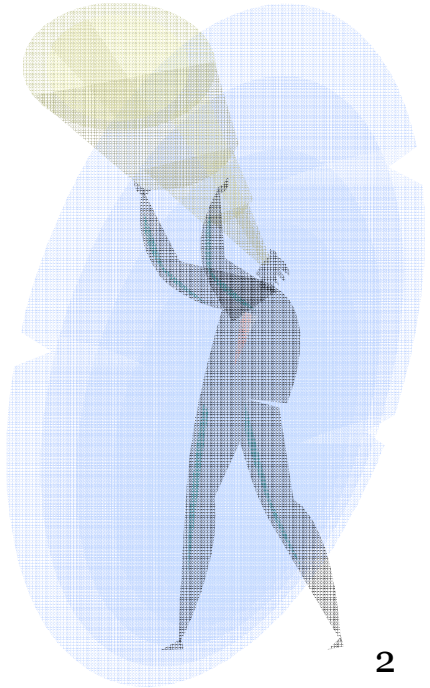
Clean Cars, Cleaner Air for North Carolina

A Presentation by the North Carolina Environmental Community

…Broad support

American Lung Association
American Heart Association
Appalachian Voices
Breathe Easy Coalition
Cleveland County Asthma Coalition
Conservation Council of NC
Environment North Carolina
Guilford County Asthma Coalition
Healthy Alamance Child Asthma Coalition
Madison Community Health Consortium
Mecklenburg County
National Association of Social Workers
NC Conservation Network
NC Environmental Defense
NC Sierra Club
Orange County Asthma Coalition
Pitt County Memorial Hospital
Southern Alliance for Clean Energy (SACE)
Southern Environmental Law Center



The Drive for Clean Air

Clean Vehicle Standards and North Carolina

Brendan Bell

Associate Washington Representative

Sierra Club Global Warming & Energy Program

brendan.bell@sierraclub.org 202.547.1141

SIERRA CLUB

FOUNDED 1892

State Clean Car Standards

- The 1990 Clean Air Act Amendments Gave the State of California Authority to Establish Vehicle Emissions Standards that are More Stringent than the Federal Standards.
- Based Upon California's History of Leadership on Reducing Vehicle Emissions
- Congress Recognized that California and Other States Needed Additional Tools to Improve Air Quality
- California Must Apply to EPA in Order to Change its Emissions Standards. To Date a Waiver Has Never Been Denied.

Adopting the Clean Car Standards

- Any State Can Adopt the Clean Car Standards if it Does Not Meet Any of the National Ambient Air Quality Standards (NAAQS) - *Section 177 of the Clean Air Act*

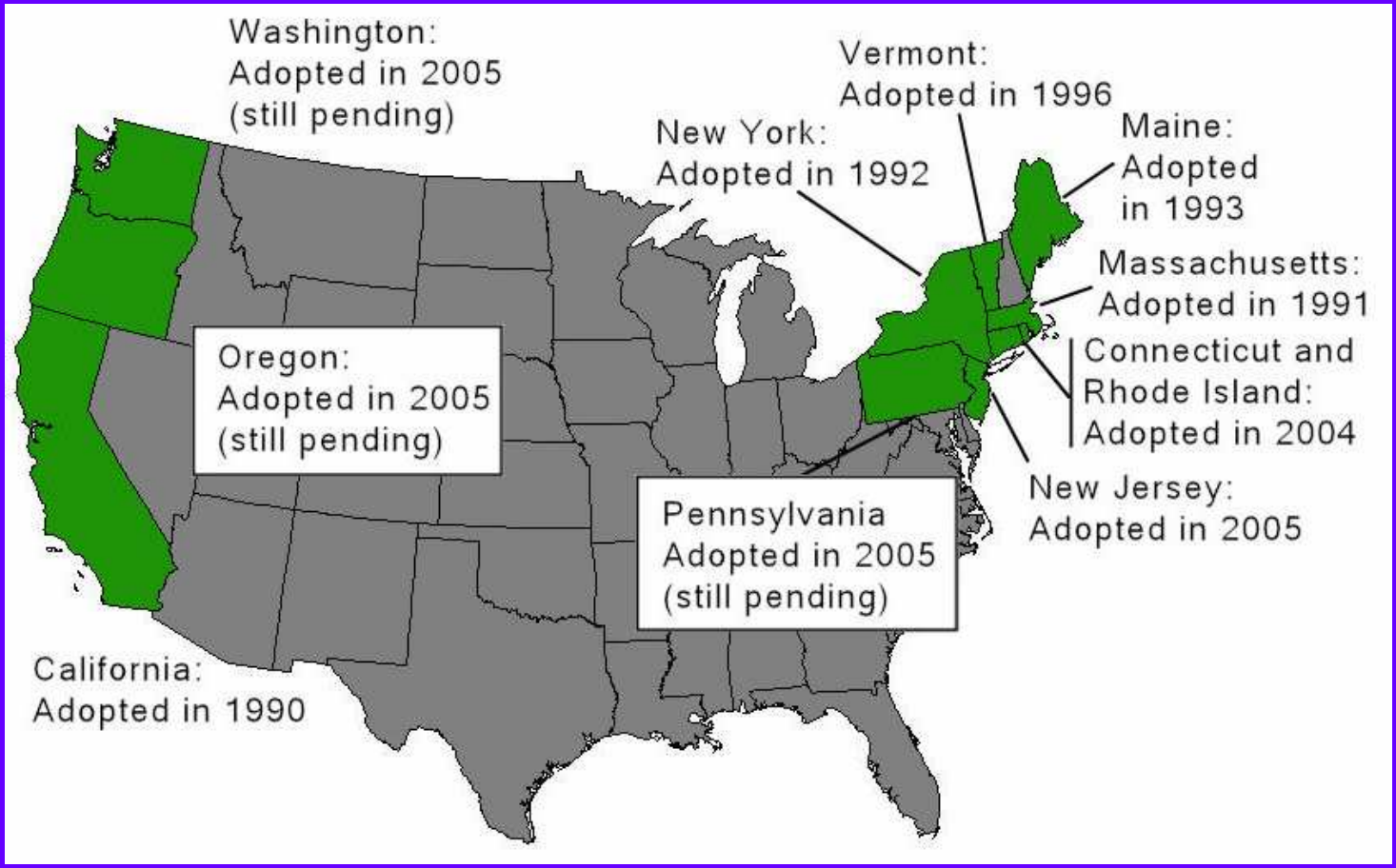
- To Date, Eleven States Nationwide Have Adopted the Clean Car Standards. Many States Have Followed the Standards for Over 10 Years

- EPA Approval is NOT Needed for a Qualified State to Adopt the Standards

Clean Cars Around the Country

Eleven States Nationwide Follow California Standards

CA – WA – OR – ME – VT – MA - CT – RI – NY – NJ – PA



Accounting for 34% of All New Vehicles Sold in the U.S.

How Does North Carolina Compare?

North Carolina Has a Similar Sales Mix of Cars and Light Trucks With Other Clean Car States

STATE	CARS	Fleet %	TRUCKS	Fleet %	TOTAL
Maine	21,985	37%	36,755	63%	58,740
Vermont	15,669	40%	23,666	60%	39,335
Oregon	55,250	40%	82,031	60%	137,281
North Carolina	**150,140**	**41%**	**219,636**	**59%**	**369,776**
Washington	101,488	44%	129,513	56%	231,001
California	758,786	47%	849,878	53%	1,608,664
Pennsylvania	312,680	48%	339,918	52%	652,598
New York	429,750	51%	417,210	49%	846,960

How do Clean Car Standards Work?

Low Emissions Vehicle (LEV II) Standards

- Adopted in 1998, the Standards Came into Effect in 2004. Replaced the Previous Low Emissions Vehicle (LEV) Standards.

- Emissions Standards Are Based Upon a Manufacturer's Fleetwide Average.

- Eliminates Separate and Less Stringent Standards for Light Trucks (SUVs, Pickups, Minivans)

How do Clean Car Standards Work?

- **LEV II Standards Are Based Upon a Series of 'Bin' Classifications**
- **Starting in 2004, fleet average emissions must be reduced each through 2010.**
- **The Bin system provides the implementation system for the Clean Car Standards.**

California LEV II Emissions Standards (g/mi) for Light-Duty Vehicles (<8,500-lbs GVWR)

Category	5 Years / 50,000 miles					11 Years / 120,000 miles				
	NMOG	CO	NOx	PM	HCHO	NMOG	CO	NOx	PM	HCHO
LEV	0.075	3.4	0.05	-	0.015	0.090	4.2	0.07	0.01	0.018
ULEV	0.040	1.7	0.05	-	0.008	0.055	2.1	0.07	0.01	0.011
SULEV	-	-	-	-	-	0.010	1.0	0.02	0.01	0.004
ZEV	0.000	0.0	0.0	0.00	0.000	0.000	0.0	0.0	0.00	0.000

Clean Car Standards

- **Zero Emissions Vehicle (ZEV) Standards**
  - Program Has Changed Due to Auto Industry Litigation
  - Allows for Alternative Compliance With Ultra Clean Conventional Vehicles and Advanced Technology Vehicles Like Hybrids
  - Some 177 States Have Adopted ZEV, Some Have Not
- **Greenhouse Gas Emissions Standards**
  - Standards are Not Yet Implemented
  - EPA Has Not Granted the Waiver
  - The Auto Industry is Suing the State of California to Block Implementation of the Standards

State Clean Car Standards:

Proven Air Quality Improvements

Clean Air Benefits: LEV II vs. Tier 2

- Current Clean Car States Are Realizing Substantial Emissions Benefits from LEV II Standards.
- New Modeling Will Be Necessary to Determine North Carolina Specific Emissions Reductions

Table 1: Annual Emissions Benefits of the LEV II Program in 2020

State	HC reduced (tons)	% HC Reduction Over Tier 2	Toxics[14] reduced (tons)	% Toxics Reduction Over Tier 2	CO_2 reduced (tons)	% CO_2 reduced
NY	10,020	15%	502	25% for each toxin	2,500,000	2.25%
MA	3,300	17%	185	25% for each toxin	900,000	2.25%
VT	510	14%	29	19% for each toxin	120,000	2.25%
Total	**13,830**	**Average Reduction 15.3%**	**716**	**Average Reduction 23%**	**3,520,000**	**Average Reduction 2.25%**

Source: Northeast States for Coordinated Air Use Management. *Comparing the Emissions Reductions of the LEV II Program to the Tier 2 Program*. October, 2003.

Clean Air Benefits: LEV II vs. Tier 2

- LEV II requires lower overall emissions. In addition, the three weakest 'bins' in Tier 2 allow for greater emissions than any category in LEV II.
- LEV II Has Tighter Standards for Evaporative Emissions and particulate matter (PM) – also known as soot.
- LEV II Continues to Reduce Emissions Past the Date Where Tier 2 Levels Out.
- LEV II Standards Are More Likely to Be Strengthened as New Technology Comes on the Market.

Clean Car Standards in Practice

Federal Standards

43% Cleaner

Clean Car Standards

2006 GMC Envoy SUV V6 4WD

80% Cleaner

2006 Toyota Tundra Pickup V-8 4WD

State Clean Car Standards:

A Cost-Effective Tool To Protect Public Health

Clean Car Standards: Cost Estimates

Low Emissions Vehicle (LEV II) Standards

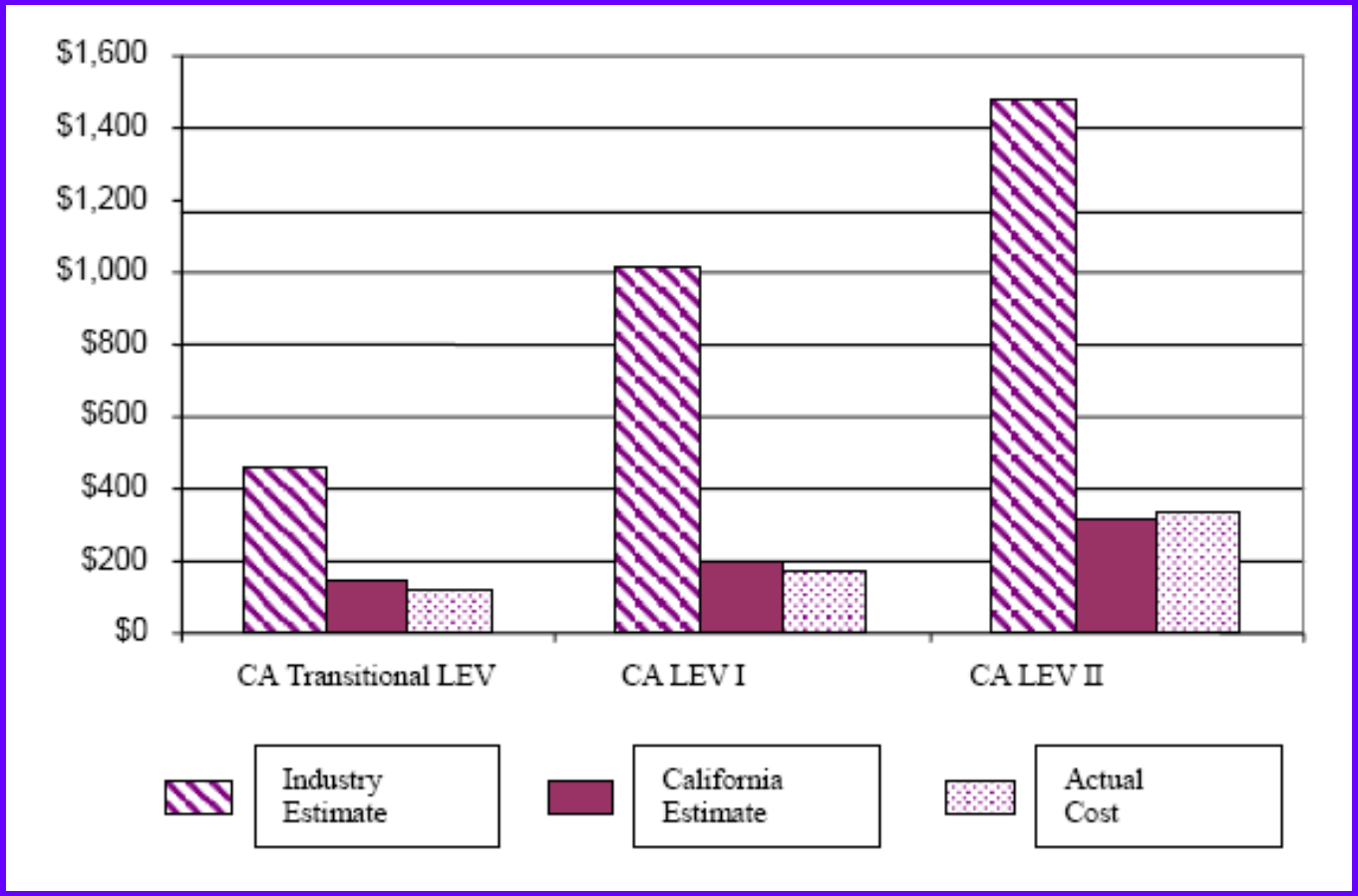
- In General, States that Have Adopted the LEV II Standards Have Experienced Increased Retail Costs of $100-$300 Per Vehicle.
- Actual Cost Will Vary By State

Federal Tier 2 Standards

- EPA Estimates that the additional retail cost for vehicles meeting the proposed Tier 2 emission standards to be $50-$220.
- Additional Costs to North Carolina Consumers Are Negligible

Clean Car Standards: Cost Estimates

- The California Air Resources Board (CARB) Has Routinely Made Accurate Cost Estimates While the Auto Industry Has Grossly Overestimated Compliance Costs



Clean Car Standards: Fact vs. Fiction

- The Auto Industry Has Claimed in the Past that Cutting Emissions Will Destroy the Industry. Those Claims Did Not Come True.

"If GM is forced to introduce catalytic converter systems across-the-board on 1975 models, the prospect of an unreasonable risk of business catastrophe and massive difficulties with these vehicles must be faced. It is conceivable that complete stoppage of the entire production could occur, with the obvious tremendous loss to the company, shareholders, employees, suppliers, and communities. Short of that ultimate risk, there is a distinct possibility of varying degrees of interruption, with sizeable dislocations."

- Former General Motors VP Ernest Starkman, in testimony to a 1972 U.S. Senate committee.

Clean Car Standards: Fact vs. Fiction

- Consumers can still buy the same vehicles as they do today – including trucks and SUVs.
- Large pickup trucks and other work vehicles are not prohibited by the clean car standards. A less stringent emissions standards applies to vehicles over 8,500 pounds Gross Vehicle Weight Rating (GVWR).
- A handful of diesel vehicles under 8,500 pounds – such as the Jeep Liberty diesel and Mercedes diesel E class – currently do not meet Clean Car emissions standards.

"Federal fuel economy standards will result in a product line consisting of either all sub-Pinto-sized vehicles or some mix of vehicles ranging from a sub-sub-compact to perhaps a Maverick."

- Helen Petrauskas, Ford Spokeswoman, in testimony to Congress in 1974

State Clean Car Standards: The Right Choice

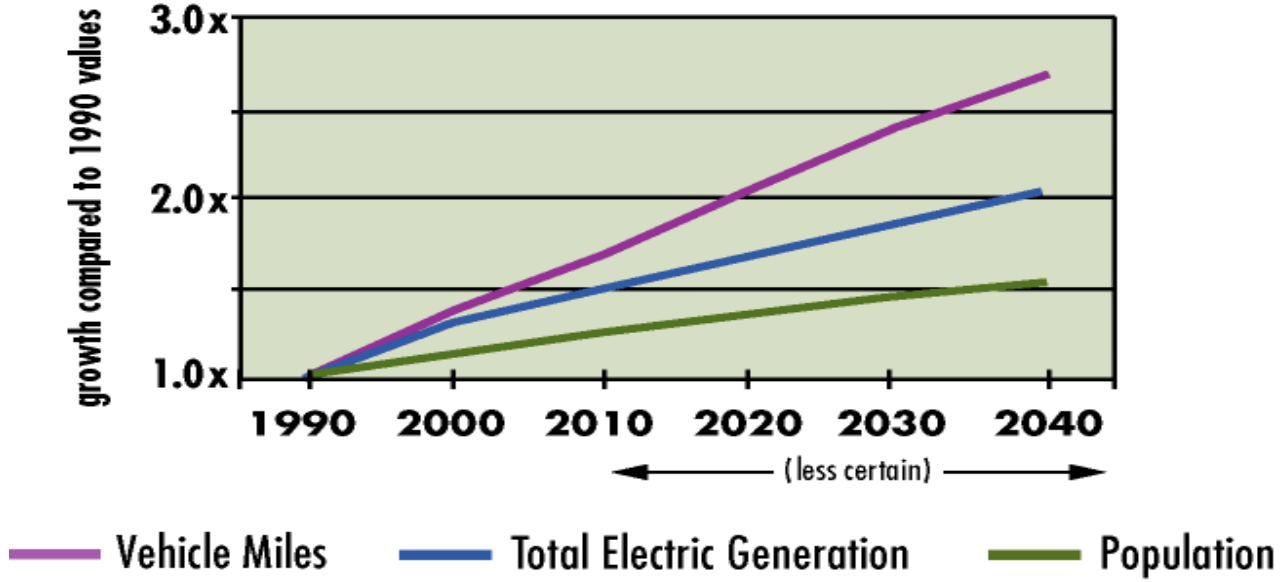
- State Clean Car Standards Provide Proven Clean Air Benefits
- The Clean Air Act Purposefully Provides States Order to Provide Provides States with the Opportunity to Adopt these Standards as Another Tool to Improve Air Quality
- Improving Air Quality Will Reduce Health Care Costs for North Carolina and Protect Federal Funding Sources Dependent Upon Attainment Status
- The Clean Car Standards Achieve Substantial Clean Air Benefits for a Marginal Increase in the Retail Cost of New Vehicles.
- Consumers Will Still Have the Ability to Purchase SUVs, Pickup Trucks, and Other Large Vehicles.

What our citizens deserve…

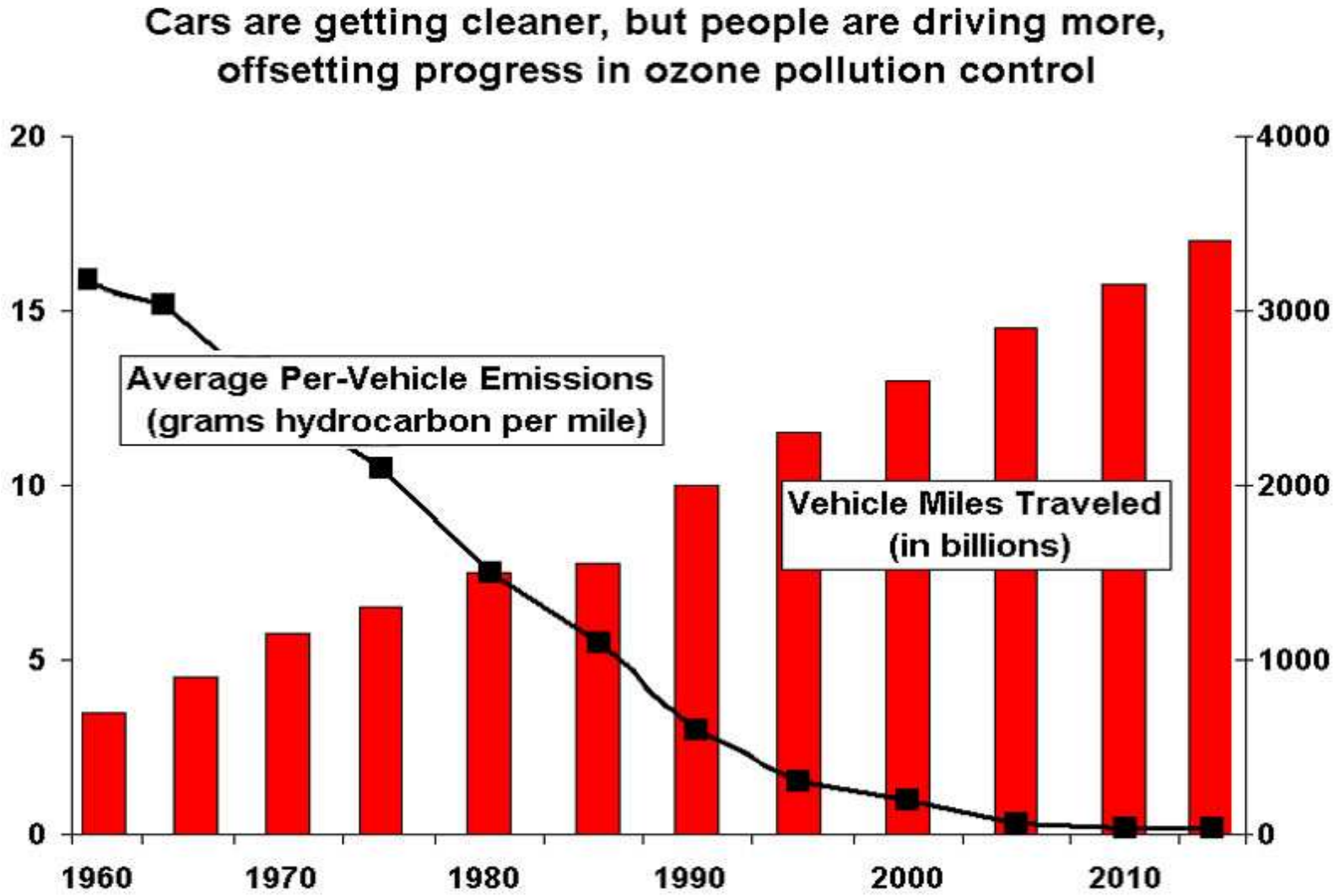
- **To take the next step for clean healthy air in North Carolina**
- **The cleanest, most efficient cars available on the market.**

Our growing challenge…

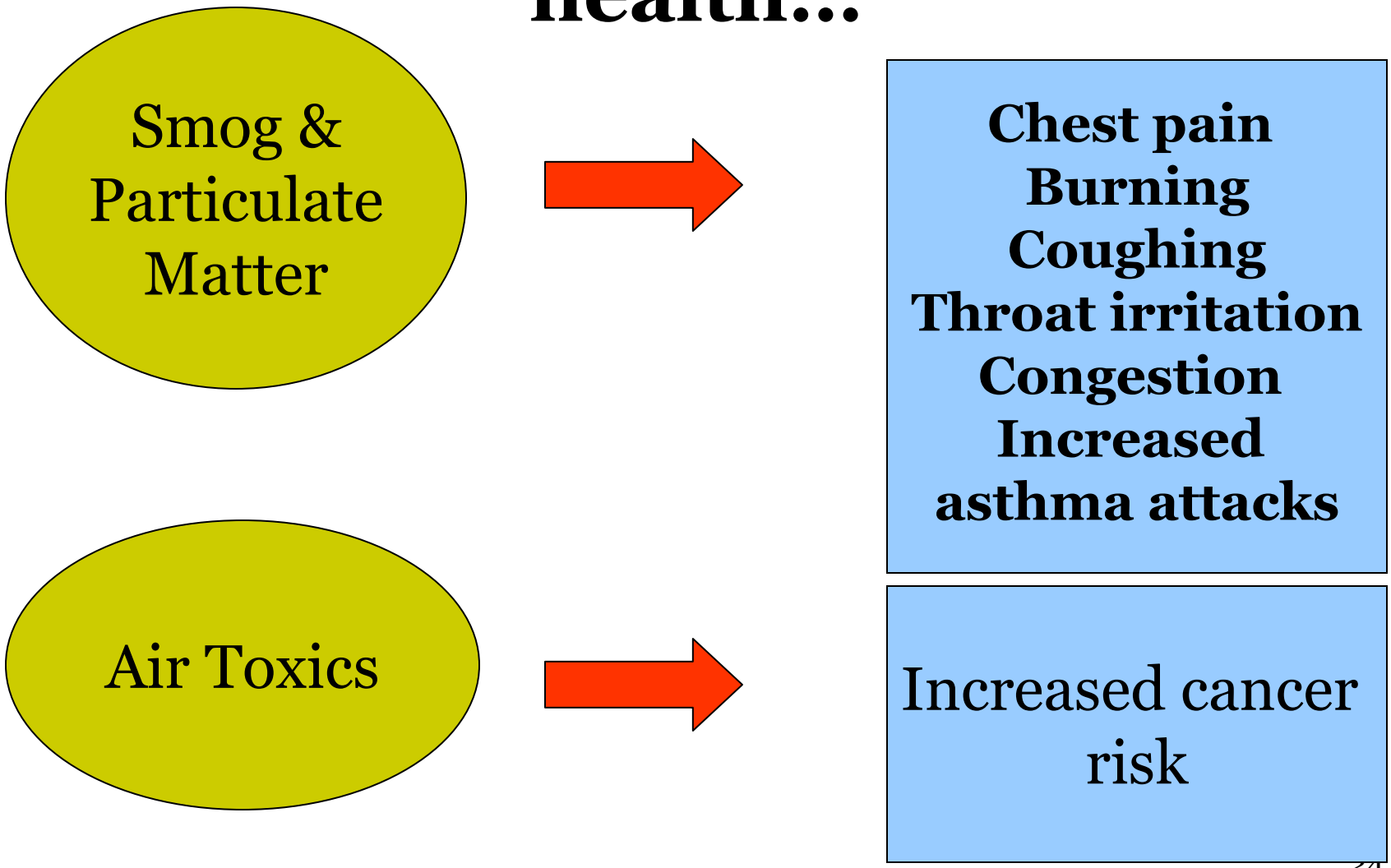
North Carolina is expected to be the 7th most populous state in the nation by the year 2030. Vehicle miles of travel will outpace population growth.



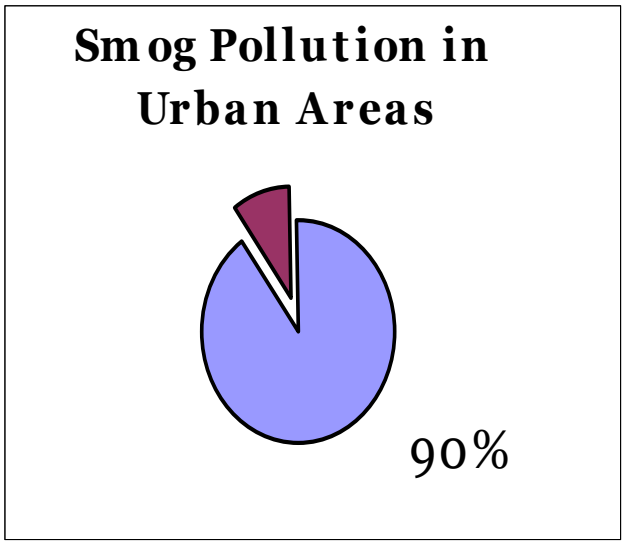
Our growing challenge…

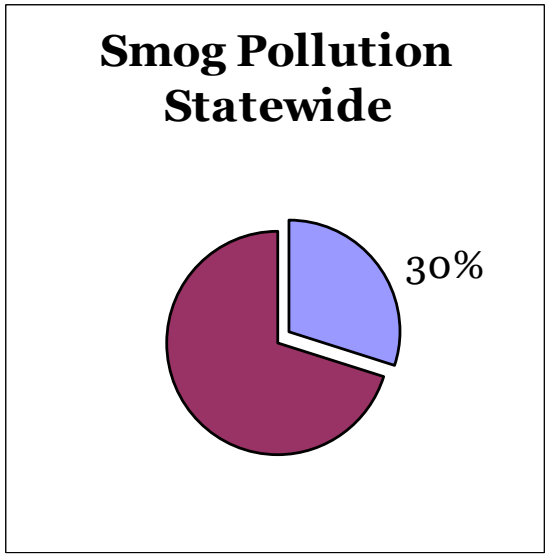


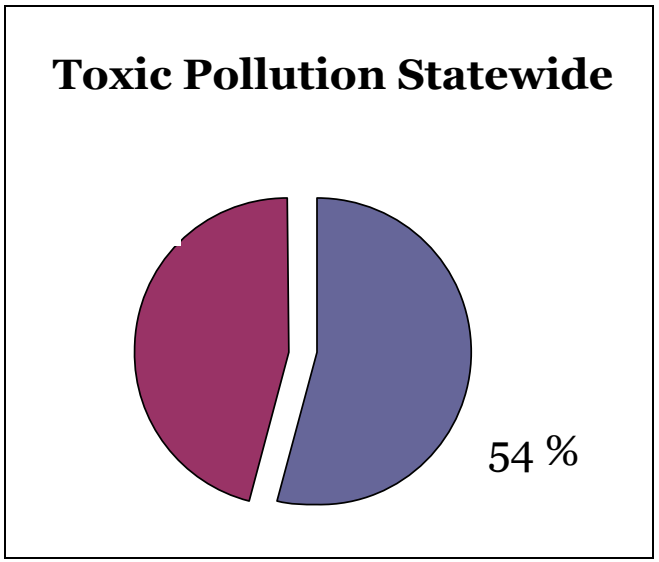
Despite recent gains, air pollution still threatens public health…



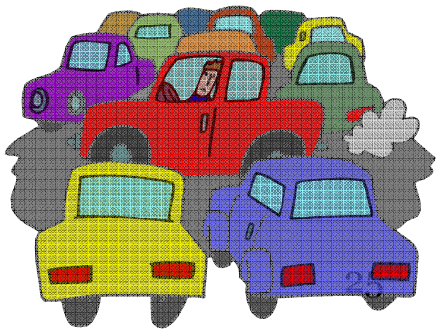
Cars contribute to air pollution..







Data Sources: U.S EPA, NC Division of Air Quality & Mecklenburg County



Cleaner Cars

- The Clean Cars program provides that the dirtiest cars on the roads come in cleaner versions.

- The Clean Cars program puts more of the cleanest cars on the roads.

Advanced Technology Vehicles

- Innovative technologies for conventional gasoline burning cars mean more efficient cars and less air pollution. The Ford Fusion is just one example.
- Increasing availability of popular hybrid electric cars, like the Toyota Prius, on the state's roads will reduce air pollution and promote innovation.

Popular NC Cars

Toyota

Honda

Ford

Chevrolet

Nissan

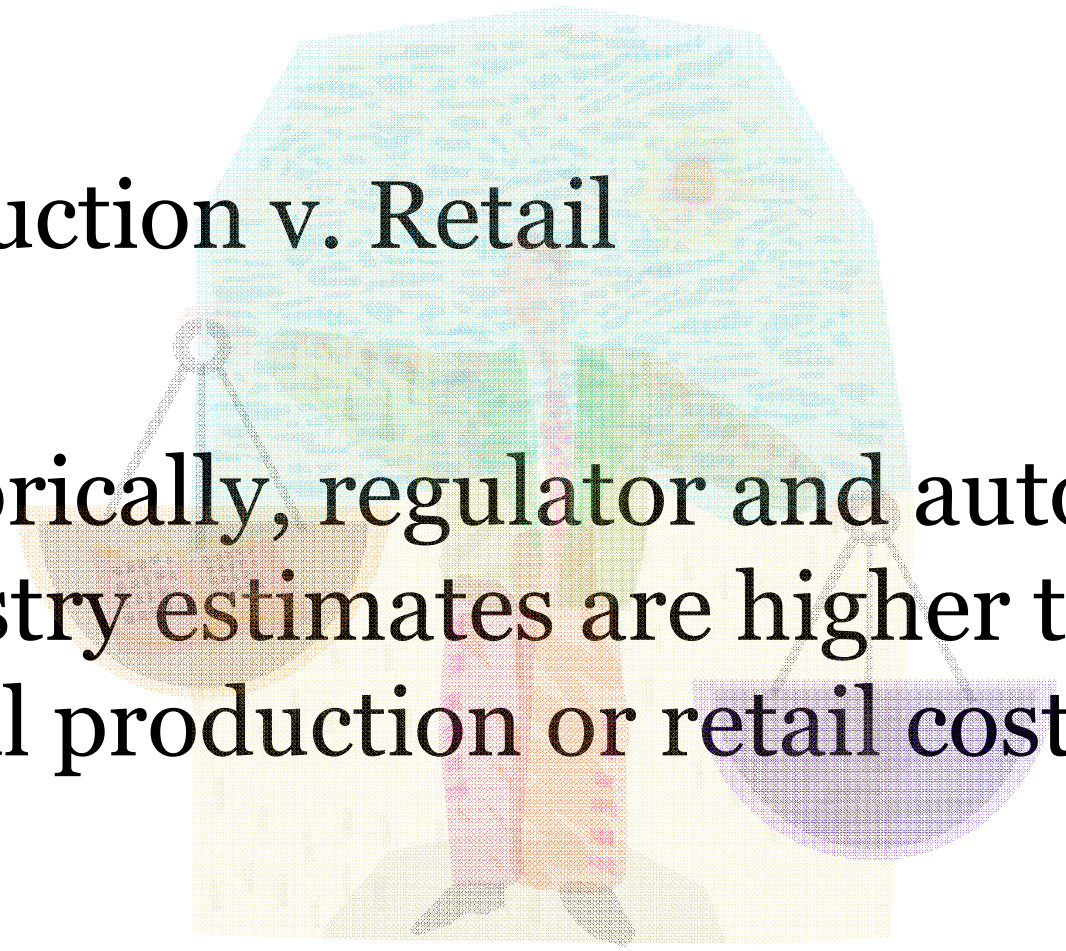
Pontiac

Dodge

The Costs

	Estimated % of new cars sold in 2009	Estimated Differential Cost Per Vehicle
Clean Conventional Cars	95%	~$100-$300
Advanced Technology Cars (i.e. hybrids)	5%	$1000-$3000 (same as today)

The Costs



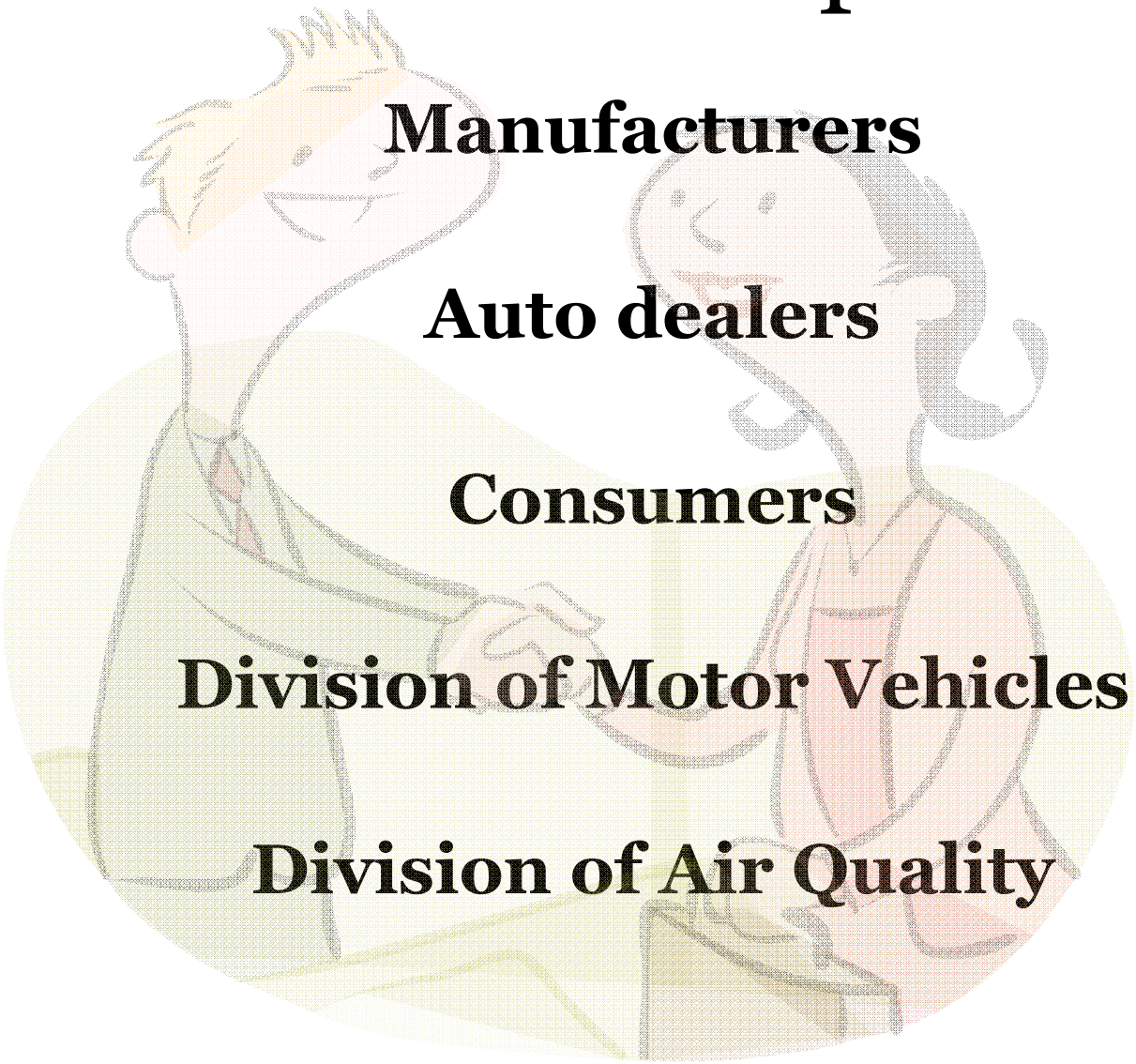
- Production v. Retail

- Historically, regulator and auto industry estimates are higher than actual production or retail costs

The Benefits…

- ✓Gives NC consumers access to the cleanest, most efficient vehicles
- ✓Reduce toxic air pollution & continue reductions in smog
- ✓Economic development and potential job creation

Responsibilities



Manufacturers

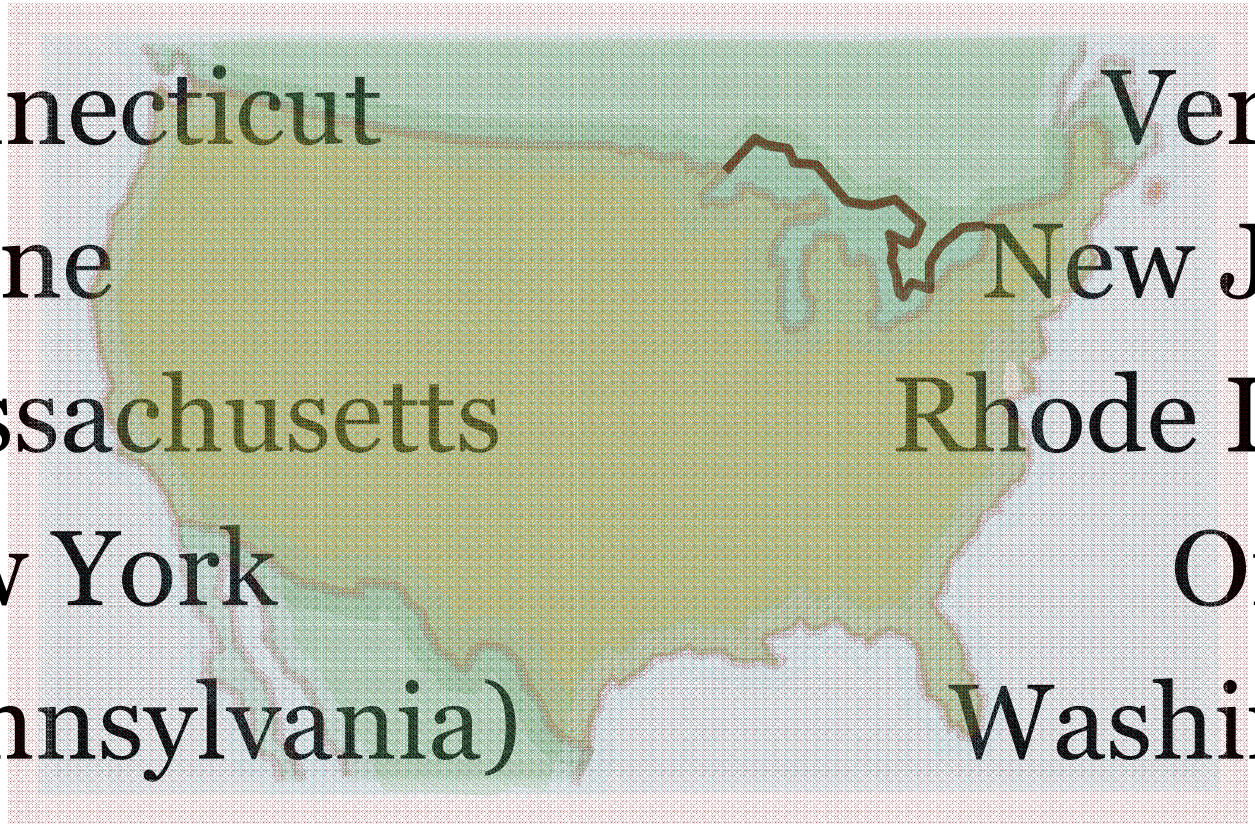
Auto dealers

Consumers

Division of Motor Vehicles

Division of Air Quality

Joining 1/3 of the nation's fleet…



Connecticut

Maine

Massachusetts

New York

(Pennsylvania)

Vermont

New Jersey

Rhode Island

Oregon

Washington

Concerns?

Q: Will the Clean Car Standards ban pickups and SUVs?

A: No, all types of cars and trucks will remain on the market, just in cleaner versions

Q: Will consumers be able to buy non compliant vehicles from neighboring states?

A: No, the bill will ensure that uncertified cars cannot be registered in NC

Conclusion

- Reduce toxic and smog pollution
- North Carolinians deserve the same consumer choices being offered elsewhere in the nation
- Shift the cars and trucks on NC's roads towards cleaner, more efficient vehicles
- NC led the South with clean smokestacks and now has the opportunity to lead again.

Driving towards clean air…

…and a healthy environment!