
Southern Greenland
Heritage Foundation ● 23 July 2009
Wendell Cox
DEMOGRAPHIA
Regulating Greenhouse Gases,
Not People:
Opportunities & Possibilities

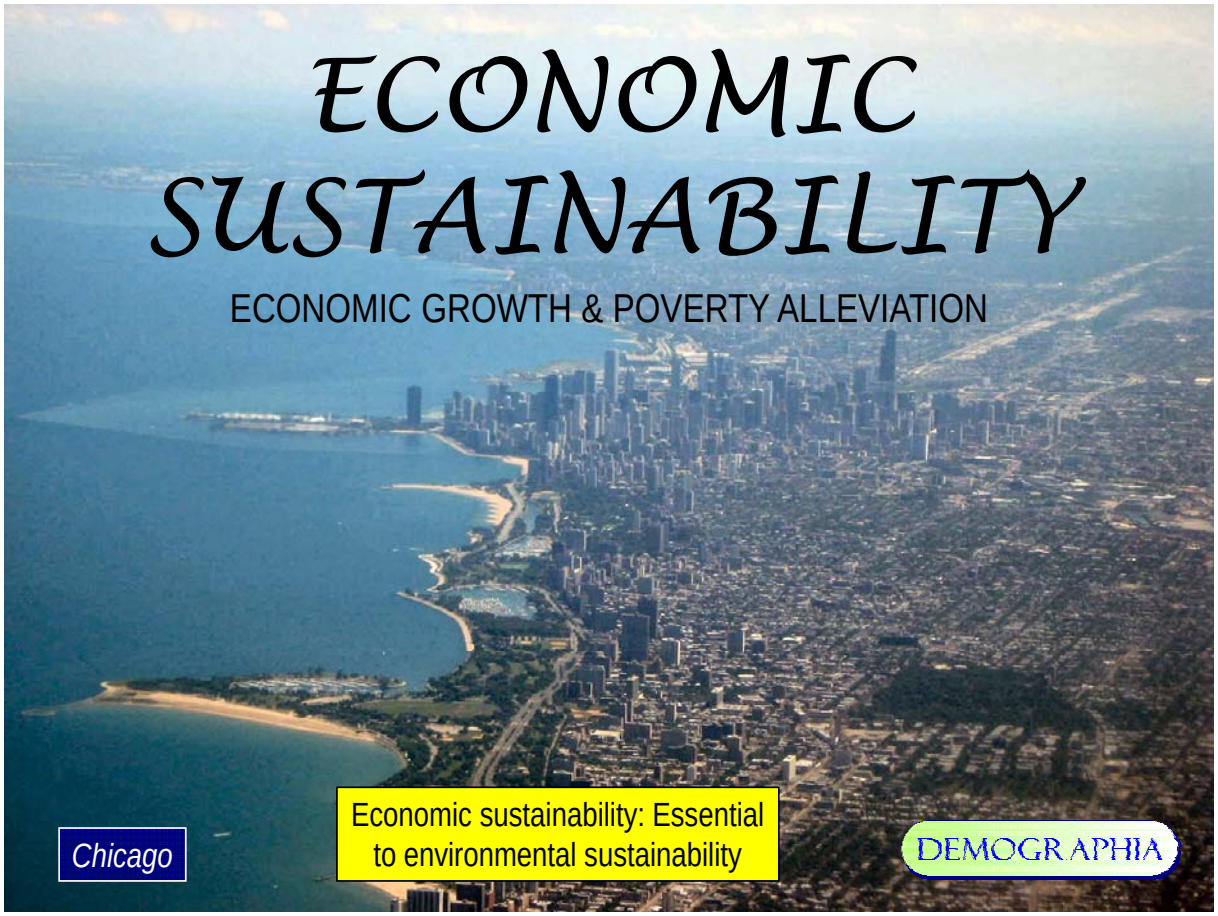

Outline
Sustainability
Regulating People
(Behavioral: Compact City Policies)
• Regulating Greenhouse Gas Emissions
(Green Technology)
• Opportunities & Possibilities
• Conclusion: The Potential for Success
Mendoza River, Argentina

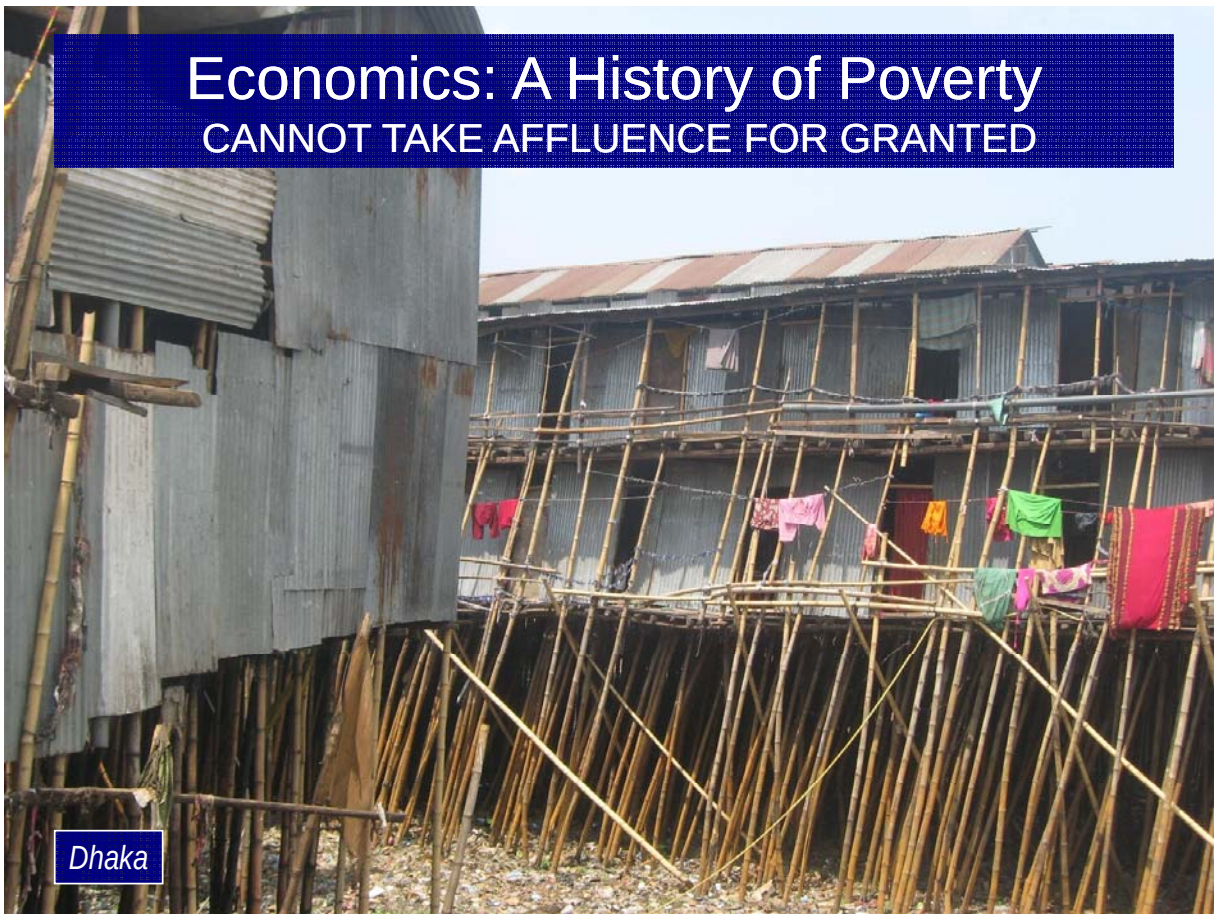
Starting Points

- Assumption: *National GHG emission reduction objectives will be adopted.*
- Principle: *Policies must be effective or the objectives will not be met*
- Issue: *Mandatory compact city policies v. green technology*

The Thesis….
IT'S THE ECONOMY…

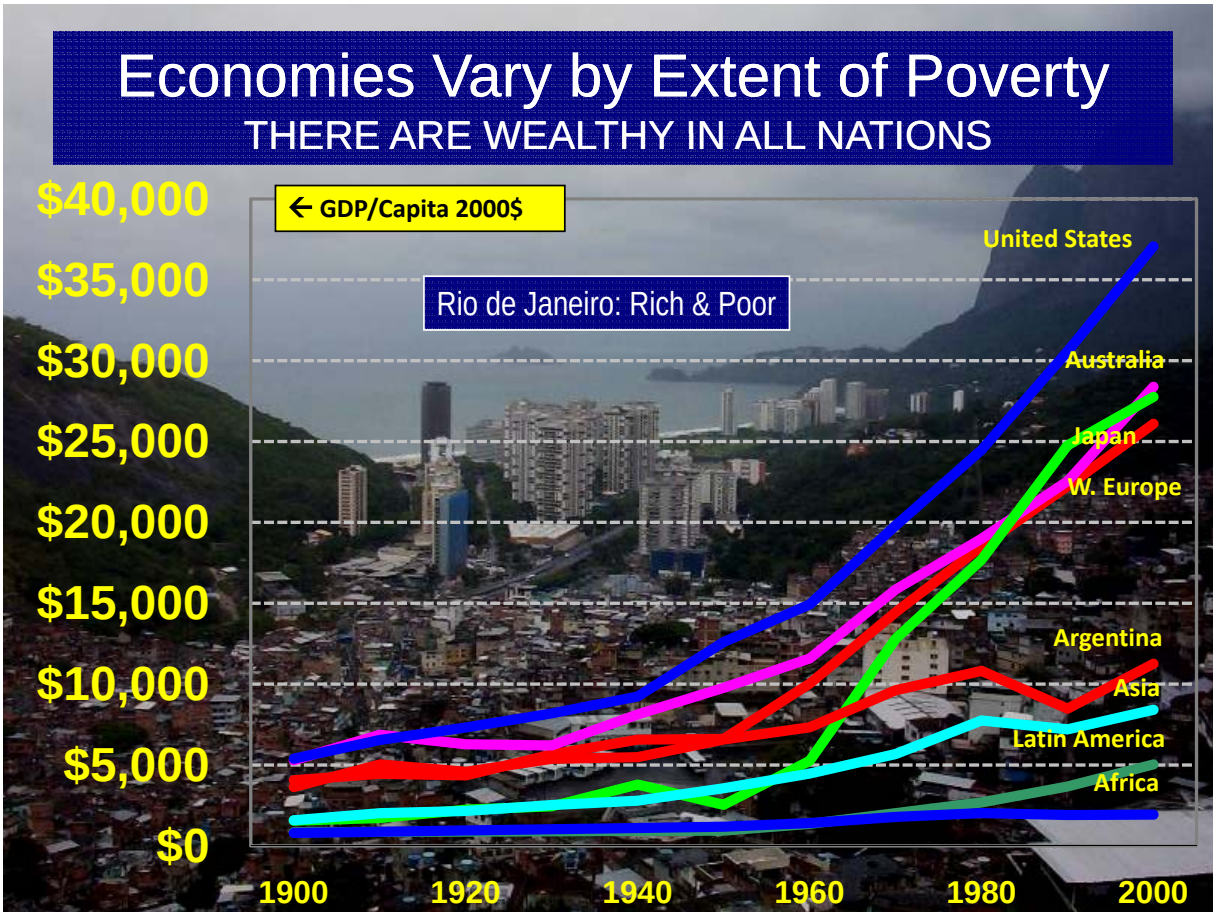
- GHG emissions objectives can only be met by a vibrant economy.
- Regulating people (compact city policies)
  - Focus: Changing behavior (indirect)
  - Little potential to reduce GHG emissions
  - Would do so at exorbitant cost
  - Could seriously damage the economy & increase poverty.
- Regulating GHG emissions (green technology)
  - Focus: Reducing GHG intensity of how we live (direct)
  - Potential to meet virtually any GHG reduction objectives
  - Much lower cost to the economy.


ECONOMIC SUSTAINABILITY
ECONOMIC GROWTH & POVERTY ALLEVIATION
Chicago
Economic sustainability: Essential to environmental sustainability
DEMOGRAPHIA


Economics: A History of Poverty
CANNOT TAKE AFFLUENCE FOR GRANTED
Dhaka

Economies Vary by Extent of Poverty

THERE ARE WEALTHY IN ALL NATIONS

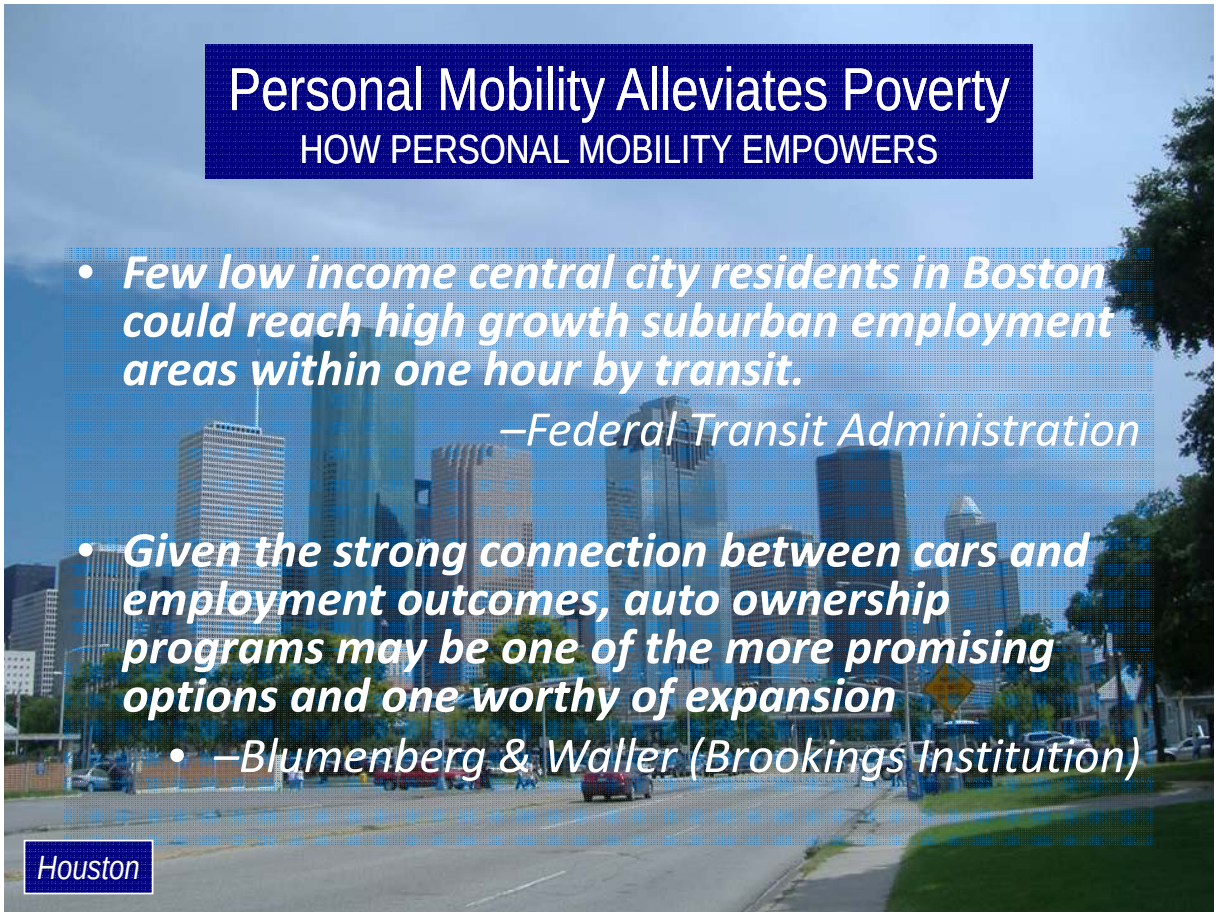


Personal Mobility: Increases Economic Growth

ACCESS TO LARGER NUMBER OF JOBS

- Minimizing Travel Time & Economic Growth
  - Congestion costs
  - Productivity
- Research: More Job Access in Fixed Time Means Better Urban Economic Performance
  - Prud'homme et al (U. of Paris)
  - Cervero (U. of California)
  - Hartgen (U. of North Carolina)

Lisbon



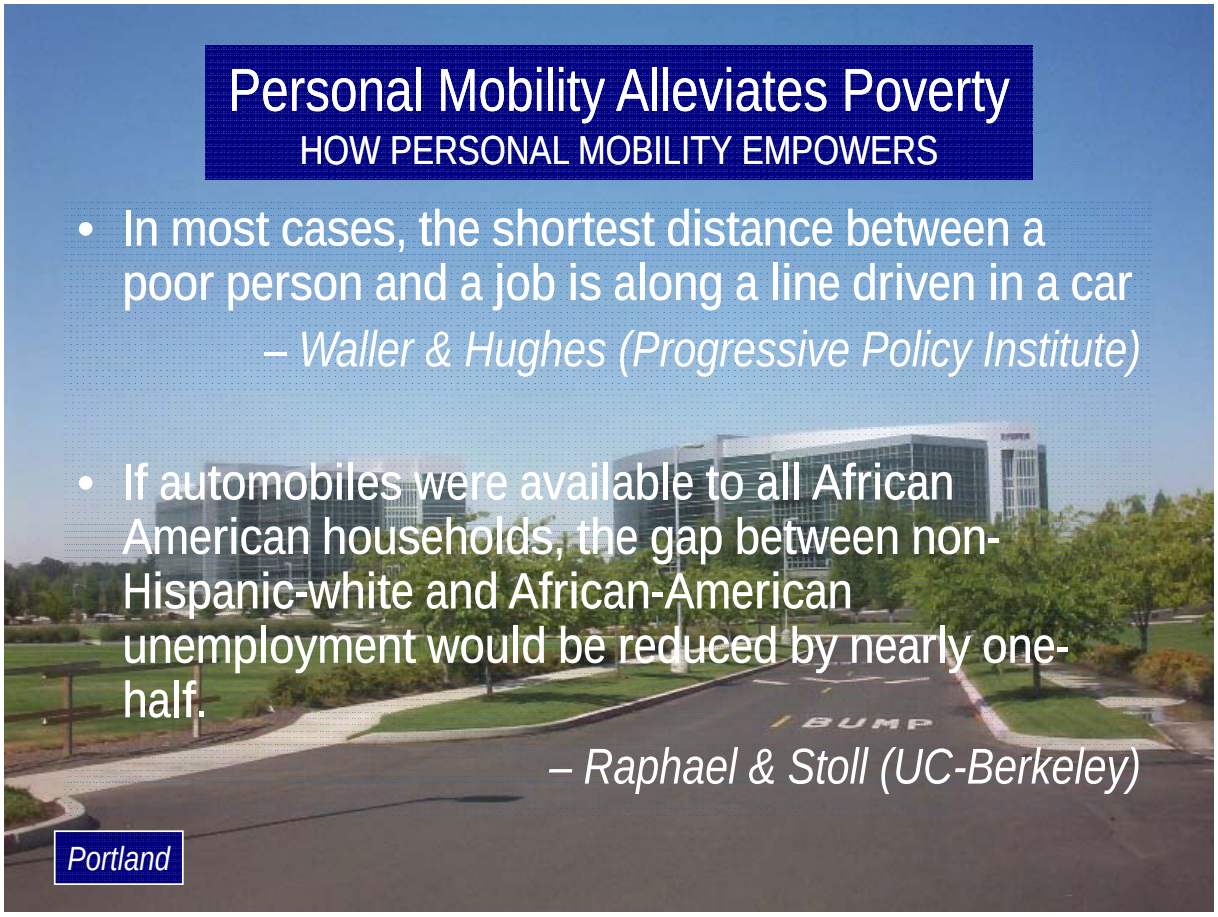
Personal Mobility Alleviates Poverty
HOW PERSONAL MOBILITY EMPOWERS

- ***Few low income central city residents in Boston could reach high growth suburban employment areas within one hour by transit.***

  –Federal Transit Administration

- ***Given the strong connection between cars and employment outcomes, auto ownership programs may be one of the more promising options and one worthy of expansion***
  - *–Blumenberg & Waller (Brookings Institution)*

Houston



Personal Mobility Alleviates Poverty
HOW PERSONAL MOBILITY EMPOWERS

- In most cases, the shortest distance between a poor person and a job is along a line driven in a car

  – Waller & Hughes (Progressive Policy Institute)

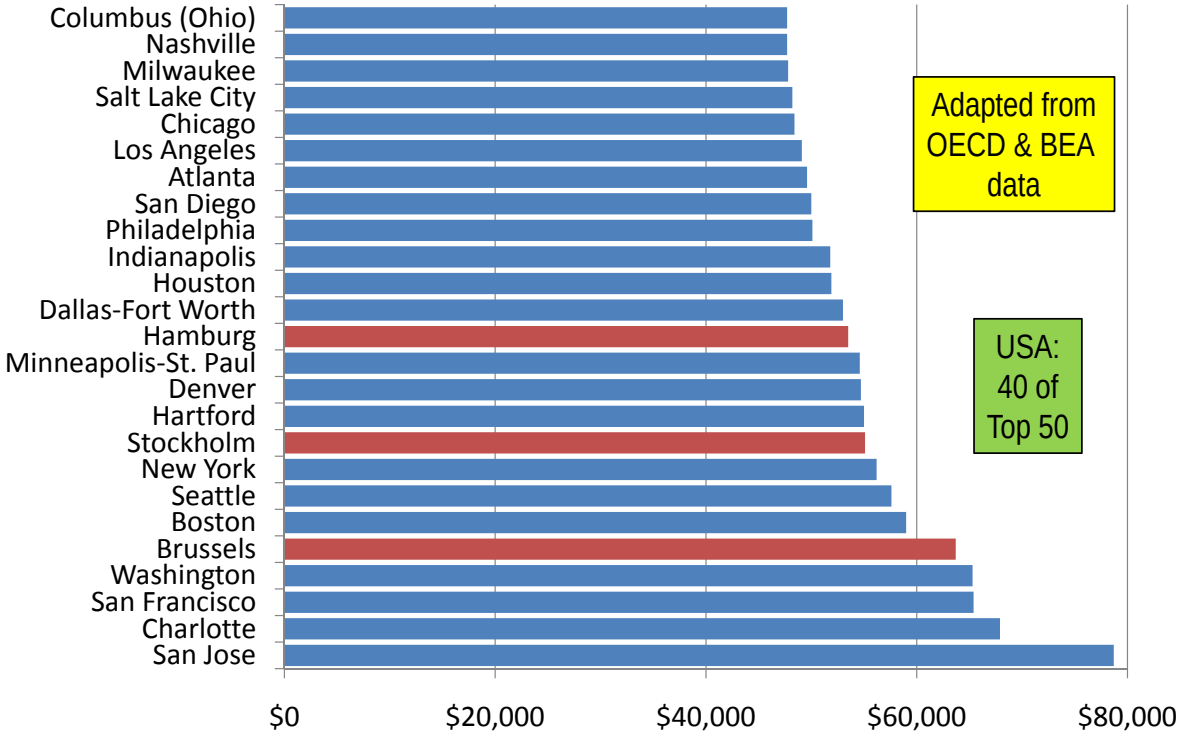
- If automobiles were available to all African American households, the gap between non-Hispanic-white and African-American unemployment would be reduced by nearly one-half.

  – Raphael & Stoll (UC-Berkeley)

Portland

US Metropolitan GDP (PPP) Dominates

WORLD METROPOLITAN AREAS >1,000,000 (2005)

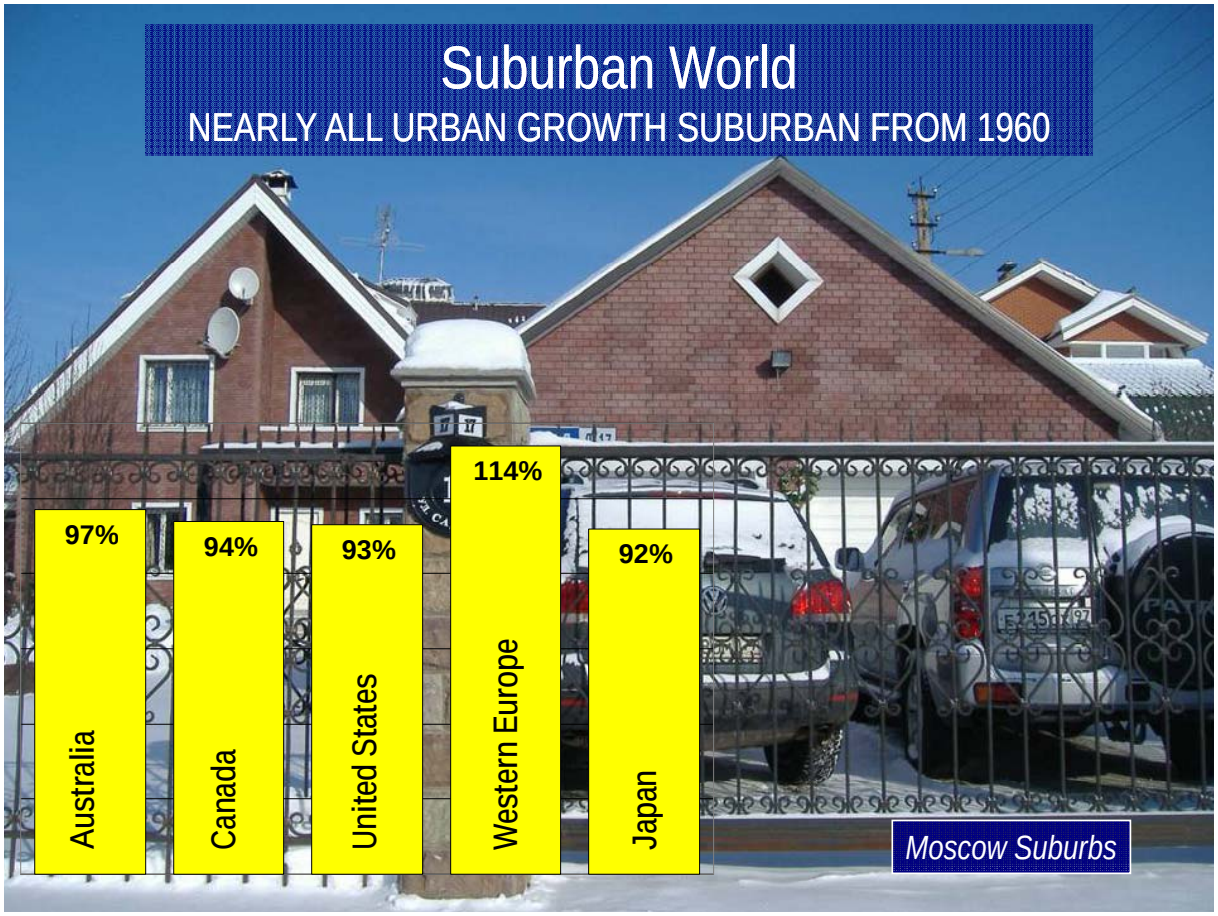


US Work Trip Travel Time Shorter

COMPARED TO INTERNATIONAL URBAN AREAS

Suburban World

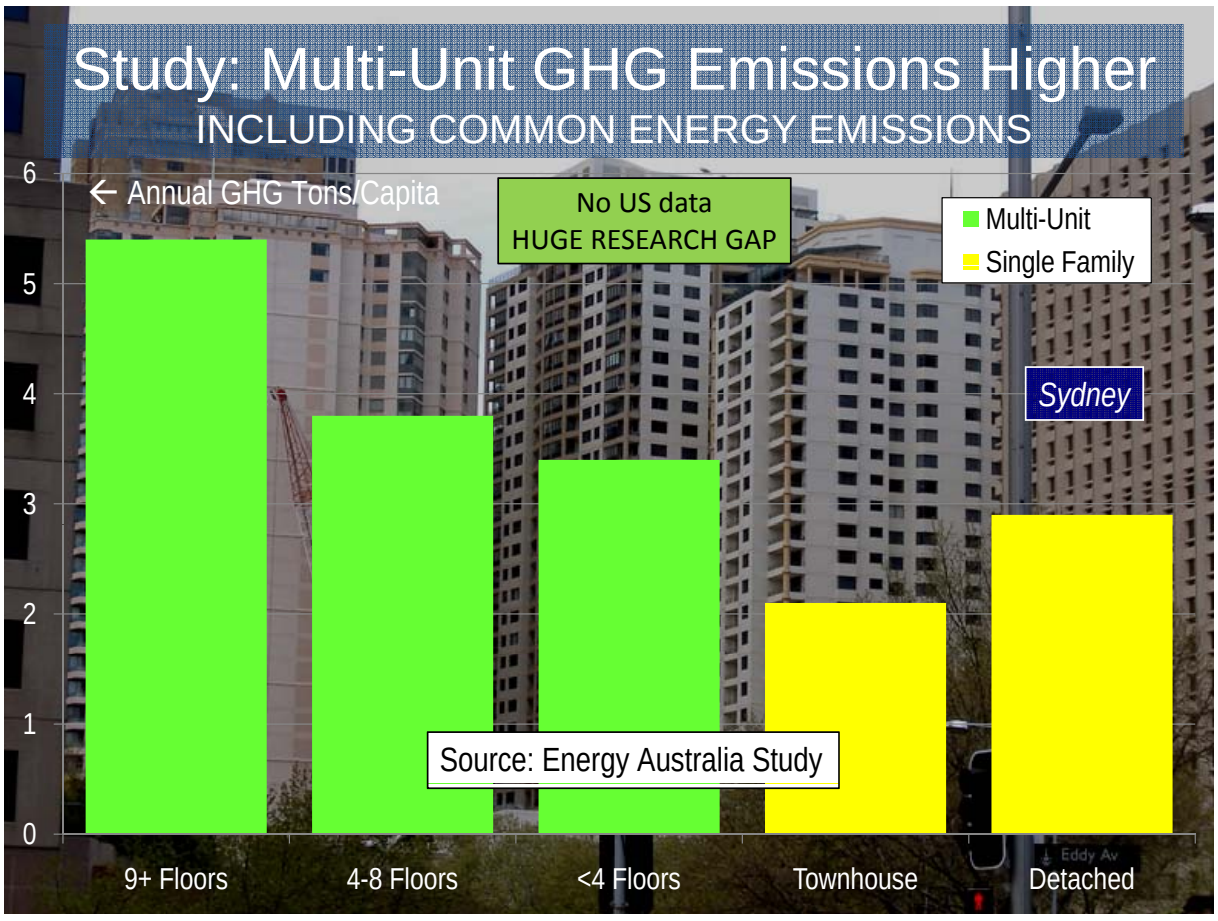
NEARLY ALL URBAN GROWTH SUBURBAN FROM 1960

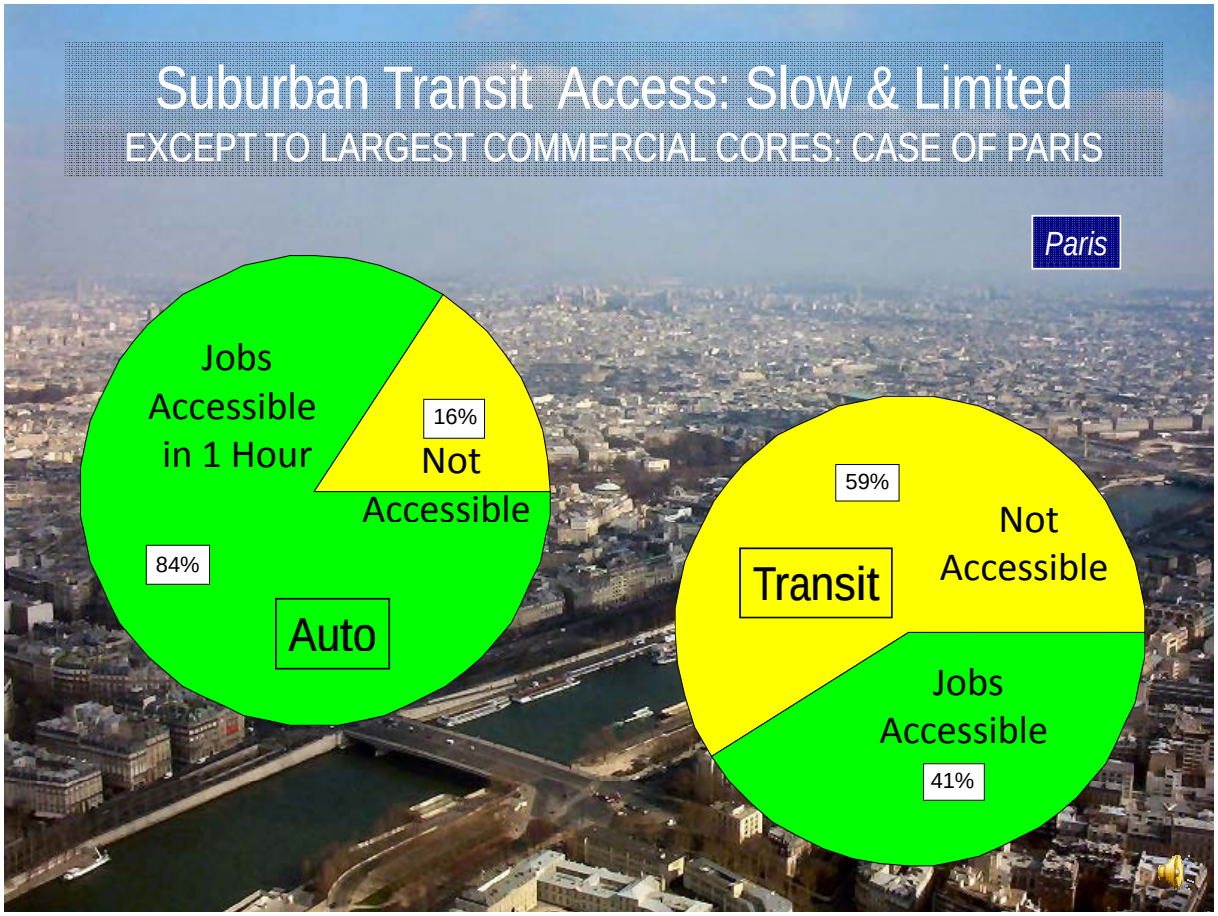


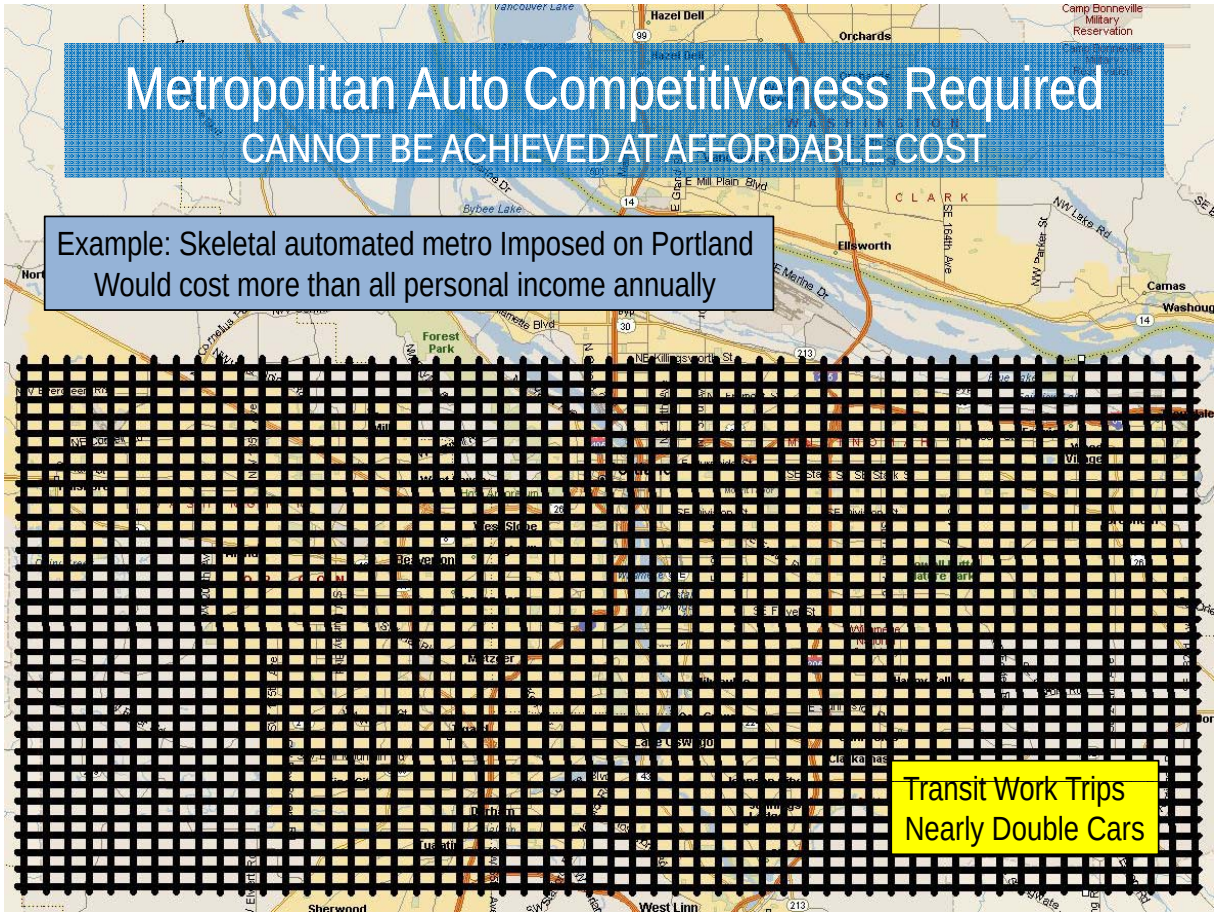
Cost Effectiveness is Crucial

UN IPCC MAXIMUM RANGE PER METRIC TON


Regulating People
MANDATORY COMPACT CITY POLICY
Seoul
Changing how we live and work
DEMOGRAPHIA

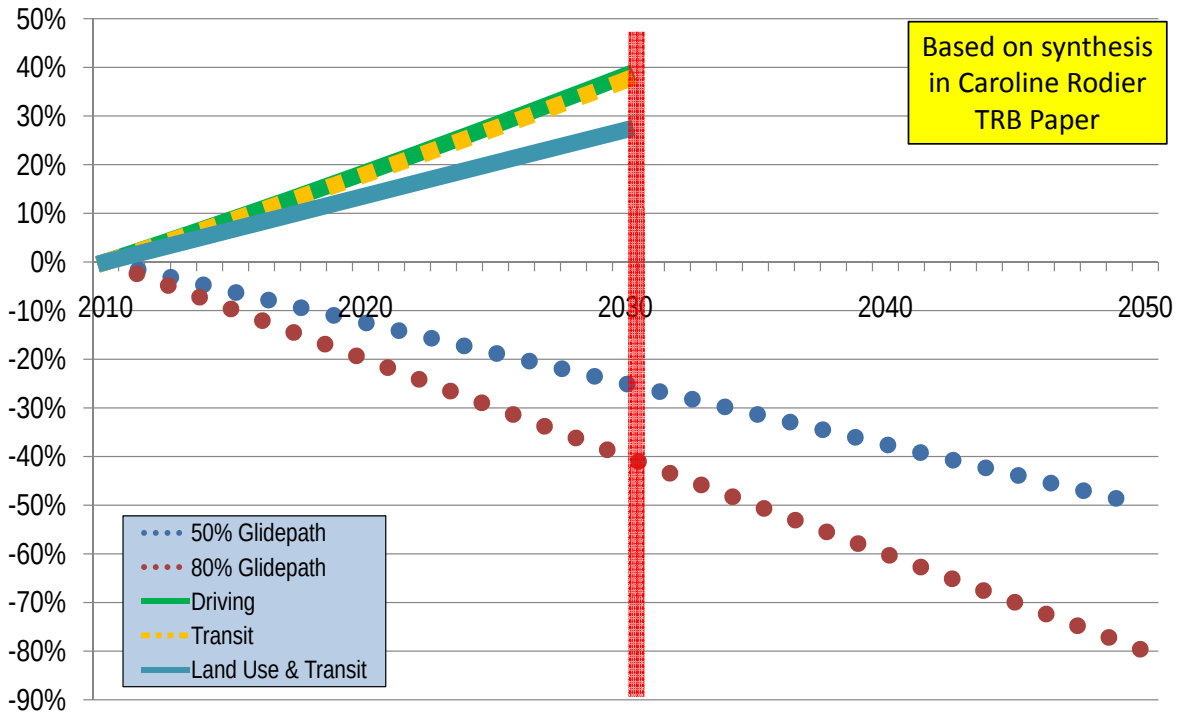

Study: Multi-Unit GHG Emissions Higher
INCLUDING COMMON ENERGY EMISSIONS
← Annual GHG Tons/Capita
No US data
HUGE RESEARCH GAP
Multi-Unit
Single Family
Sydney
Source: Energy Australia Study
6
5
4
3
2
1
0
9+ Floors
4-8 Floors
<4 Floors
Townhouse
Detached


Suburban Transit Access: Slow & Limited
EXCEPT TO LARGEST COMMERCIAL CORES: CASE OF PARIS
Paris
Jobs Accessible in 1 Hour
84%
Auto
16%
Not Accessible
Transit
59%
Not Accessible
Jobs Accessible
41%


Metropolitan Auto Competitiveness Required
CANNOT BE ACHIEVED AT AFFORDABLE COST
Example: Skeletal automated metro Imposed on Portland
Would cost more than all personal income annually
Transit Work Trips
Nearly Double Cars

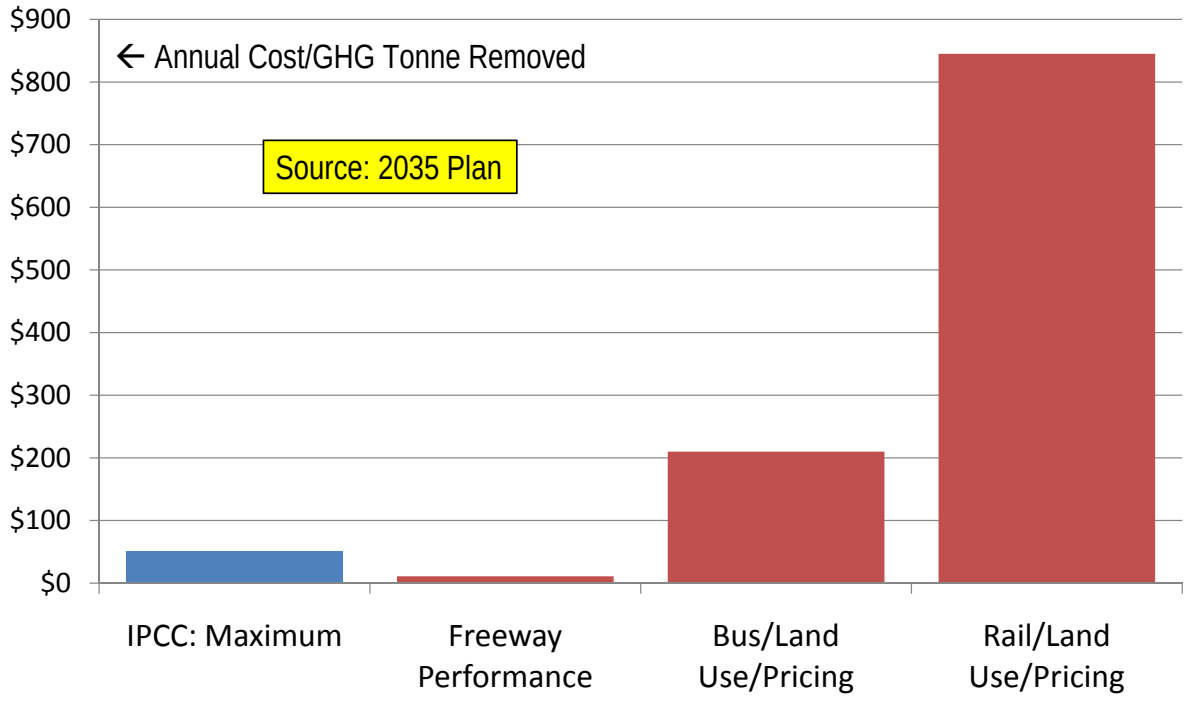
Behavioral Strategies Fall Short

DRIVING & GHG REDUCTION



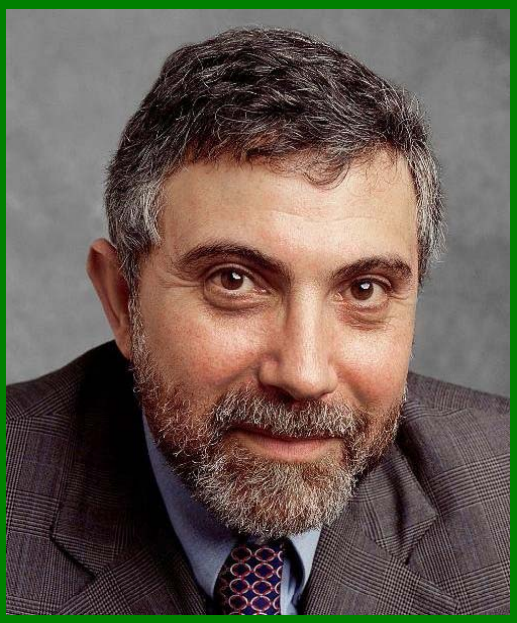
Transit/Land Use Strategies Expensive

COST PER TON REMOVED: SAN FRANCISCO



House Price Escalation: The Big Problem

ECONOMICS: SCARCITY INCREASES PRICES



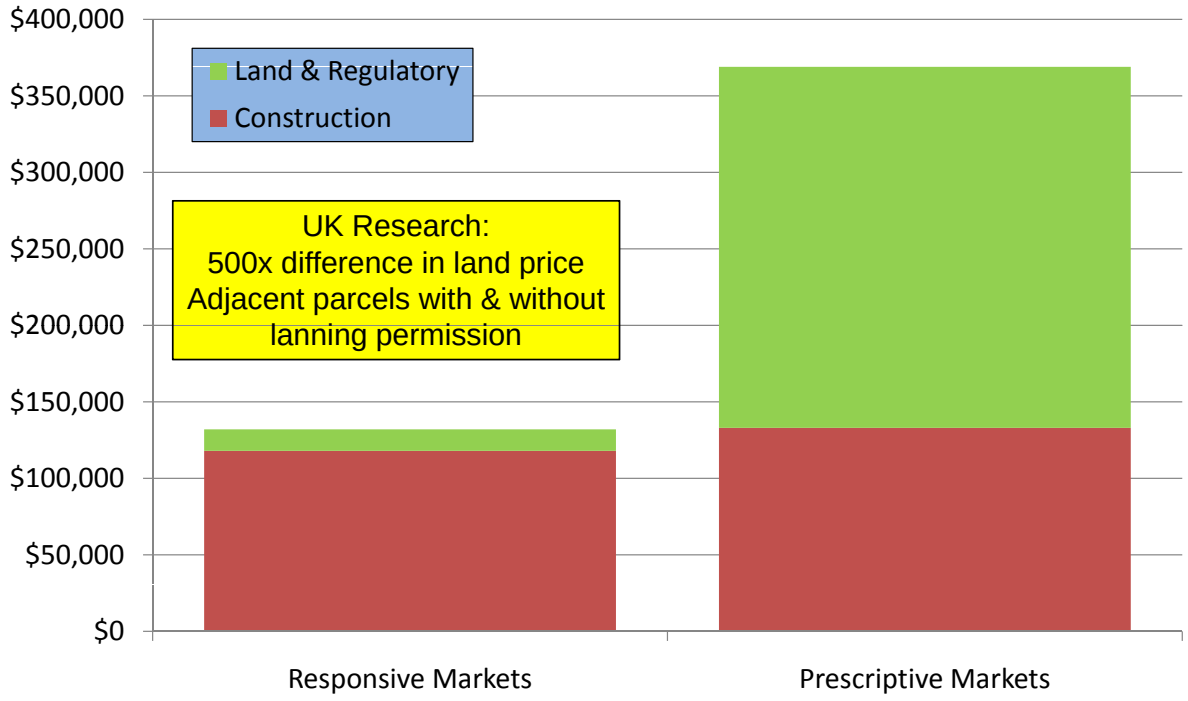
Housing bubble where restricted land use, not where less restrictions

No bubble where more suburbanization

Paul Krugman,
Princeton University
2008 Nobel Prize in Economics

The Difference is Land & Regulation

1,600 SQUARE FOOT STARTER HOUSE: 2006



Land Rationing is the Issue

DESTROYS HOUSING AFFORDABILITY

... the affordability of housing is overwhelmingly a function of just one thing, the extent to which governments place artificial restrictions on the supply of residential land.

Donald Brash, Governor,
Reserve Bank of New Zealand
1988-2002
Introduction to
4th Annual Demographia International Housing Affordability Survey

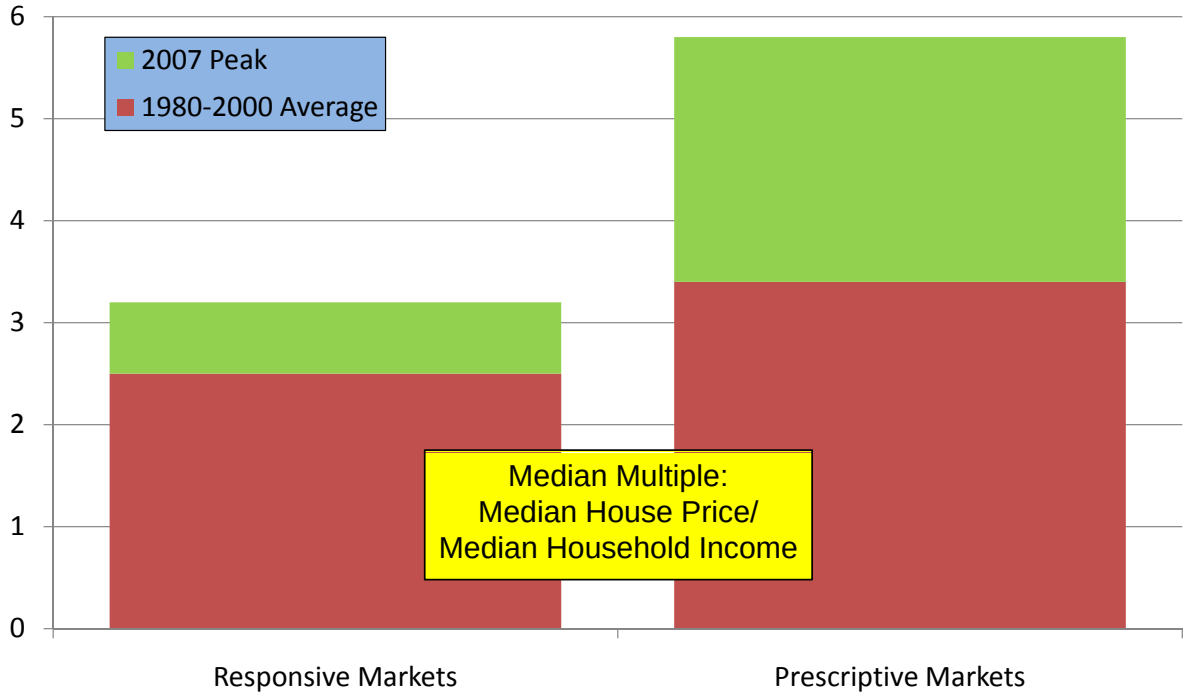
Yet Smart Growth Advocates Agree

ONLY QUESTION IS HOW MUCH IT INCREASES COSTS

Prescriptive Planning (Smart Growth) Policies: Including Potential for Increasing Housing Prices		
	Strategy	Potential to Increase Housing Prices
1	Regional Urban Growth Boundaries	YES
2	Local Urban Growth Boundaries	YES
3	Regional Urban Service Districts	YES
4	Local Urban Service Districts	YES
5	Large-Lot Zoning in Rural Areas	YES
6	High Development Fees & Exactions	YES
7	Restrictions on Physically Developable Land	YES
8	State Aid Contingent on Local Growth Zones	
9	Transferable Development Rights	
10	Adequacy of Facilities Requirements	
From Table 15.4, “Costs of Sprawl---2000”		

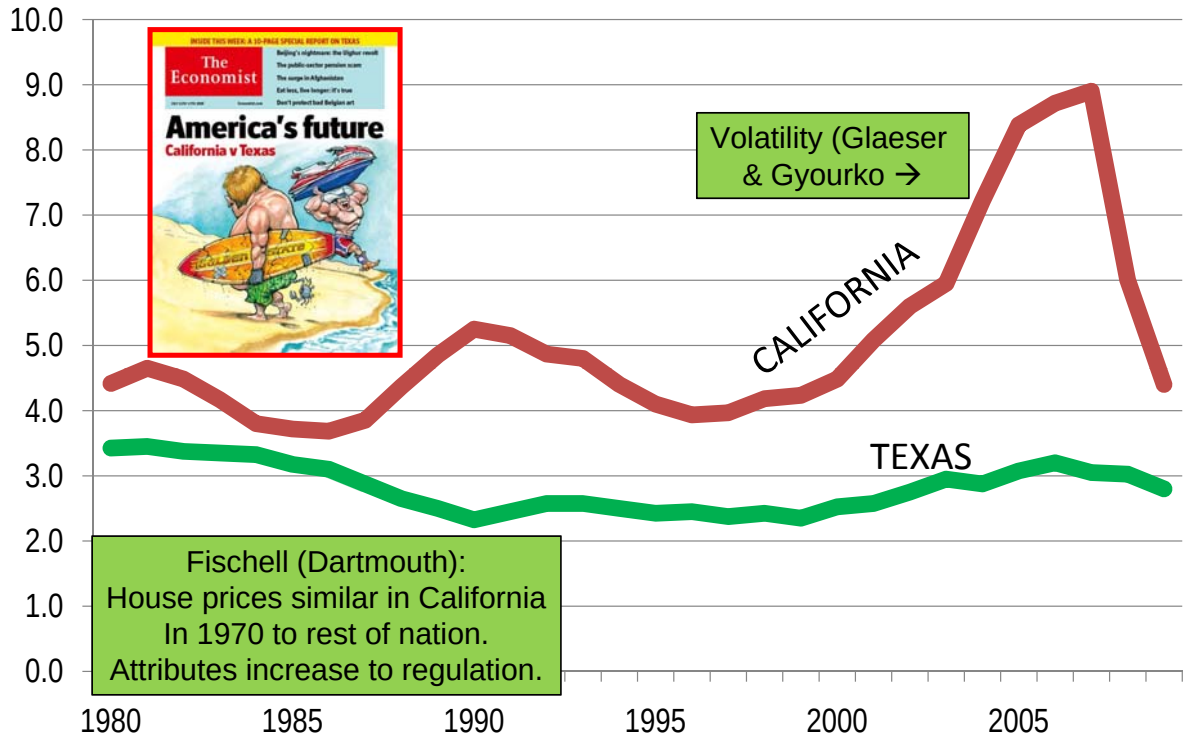
Median House Price Increases

RELATIVE TO HOUSEHOLD INCOMES



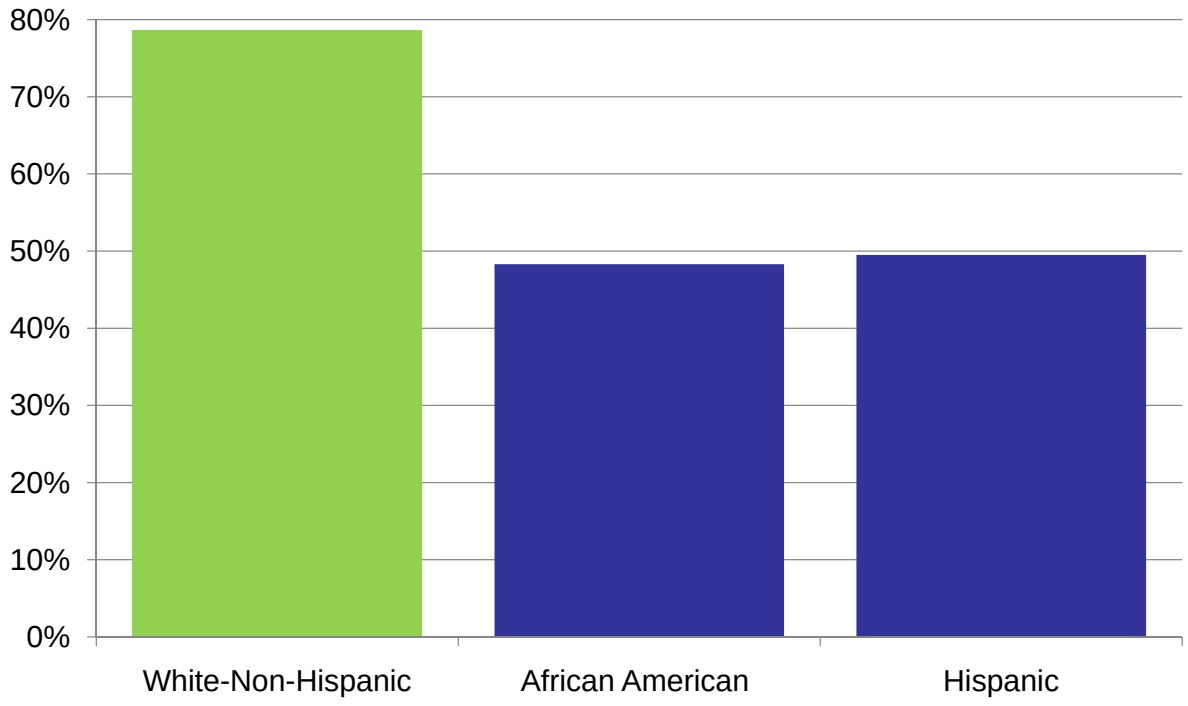
Texas & California House Prices

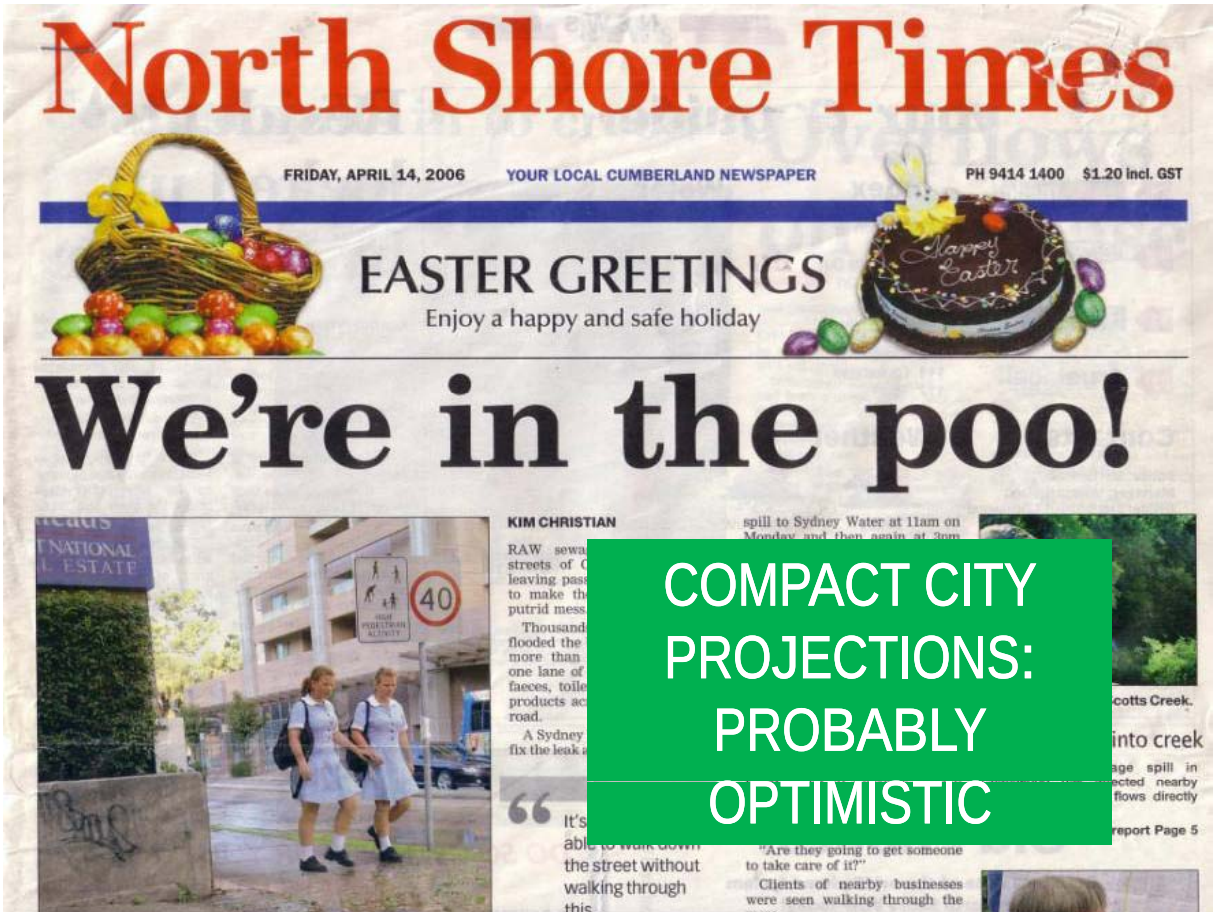
1980-2009: MEDIAN MULTIPLE



Minority Home Ownership Trails

GAP UNLIKELY TO NARROW WITH SMART GROWTH




North Shore Times

FRIDAY, APRIL 14, 2006 YOUR LOCAL CUMBERLAND NEWSPAPER PH 9414 1400 $1.20 incl. GST

EASTER GREETINGS

Enjoy a happy and safe holiday

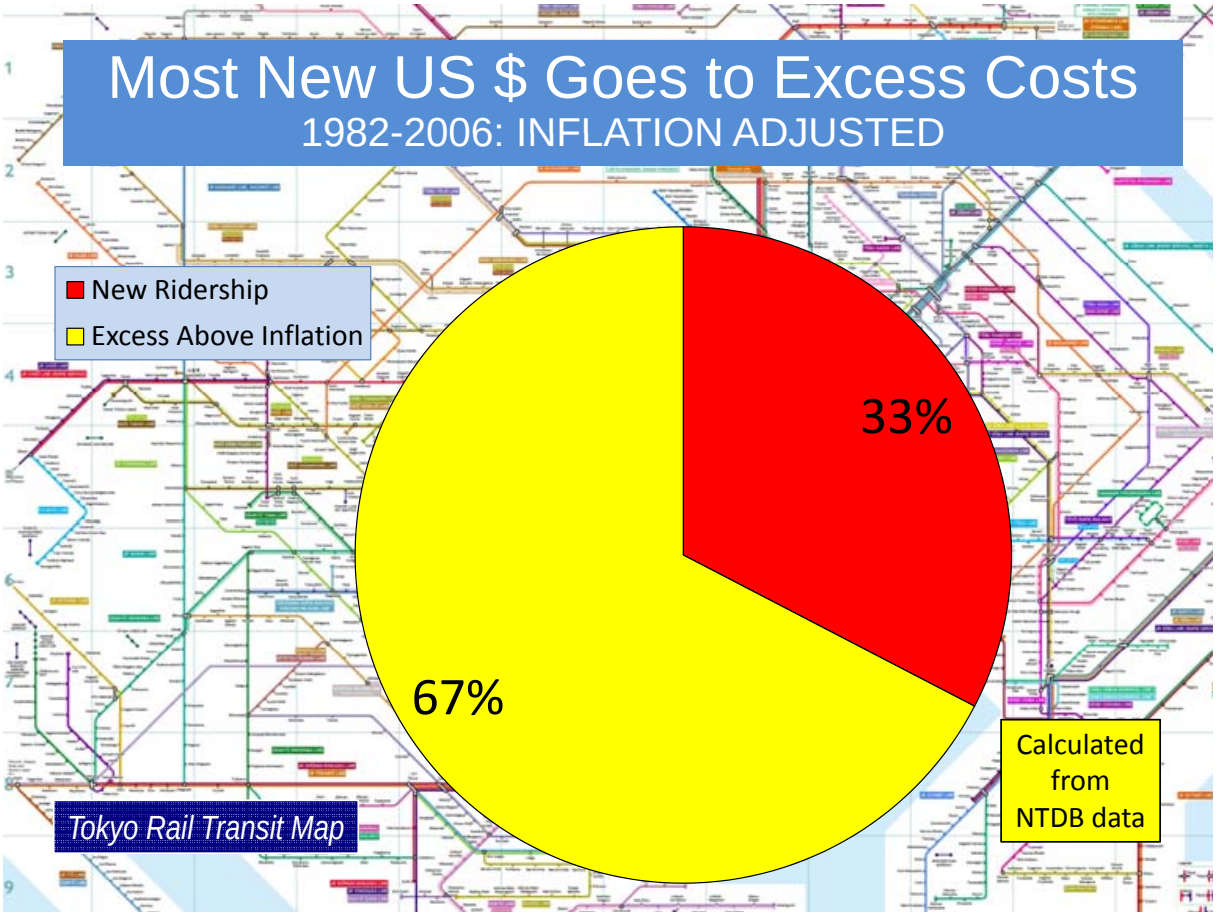
We're in the poo!

KIM CHRISTIAN

COMPACT CITY PROJECTIONS: PROBABLY OPTIMISTIC

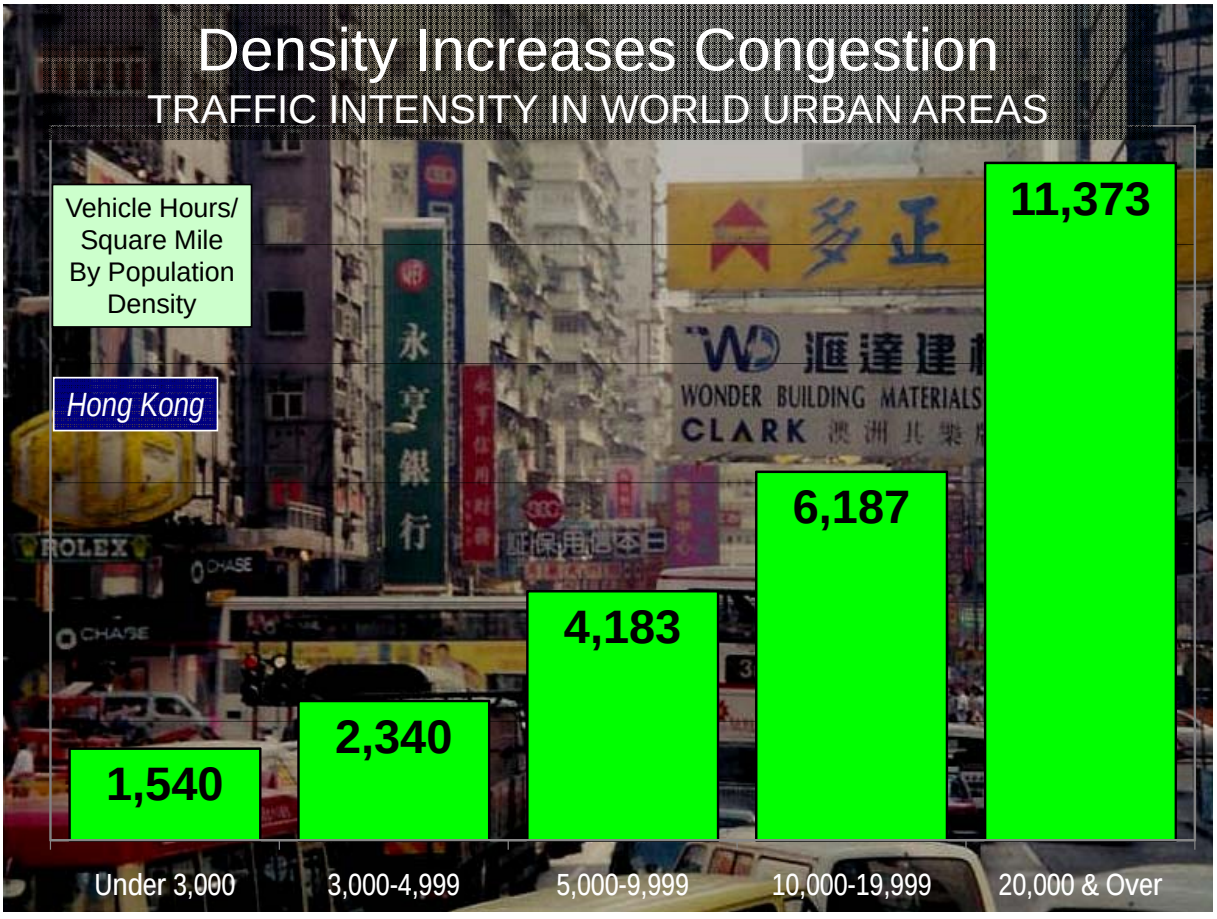
Most New US $ Goes to Excess Costs

1982-2006: INFLATION ADJUSTED



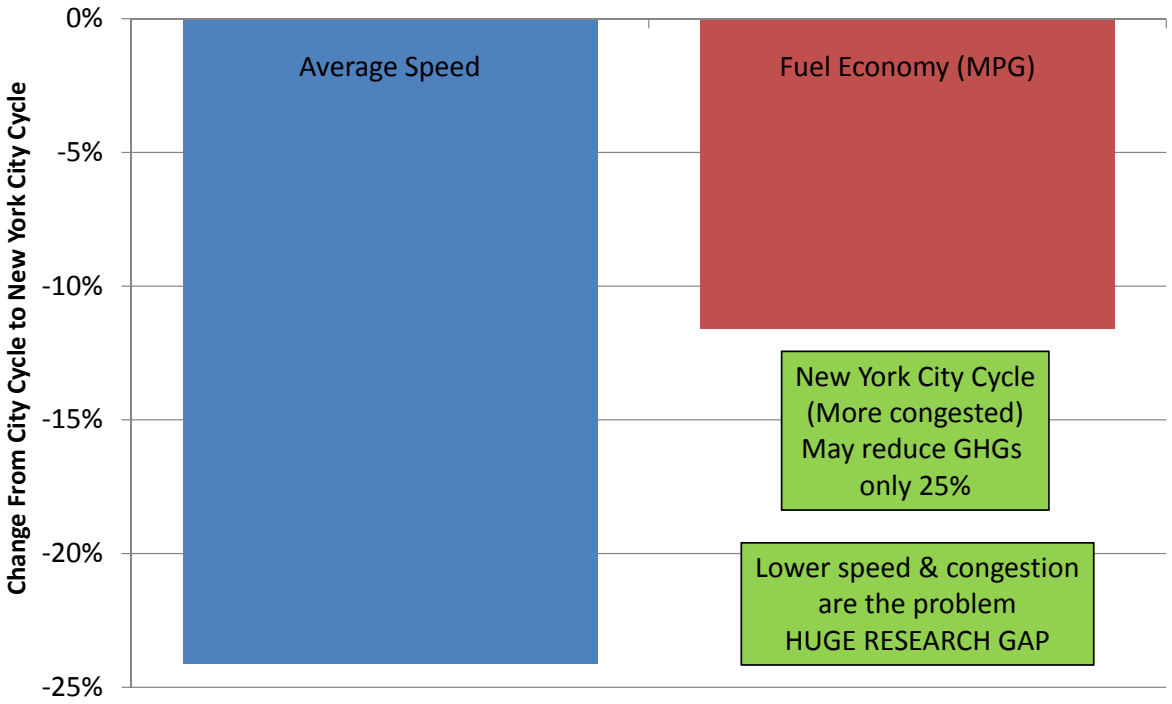
Density Increases Congestion

TRAFFIC INTENSITY IN WORLD URBAN AREAS



Reduce VMT: Reduces GHG Less

CITY CYCLE V. MORE CONGESTED JAPAN URBAN CYCLE



Regulating Greenhouse Gas Emissions

GREEN TECHNOLOGY

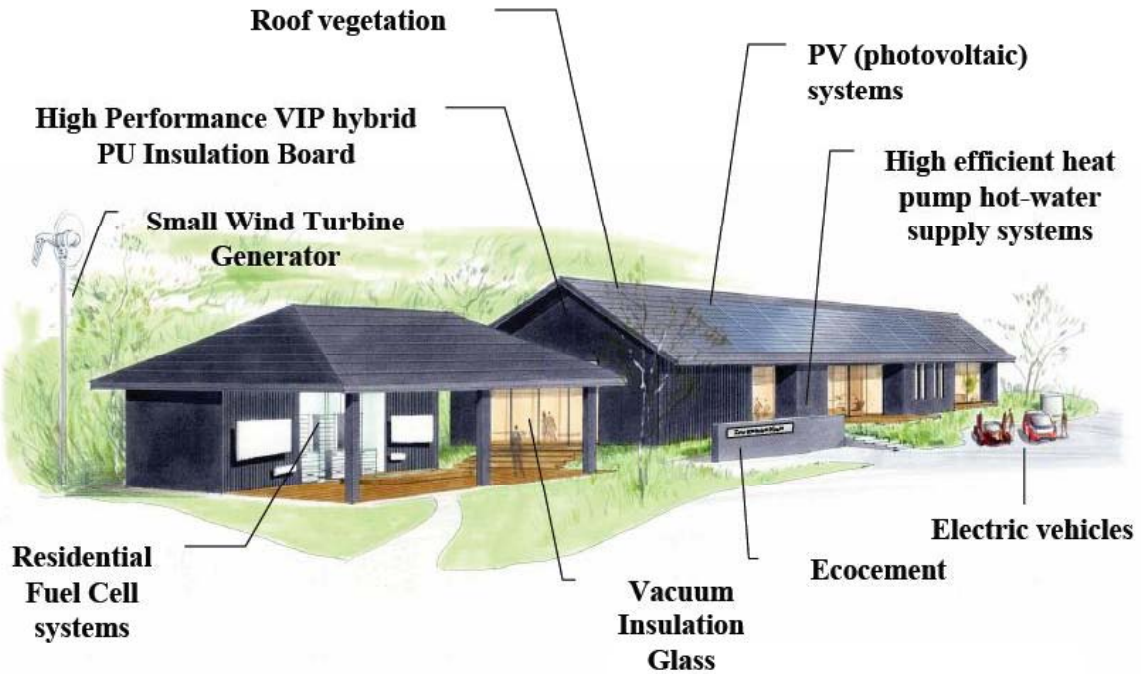
Chicago

Reducing GHG emissions from how we live and work

DEMOGRAPHIA

Zero Emission House: Japan

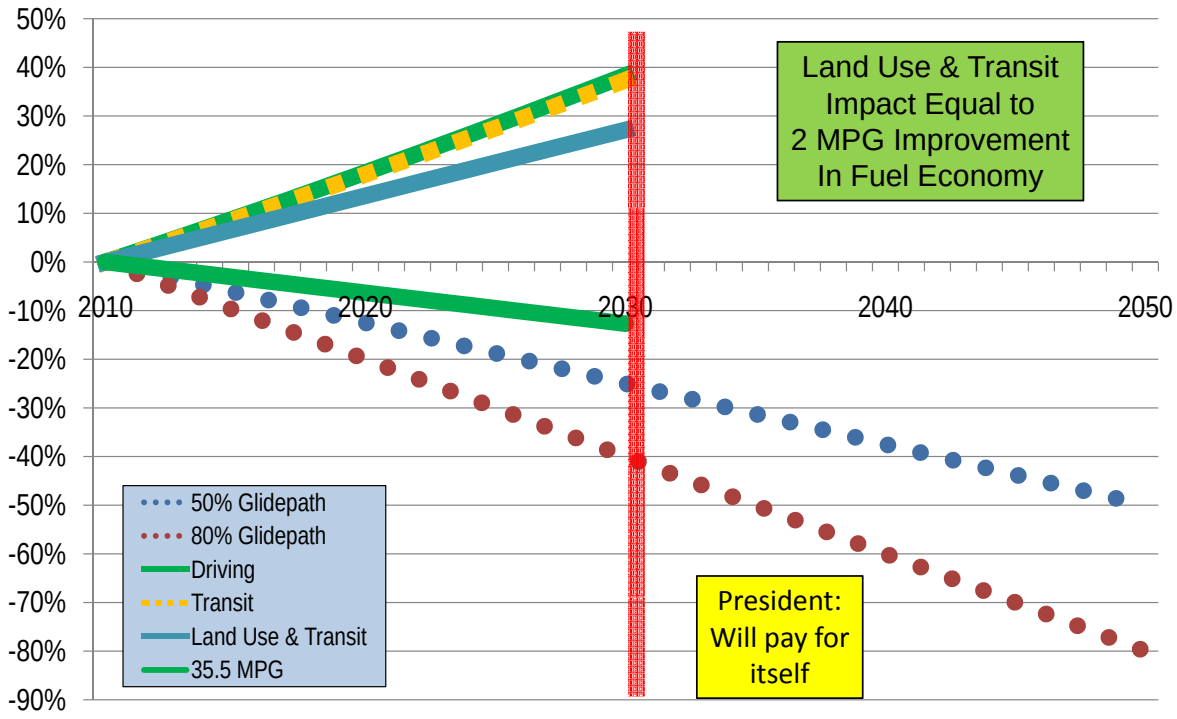
2,100 SQUARE FEET: DETACHED



http://www.meti.go.jp/english/press/data/nBackIssue20080617_01.html

New 35.5 MPG Standard Reduces GHGs

DRIVING & GHG REDUCTION

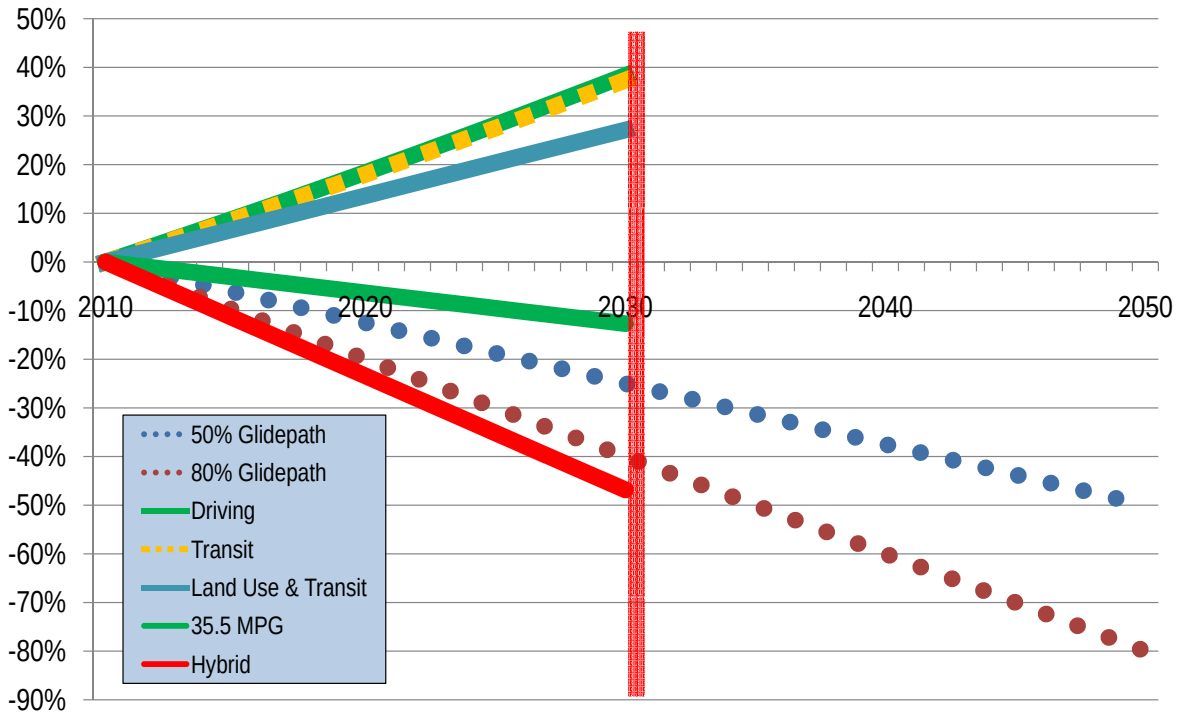


Better Technology is Already Here

MOST EFFICIENT HYBRIDS

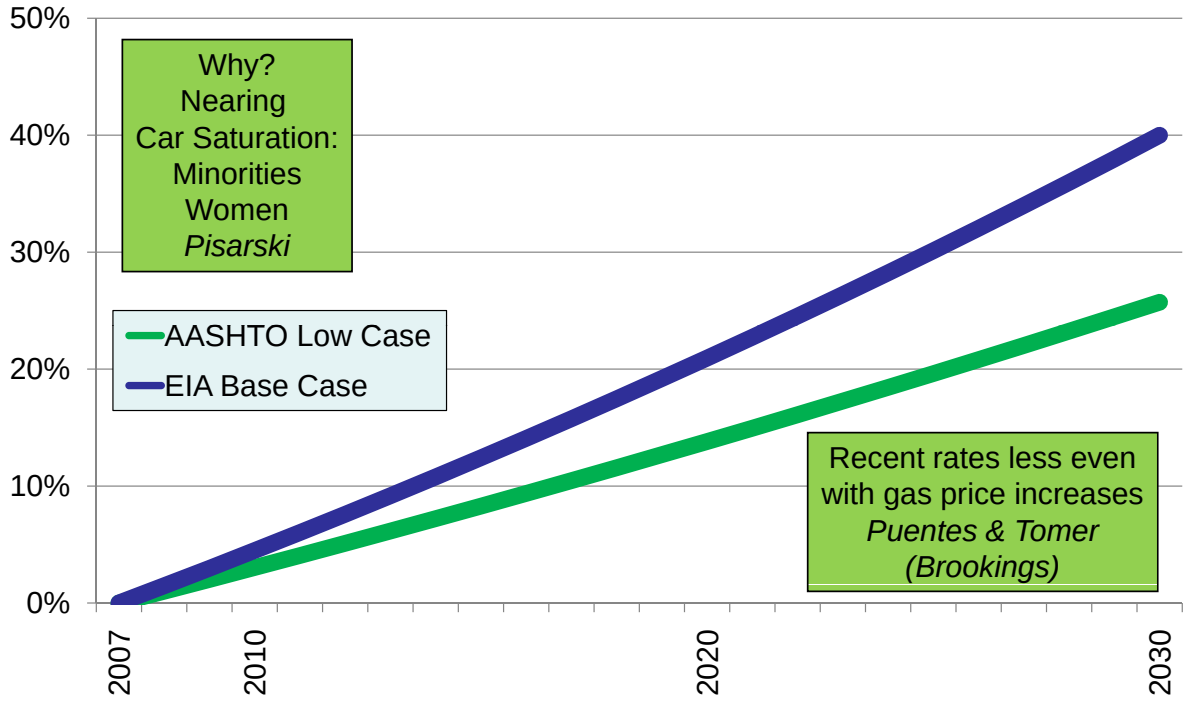
Potential: Existing (Hybrid) Technology

DRIVING & GHG REDUCTION



Driving Projections May be High

RATE OF INCREASE HAS DECLINED



European Parliament MPG Requirement

58 MPG BY 2020

Paris: 12 Lane Freeway

OPPORTUNITIES & POSSIBILITIES

Shenzhen, China

DEMOGRAPHIA


Potential: Volkswagen: 235 MPG Car
LIMITED EUROPEAN MARKETING BEGINS IN 2010
Obama 150 MPG car by 2015
WOB L 1

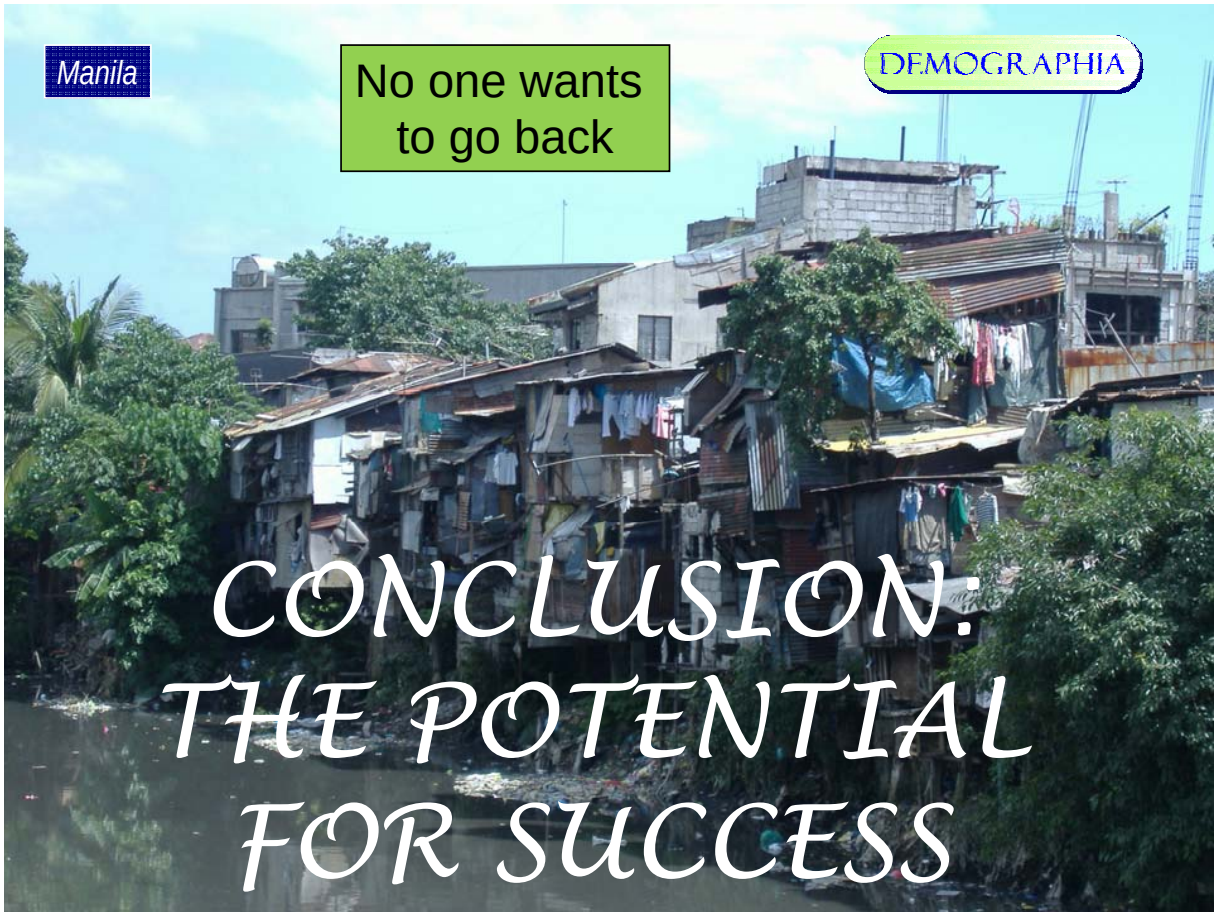

Compressed Air Car: Tata to Build
ZERO GHG EMISSION POTENTIAL
AIR

Many Opportunities

EVIDENCES OF HUMAN INGENUITY

- Producing gasoline from CO2
  - *http://www.nytimes.com/2008/02/19/science/19carb.html?ref=science*
- Alternative Fuels Production by Yeast
  - *http://www.newscientist.com/article/dn16989-yeast-and-bacterium-turned-into-gasoline-factory.html*
- Cellulosic ethanol
- Plug in vehicles
- Green Car Sharing (Paris, London & Austin)
  - *http://www.thisislondon.co.uk/standard/article-23656098-details/Boris+plans+electric+car+hire+scheme+for+London/article.do*
  - *http://www.reuters.com/article/pressRelease/idUS155367+26-Mar-2009+PRN20090326*
- Telecommuting
  - *http://www.itif.org/files/Telecommuting.pdf*

Bosporus-Black Sea



Dimensions of Sustainability

POTENTIAL TO MEET OBJECTIVES

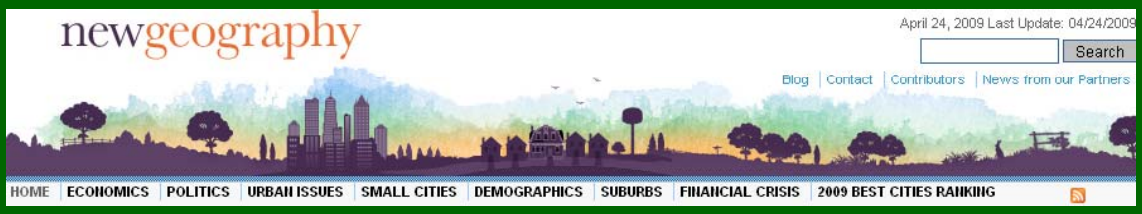
DIMENSION OF SUSTAINABILITY	REGULATING PEOPLE (MANDATORY COMPACT CITY POLICIES)	REGULATING GREENHOUSE GAS EMISSIONS (GREEN TECHNOLOGY)
ENVIRONMENTAL SUSTAINABILITY *Does the strategy have the potential to achieve the GHG emission reduction objective?*	NO	YES
FINANCIAL SUSTAINABILITY *Can the strategy reduce GHG emissions at a cost within the $50 ceiling per ton?*	NO	YES
ECONOMIC SUSTAINABILITY *Is the strategy without serious potential for reducing economic growth or increasing poverty?*	NO	YES
POLITICAL SUSTAINABILITY *Is the strategy without serious potential for public rejection or evasion?*	NO	YES
OVERALL EVALUATION	NO	YES

Conclusion

THE POTENTIAL FOR SUCCESS

- Behavioral strategies (indirect) likely to fail
  - Not environmentally sustainable
  - Intrusiveness could be devastating to economic growth and increase poverty
  - Not economically sustainable
  - Not necessary
- Green Technology: (direct) has the potential to succeed
  - Advantage: Allow economic growth & job creation while meeting GHG objectives

Appendix
RELEVENT DEMOGRAPHIA RESOURCES



- GHG Commentaries
  - http://www.newgeography.com/
  - *GHG Emissions and Reality: Residential Emissions*
  - *Enough "Cowboy" GHG Reduction Policies*
  - *Regulating People or Regulating Greenhouse Gases?*
  - *A Rational Approach to GHG Emissions Reduction*
  - *GHG Reduction Policy: From Rhetoric to Reason*

Appendix
RELEVENT DEMOGRAPHIA RESOURCES

- International Housing Affordability Survey
  - 6 nations, 265 markets
  - 5th annual edition
  - http://www.demographia.com/dhi.pdf

Appendix

RELEVENT DEMOGRAPHIA RESOURCES

- World Urban Areas
  - Population, land area, density for all urban areas over 500,000
  - 5th annual edition
  - http://www.demographia.com/db-worldua.pdf