

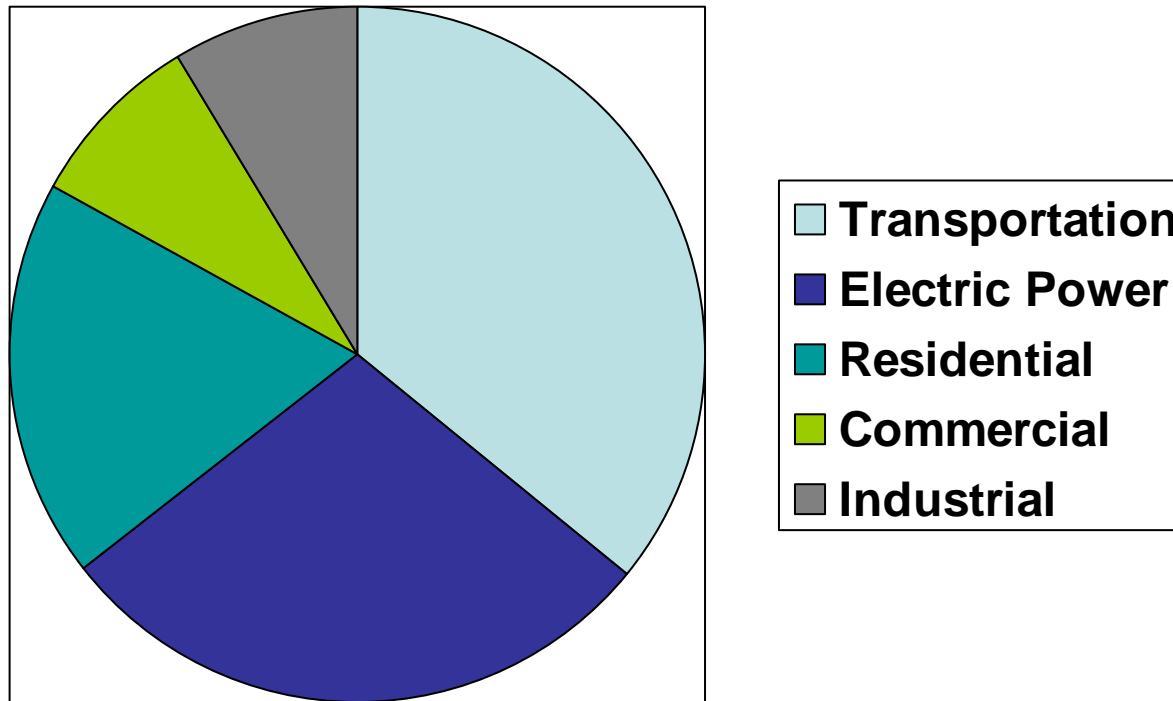
# Reducing Climate Impacts from the Transportation Sector

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# Greenhouse Gas Emissions by Sector, Massachusetts



Data: Energy Information Administration, 2003

# Tackling the Transportation Problem

- Cleaner cars



- Alternative Transportation Modes

- Reduced Travel Distances



- Pricing



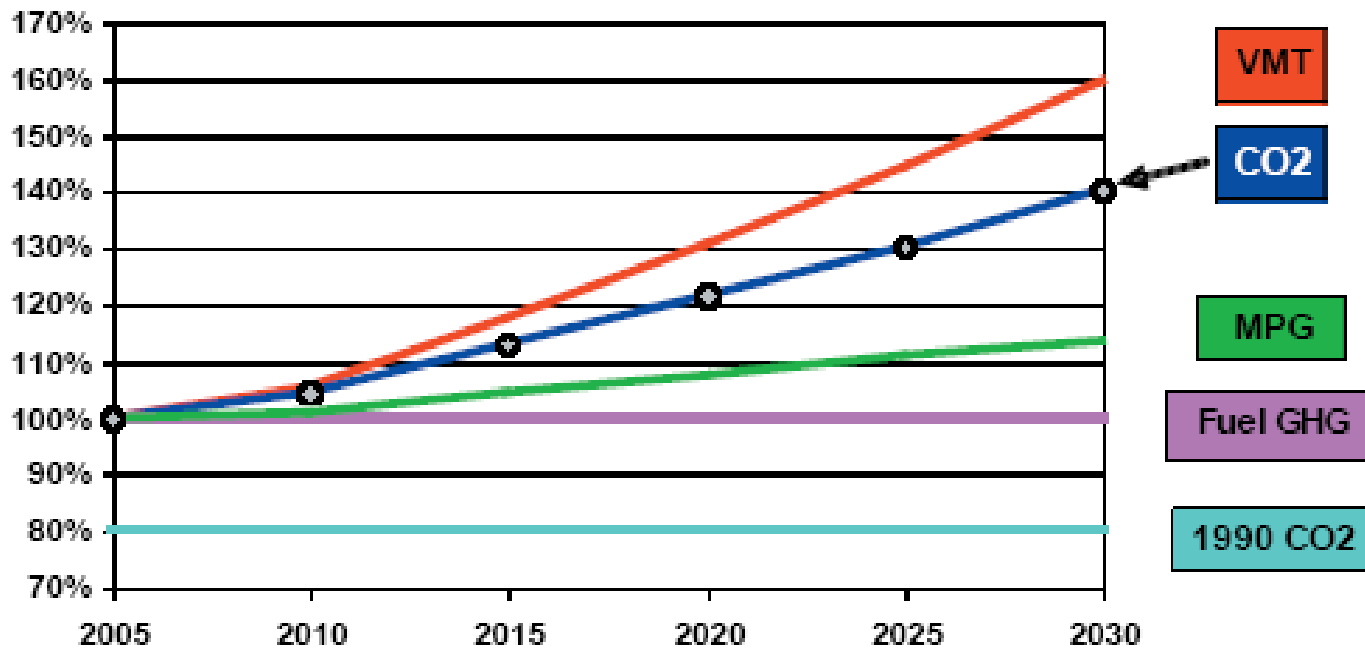
# Solution #1: Clean Cars



# VMT Growth: Outpacing Vehicle Technology

FIGURE O-2

PROJECTED GROWTH IN CO<sub>2</sub> EMISSIONS FROM CARS AND LIGHT TRUCKS



SOURCE: EIA 2007.

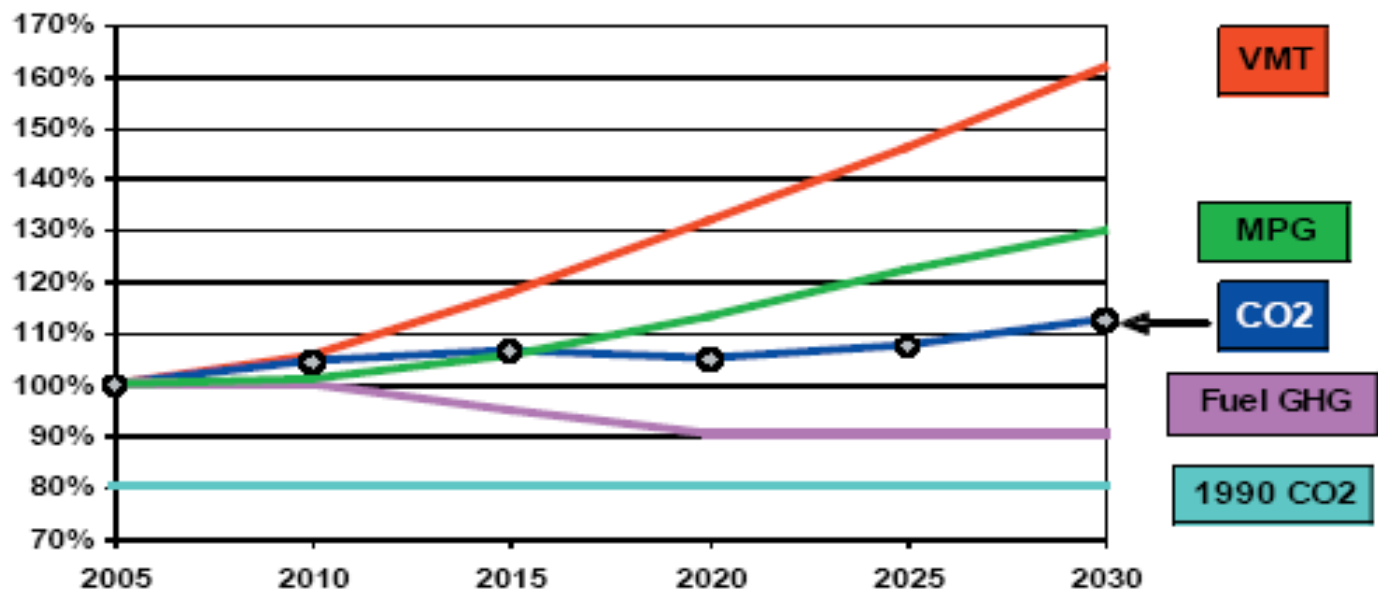


# Even if we get technology right.

FIGURE O-3

PROJECTED GROWTH IN CO<sub>2</sub> EMISSIONS FROM CARS AND LIGHT TRUCKS  
ASSUMING STRINGENT NATIONWIDE VEHICLE AND FUEL STANDARDS\*

\*WITH SENATE CAFE LEVELS -- NEW PASSENGER VEHICLE FUEL ECONOMY OF 35 MPG IN 2020  
AND CALIFORNIA LOW CARBON FUEL STANDARD OF -10% IN 2020 APPLIED NATIONALLY.



Sources: VMT: EIA with 10% rebound MPG: US Senate, Fuels: C.

## Solution #2:

# PUBLIC TRANSPORTATION



- *Saved 6.9 million metric tons in 2005.*
- *Switching to existing public transportation reduces CO2 emissions by 20 pounds per day.*
  - *More than 4,800 pounds in a year.*

# Solution #3: Reduced Travel Distances





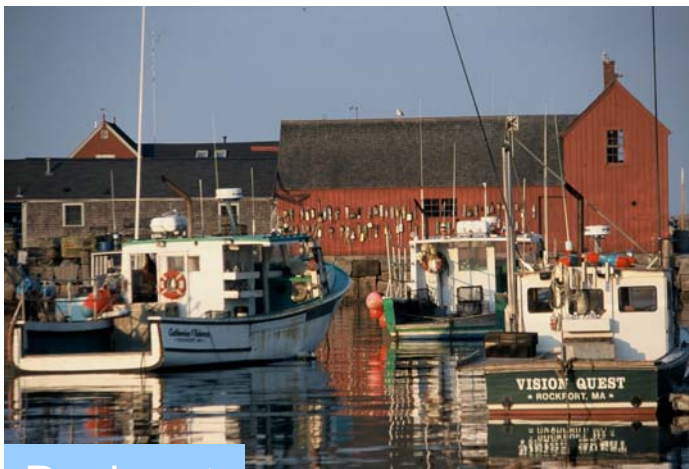
Northampton



Cambridge

Compact communities

...with or without transit.



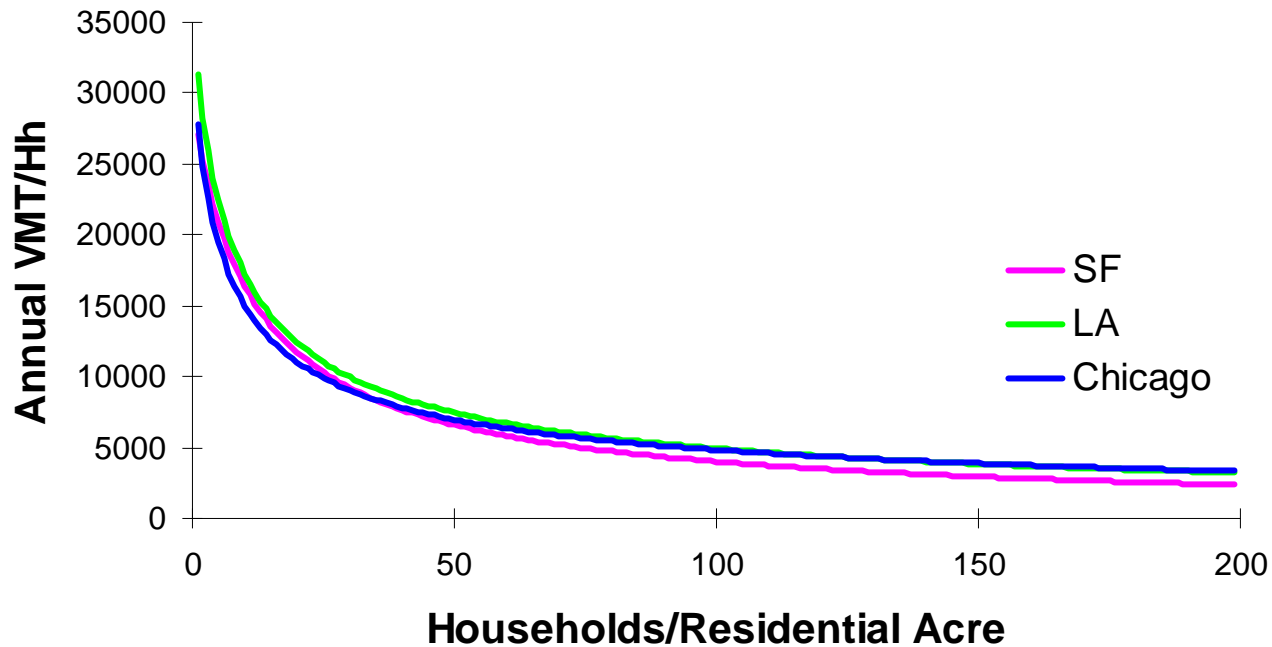
Rockport



Amherst

# Compact communities reduce the need to travel by private vehicle.

## Driving vs Residential Density



# **Solution # 4: Monetary incentives (and disincentives)**

- Affordable transit fares
- Efficiency-based registration fees
- Roadway pricing
- Congestion fees
- Gas Tax
- Mileage-based auto-insurance



# *How can we reduce GHG emissions from the transportation sector?*

- Clean Vehicles
- Provide travel options
- Promote compact development
- Factor environmental goals into pricing

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