mph Speed Cap	Incr Road Capacity	Incr Work at Home 50%	2X Toll Lanes	Incr Carpool Rate	Decr VMT 5%	Incr Transit Rate 50%	Incr Walk-Work 50%	All Policies
2030 CO_2, K Tons/Day	7.3													
Daily CO_2 Emission Reduction, K Tons/Day	3.3	0.0	0.2	0.2	0.0	0.2	0.1	0.0	0.0	0.0	0.3	0.0	0.0	0.9
% CO_2 Emission Reduction	31.3	0.0	2.4	2.2	0.4	2.1	0.8	0.2	0.0	0.6	3.5	0.2	0.2	12.6
Annual Cost, $M	$38		-	$8	$5	$0.01	$105	$6	$8	$17	$249	$26	-	$423
Cost per Ton CO_2 Emissions Reduced, in $	46			190	593	0.23	6,953	1,571	15,213	1,670	3,934	7,882		

The Baton Rouge region is predicted to experience a moderate rate of growth, increasing vehicle miles traveled (VMT) and CO_2 emissions accordingly. By 2030 this growth is predicted to generate about 3,300 more tons per day of CO_2 than the 2005 level of 7,300 tons per day.

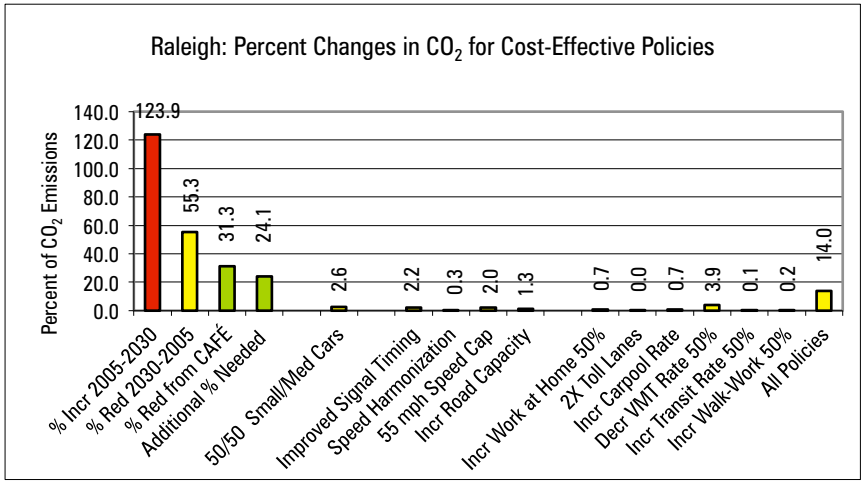
The new, more stringent CAFE standards can be expected to reduce emissions by 3,300 tons per day, which is the same amount as the increase caused by Baton Rouge's growth. Therefore no actions are necessary.



Raleigh: Cost-Effective CO_2 Reduction Policies														
	Vehicle Fleet Mix			Highway System Improvement				Travel Behavior Shift						
Raleigh	Effect of New CAFE Standards	Additional CO_2 Reduction Needed to Return to 2005 CO_2 Emission Levels	50/50 Small/ Med Cars	Improved Signal Timing	Speed Harmonization	55 mph Speed Cap	Incr Road Capacity	Incr Work at Home 50%	2X Toll Lanes	Incr Carpool Rate	Decr VMT 5%	Incr Transit Rate 50%	Incr Walk-Work 50%	All Policies
2030 CO_2, K Tons/Day	16.1													
Daily CO_2 Emission Reduction, K Tons/Day	7.3	5.6	0.4	0.4	0.1	0.3	0.2	0.1	0.0	0.1	0.6	0.0	0.0	2.3
% CO_2 Emission Reduction	31.3	24.1	2.6	2.2	0.3	2.0	1.3	0.7	0.0	0.7	3.9	0.1	0.2	14.0
Annual Cost, $M	$92		-	$4	$6	$0.01	$643	$39	$15	$56	$608	$11	-	$1,382
Cost per Ton CO_2 Emissions Reduced, in $	50			45	443	0.15	12,382	1,438	9,095	2,004	3,891	2,009		

The Raleigh, North Carolina region is expected to experience very rapid growth, increasing vehicle miles traveled (VMT) and CO_2 emissions accordingly. By 2030, this growth is predicted to generate about 13,000 more tons per day than the 2005 level of 10,500 tons per day. Countering such an increase in emissions would require reducing CO_2 emissions by 55.3% to bring levels equal to those generated in 2005.

The new, more stringent CAFE standards will reduce emissions by about 7,300 tons per day, leaving 5,600 tons per day (24.1%) to be decreased using other actions. But even a package of stringent actions would reduce emissions by only 2,300 tons per day, at a high cost of $1.38B annually. It is clear that Raleigh cannot cost-effectively reduce future CO_2 emissions below 2005 levels.



To the extent that Raleigh takes action to alleviate CO_2 emissions, it should use the most cost-effective measures possible. The following most cost-effective measures would reduce emissions by 800 tons per day:

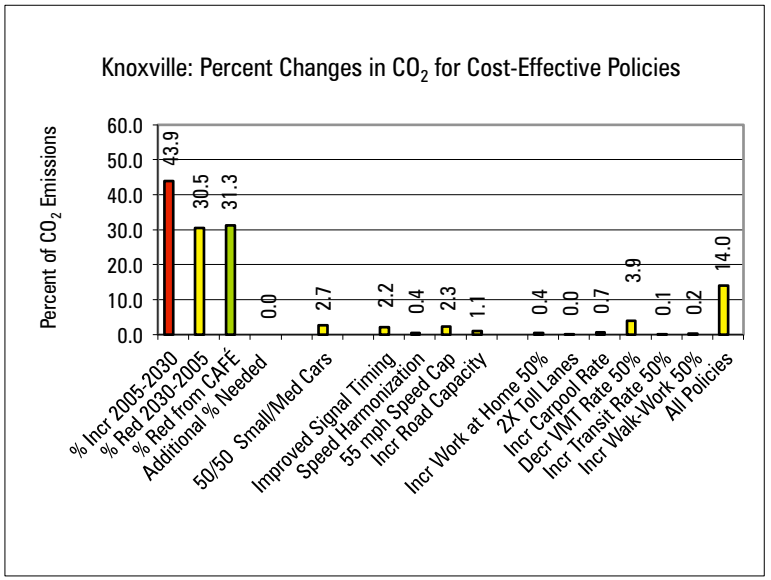
- improving signal timing to increase traffic flow, reducing CO_2 emissions by 400 tons per day (2.2% CO_2 emission reduction, costing government annually $45 per ton of emissions reduced). This action would also save drivers thousands of hours annually that would have otherwise been spent in traffic.
- enacting a 55 mph speed cap, reducing CO_2 emissions by 300 tons per day (2% CO_2 emissions reduction, costing government annually $.15 per ton of emissions reduced). However, speed caps increase the amount of time that people and goods take to get to their destinations and therefore this action has significant costs to people and businesses.
- enacting speed harmonization to smooth traffic flow, reducing CO_2 emissions by 100 tons per day (.3% emission reduction, costing government annually $443 per ton of emission reduced).

Actual costs may be more or less than these amounts based on the various methods used to accomplish the policies. Please see the main study for details of the range and cost of each policy option, and for explanations of the policies discussed.

Knoxville: Cost-Effective CO_2 Reduction Policies														
	Vehicle Fleet Mix			Highway System Improvement				Travel Behavior Shift						
Knoxville	Effect of New CAFE Standards	Additional CO_2 Reduction Needed to Return to 2005 CO_2 Emission Levels	50/50 Small/ Med Cars	Improved Signal Timing	Speed Harmonization	55 mph Speed Cap	Incr Road Capacity	Incr Work at Home 50%	2X Toll Lanes	Incr Carpool Rate	Decr VMT 5%	Incr Transit Rate 50%	Incr Walk-Work 50%	All Policies
2030 CO_2, K Tons/Day	14.3													
Daily CO_2 Emission Reduction, K Tons/Day	6.5	0.0	0.4	0.3	0.1	0.3	0.2	0.1	0.0	0.1	0.6	0.0	0.0	2.0
% CO_2 Emission Reduction	31.3	0.0	2.7	2.2	0.4	2.3	1.1	0.4	0.0	0.7	3.9	0.1	0.2	14.0
Annual Cost, $M	$83		-	$5	$5	$0.01	$200	$13	$8	$39	$552	$14	-	$836
Cost per Ton CO_2 Emissions Reduced, in $	51			70	291	0.12	5,144	843	7,279	1,670	3,929	4,146		

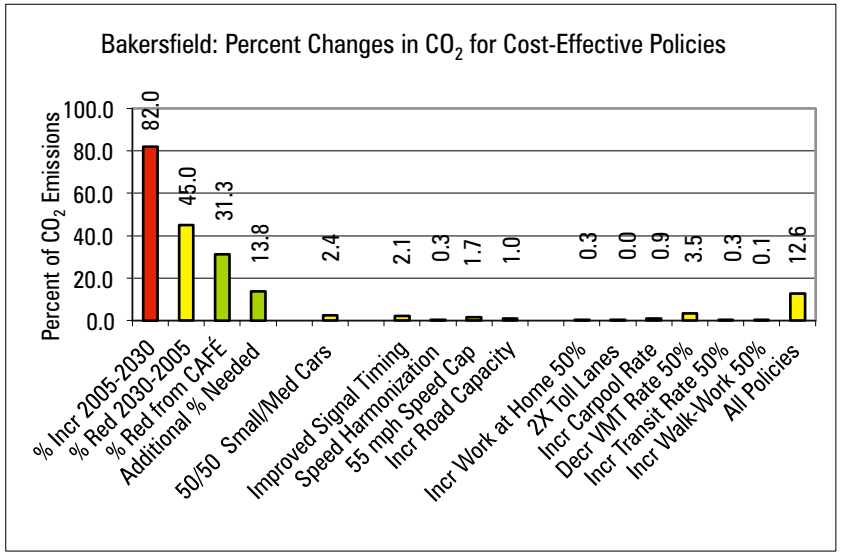
Knoxville is expected to experience a modest rate of growth, increasing vehicle miles traveled (VMT) and CO_2 emissions accordingly. By 2030 this growth is predicted to generate about 6,400 more tons of CO_2 emissions than the 2005 level of 14,500 tons per day.

The new, more stringent CAFE standards can be expected to reduce emissions by 6,500 tons per day, which is slightly more than the increase caused by Knoxville's growth. Therefore no actions are necessary.



Bakersfield, CA: Cost-Effective CO_2 Reduction Policies															
	Vehicle Fleet Mix			Highway System Improvement				Travel Behavior Shift							
Bakersfield, CA	Effect of New CAFE Standards	Additional CO_2 Reduction Needed to Return to 2005 CO_2 Emission Levels	50/50 Small/ Med Cars	Improved Signal Timing	Speed Harmonization	55 mph Speed Cap	Incr Road Capacity	Incr Work at Home 50%	2X Toll Lanes	Incr Carpool Rate	Decr VMT 5%	Incr Transit Rate 50%	Incr Walk-Work 50%	All Policies
2030 CO_2, K Tons/Day	14.7													
Daily CO_2 Emission Reduction, K Tons/Day	6.7	3.0	0.3	0.3	0.0	0.2	0.2	0.0	0.0	0.1	0.5	0.0	0.0	1.9
% CO_2 Emission Reduction	31.3	13.8	2.4	2.1	0.3	1.7	1.0	0.3	0.0	0.9	3.5	0.3	0.1	12.6
Annual Cost, $M	$77		-	$7	$3	$0.01	$43	$12	$8	$10	$500	$24	-	$606
Cost per Ton CO_2 Emissions Reduced, in $	46			89	256	0.10	1,143	1,072	5,972	301	3,914	2,393		

Bakersfield, California is expected to experience very rapid growth, increasing vehicle miles traveled (VMT) and CO_2 emissions accordingly. By 2030 this growth is predicted to generate about 9,600 more tons of CO_2 per day than the 2005 level of 11,800 tons per day. Countering such an increase in emissions would require reducing CO_2 emissions by 45% to bring levels equal to those generated in 2005.



The new, more stringent CAFE standards will reduce CO_2 emissions by 6,700 tons per day, leaving 3,000 tons per day to be decreased using other actions. Unfortunately, even if a package of stringent actions were implemented, only 1,900 tons per day would be reduced, which is still far short of the goal. It is clear that Bakersfield is unlikely to hold CO_2 at 2005 levels using cost-effective measures.

To the extent that Bakersfield takes action to alleviate CO_2 emissions, it should use the most cost-effective measures possible. The following most cost-effective policies would reduce emissions by 500 tons per day:

- improving signal timing to increase traffic flow, reducing CO_2 emissions by 300 tons per day (2.1% CO_2 emission reduction, costing government annually $89 per ton of emissions reduced). This action would also save drivers thousands of hours annually that would have otherwise been spent in traffic.

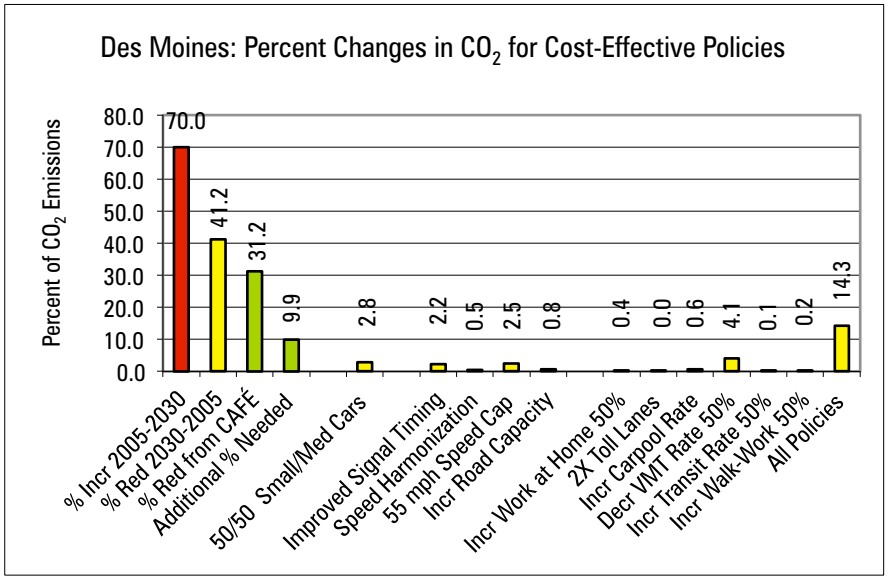
- enacting a 55 mph speed cap, reducing CO_2 emissions by 200 tons per day (1.7% CO_2 emission reduction, costing government annually $.10 per ton of emissions reduced). However, speed caps increase the amount of time that people and goods take to get to their destinations and therefore this action has significant costs to people and businesses.

Actual costs may be more or less than these amounts based on the various methods used to accomplish the policies. Please see the main study for details of the range and cost of each policy option, and for explanations of the policies discussed.

Des Moines, IA: Cost-Effective CO_2 Reduction Policies															
	Vehicle Fleet Mix			Highway System Improvement				Travel Behavior Shift							
Des Moines, IA	Effect of New CAFE Standards	Additional CO_2 Reduction Needed to Return to 2005 CO_2 Emission Levels	50/50 Small/ Med Cars	Improved Signal Timing	Speed Harmonization	55 mph Speed Cap	Incr Road Capacity	Incr Work at Home 50%	2X Toll Lanes	Incr Carpool Rate	Decr VMT 5%	Incr Transit Rate 50%	Incr Walk-Work 50%	All Policies
2030 CO_2, K Tons/Day	5.9													
Daily CO_2 Emission Reduction, K Tons/Day	2.7	0.8	0.2	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.8
% CO_2 Emission Reduction	31.2	9.9	2.8	2.2	0.5	2.5	0.8	0.4	0.0	0.6	4.1	0.1	0.2	14.3
Annual Cost, $M	$35		-	$9	$4	$0.01	$100	$10	$5	$12	$234	$14	-	$386
Cost per Ton CO_2 Emissions Reduced, in $	53			265	511	0.20	9,048	1,835	11,592	1,236	3,910	6,496		

The Des Moines region is predicted to experience very rapid growth, increasing vehicle miles traveled (VMT) and CO_2 emissions accordingly. By 2030 this growth is expected to generate about 3,500 more tons of CO_2 daily than the 2005 level of 5,000 tons per day. Countering such an increase in emissions would require reducing CO_2 emissions by 41.2% to bring levels equal to those generated in 2005.

The new, more stringent CAFE standards are expected to reduce emissions by 2,700 tons per day, leaving 800 tons of CO_2 emissions per day to be decreased using other actions. A package of stringent actions would be expected to reduce emissions by 800 tons per day and would cost $386M annually. Therefore, it is unlikely that Des Moines will be able to hold future CO_2 emissions at 2005 levels cost-effectively.



To the extent that Des Moines takes action to alleviate CO_2 emissions, it should take the most cost-effective measures possible. The following most cost-effective measures would reduce emissions by 200 tons per day:

- enacting a 55 mph speed cap, reducing CO_2 emissions by 100 tons per day (2.5% emission reduction, costing government annually $.20 per ton of emission reduced). However, speed caps increase the amount of time that people and goods take to get to their destinations and therefore this action has significant costs to people and businesses.

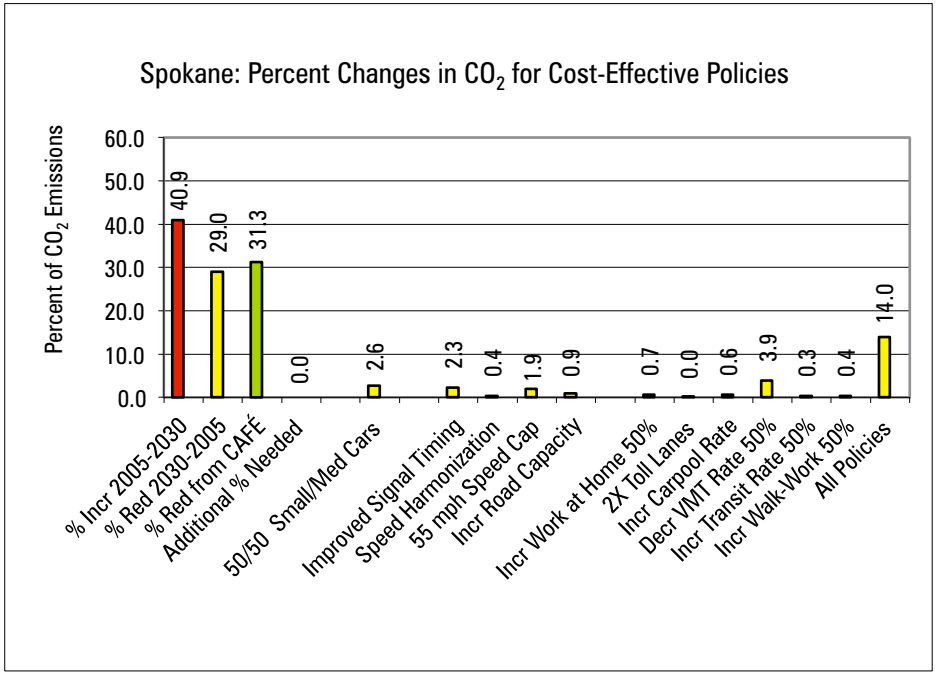
- improving signal timing to increase traffic flow, reducing CO_2 emissions by 100 tons per day (2.2% CO_2 emission reduction, costing government annually $265 per ton of emissions reduced). This action would also save drivers thousands of hours annually that would have otherwise been spent in traffic.

Actual costs may be more or less than these amounts based on the various methods used to accomplish the policies. Please see the main study for details of the range and cost of each policy option, and for explanations of the policies discussed.

Spokane: Cost-Effective CO_2 Reduction Policies														
	Vehicle Fleet Mix			Highway System Improvement				Travel Behavior Shift						
Spokane	Effect of New CAFE Standards	Additional CO_2 Reduction Needed to Return to 2005 CO_2 Emission Levels	50/50 Small/ Med Cars	Improved Signal Timing	Speed Harmonization	55 mph Speed Cap	Incr Road Capacity	Incr Work at Home 50%	2X Toll Lanes	Incr Carpool Rate	Decr VMT 5%	Incr Transit Rate 50%	Incr Walk-Work 50%	All Policies
2030 CO_2, K Tons/Day	5.3													
Daily CO_2 Emission Reduction, K Tons/Day	2.4	0.0	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.7
% CO_2 Emission Reduction	31.3	0.0	2.6	2.3	0.4	1.9	0.9	0.7	0.0	0.6	3.9	0.3	0.4	14.0
Annual Cost, $M	$30		-	$9	$3	$0.01	$79	$12	$5	$14	$199	$47	-	$367
Cost per Ton CO_2 Emissions Reduced, in $	50			283	621	0.25	6,539	1,347	15,053	1,670	3,933	10,522		

The Spokane area is predicted to experience a modest rate of growth, increasing vehicle miles traveled (VMT) and CO_2 emissions accordingly. By 2030 this growth is predicted to generate about 2,200 more tons of CO_2 daily than the 2005 level of 5,400 tons per day.

The new, more stringent CAFE standards can be expected to reduce emissions by 2,400 tons per day, which will more than offset the expected increase in emissions caused by Spokane's predicted growth. Therefore no actions are necessary.



McAllen, TX: Cost-Effective CO_2 Reduction Policies														
	Vehicle Fleet Mix			Highway System Improvement				Travel Behavior Shift						
McAllen, TX	Effect of New CAFE Standards	Additional CO_2 Reduction Needed to Return to 2005 CO_2 Emission Levels	50/50 Small/Med Cars	Improved Signal Timing	Speed Harmonization	55 mph Speed Cap	Incr Road Capacity	Incr Work at Home 50%	2X Toll Lanes	Incr Carpool Rate	Decr VMT 5%	Incr Transit Rate 50%	Incr Walk-Work 50%	All Policies
2030 CO_2, K Tons/Day	5.5													
Daily CO_2 Emission Reduction, K Tons/Day	2.5	0.9	0.1	0.1	0.0	0.1	0.1	0.0	0.0	0.1	0.2	0.0	0.0	0.8
% CO_2 Emission Reduction	31.3	11.6	2.7	2.1	0.4	2.1	1.0	0.4	0.0	1.1	3.9	0.0	0.2	14.0
Annual Cost, $M	$32		-	$5	$4	$0.01	$85	$9	$3	$25	$209	$2	-	$343
Cost per Ton CO_2 Emissions Reduced, in $	51			175	859	0.30	5,866	1,680	16,623	1,670	3,910	6,279		

McAllen, Texas is predicted to experience strong growth, increasing vehicle miles traveled (VMT) and CO_2 emissions accordingly. By 2030, this growth is predicted to generate about 3,400 more tons of CO_2 per day than the 2005 level of 4,500 tons per day. Countering such an increase in emissions would require reducing emissions by 42.9% to bring levels equal to those generated in 2005.

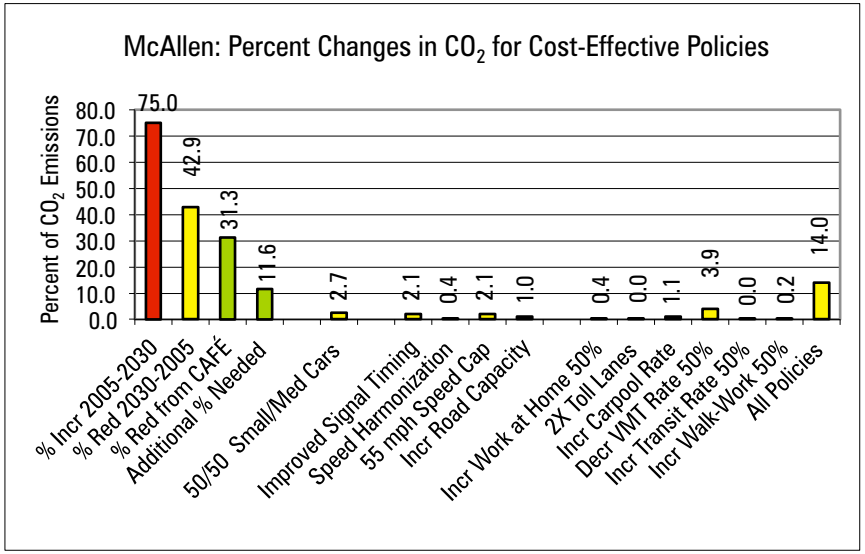
The new, more stringent CAFE standards will reduce CO_2 emissions by 2,500 tons daily, which is 900 tons (12%) short of the increase caused by McAllen's growth.

A package of stringent actions could save up to 800 tons/day, but at a cost of $343M annually. Therefore, it is unlikely that McAllen can reduce future CO_2 emissions below 2005 levels without extremely stringent actions that may not be cost-effective.

To the extent that McAllen takes action to alleviate CO_2 emissions, it should employ the most cost-effective measures possible. The following most cost-effective policies would reduce emissions by 200 tons per day:

- enacting a 55 mph speed cap, reducing CO_2 emissions by 100 tons per day (2.1% CO_2 emission reduction, costing government annually $.30 per ton of emissions reduced). However, speed caps increase the amount of time that people and goods take to get to their destinations and therefore this action has significant costs to people and businesses.

- improving signal timing to increase traffic flow, reducing CO_2 emissions by 100 tons per day (2.1% CO_2 emission reduction, costing government annually $175 per ton of emissions reduced).



Actual costs may be more or less than these amounts based on the various methods used to accomplish the policies. Please see the main study for details of the range and cost of each policy option, and for explanations of the policies discussed.

Ogden: Cost-Effective CO_2 Reduction Policies														
	Vehicle Fleet Mix			Highway System Improvement				Travel Behavior Shift						
Ogden	Effect of New CAFE Standards	Additional CO_2 Reduction Needed to Return to 2005 CO_2 Emission Levels	50/50 Small/ Med Cars	Improved Signal Timing	Speed Harmonization	55 mph Speed Cap	Incr Road Capacity	Incr Work at Home 50%	2X Toll Lanes	Incr Carpool Rate	Decr VMT 5%	Incr Transit Rate 50%	Incr Walk-Work 50%	All Policies
2030 CO_2, K Tons/Day	6.5													
Daily CO_2 Emission Reduction, K Tons/Day	3.0	0.6	0.2	0.1	0.0	0.2	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.9
% CO_2 Emission Reduction	31.3	6.1	2.4	2.3	0.7	2.8	0.7	0.6	0.2	0.7	3.5	0.3	0.2	14.5
Annual Cost, $M	$35		-	$4	$4	$0.01	$92	$13	$30	$19	$225	$34	-	$421
Cost per Ton CO_2 Emissions Reduced, in $	47			106	336	0.17	7,473	1,420	10,861	1,603	3,924	8,116		

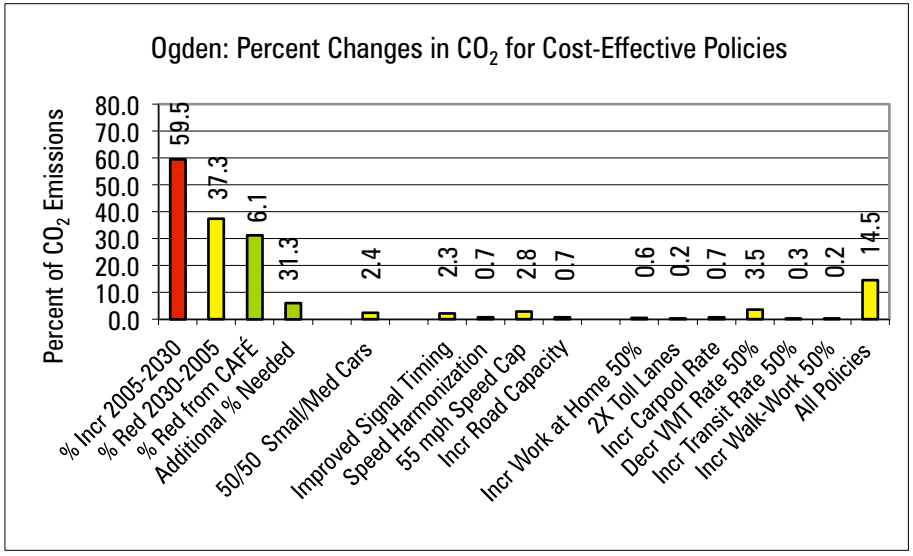
The Ogden-Layton region, part of the greater Salt Lake City area, is expected to experience a substantial increase in vehicle miles traveled (VMT) and CO_2 emissions accordingly. By 2030, this growth is predicted to generate about 3,500 more tons of CO_2 daily than the 2005 level of 5,900 tons per day. Countering such an increase in emissions would require reducing emissions by 37.3% to bring levels equal to those generated in 2005.

The new, more stringent CAFE standards will reduce CO_2 emissions by 3,000 tons per day, leaving about 600 tons per day to be reduced using other actions.

A package of stringent additional actions would reduce emissions by about 900 tons per day, but cost $421M annually. On its current growth path, the Ogden-Layton region is likely to have difficulty reducing CO_2 emissions to 2005 levels in a cost-effective manner.

To the extent that the Ogden region takes action to alleviate CO_2 emissions, it should use the most cost-effective measures possible. The following most cost-effective policies would reduce emissions by 300 tons per day:

- improving signal timing to increase traffic flow, reducing CO_2 emissions by 100 tons per day (2.3% emission reduction, costing government annually$106 per ton of emissions reduced).
- enacting a speed 55 mph speed cap, reducing CO_2 emissions by 200 (2.8% emission reduction, costing government $.17 per ton of emissions reduced). However, speed caps increase the amount of time that people and goods take to get to their destinations and therefore this action has significant costs to people and businesses.

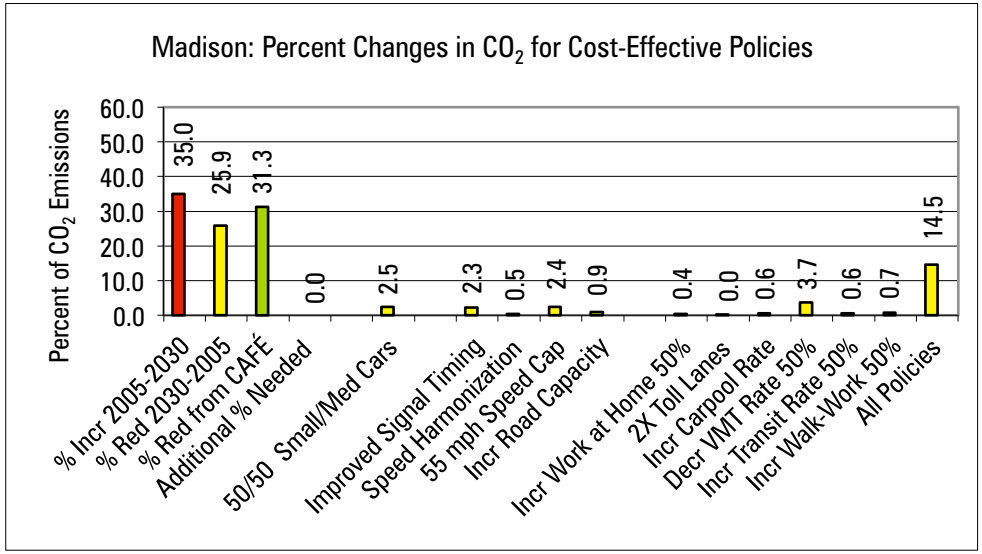


Actual costs may be more or less than these amounts based on the various methods used to accomplish the policies. Please see the main study for details of the range and cost of each policy option, and for explanations of the policies discussed.

Madison: Cost-Effective CO_2 Reduction Policies														
	Vehicle Fleet Mix			Highway System Improvement				Travel Behavior Shift						
Madison	Effect of New CAFE Standards	Additional CO_2 Reduction Needed to Return to 2005 CO_2 Emission Levels	50/50 Small/ Med Cars	Improved Signal Timing	Speed Harmonization	55 mph Speed Cap	Incr Road Capacity	Incr Work at Home 50%	2X Toll Lanes	Incr Carpool Rate	Decr VMT 5%	Incr Transit Rate 50%	Incr Walk-Work 50%	All Policies
2030 CO_2, K Tons/Day	6.8													
Daily CO_2 Emission Reduction, K Tons/Day	3.1	0.0	0.2	0.2	0.0	0.2	0.1	0.0	0.0	0.0	0.3	0.0	0.0	1.0
% CO_2 Emission Reduction	31.3	0.0	2.5	2.3	0.5	2.4	0.9	0.4	0.0	0.6	3.7	0.6	0.7	14.5
Annual Cost, $M	$37		-	$5	$4	$0.01	$112	$5	$3	$22	$246	$39	-	$437
Cost per Ton CO_2 Emissions Reduced, in $	48			125	483	0.19	7,561	658	11,475	2,338	3,939	3,681		

Madison, Wisconsin is expected to experience a modest rate of growth, increasing vehicle miles traveled (VMT) and CO_2 emissions accordingly. By 2030 this growth is predicted to generate about 2,600 more tons of CO_2 per day than the 2005 level of 7,300 tons per day.

The new, more stringent CAFE standards can be expected to reduce emissions by 3,100 tons per day, which will more than offset the expected increase in emissions caused by Madison's predicted growth. Therefore no actions are necessary.



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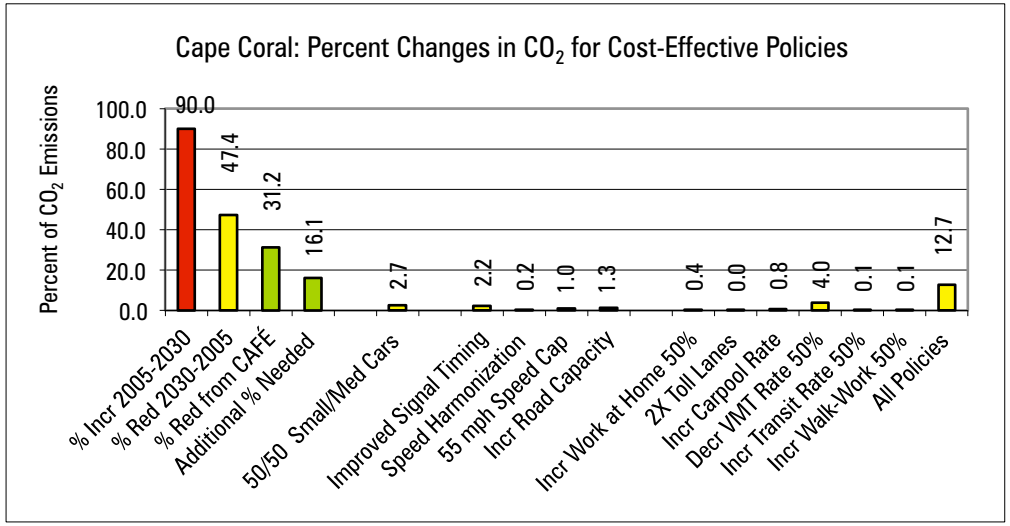
Cape Coral: Cost-Effective CO_2 Reduction Policies														
	Vehicle Fleet Mix			Highway System Improvement				Travel Behavior Shift						
Cape Coral	Effect of New CAFE Standards	Additional CO_2 Reduction Needed to Return to 2005 CO_2 Emission Levels	50/50 Small/ Med Cars	Improved Signal Timing	Speed Harmoni-zation	55 mph Speed Cap	Incr Road Capacity	Incr Work at Home 50%	2X Toll Lanes	Incr Carpool Rate	Decr VMT 5%	Incr Transit Rate 50%	Incr Walk-Work 50%	All Policies
2030 CO_2, K Tons/Day	9.4													
Daily CO_2 Emission Reduction, K Tons/Day	4.3	2.2	0.3	0.2	0.0	0.1	0.1	0.0	0.0	0.1	0.4	0.0	0.0	1.2
% CO_2 Emission Reduction	31.2	16.1	2.7	2.2	0.2	1.0	1.3	0.4	0.0	0.8	4.0	0.1	0.1	12.7
Annual Cost, $M	$55		-	$4	$2	$0.00	$41	$11	$3	$69	$363	$15	-	$508
Cost per Ton CO_2 Emissions Reduced, in $	52			70	597	0.21	1,316	1,090	12,686	3,740	3,902	5,168		

Cape Coral, Florida is predicted to experience rapid growth, increasing vehicle miles traveled (VMT) and CO_2 emissions accordingly. By 2030, this growth is predicted to generate about 6,400 more tons of emissions per day than the 2005 level of 7,200 tons per day. Countering such an increase in emission would require reducing CO_2 emissions by 47.4% to bring levels equal to those generated in 2005.

The new, more stringent CAFE standards will reduce that amount by 4,300 tons per day, leaving 2,200 tons to be reduced using other actions. A package of stringent actions would reduce emissions by only 1,200 tons per day, still far short of the goal, and would cost a whopping $508M annually. Therefore, Cape Coral is unlikely to reduce CO_2 emissions below 2005 levels using cost-effective measures.



To the extent that Cape Coral takes action to alleviate CO_2 emissions, it should use the most cost-effective measures possible. The following most cost-effective policies would decrease emissions by 300 tons per day:

- improving signal timing to increase traffic flow, reducing CO_2 emissions by 200 tons per day (2.2% emission reduction, costing government $70 per ton of emissions reduced). This action would also save drivers thousands of hours annually that would have otherwise been spent in traffic.

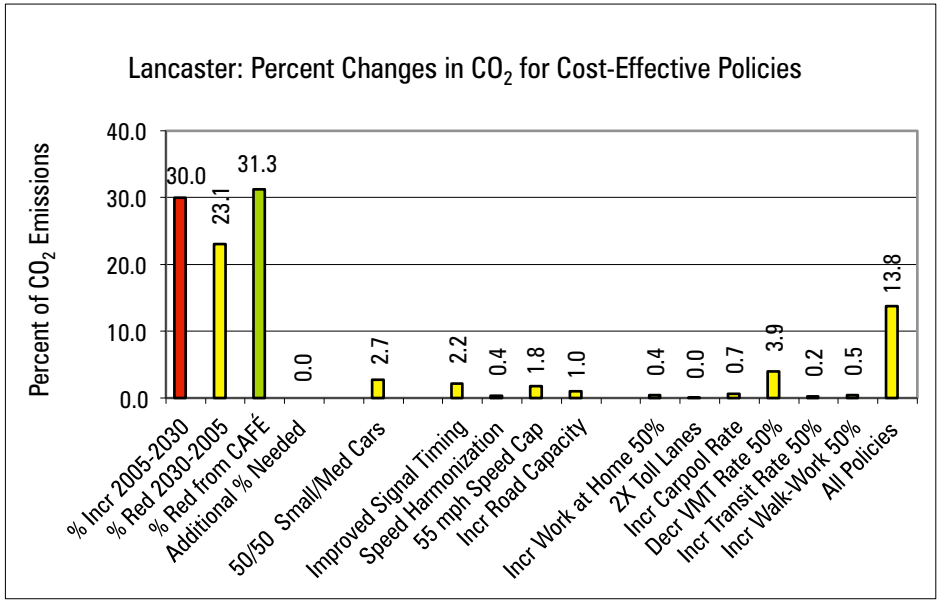
- enacting a 55 mph speed cap, reducing CO_2 emissions by 100 tons per day (1.0% emission reduction, costing government $.21 per ton of emissions reduced). However, speed caps increase the amount of time that people and goods take to get to their destinations and therefore this action has significant costs to people and businesses.

Actual costs may be more or less than these amounts based on the various methods used to accomplish the policies. Please see the main study for details of the range and cost of each policy option, and for explanations of the policies discussed.

Lancaster: Cost-Effective CO_2 Reduction Policies														
	Vehicle Fleet Mix			Highway System Improvement				Travel Behavior Shift						
Lancaster, PA	Effect of New CAFE Standards	Additional CO_2 Reduction Needed to Return to 2005 CO_2 Emission Levels	50/50 Small/ Med Cars	Improved Signal Timing	Speed Harmonization	55 mph Speed Cap	Incr Road Capacity	Incr Work at Home 50%	2X Toll Lanes	Incr Carpool Rate	Decr VMT 5%	Incr Transit Rate 50%	Incr Walk-Work 50%	All Policies
2030 CO_2, K Tons/Day	3.7													
Daily CO_2 Emission Reduction, K Tons/Day	1.7	0.0	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.5
% CO_2 Emission Reduction	31.3	0.0	2.7	2.2	0.4	1.8	1.0	0.4	0.0	0.7	3.9	0.2	0.5	13.8
Annual Cost, $M	$21		-	$5	$3	$0.01	$55	$8	$3	$10	$142	$15	-	$242
Cost per Ton CO_2 Emissions Reduced, in $	51			257	783	0.31	5,920	2,132	17,839	1,670	3,941	7,989		

Lancaster, Pennsylvania is expected to experience a modest rate of growth, increasing vehicle miles traveled (VMT) and CO_2 emissions accordingly. By 2030 this growth is predicted to generate 1,200 more tons of CO_2 emissions per day than the 2005 level of 4,100 tons per day.

The new, more stringent CAFE standards can be expected to reduce emissions by about 1,700 tons per day, which will more than offset the expected increase in emissions caused by Lancaster's predicted growth. Therefore no actions are necessary.



Boise: Cost-Effective CO_2 Reduction Policies														
	Vehicle Fleet Mix			Highway System Improvement				Travel Behavior Shift						
Boise	Effect of New CAFE Standards	Additional CO_2 Reduction Needed to Return to 2005 CO_2 Emission Levels	50/50 Small/ Med Cars	Improved Signal Timing	Speed Harmonization	55 mph Speed Cap	Incr Road Capacity	Incr Work at Home 50%	2X Toll Lanes	Incr Carpool Rate	Decr VMT 5%	Incr Transit Rate 50%	Incr Walk-Work 50%	All Policies
2030 CO_2, K Tons/Day	6.7													
Daily CO_2 Emission Reduction, K Tons/Day	3.0	1.2	0.2	0.1	0.0	0.1	0.0	0.0	0.0	0.1	0.3	0.0	0.0	0.9
% CO_2 Emission Reduction	31.2	12.6	2.8	2.2	0.3	1.7	0.7	0.7	0.0	0.8	4.1	0.1	0.2	13.8
Annual Cost, $M	$41		-	$6	$2	$0.00	$53	$25	$3	$22	$271	$6	-	$387
Cost per Ton CO_2 Emissions Reduced, in $	53			150	314	0.12	4,277	1,999	7,461	1,670	3,905	4,361		

Boise, Idaho is predicted to experience strong growth, increasing vehicle miles traveled (VMT) and CO_2 emissions accordingly. By 2030, this growth is expected to generate about 4,300 more tons of CO_2 emissions than the 2005 level of 5,500 tons per day. Countering such an increase in emissions would require reducing emissions by 43.9% to bring levels equal to those generated in 2005.

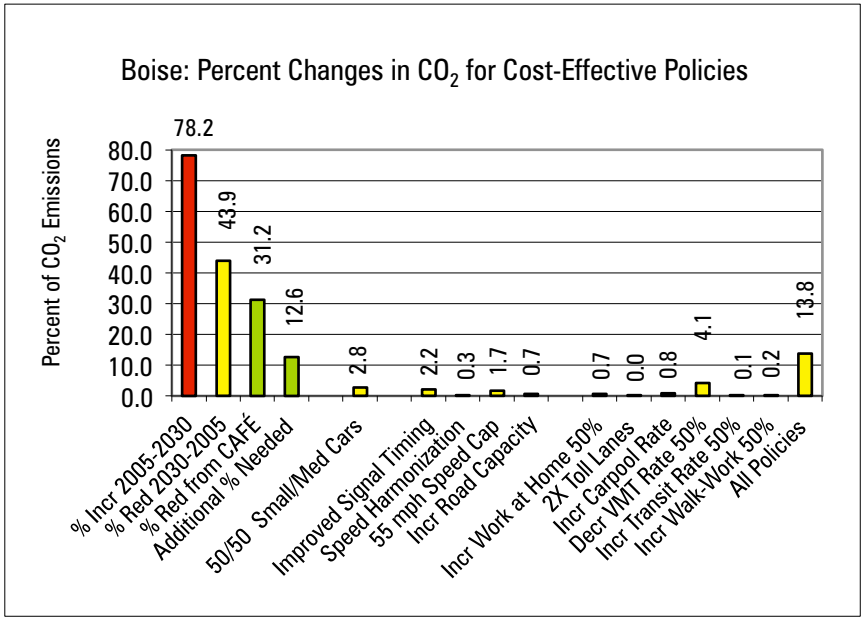
The new, more stringent CAFE standards will reduce that amount by about 3,000 tons per day, leaving 1,200 tons per day to be reduced using other actions.

Even a package of stringent actions would reduce emissions at most 900 tons per day, costing $387M annually. Therefore, Boise is unlikely to reduce future CO_2 emissions below 2005 levels, even with stringent costly actions.

To the extent that Boise takes action to alleviate CO_2 emissions, it should use the most cost-effective measures possible. The following most cost-effective policies would reduce emissions by 200 tons per day:

- improving signal timing to increase traffic flow, reducing CO_2 emissions by 100 tons per day (2.2% CO_2 emission reduction, costing government annually $150 per ton of emissions reduced). This action would also save drivers thousands of hours annually that would have otherwise been spent in traffic.
- enacting a 55 mph speed cap, reducing CO_2 emissions by 100 tons per day (1.7% CO_2 emissions reduction, costing government annually $.12 per ton of emissions reduced). However, speed caps increase the amount of time people and goods take to get to their destinations and therefore this action has significant costs to people and businesses.

Actual costs may be more or less than these amounts based on the various methods used to accomplish the policies. Please see the main study for details of the range and cost of each policy option, and for explanations of the policies discussed.



Salem, OR: Cost-Effective CO_2 Reduction Policies														
	Vehicle Fleet Mix			Highway System Improvement				Travel Behavior Shift						
Salem, OR	Effect of New CAFE Standards	Additional CO_2 Reduction Needed to Return to 2005 CO_2 Emission Levels	50/50 Small/ Med Cars	Improved Signal Timing	Speed Harmonization	55 mph Speed Cap	Incr Road Capacity	Incr Work at Home 50%	2X Toll Lanes	Incr Carpool Rate	Decr VMT 5%	Incr Transit Rate 50%	Incr Walk-Work 50%	All Policies
2030 CO_2, K Tons/Day	2.3													
Daily CO_2 Emission Reduction, K Tons/Day	1.0	0.0690	0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.3
% CO_2 Emission Reduction	31.3	2.1	2.6	2.1	0.4	2.5	1.1	0.3	0.0	1.0	3.8	0.3	0.3	14.4
Annual Cost, $M	$13		-	$3	$2	$0.00	$10	$3	$2	$35	$83	$22	-	$161
Cost per Ton CO_2 Emissions Reduced, in $	49			288	784	0.27	1,637	1,721	17,805	6,345	3,927	11,899		

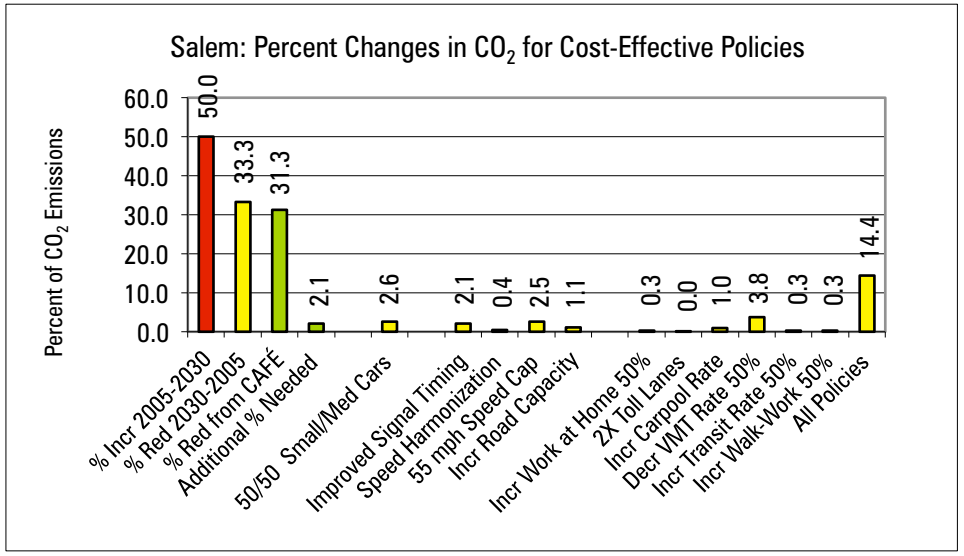
Salem, Oregon is predicted to experience a moderate rate of growth, increasing vehicle miles traveled (VMT) and CO_2 emissions accordingly. By 2030 this growth is expected to generate about 1,100 more tons of CO_2 daily than the 2005 level of 2,200 tons per day.

The new, more stringent CAFE standards can be expected to reduce emissions by about 1,000 tons per day, which is very close to the expected increase in emissions caused by Salem's predicted growth.

If Salem decides to take action to decrease CO_2 emissions to 2005 levels, it should consider these most cost-effective policies. The following most cost-effective policy would reduce emissions by 100 tons per day:

- enact a 55 mph speed cap, reducing emissions by 100 tons per day and costing government $.27 per ton of emissions reduced. However, speed caps increase the amount of time people and goods take to get to their destinations and therefore this action has significant costs to people and businesses.

Actual costs may be more or less than these amounts based on the various methods used to accomplish the policies. Please see the main study for details for the range and cost of each policy option, and for explanations of the policies discussed.

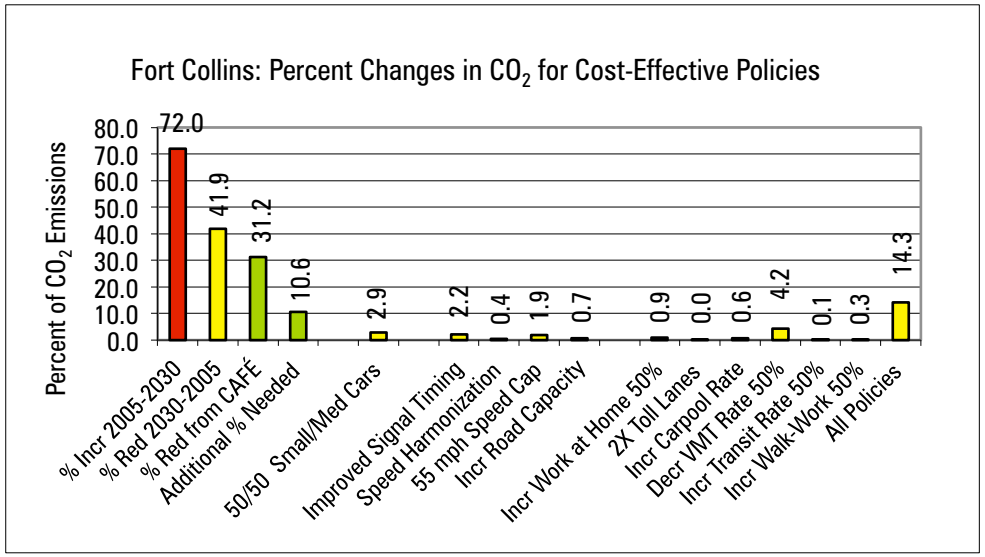


Fort Collins, CO: Cost-Effective CO_2 Reduction Policies														
	Vehicle Fleet Mix			Highway System Improvement										
Fort Collins, CO	Effect of New CAFE Standards	Additional CO_2 Reduction Needed to Return to 2005 CO_2 Emission Levels	50/50 Small/ Med Cars	Improved Signal Timing	Speed Harmonization	55 mph Speed Cap	Incr Road Capacity	Incr Work at Home 50%	2X Toll Lanes	Incr Carpool Rate	Decr VMT 5%	Incr Transit Rate 50%	Incr Walk-Work 50%	All Policies
2030 CO_2, K Tons/Day	6.2													
Daily CO_2 Emission Reduction, K Tons/Day	2.8	1.0	0.2	0.1	0.0	0.1	0.0	0.1	0.0	0.0	0.3	0.0	0.0	0.9
% CO_2 Emission Reduction	31.2	10.6	2.9	2.2	0.4	1.9	0.7	0.9	0.0	0.6	4.2	0.1	0.3	14.3
Annual Cost, $M	$38		-	$4	$2	$0.00	$11	$25	$2	$17	$255	$10	-	$325
Cost per Ton CO_2 Emissions Reduced, in $	54			121	400	0.16	1,019	1,834	9,541	1,670	3,907	4,288		

The Fort Collins, Colorado region is expected to experience strong growth, increasing vehicle miles traveled (VMT) and CO_2 emissions accordingly. By 2030 this growth is predicted to generate about 3,800 more tons of CO_2 daily than the 2005 level of 5,200 tons per day. Countering such an increase in emissions would require reducing emissions by 41.9% to bring levels equal to those generated in 2005.

The new, more stringent CAFE standards can be expected to reduce emissions by 2,800 tons per day, leaving 1,000 tons per day to be reduced using other actions.

Even all the most stringent measures taken together could be expected to save at most 900 tons per day, still short of the goal and costing a whopping $325M annually. Therefore, Fort Collins is likely to have difficulty reducing future CO_2 emissions to 2005 levels cost-effectively. The region should therefore concentrate on the most cost-effective actions. The following most cost-effective policies would decrease emissions by 200 tons per day:



- improving signal timing to increase traffic flow, reducing emissions by 100 tons per day (2.2% emission reduction, costing government annually $121 per ton of emissions reduced). This action would also save drivers thousands of hours annually that would have otherwise been spent in traffic.

- enacting a 55 mph speed cap, reducing emissions by 100 tons per day (1.9% emissions reduction, costing government annually $.16 per ton of emissions reduced). However, speed caps increase the amount of time that people and goods take to get to their destinations and therefore this action has significant costs to people and business.

Actual costs may be more or less than these amounts based on the various methods used to accomplish the policies. Please see the main study for details of the range and cost of each policy option, and for explanations of the policies discussed.