

Portland State University
PDXScholar

TREC Project Briefs

Transportation Research and Education Center
(TREC)


5-2015

Mobility and Accessibility in Shrinking Cities

Joanna Ganning
University of Utah

Let us know how access to this document benefits you.

Follow this and additional works at: http://pdxscholar.library.pdx.edu/trec_briefs

 Part of the [Transportation Commons](#), [Urban Studies Commons](#), and the [Urban Studies and Planning Commons](#)

Recommended Citation

Ganning, Joanna. Mobility and Accessibility in Shrinking Cities. 2015-736. Portland, OR: Transportation Research and Education Center (TREC), 2015.

This Report is brought to you for free and open access. It has been accepted for inclusion in TREC Project Briefs by an authorized administrator of PDXScholar. For more information, please contact pdxscholar@pdx.edu.



NITC

NATIONAL INSTITUTE
for TRANSPORTATION
and COMMUNITIES

Web: <http://nitc.us>

MOBILITY AND ACCESSIBILITY IN SHRINKING CITIES

A University of Utah researcher explores the synthesis of mobility- and accessibility-based transportation planning in the context of urban decay.

The Issue

Shrinking cities, also known as legacy cities, are previously dense urban areas that have experienced significant population loss. Striking examples in the United States are the historical automobile manufacturing cities Detroit, Buffalo and Cleveland. In these cities, the thinning of the population and the decay of physical infrastructure creates unique transportation challenges, particularly in the realm of public transit. The challenge of running a transit system that was designed to serve a much larger population than it currently sustains can result in service problems. These may be amplified in lower-income neighborhoods and among underrepresented populations who often lack the political clout to rally support.

Many regional planning organizations continue to rely on performance metrics that focus on mobility, measuring the generalized cost of travel per unit of distance, rather than measuring people's access to their destinations. Accessibility-based transportation planning is an approach that measures the ease of an individual to get to work, school and other destinations by a desired mode and at a desired time. Joanna Ganning of the University of Utah demonstrates that in shrinking cities the set of challenges is unique and that a synthesis of mobility-based and accessibility-based planning principles can create a tailored solution for areas suffering from urban decay.

The Research

Accessibility planning – ensuring people have access to their destinations – is demonstrably necessary in minority neighborhoods, but it is not the only challenge planners face. Budgetary shortfalls, crime, reduced walkability and issues of personal safety may become obstacles to accessibility. In neighborhoods that have been declining for decades, there is often a level of mistrust in the policy process itself that needs to be overcome. The challenges

THE ISSUE

The decline of populations in dense urban areas creates a unique set of challenges for transportation planners.

THE RESEARCH

The literature shows that a tailored solution must:

- Consider neighborhood features like walkability and crime rates;
- Focus on ensuring travelers have access to their destinations;
- Incorporate a synthesized approach using elements from both mobility and accessibility paradigms.

IMPLICATIONS

This project offers a framework for addressing transportation problems in urban areas with dwindling populations.

Photo: Young man at Detroit's Michigan Central Station

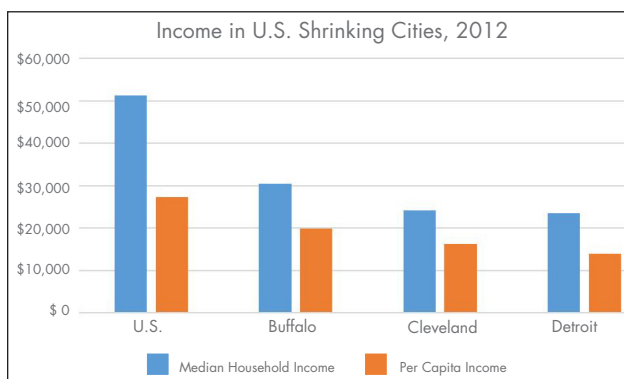
to providing access in these underserved neighborhoods are distinct. Shrinking cities have higher unemployment rates, lower incomes and more people requiring public assistance or food stamps when compared with the United States as a whole.

Ganning used the Location Affordability Index (LAI), a tool developed by the U.S. Department of Transportation and the US Department of Housing and Urban Development, to compare median household income and transportation costs in shrinking cities in the Midwest. She found evidence that transportation solutions in dwindling urban areas are desperately needed. The median household income in Cleveland in 2012, for example, was \$24,257, making the median cost of transportation — \$10,769 — grossly unaffordable. As commuting by car is often a money-driven choice, it frequently happens that people with greater economic need lack the option of commuting by private vehicle, so that the greater time they spend commuting on public transit reduces the hours they are available to work. Addressing these broader quality of life issues is a necessary part of attaining transportation accessibility.

Implications

Research has established that improved accessibility improves health outcomes and assists in securing and keeping paid employment, among other benefits. Ganning argues that in shrinking cities in the U.S., the costs of failing to implement accessibility-based transportation planning are greater than average, that this is especially the case for minority populations, and that the highly specific challenges facing accessibility in such places calls for a tailored approach.

Ganning recommends further research to better understand how to account for transportation costs and the standards of affordability in inner-city neighborhoods. An understanding of how households cope with these costs, and/or find alternative transportation solutions, is necessary for planners to



Median household and per capita income in U.S. shrinking cities

This graph shows income disparities between Buffalo, Cleveland and Detroit compared with the U.S. as a whole, based on the U.S. Census Bureau's 2012 American Community Survey.

view the whole

picture. For practitioners, potential solutions lie in working to change the culture of planning and politics so that community members' needs and priorities are understood.

Improving walkability, for example, is an indirect yet demonstrable way for planners to improve access to transit. In shrinking cities, this can be accomplished by securing, cleaning up, and policing vacant lands and buildings as well as through traditional measures like sidewalk upgrades and crosswalk improvements. If accessibility planning is to be a solution for shrinking cities, it will have to be especially tailored to the contexts and inherent challenges of those cities. Ganning's research offers a framework for approaching that task.

PROJECT INFORMATION

TITLE: Mobility Versus Accessibility: Applications for Shrinking Cities

LEAD INVESTIGATOR: Joanna Ganning, Ph.D., University of Utah

PROJECT NUMBER: 2015-736

CONTACT: Justin Carinci, 503-725-2843 carinci@pdx.edu

MORE INFORMATION <http://nitc.trec.pdx.edu/research/project/736>