

Collision or Intersection? Car Ownership and Energy and Environmental Concerns

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May 20, 2010

Speakers

- **Neil Brown** is an advisor to the United States Senate's most senior Republican, Richard G. Lugar of Indiana. He serves as a Senior Professional Staff Member of the Senate Foreign Relations Committee, with responsibility for energy security and the Nunn-Lugar non-proliferation program. Neil earned masters degrees in political theory and forced migration while studying as a Rhodes Scholar at University of Oxford (UK). He also holds a BA from Harvard University. He has done substantial field work while living in South Asia, Namibia and Egypt, and he has previously worked with the Harvard Institute for International Development and the Center for Strategic and International Studies. He is a board member of the Association of American Rhodes Scholars, a trustee of the Merton College Charitable Corporation, and a fellow at the National Review Institute. Neil is from Iowa, where his family farm is located.
- **Peter Kilde** has been executive director of West Central Wisconsin Community Action Agency, Inc, (West CAP), since 1995. West CAP is an anti-poverty agency providing low income housing, homelessness and foreclosure prevention programs, weatherization, food security, the JumpStart car ownership program and various sustainable community initiatives. He currently represents the upper Midwest on the national Community Action Partnership Board of Directors, where he chairs the Strategic Initiatives Task Force currently focused on energy resource depletion and climate change as they affect low income communities. He often serves as a resource person to the Annie E. Casey Foundation and the Aspen Institute on low income housing and transportation policies. He is an active board member, and past President, of WISCAP, the state-wide association of Community Action agencies. Peter serves on the regional Workforce Development Board, the local Habitat for Humanity Board and has recently been appointed to the board of the Wisconsin Energy Conservation Corps. Prior to coming to West CAP, Mr. Kilde worked for twenty-five years in a variety of capacities for the Amherst H. Wilder Foundation of St. Paul, Minnesota. During his last decade with Wilder, he was operations director of Wilder Forest, a 1,200-acre conference and education center linking social and environmental concerns. Peter Kilde lives on a small farm near Spring Valley, Wisconsin, with his wife and three daughters.

Speakers

- **Rafael Mares** is a Staff Attorney working on transportation and environmental justice issues. He joined CLF in 2009. For ten years, prior to joining CLF, Rafael served as a clinical instructor and lecturer on law at the WilmerHale Legal Services Center of Harvard Law School, where he founded the Healthy Homes and Environmental Justice Project. Before and during law school, Rafael worked on environmental justice issues in Washington, DC, Puerto Rico, and Boston. Rafael holds a J.D. from Harvard Law School and a B.S. in Integrated Natural Resources from the University of Vermont. He is admitted to the bar in the Commonwealth of Massachusetts and the U.S. District Court for the District of Massachusetts.
- **Olivia Wein** has been a staff attorney in the Washington office of the National Consumer Law Center since December 1999. Olivia represents the interests of low-income clients at the federal and state level on energy and utility issues. She regularly submits testimony to Congress on the importance of the Low Income Home Energy Assistance Program (LIHEAP), as well as comments to various federal agencies and state public utility commissions on behalf of low-income consumers. Olivia is on the board of the National Low-Income Energy Consortium, and co-chairs the LIHEAP Coalition, which is comprised of a broad array of national, regional and local groups and organizations. Olivia is a 1989 graduate of Barnard College, Columbia University and a 1995 graduate of Golden Gate School of Law in San Francisco, California. She also has a Master of Education from Teachers College, Columbia University. She is also admitted to the DC and Maryland bar.

Need for Cars

- 91.2% of adults use a personal vehicle to commute to their jobs. (U.S. Department of Transportation Survey, 2003).
- Households with incomes below \$25,000 are nine times more likely to be without a car than households with incomes above \$25,000. (U.S. Department of Transportation Survey, 2003).
- Equipping low-income families with working cars can be crucial for their economic success.

Energy & Environmental Concerns

- In a recent survey by Consumer Federation of America, 75% of respondents were concerned about gas prices. (CFA Survey, 2010).
- 87% of respondents agreed that it is “important that the country reduce its consumption of oil.” (CFA Survey, 2010).
- 65% of respondents said that “the government should increase the fuel economy standard to an average of 50 miles per gallon (mpg) by 2025.” (CFA Survey, 2010).

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Collision or Intersection? Car Ownership and Energy and Environmental Concerns

Peter Kilde presentation



An Overview of the Low Income Car Ownership Field



Opportunitycars.com –
Resources – Low Income Car
Ownership Programs 2006
NEDLC

150 Programs – 8000 cars/year

All Grassroots, mostly

The Cars:

21% under \$2000

60% \$2000 - \$4000

11% \$4000 – 8000

8% \$8000 +

THE JUMPSTART™ PROGRAM



**A PROGRAM THAT HELPS TANF
MOMS BUY LATE MODEL ECONOMY CARS**

What does it do for our drivers?

- Increased income
- Changed to better jobs
- Moved to better housing
- Went from renters to homeowners
- Advanced their formal/tech. education
- Improved the quality of their child care
- Improved overall financial security
- Increased credit scores
- Reductions in public assistance
- Greater social & community involvement
- Better overall quality of life

WHY DOES JUMPSTART WORK?

- Major emphasis on the machine itself
 - ▶ Minimum EPA hwy rating of 32 mpg
 - ▶ Late model - low mileage
 - ▶ Vehicle models with proven reliability & good repair ratings
 - ▶ Thorough inspection and repair
 - ▶ Synthetic oil and transmission fluid
 - ▶ Maintenance training and ongoing maintenance required

JumpStart™: Challenges

- ▶ Stubborn existing paradigm meets counter-intuitive model
- ▶ Almost all Federal funding of low-income transportations is for mass and group transit and specifically excludes car ownership
- ▶ 95% of working families with children in America rely on a car to meet their transportation needs
- ▶ 95% of Americans favor mass transit for others
- ▶ Persistent myths of mass transit

The Social Justice Problem or Why Should the Burden of addressing Congested Highways, Urban Sprawl and Clean Air fall on these women?



The Transportation Energy Problem

Figure 6: Mass Transit Over-rated (Btu per passenger mile)

Private Car	3,549
Light Truck (SUV)	7,004
Bus Transit	4,160
Airplane	3,587
Amtrak Train	2,935
Rail Transit	3,228

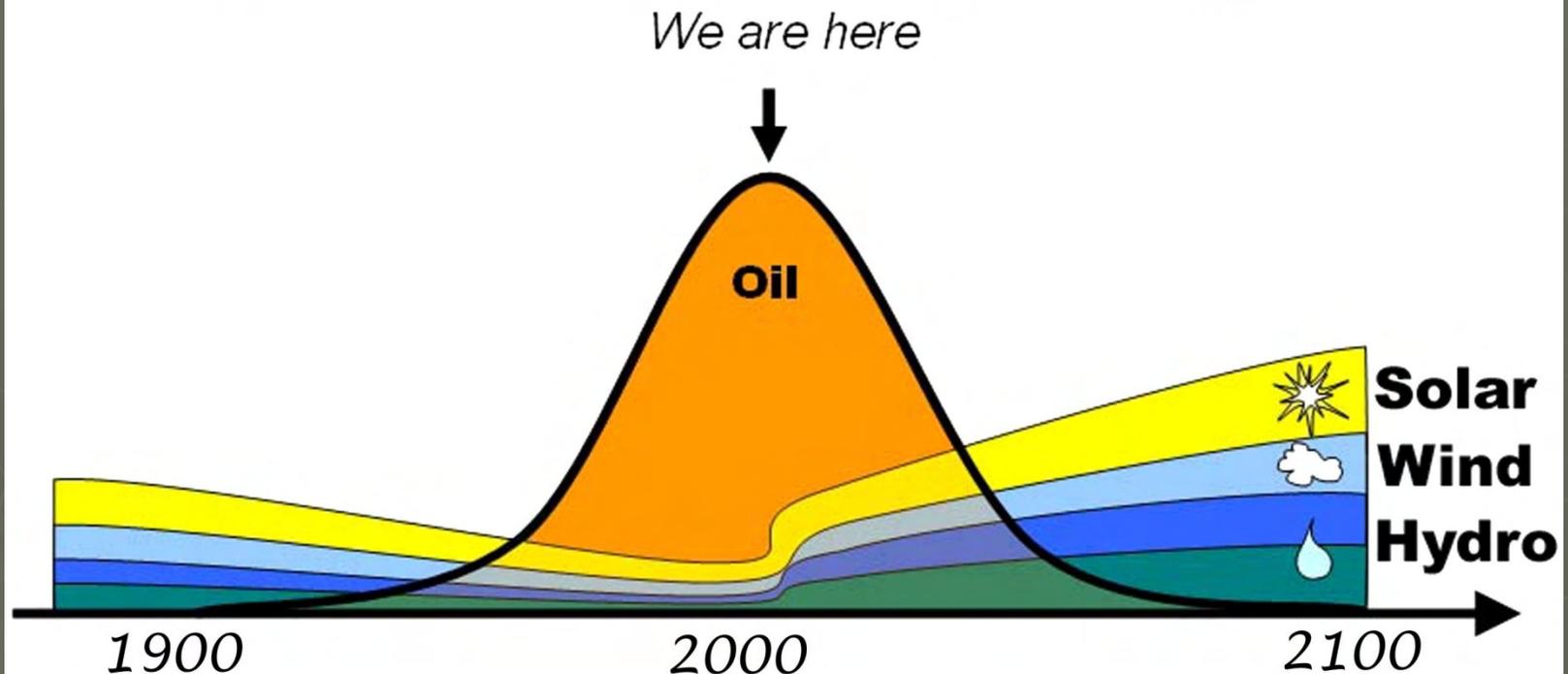
- ▶ Economy car (**32 mpg**) drops Btu/mi to 2662
- ▶ Hybrids drop btu/mi to 1893
- ▶ Vanpools/Jitneys come in at 1294 Btu/mi

And why is this important?



And why is this important?

Get ready



for a low energy world

www.oilcrisis.com

Lugar Practical Energy and Climate Plan

DRAFT Legislative Outline

March 25, 2010

The Lugar Practical Energy and Climate Plan identifies a possible bipartisan framework for making meaningful progress on energy-driven national security, economic, and environmental concerns. It favors policies that will help Americans save money, help American businesses better compete, and minimize fiscal impact.

The policies identified in this legislative outline will produce measurable energy, monetary, and greenhouse gas savings. Preliminary analysis¹ of national impact indicates implementation of this plan will:

- **Reduce by two-thirds the need for foreign oil, or 1.75 billion barrels, by 2030;**
- Cut energy use by nearly 14%, or 11 quadrillion BTUs, by 2030; and
- Cut greenhouse gas emissions by 25% over business as usual, or approximately 2 gigatonnes, by 2030. This climate savings trajectory meets half of President Obama's 2020 climate goal.

These gains will come at **no cost to GDP** growth, will result in **no net job loss**, and will **save households 10% on electricity costs** on average. These conservative estimates do not include future savings from investing in efficiency today, jobs that will be created by burgeoning new energy markets, or improved global competitiveness as U.S. businesses cut energy costs.

Many colleagues have worked hard to develop thoughtful energy and climate proposals. The draft legislative outline proposed here builds on much of their important work and specific initiatives are cited as "references" in each section below. Rather than reinvent the wheel, the Lugar Practical Energy and Climate Plan identifies a clear, consistent, and comprehensive set of policies backed by solid analysis.

Title I. Reducing Foreign Oil Dependence

Foreign oil dependence places an intolerable burden on United States national security and results in the export of hundreds of billions of dollars per year. The Lugar Practical Energy and Climate Plan targets reduced need for foreign oil, cutting dependence by an estimated 68% by 2030.

More than half (53%) of that gain is through vehicle efficiency – long-term, predictable improvements in fuel economy in our cars, trucks, and heavy duty vehicles, and revenue-neutral incentives for purchases of the most efficient vehicles in each class.

Increased production of domestic oil makes a sizable contribution. Enhanced oil recovery (EOR) is driven by the Diverse Energy Standard (Title III, Sec 1), since it will be the most cost effective means for initial carbon capture and storage. EOR accounts for 21% of reduced dependence on foreign oil, and increased oil production on the outer-continental shelf (OCS) accounts for 11%. The primary driver of increased OCS production will be market prices.

¹ Analysis conducted by the independent ClimateWorks Foundation, which has no position on the proposals.

Renewable fuels production displaces foreign oil need by 15%, and this plan boosts fiscally-responsible supports to achieve commercialization of advanced renewable fuels, starting with the 21 billion gallon goal endorsed by Congress in the 2007 Renewable Fuels Standard.

Sec 1. Vehicle Efficiency

1. Extend fuel economy standards (CAFE) through 2030, building on existing standards that go through 2016.
 - a. After model year 2016, CAFE increases for passenger vehicles will reflect a goal of 4% annual efficiency improvements.
 - b. Fuel economy standards will be extended to include medium- and heavy-duty vehicles with the goal of 4% annual efficiency improvements, consistent with Sec 102(1)(C) of the 2007 Energy Independence and Security Act.
 - c. A waiver will be available if the Secretary of the Department of Transportation demonstrates that the targets are technologically unachievable or unable to guarantee fleet safety, among other considerations.

References: Obama-Lugar S.3694 (109th Congress); 2007 Energy Independence and Security Act Sec 102(1)(C)

2. Implement a technology- and revenue-neutral “feebate” system in which purchases of the most efficient vehicle by class is rewarded with a rebate off-set by fees on the least efficient vehicle by class.
 - a. Provide rebates beginning in model year 2012 and institute fees beginning in model year 2014 in order to allow manufacturers to reshape production plans according to the new incentive system.

References: Bingaman-Snowe S. 1620 (Lugar original co-sponsor)

Sec 2. Fuel Choice

1. Achieve the current Renewable Fuels Standard goal of 21 billion gallons of advanced renewable fuels by Sec. 942 of the Energy Policy Act of 2005, a reverse auction for cellulosic biofuel facilities, to include all advanced renewable fuels and authorize additional funding to support the first 21 billion gallons of advanced biofuels.
2. Require that all new vehicles using combustion engine technology for propulsion sold in the United States be flex-fuel capable.
 - a. Model years 2013 and 2014: 50% requirement
 - b. Model years 2015 and beyond: 90% requirement

References: Harkin-Lugar S. 1627; Brownback-Cantwell S. 835

Title II. Energy Efficiency

Saving energy is the cheapest and easiest path toward energy security – and saving money. Each year, Americans unnecessarily, and usually unknowingly, lose billions of dollars through preventable energy waste. Failure to plug the energy leaks in our homes, businesses, and industries is a drag on economic recovery and impinges our global competitiveness.

Many energy efficient changes are available today and will pay for themselves in just a few years, yet well-known market failures slow their adoption. The Lugar Practical Energy and Climate Plan targets the efficiency gains: long-term energy improvement targets for new buildings and appliances, achieving a 5% retrofit rate in existing homes and a 2% rate in commercial buildings, reducing energy costs for industry, and committing to federal energy efficiency leadership. With these programs, we can cut energy demand by nearly 7% by 2030, slash greenhouse gas emissions by about 11%, and position Americans to save money for years to come.

Sec 1. National Building Energy Performance Standards (New Construction)

1. Establish mandatory targets for improved energy efficiency building performance measures for new residential and commercial construction.
 - a. Targets for reduction
 - i. 30% upon enactment
 - ii. 50% within five years of enactment or six years for commercial buildings
 - iii. 3% additional reduction within eight years of enactment and every three years thereafter, or within nine years of enactment and thereafter for commercial buildings
 - b. States and localities are responsible for adopting and enforcing energy efficiency building codes that meet the targets. The Secretary of Energy will support consensus code-setting organizations in developing and publishing codes meeting the targets and to support state and local adoption of the consensus-based codes or other codes that meet the targets. The Secretary of Energy will establish a binding federal backstop in the event that no consensus-based code is adopted that meets a target or if a state declines to enforce codes meeting the targets.
 - c. The Secretary of Energy has the authority to waive, in whole or in part, the targets if there is a determination that implementation would severely harm the economy or environment of a State, a region, or the United States.

References: Waxman-Markey H.R. 2454 Sec. 201

Sec 2. Federal Buildings

1. Require Federal Agencies to enhance efforts towards energy efficient buildings by ensuring that:
 - a. All new Federal buildings entering the design phase in 2012 or later are designed to exceed national building performance standards. Such buildings should pursue cost-effective, innovative technologies and strategies to minimize consumption of energy, water, and materials, and should consider sites with easy access to public transportation alternatives.
 - b. All new Federal buildings entering design phase in 2020 or later strive to achieve net-zero energy use by 2030 where feasible.

References: Executive Order 13514

Sec 3. National Building Retrofit Program

1. Quick action demonstration program for building retrofits
 - a. In order to catalyze near-term retrofits and increase public education, a rebate program will be authorized for retrofits.

References: Senate Energy Committee is currently examining similar proposals.

2. Residential, small business, and commercial retrofits
 - a. Authority to offer direct loans, loan guarantees, letters of credit, and other financial products to leverage private investment in energy efficient retrofits of homes and multifamily, commercial or industrial buildings.

References: Merkley-Lugar S.1574

- b. Provide loan authority through the USDA Rural Utilities Service (RUS) to rural electric cooperatives to offer low-interest micro-loans to residential and small business customers for energy-saving retrofit and structural improvements. Trained auditors and contractors will conduct energy audits to determine what sorts of energy efficiency improvements are warranted. Participating consumers repay the co-ops for the installation and material costs through their energy savings on their utility bills within not more than a 10 year window.

References: Merkley-Lugar S.3102

- c. Credit subsidy to be appropriated to implement Title II Sec 3(2)(a-b) will be commensurate with leveraging \$10-15 billion/year in investment.

Sec 4. Industrial Energy Efficiency

1. Industrial leadership program – Authorize the Department of Energy to form partnerships with individual corporations and/or business associations committed to saving energy. Partners will set 5 year goals to improve energy efficiency and be eligible for federal incentives, which can be reversed if goals are not met.
 - a. Revolving loan program – Authorize \$500 million annually for fiscal years 2010 through 2014, requiring matching funds.

References: Senate Energy Committee S. 1462 Title II(A)

Sec 5. Appliance and Equipment Efficiency Standards

1. Build on existing appliance standards by requiring the Secretary of Energy to establish annual efficiency improvements for residential, commercial, and industrial appliances and equipment. These include stronger standards for products currently regulated at the federal level and expanded standards for products currently regulated at the state or local level.
 - a. Authorize establishment of a credit program that will allow manufacturers to certify compliance. Allow manufacturers to bank excess credits and borrow from subsequently for two years.
 - b. Establish minimum efficiency thresholds as a backstop that will effectively eliminate manufacturing of the most inefficient appliances.
2. Require Federal agencies to be early adopters of innovative efficient products and services by targeting that 95% of new contract actions, task orders, and delivery orders for products and services (excluding weapon systems) are energy efficient (Energy Star or similarly designated), where such products and services meet agency performance requirements. Implement best management practices for the energy-efficient management of servers and Federal data centers.

References: Executive Order 13514

Title III. Diverse Domestic Power

Our nation's energy future will be more secure with greater diversity in use of domestic energy resources. A diverse domestic energy portfolio will drive job creation to meet expanded markets and help protect ratepayers from commodity price volatility. As we invest in the facilities that will power this country for

decades to come, guiding investment toward reliable domestic power sources and cleaner technologies and resources is a prudent step toward reducing impacts on climate and pollution.

The Lugar Practical Energy and Climate Plan proposes a flexible system – in resources and timelines – to enable states and utilities to determine the energy mix that makes most sense to them within a national framework to keep America on track for energy security and climate stewardship. The Diverse Energy Standard framework, in complement with existing and expanded short-term incentives to help diverse technologies be proven commercially and the retirement of the most publicly costly conventional coal plants, will help boost nuclear power by 30% and result in two-and-a-half times increase in renewables than business as usual, while also opening a path for continued use of our nation’s vast coal resources.

Sec 1. Diverse Energy Standard

1. Diverse and cleaner energy resource development will be accelerated, such as through: solar, wind, geothermal, ocean energy, biomass, landfill gas, certain hydropower, marine and hydrokinetic, coal-mined methane, waste-to-energy, new nuclear energy, and coal generation with carbon capture and storage or carbon reuse that achieves 80% emissions reduction.
 - a. The Secretary is authorized to conduct rule-making to add additional qualifying technologies that reduce emissions by at least 80% compared to freely-emitting sources.
 - b. Coal generation with carbon capture and storage or carbon reuse, achieving 65% emissions reductions, will be included at a discounted rate within the 2030 time frame but thereafter must reach the 80% emissions reduction threshold to qualify.
2. Establish mandatory targets for utilities to obtain a percentage of their electricity generation from clean energy.

Calendar year:	Target percentage:
2015	11
2030	30
2050	50

3. The Standard will include mechanisms to enhance flexibility for states and utilities to meet their compliance obligations.

References: Graham discussion draft, modified

Sec 2. Retirement of most costly polluting coal plants

1. Authorize incentives valued at \$11 billion for the retirement of the most-polluting coal plants, comprising approximately 16% (49GW) of coal generation capacity, taking into account reserve base load capacity and power reliability. Eligibility will be based on average emissions rates, and incentive amounts will be based on average KWh sales over previous years of the facility to be retired. Incentives will be tied to plans to reinvest funds into efficiency promotion, consumer programs, or reinvestment in qualified new generation.

Sec 3. Expanded loan guarantees for nuclear power

1. Additional loan guarantee authority to accelerate initial units of new nuclear power generation.

References: FY2011 Budget Request.

Title IV. Measurement & Review of Energy & Climate Programs

Transparent monitoring of government energy and climate programs will help ensure that we are meeting our national goals – enumerating for the American people the gains we are making as a nation and demonstrating America’s resolve to audiences abroad.

Sec 1. Transparent measurement and review

1. Require relevant Federal Agencies to review existing federal programs that should be included in monitoring of progress toward energy security and greenhouse gas reduction goals.
2. Require the Government Accountability Office to issue a study every two years that advises relevant Congressional committees on the results of the programs identified in Section 1 and make appropriate recommendations. The study shall examine effects that the programs identified in Title IV Sec 1 have had on:
 - a. Consumption, production, and import of oil and petroleum products;
 - b. National energy production and demand;
 - c. Greenhouse gas emissions; and
 - d. Technology advancement and deployment.

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Olivia Wein, Staff Attorney
National Consumer Law Center

May 20, 2010

FAIR CLIMATE CHANGE POLICY:

Principles for Protecting Low- and Moderate- Income Consumers from the Costs of Climate Change Policy and for Re-building Their Communities (full text available at www.nclc.org)

THE DESIGN of any climate change mitigation policy that raises the cost of energy and other essential consumer goods must be fair to all Americans. Climate change policies must:

- Ensure that all consumers can afford the quantities of residential and transportation energy that meet their basic needs;
- Ensure that no households experience economic insecurity as a consequence of climate change policies;
- Ensure that vulnerable consumers who lack the capital or credit to reduce or eliminate their use of carbon-based energy in their homes and vehicles have access to cost mitigation programs such as weatherization, energy efficiency programs and clean energy technologies;
- Ensure that disadvantaged communities have access to a fair share of any funds designated for investments in infrastructure such as green homes and buildings, renewable energy technologies and easy access to low-emissions transit.
- Ensure that emissions of greenhouse gases are subject to regulation by government acting for the public and that any value created by the regulation belongs entirely to the public.

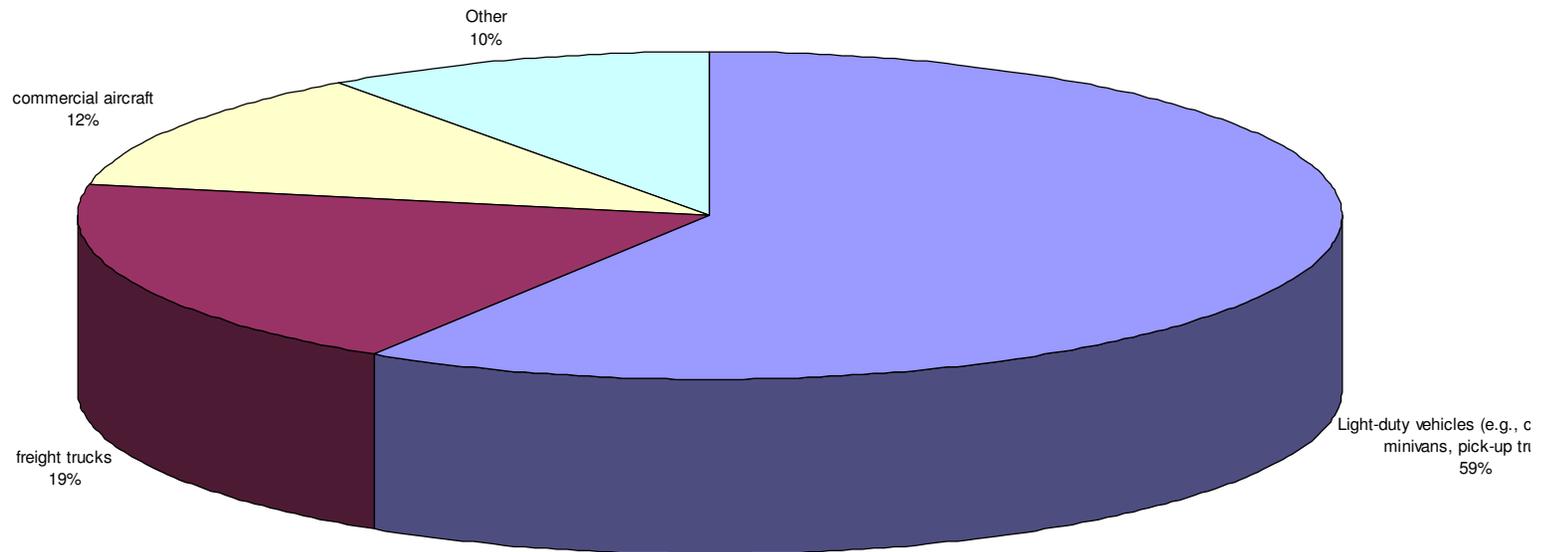
A look at the bigger picture

- According to the US EPA, transportation GHG emissions account for about 28 percent of total U.S. GHG emissions.
- “Transportation GHG emissions have been growing steadily in recent decades. From 1990 to 2006 alone, transportation GHG emission increased 27 percent, accounting for almost one-half of the increase in total U.S. GHG emissions for the period.” US DOT Transportation’s Role in Reducing U.S. Greenhouse Gas Emissions, Vol. 1: Synthesis Report (April 2010)

Source of US Transportation Emissions

US Transportation GHG Emissions in 2006

Source: EPA Inventory of US GHG Emissions and Sinks



Why are low-income consumer advocates concerned about the affect of transportation policy on low-income consumers?

Policies that put a price on GHG emissions will have a regressive impact on low-income households and will thus require strong mitigation measures to protect those vulnerable households.

Source: Joel Eisenberg, *The Impact of Carbon Control on electricity and Gasoline Expenditures of Low-Income Households*, Oak Ridge National Laboratory, April 2008

- ORNL analysis found that in general, the average low-income household uses less gas per year than non-low-income households, but the cost burden is much greater for low income households when one looks at the percentage of income spent on gas.
 - Average consumption of 902 gallons per year in 2001 for low-income households versus 1231 gallons per year in 2001 or non-low-income households.

Source: Joel Eisenberg, *The Impact of Carbon Control on electricity and Gasoline Expenditures of Low-Income Households*, Oak Ridge National Laboratory, April 2008

- A household's transportation expenses varies due a number of variables including, whether they own a car, how many cars are owned and used, the fuel efficiency of the vehicle, the distance traveled, etc.
- There is a substantial population of poor who do not have cars: An estimated 19 percent of low-income households do not own a car versus 3 percent for non-low-income households.
- The poor tend to drive older cars: Approximately 47 percent of vehicles owned by low-income household's vehicles are at least 10 years old versus 23 percent for non-low-income households.
- Poor households in rural areas would experience a greater impact than poor households non-rural areas.

What happens to the poor when gas prices go up?

- The Urban Institute took a look at the impact of rising gas prices on low-income commuters in 2008.
- They found:
 - That like those above the poverty level (78.9%), the vast majority of commuters below the poverty level commute to work by car, alone (64.7%)
 - Their modeling shows that the increase of gas from \$2/gallon to \$4/gallon results in regressive impacts on the poor.
 - At \$2/gallon, poor households would spend 4.3% of their income on gas versus 1% of income for the non-poor commuters.
 - At \$4/gallon, poor commuters would spend 8.6% of their income on gas versus 2.1% for the non-poor.
 - The numbers are conservative b/c they assumed the same gas mileage for all commuters.

Source: The Urban Institute, *Impact of Rising Gas Prices on Below-Poverty Commuters* (Sept. 2008)

Impact of Rising Gas Prices on Seniors

- Transportation is an essential component of independent living.
- Access to affordable and reliable transportation affects a person's ability to maintain social connections, obtain groceries and prescriptions, access health care services, engage in civic activities, etc.
- When the cost of gasoline increases, seniors on fixed incomes are faced with finding suitable alternatives for getting around or making sacrifices in other parts of their budget.

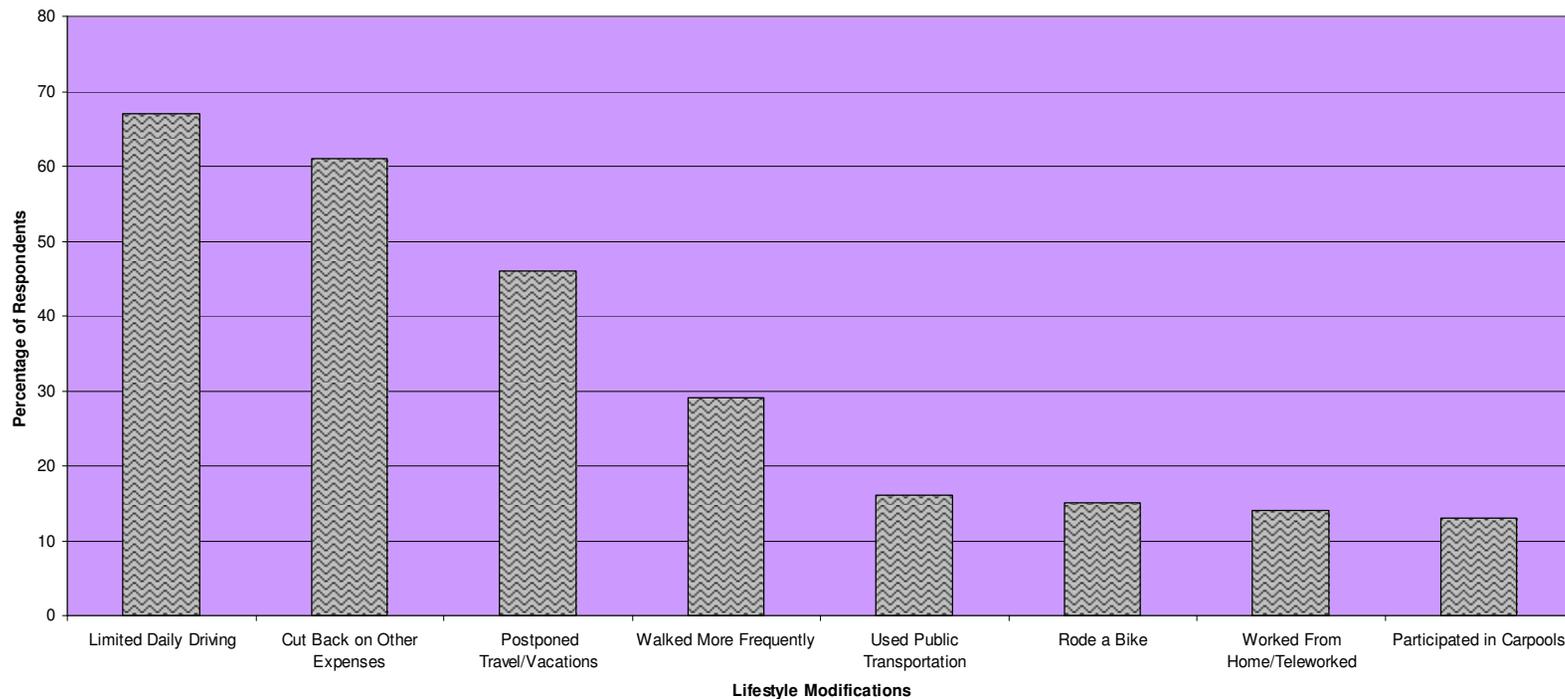
Source: AARP Aug. 2008 survey, *Is the Cost of Gas Leading Americans to Use Alternative Transportation?*

AARP conducted a nationally representative sample of adults age 50 and older in 2008.

- 85% of the respondents said they were either extremely concerned or very concerned about the recent rise in gas prices.

Modifications in Lifestyle to Accommodate High Gas Costs

Source: Data from AARP, *Is the Cost of Gas Leading Americans to Use Alternative Transportation?* Aug. 2008



Possible Strategies to Reduce Vehicle GHG Emissions

Car-Focused Solutions:

- **low-carbon fuels**
 - renewable fuels
 - hydrogen fuel cells
 - battery-electric vehicles
- **increased fuel vehicle economy**

Derived from: US DOT, *Transportation's Role in Reducing U.S. Greenhouse Gas Emissions, Vol. 1: Synthesis Report* (April 2010)

Driving Environment Solutions

- **Improve transportation system efficiency**
 - **reduce speed limits on national highways**
 - **bottleneck relief**
- **Integration of transportation planning and investment with land use planning**

Derived from: US DOT, *Transportation's Role in Reducing U.S. Greenhouse Gas Emissions, Vol. 1: Synthesis Report* (April 2010)

Driver Behavior Strategies

- **Pricing strategies to reduce VMT**
 - fee per vehicle mile traveled
 - increase fuel tax
 - pay-as-you-drive insurance
- **Expand urban transit in conjunction w/ land use changes and pedestrian and bicycle improvements**
- **Put a price on GHG emissions**

Derived from: US DOT, *Transportation's Role in Reducing U.S. Greenhouse Gas Emissions, Vol. 1: Synthesis Report* (April 2010)

How do we mitigate the harm to low-income consumers?

- The recent climate bills do provide measures to address transportation emissions and also have a range of low-income mitigation measures, but none specifically targeted to directly address low-income transportation cost increases.
- The Cantwell-Collins CLEAR Act (S. 2877) would immediately recycle 75% of the value of the emission allowances to all consumers on a per capita basis. Estimates are that around 70% of the households would be kept whole from rising costs.
- The Markey-Waxman ACES Act (HR 2454) and the Kerry-Lieberman American Power Act have a low-income refund for households at 150% of poverty and below that is designed to cover the increases in goods and services due to the climate legislation. The Kerry-Lieberman bill also has a small rebate provision for working families at 150% of poverty up to and phasing out at 250% of poverty. These bills also rely on funneling a substantial amount of allowances through the electric and n.gas companies (local distribution companies) to mitigate the harm to consumers from rising energy prices.

Where we are now.

The price of gasoline has been and continues to be volatile and this is devastating for poor households.

We need to integrate strategies and policies for helping low-income households maintain affordable, reliable and adequate transportation services in a broader array of policy issues, not just climate change.

For more information:

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May 20, 2010

**Conservation Law Foundation
Climate Change, Public
Transportation and
Affordability**

What is CLF?

Conservation Law Foundation is the oldest regional environmental advocacy organization in the nation (1966).

CLF's advocates use law, economics and science to create innovative strategies to conserve natural resources, protect public health and promote vital communities in New England.

Offices in MA, ME, NH, VT, and RI

(Very) Brief Overview of CLF's Goals:

- Reduce greenhouse gas emissions that cause global warming.
- Promote clean energy.
- Restoring and preserving the waters and forests of New England.
- Restore and protect the health of New England's ocean environment.
- Reduce and ultimately eliminate the disproportionate number of environmental hazards in New England's low income communities and communities of color through collaborative efforts.
- Promote issues of equality, justice, health and quality of life through environmental advocacy.

For more information visit www.clf.org.

Negative Impacts of Cars

Air pollution:

Many of the compounds found in vehicle exhaust are known to be **carcinogenic (cancer-causing)** in significant, chronic exposures.

Gases found in emissions contribute to the formation of **ground-level ozone**. Ozone develops from the interaction between two or more precursor pollutants such as volatile organic compounds (VOCs) and nitrogen oxide (NO_x) in the presence of ultraviolet light (sunlight).

Greenhouse gases in vehicle exhaust contribute to **climate change**.

More Negative Impacts of Cars

Water Pollution:

Stormwater containing oil, antifreeze, grease, and metals from cars, phosphorus from car washing detergents, nitrogen and other contaminants from vehicle exhaust (they settle in water), and road salt contaminates ponds, lakes, rivers, and oceans.

Land Consumption:

Cars promote sprawl, the unplanned, uncontrolled spreading of urban development reducing habitat and agricultural land uses.

Oil pollution of oceans:

Cars create need for off shore oil drilling which endangers health of oceans. See BP's Oil Disaster in the Gulf of Mexico.

Environmental Justice:

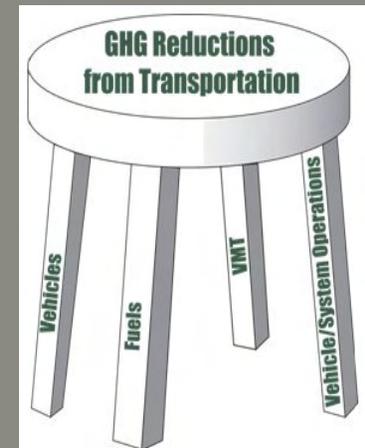
All these negative environmental consequences of cars disproportionately affect low-income communities and communities of color.

Transportation and Climate Change

- Transportation contributes about 28 percent of the United States' total Greenhouse Gas Emissions (GHG).
- Emissions from transportation are growing faster than other sectors, representing almost half of the increase in total GHGs between 1990 and 2006.
- Almost 80% of GHG emissions come from cars (another 11.5% from air travel)

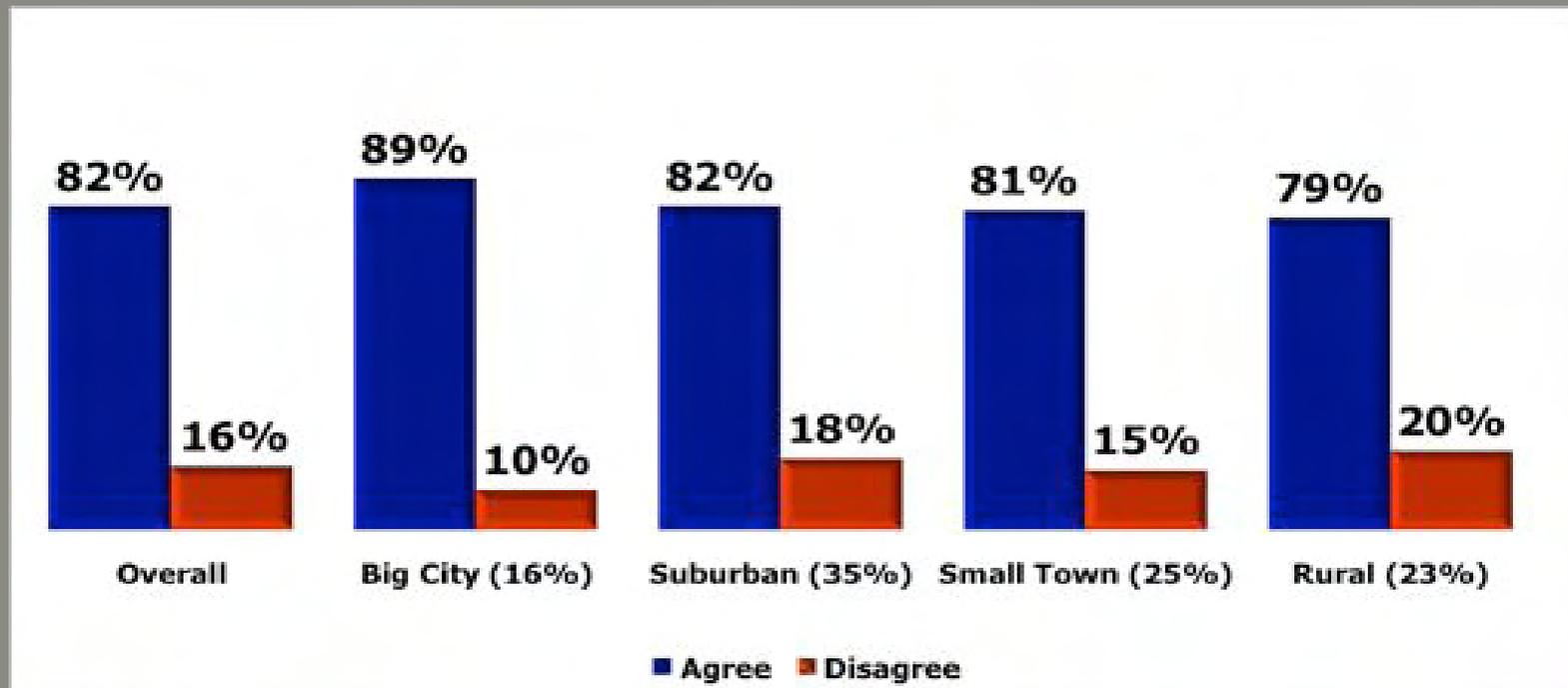
Reducing GHG in Transportation

- GHG emissions due to transportation result from the interaction of four factors: how efficiently the vehicle uses fuel, how much carbon the fuel contains, how many miles vehicles travel, and how efficiently the vehicle operates.
- Even if the most stringent fuel-efficiency proposals under consideration are enacted, vehicle emissions still would be 34 percent above 1990 levels in 2030 – entirely off-track from reductions of 60-80 percent below 1990 levels by 2050 required for climate protection. (Growing Cooler, 2007)
- Conclusion: Need to reduce vehicle miles traveled (VMT).



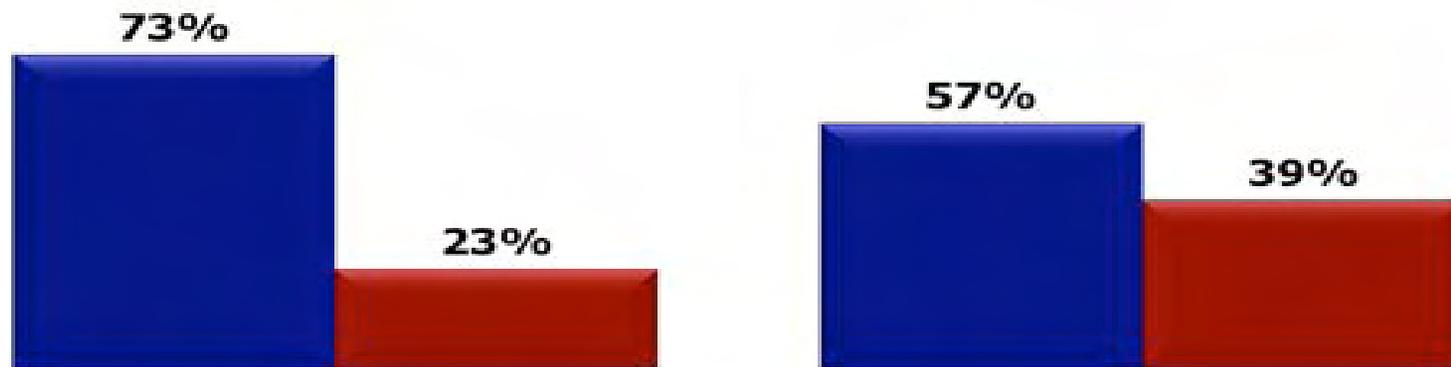
2010 Poll: Attitudes on Transportation Options

There is a strong sense that the nation would benefit from improved public transportation.



2010 Poll: Attitudes on Transportation Options

People feel they have no choice right now, but a majority would like to spend less time in a car.



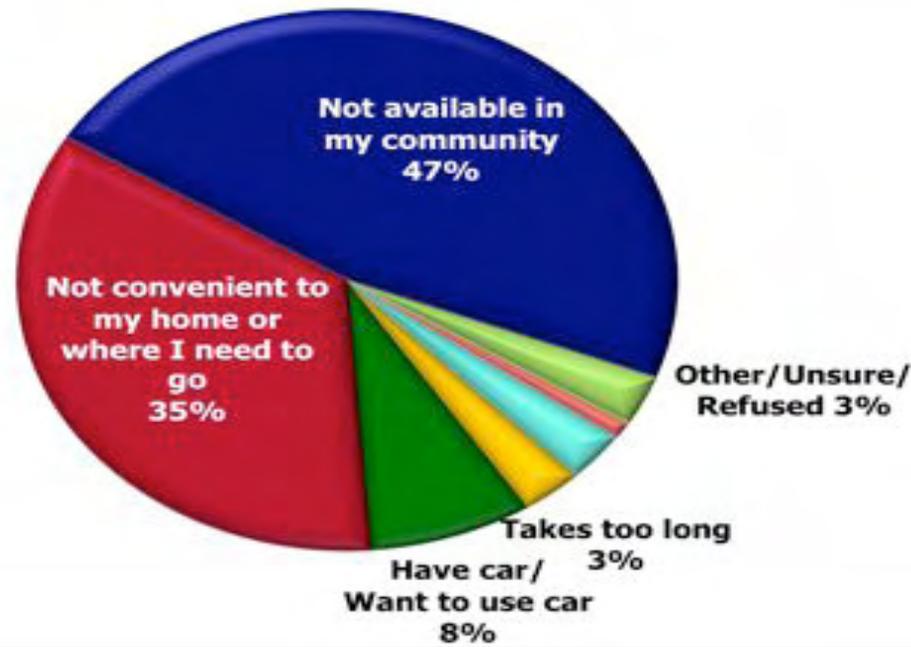
I have no choice but to drive as much as I do.

I would like to spend less time in my car.

■ Agree ■ Disagree

2010 Poll: Attitudes on Transportation Options

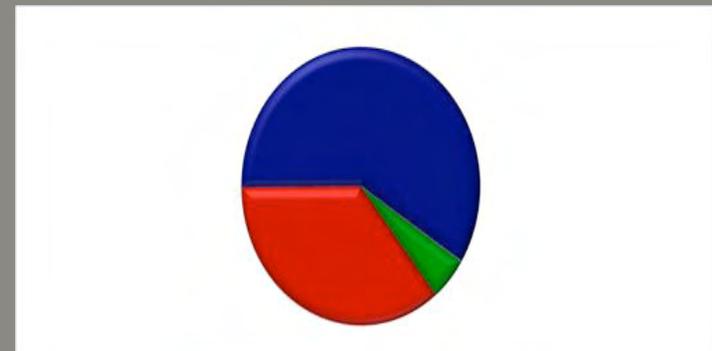
For people who have not taken public transportation in the last month, availability is the main barrier to use.



2010 Poll: Attitudes on Transportation Options

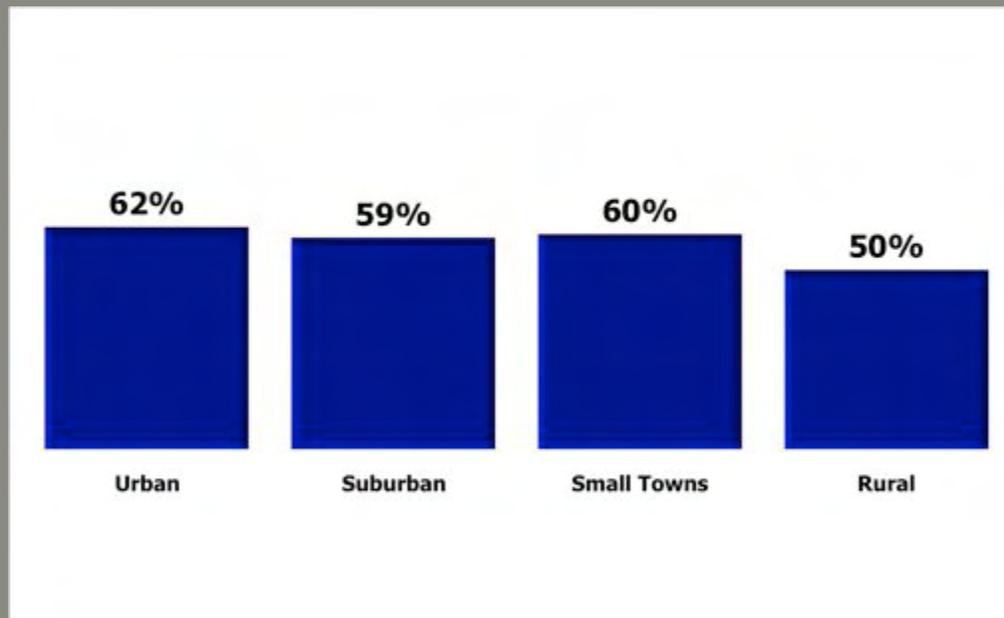
Today **80 cents** out of every federal transportation dollar goes to highways, while **17 cents** is used for public transportation such as such as trains, rail, ferries and buses around the country, and the remainder for other transportation needs.

- 58% say more should be spent on public transportation
- 35% about right amount
- 5% less should be spent on transit



2010 Poll: Attitudes on Transportation Options

Voters in every type of community would allocate more to public transportation.



How does this information impact Low-Income Car Finance Policy Considerations?

Consider:

- Existing Transportation Infrastructure
- Access to Work
- Equity
- Transportation Trends
- Costs
- Price Fluctuations
- Unethical Lending Practices

H + T Affordability Index

- Americans traditionally consider housing affordable if it costs 30 percent or less of their income. The Housing + Transportation Affordability Index, in contrast, offers the true cost of housing based on its location by measuring the transportation costs associated with place.
- Redefining affordability as 45% of income for both housing and transportation cost.
- Instead of 69% of communities considered affordable to typical household, only 40% can meet the standard.
- Index gives consumers the opportunity to make more informed decisions.

Cost of Car Ownership

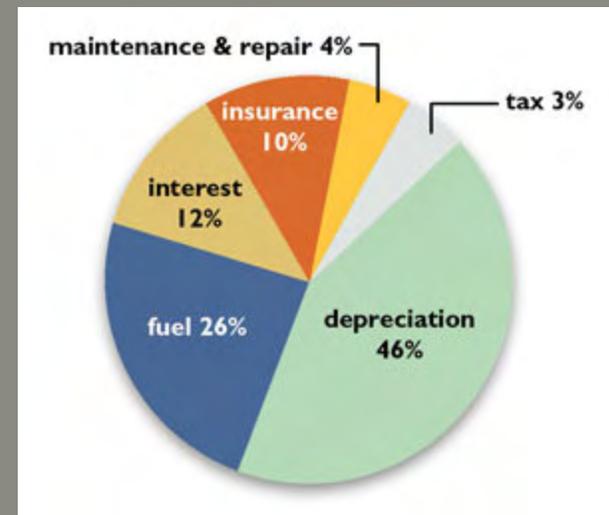
Transportation is the second largest household expense.

Real Costs Include:

- Depreciation
- Fuel Costs
- Insurance
- Maintenance and Repair
- Tax
- Registration
- Interest
- Parking

Comparison:

Public transportation costs range between \$200 and \$1800/year



Consumer Reports 2008