WHEN CITIES SHRINK, AFFORDABILITY DOES TOO

A research project examines the trade-offs between housing and transportation costs in the context of shrinking cities.

The Issue
In late 2013, the Department of Housing and Urban Development (HUD) launched the Location Affordability Index (LAI) Portal. Their dataset uses models to estimate the median amount households spend on housing and transportation, and calculates housing and transportation affordability: the percent of household income spent on these items. The tool is meant to help consumers and communities understand the combined costs of housing and transportation associated with living in a specific neighborhood. However, there is virtually no validation of the estimates in any setting, and no studies delving into how accurate the estimates are in the context of “shrinking” or weak-market cities.

To better understand the real costs of housing and transportation in a declining urban context, NITC researchers implemented a household survey to determine whether the assumptions made in existing research literature and in the LAI regarding household expenditures and transportation accessibility hold true in shrinking cities—that is, cities characterized by a long-term loss in occupied housing units. The project was led by Joanna Ganning of Cleveland State University, who has conducted previous research into shrinking cities with the support of the NITC program.

The Research
Ganning and co-investigator J. Rosie Tighe of Cleveland State University completed the project in two major phases. In the first, they rebuilt the LAI from scratch to examine its assumptions and potential shortcomings for a shrinking city context. In this phase, the research team evaluated margins of...
error for input variables, variable construction for larger geographic areas than
the block group (the focal point of HUD’s LAI) and modeling considerations.
After reproducing the LAI in its entirety and producing housing cost estimates,
a comparison suggests that the estimates published by HUD overestimate both
housing cost and housing cost burden. Overestimates are larger for renter
households and larger in metropolitan areas.

In the second phase of the project researchers developed, deployed and
analyzed data from a household-level survey in 12 census tracts in Cleveland,
Ohio. The survey sought to better understand household trade-offs for
unaffordable transportation costs, and to better estimate household-level
transportation costs as a means of assessing the quality of those published by
HUD. The survey found that less than 9 percent of households resemble any
household type used by the LAI. Supporting findings from the first phase of
the research, the survey results also showed that the published LAI estimates
likely overestimate housing costs. The survey also indicates that the published
LAI overestimates transportation costs, and does so at a much higher margin of
error than for housing costs.

Implications
Survey results show that when households must make tradeoffs to pay for
transportation, two-thirds do so by foregoing paying bills, buying essentials
(like food and clothing), paying down debt, paying for experiences for children
(like field trips, educational opportunities or sports equipment) and investing.
Thus, for households facing these budgetary decisions, transportation costs
more by imposing an out-of-pocket cost now and the cost of interest on
overdue bills or lost investment income in the future.

Results also indicate that many low-income households in shrinking cities lack
mobility both in
terms of housing and transportation. As employment
suburbanizes but transit budgets remain stable or
decline, residents may face increasing difficulties
with access to jobs, school or medical care. The report
provides policy recommendations to help transit
authorities overcome these obstacles, including
ridesharing and van pools, bike share programs, and
better bicycle and pedestrian infrastructure. What seems
necessary is greater connectivity between all modes
of transportation. However, for transit authorities
to respond to the needs of diverse communities,
they must have accurate information. The strongest
recommendation of this research is that HUD and
its partners work to improve the reliability and
reproducibility of the transportation cost estimates.

Survey results compared to LAI estimates
This graph shows the housing and transportation costs for moder-
ate-income and single-parent households as estimated by the LAI,
compared with those same costs according to the survey results.