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Affordable Housing as a Prerequisite for a Safe, Healthy, Equitable Transportation System: Evidence from a Nationwide Evaluation of Location Efficiency within the Low-Income Housing Tax Credit (LIHTC) Program

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Affordable Housing as a Prerequisite for a Safe, Healthy, Equitable Transportation System:

Evidence from a nationwide evaluation of location efficiency
within the Low-Income Housing Tax Credit (LIHTC) program

Arlie Adkins, PhD

TREC Transportation Seminar

Portland State University

October 9, 2015



Thank you TREC.

Built Environment

Transit Access
Infrastructure
Urban Design
Destinations
Density



Travel Behavior

Mode Choice
Physical Activity
Trip Characteristics
Frequency



Outcomes

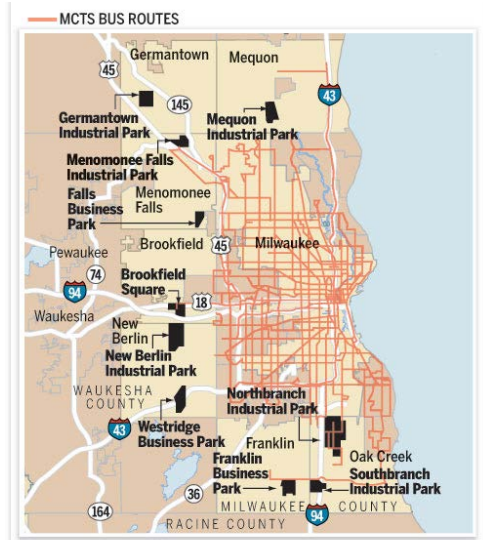
Health
\$\$\$
Opportunity
Injury/Death

Outcomes: Economic

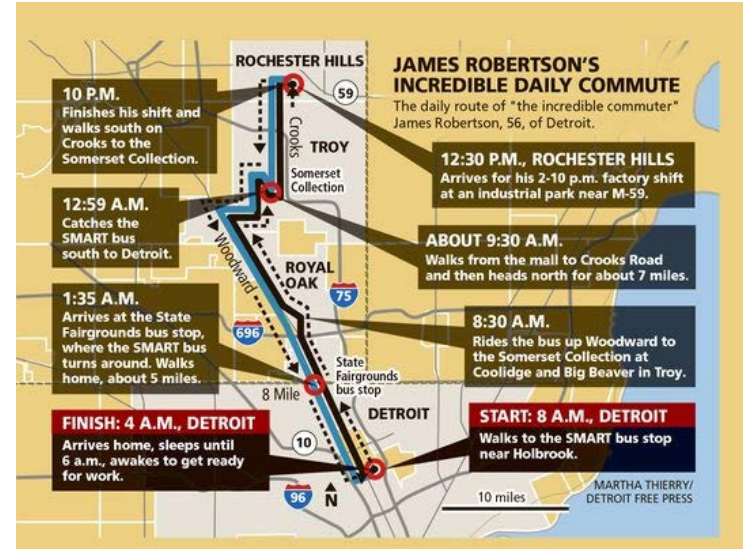
Low-income households often spend a much higher percentage of income on transportation.

Outcomes: Opportunity

- Spatial mismatch between job centers, affordable housing, and affordable transportation results in more onerous commutes and fewer available jobs



Journal Sentinel



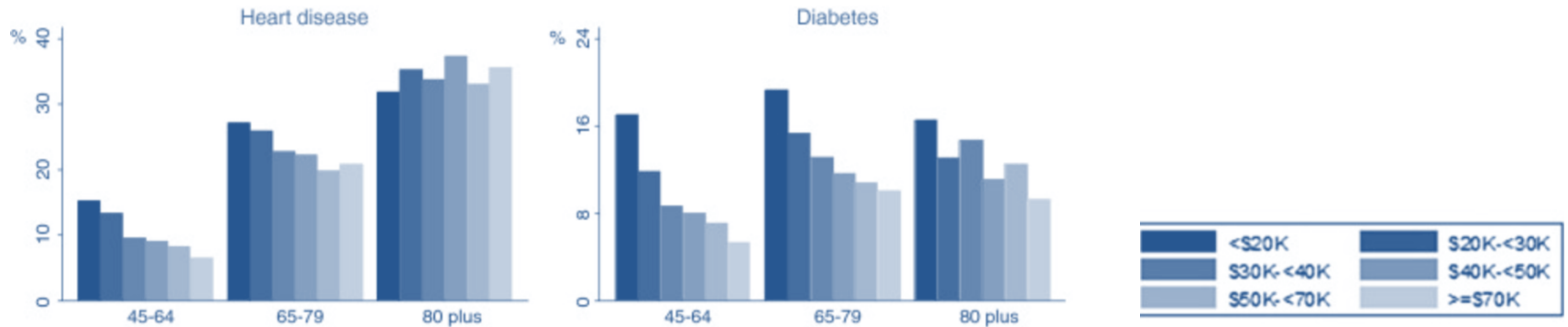
Detroit Free Press

Outcomes: Health

- Many chronic diseases associated with physical inactivity/activity are more prevalent in low-income individuals
- Low-income people more at risk of health complications from transportation-related air quality problems (asthma)

Outcomes: Health

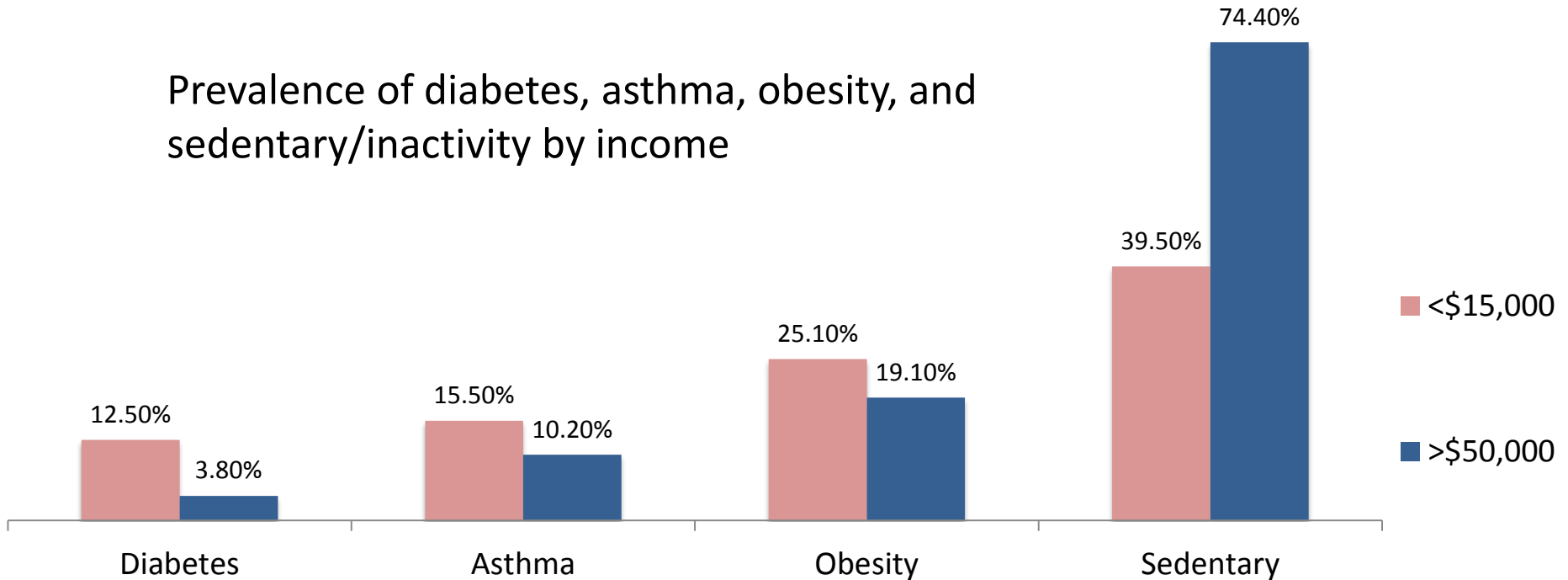
Prevalence of chronic diseases by annual household income category, males



Korda, R. J., Paige, E., Yiengprugsawan, V., Latz, I., & Friel, S. (2014)

Outcomes: Health

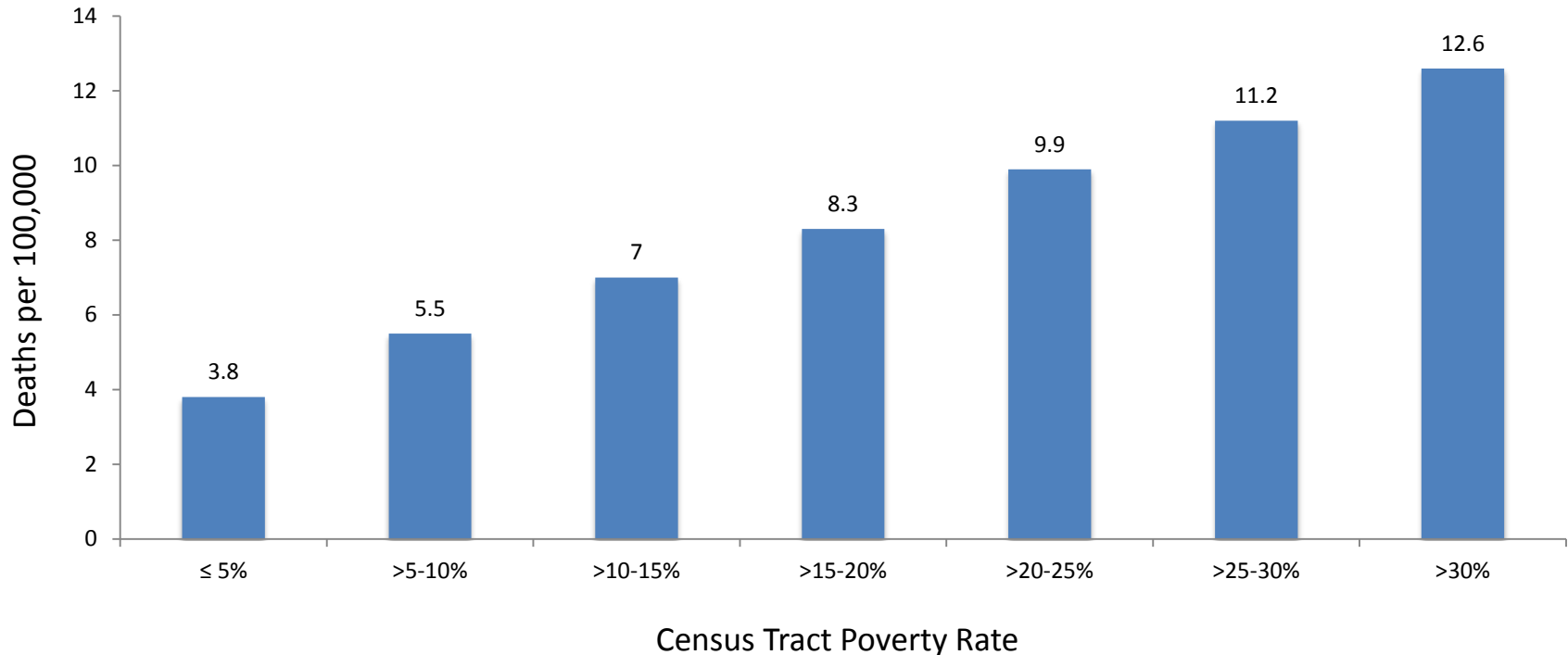
Prevalence of diabetes, asthma, obesity, and sedentary/inactivity by income



Data from: Behavioral Risk Factor Surveillance System (BRFSS), 2002. Centers for Disease Control and Prevention.

Outcomes: Injury/Death

- Large disparities in fatality rates by race and income



Outcomes: Injury/Death

- Large disparities in fatality rates by race and income
- Pedestrian fatality rate for Black and Hispanic men twice than of white men
 - Disparity persists even after controlling for exposure

Outcomes are placed-based. Place is housing-based.



Built Environment

Transit Access
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Density



Travel Behavior

Mode Choice
Physical Activity
Safety



Outcomes

Health
\$\$\$
Opportunity
Injury Prevention



Affordable housing is a requirement
for an equitable transportation system

Housing + Transportation

- Increasing acknowledgement that transportation costs need to be considered in calculations of housing costs
- Combined cost of place – “location affordability”
- New tools aimed at helping households make “location affordable” decisions about housing locations



H+T Index

H+T Fact Sheets

Total Driving Costs

Comparison Maps

Data

About



H+T[®] Affordability Index

TRUE AFFORDABILITY AND LOCATION EFFICIENCY



The H+T[®] Index provides a more complete measure of affordability.

By taking into account the cost of housing as well as the cost of transportation, H+T provides a more comprehensive understanding of the affordability of place.

Dividing these costs by the representative income illustrates the cost burden of housing and transportation expenses placed on a typical household.



THURSDAY, OCTOBER 08, 2015

Location Affordability Portal Version 2

Understanding the Combined Cost of Housing and Transportation



Search

- HOME
- ABOUT
- MY TRANSPORTATION COST CALCULATOR
- LOCATION AFFORDABILITY INDEX
- VIGNETTES
- RESOURCES
- HELP

My Transportation Cost Calculator



SHARE

Enter a home address...

+ ADD

Enter an address, intersection, city, county, state or zip code to add marker. Markers may be dragged to a new location.

Map

Satellite

North Pacific Ocean



North Atlantic Ocean



But...

Basic rule of urban economics: transportation improvements increase land values.

Walking the Walk

How Walkability
Raises Home Values
in U.S. Cities

Joe Cortright, Impresa, Inc.,
for CEOs for Cities
August 2009

CEOs FOR CITIES
INSPIRE. CONNECT. SUCCEED.

supported by a generous grant from
The Richard H. Driehaus Foundation

“An additional one point increase in Walk Score was associated with between a \$700 and \$3,000 increase in home values.”

B Metropolitan Policy Program
at BROOKINGS

Walk this Way: The Economic Promise of Walkable Places in Metropolitan Washington, D.C.

Christopher B. Leeberger and Mariela Alfonzo

Findings

An economic analysis of a sample of neighborhoods in the Washington, D.C. metropolitan area using walkability measures finds that:

- **More walkable places perform better economically.** For neighborhoods within metropolitan Washington, as the number of environmental features that facilitate walkability and attract pedestrians increases, so do office, residential, and retail rents, retail revenues, and for sale residential values.
- **Walkable places benefit from being near other walkable places.** On average, walkable neighborhoods in metropolitan Washington that cluster and form walkable districts exhibit higher rents and home values than stand alone walkable places.
- **Residents of more walkable places have lower transportation costs and higher transit access, but also higher housing costs.** Residents of more walkable neighborhoods in metropolitan Washington generally spend around 12 percent of their income on transportation and 30 percent on housing; in comparison, residents of places with fewer environmental features that encourage walkability spend around 15 percent on transportation and 48 percent on housing.
- **Residents of places with poor walkability are generally less affluent and have lower educational attainment than places with good walkability.** Places with more walkability features have not become more affluent over the past decade; however, there is no significant difference in terms of transit access to jobs between poor and good walkable places.

The findings of this study offer useful insights for a diverse set of interests. Leaders, for example, should first learn to integrate walkability into their underlying standards. Developers and investors should consider walkability when assessing projects for the region and acquiring property. Local and regional planning agencies should incorporate assessments of walkability into their strategic economic development plans and eliminate barriers to walkable development. Finally, private foundations and government agencies that provide funding for their sustainability practices should consider walkability especially as it relates to social equity when allocating funds and incorporate such measures into their accountability standards.

“More walkable places perform better economically” in terms of higher office, residential and retail rents; residential sales values; retail revenues

“Emerging evidence points to a preference for mixed use, compact, amenity rich, transit accessible neighborhoods or walkable places.”

Increased property values can result in:

- More tax revenue
- Development at higher densities
- Amplification of affordable housing shortage
- Increased vehicle ownership as hh incomes increase

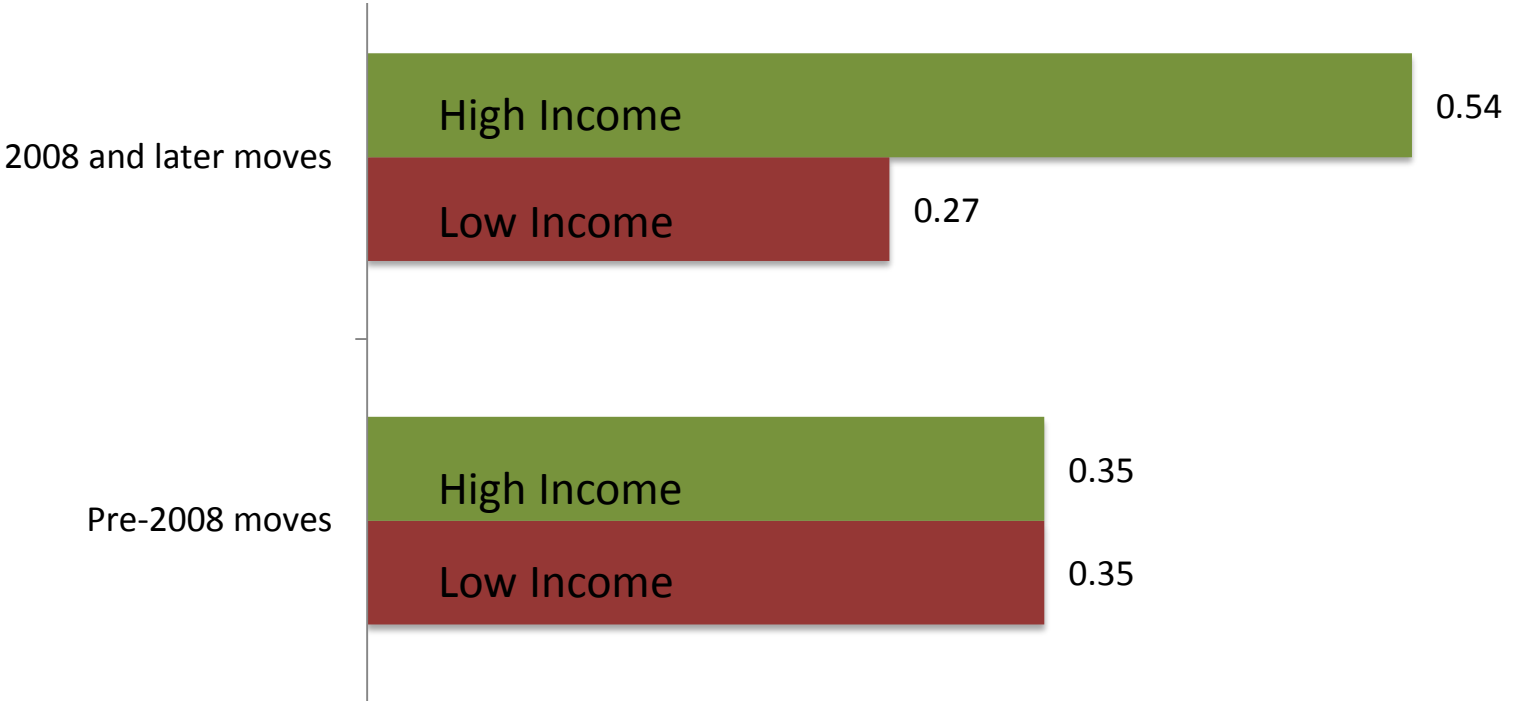
Low-income households priced out

Proportion of respondents who expressed a strong preference for pedestrian accessibility who moved to a “very walkable” neighborhood?

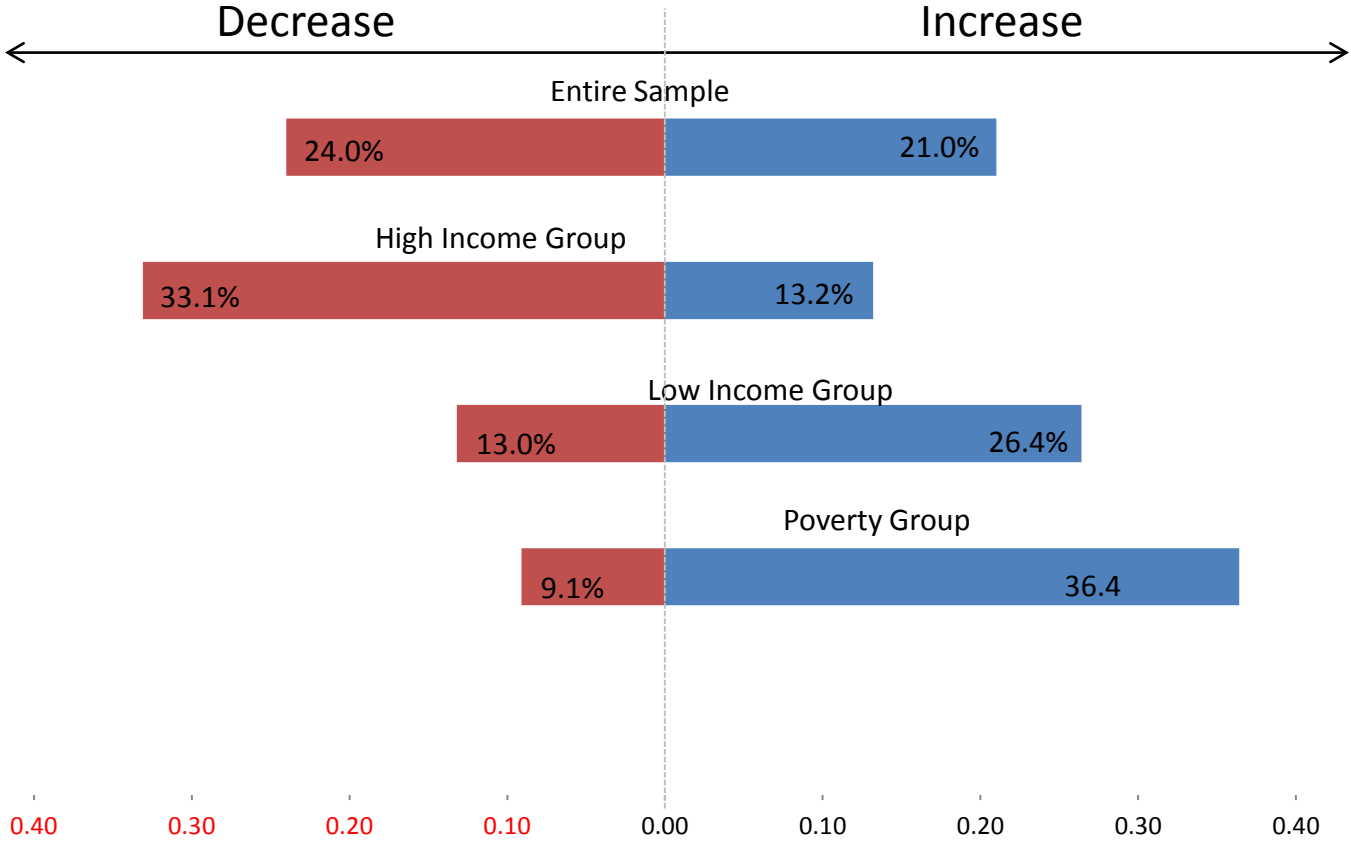
53.4% of higher income respondents

18.4% of low-income respondents

Pedestrian-accessibility by move date

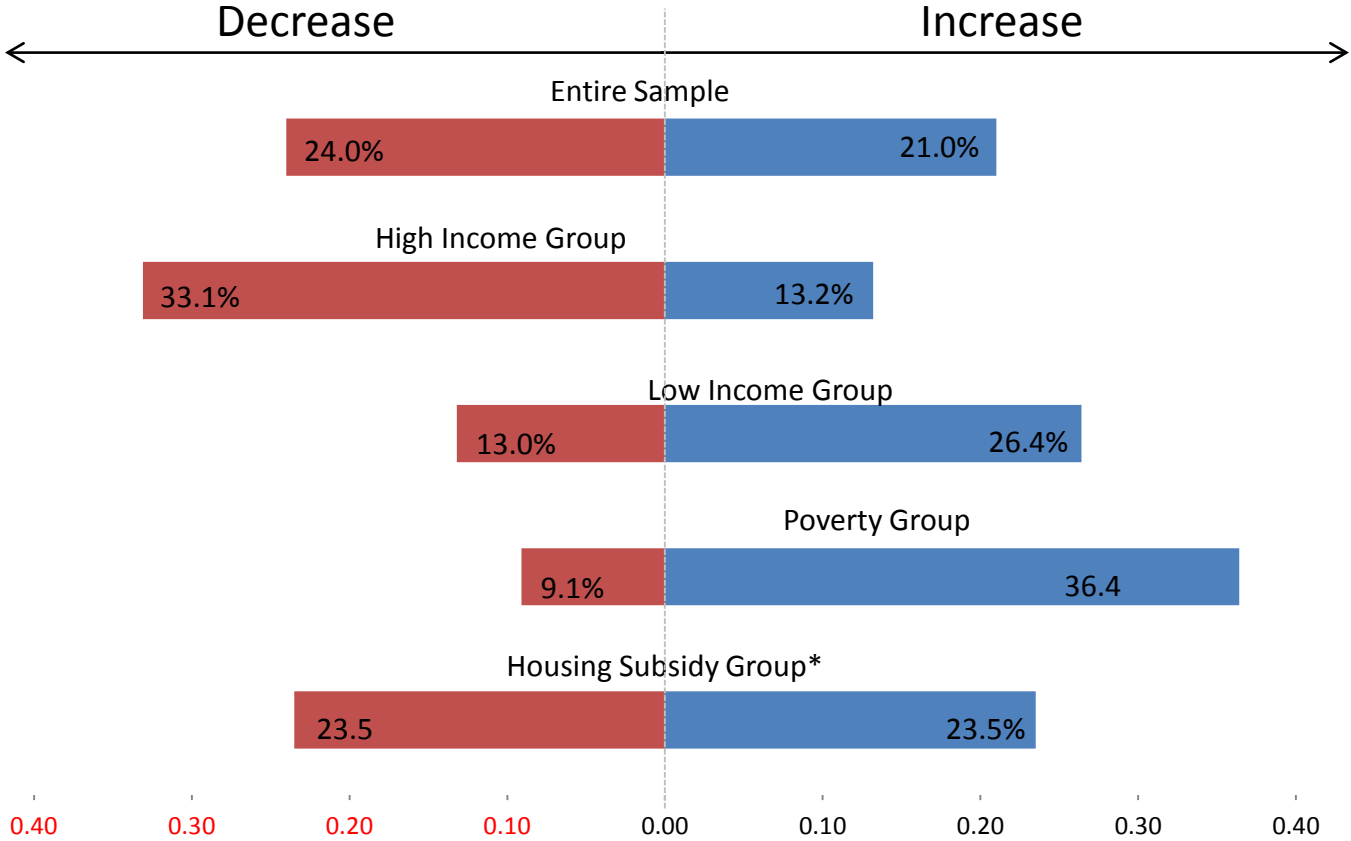


Compared to your previous home, do you expect transportation costs at your new home to increase, decrease, or stay about the same? (N = 344)



Percent of each group answering increase or decrease

Compared to your previous home, do you expect transportation costs at your new home to increase, decrease, or stay about the same? (N = 344)



Percent of each group answering increase or decrease

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Injury Prevention

Portland Region Housing Choice Voucher Program Mover Study

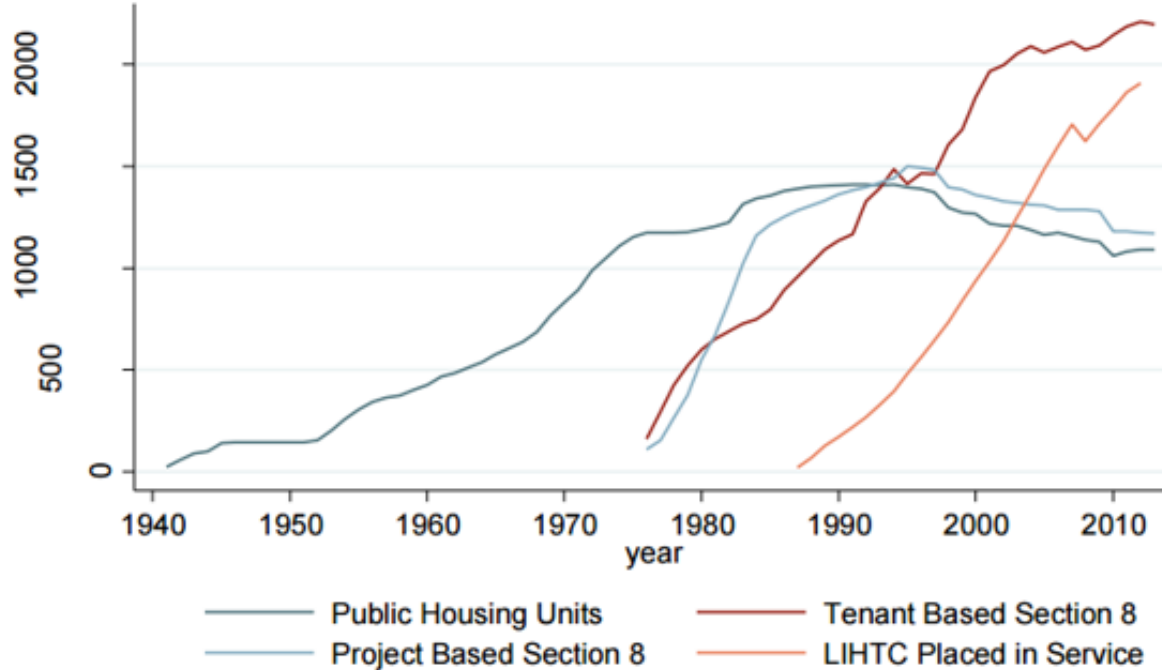
- Just completed study with Andree Tremoulet and Ryan Dann
- How do HCV movers in the Portland region fare in terms of LE?
 - In Portland:
 - HCV movers ended up with lower levels of LE than previous home
 - HCV movers had lower LE than non-movers
 - In suburbs:
 - HCV movers LE stayed the same or increased
 - No differences between movers and non-movers

Location Efficiency in the Low-Income Housing Tax Credit (LIHTC) Program

- With Gary Pivo and Andrew Sanderford at Univ. of Arizona
- What proportion of LIHTC units built between 2007 and 2011 are in location efficient places?
 - Do state allocation plans (QAPs) make a difference?
 - Does the share of LIHTC built by non-profits make a difference?

Location Efficiency in the Low-Income Housing Tax Credit (LIHTC) Program

Figure 1: Assisted Housing Units and Households
1940-2012



Location Efficiency in the Low-Income Housing Tax Credit (LIHTC) Program

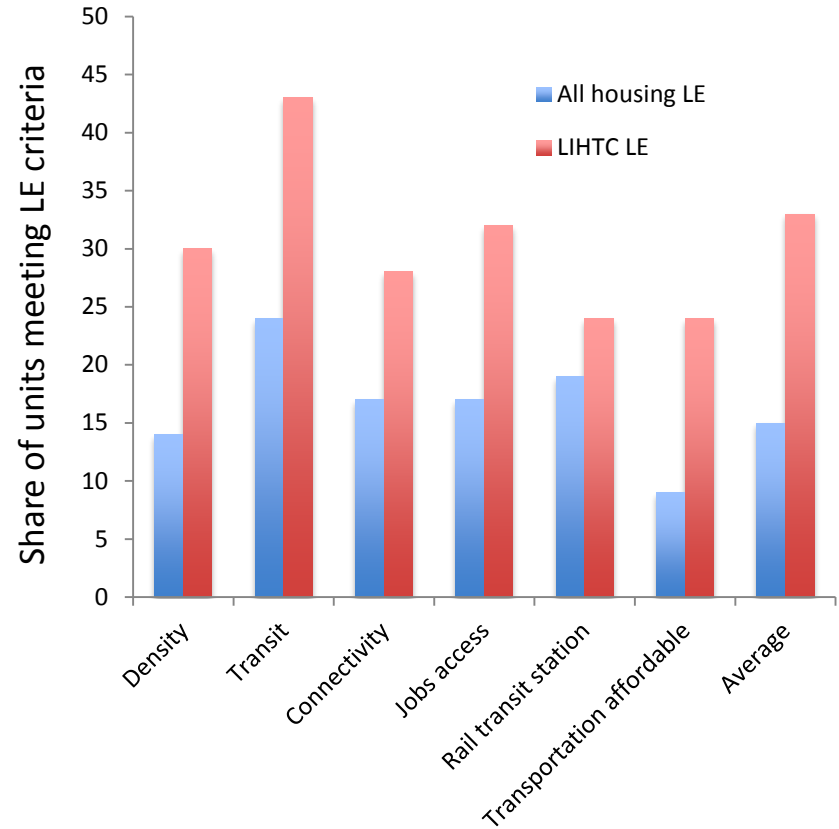
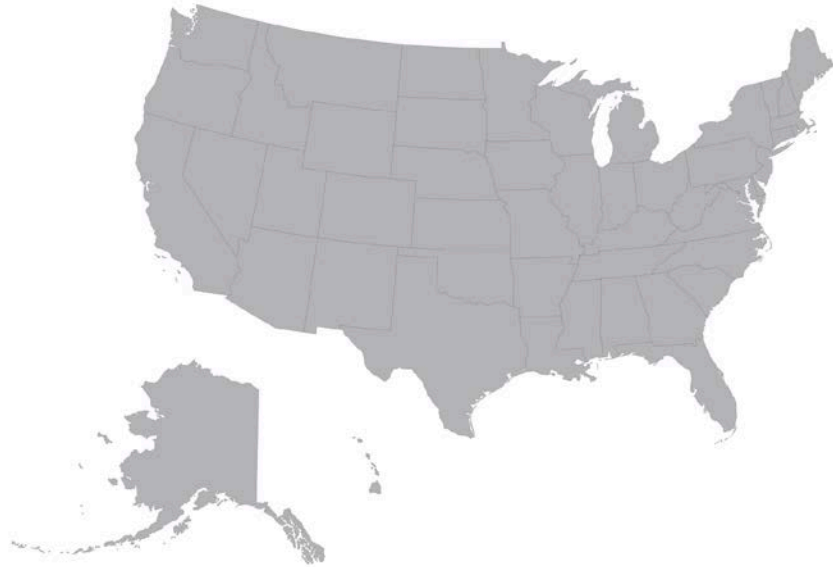
- Location efficiency variables from EPA Smart Location Database:
 - Residential Density
 - Street connectivity
 - Transit supportive (5% transit mode share)
 - Near rail transit (1/2 mile)
 - Relative regional accessibility (jobs)

Transportation costs < 20% of income for low-income household (Location Affordability Index)

Analysis

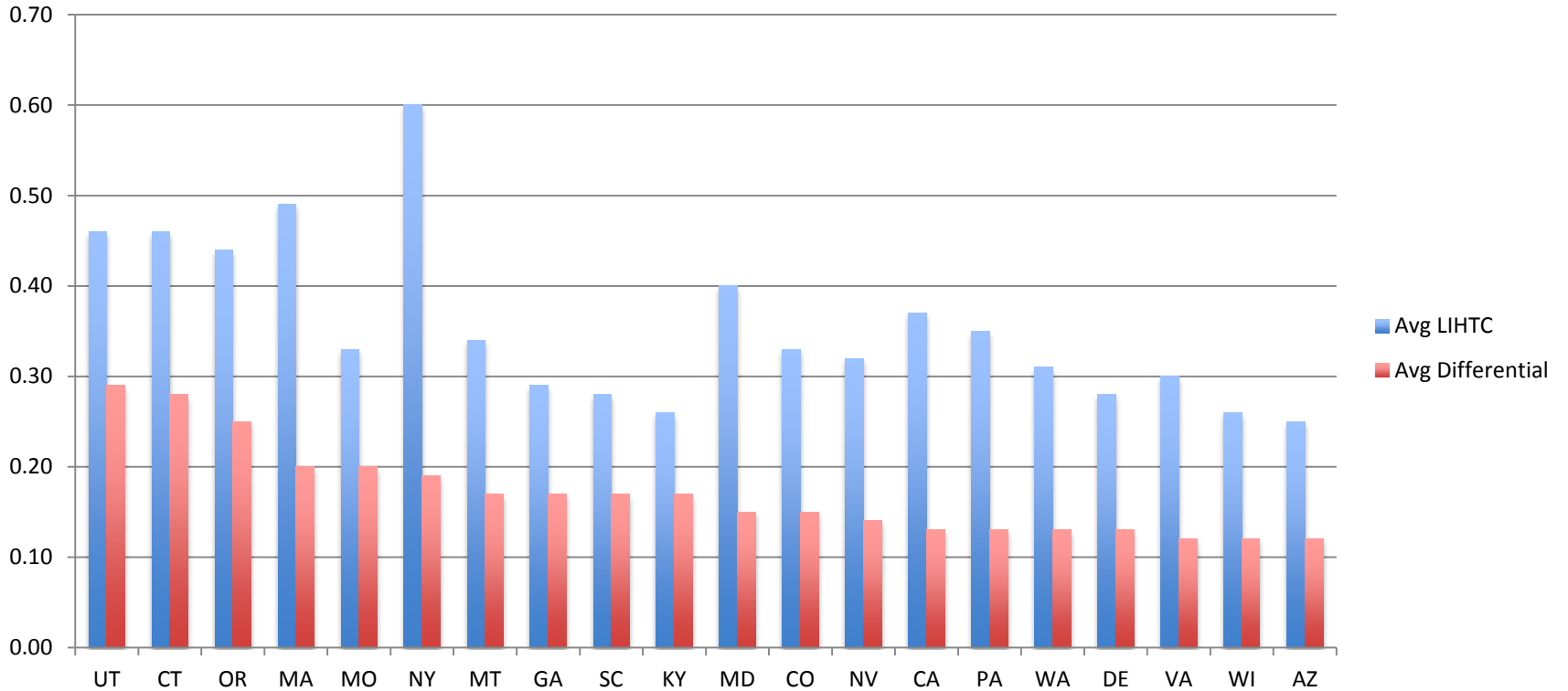
- National and state-level analysis
- Rather than determining whether each state placed LIHTC in a relatively location efficient place for that state, we used national standards
- Also compared LIHTC LE to LE of all housing stock to see which states over-performed against their baseline LE

LE of LIHTC built from 2007-2011

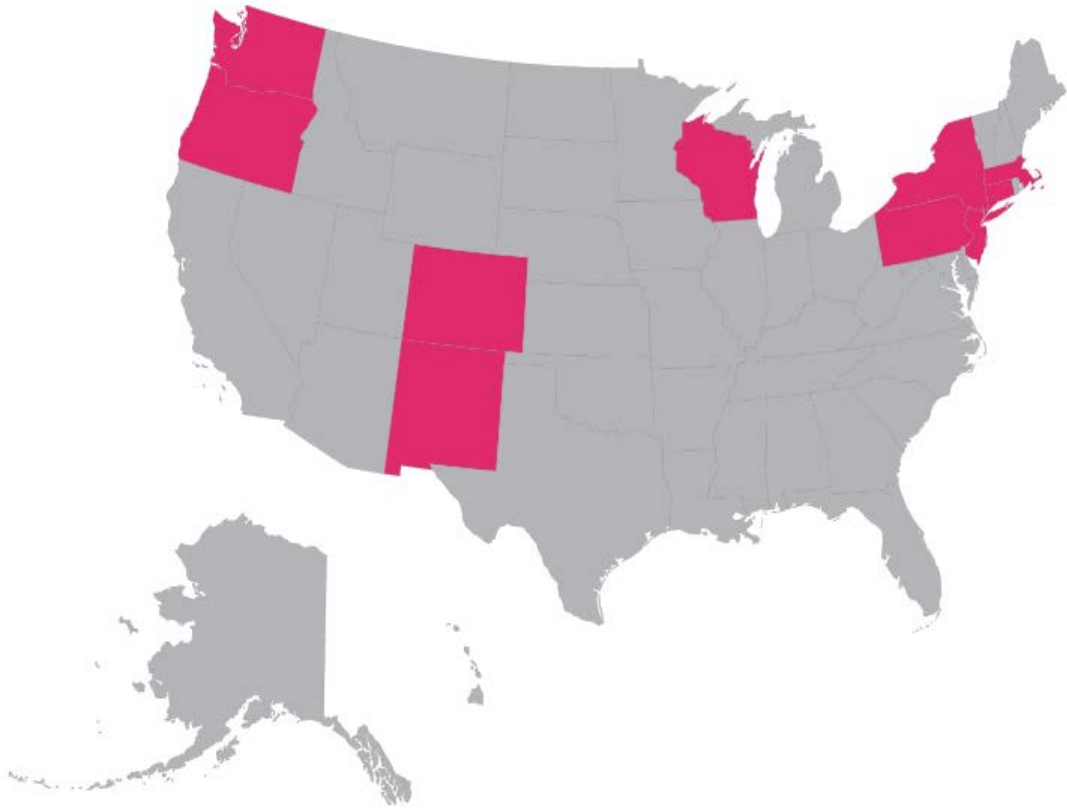


36% of LIHTC was built in CBGs meeting 3 or more LE criteria

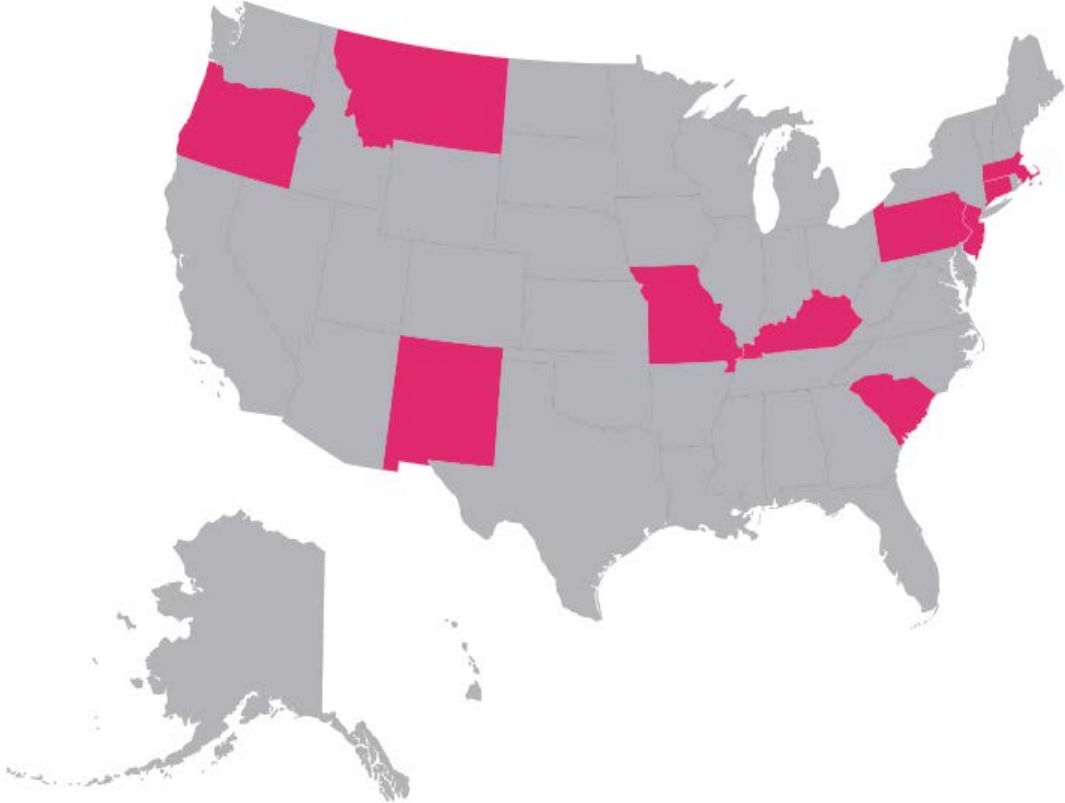
State by state LIHTC LE



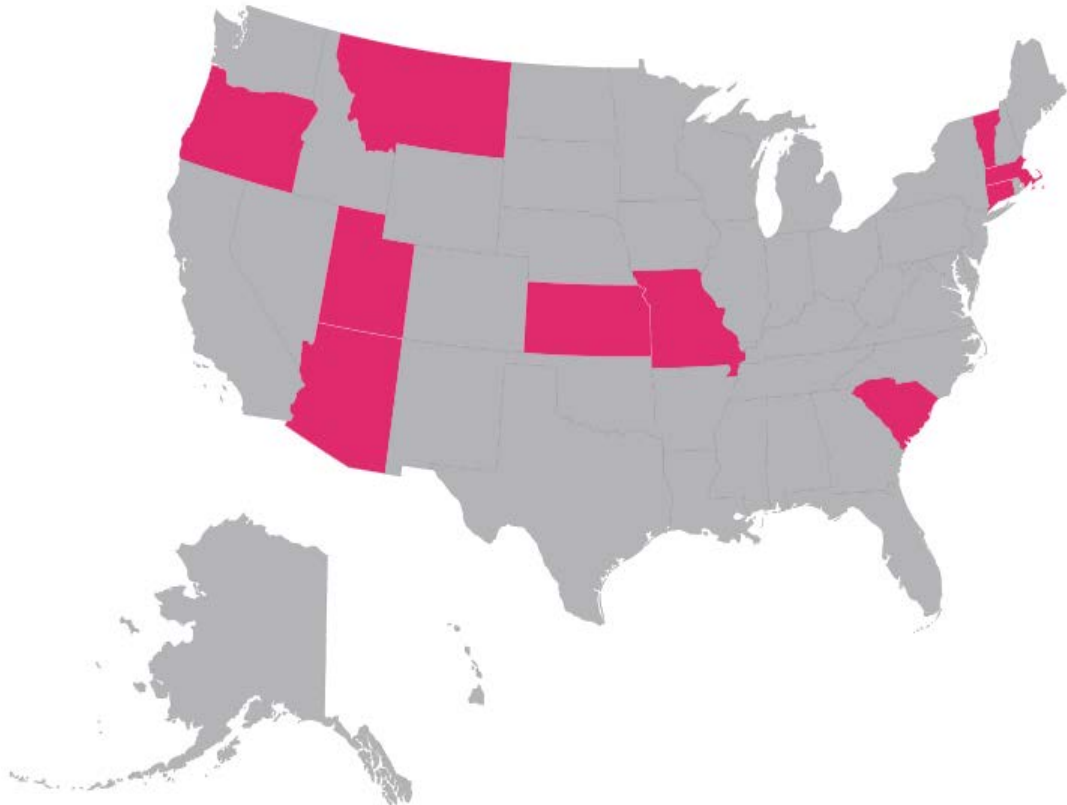
Differential: Residential Density



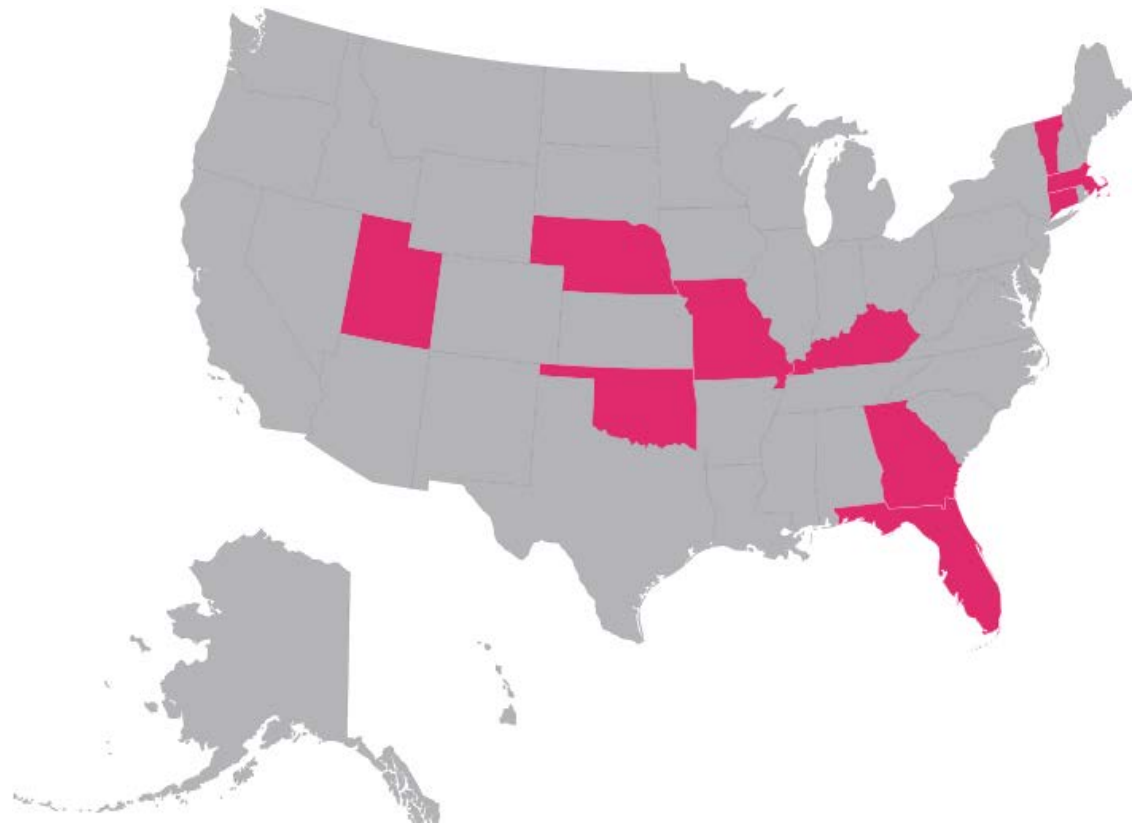
Differential: Connectivity



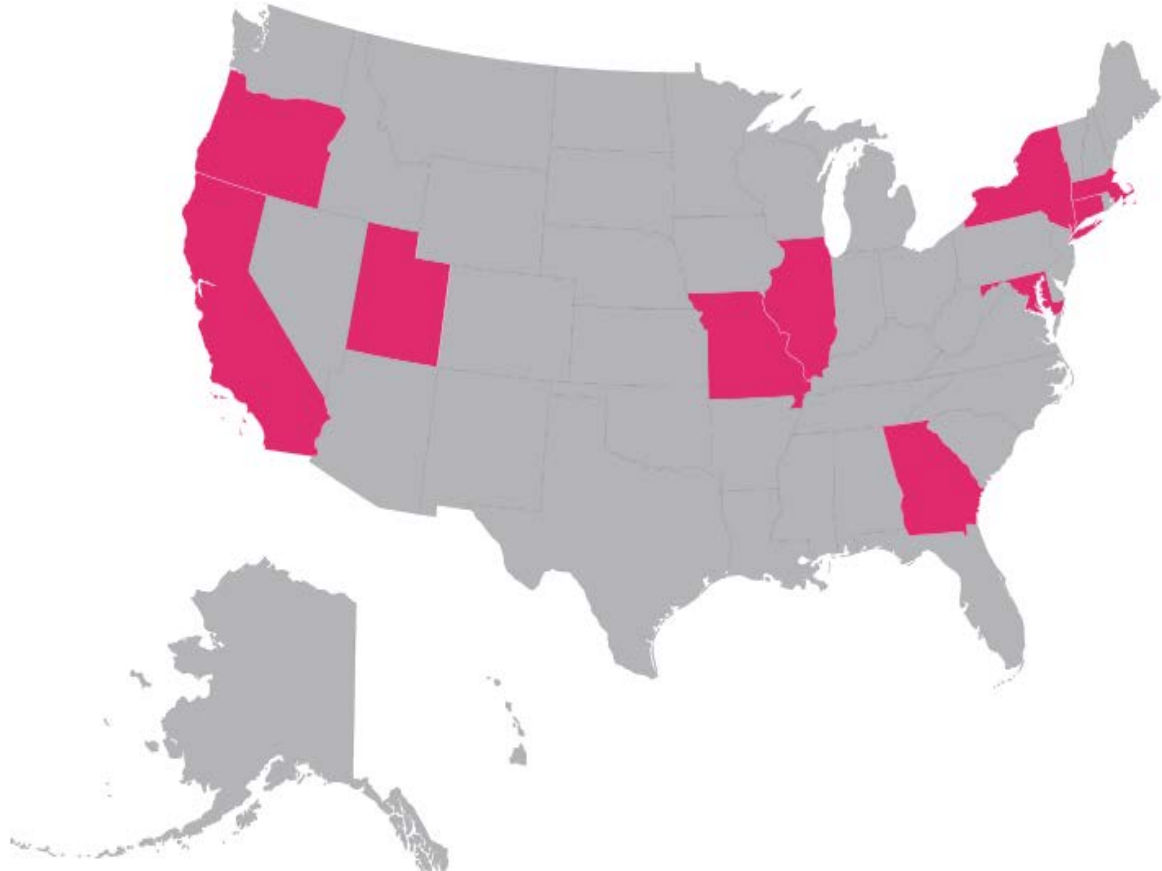
Relative Regional Accessibility



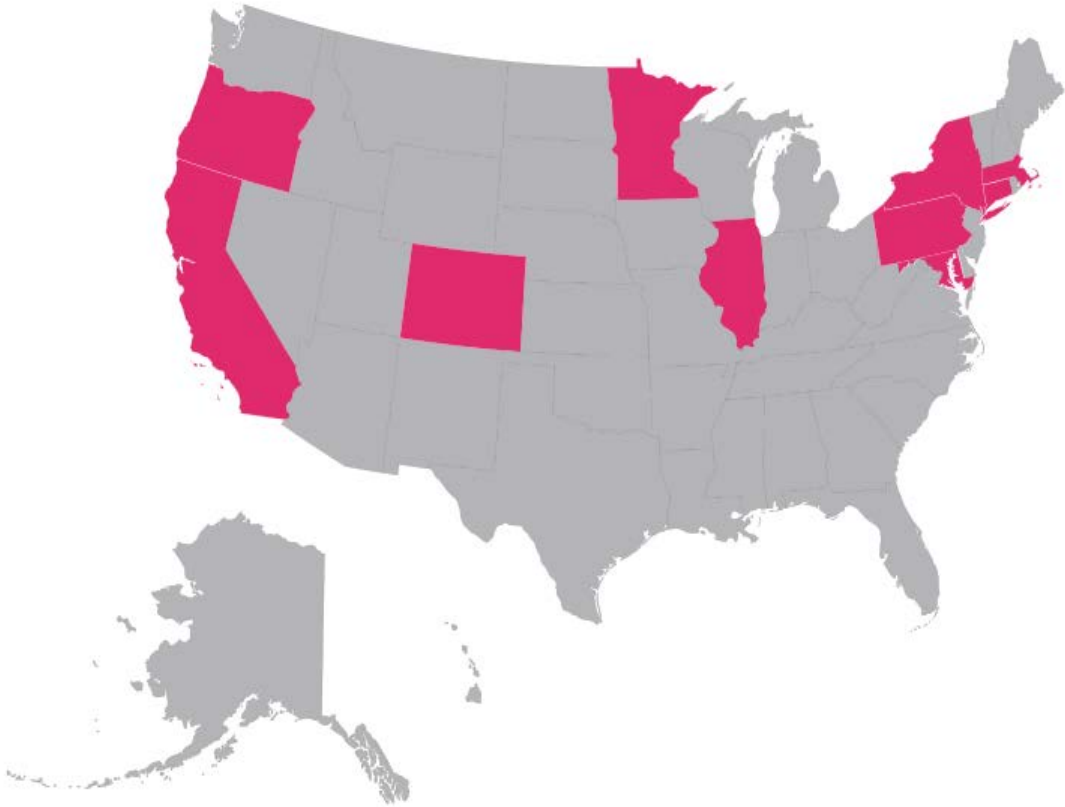
Differential: Transit Use



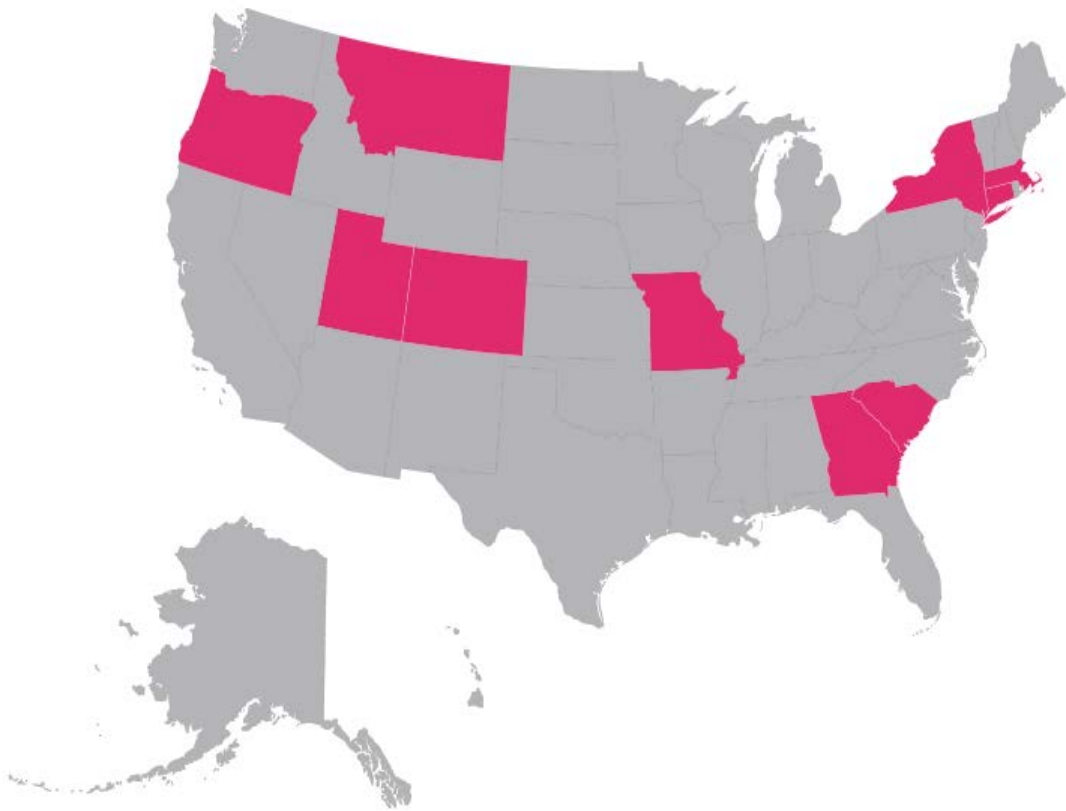
Near rail transit



Differential: Transportation costs < 20%



Differential: LIHTC LE (averaged)



Regression Analysis

- Model predicting state LIHTC LE:
 - After controlling for other market characteristics
 - **State qualified allocation plans' LE criteria and share of LIHTC developed by non-profit sector** are predictors of LIHTC LE differential

In conclusion

- LIHTC more location efficient than other housing
- Potential to be more LE, especially in some states
- Policy support and non-profit involvement help
- Limited scope of HCV and LIHTC; more needs to be done
- Big limitation: we do not directly address risk of further concentration of poverty; we don't know what the right % of LE LIHTC is
- Next steps: metro area comparisons, effect of QAP changes

Lessons for transportation planners

Do not:

- 1) Stop making transportation improvements

Lessons for transportation planners

Do:

- 1) Include a goal of preserving and creating affordable housing from the beginning of large transportation projects
- 2) Leverage transportation funding
- 3) Make affordable affordable housing central to the mission of transportation agencies
- 4) Capture value from land increases AND put that back into affordable housing
- 5) Get creative
- 6) Transportation students: take a housing class

American Institute of Certified Planners Code of Ethics
Selected “Principles to Which We Aspire”

We shall have special concern for the long-range consequences of present actions.

American Institute of Certified Planners Code of Ethics
Selected “Principles to Which We Aspire”

We shall pay special attention to the interrelatedness of decisions.

American Institute of Certified Planners Code of Ethics

Selected “Principles to Which We Aspire”

We shall seek social justice by working to expand choice and opportunity for all persons, recognizing a special responsibility to plan for the needs of the disadvantaged and to promote racial and economic integration. We shall urge the alteration of policies, institutions, and decisions that oppose such needs.



Thank you!
Comments?
Questions?

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