Development of a National-Level Rural Community Classification System Based on Transit Needs

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Overview

Rural Classifications
• Identify Urban/Rural
• Characteristics

Texas Trial
• Smell-check
• Refining classification

National
• Additional characteristics
• Consistent datasets

Sponsors - USDOT, University Transportation Centers Program, National Center for Transit Research: Livable Communities at USF & Urban Mobility Program, TTI
How Rural is Defined?

Rural = Geographically Not Urban

Administrative Concept
- Defines urban along municipal or other jurisdictional boundaries
- Used by many United States Department of Agriculture (USDA) rural development programs

Land-use Concept
- Identifies urban areas based on how densely settled the area is
- Used by the Census Bureau

Economic Concept
- Recognizes the influence of cities on labor, trade, and media markets that extend well beyond densely settled cores
- Used in most rural research applications

Cromartie & Bucholtz 2008
FTA’s Definition of Rural

Non-urbanized

OR

RURAL

OR

URBAN
Urban-Rural Classifications

- USDA Economic Research Service (ERS)
- Multi-Resolution Land Characteristics
- Urban-Rural Classification (Ripplinger, et al. 2008)
- Transit Cooperative Research Program (TCRP) Report 141 (KAI, CUTR, TTI, Nakanishi Research & Consulting LLC, and LCTR 2010)
- Peer Grouping and Performance Measurement to Improve Rural and Urban Transit in Texas (Arndt et al. 2011)
- Rural Policy Research Institute (RUPRI) Rural County Demand Types Influencing Transportation (Dabson et al. 2011)
Rural/Urbun Communities

Both urbanized and non-urbanized
Rural/Urban Communities

- Community centroid within UZA
- Community intersects UZA, centroid outside UZA, POP ≥ 50k
- Community intersects UZA, centroid outside UZA, POP < 50k, POP density > 500 ppsm
Characterization Based on Transit Service Markets

- Gateway communities
- Concentrated industry communities
- Agriculture communities
- University/military communities
- Edge communities
- Dense core communities
- Retirement communities
Gateway Communities

• Adjacent to high-amenity recreational areas and may have a transit market in employees and/or tourists access to amenities.
• More likely to provide food, lodging, and associated services to amenity visitors.
Concentrated Industry Community

- Have economies with strong non-agricultural industrial sectors and may have a transit market for employee shuttles for shift workers or other type services.
- Industrial employers are often located in a concentrated area on the community’s fringe
Agriculture Community

• Have economies with strong agricultural sectors and may have a transit market for shuttles between residential neighborhoods and concentrations of work-sites, such as for seasonal or year-round farm laborers.
University/ Military Community

- Communities contain, or are near, one or more educational or military facilities and may constitute a transit market for students, staff, and faculty living on and off site.
Edge Community

- Edge communities are located at the fringe of Census UZAs.
Dense-core Community

- Dense core communities possess greater than normal density in terms of population and/or built environment.
Retirement Community

- Retirement communities possess higher median ages, portion of households with no employed person, and so may represent communities where employment focused services are less important to a transit market than elsewhere.
Results in Texas

- Agriculture: 49%
- Concentrated Industry: 41%
- Gateway: 19%
- Edge: 11%

- Retirement: 9%
- Military/University: 3%
- Dense-core: 3%
- No Typology: 5%
Conclusions and Work in Progress

- Classifying methodology: straightforward
- Datasets used: National, updated periodically
- National classification & longitudinal comparison
- Comparison of peer grouped transit agencies → prevalent standard for transit operation within the same type

Thanks!
Please send your comments & questions to smita-sharma@tti.tamu.edu