Advancing Sustainability Performance:

A Research Practice Forum

A forum presented by Policy Development and Research

Sustainability Performance Metrics: Towards a Measurable Future

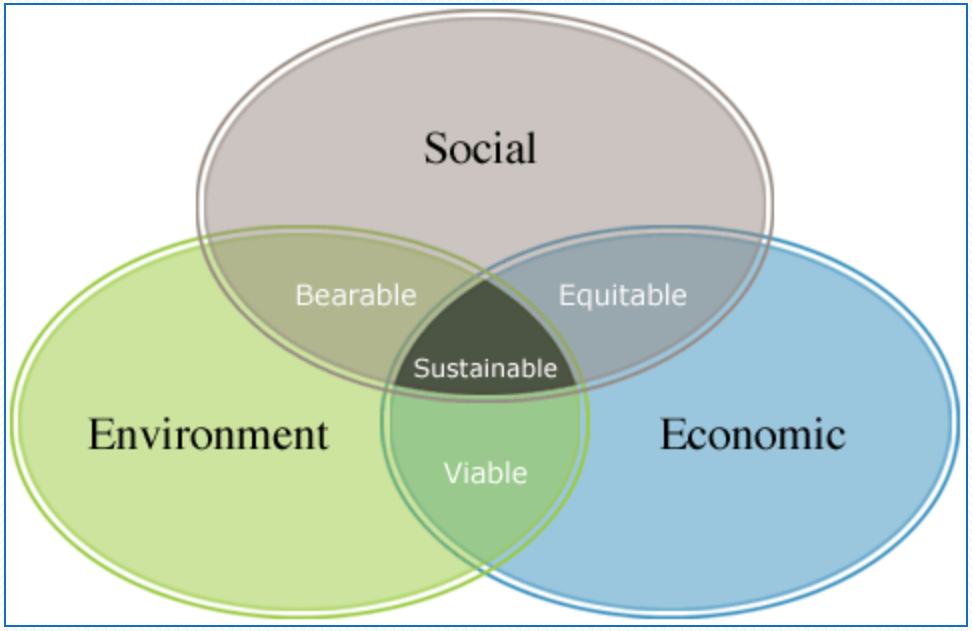
Josh Geyer

Sustainability Forum

September 28, 2011

How do we define "sustainability"?

- Brundtland Report definition: "Development that meets the needs of the present without compromising the ability of future generations to meet their own needs."



Additional Questions: Scale

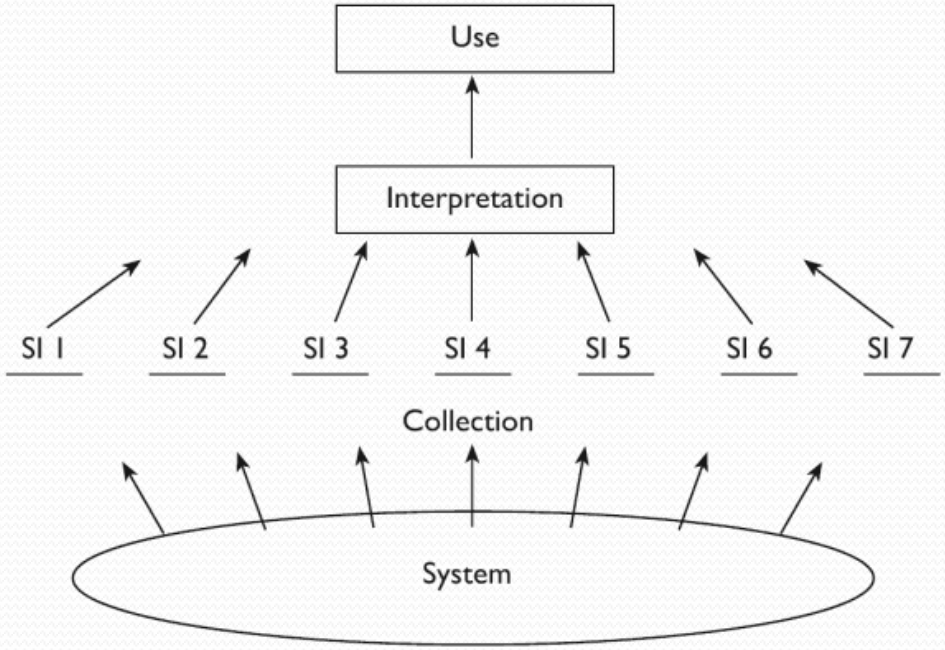
- What is the *physical or social system* you are interested in measuring?
  - City
  - Region
  - National
  - International
- What is the *time period* you are interested in?
  - Past ten years
  - Next year
  - Next 40 years

The Need for Indicators

- Sustainability is too macro-level and multi-faceted to be measured by any one metric

- Analogous to *indicator species* used by ecologists to track ecosystem trends

The Need for Indicators



Note: SIs 1 to 7 collect 'pieces' of information (indicated by the arrows) about the large, complex system.

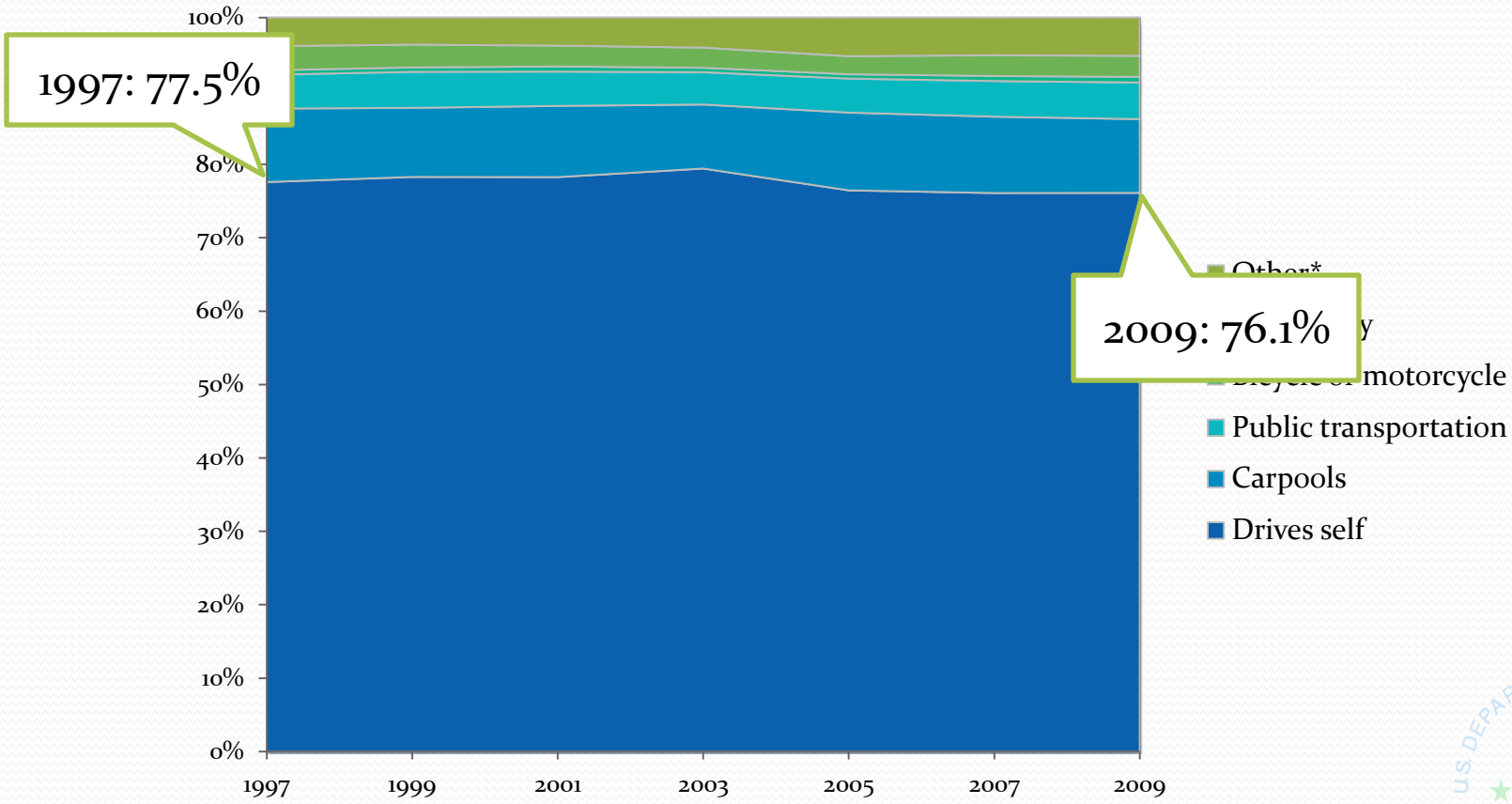
Figure 1.7 *The concept behind sustainability indicators (SIs)*

Source: *Sustainability Indicators: Measuring the Immeasurable?* By Simon Bell and Stephen Morse, p. 28.

The Need for Indicators

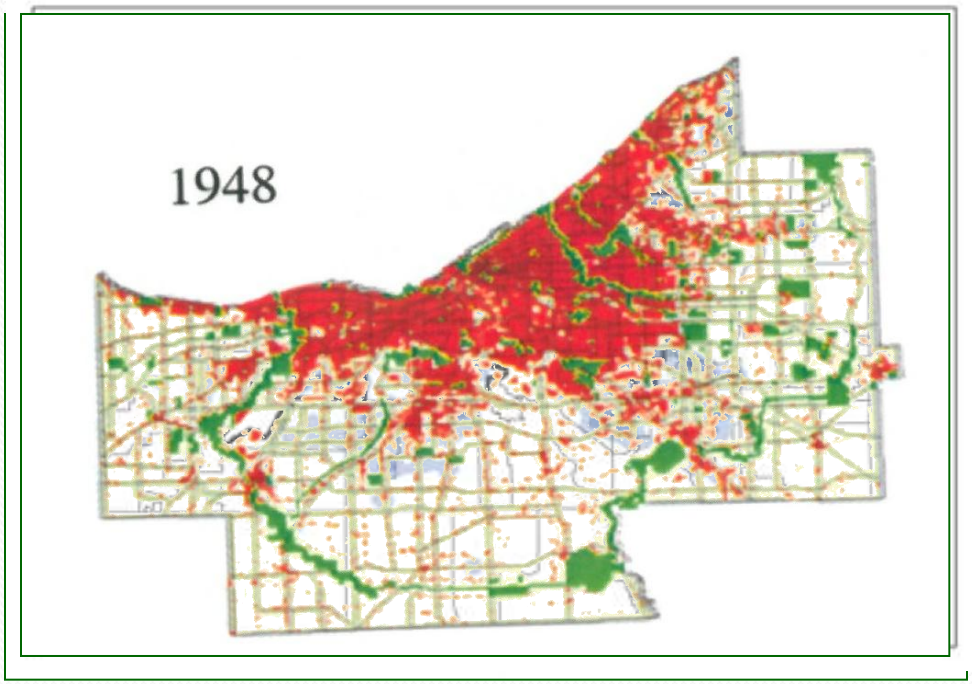
- The goal of sustainability indicators is to give organizations enough information to…
  - set objective, attainable goals for sustainability, and then
  - make evidence-based policy decisions that bring them closer to those goals

Principle Means of Transportation to Work



*"Other" includes people commuting by taxi and working from home.
Source: National Transportation Statistics, Table 1-41

Cleveland: Dispersed Population, Concentrated Poverty



1950 population: 1,389,582

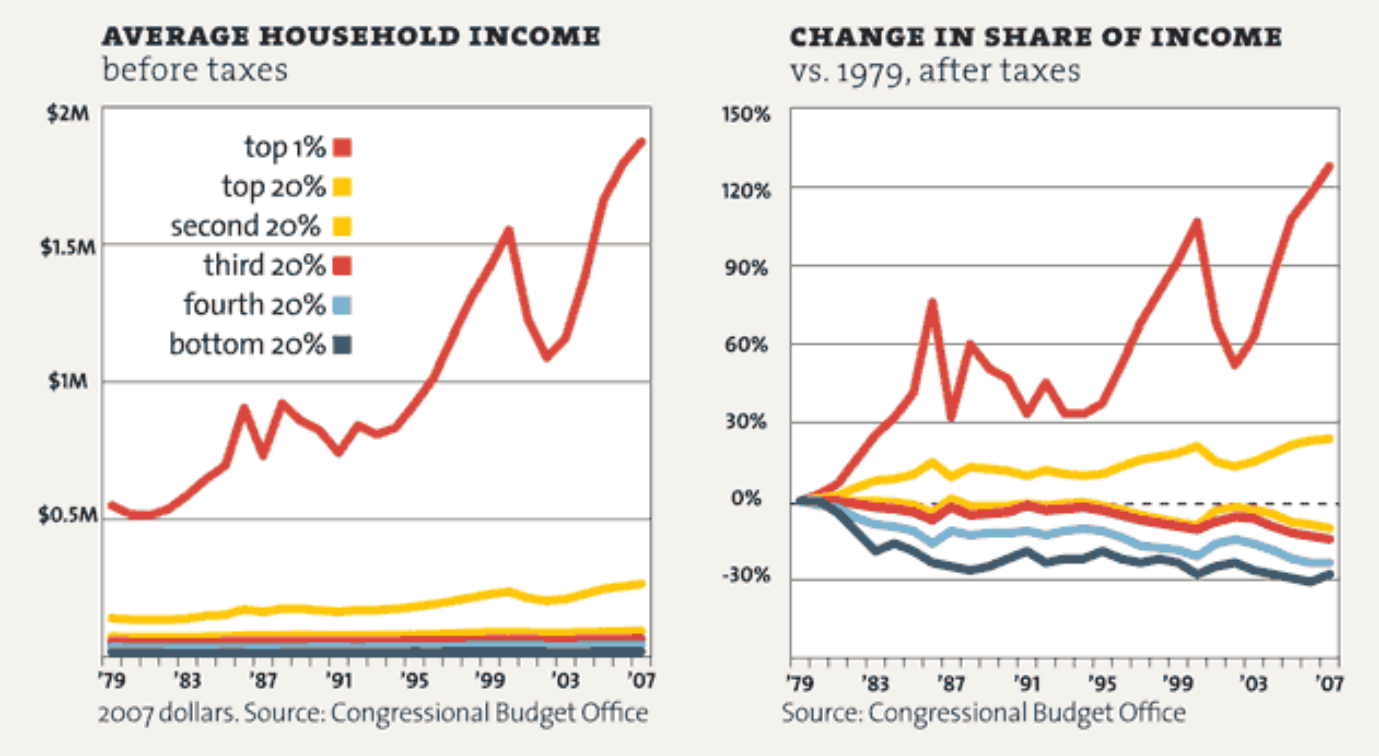
2002 population: 1,393,978

Food Stamp Density, 2009

Source: Cuyahoga Co. Land Use Maps
Cuyahoga County, Ohio, Planning Commission

Source: Claudia Coulton, Case Western University Center
On Urban Poverty and Community Development

Growing U.S. Income Inequality



Decreasing Snowpack in the West

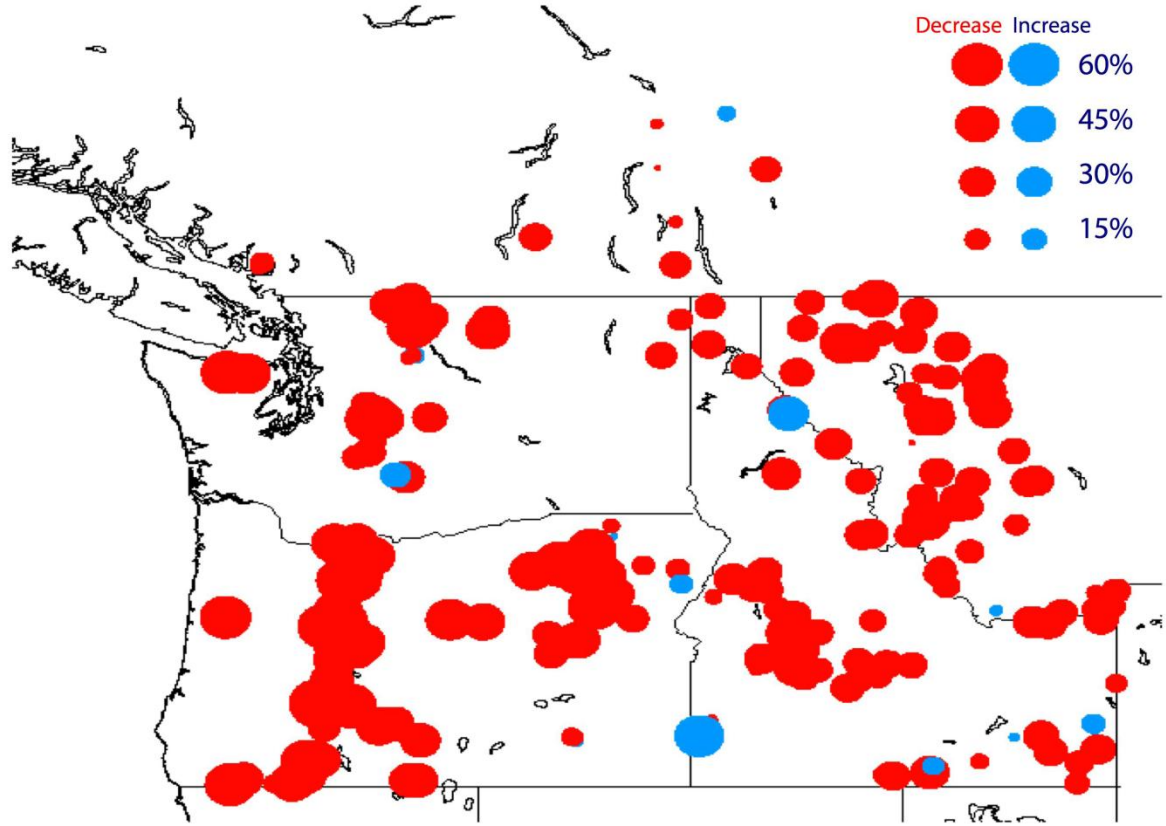


Image Courtesy of Steven W. Running, University of Montana, based on results from P.W. Mote. "Trends in Snow Water Equivalent in the Pacific Northwest and Their Climatic Causes," *Geophysical Research Letters*. (2003).

What is "sustainability" according to the Partnership for Sustainable Communities?

A Sustainable Community is "an urban, suburban or rural community that has more housing and transportation choices, is closer to jobs, shops or schools, is more energy independent, and helps protect clean air and water."

- *Physical/social system*: The community, whatever its size
- *Time frame*: The time in which the outcomes of the sustainability planning process will be manifested, e.g. 10 years

Operationalizing Sustainable Communities: the Livability Principles

1. Provide More Transportation Choices
2. Promote Equitable, Affordable Housing
3. Enhance Economic Competitiveness
4. Support Existing Communities
5. Coordinate and Leverage Federal Policies and Investment
6. Value Communities and Neighborhoods

Example Indicators by LP*

Livability Principle and Theme	Example Indicator	Soc	Econ	Env
1. Provide more transportation choices				
Commute mode/mode share	Percentage of miles traveled (or trips taken) by sustainable modes (walking, biking, public transportation) as a fraction of miles traveled by private auto	✓	✓	✓
Commute time/vehicle miles traveled	Average weekday vehicle miles traveled	✓	✓	✓
Carbon emissions	Greenhouse gas emissions in tons per capita			✓

*Unpublished paper by Amy Lynch, Stuart Andreason, Theodore Eisenman, John Robinson, Kenneth Steif, and Eugenie L. Birch. 2011. "Sustainable Urban Development Indicators: State of the Art and its Potential Congruence with U.S. Department of Housing and Urban Development Sustainability Initiatives," 21–2.

Example Indicators by LP

Livability Principle and Theme	Example Indicator	Soc	Econ	Env
2. Promote equitable, affordable housing				
Housing affordability	Gap between price of affordability for a typical household and median price of market-rate housing	✓	✓	
Equity in housing (especially as it relates to mobility and location)	Percentage of low-income households within ¼ mile of a transit stop	✓	✓	
Housing Energy Efficiency	Median energy consumption per household	✓	✓	✓

Example Indicators by LP

Livability Principle and Theme	Example Indicator	Soc	Econ	Env
4. Support existing communities				
Compact, transit-oriented development	Linear distance of high capacity public transit per 100,000 population	✓	✓	✓
Efficient land and resource use	Energy consumption per capita		✓	✓
Clean, healthy, and functional natural communities	Percentage of water bodies that are classified as "impaired" by the U.S. Environmental Protection Agency	✓	✓	✓

Indicator Systems

Bundling together indicators to make it easier for policymakers to comprehend and use them

Central Corridor Key Outcomes: 2011 Baseline Indicators

Indicator	Index	Mpls. St. Paul	Central Corridor	Of Note
Vibrant, Transit-Oriented Places				
7 **Neighborhoods attract more businesses & housing**				
Occupied residential addresses	Increase over time	292,439	45,237	More dense development patterns & increased transit use complement each other
Occupied commercial addresses		24,105	10,139	
8 **Neighborhoods provide nearby access to services**				
Walk Score® (Scale 1-100)	Walk Score increases over time	Lake St (86) W 7th (58)	82	Walk Score measures access to a mix of amenities within 1 mile
Effective Coordination and Collaboration				
9 **Common goals** Agree/Strongly Agree	Increase over time		64%	Benefit/support for existing businesses most cited
10 **Effective collaboration** Agree/Strongly Agree	Increase over time		65%	Collaboration across issues has most agreement
11 **Informed** Very well informed	Increase over time		45%	51% feel somewhat informed
Change Within the Region				
12 **Median household income**				
2009 $ estimated based on (2005-09)	Compare to region over time	$45,800	$38,600	Middle Corridor has highest median income ($40,500)
13 **Population**				
By race/ethnicity		657,841	86,983	Corridor has higher proportion of Asians and Blacks than the cities
American Indian		1%	1%	
Asian		8%	11%	East Corridor has highest proportion of Asian, Black and Hispanic residents
Black	Compare to region mix over time	15%	23%	
White		68%	61%	
Some other race		3%	2%	
Two or more races		3%	3%	
Hispanic/Latino (of any race)		9%	5%	

Indicator Systems

Center for Clean Air Policy's Growing Wealthier

Business	Household	Municipal & Regional	National
Improved Quality of Life			
Quality places attract high quality workers	Better access to services	Reduced exposure to congestion	Reduced GHGs
Improved environment for small businesses	Affordable housing	Thriving public spaces	
	Access to nature & recreation	Growth reflects community values	
	Increased physical activity	Protects natural	

Indices

- Mathematically aggregate two or more indicators into a single summary indicator
- Problem: Few if any indices currently in use fulfill fundamental scientific requirements, limiting their usefulness in policymaking*

See “Measuring the immeasurable – A survey of sustainability indices” (2007) by Böhringer and Jochem.

Indices

Index	Brief Description	Dimensions		
		Env	Econ	Soc
Ecological Footprint	Biocapacity of land and sea relative to human demands	**yes**	no	no
Genuine Progress Indicator	Alternative to GDP that includes externalized costs	**yes**	**yes**	**yes**
Environmental Performance Index	Progress of national environmental policies	**yes**	no	no
Human Development Index	Health, education, quality of life	no	**yes**	**yes**
Happy Planet Index	Longevity and life satisfaction per ecological footprint	**yes**	no	**yes**

Today's Panel

Moderator	
Mariia Zimmerman Deputy Director, Office of Sustainable Housing and Communities, Department of Housing and Urban Development	
Panelists	
Chris Nelson Professor and Executive Director of the Metropolitan Research Center University of Utah	**Jonathan Sage-Martinson** Director, Central Corridor Funders Collaborative St. Paul, MN
Laurie Kerr Senior Policy Advisor, New York City Mayor's Office of Long-Term Planning and Sustainability	**John Thomas** Director, Community Assistance and Research Division Office of Sustainable Communities, Environmental Protection Agency

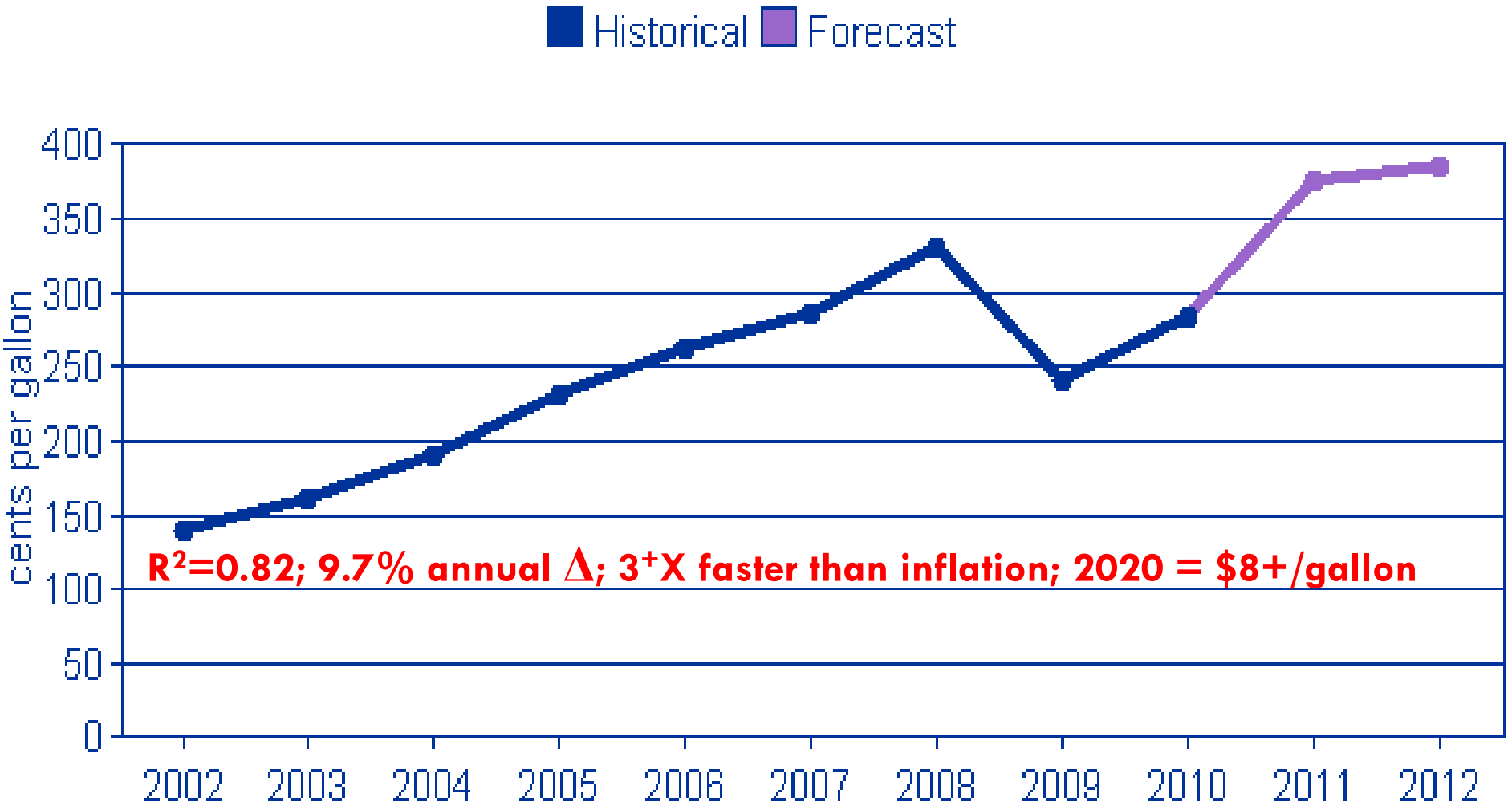
TOWARD NEW AMERICAN DREAMS

ARTHUR C. NELSON, PH.D., FAICP
UNIVERSITY OF UTAH
SEPTEMBER 28, 2011

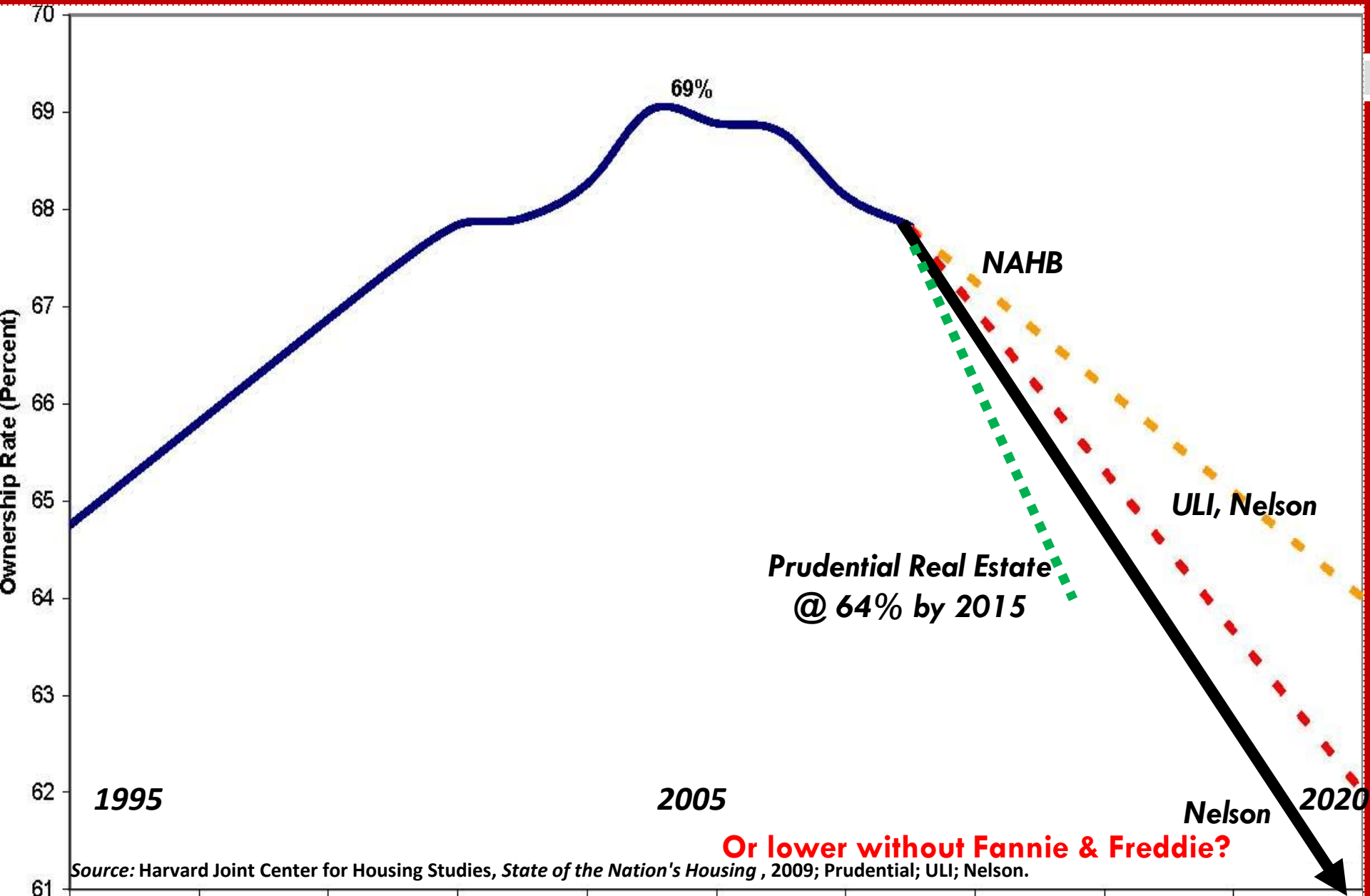
New Housing Market Realities

- Sub-prime mortgages are history.
- 20% down-payments will become the new normal.
- Fannie Mae & Freddie Mac may be history.
- Meaning
  - *Smaller homes → maybe more people per unit*
  - *Smaller lots → more attached units*
  - *More renters → including doubled-up renters*

Annual Gasoline All Grades Retail Price Including Taxes U.S. Average



Declining Home Ownership



Source: Harvard Joint Center for Housing Studies, *State of the Nation's Housing* , 2009; Prudential; ULI; Nelson.

Rental Share of Housing Growth

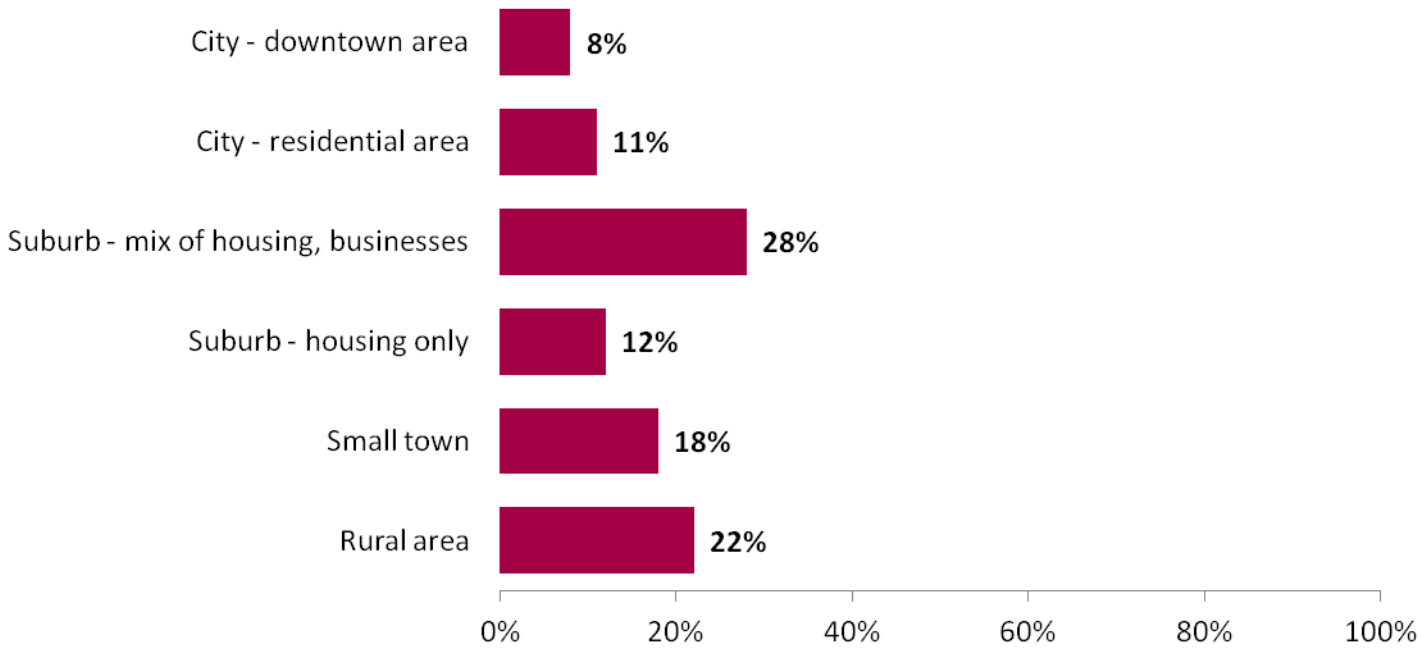
Scenario	2010-20
If Ownership Rate in 2020 is 66%	Renter Share of Growth = 43%
If Ownership Rate in 2020 is 63%	Renter Share of Growth = 79%
If Ownership Rate in 2020 is 60%	Renter Share of Growth = 115%

Source: Arthur C. Nelson, Presidential Professor & Director, Metropolitan Research Center, University of Utah.

PREFERRED COMMUNITY TYPE

IF YOU COULD CHOOSE WHERE TO LIVE, IN WHICH TYPE OF THE FOLLOWING LOCATIONS WOULD YOU MOST LIKE TO LIVE?

CITY + SUBURBAN MIXED-USE = 47%

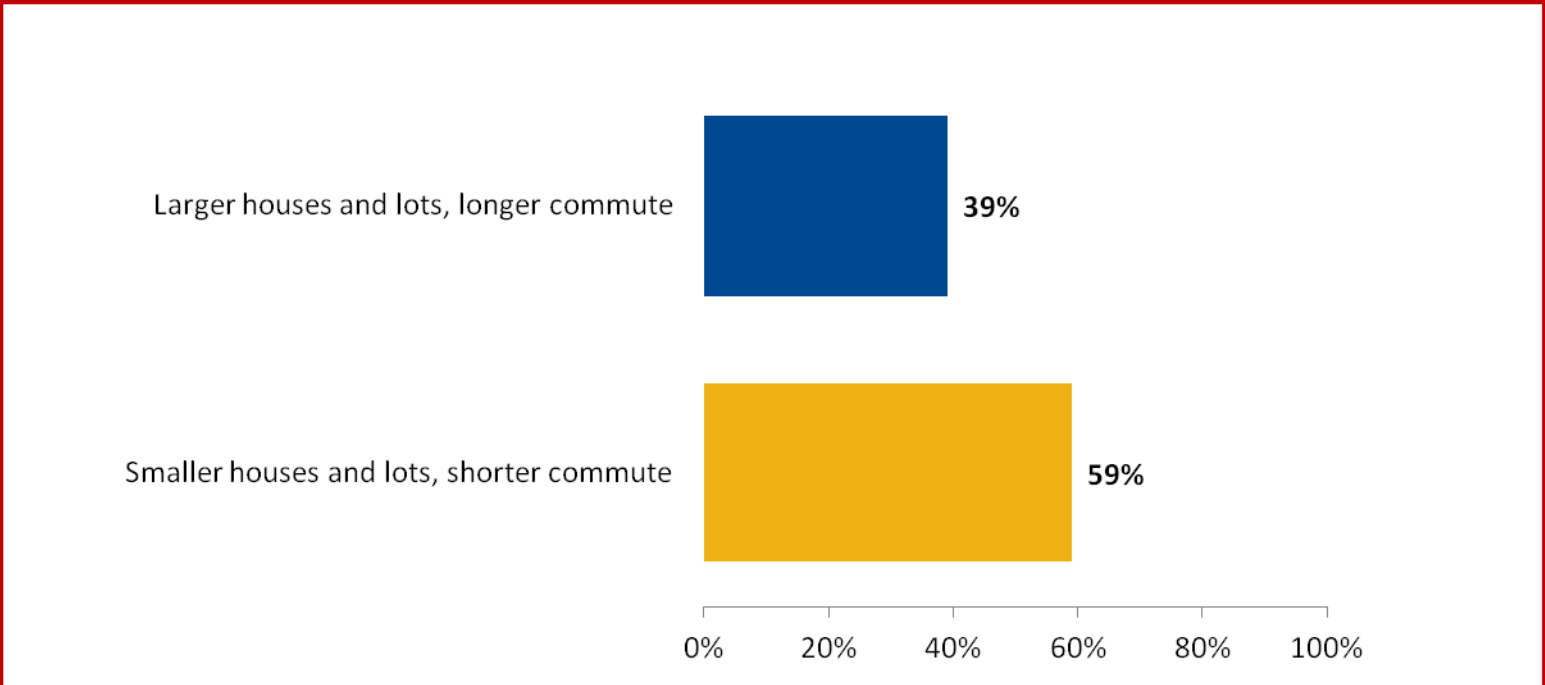


Source: **National Association of Realtors 2011.**

Space v. Commute Time

Community A: Houses are smaller on smaller lots, with shorter commute to work <20 minutes

Community B: Houses are larger on larger lots with , longer commute to work 40+ minutes



Source: National Association of Realtors 2011. Survey design assistance by Arthur C. Nelson, University of Utah.

Demand for Walkable, Mixed-Used "Smart Growth" Neighborhoods

Demographic Group	Prefers Mixed-Use With Walkability (PPIC 2004/ ASU 2007)	Small Home with Short Commute (PPIC 2004/ ASU 2007)	Would Support a Smart Growth Community (PN 2003 & 2005)	Want to Live in a Smart Growth Community (PN 2003 & 2005)
All	50%	50%	51%	47%
Age				
18-34	55%	49%	55%	51%
35-54	49%	55%	48%	45%
55-69	46%	66%	52%	47%
70+	44%	63%	59%	56%
Income				
<80% AMI	58%	59%	50%	45%
80%-120% AMI	48%	56%	45%	41%
>120% AMI	44%	52%	41%	39%
Household Type				
Single Person HH*	50%	61%	50%	48%
HH Without Children	51%	61%	52%	46%
HH With Children	50%	50%	52%	46%

Source: Compiled by Metropolitan Research Center, University of Utah, using PPIC and ASU surveys, and by permission from Porter-Novelli.

Important to Walk/Bike to Work/Errands

Demographic Group	Important/ Very Important → Work	Important/Very Important → Errands
All	23%	22%
Age		
18-34	24%	22%
35-54	21%	20%
55-69	23%	24%
70+	24%	25%
Income		
<80% AMI	28%	27%
80%-120% AMI	19%	18%
>120% AMI	16%	16%
Household Type		
Single Person HH	28%	29%
HH No Children	22%	21%
HH With Children	20%	18%

Source: Adapted by Nelson et al. from Porter Novelli (2003; 2005)

Supply & Demand Comparison

Mode and Destination	Supply	Demand
Walk or Bike to Work	4%	23%
Walk or Bike for Errands	10%	22%

***Source*: Supply from NHTS 2009 (2011); demand from Porter-Novelli (2003, 2005)**

Observed Walk/Bike Share Within 1-Mile

Year	Walk/Bike to Work Less than 1 Mile	Walk/Bike to Errands Less than 1 Mile
1995	25%	26%
2001	34%	35%
2009	37%	42%
Change 1995-2009	45%	59%

Source: National Household Travel Survey 2009 (2011).

Want to have Access to Public Transit

Demographic Group	Want Rail Transit Accessible (NAR 2011)	Easy Walk to Rail Transit is Important (NAR 2011)	Prefers Density if Transit Available (PPIC 2004 & ASU 2007)
All	23%	23%	29%
Age			
18-34	26%	29%	34%
35-54	23%	22%	25%
55-69	22%	23%	32%
70+	20%	26%	24%
Income			
<80% AMI	26%	23%	36%
80%-120% AMI	21%	22%	26%
>120% AMI	21%	20%	25%
Household Type			
Single Person HH*	29%	26%	31%
HH Without Children	22%	21%	31%
HH With Children	26%	21%	26%

Source: NAR compiled by Shyam Kannan RCLCo, PPIC/ASU compiled by Metropolitan Research Center, University of Utah.

Preference Demand vs. Supply

House Type	Nelson	RCLCo	NAR	AHS
Attached	38%	38%	39%	28%
Small Lot	37%	37%	37%	29%
Large Lot	25%	25%	24%	43%

Source: Nelson (2006), RCLCo (2008), Myers & Gearin (2001), NAR (2011), AHS (2010)

US Housing Supply/Demand 2010

Source: Arthur C. Nelson, Presidential Professor & Director, Metropolitan Research Center, University of Utah.

The New American Dreams

- Accessibility to jobs, shopping and transit
- Walkable neighborhoods & communities
- Life-cycle housing
  - Age in neighborhood when relocation is necessary
- "Value" housing; not over-supplied housing

THANK YOU

Measuring Progress in the Big Apple:
Sustainability Indicators & Benchmarking

Laurie Kerr, AIA
Sr. Policy Advisor, NYC Mayor's Office

NYC has 10 measurable goals for 2030

Land	1	Create sustainable homes for a million more New Yorkers
	2	Ensure all New Yorkers live within a 10-minute walk of a park
	3	Clean up all contaminated land in New York City
Water	4	Improve our waterway quality for recreation and ecosystems
	5	Ensure the high quality and reliability of our water supply
Transportation	6	Expand our sustainable public transportation network
Energy	7	Reduce energy consumption, clean supply, and improve reliability
Air	8	Achieve the cleanest air of any big city in America
Solid Waste	9	Divert 75% of our waste from landfills
Climate Change	10	Reduce greenhouse gas emissions by more than 30% from 2005 increase New York's resilience to climate change

Every year we publish a Progress Report

We track whether we are doing what we promised…

Energy Progress

	INITIATIVE	PROGRESS SINCE APRIL 22, 2007	IMPLEMENTATION MILESTONE FOR DECEMBER 2009	2009 MILESTONE PROGRESS
1	**ESTABLISH A NEW YORK CITY ENERGY PLANNING BOARD**			
	Work with the State and utilities to centralize planning for the city's supply and demand initiatives	Launched ad hoc Energy Planning Board that submitted recommendations to State Energy Planning Board in December 2008 and October 2009 on energy planning, power and natural gas infrastructure, energy efficiency, renewables and clean DG. Board has not yet acquired athority to coordinate energy supply and demand measures or to undertake long-term energy contracting.	Establish NYC Energy Planning Board	Not Yet Achieved (State or Fed Inaction)
2	**REDUCE ENERGY CONSUMPTION BY CITY GOVERNMENT**			
	Commit 10% of the City's annual energy bill to fund energy-saving investments in City operations	Energy Conservation Committee released plan to reduce City's energy consumption and greenhouse gas emissions. $280 million has been allocated since 2007, with more than 80 retrofits completed, saving the City $2.8 million annually in energy costs.	Begin investing approximately $80 million a year into improving the energy efficiency of City buildings	Achieved
3	**STRENGTHEN ENERGY AND BUILDING CODES IN NEW YORK CITY**			
	Strengthen our energy and building codes to support our energy efficiency strategies and other environmental goals	At the request of the Mayor and City Council Speaker, USGBC-NY convened the Green Codes Task Force, a group of over 200 building professionals to make code improvement recommendations. The Task Force delivered 111 proposals to the City in a final report. The City is reviewing all the proposals with the relevant agencies and an Industry Advisory Committee.	Complete and adopt fir[illegible]ounds of code changes (7[illegible], 2010)	Mostly Achieved
4	**CREATE AN ENERGY EFFICIENCY AUTHORITY FOR NEW YORK CITY**			
	Create the New York City Energy Efficiency Authority (NYCEEA) responsible for reaching the City's demand reduction targets	New York City Energy Efficiency Authority (NYCEEA) was not created. However, EDC created and l[illegible] the New York City Energy Efficiency Working Group in 2008. The group worked to achieve so[illegible] level of coordination between city, state and utility energy efficiency programs and pol[illegible]	[illegible]e a new authority responsible [illegible] the implementation of NYC energy conservation and efficiency programs	Reconsidered (State or Fed Inaction)
5	**PRIORITIZE FIVE KEY AREAS FOR TARGETED INCENTIVES**			
	Use a series of mandates, challenges, and incentives to reduce demand among the city's largest energy consumers	Signed into law the Greener, Grea[illegible] in existing buildings - that will im[illegible] continuous improvement through[illegible] energy efficiency program fundin[illegible] hospitals and Broadway theaters.	[illegible]ss necessary local laws, building [illegible]des, and energy code	Achieved

We track our progress on the milestones associated with the 10 to 20 initiatives associated with each goal

And we see whether we are achieving the results we intended.

CATEGORY	METRIC	2030 TARGET	FIGURE FOR MOST RECENT YEAR	TREND SINCE BASE YEAR
HOUSING AND NEIGHBORHOODS	**Create homes for nearly a million more New Yorkers while making housing and neighborhoods more affordable and sustainable**			
	Increase in new housing units from 2007	314,000	98,924[2]	↗
	Total units of housing in NYC	INCREASE	3,328,395[4]	↗
	% of housing affordable to median-income NYC household	INCREASE	64.1%[4]	↘
	Vacancy rate of least expensive rental apartments	INCREASE	0.98%[4]	↘
	% of new units within a 1/2 mile of transit	>70%	78%[2]	↗
	Residential building energy use per capita (MMBTU) (3 yr rolling avg)	DECREASE	2.13[1]	NEUTRAL
PARKS AND PUBLIC SPACE	**Ensure all New Yorkers live within a 10-minute walk of a park**			
	% of New Yorkers that live within a 1/4 mile of a park	85%	74%[1]	↗
BROWNFIELDS	**Clean up all contamined land in New York City**			
	Number of vacant tax lots presumed to be contaminated	DECREASE	1,500 – 2,000[2]	NEUTRAL
	Number of tax lots remediated in NYC annually	INCREASE	0[2]	NEUTRAL
WATERWAYS	**Improve the quality of our waterways to increase opportunities for recreation and restore coastal ecosystems**			
	Fecal coliform rates in New York Harbor (Cells/100mL) (5 yr rolling avg)	DECREASE	21.1[2]	↘
	Dissolved oxygen rates New York Harbor (mg/L)	INCREASE	6.52[2]	↗
WATER SUPPLY	**Ensure the high quality and reliability of our water supply system**			
	Number of drinking water analyses below maximum contaminant level	[illegible]E	99.995%[2]	NEUTRAL
	Water usage per capita (gallons per day) (3 yr rolling avg)	[illegible]	124.68[2]	↘

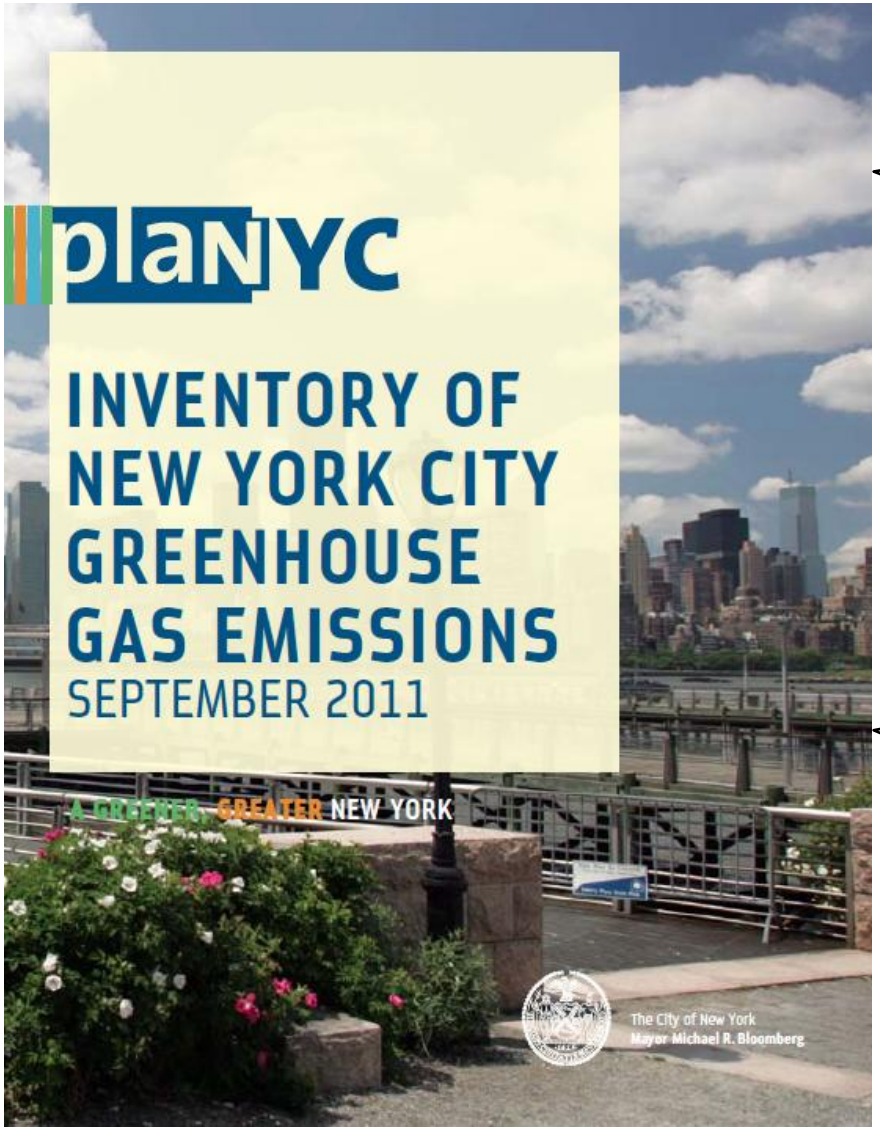
Our sustainability indicators track several key indicators for each goal.

And every four years we adjust our course

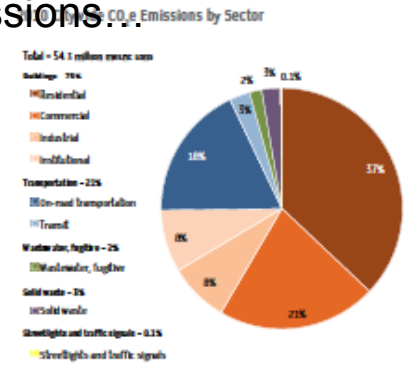
Local law requires us to update the Plan every 4 years

- This is a chance to update and improve our goals, initiatives, and milestones
- And assess the appropriateness of our indicators

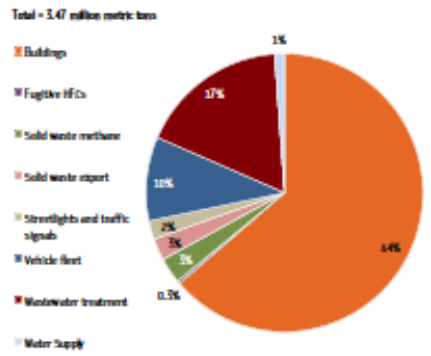
We also track our greenhouse gas emissions annually



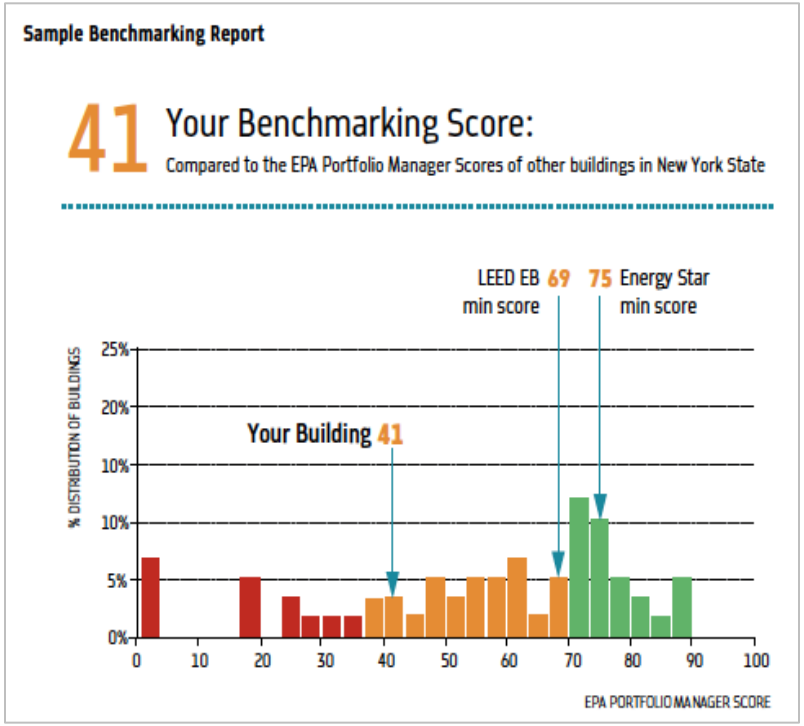
We track citywide emissions…



& city government emissions



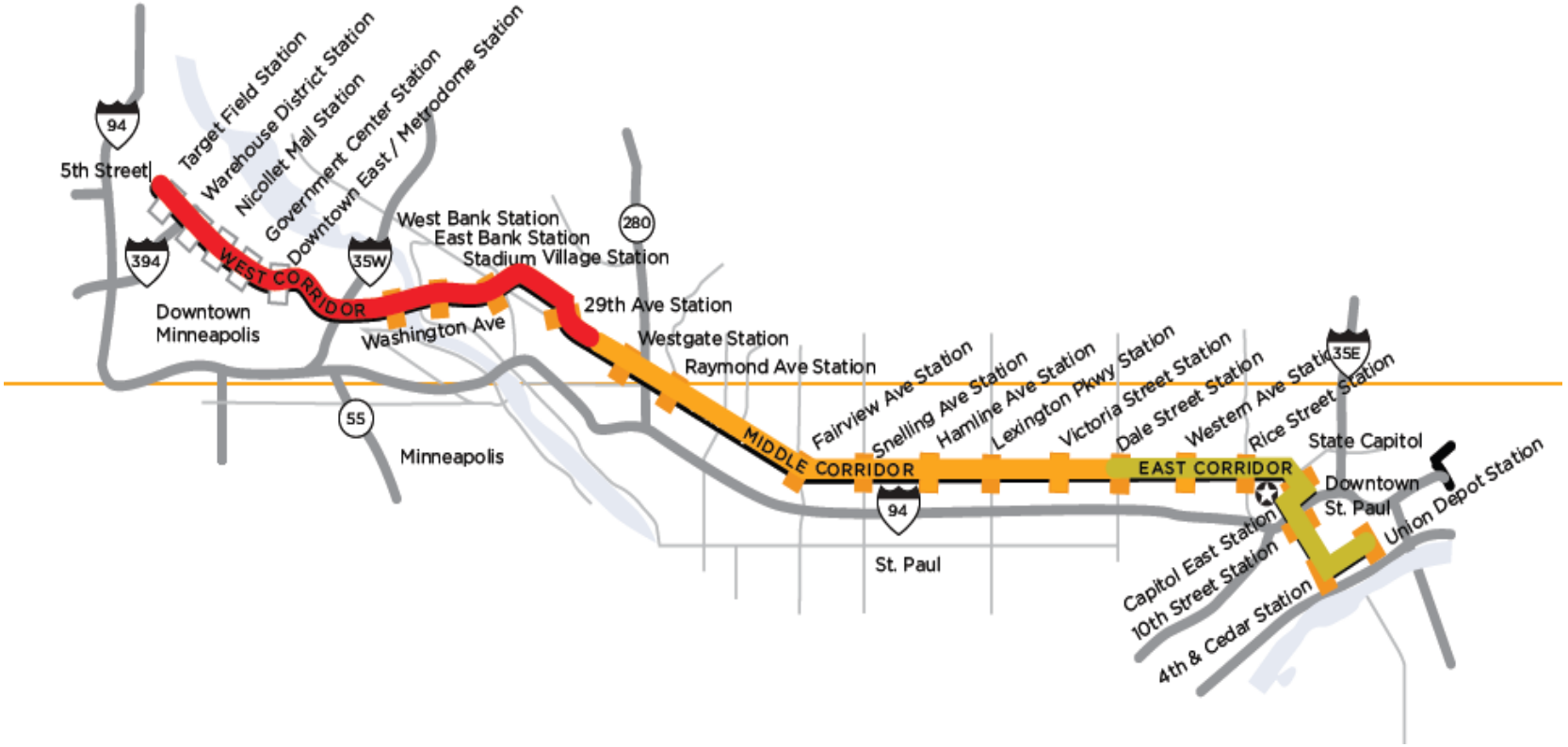
And we are starting to track energy consumption at the building scale



Local Law 84 requires annual benchmarking and public disclosure about energy efficiency for NYC's largest buildings

- Applies to buildings over 50,000 sf
- Accounts for 2.6 billion sf, half the city's overall built area
- Will provide granular information on building energy use for the first time
- Will provide an excellent tracking tool for our energy efficiency policies

Tracking Outcomes in the Central Corridor



Jonathan Sage-Martinson

Central Corridor Funders Collaborative

Outcomes

Access to Affordable Housing

Strong Local Economy

Vibrant Transit-Oriented Places

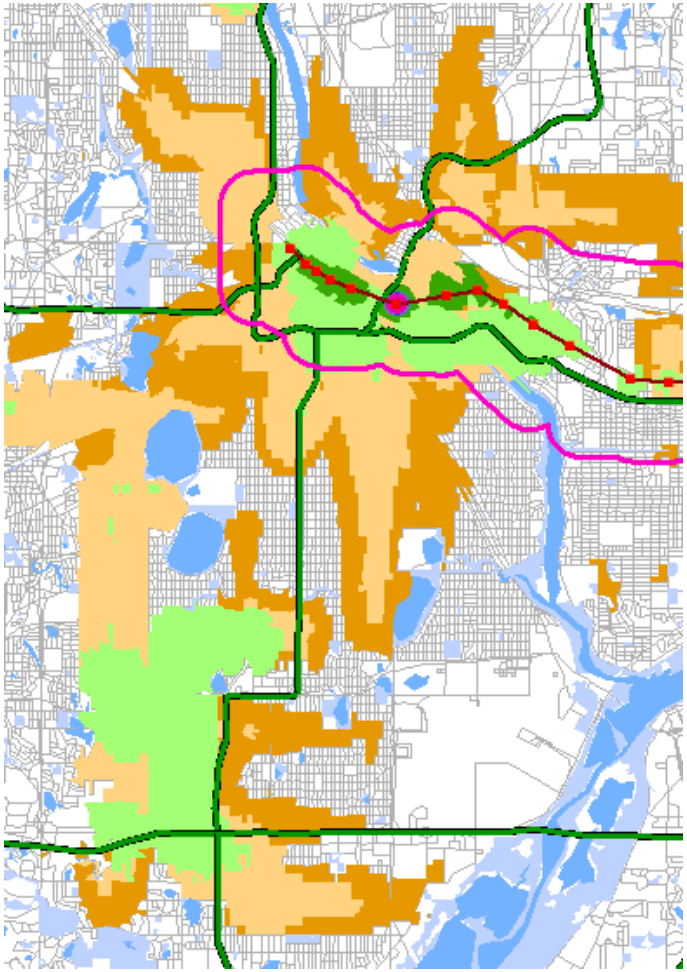
Effective Coordination and Communication

Indicator Development

- Aligned with four outcome areas
- Small geography
- Timely and sensitive
- Understandable and actionable
- Feasible

‘New’ Indicator Development

- Commute Shed
- Housing + Transportation Costs
- Common Goals
- Effective Collaboration
- Informed



Central Corridor Tracker

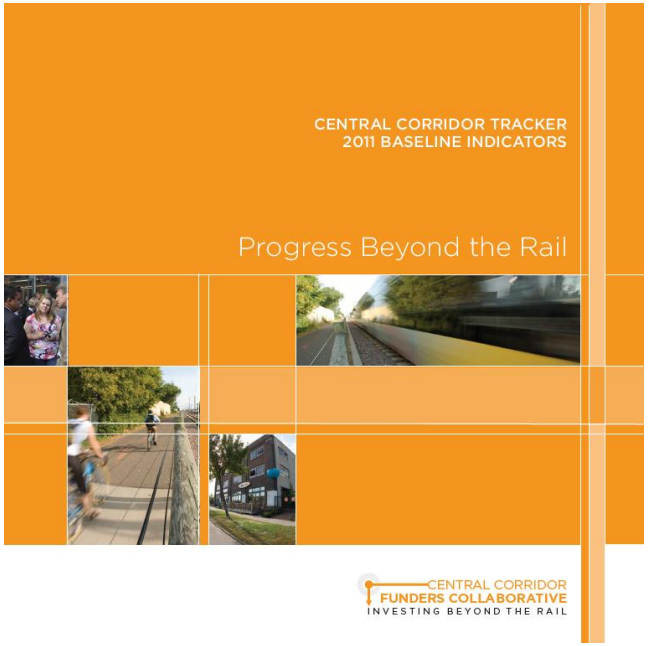
Central Corridor Key Outcomes: 2011 Baseline Indicators

Indicator	Index	Mpls. St. Paul	Central Corridor	Of Note
Access to Affordable Housing				
1 **People of all incomes live here** Less than $10,000 AGI (2007 $) $10,000 - $29,999 AGI	Comparison to region	 23% 28%	 26% 29%	Corridor has higher concentration of very low-income households, especially in East Corridor (29%)
2 **Transit helps families afford living here** Low income households (60% of Area Median Income) Moderate income households (80% of Area Median Income)	Housing + Transportation <45% of income	 55% 42%	 46% 37%	When housing and transportation costs are taken into account, the Corridor is more affordable than the cities as a whole

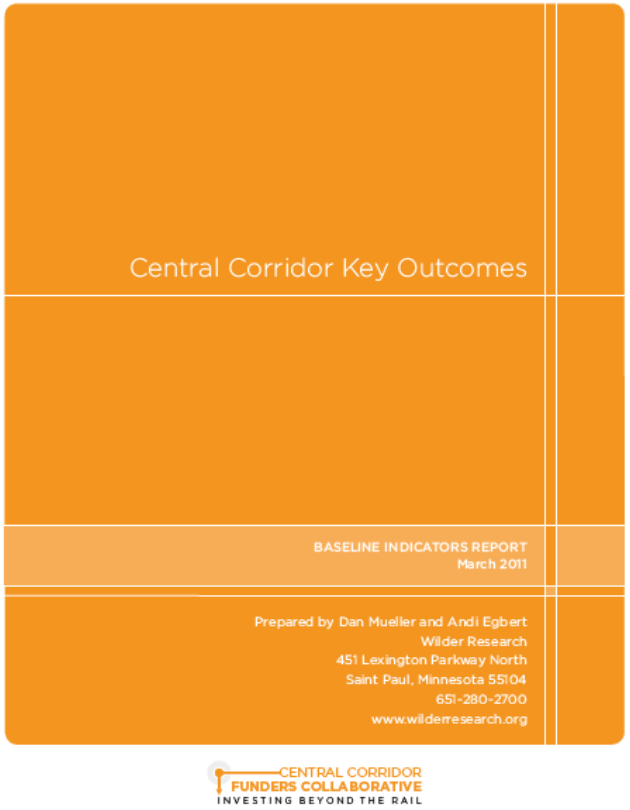
Working Group Partners

- Business Development
- Construction Opportunities
- Affordable Housing
- Job Access
- Public Investment Framework
- Bike, Pedestrian, and Transit Connections

funderscollaborative.org/tracker



Central Corridor Tracker



Central Corridor Key Outcomes

Baseline Indicators Report

Building Communities' Capacity for Performance Measurement

John V. Thomas, PhD

US EPA Office of Sustainable Communities

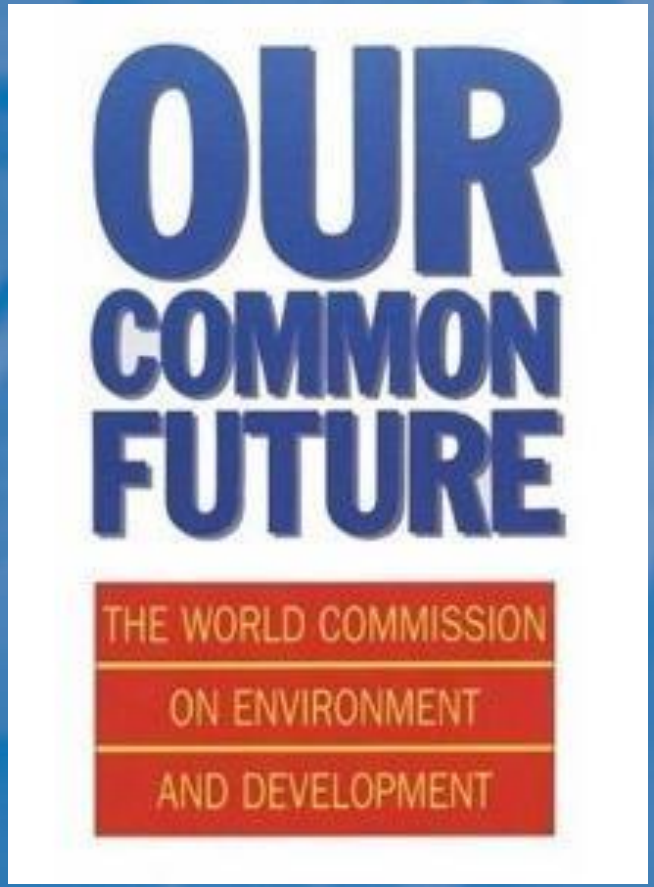
HUD Sustainability Forum

September 28, 2011

The Standard Definition Provides a Clue to Our Current Challenge

- Brundtland Commission Report *(1987)*

- *"development that meets the needs of the present without compromising the ability of future generations to meet their own needs"*



Effective Use of Performance Measures

- Tied to a meaningful process
  - Regional – Vision Plans, Long Range Plans, Capital Plans, Projects
  - City – General Plans, Capital Plans, Small Area Plans, Projects, Revaluation of Policies
  - Neighborhood – Small Area Plans, Neighborhood Design / Redevelopment, Projects
- Communicating the right kind of information
  - Rigorous and detailed but easy to update and maintain
  - Communicate to a broad audience (dashboards)
  - Transparent (publicly available data when possible)

Capacity Building Efforts

- Support for Scenario Planning Tools
  - Performance Measures as a Decision Support Tool for Planning
- Defining Model Measures and Identifying Data
- Making Data More Available
- Developing Simple Tools to Automate the Process

Scenario Planning Tools

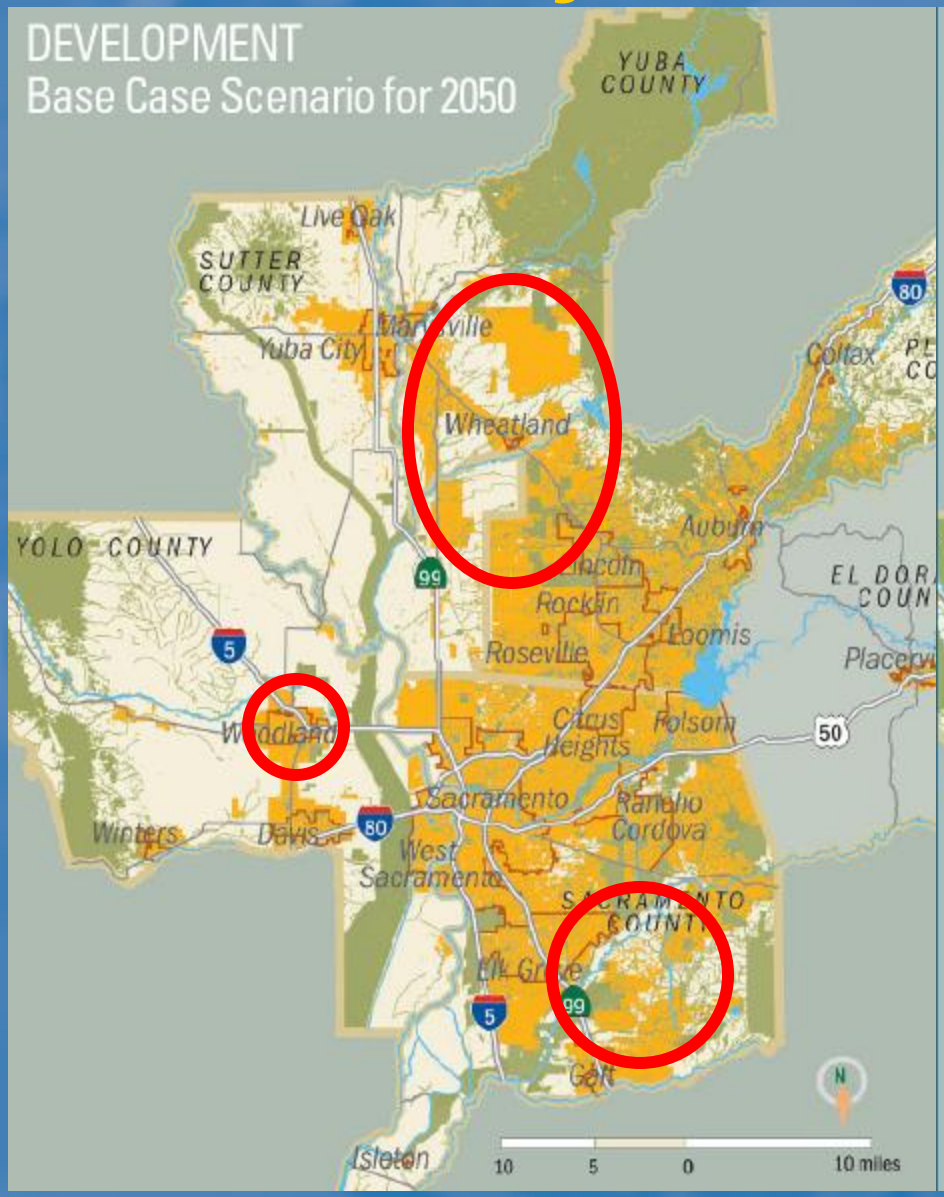
Scenario Based Performance Measures Engage Stakeholders

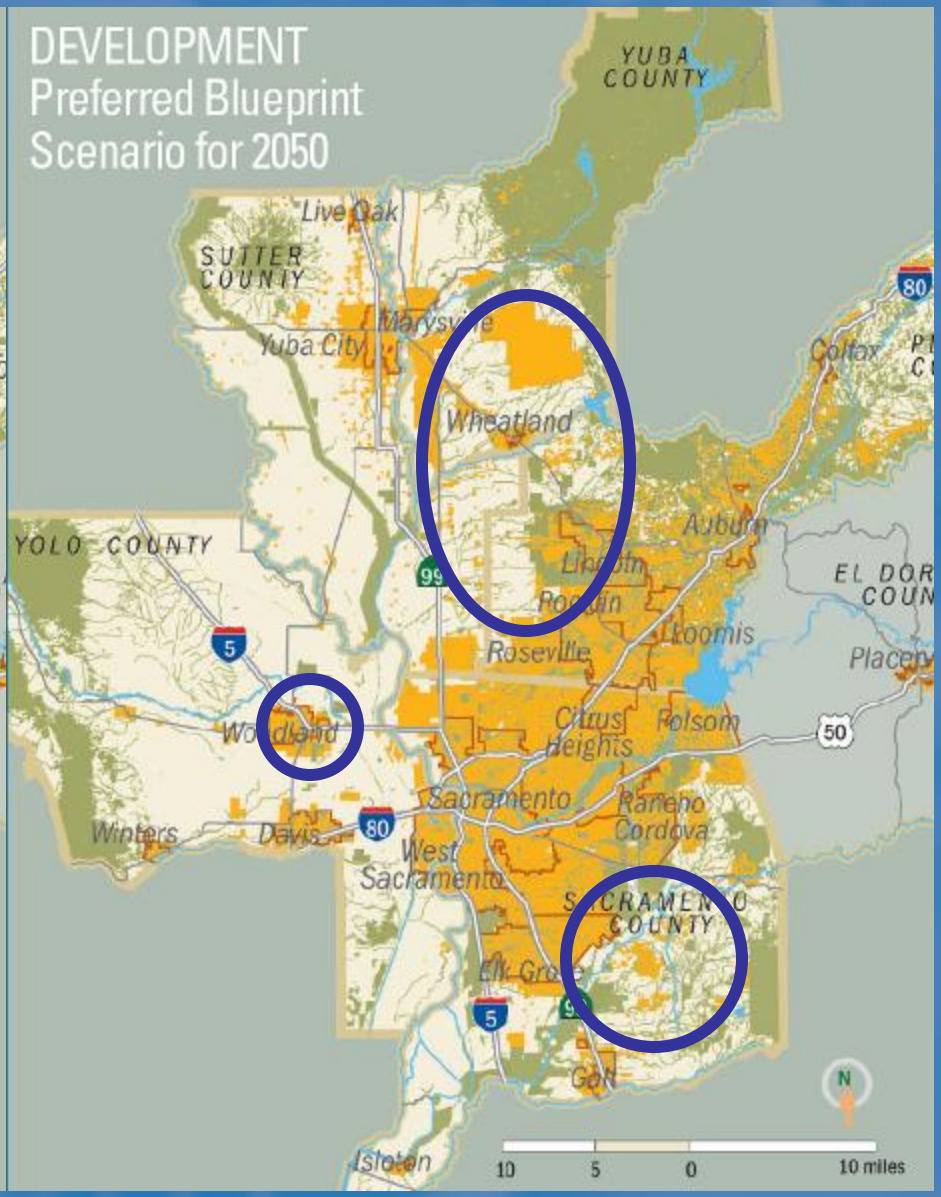
Blueprint Planning Land Use Alternatives

SACOG

Sacramento Area Council of Governments

Sacramento Blueprint- Preferred Baseline Scenario





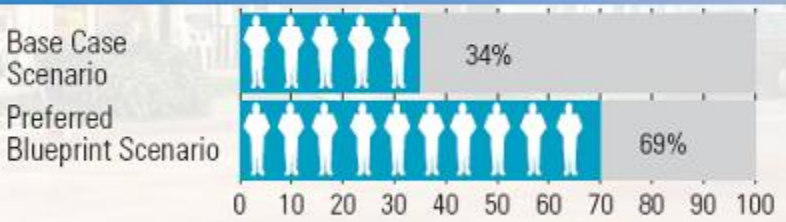
Performance Measures that Speak to Core Values – Walkable Neighborhoods

Design for Quality:

The design details of any land use development—such as the relationship to the street, setbacks, placement of garages, sidewalks, landscaping, the aesthetics of building design, and the design of the public right-of-way (the sidewalks, connected streets and paths, bike lanes, the width of streets)—are all factors that can influence the attractiveness of living in a compact development and facilitate the ease of walking and biking to work or neighborhood services. Good site and architectural design is an important factor in creating a sense of community and a sense of place.

PEOPLE LIVING IN AREAS WITH GOOD OR EXCELLENT PEDESTRIAN FEATURES

(in percent, 2050)



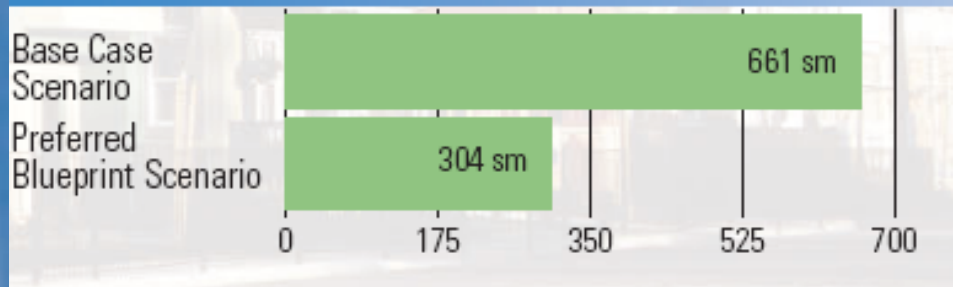
In the Base Case, 34 percent of people would live in pedestrian-friendly neighborhoods. In the Blueprint Scenario, in 2050 that number would rise to 69 percent.

Core Value – Protecting Rural Lands and Open Space

ADDITIONAL URBANIZED LAND

Through 2050

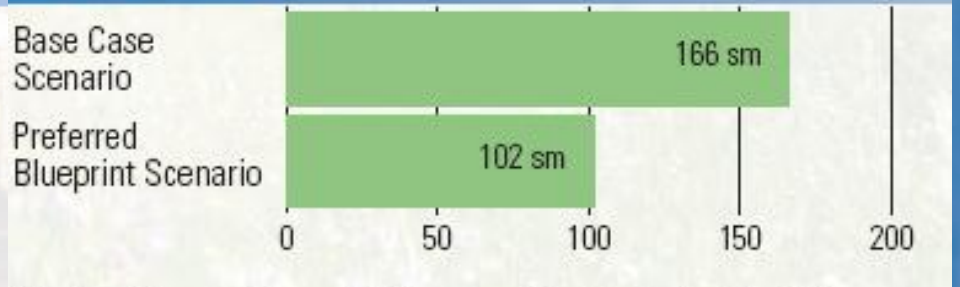
(in square miles)



Under the Base Case, new development would need an additional 661 square miles of land by 2050. In the Blueprint Scenario, 304 square miles of new land would be needed for urban uses.

AGRICULTURAL LAND CONVERTED TO URBAN USES

(in square miles)

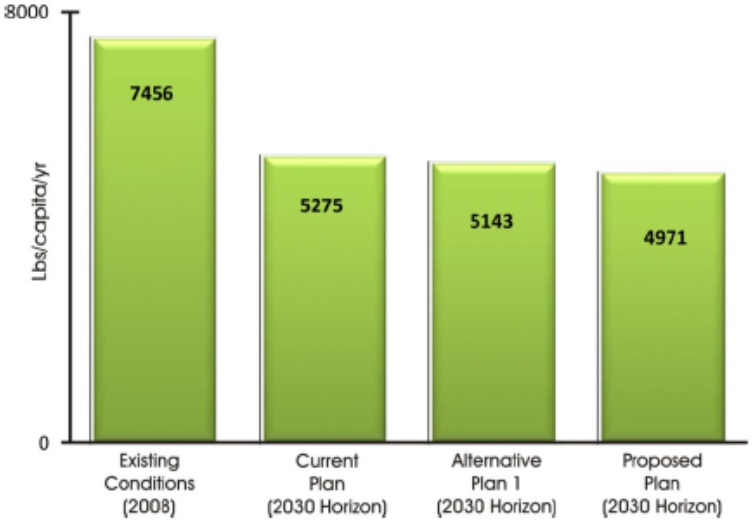


The Base Case would convert 166 square miles of agricultural land into urban uses. With the Blueprint Scenario, 102 square miles would be converted from agricultural to urban uses.

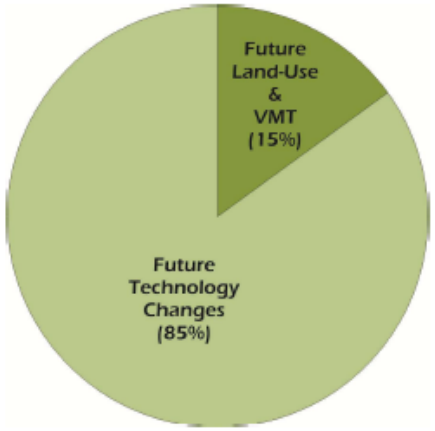
INDEX - Local Scale Measures

Key Results

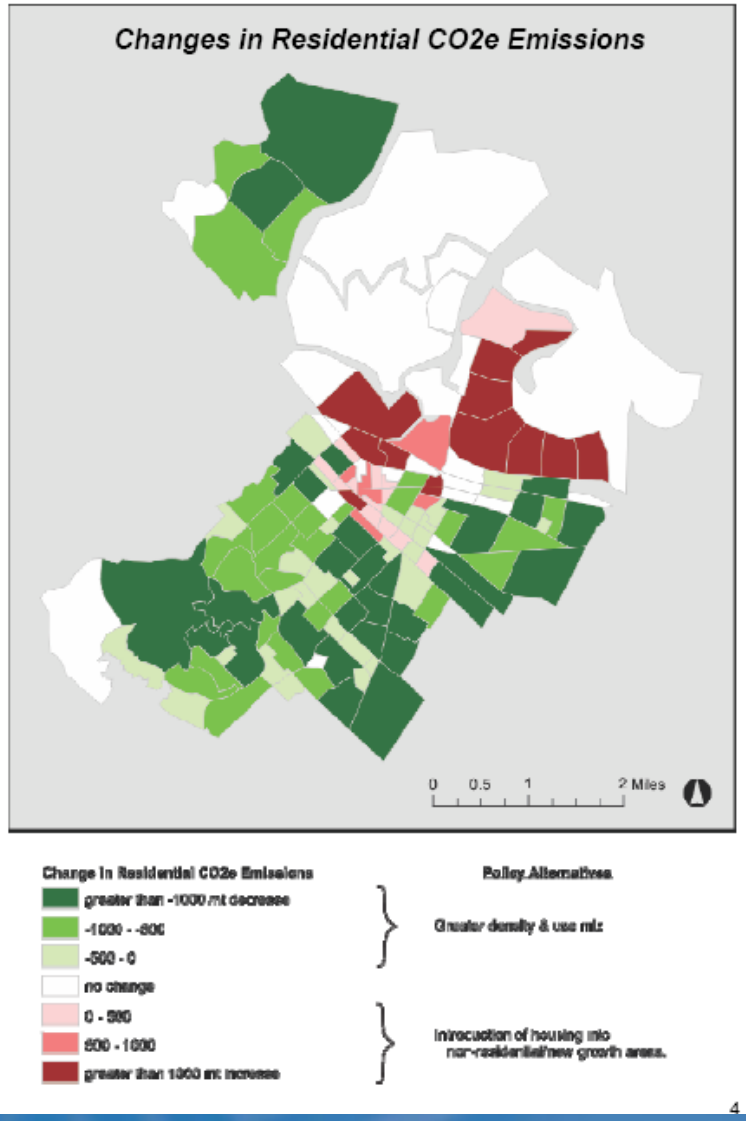
Total Residential CO2e Emissions



CO2e Emission Reduction Sources



Changes in Residential CO2e Emissions

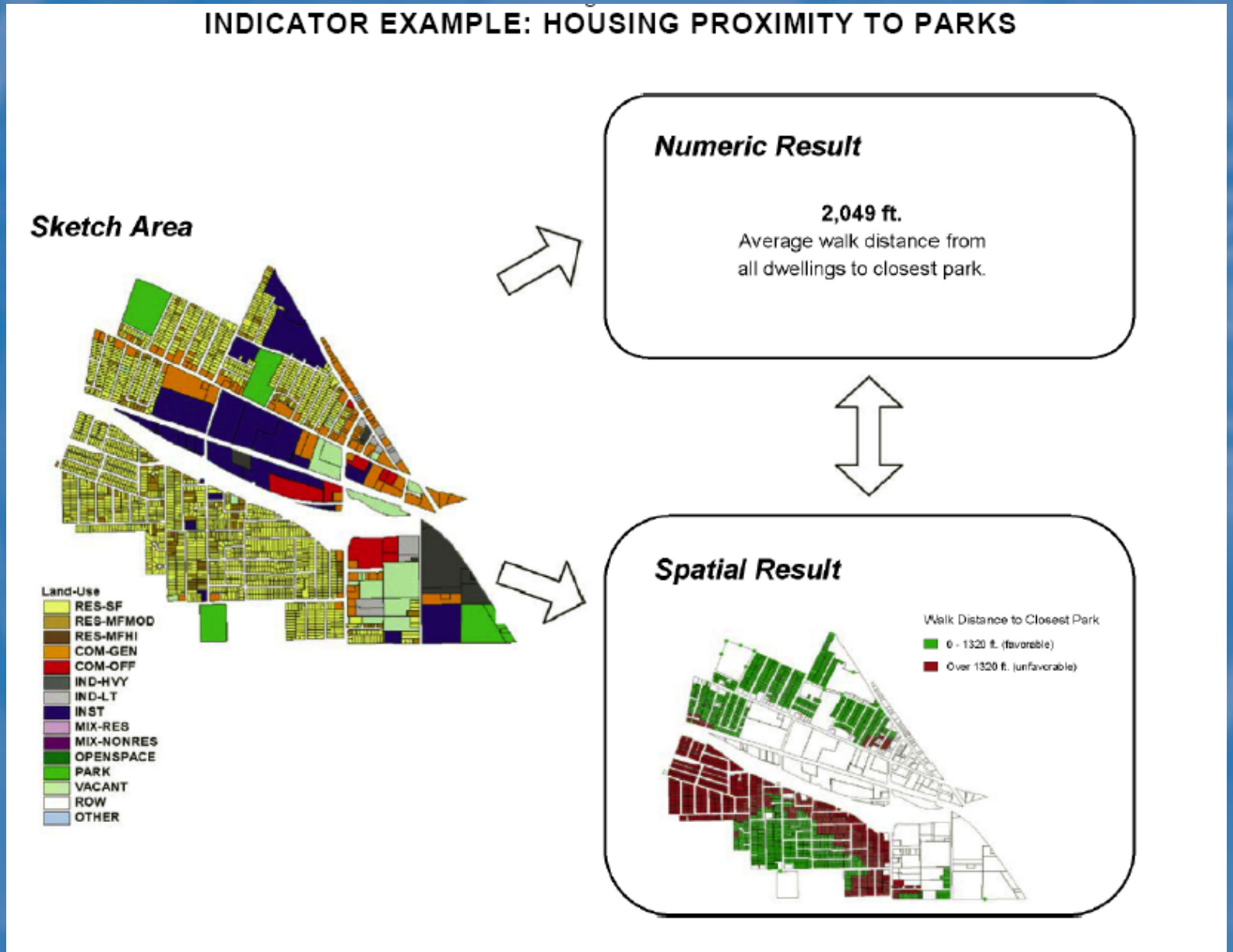


847/603

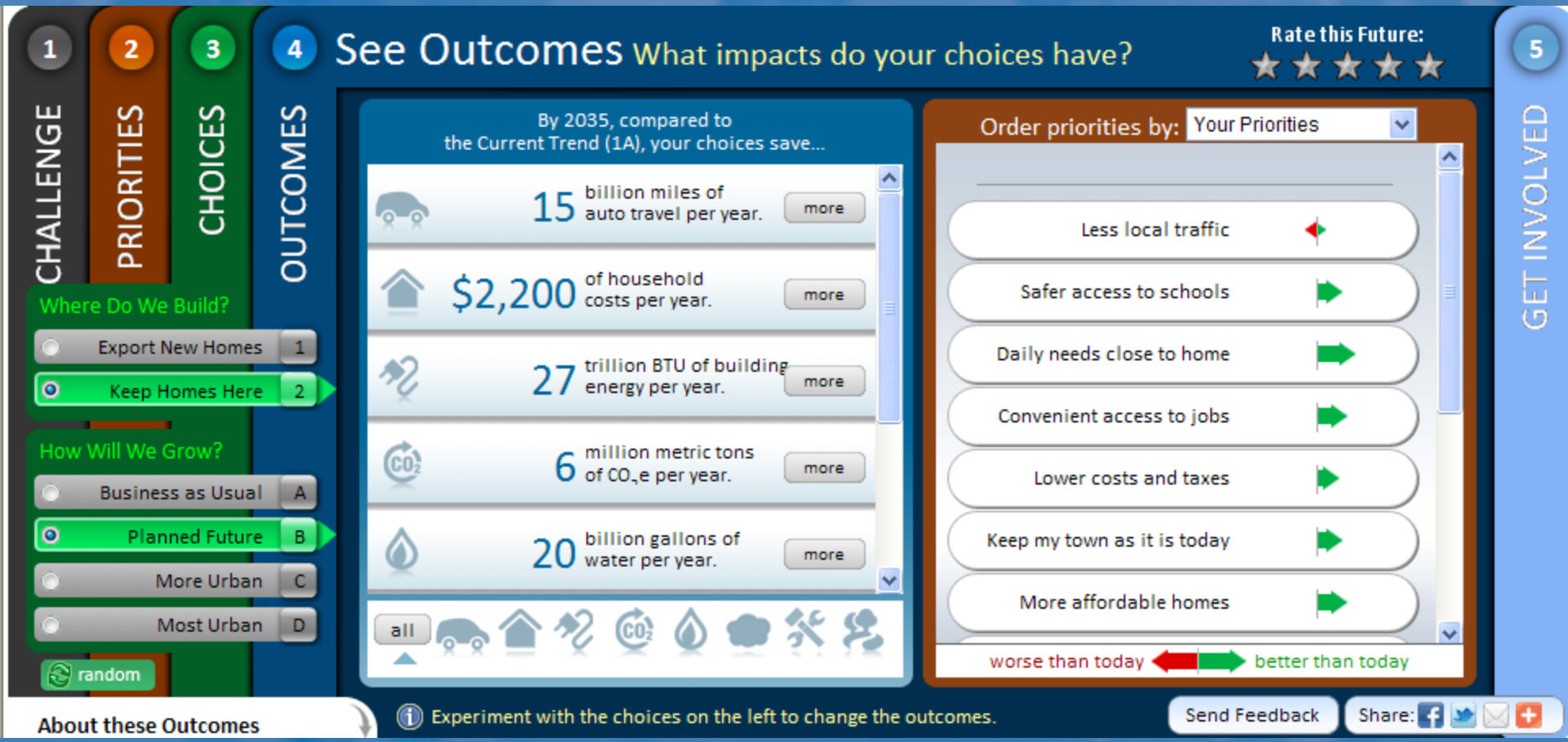
4

Source: Criterion Planners, Redwood City Climate Action Plan (INDEX)

INDEX – Block Scale Indicators



Dashboard based on pre-set scenarios



Source: Envision Bay Area (MetroQuest, Calthorpe Rapid Fire Tool)

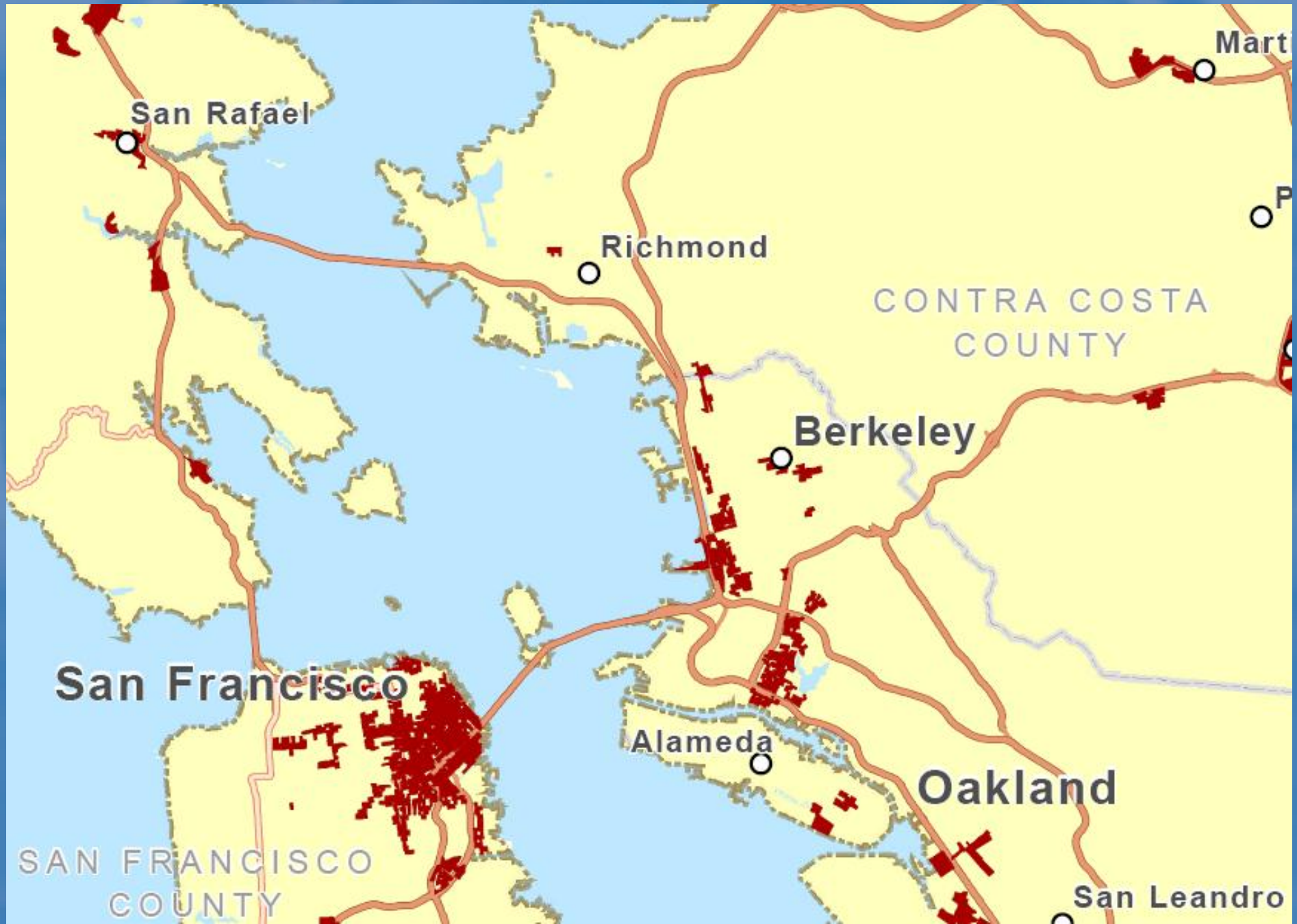
Data and Definitions

Assessment of Data for Performance Measures

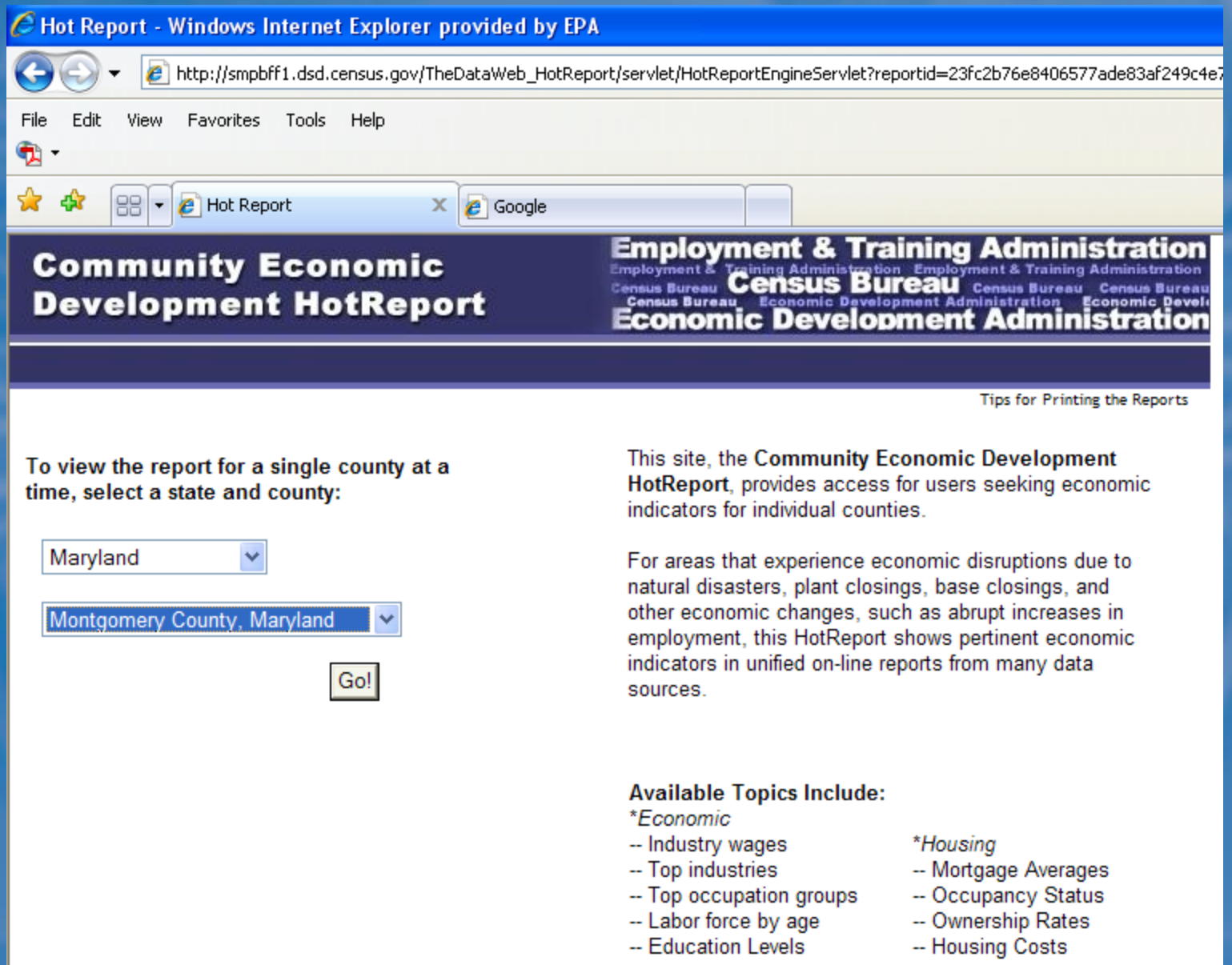
Partnership Measure		Assessment
Green	Vehicle miles traveled per capita	National and/or local data sources are sufficient for all metro areas and medium and large cities. For some small and rural communities, alternative data sources or proxy metrics may be needed.
Yellow	New construction accommodated on previously developed land	Data on new construction must be sourced from private datasets or local data. Local sources include assessor data or building permit data; availability varies widely. National land use layers may have limited accuracy at the parcel level.
Orange	Dollars of public sector investment in areas well-served by transit *or* Dollars of public sector investment near employment centers	There are some data gaps in identifying locations well-served by transit at the national level; local agency knowledge can fill gaps. No single source for data on public expenditures below the state level. Calculation of this metric would depend almost entirely on locally derived data. Some local governments have this data (in Capital Improvement Plans, for example); many do not.

Employment Centers in SF Bay Area: 0.5% threshold

Employment Centers in SF Bay Area: 0.1% threshold



On-line Tools
Census Bureau Hot Reports, Data FERRETT Tool



Data That's Updated Automatically

Montgomery County, Maryland

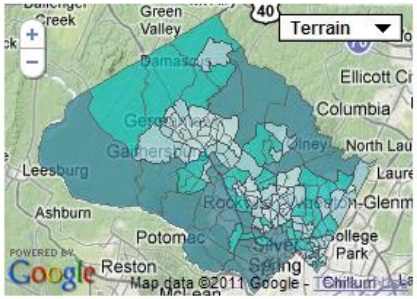
Summary Reports: Overview | Economics | Demographics | Housing | Transportation | Community Assets

Housing Overview

Average Mortgage Amount for Home Purchases by Census Tract in Montgomery County, Maryland

Thousands of Dollars

- 165 - 280 (44)
- 281 - 336 (43)
- 337 - 426 (46)
- 427 - 1,111 (44)



** Data Source: HMDA/Loan Application Register Data/2008

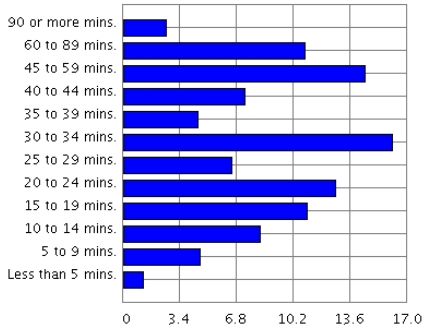
Enlarge Map

Housing Values

The average mortgage for a home purchased in 2008 was **$376,884** in **Montgomery County, Maryland**.

**Data Source: HMDA/Loan Application Register Data/2008

Percent of Commuters by Travel Time to Work



Click on graph to view table.

Commuting Time

484,860 workers commuted to jobs in **Montgomery County, Maryland**, taking an average of **32.9** minutes to get to work.

**Data Source: 2008 American Community Survey

Information on data source, confidentiality protection, sampling error, nonsampling error, and definitions.

Housing Shortage or Surplus

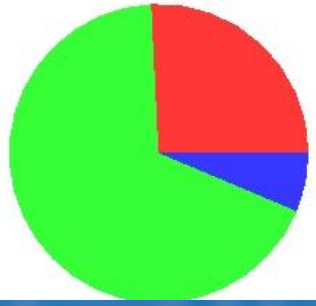
There were **365,083** housing units in **Montgomery County, Maryland**.
**Data Source: 2008 American Community Survey

Among occupied units, **72.6%** were owner-occupied.
**Data Source: 2008 American Community Survey

Of the **23,271** housing units that were vacant, **7,686** of them were for rent.
**Data Source: 2008 American Community Survey

Occupancy Status

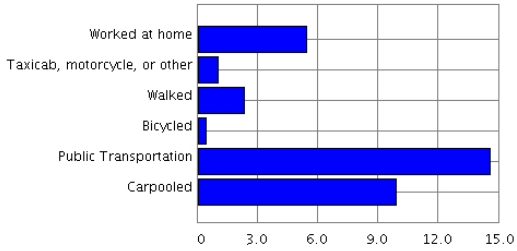
(All Housing Units)



**Data Source: 2008 American Community Survey
Information on data source, confidentiality protection, sampling error, nonsampling error, and definitions.

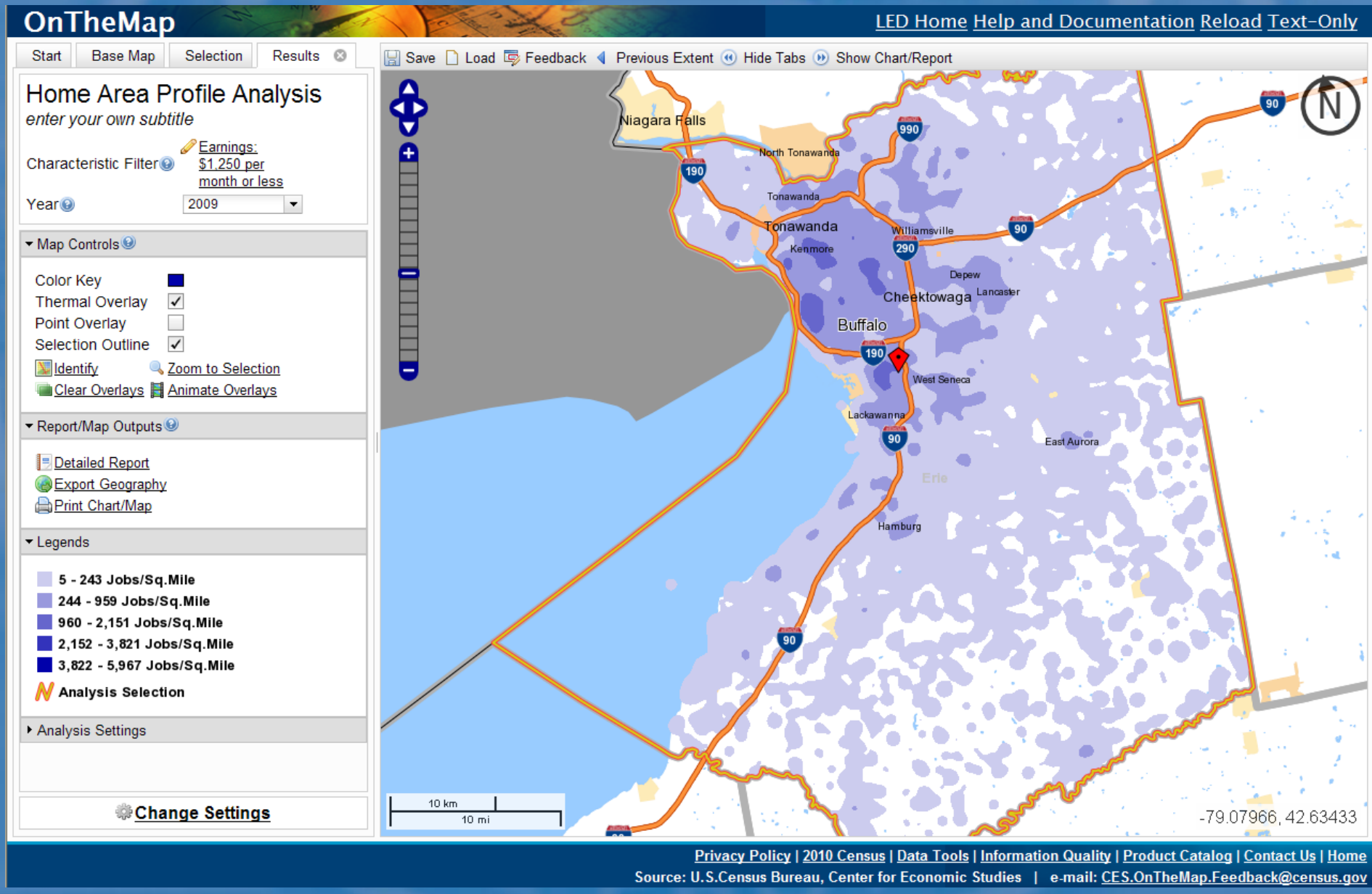
Access 'On The Map' to explore where workers live in relationship to where they work

Percent of Workers by Means of Transportation to Work



Click on graph to view table.

Another Great Census Bureau Tool



Dr. Raphael Bostic

Assistant Secretary for
Policy Development and Research