



PROSPERING IN PLACE

Redefining Economic Progress for Boulder Area Communities

Scott Bernstein | President, Center for Neighborhood Technology
Housing + Transportation Policy Roundtable | February 18 2015

OUTLINE

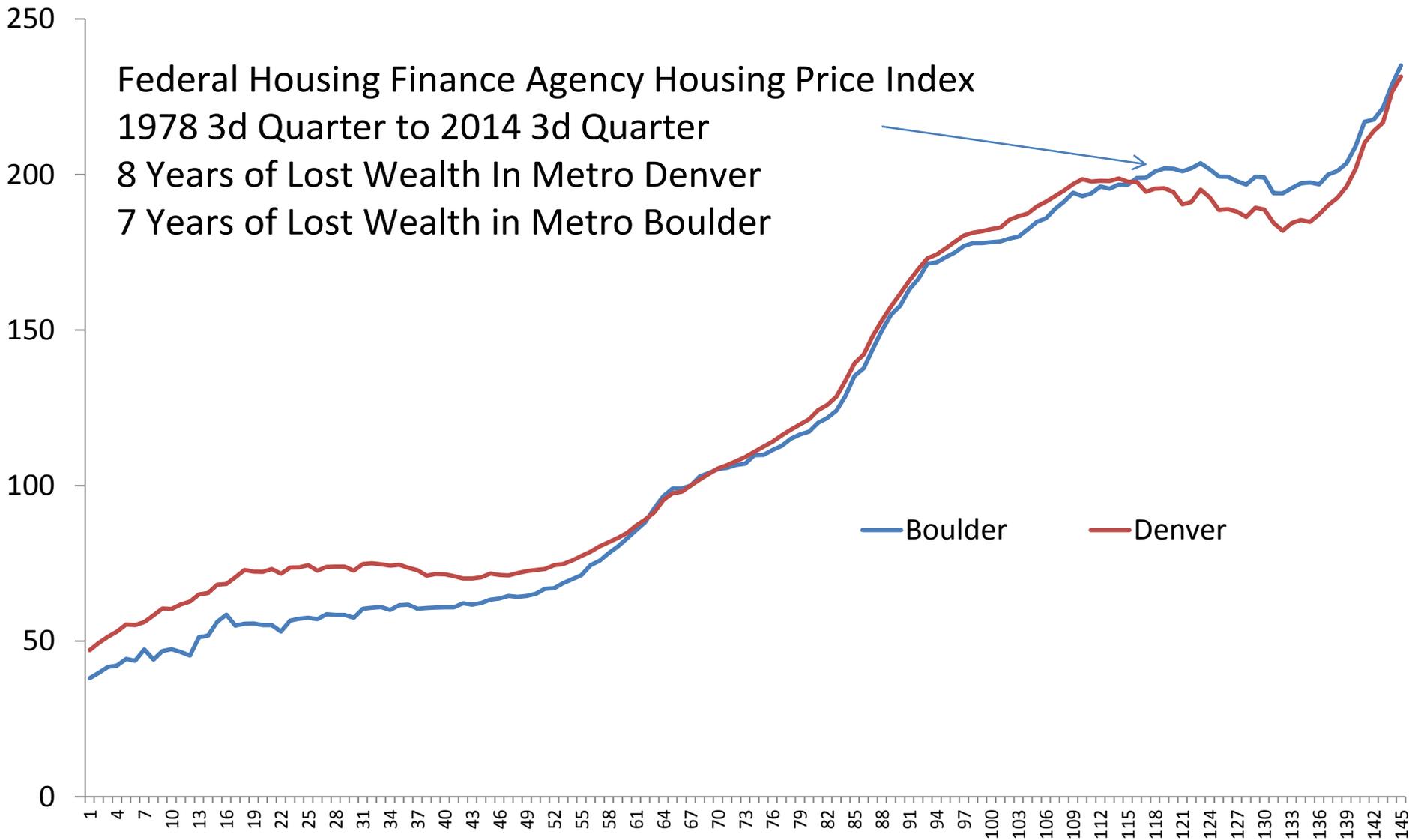
- Help think about the urgency of taking action that results in a better performing region of neighborhoods and communities
- Review how well Boulder has performed in the face of changing economic and social conditions
- Examine how location-efficient communities result from making better infrastructure choices
- Explore new options for financing a successful future, and
- Show how this results in livable communities

WHEN COFFEE CAME TO LONDON...



RESILIENCE

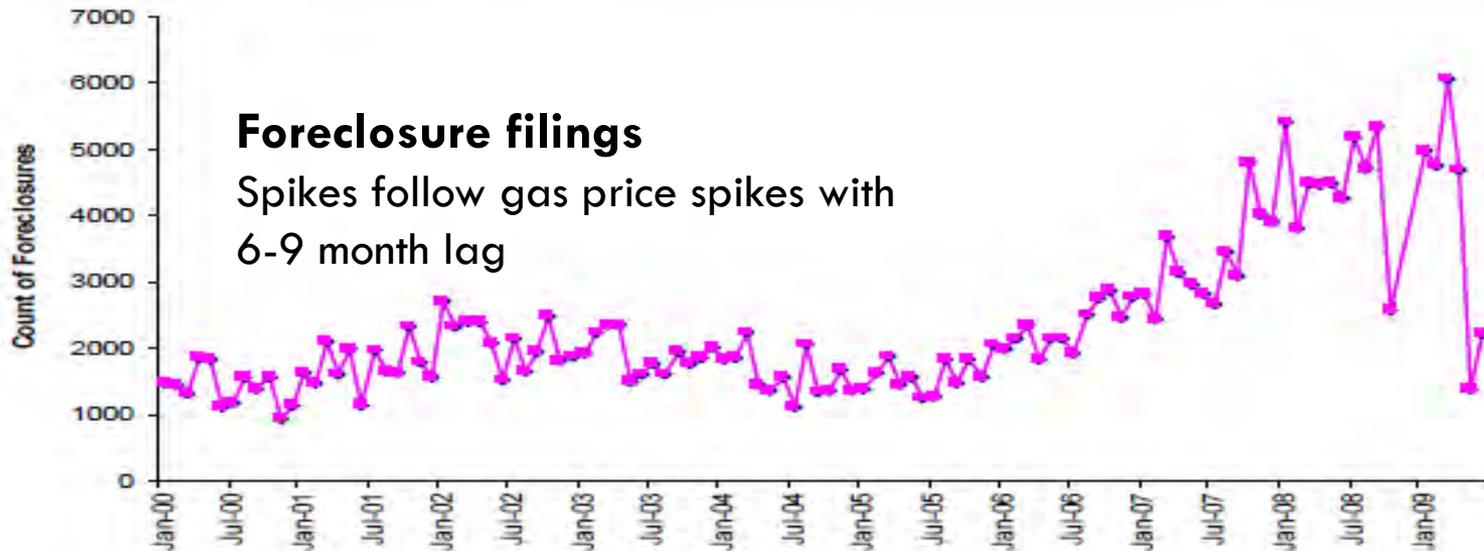
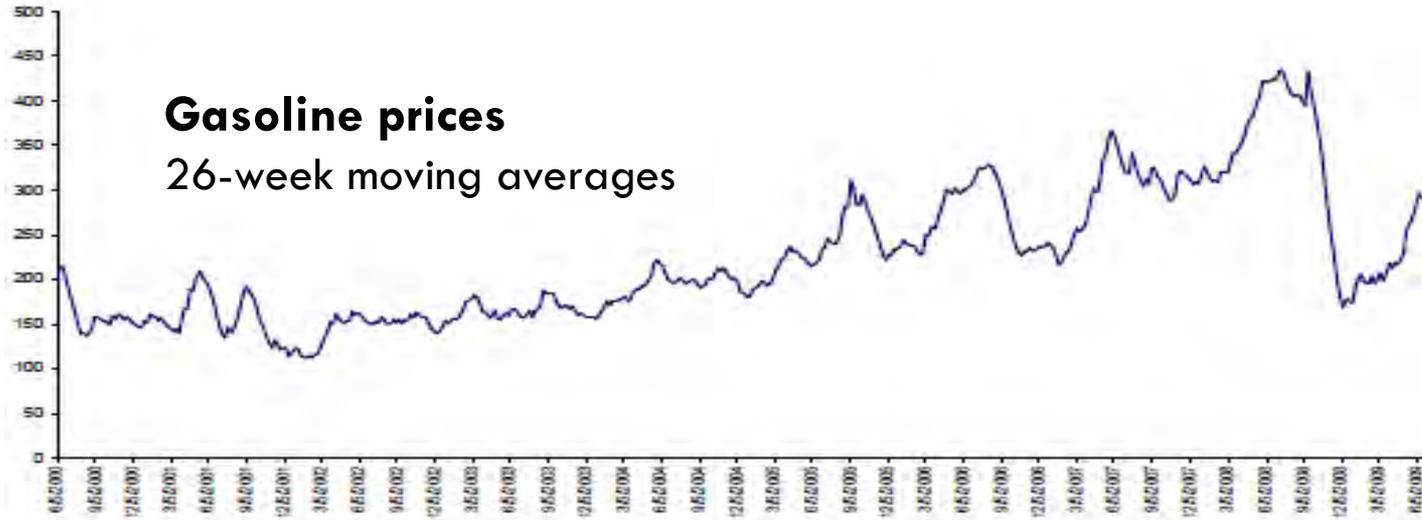
- **Resilience as a process:** positive trajectory of adaptation after a disturbance, stress, or adversity...
- Community resilience emerges from four primary sets of **adaptive capacities:**
 - Economic Development
 - Social Capital
 - Information + Communication
 - Community Competence
- **Community Competence:** collective action and skills for solving problems and making decisions, which stem from **collective efficacy and empowerment**



Source: Federal Housing Finance Agency, Repeat Sales Housing Price Index, All Transactions 1978q3 – 2014q3

HOME PRICE RECOVERY SINCE CRASH

CAN FUEL PRICE SPIKES PREDICT FORECLOSURES?



Sample Benefit—Risk Reduction—When Gas Prices Spiked, Cost of Living Increased 4 Times Slower in Boulder’s and Denver’s Transit-Oriented Location Efficient Zones

[H+T Index](#) [Gas Cost Impacts](#) [Greenhouse Gas Impacts](#) [Custom Comparison](#) [Share](#)

Region: Denver, CO [Region](#)

Typical Household: Regional Median Income: \$51,191 Size: 2.5 People Commuters: 1.1 Workers Display: Summary Table of Statistics [Change](#)

Monthly Transportation Expenses % Income - 2000 [Change](#)

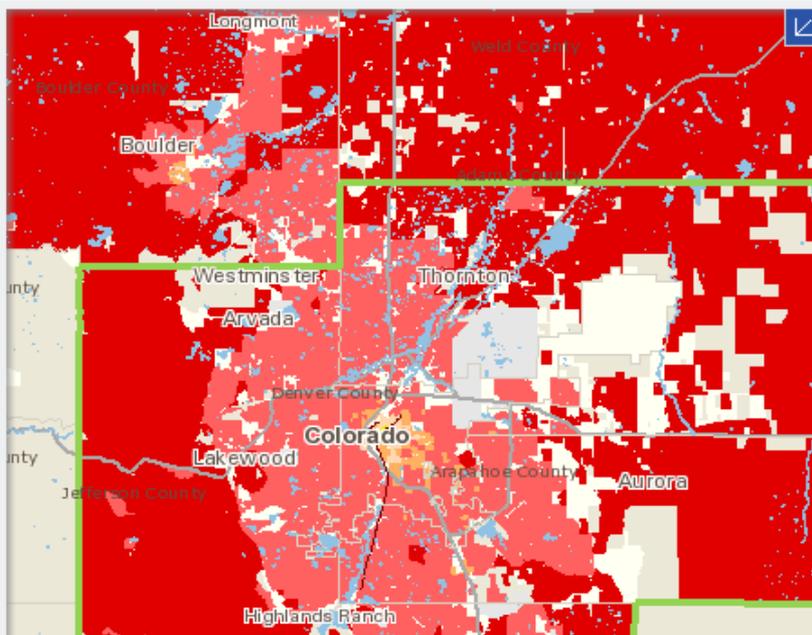
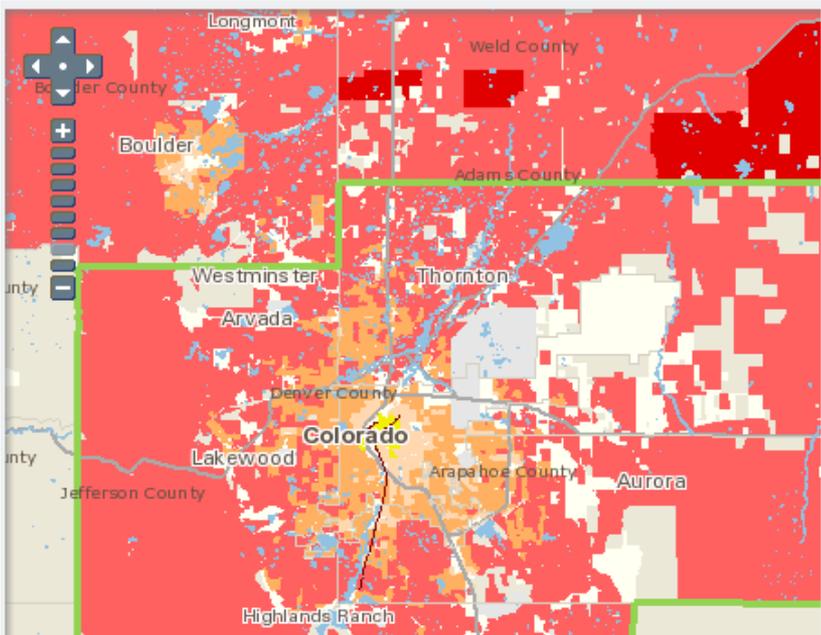
Monthly Transportation Expenses % Income - 2000 gas Fuel Efficiency of 20.3 mpg

Statistics	Region	Viewable Area on Map Below
Block Groups	1,810 (1,595 with data)	1,810 (1,794 with data)
Minimum	12.5 %	12.5 %
Average	19.4 %	19.5 %
Maximum	27.1 %	28.5 %
Households	824,918	938,366

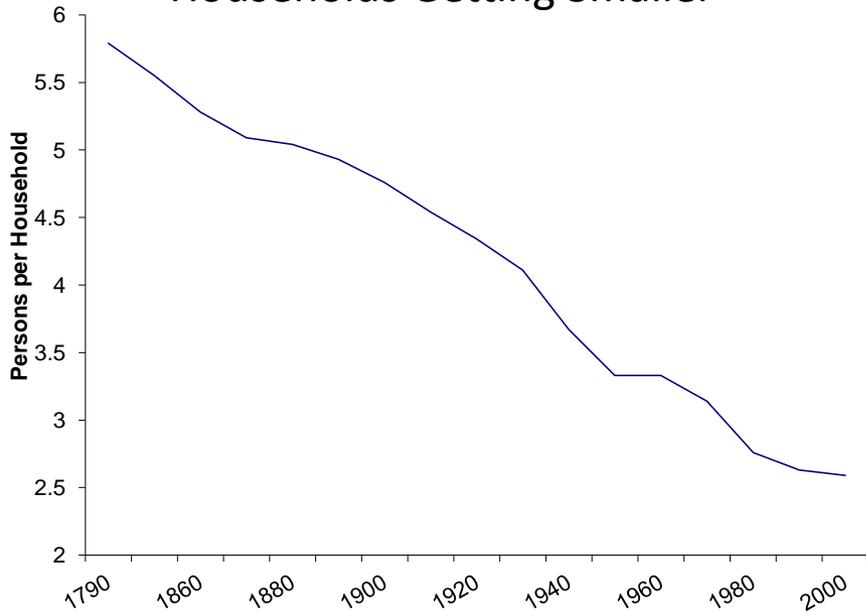
Monthly Transportation Expenses % Income - 2008 [Change](#)

Monthly Transportation Expenses % Income - 2008 gas Fuel Efficiency of 20.3 mpg

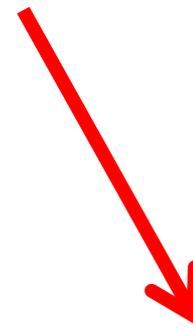
Statistics	Region	Viewable Area on Map Below
Block Groups	1,810 (1,597 with data)	1,810 (1,796 with data)
Minimum	14.3 %	14.3 %
Average	23.4 %	23.6 %
Maximum	34.4 %	36.4 %
Households	825,291	938,739



Households Getting Smaller



How the Market Views Area

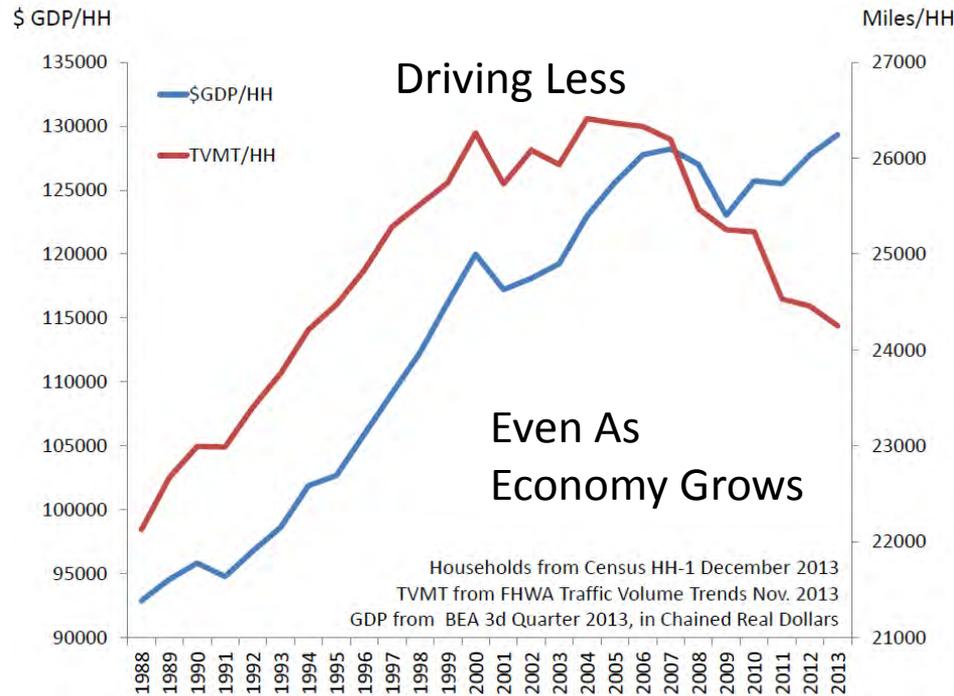


	Investment	Development	Homebuilding
1 San Francisco (2/1/1)	6.96	6.88	7.00
2 Houston (1/3/2)	7.00	6.94	7.00
3 San Jose (5/2/3)	6.78	6.75	7.00
4 New York City (3/4/5)	6.54	6.58	7.15
5 Dallas/Fort Worth (6/6/4)	6.76	6.37	7.35
6 Seattle (4/7/7)	6.23	6.35	7.15
7 Austin (7/10/5)	6.00	6.25	7.24
8 Miami (10/5/8)	6.07	6.38	7.00
9 Boston (8/8/9)	6.74	6.35	6.87
10 Orange County, CA (9/12/10)	6.60	6.17	6.95
11 Denver (13/14/11)	6.46	6.15	6.84
12 Nashville (14/11/15)	6.46	6.15	6.75
13 Los Angeles (15/13/17)	6.45	6.15	6.70
14 San Antonio (19/16/12)	6.28	6.10	6.70
15 San Diego (12/19/16)	6.47	6.11	6.70
16 Charlotte (17/18/13)	6.37	6.02	6.78
17 Raleigh/Durham (18/20/14)	6.21	6.01	6.70
18 Salt Lake City (16/17/19)	6.43	6.02	6.94
19 Portland, OR (11/21/25)	6.53	6.08	6.80
20 Minneapolis/St. Paul (20/9/26)	6.27	6.07	6.91
21 Chicago (22/15/27)	6.11	6.11	6.69
22 Washington, D.C. (26/26/18)	6.88	5.46	6.54
23 Tampa/St. Petersburg (24/22/23)	6.07	5.94	6.38
24 Orlando (25/23/21)	6.60	5.50	6.40
25 Phoenix (21/28/24)	6.14	5.41	6.20
26 Atlanta (23/27/22)	6.05	5.43	6.38
27 Northern New Jersey (28/31/20)	6.85	5.25	6.40
28 Inland Empire (27/24/28)	6.87	4.93	6.71
29 Honolulu/Hawaii (29/25/30)	6.05	5.46	5.90
30 Philadelphia (30/33/31)	6.20	5.04	5.98
31 Indianapolis (34/29/35)	6.33	5.23	5.40
32 Pittsburgh (31/37/37)	6.35	4.90	5.29
33 Westchester/Fairfield (33/39/33)	5.48	4.82	5.43
34 Virginia Beach/Norfolk (36/36/29)	5.21	4.81	5.04
35 Kansas City (35/30/43)	5.28	5.28	5.11
36 St. Louis (37/32/42)	5.18	5.18	5.13
37 Baltimore (38/40/36)	5.15	4.74	5.31
38 Las Vegas (32/43/41)	5.49	4.84	5.15
39 Jacksonville (42/42/34)	4.96	4.64	5.42
40 Sacramento (40/44/32)	5.05	4.43	5.01
41 Cincinnati (41/34/44)	4.98	4.38	4.92
42 Columbus (43/35/46)	4.94	4.94	4.81
43 Oklahoma City (45/41/39)	4.82	4.87	5.18
44 Tucson (39/47/38)	5.14	4.26	5.19
45 Milwaukee (44/38/47)	4.83	4.83	4.70
46 Albuquerque (46/45/40)	4.65	4.33	5.18
47 New Orleans (48/46/45)	4.48	4.30	4.83
48 Memphis (47/49/48)	4.52	4.07	4.86
49 Cleveland (50/48/50)	4.20	4.20	4.00
50 Providence, RI (49/50/49)	4.31	3.66	4.30
51 Detroit (51/51/51)	3.12	3.12	2.98

Source: Emerging Trends in Real Estate 2014 survey.
 Note: Numbers in parentheses are rankings for, in order, investment, development, and homebuilding.

Driving Less

Even As
Economy Grows



Households from Census HH-1 December 2013
 TVMT from FHWA Traffic Volume Trends Nov. 2013
 GDP from BEA 3d Quarter 2013, in Chained Real Dollars

FIX IT FIRST OR BUY SOMETHING BETTER?

“As governments, we’re on the hook to maintain core legacy infrastructure including roads, bridges, water, and sewers... But then there’s the infrastructure we’re turned on about... Mass transit, more complete streets, clean energy economy, broadband, smart grid and green infrastructure...”

- Oregon Governor John Kitzhaber, June 2012

REAL-WORLD CHOICES

Bottling Rainstorms and “Treating” Them	OR	Catching Raindrops Where They Fall
Streets to Maximize Traffic + Speed	OR	Streets to Connect People and What They Do Routinely
Bypass Communities with Long-Distance Highways + Aviation	OR	Reconnect Communities with Inter-City Rail
Expand Electric Utility Capacity	OR	Increase Buildings + Community Efficiency
Expand Car Ownership	OR	Prioritize Local Amenities + Shared Vehicles
Invest to Promote Consumption	OR	Invest to Increase Productivity + Resilience, Reduce Cost of Living

CHANGING STATUS QUO MEANS...

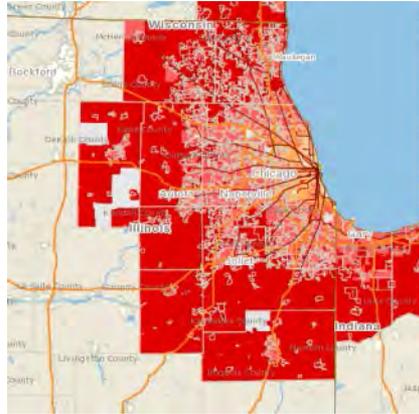
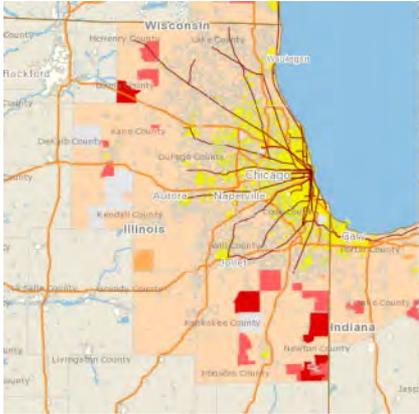
- Shifting from centralized to distributed systems
- Investing in a larger number of smaller systems instead of a small number of large systems
- Saving anywhere from 20% to 80% against BAU on a life-cycle basis
- Turning full-time consumers into at least part-time producers
- Increasing specialized social capital and community competence
- Convincing incumbent institutions that change is good...



Flood Prevention Fund signs at the Courthouse. A giant replica of a cash register was built on the Courthouse platform, and each day the amount subscribed up to that time was "rung up" on the register.

*Response to the Great Flood
of Dayton 1913*

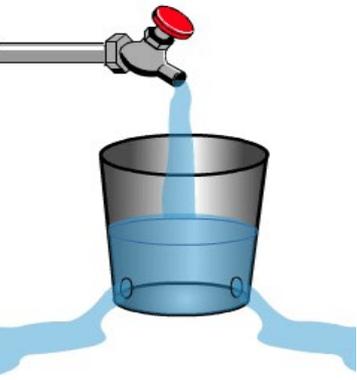
Connectedness



Prosperity



Poverty

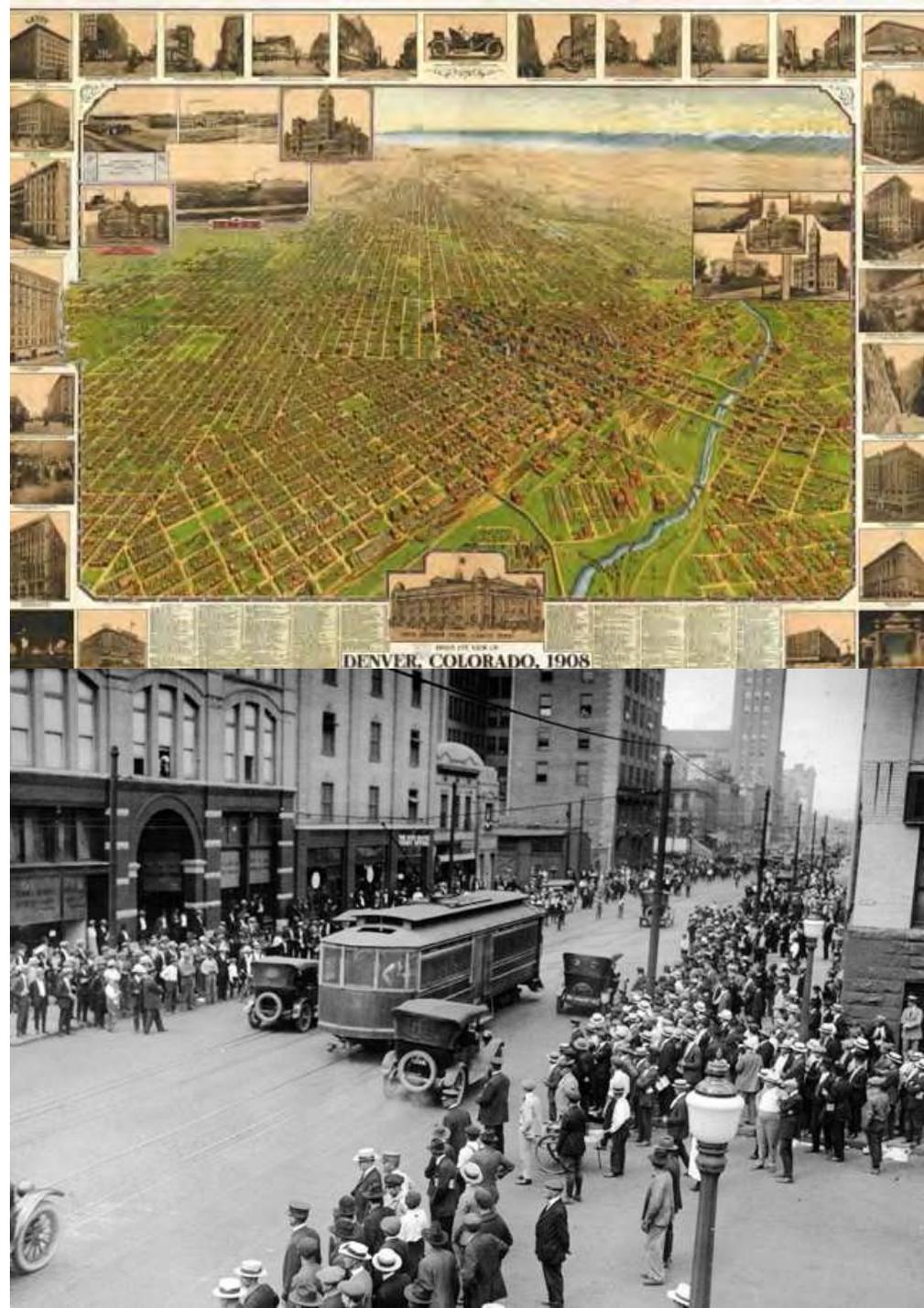


Isolation

**WHAT A NOURISHING ECONOMY DOES:
REDUCES RISK, INCREASES GAIN**

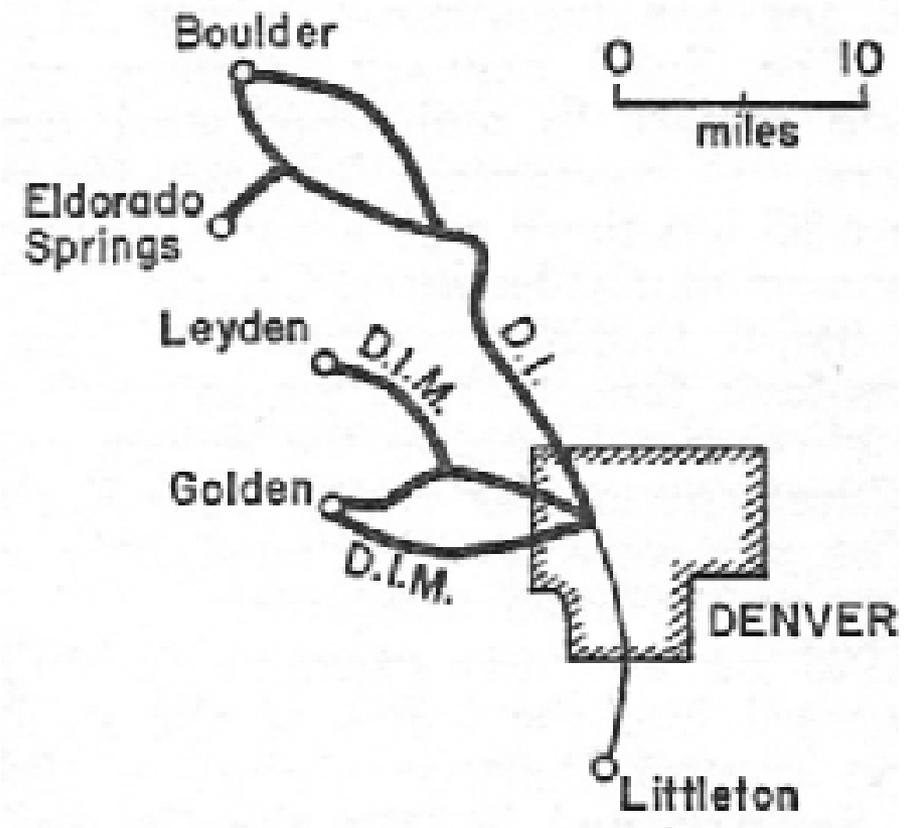
Colorado

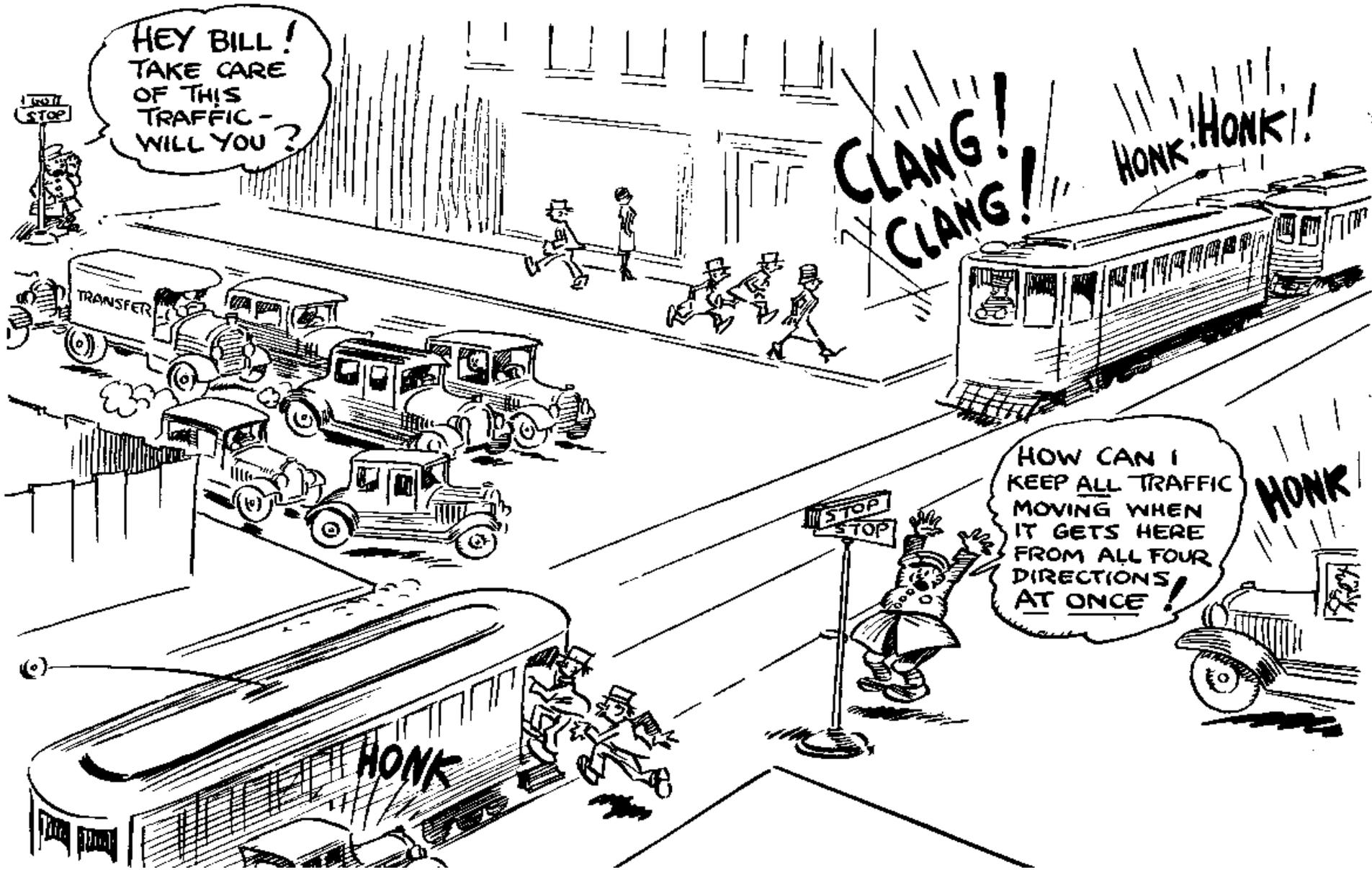
- Denver and interurban systems had 270 miles of service
- Boulder, Colorado Springs, Ft. Collins, Grand Junction, Greeley, Littleton, Pueblo, Trinidad



Denver Interurban Service

- Denver and Interurban to Boulder & Eldorado Springs 1908 – 1926, 51 miles
- Denver and Intermountain to Leyden and Golden, 1893 – 1953, 49 miles
- Half-hour service, integrated with Denver Tramways tracks in Denver
- Denver and South Platte, 4.5 miles, 0.3 in paved street connecting Littleton & Englewood
- Boulder, PS Co, 6.5 miles, 3.1 in paved street





CNT **COMPETITION FOR PUBLIC SPACE**

MOST PLACES ABANDONED THEIR TRANSIT SYSTEMS



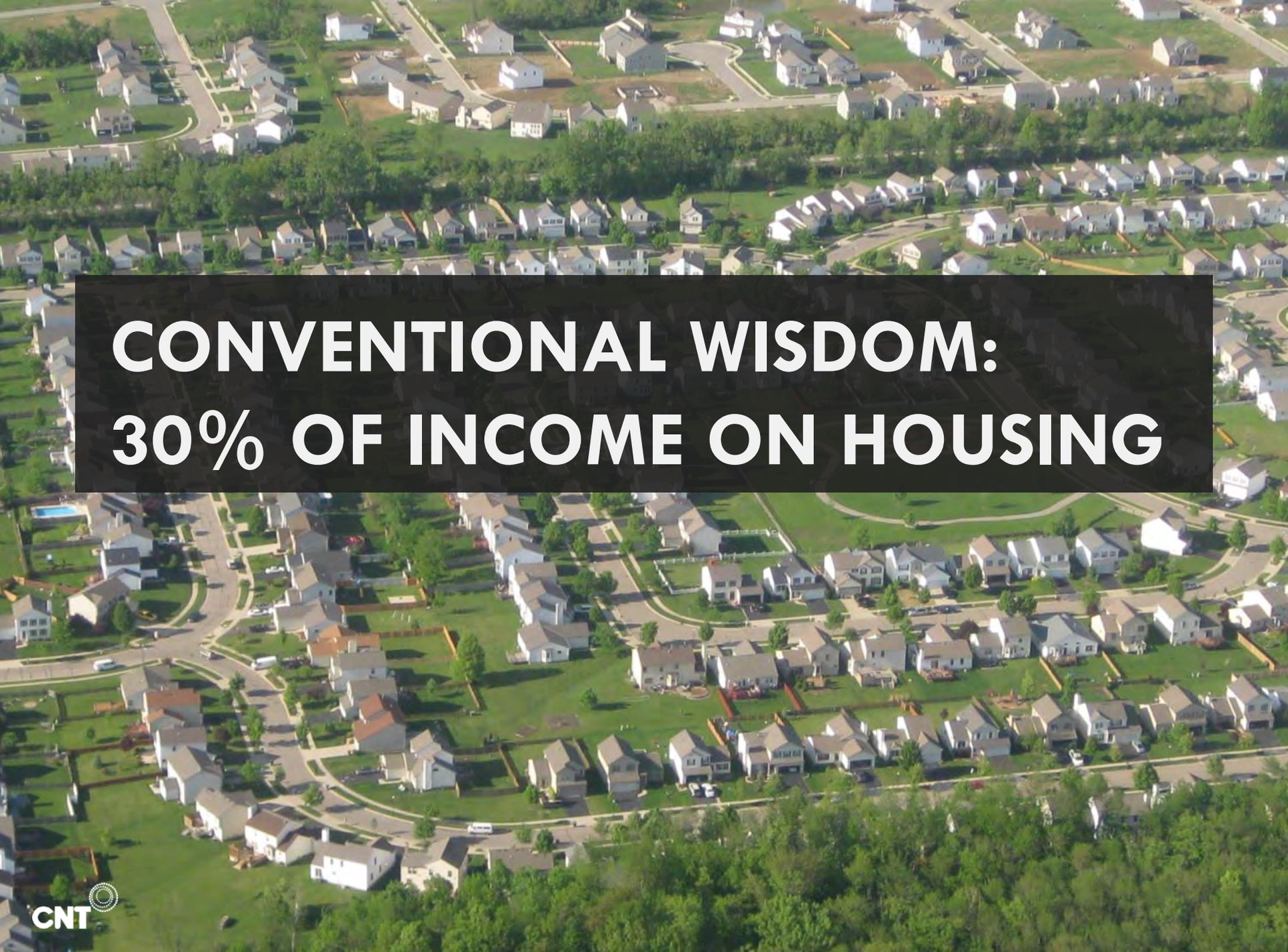
AND PUBLIC POLICY FAVORED A DIFFERENT VISION



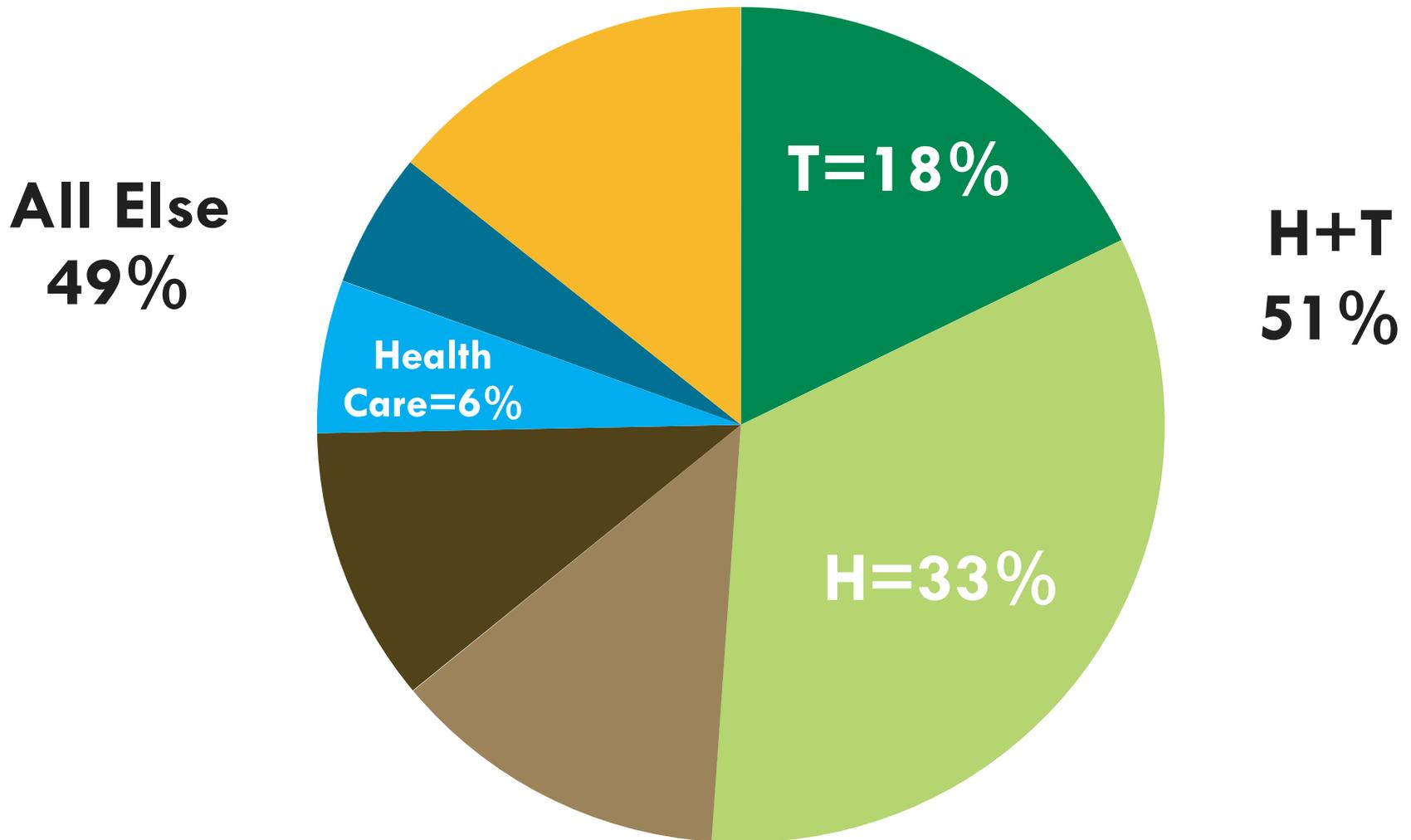
Opening of I-94 Between Illinois and Wisconsin



REDEFINING AFFORDABILITY TO INCLUDE TRANSPORTATION



**CONVENTIONAL WISDOM:
30% OF INCOME ON HOUSING**



Source: BLS Consumer Expenditure Surveys, 2001-2010

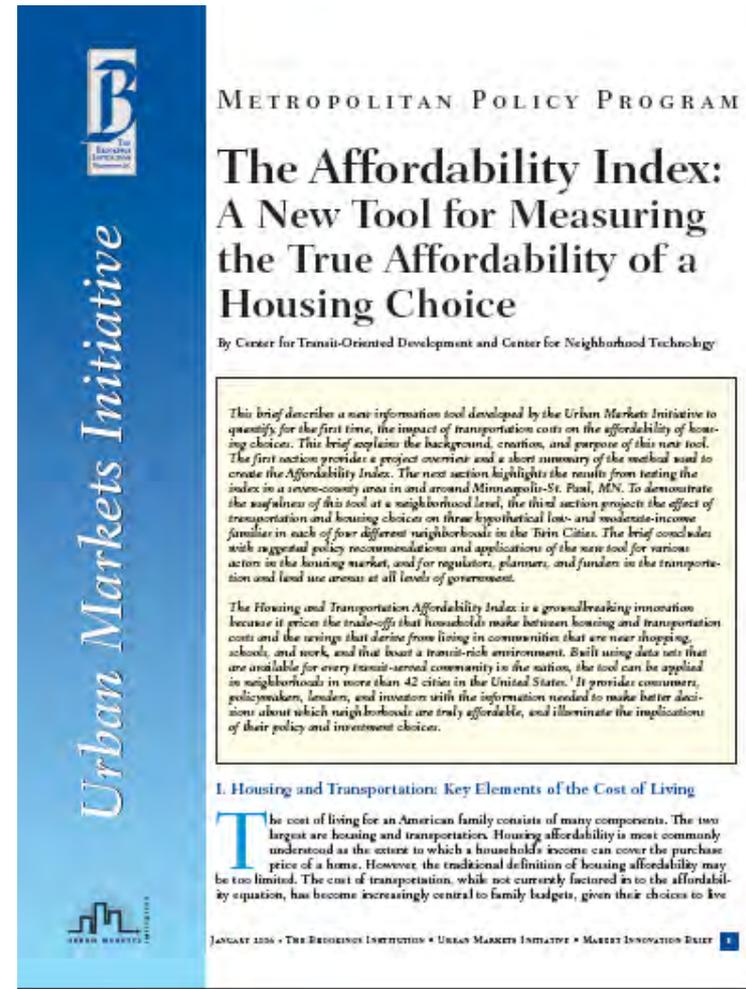
Another Approach

Indexing Truer Affordability and Also Relating it to Climate Change

How Housing Affordability is Usually Calculated—Then and Now

- Historically: Traced to 19th Century ideal—A Week’s Pay for a Month’s Rent
- Today benchmark affordability is defined as housing costs/Income less than or equal to 30 Percent of target population AMI
- Problem—Doesn’t include cost of transportation

<https://htaindex.cnt.org>



Urban Markets Initiative

METROPOLITAN POLICY PROGRAM

The Affordability Index: A New Tool for Measuring the True Affordability of a Housing Choice

By Center for Transit-Oriented Development and Center for Neighborhood Technology

This brief describes a new information tool developed by the Urban Markets Initiative to quantify for the first time, the impact of transportation costs on the affordability of housing choices. This brief explains the background, creation, and purpose of this new tool. The first section provides a project overview and a short summary of the method used to create the Affordability Index. The next section highlights the results from testing the index in a seven-county area in and around Minneapolis-St. Paul, MN. To demonstrate the usefulness of this tool at a neighborhood level, the third section projects the effect of transportation and housing choices on three hypothetical low- and moderate-income families in each of four different neighborhoods in the Twin Cities. The brief concludes with suggested policy recommendations and applications of the new tool for various actors in the housing market, and for regulators, planners, and funders in the transportation and land use arenas at all levels of government.

The Housing and Transportation Affordability Index is a groundbreaking innovation because it prices the trade-offs that households make between housing and transportation costs and the savings that derive from living in communities that are near shopping, schools, and work, and that boast a transit-rich environment. Built using data sets that are available for every transit-served community in the nation, the tool can be applied in neighborhoods in more than 42 cities in the United States.¹ It provides consumers, policymakers, lenders, and investors with the information needed to make better decisions about which neighborhoods are truly affordable, and illuminate the implications of their policy and investment choices.

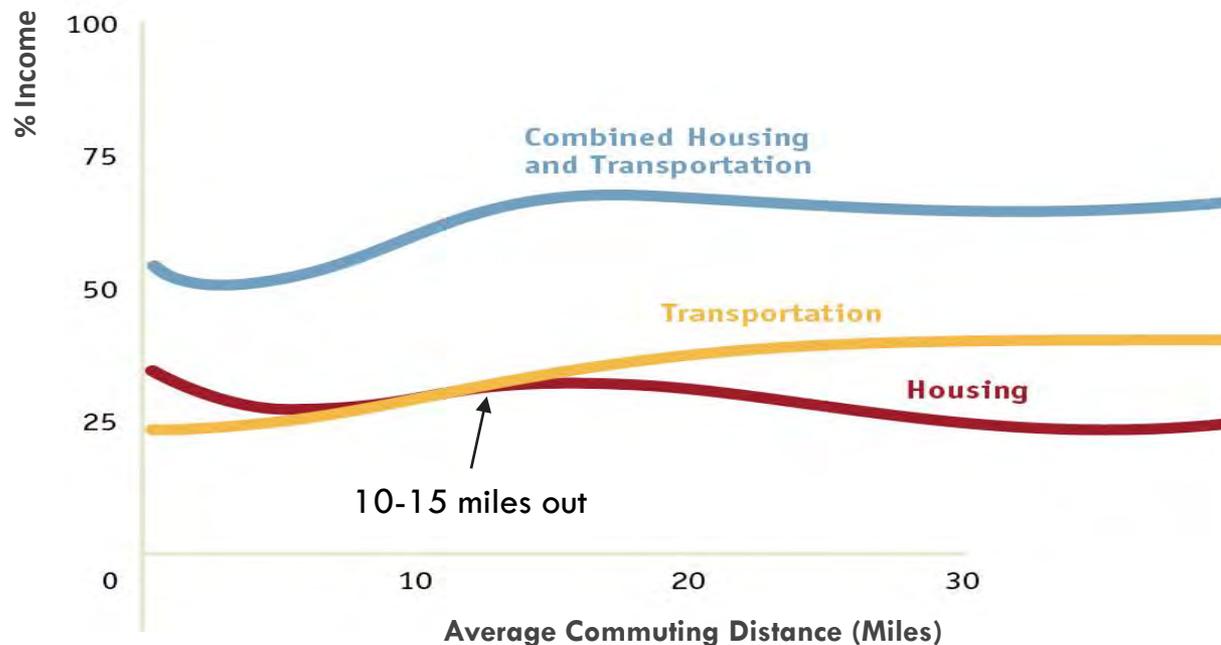
I. Housing and Transportation: Key Elements of the Cost of Living

The cost of living for an American family consists of many components. The two largest are housing and transportation. Housing affordability is most commonly understood as the extent to which a household's income can cover the purchase price of a home. However, the traditional definition of housing affordability may be too limited. The cost of transportation, while not currently factored in to the affordability equation, has become increasingly central to family budgets, given their choices to live

JANUARY 2016 • THE RESILIENCE INSTITUTE • URBAN MARKETS INITIATIVE • MARKET INNOVATION INDEX 1

“DRIVE ‘TIL YOU QUALIFY”

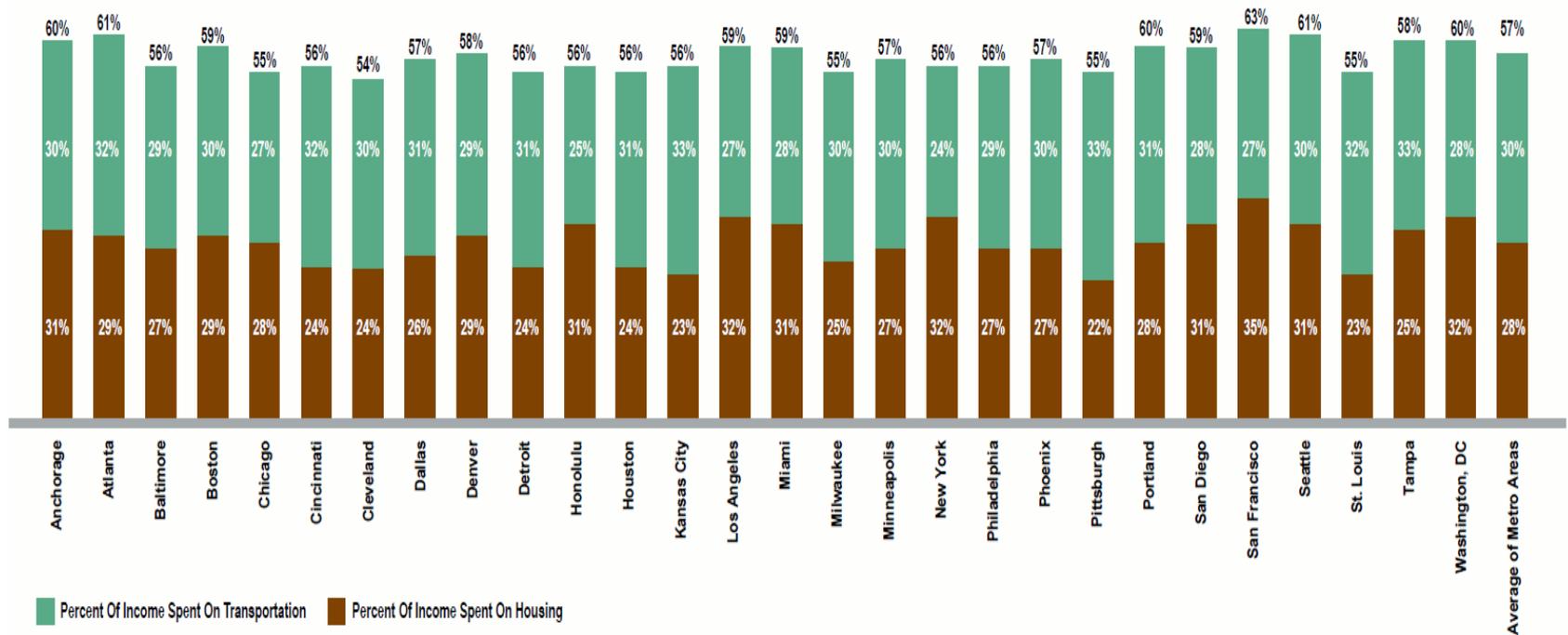
Transportation Costs Can Exceed Housing Costs for Households Earning \$20-\$50,000



Source: CNT Calculations

H+T COSTS VARY BY PLACE

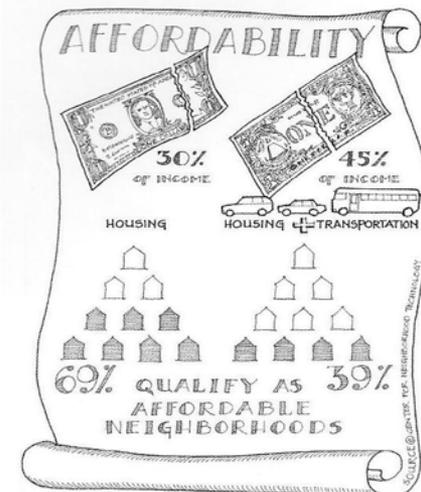
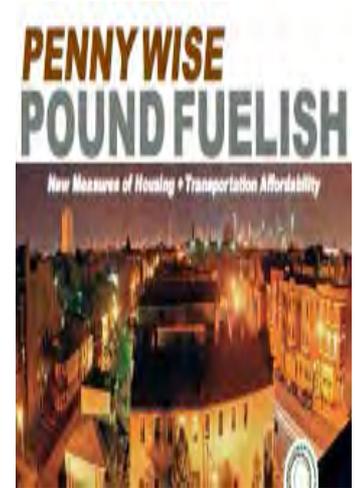
Metro Denver 29% for H + 29% for T = 58%

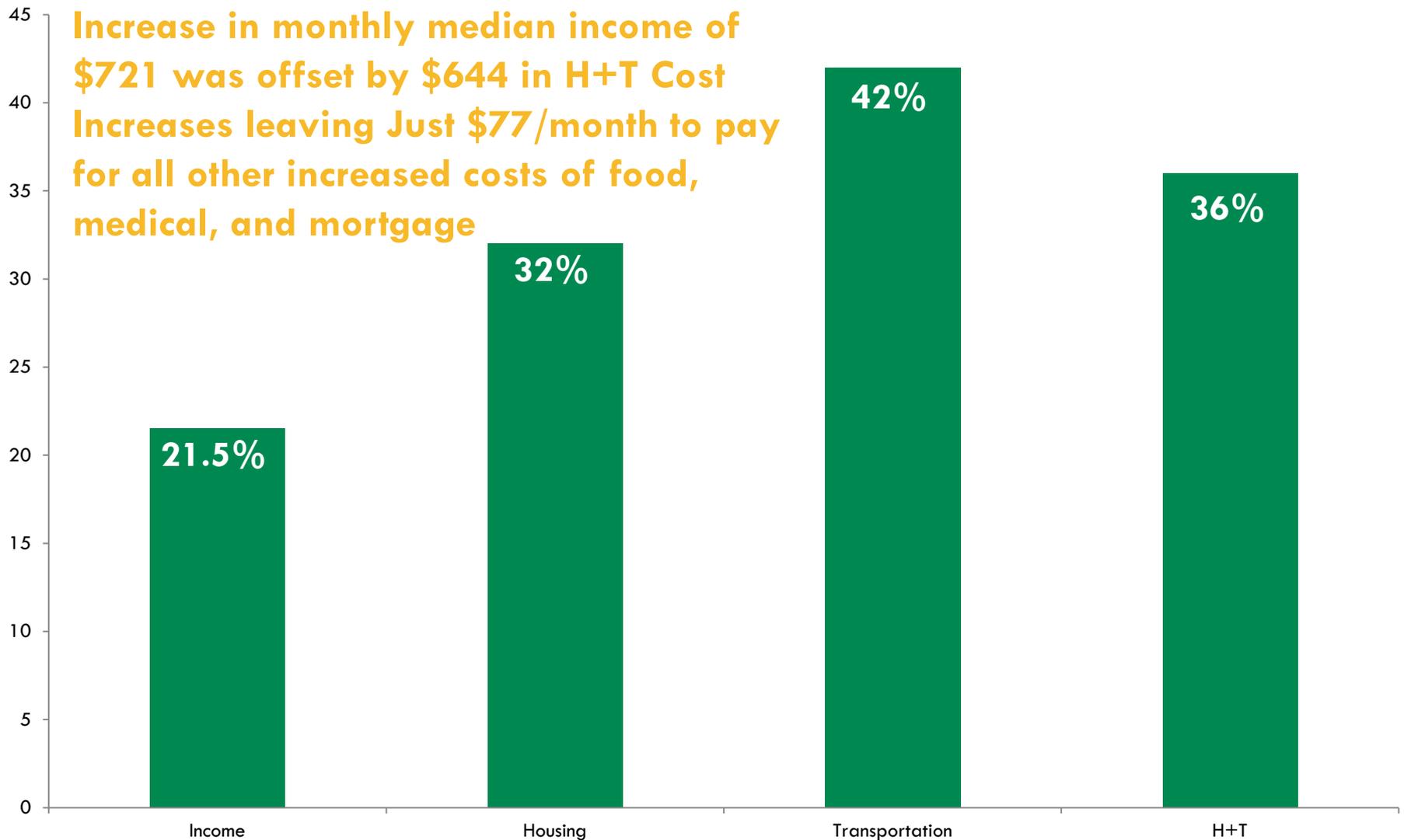


Percentages for working families with incomes between \$20k - \$50k

What We Found Nationally in our 2010 and 2012 Studies of all US Regions

- 76% of communities look “affordable” using housing-only index, drops to 28% using H+T Index
- Household income nationally increased 21% 2000-2009, but housing increased 37% and transportation 39% respectively





**HOUSING + TRANSPORTATION COSTS IN NE OHIO
OUTPACED INCOME BETWEEN 2000-2009**

TRUE AFFORDABILITY AND LOCATION EFFICIENCY

H+T[®] Affordability Index

The Housing + Transportation Affordability Index is an innovative tool that measures the true affordability of housing based on its location.

Housing is considered affordable if it costs less than 30% of a household budget. Transportation is the second largest expense for families, but few consider these costs when choosing a place to live.

GOAL:

30% housing

+ 15% transportation

= 45% H+T

$$\text{Affordability} = \frac{\text{Housing Costs} + \text{Transportation Costs}}{\text{Income}}$$

ABOUT THE H+T INDEX

The H+T Index provides a comprehensive view of affordability, one that includes the cost of housing and transportation at the neighborhood level. Learn more about the Index and the methods behind it.

INDEX APPLICATIONS

H+T Index information has implications for consumer planners, and policy makers. Learn how the data is being used across the country.

USE THE H+T INDEX

See how nearly 180,000 neighborhoods are affected when you expand the traditional measure of affordability to include transportation costs.

**HOUSING + TRANSPORTATION AFFORDABILITY INDEX****HTAINDEX.ORG**

NEIGHBORHOOD CHARACTERISTICS

Residential Density
Employment Gravity
Employment Mix Index
Block Density
Intersection Density
Block Perimeter
Bus Transit Connectivity Index
Other Transit Connectivity Index
Transit Access Shed Square Meters
Transit Access Shed Jobs
Transit Access Shed Trips per Week

HOUSEHOLD CHARACTERISTICS

Median HH Income
Commuters/HH
Avg. HH Size

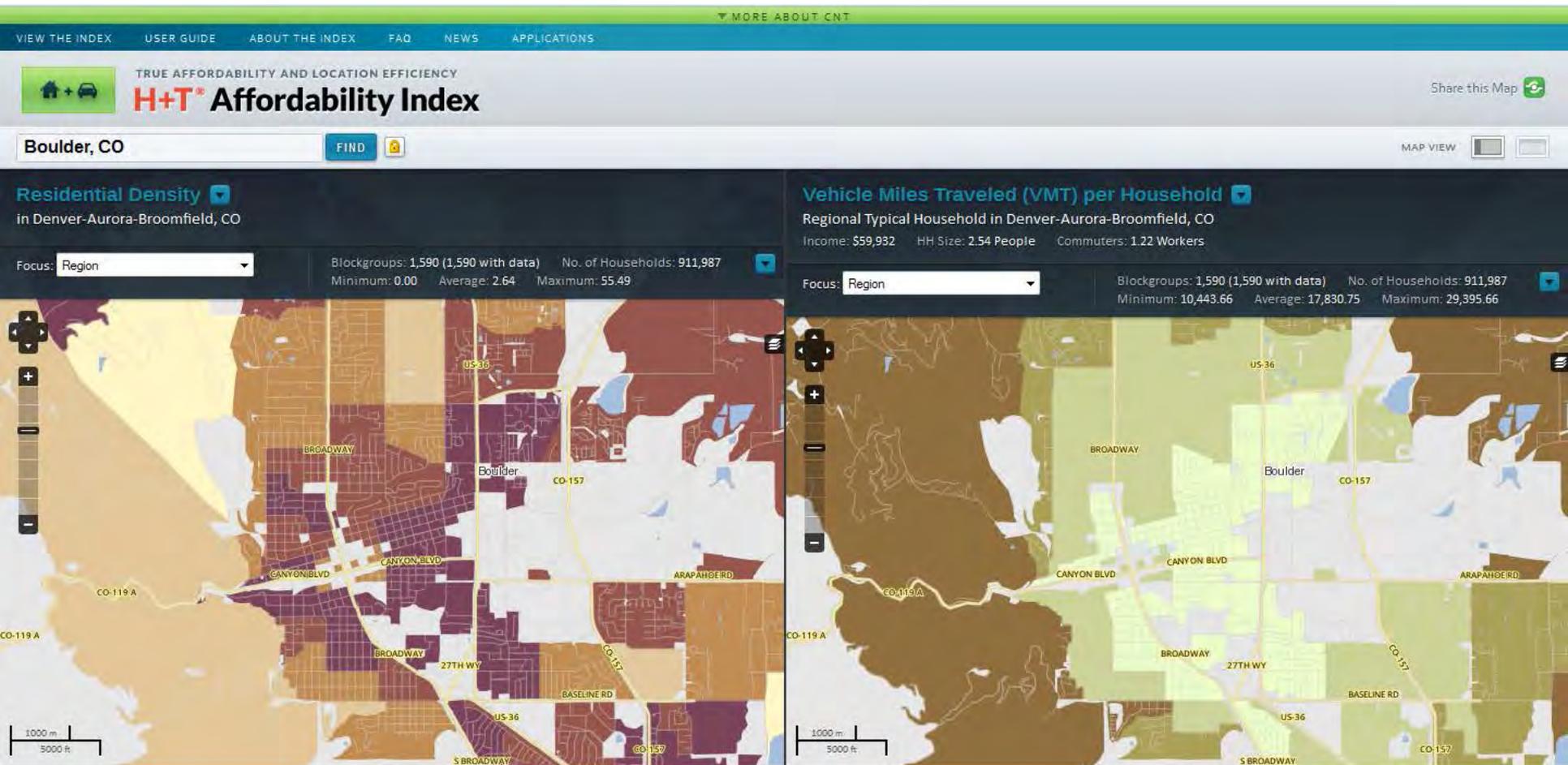


Auto Ownership
+
Auto Usage
+
Public Transit Usage

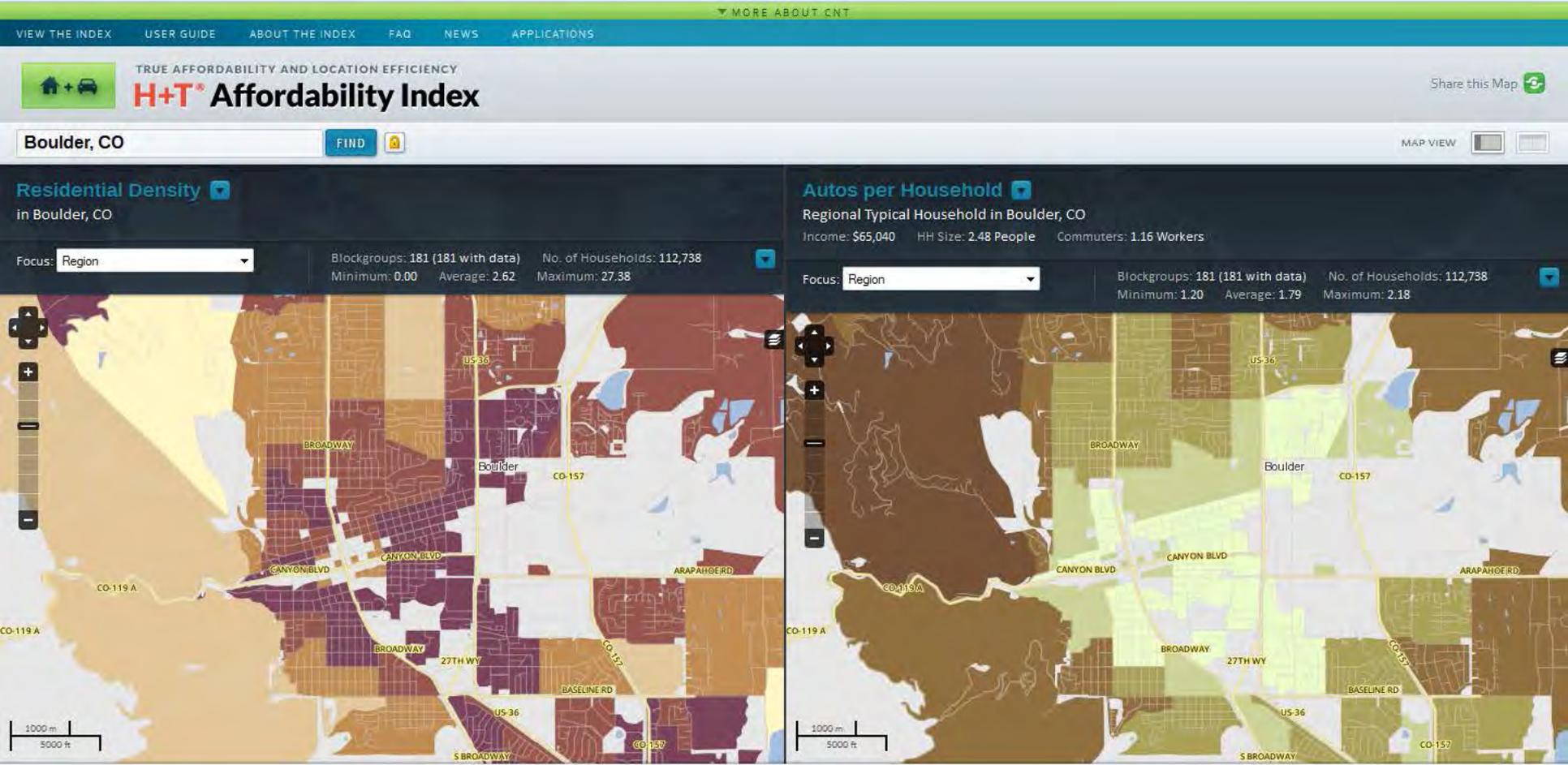


**TOTAL
TRANSPORTATION
COSTS**

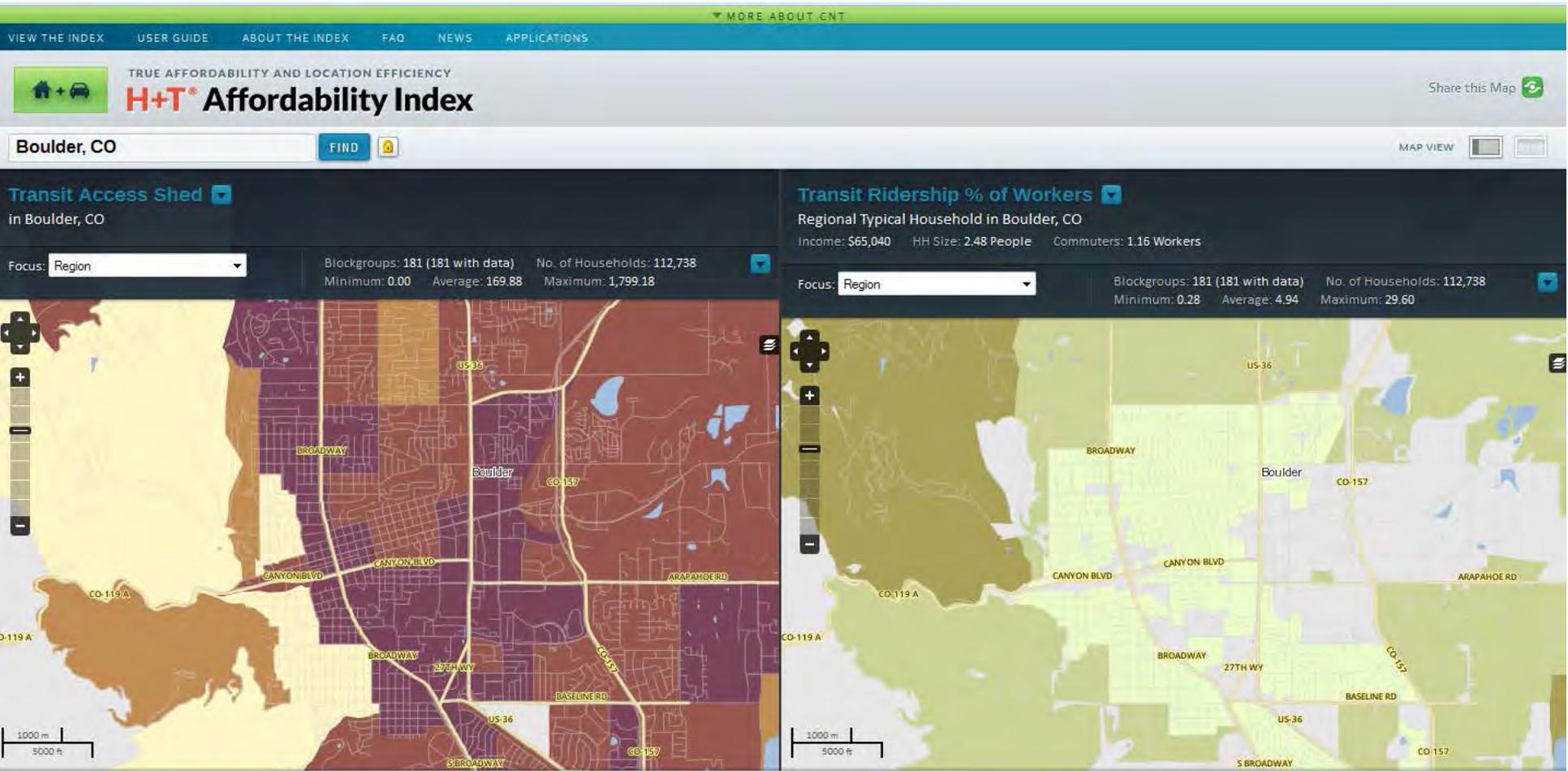
Boulder MSA Net Residential Density vs. VMT per Household Per Year—Mirror Images



Mirror Images Again—Net Density and Autos Per Household



If You Build It, Run it Frequently and Connect it Regionally People Will Ride It– Transit Access vs. Transit Ridership



Some Good News—Only 50 % of workers in Boulder drove alone to work, and 50% did not

COMMUTING TO WORK			
Workers 16 years and over	57,860	+/-3,012	57,860
Car, truck, or van -- drove alone	28,915	+/-2,436	50.0%
Car, truck, or van -- carpooled	3,142	+/-847	5.4%
Public transportation (excluding taxicab)	6,152	+/-1,160	10.6%
Walked	6,079	+/-1,483	10.5%
Other means	7,412	+/-1,760	12.8%
Worked at home	6,160	+/-1,210	10.6%

But What About Other Travel Needs

- Only 15 percent of trips made by Americans were for the journey to work, others are for
 - Eating
 - Medical care
 - Education
 - Shopping
 - Services
 - Recreation
 - Visiting
 - Worship

RTD runs average of 16 minutes on-peak, 26 minutes off-peak, buses in Boulder can be relatively fast, getting full BRT benefit will require running it more frequently

All Transit  

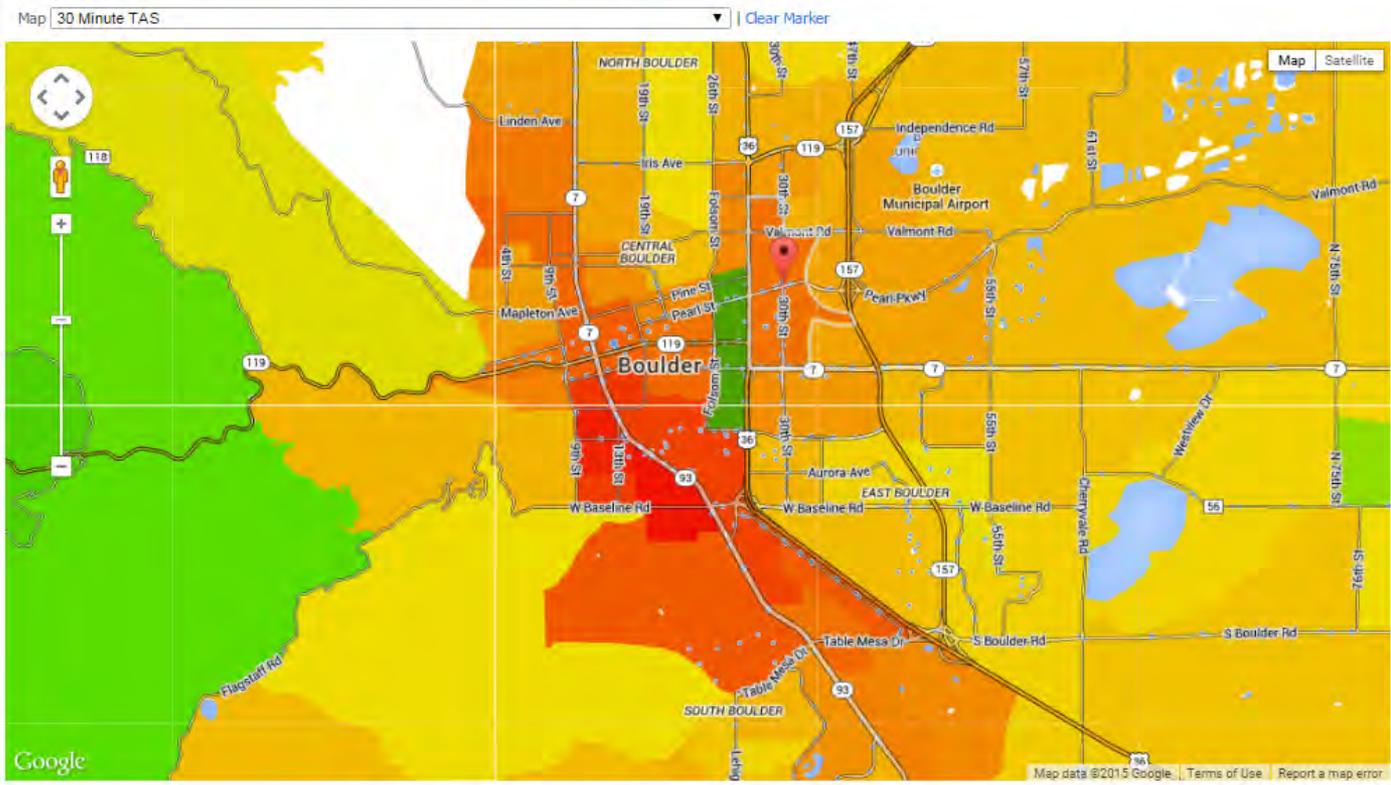
- VIEWER
- 15 MINUTE HEADWAYS
- TRANSIT ACCESS SHED
- GUESS THE CITY

30th and Pearl, Boulder CO 

Transit Access Shed

Block Group: 080130122034

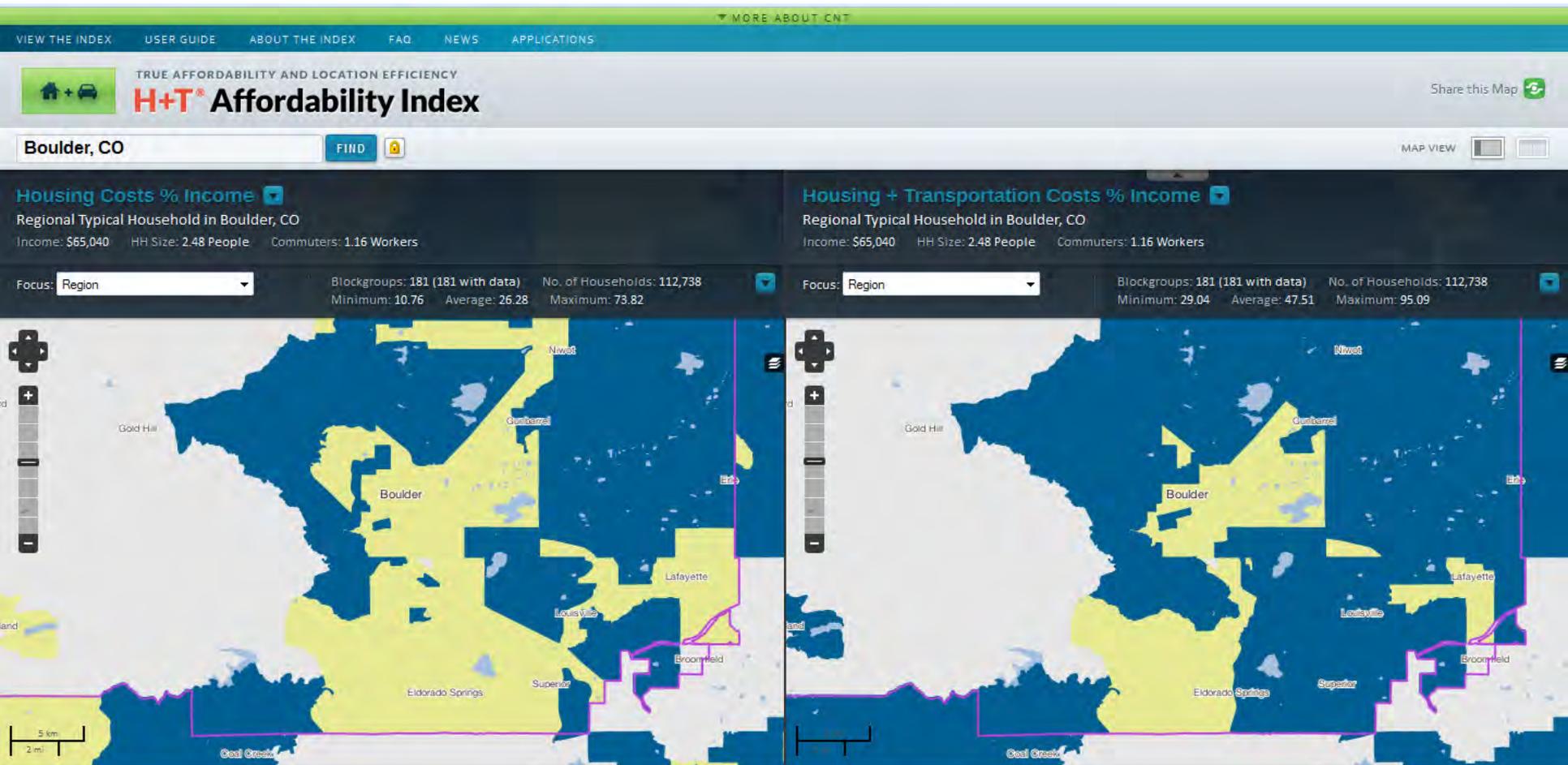
	30 Minutes	60 Minutes
Square Kilometers:	116	0
Average Trips per Week:	521	0
Total Jobs in TAS (c000):	113,947	0
Less than High School (cd01):	6,511	0
High School (cd02):	17,416	0
Some College/Associates Degree (cd03):	26,408	0
Bachelor's Degree or Advanced (cd04):	37,967	0
High School OR Less (cd01+cd02):	23,927	0
Some College/Associates Degree OR Less (cd01+cd02+cd03):	50,335	0



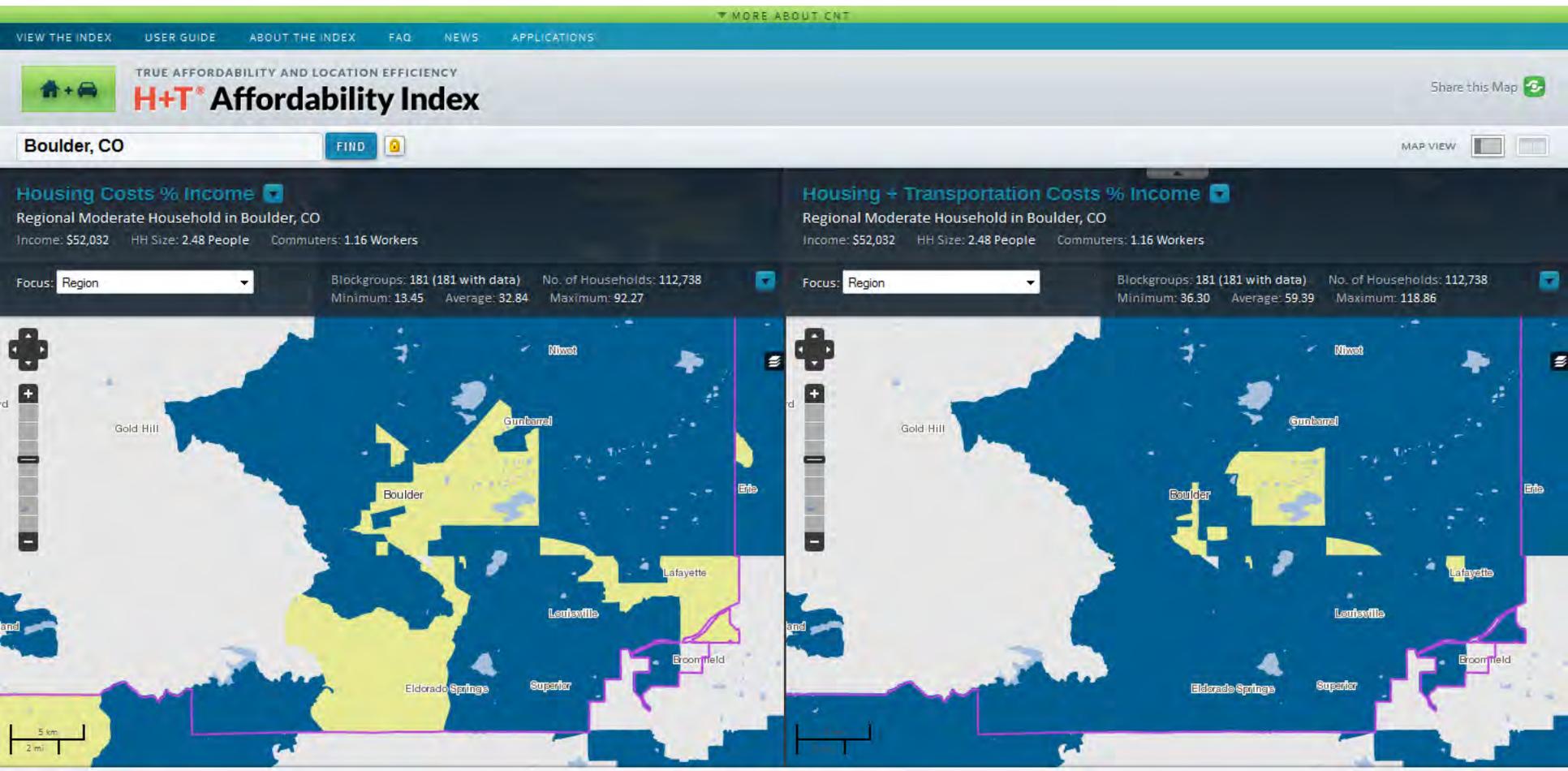
30 Minute TAS: Square Kilometers scaled by Average Trips per Week

0 100,000

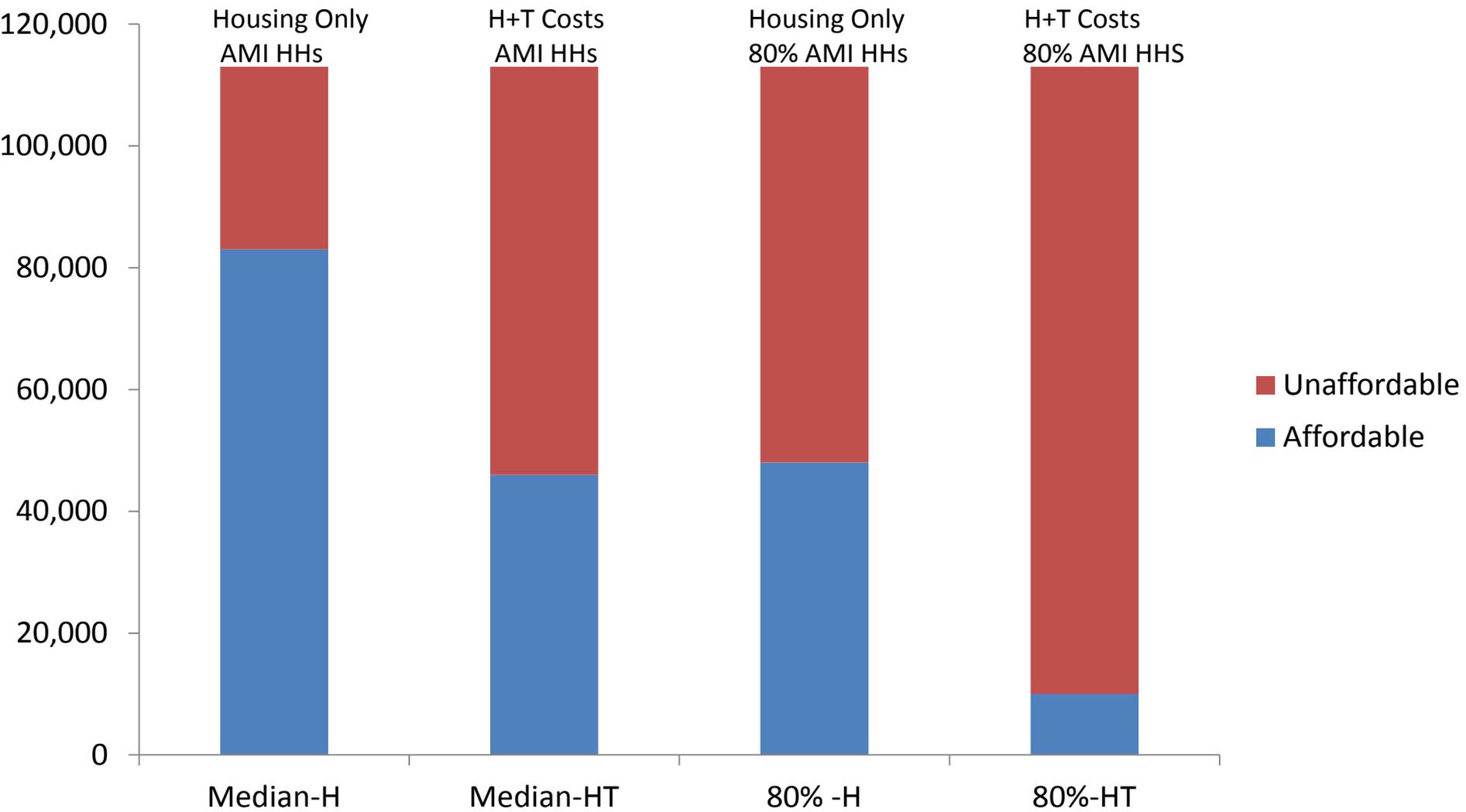
Putting it All Together—Housing Affordability vs. Housing + Transportation Affordability—Note Shrinkage of Affordable Yellow Places When T-Costs Are Added In—Calculated for Area Median Income



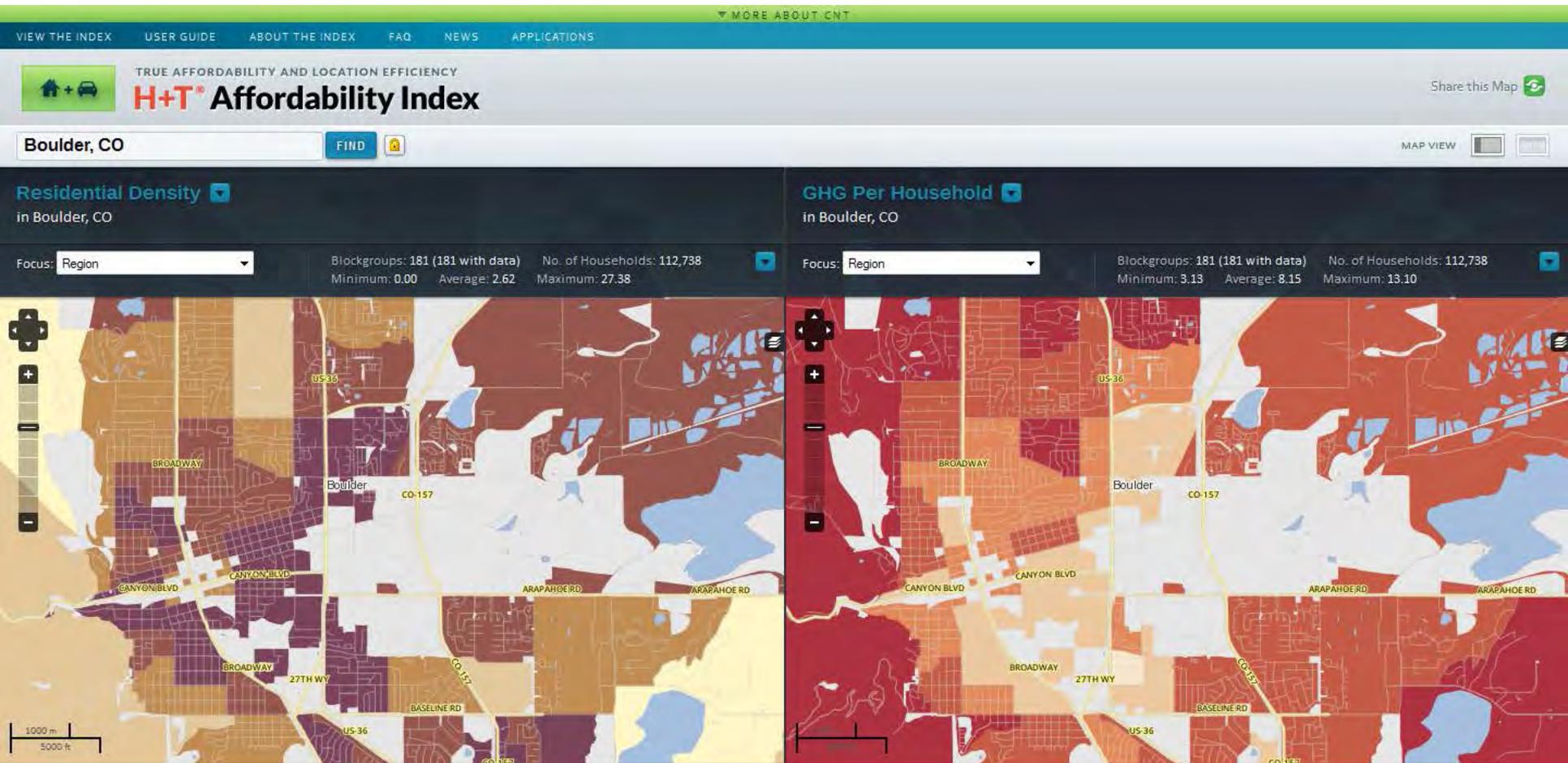
Same View for Households Earning 80% of Area Median Income—H+T Affordability Almost Vanishes

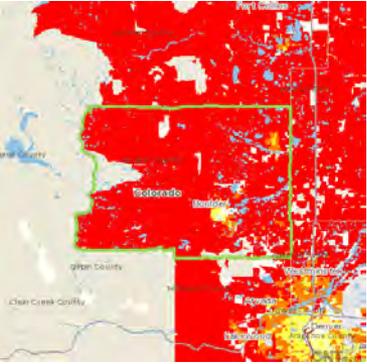


“This Place has the Disappearing Affordable Blues”

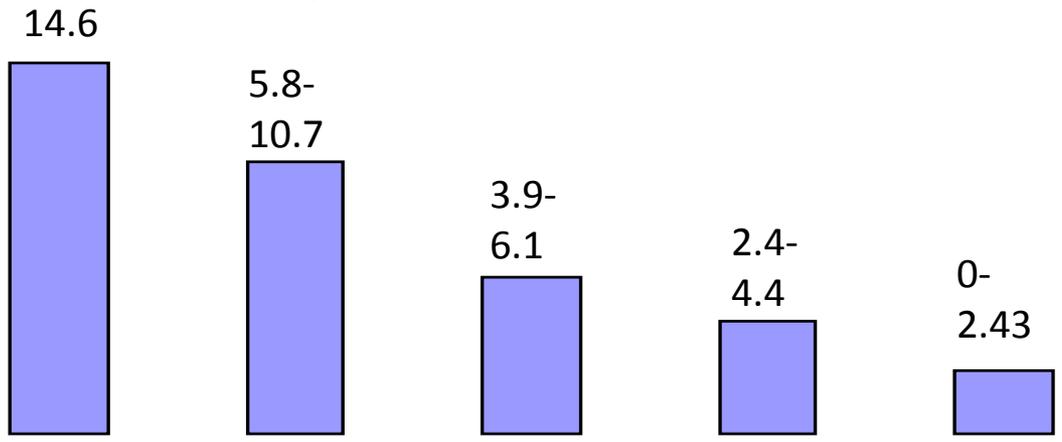


Bonus Finding—As Urban Form and Transport Choice Improve, GHG Emissions Drop

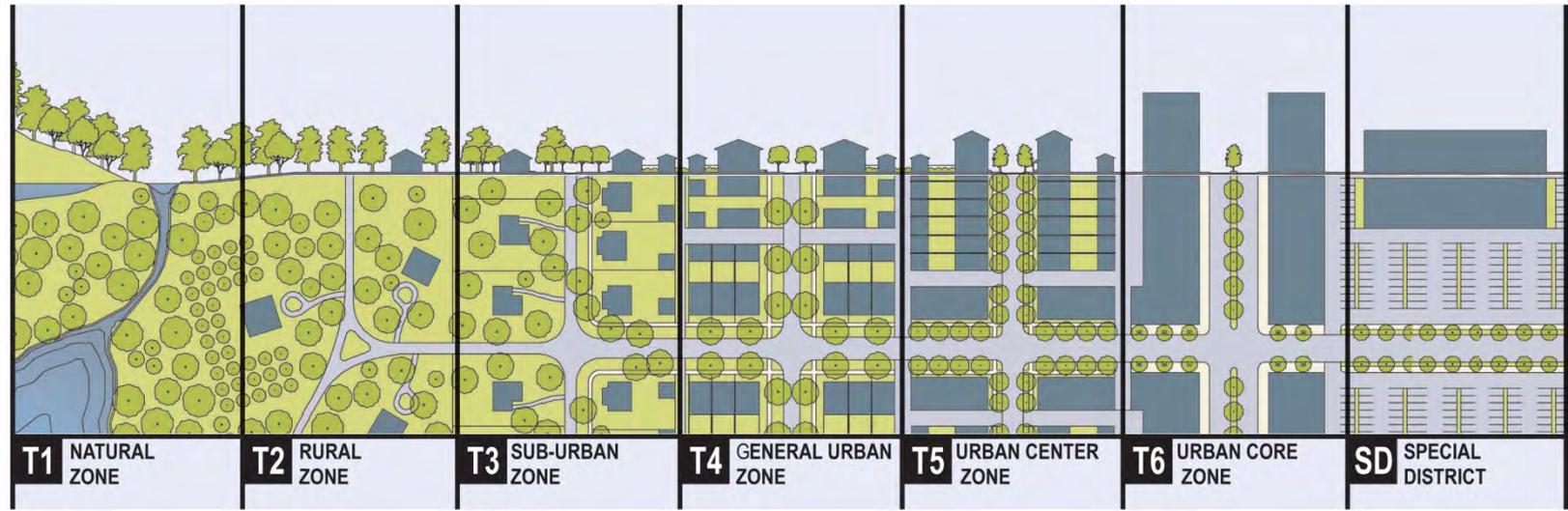




Transport Carbon in Tons of CO₂/HH/Year



This Place Has
the
Disappearing
Carbon
Blues...♪



Location Efficiency & the
Transect Reveals
Carbon Benefits of Good
Urban Form



WE CAN USE THIS KNOWLEDGE TO:

- Protect consumers against “hidden” costs
- Analyze trends + compare across HH types
- Define housing needs for public policy purposes
- Encourage coordination of housing and transportation policies
- Inform state planning for housing, e.g. workforce
- Improve financial/housing counseling
- Help make the case for and package alternative financing for accelerated transit system build-out
- Predict the ability of a household to pay rent/mortgage

H+T INDEX IS USED NATIONWIDE

- **HUD and DOT** are using to screen sustainable communities and TIGER grant applications
- **Metropolitan Planning Organizations** in Bay Area, Chicago, DC and elsewhere using to re-screen, prioritize Long Range Transportation Plan investments
- **Experimental counseling tools** (Phoenix, East Bay, Chicago) link users with locally available resources – called Equity Express
- Metropolitan Transportation Commission in Bay Area used to justify helping capitalize **Transit-Oriented Development investment fund**
- State of Illinois **new act** requires five agencies to screen investments
- City of El Paso, TX now uses to **direct affordable housing** to areas of low transportation costs
- Portland, others using to help **create a typology of TODs** that takes affordability and equity into account

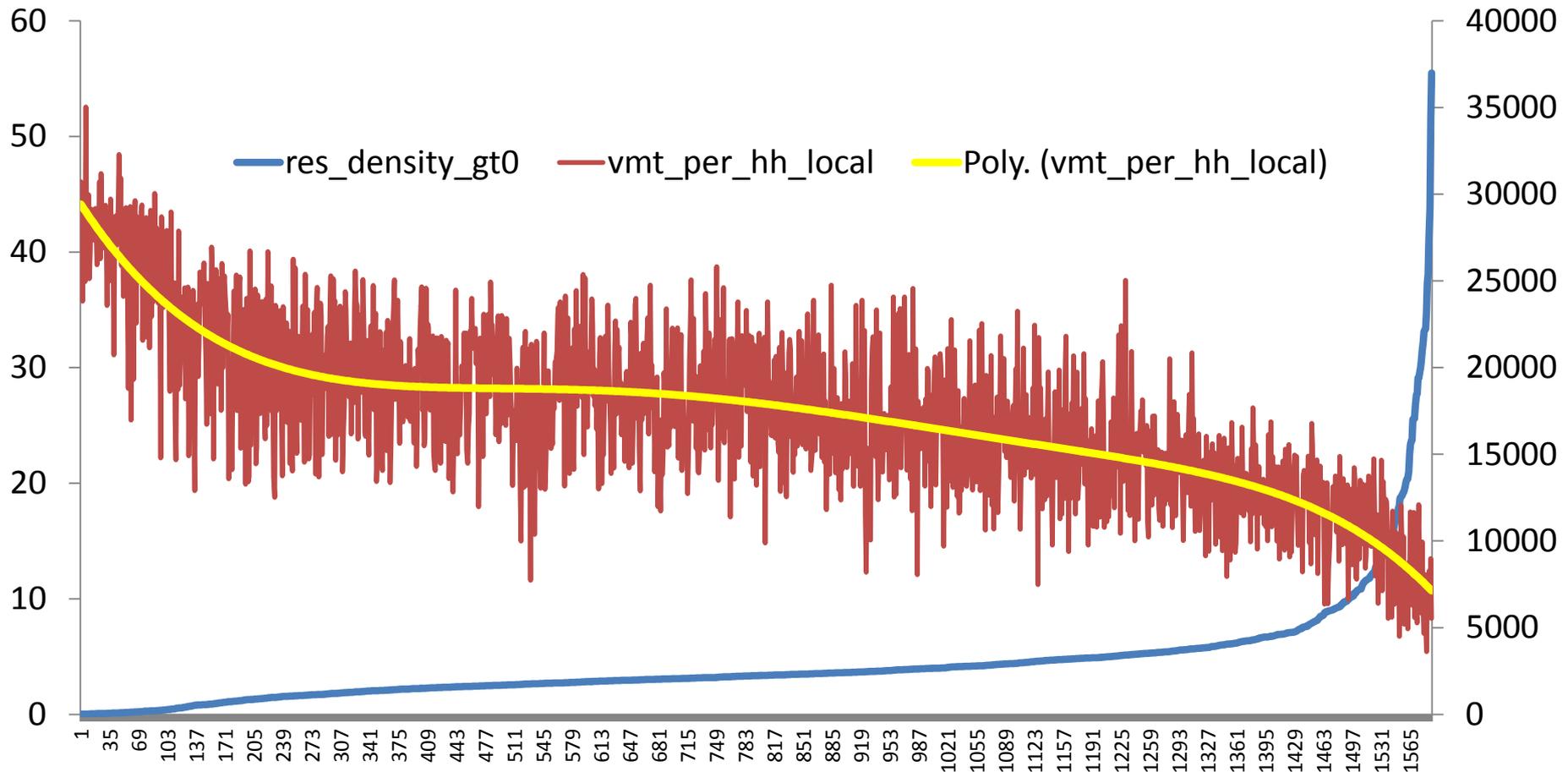


**LOCATION EFFICIENCY +
TRANSIT FREQUENCY
IMPACT TRAVEL CHOICES**

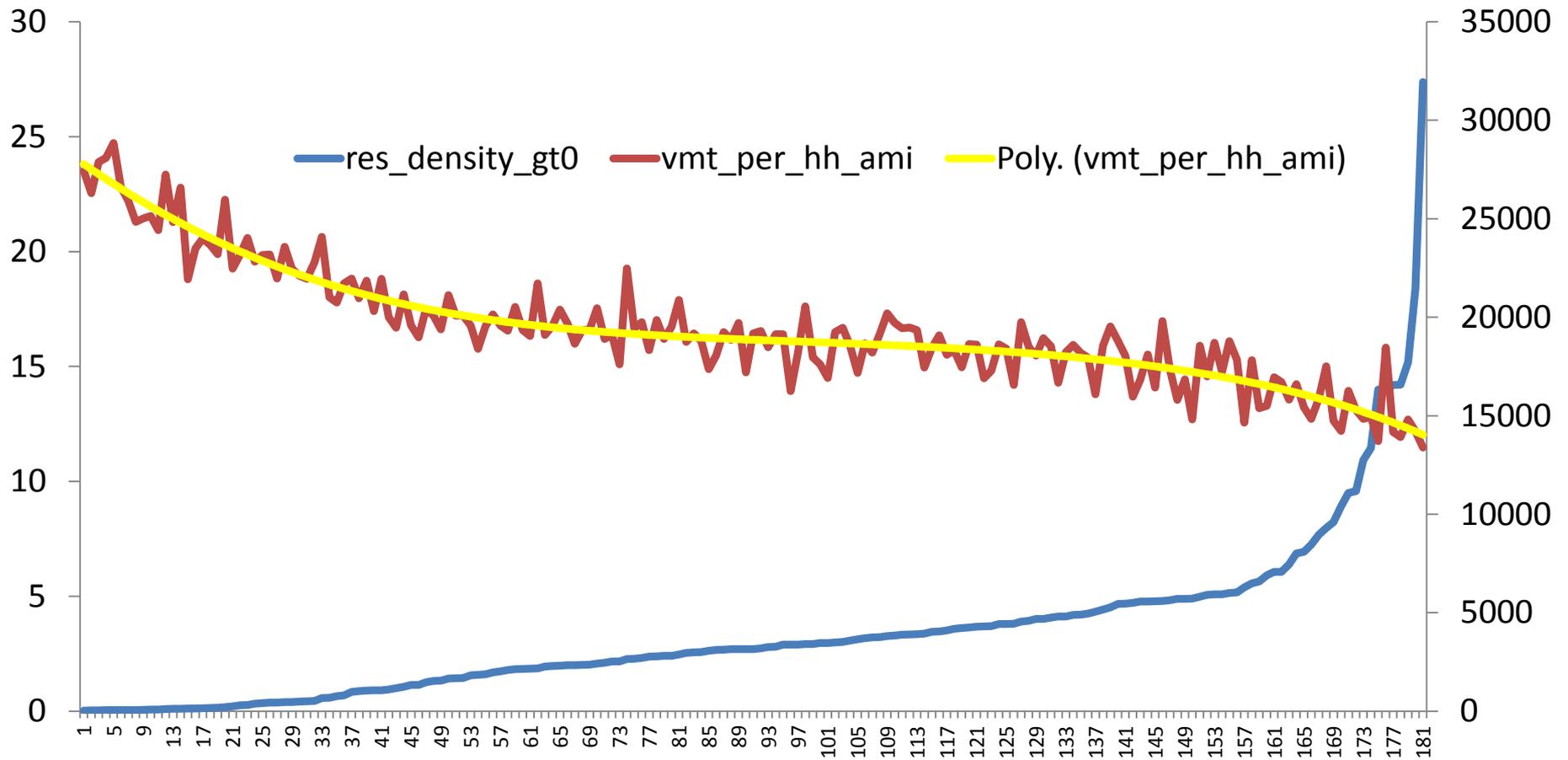
LOCATION EFFICIENCY

- A fancy way to consistently measure local convenience and regional accessibility.
- Buildings can be energy efficient. Places can be location efficient.
- Compact neighborhoods, interconnected street networks, access to transit, mixed land uses, concentration of retail and services.
- **Location Efficiency = savings for households + communities.**

Denver MSA—Driving versus location efficiency



Boulder MSA—Same curve



Denver's Existing Fixed Guideway Transit Network—45 stations in Denver, 9 outside

TOD Database
 toddata.cnt.org/db_tool.php?v=map&ts=Denver&r=.5&y=39.7306&x=-104.9789&z=9

TOD Database

LOGOUT USER GUIDE STATION DOWNLOADS

CTOD CENTER FOR TRANSIT-ORIENTED DEVELOPMENT

Denver Region

Transit Zone: .25 mile .5 mile Smart Zoom

Selected Station Station Existing Transit Potential Transit Transit Region

Existing Transit

- RTD
 - Free Mall Ride(MALL)
 - Light Rail C Line(101)
 - Light Rail D Line(101)
 - Light Rail E Line(101)
 - Light Rail F Line(101)
 - Light Rail H Line(101)

Planned Transit

- Central Corridor Extension
- East Corridor
- Gold Line
- US 36 BRT
- West Corridor LRT

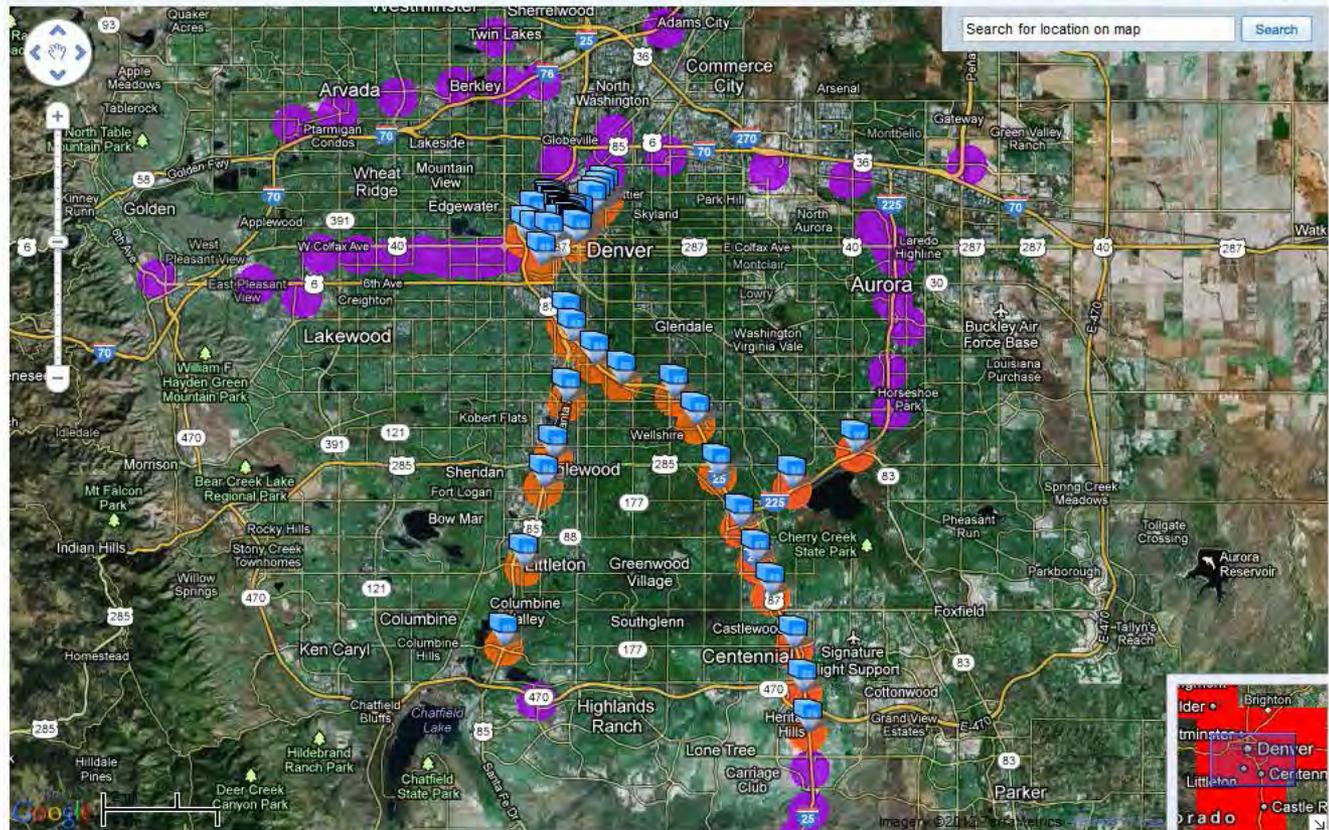
Proposed Transit

- G Line

Report Data Geographies Full Report

Denver Transit Region:

Population 2000: ⁽³⁾	2,400,570
Population 2010: ⁽⁴⁾	2,784,228
Jobs 2002: ⁽⁵⁾	1,304,697
Jobs 2009: ⁽⁶⁾	1,316,818
Median Household Income 2000: ⁽⁷⁾	52,148
Median Household Income 2009: ⁽⁸⁾	61,296
Station .5 Mile Transit Zone: RTD Free Mall Ride(MALL); 16th Street Mall & Arapahoe St	
Year Opened: ⁽¹⁾	Pre-2000
Latitude: ⁽²⁾	39.74787
Longitude: ⁽²⁾	-104.99589



Denver's Planned Additions to the Network—48 stations outside of Denver, 12 stations in Denver

TOD Database

toddata.cnt.org/db_tool.php?v=map&ts=Denver&r=.5&y=39.7306&x=-104.9789&z=9

TOD Database LOGOUT USER GUIDE STATION DOWNLOADS **CTOD** CENTER FOR TRANSIT-ORIENTED DEVELOPMENT

Denver Region

Transit Zone: .25 mile .5 mile Smart Zoom

Selected Station Station Existing Transit Potential Transit Transit Region

Search for location on map Search

Existing Transit

- RTD

Planned Transit

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- East Corridor
- Gold Line
- US 36 BRT
- West Corridor LRT

Proposed Transit

- G Line
- I-225 Corridor
- North Metro
- Northwest Rail
- Southeast Corridor
- Southwest Corridor

Report Data Geographies Full Report

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Station .5 Mile Transit Zone: Central Corridor Extension Not an FTA New Start; 33rd/Downing

Latitude: ⁽²⁾	39.76319637
Longitude: ⁽²⁾	-104.97329244
Population 2000: ⁽³⁾	7,783

Resulting in a network of 114 station areas—57 inside Denver County and 57 outside

TOD Database

toddata.cnt.org/db_tool.php?v=map&ts=Denver&r=.5&y=39.7306&x=-104.9789&z=9

TOD Database LOGOUT USER GUIDE STATION DOWNLOADS **CTOD** CENTER FOR TRANSIT-ORIENTED DEVELOPMENT

Denver Region Transit Zone: .25 mile .5 mile Smart Zoom

Selected Station Station Existing Transit Potential Transit Transit Region

Search for location on map Search

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Population 2000: ⁽³⁾ 7,783

Copyright 2009-12 Center for Neighborhood Technology, 2125 W. North Ave., Chicago, IL 60647, Tel: (773) 278-4800, Fax: (773) 278-3840

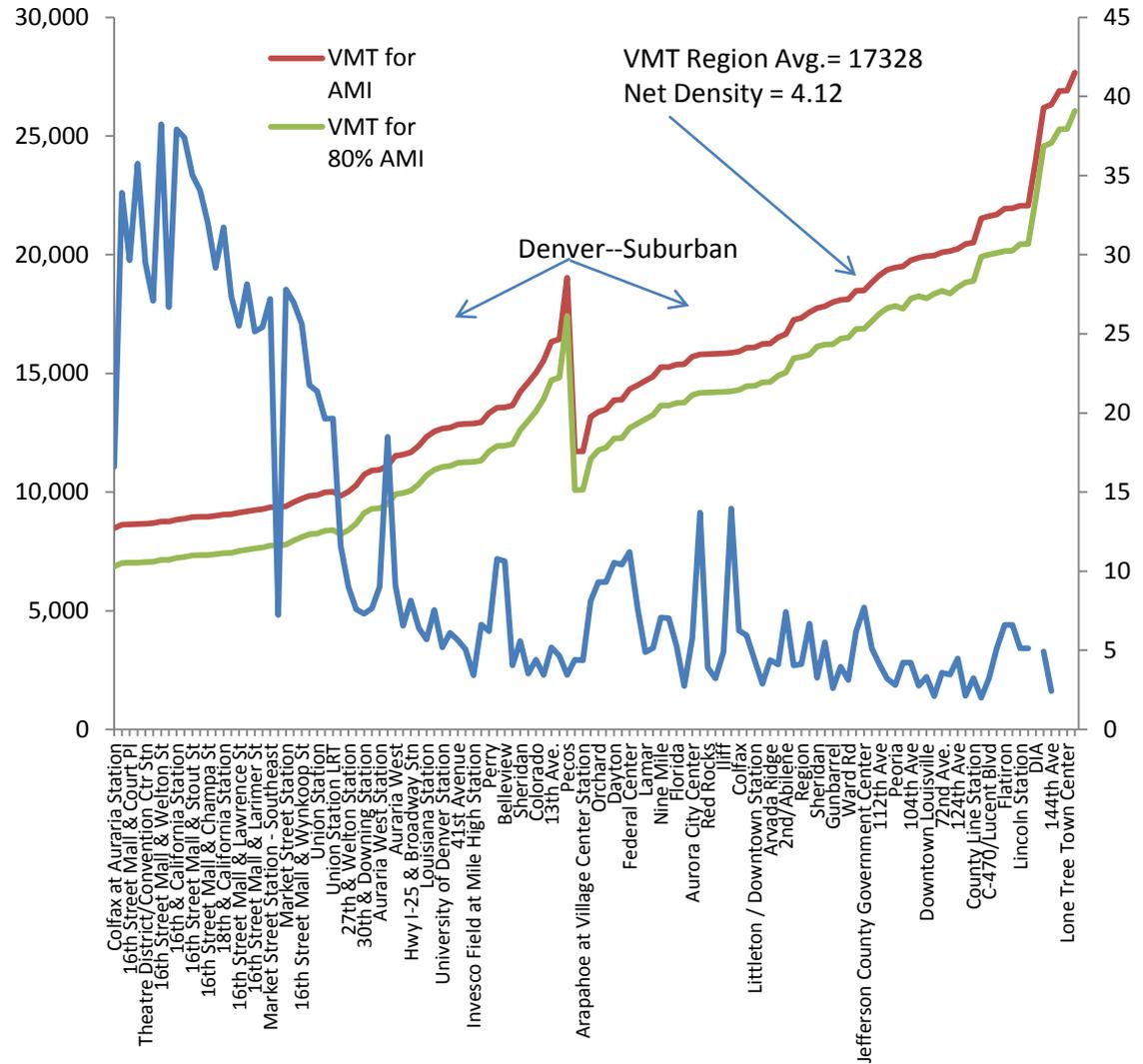
4:09 PM 4/9/2012

What We Know About the Demand for Housing Near Transit

- Hidden in Plain Sight 2005
- Demographic changes favor smaller households
- 2007 estimate—still based on an incomplete network and a 2005 price of gasoline; plus no enhanced awareness of the high cost of transportation overall
- ***Adding initial FasTracks proposal to the original LRT system upped our estimate of TOD housing demand from 17,881 in 2000 to 138,207 in 2030***
- Forecast projection of 507,000 new households 2015-2035 still 97% located in Adams, Arapahoe, Denver, Douglas and Jefferson counties
- Household size kept dropping, percentage of single-person HHs keeps increasing
- Gas prices increased
- General public awareness of high H+T costs and growing---e.g. was a must-have in applying for the HUD Sustainable Communities grant, and TIGER grants
- High foreclosure rates and economic situation is shifting demand toward multifamily and rental housing, and from exurban to regionally networked
- ***Increasing number of regions are setting “stretch goals” of 50% of new households and jobs located along accessible transit networks***

Step One— Estimate Change in Baseline Conditions from 2000-2010 by Station Area Versus Regional Totals

- Population and housing tenure from 2000 and 2010 Decennial Census
- Local employment from 2002-2009 Local Employment Dynamics
- Travel demand, emissions and affordability from H+T Index based on 2005-2009 American Community Survey





TOD: A RESILIENT APPROACH TO GROWTH

TOD IS...

- **Location efficiency:** Dense, transit-accessible + pedestrian-friendly
- **Rich Mix of Choices:** Wide range of mobility, housing and shopping options
- **Value Capture:** Local amenities support placemaking, scorekeeping + attention to financial returns
- **Placemaking:** places for people, enriches existing qualities, makes new connections, works with landscape, builds reputation
- **Resolution of Tension between TODs as “Nodes” and “Places”:** Works to support travel networks and communities

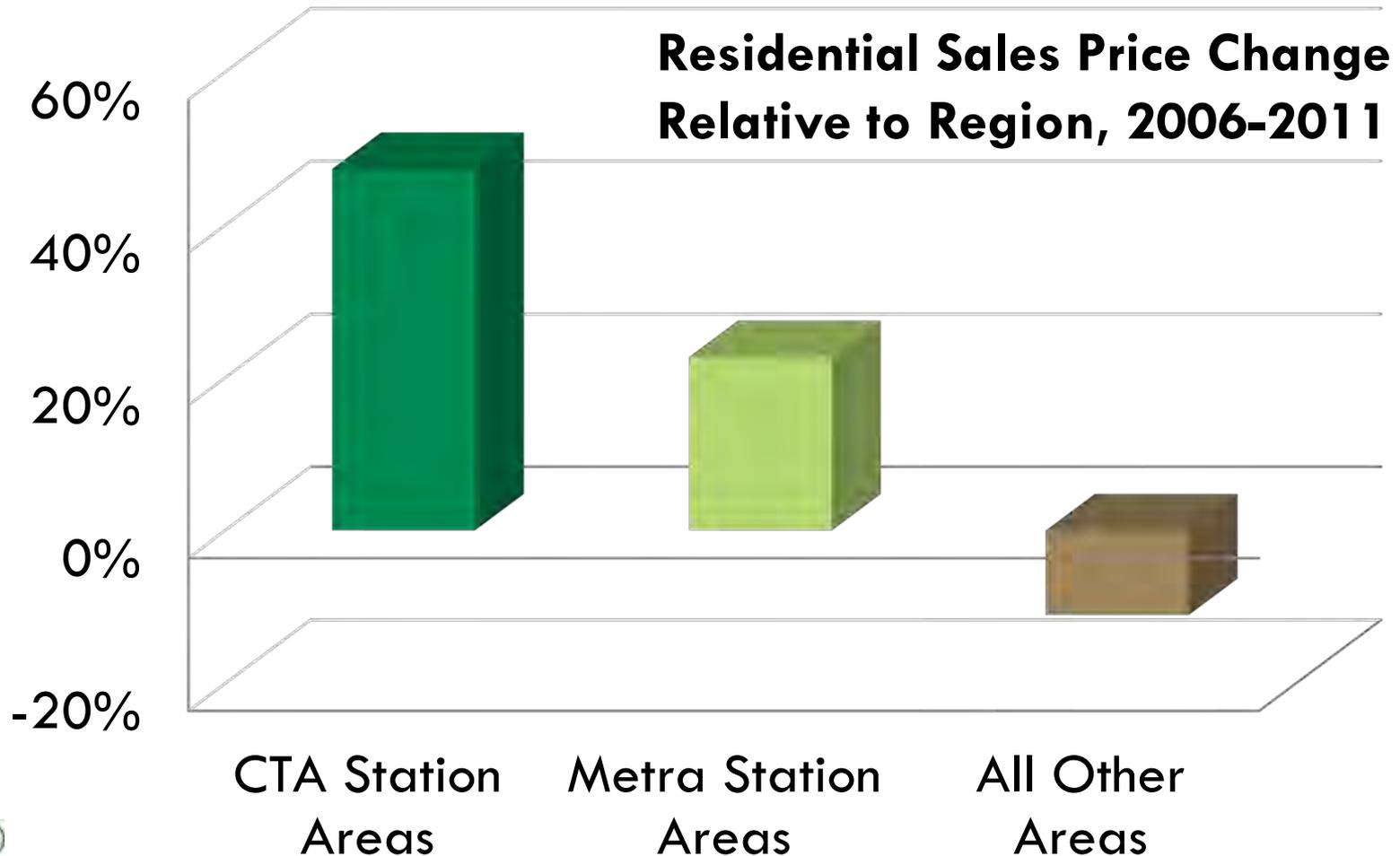


TOD IS NOT...

- **Just for commuters:** Work-related trips just 18 percent of total travel
- **Auto-oriented transit:** Way too much land devoted to parking
- **Just a place to sleep at night:** People need to shop, eat, visit without getting in a car
- **Only the transit property:** All successful TODs are joint developments between cities, transit operators, private investor/owners, and communities



TOD STABILIZES THE HOUSING MARKET



TOD GROWS LOCAL TAX BASES

	Super Walmart	Outlet Mall	New Main Street
Land Consumed (acres)	30	49	.065
Property Tax /Acre	\$5,706	\$8,886	\$223,575
Residents/Acre	-	-	103
Jobs/Acre	10	20	40

17% increase in tax revenue during recession

BUILDING EFFECTIVE WORKING PARTNERSHIPS CAN DELIVER TOD BENEFITS MORE QUICKLY

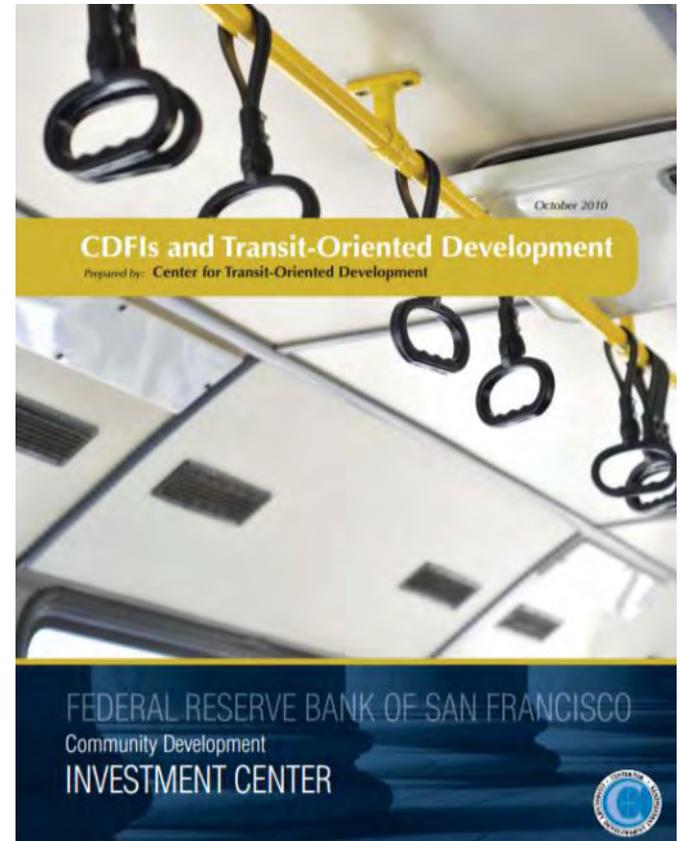


LOCATION EFFICIENCY STRATEGIES

- Location Efficient Mortgages
- Low-Income Housing Tax Credit
- Carsharing
- Accelerated permitting for neighborhoods near transit

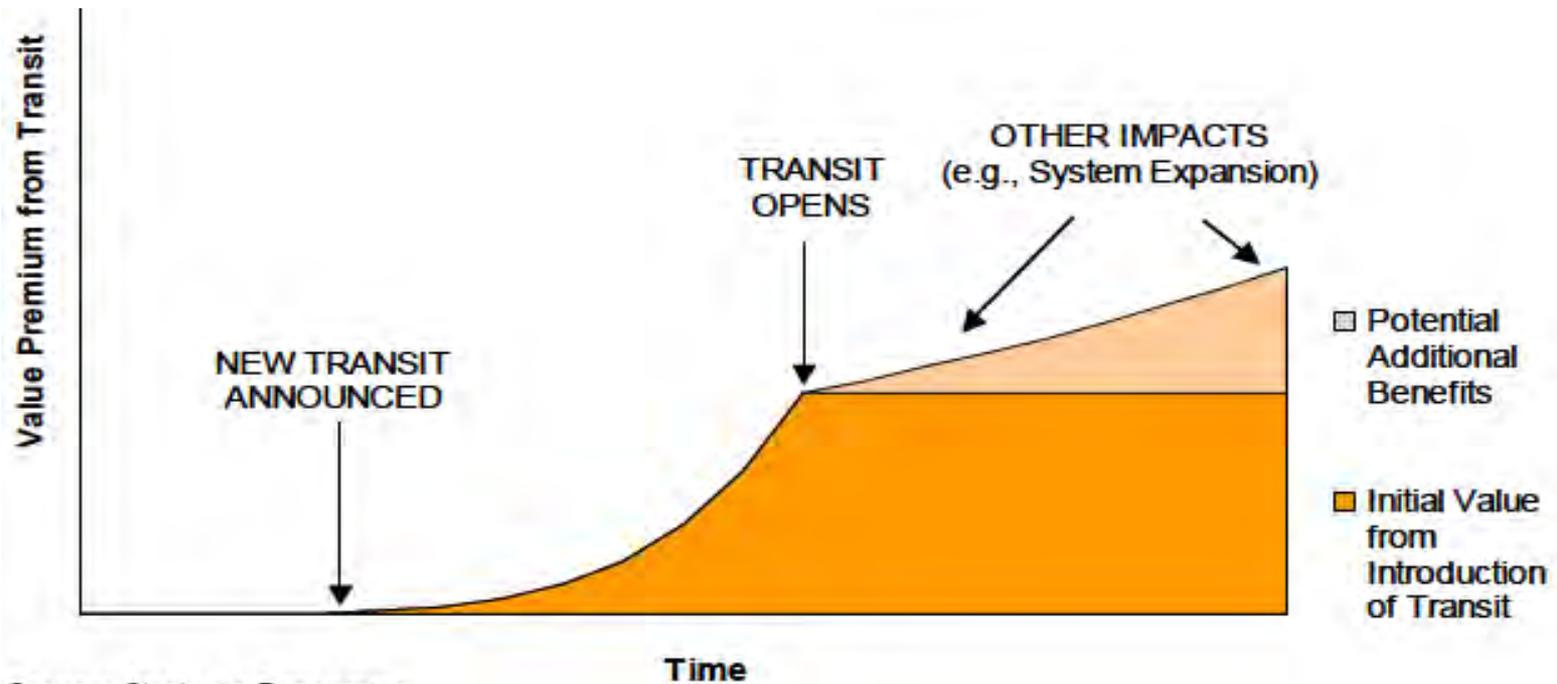
STRUCTURED TOD FUNDS

- SF Bay Area: Land purchase is expensive and new development takes time for revenue to meet yield expectations
- Local planning agency, puts up \$10 million challenge grant for solution
- Nonprofit **Community Development Financial Institution**, LIIF, organizes \$40 million matching from foundations and two investing banks (Morgan Stanley and Citibank)
- \$50 million used as revolving fund for land acquisition and “off-balance-sheet” holding fund
- Similar funds under development in Denver, Twin Cities, Cook County IL



VALUE CREATION + CAPTURE

Results in measured increase of 18-167% within walking distance of stations



Source: Strategic Economics.

NOT ALL CORRIDORS WILL SUPPORT SIGNIFICANT INCREMENTS OF NEW DEVELOPMENT

Corridors Serve Different *Roles* Based on Defining Characteristics

Congestion Relief

- Complements existing commute flows
- Limited emphasis on development

Future Growth and Development

- Addresses *future* congestion
- High development opportunities on corridor

Value Capture Corridor

Equity

- Connects low-income neighborhoods to job centers
- Provides low-cost access relative to automobiles

Economic Development

- Placed along older arterial corridors
- Transit investment intended to spur re-development

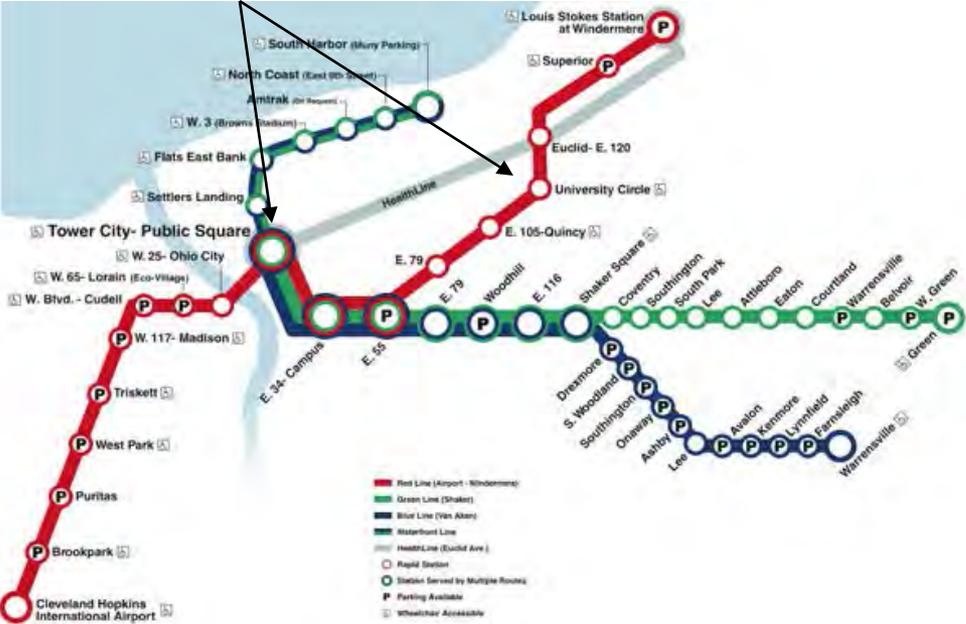
Value Capture Corridor

CLEVELAND HEALTH LINE/EUCLID AVENUE BRT

SIGNIFICANT DEVELOPMENT DOWNTOWN + U. CIRCLE

\$6 billion in new investment
Concentrated downtown and
University Circle

Good traffic mover
Supports expansion



The background of the slide is a close-up, slightly blurred image of several US dollar bills. The bills are fanned out, with the top bill being a \$100 bill and the bottom one a \$20 bill. The text 'ONE HUNDRED DOLLARS' and 'TWENTY DOLLARS' is visible on the bills. A dark grey horizontal band is overlaid across the center of the image, containing the main title in white text.

INNOVATIVE FINANCING FOR TRANSIT + TOD

DENVER

Economic + Environmental Benefits

Economic

- Fewer cars owned per household
- Lower VMT per HH per year
- 2/3 less exposure to gas price spikes and their effects
- 5-10% reduction in the cost of living at this income level, and higher amounts for lower income
- \$2.5 - \$5.0 billion annual regional savings, \$75 - \$150 billion by 2035; up to \$500 million annually available for debt service
- Reduced congestion = travel time savings

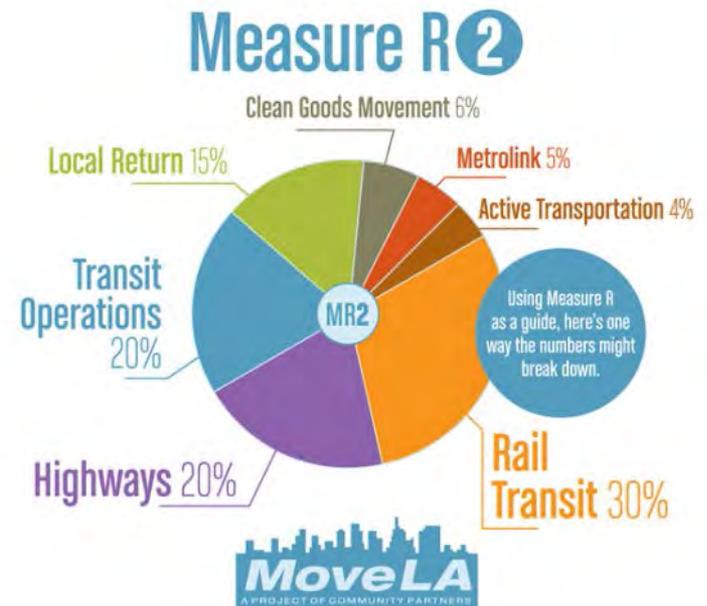


Environmental

- Less automotive travel leads to less fuel consumption + lower emissions
- Accelerates attainment of National Ambient Air Quality Standards
- Contributes to Greenprint Denver goals
- Similar analyses can produce equivalent benefits for VOCs and Nox

MOVE LA

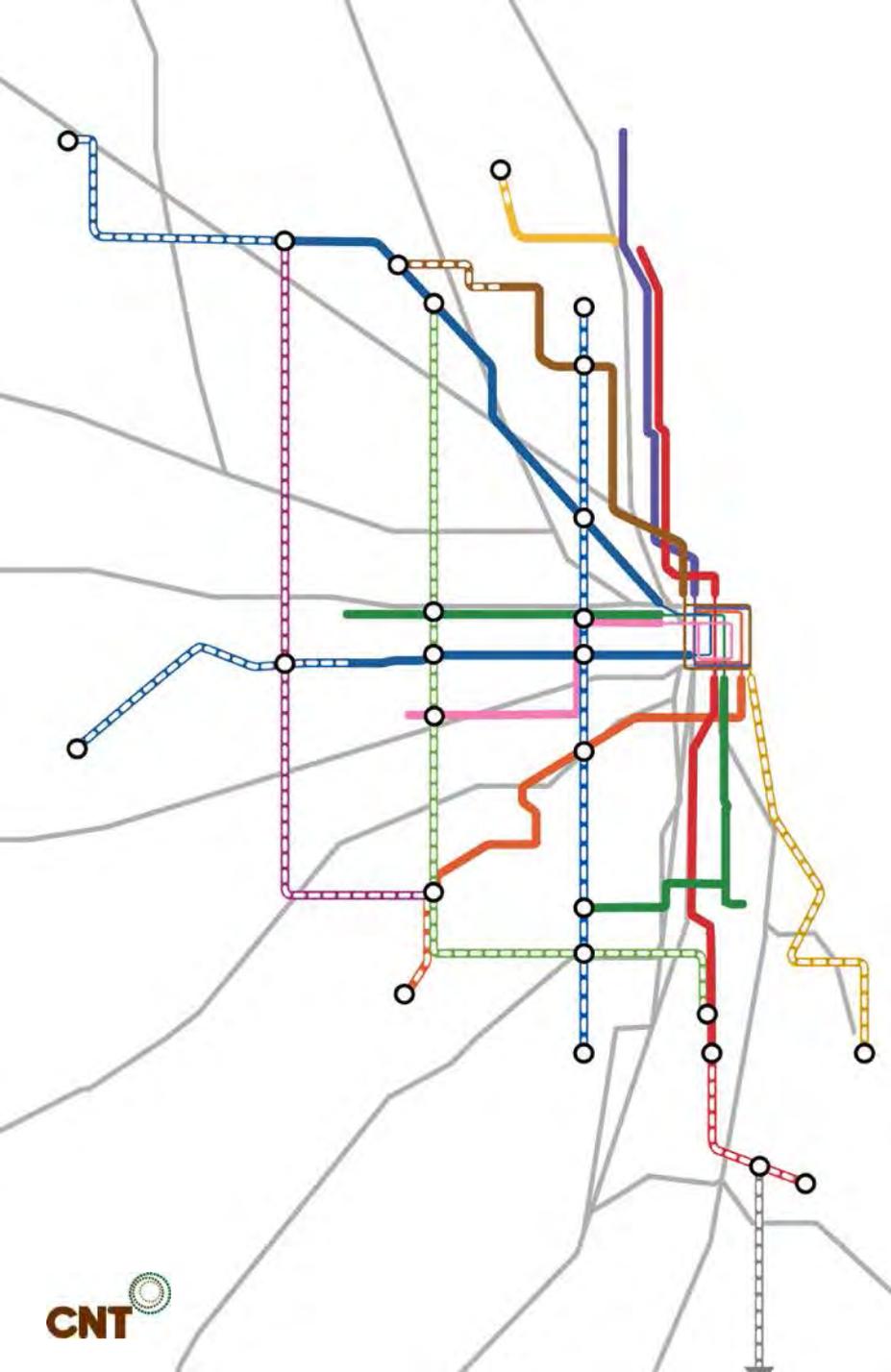
- Coalition of civic institutions and businesses built widespread support
- 2008: LA County voters pass half-cent sales tax
- Now taking advantage of federal loan program
- Investing 30 years' of revenue over 10 years – to see results faster
- **\$\$ goes only to regions that help themselves**



TransitFuture



- A campaign to improve and expand transit in Cook County
- A local, matching revenue stream can unlock billions in federal and other funding
- Cook County Board can create matching stream
- \$20 billion in potential expansion and improvement



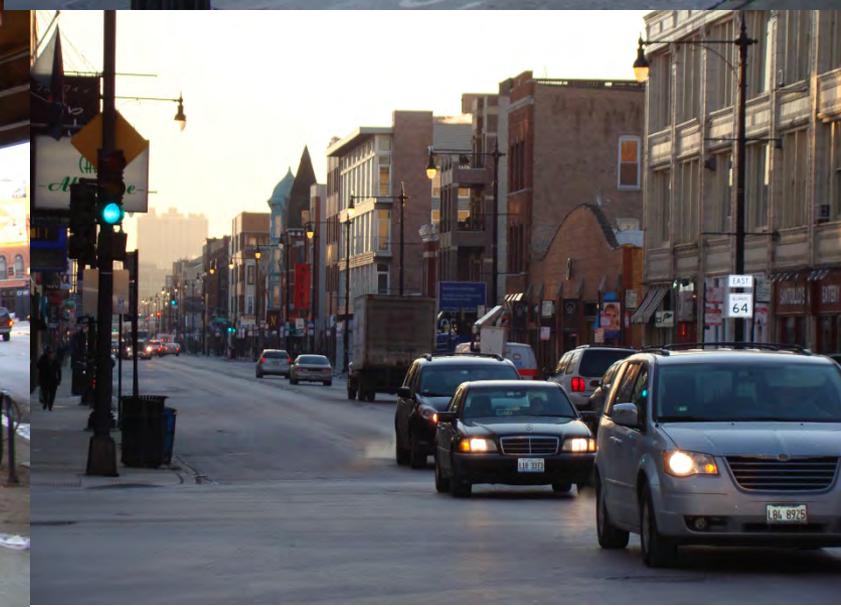


BRINGING IT ALL TOGETHER: LIVABILITY

Ramp Up Use of New Kinds of Information Tools

- Equity Express counseling showing typical savings of \$125/month for users with avg. \$3,000/month income = 4% increased savings
- Model calculators for individuals in SF, Boston, DC and Twin Cities being expanded in work for HUD to be released by EOY
- Abogo provides quick access to affordability data that can be used in shopping for better locations

Remove arbitrary financing restrictions against mixed use at FHA, Fannie Mae, Freddie Mac



Same Area—New Building Next to CTA Station—Note Truncated Retail—Form Follows Finance???



Location Efficient Mortgage Demo 2000-2005, Idea Was Well Received, No Foreclosures Seems to Have Outperformed Market

Chicago Tribune

1B Section 1

Sunday, June 4, 2000

Skip the car, buy a house

There's a lot of hand-wringing nowadays about suburban sprawl and the need for "smart growth."

But like the weather, nobody's doing much about it.

Much of the home-buying public still opts for wide-open spaces along the metropolitan fringe. And despite thoughtful warnings from civic and regional groups, political realities in Illinois militate against significant governmental action.

Now comes a modest but innovative pilot program that just might make a small difference. Maybe even a big difference—if it educates the public about the true cost of living "out there."

It's called the Location Efficient Mortgage, or LEM, and it has been developed by environmental groups such as Chicago's Center for Neighborhood Technology along with Fannie Mae, the government-chartered, stockholder-owned repurchaser of home mortgages.

It works like this: Participating lenders, in evaluating applicants, take into consideration how close the dwelling is located to public transportation. If it's so close the applicant can live without a car, or a working couple can get by with just one, the estimate of dispos-

able income is increased, and with it, the size of the mortgage for which they qualify.

A couple jointly earning \$60,000 and buying into Chicago's transit-rich Edgewater neighborhood, for instance, would qualify for a home selling for \$212,218. Out in the boonies, under traditional guidelines, the limit would be \$158,364.

And there are sweeteners. LEMs are not subject to income limits and they offer more flexibility, including lower down payments, than conventional mortgages. The City of Chicago, moreover, is offering vouchers worth \$100 toward the purchase of energy-efficient appliances to the first 100 LEM borrowers.

Downsides? There's mandatory counseling. And for now it's limited to Chicago and three West Coast cities.

The ultimate value of LEM, however, may be to show, in ways people readily understand, that sprawl does impose costs. Some of that cost is paid, knowingly and gladly, by those who choose to live "out there." Much of it, however, is hidden, and paid indirectly by those who live "back here."

For more information about LEMs call 1-800-732-6613.

RIGHT SIZE PARKING CALCULATORS

- Three geographies:
King County (Seattle),
San Francisco Bay
Area, Washington DC



Tools to balance supply.

<http://www.rightsizeparking.org/>

SAN FRANCISCO BAY AREA



Parking Database

ABOUT USER GUIDE ABOUT THE DATA EVENTS

Choose a Map Legend

Show Boundaries



Gulf of the Farallones Marine Sanctuary

GreenTRIP Parking Database:

- 68 affordable housing buildings
- 31% of parking vacant
- Construction cost of unused parking... **\$139,352,200**

Showing 68 buildings that meet your criteria. View Report

<http://database.greentrip.org/>

Number of Units

- Any
- 20-49
- 50-99
- 100-199
- 200+

Unit Type

- Any
- Family
- Senior
- Single Room Occupancy
- Student
- Multiple
- Diverse Abilities
- Condo

Unit Size

- Any
- Studio
- 1 BR
- 2 BR
- 3 BR +

% of Units Below Market Rate

- Any
- 15-29% BMR
- 30-39% BMR
- 40-100% BMR

Development Type

- Any

Developer

Choose a Developer

Project

Choose a Project

AFFORDABILITY

Residential off street parking costs...

- **\$4,200** in an outdoor lot
- **\$29,000** indoors and above ground
- **\$36,000** indoors and below ground

In an affordable housing development...

- **One space** increases rent by **12.5%**
- **Two spaces** increase rent by **25%**



SPACE

A parking space (250 ft²) can fit:

- 20 bicycles
- Two shared cars
- One extra 12 x 10 bedroom

What Can Improve These Scores?

- **Increase local access to amenities** – mixed use with local services helps
- **Reduce block size**—provide mid-block pedestrian access in existing blocks, plan for smaller blocks for new development or substantial redevelopment; redefine “alleys” as localized mixed-mode, mixed use streets
- **Make more intensive and efficient use of land overall**—increase both residential and employment intensity
- **Reduce or eliminate minimum parking requirements**—frees up land for more productive purposes
- **Increase transportation network densities and pedestrian character**—more thru connections and safer local quality, refocus transportation regulation away from increased speeds and more toward location efficiency
- **Improve both local and regional transit access**—better area coverage, increased frequencies of service, improved connections to job and amenity-rich centers, provide on-demand services such as car-sharing to fill missing links and last-mile trip needs
- **Make more of the region location efficient**—use these performance measures to set goals for redevelopment areas, and to ensure that planned developments produce results that are continuously moving in the right direction
- **Build effective public and investor demand for these results**—report on progress openly and continuously, keeping a steady eye on the value of achievement

Retrofitting to Make the Most of and Improve Your Urban Form and Walkability

Home + Car H+T Index H+T Fact Sheets Total Driving Costs Comparison Maps Data About CNT

30th and Pearl, Boulder CO

Household: Regional Typical Regional Moderate National Typical

Income: \$67,956 Commuters: 1.11 workers Household Size: 2.42 people

Block Group: 080130122034

H+T Costs % Income: 15%

Intersection Density

Intersection Density ?
Average: 172/mi²

Note: Additional statistical data is available at several larger geographies. Using the Geographic Focus Selector, you may choose the following:

CBSA: Boulder, CO
County: Boulder, CO
Municipality: Boulder, CO
Tract: 08013012203
MPO: Denver Regional COG
U.S. House District: Colorado Congressional District 2

Block Groups Streets Transit Map Satellite

Map data ©2015 Google Terms of Use Report a map error

Intersection Density

<math>< 45/mi^2</math> 45-122.5/mi² 122.5-200/mi² 200-320/mi² 320/mi²+

Smaller blocks are essential...

Home + Car

H+T Index H+T Fact Sheets Total Driving Costs Comparison Maps Data About

CNT

30th and Pearl, Boulder CO

Household: Regional Typical Regional Moderate National Typical

Income: \$67,956 Commuters: 1.11 workers Household Size: 2.42 people

Block Group: 080130122034

Average Block Size

Average Block Size ?
Average: 9 Acres

Note: Additional statistical data is available at several larger geographies. Using the Geographic Focus Selector, you may choose the following:

CBSA: Boulder, CO
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Municipality: Boulder, CO
Tract: 08013012203
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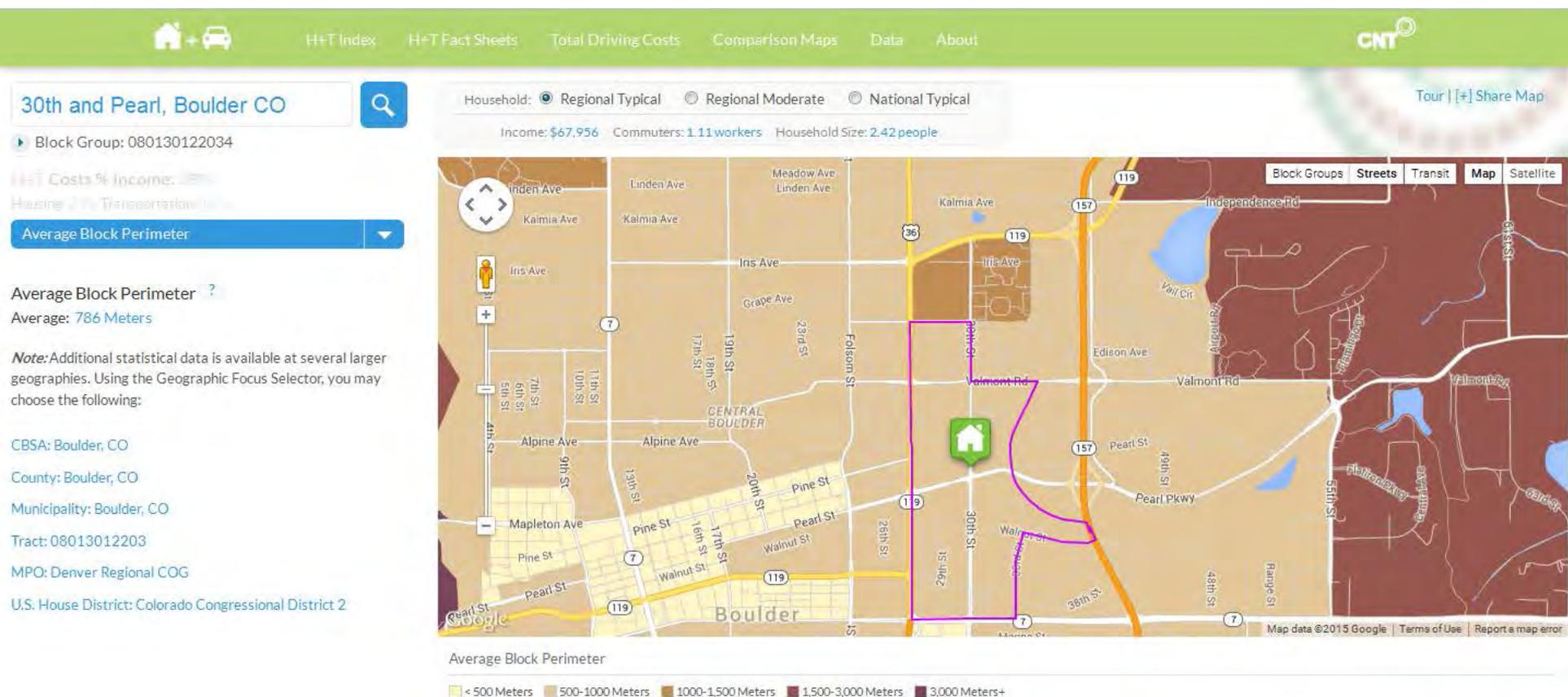
Block Groups Streets Transit Map Satellite

Map data ©2015 Google Terms of Use Report a map error

Average Block Size

■ < 5.25 Acres ■ 5.25-9 Acres ■ 9-17.5 Acres ■ 17.5-60 Acres ■ 60 Acres+

To keeping people and what they do close to each other



MEMPHIS

- Goal: Reduce poverty 10% within 10 years (27% to 17%)
- 180,741 people in poverty today (\$23,550 for a family of four)
- Goal = 64,000 people out of poverty (48% children)

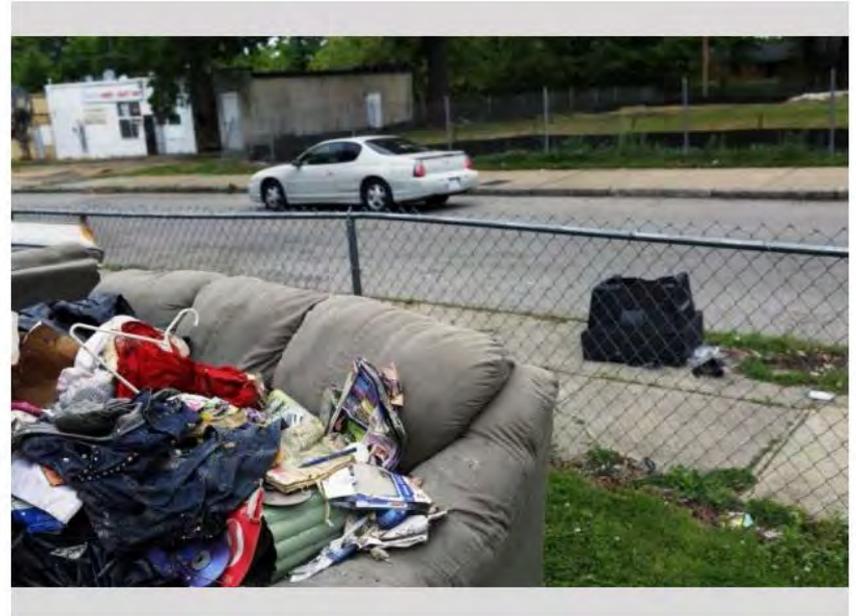


BLUEPRINT FOR PROSPERITY

- Transit Access
- Resource Efficiency
- Household Expense Reduction
- Regional Growth Capture
- Green Jobs

Inequality in Memphis: Wharton proposes a roadmap out of poverty, into prosperity

BY: Wendi C. Thomas
POSTED: 8:00 PM, May 4, 2014
TAG: paid | local news | wendi c. thomas



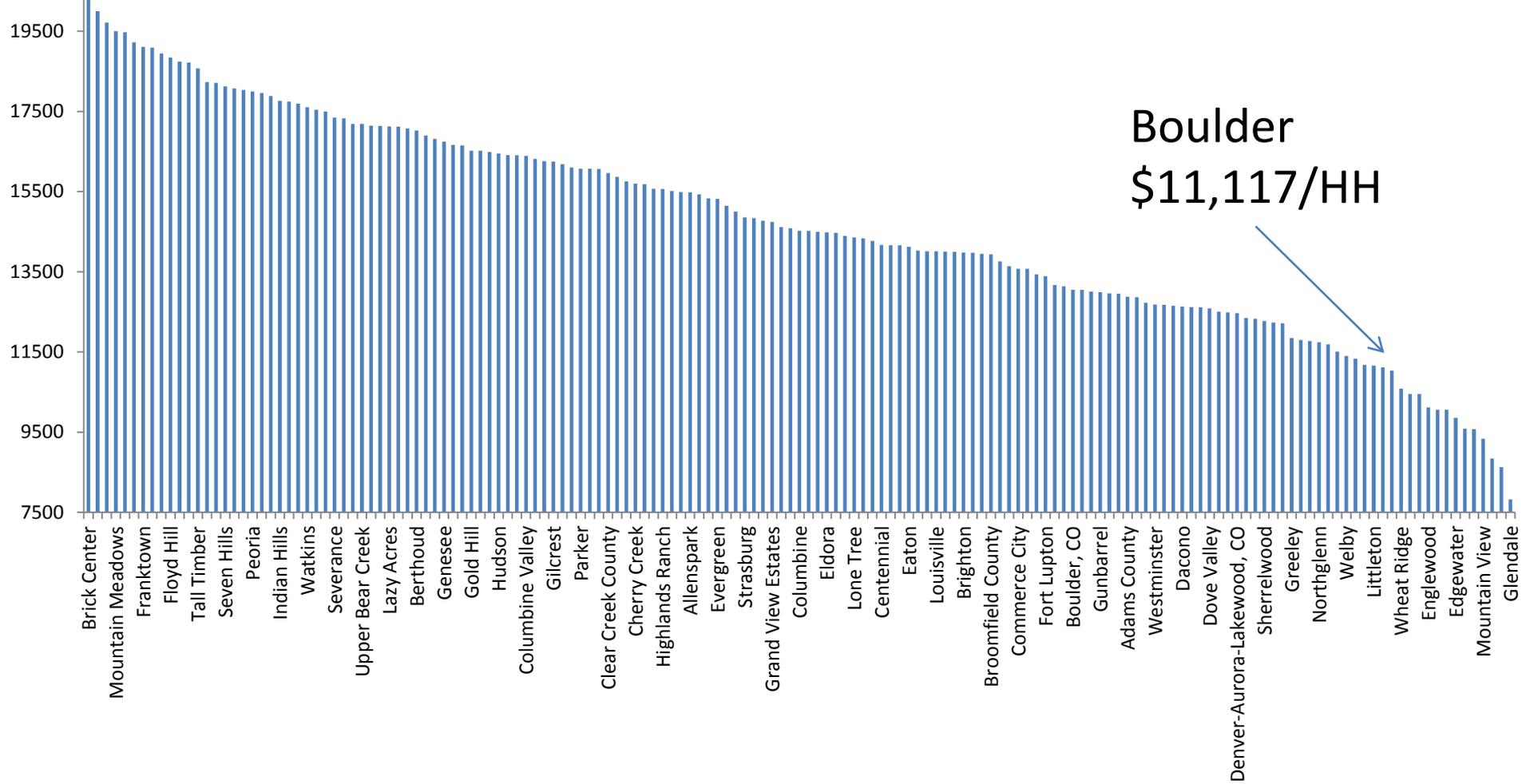
Portfolio of Solutions to Meet the Goal

Strategy	Share of \$200 million Income Gap Filled	Jobs Created	Annual Anti-Poverty Benefit (Millions)	Average Hourly Wage
1. Energy Efficiency Jobs	8%	304	\$17	\$26.24
2. Green Infrastructure Jobs	1%	76	\$3	\$18.47
3. Job Access and Placement	36%	2,263	\$73	\$15.47
4. Regional Growth Capture	41%	2,600	\$81	\$15.00
5. Zero Waste Jobs	3%	188	\$6	\$15.00
6. Childcare Jobs	2%	250	\$5	\$9.00
7. Household Expense Reduction	16%		\$32	
8. Prosperity Fund	1%		\$2	
TOTAL	109%	5,680	\$218	\$15.57

A black and white photograph of the Denver skyline, featuring the prominent skyscraper 19th Street. A dark horizontal bar is overlaid across the middle of the image, containing the text "In Metro Denver and Boulder...".

In Metro Denver and Boulder...

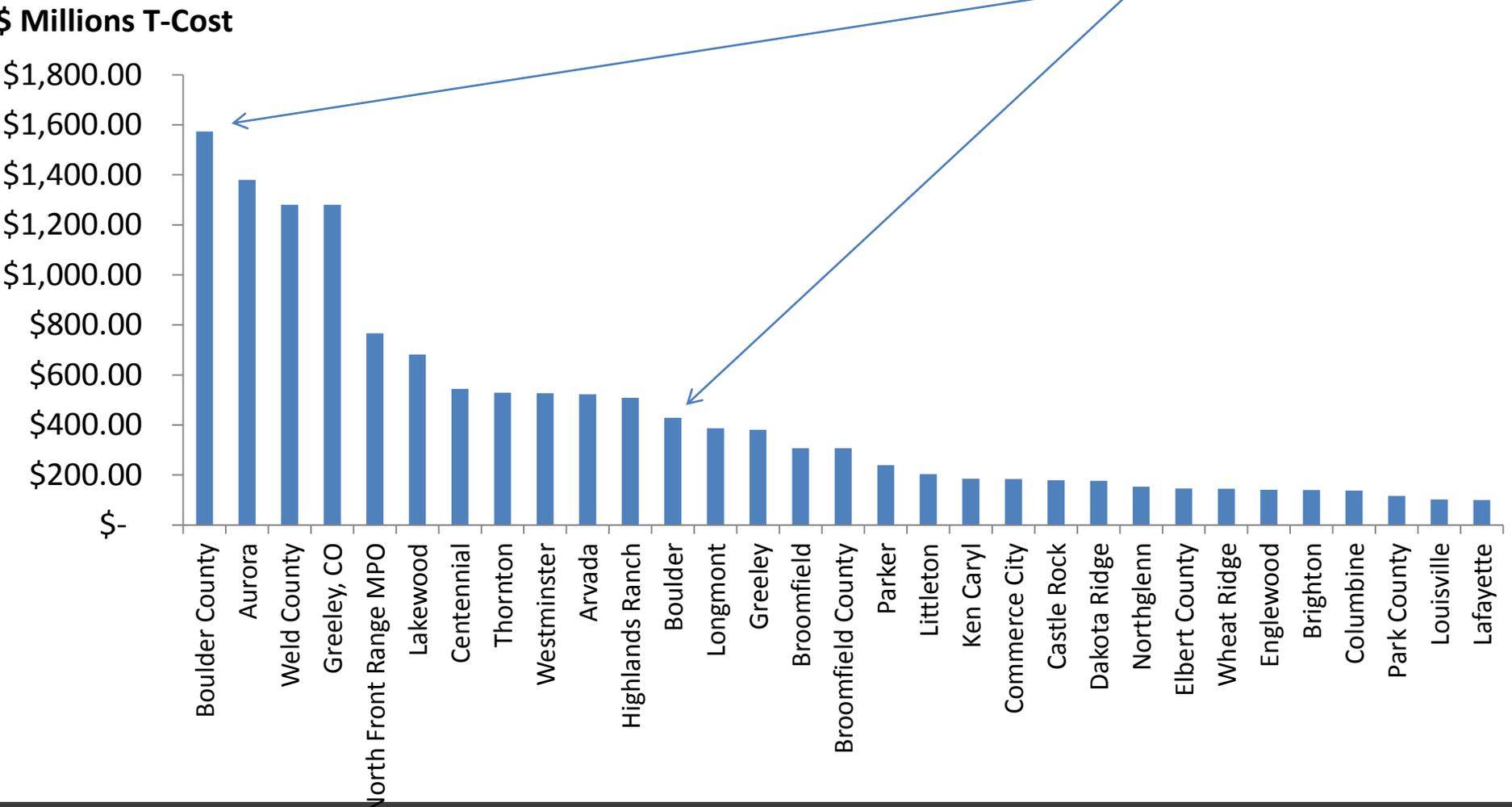
What Average Income Households Pay for Transportation Annually Across the Region—Varies from \$20,000 per Year in Exurban Areas to \$10,000 in Denver and \$7800 per Year in Glendale



**ANNUAL HOUSEHOLD EXPENDITURES FOR TRANSPORTATION
IN EACH LOCAL COMMUNITY**



Boulder County Residents Spend \$1.5 Billion/Year on T-Costs, City of Boulder Residents \$482 Million, Over 30 Years = \$45 and \$15 Billion

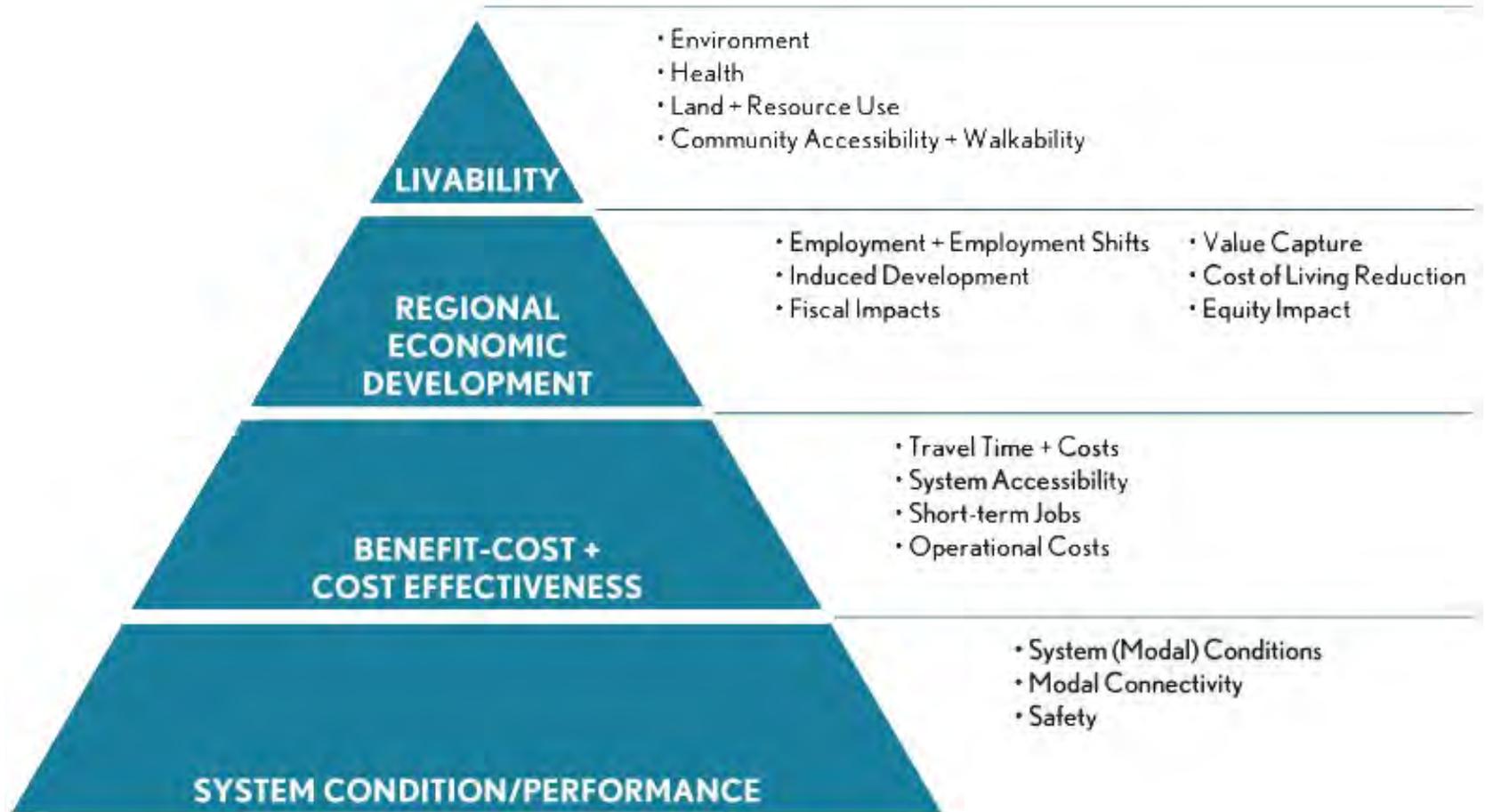


30-YEAR COUNTYWIDE TOTAL (IN BILLIONS OF DOLLARS)



MEASURING PERFORMANCE AT MULTIPLE LEVELS

BUILDING LIVABLE REGIONS



THANK YOU

Scott Bernstein

scott@cnt.org

cnt.org

[@CNT_tweets](https://twitter.com/CNT_tweets)