



Analyzing the Effects of Transit Network Change on Agency Performance and Riders in a Decentralized, Small-to-Mid-sized US Metropolitan Area: A Case Study of Tallahassee, Florida

Jeffrey Brown, PhD, Tuna Batuhan, Torsha Bhattacharya, and Michal Jaroszynski

MTI Project 1102

May 2013

SJSU Research Center
210 N. Fourth St., 4th Fl.
San José, CA 95112

Tel // 408.924.7560
Fax // 408.924.7565

transweb.sjsu.edu

Board of Trustees

Founder

Secretary Norman Y. Mineta

Honorary Co-Chairs

Congressman Bill Shuster
Congressman Nick Rahall

Chair

Steve Heminger

Vice Chair

Stephanie L. Pinson

Executive Director

Rod Diridon, Sr.

Thomas E. Barron
Joseph Boardman
Donald H. Campb
Anne P. Canby
Grace Crunican
Julie Cunningham
William Dorey
Malcolm Dougherty
Mortimer Downey
Nuria I. Fernandez
Rose Guilbault
Ed Hamberger
John Horsley
Will Kempton
Jean-Pierre Loubinoux
Michael Melaniphy
William Millar
Norman Y. Mineta
Dean David Steele
Paul A. Toliver
Michael S. Townes
Bud Wright
Edward Wytkind

On July 11, 2011, StarMetro, the local public transit agency in Tallahassee, Florida, restructured its entire bus network from a downtown-focused radial system to a

decentralized, grid-like system. Local officials and agency leaders believed it would better serve the dispersed local pattern of population and employment. The new, decentralized network is based on radial routes serving the major arterial roads and new crosstown routes linking the outer parts of the city, where population and employment are growing. This major service change occurred literally overnight, but it followed several years of public debate about the future of transit in the community.

Service restructuring increased the community's transit accessibility by providing more direct routing between origins and destinations and by adding service to previously un-served suburban activity centers.

Study Methods

The study consisted of three primary research focuses exploring different aspects of service restructuring in Tallahassee. First, the authors employed a combination of descriptive before-and-after analyses of route, transit stop, and system-level agency ridership and service data to explore the effects of service restructuring on ridership and service productivity. Second, the authors used a combination of rider and neighborhood surveys and transportation demand modeling to examine the effects of service restructuring on riders and the larger Tallahassee community. Finally, the authors used key informant interviews to explore the roles, influence, and attitudes of important local stakeholders who engaged in the restructuring debate and shaped the restructuring form.

Findings

At a system level, service restructuring did not generate the higher ridership numbers or increased service productivity that its proponents sought. However, ridership at many suburban stops has increased, which suggests that many riders are availing themselves of the new destination opportunities that restructuring has provided. The restructured system was in place only one year at the time of the study, so additional time is needed to examine the longer-term effects.

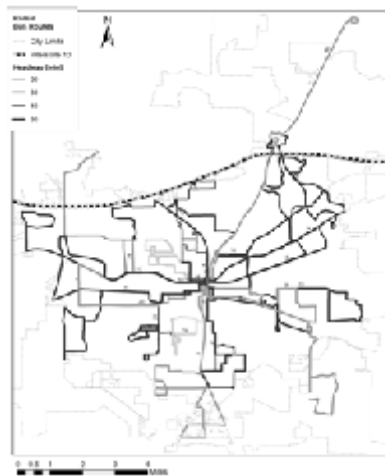
Service restructuring has increased overall community accessibility by providing access to new destinations and reducing transit travel times to existing destinations. There have been modest increases in transit use by occasional riders. No particular types of neighborhoods or socio-economic groups were disproportionately harmed by or benefited from the service restructuring.

StarMetro's public outreach efforts calmed some stakeholder fears about restructuring, and it transformed some skeptical stakeholders into supporters. The agency made numerous adjustments to its restructuring plan in response to public input. Nevertheless, many stakeholders are still concerned about the length of headways, access and safety issues around stops, loss of stops and routes in certain neighborhoods, and a lack of resources to make necessary service improvements that would make the system more attractive and accessible. The service restructuring remains controversial among many community segments.

Policy Recommendations

Restructuring from a radial to a decentralized transit system can increase accessibility if done right, but such a change requires careful attention to community concerns about route changes, stop locations, headways, access, and safety. The importance of good headways with coordinated schedules is particularly important in smaller transit systems such as StarMetro because both are necessary to reduce passenger wait times.

A long time horizon is needed to develop, implement, and evaluate the results of major transit service changes like that adopted in Tallahassee. Early public engagement is critical in building consensus around major restructuring proposals, and even significant time and effort is needed to encourage this participation. Radical service changes also require more time for the agency, its riders, and the larger community to adjust. More than one year after the service restructuring, StarMetro continues to make schedule and route changes.



Radial System before July 11, 2011



Decentralized System after July 11, 2011

StarMetro Transit Network: Before and After Restructuring

About the Authors

Jeffrey Brown is associate professor and Tuna Batuhan, Torsha Bhattacharya, and Michal Jaroszynski are doctoral candidates in the Department of Urban and Regional Planning at Florida State University.

To Learn More

For more details about the study, download the full report at transweb.sjsu.edu/project/1102.html

MTI is a University Transportation Center sponsored by the U.S. Department of Transportation's Research and Innovative Technology Administration and by Caltrans. The Institute is located within San José State University's Lucas Graduate School of Business. [WEBSITE transweb.sjsu.edu](http://transweb.sjsu.edu)