ST. LOUIS METROPOLITAN TAXICAB COMMISSION REVIEW ON TAXICAB AND LIMOUSINE SERVICES

Access to available, safe, and economical public taxi service is important to any community. This project is a review and update of an earlier study of the St. Louis area taxi services for the Metropolitan Taxicab Commission. This review includes measurements to determine if the Commission and its actions are assisting in the improvement of area taxi services. It also attempts to assist the Commission on aspects of introducing Transportation Network Companies (TNCs) into the taxi market.

Funded by the St. Louis Metropolitan Taxicab Commission and the US Department of Transportation Office of Research and Technology

EQUAL AIR SERVICE: AN INVESTIGATION OF ALTERNATIVES

Originally conceived as a temporary solution for smaller communities that could lose scheduled air service following airline deregulation in 1978, Essential Air Service (EAS) program currently provides federally subsidized commercial air service to nearly 160 communities. This project explores possible ground transportation alternatives for some EAS communities.

Funded by the US Department of Transportation Office of Research and Technology

PROFESSIONAL TRAINING IN AIRPORT GROUND TRANSPORTATION

The Center for Transportation Studies, in conjunction with the Airport Ground Transportation Association (AGTA), offers training workshops to airport ground transportation industry professionals.

Supported by the UMSL Center for Transportation Studies and the Airport Ground Transportation Association

COST BENEFIT ANALYSIS: REPLACEMENT OF THE MERCHANTS MEMORIAL MISSISSIPPI RAIL BRIDGE MAIN SPANS

Owned by the Terminal Railroad Association of St. Louis, the Merchants Rail Bridge is one of the most heavily used Mississippi River rail crossings. However, the bridge is 126 years old and in significant need of repair. Without improvements, the bridge will close in 2034 and all current traffic will be rerouted to longer routes. This project contends that reconstructing the Merchants Bridge will generate significant economic benefits and should receive federal support.

Funded by the Terminal Railroad Association of St. Louis and the US Department of Transportation Office of Research and Technology

MASS TRANSIT SUSTAINABILITY IN THE ST. LOUIS REGION

Public transportation funding continues to require federal, state, and local tax reserves. Caught between looming deficits and a failure to attract large numbers of new consumers is a mangled web of inefficient operations, financially unsustainable funding commitments, and an inability to adequately modernize transit systems. This project explores alternatives and urges the adoption of innovative and rewarding approaches to leveraging and restructuring mass transit systems in the St. Louis region.

Funded by the US Department of Transportation Office of Research and Technology

CURRENT RESEARCH PROJECTS

CENTER FOR TRANSPORTATION STUDIES

MASS TRANSIT SUSTAINABILITY IN THE ST. LOUIS REGION

Public transportation funding continues to require federal, state, and local tax reserves. Caught between looming deficits and a failure to attract large numbers of new consumers is a mangled web of inefficient operations, financially unsustainable funding commitments, and an inability to adequately modernize transit systems. This project explores alternatives and urges the adoption of innovative and rewarding approaches to leveraging and restructuring mass transit systems in the St. Louis region.

Funded by the US Department of Transportation Office of Research and Technology

ESSENTIAL AIR SERVICE: AN INVESTIGATION OF ALTERNATIVES

Originally conceived as a temporary solution for smaller communities that could lose scheduled air service following airline deregulation in 1978, Essential Air Service (EAS) program currently provides federally-subsidized commercial air service to nearly 160 communities. This project explores possible ground transportation alternatives for some EAS communities.

Funded by the US Department of Transportation Office of Research and Technology

ST. LOUIS METROPOLITAN TAXICAB COMMISSION REVIEW ON TAXICAB AND LIMOUSINE SERVICES

Access to available, safe, and economical public taxi service is important to any community. This project is a review and update of an earlier study of the St. Louis area taxi services for the Metropolitan Taxicab Commission. This review includes measurements to determine if the Commission and its actions are assisting in the improvement of area taxi services. It also attempts to assist the Commission on aspects of introducing Transportation Network Companies (TNCs) into the taxi market.

Funded by the St. Louis Metropolitan Taxicab Commission and the US Department of Transportation Office of Research and Technology
LAMBERT-ST. LOUIS INTERNATIONAL AIRPORT HISTORY PROJECT

Founded by Albert Bond Lambert in 1920, Lambert-St. Louis International Airport is one of the most historic airports in the United States. Dr. Daniel L. Rust (Assistant Director of the Center for Transportation Studies) is under contract with the Missouri History Museum Press to author an authoritative account of the history of Lambert Airport as part of the Missouri Aviation Historical Society’s Lambert-St. Louis International Airport History Project.

In cooperation with the Lambert-St. Louis International Airport Authority, the Missouri Aviation Historical Society, and supported in part by the US Department of Transportation Office of Research and Technology.

MODELING AIRSIDE OPERATIONS AT MAJOR AIRPORTS FOR STRATEGIC DECISION SUPPORT

This project, under the direction of L. Douglas Smith (Director of the UMSL Center for Business and Industrial Studies) is resulting in the creation of a planning simulation tool that can help airport planning managers analyze airport capacity with appropriate linkages to the external environment.

In cooperation with the Lambert-St. Louis International Airport Authority and funded by the US Department of Transportation Office of Research and Technology.

WOMEN IN TRANSPORTATION FIELD JOBS: THE HIDDEN ASSET

The US rail, barge, and trucking industries have long labored under the image of a diversity-challenged sector with few women employed in field jobs. However, due to a prevalence of vacant operating positions in an increasingly demanding economic market, change is imminent as companies seek to hire more women. In addition to analyzing trends and challenges of employing women in male-dominated roles, this project considers the economic impact women will make by filling more field positions in transportation, how the job vacancies should be marketed to gain the interest of potential female employees, and forecast future trends and benefits of a more diverse workforce.

In cooperation with the Union Pacific Railroad and funded by the US Department of Transportation Office of Research and Technology.

USING CHAID DECISION TREES TO EVALUATE SEVERITIES OF MISSOURI TRUCK CRASHES

Utilizing traffic, personal, and vehicle crash data from 2002-2012 supplied by the Missouri State Highway Patrol Traffic Division, the Center’s Big Data Laboratory is using CHAID decision tree models to evaluate severities of Missouri truck crashes to identify areas of potential improvement of motor carrier safety public policy.

Funded by the US Department of Transportation Office of Research and Technology.

ASSET UTILIZATION POTENTIAL OF BUILDING A MOTOR CARRIER AND RAIL MEGA INTERMODAL HUB IN THE ST. LOUIS REGION

The objective of this study is to assess the asset utilization potential of building a common trucking and rail intermodal hub in the Saint Louis region by looking at industry history, examining transportation policies and initiatives in the Saint Louis region, and evaluating the major stakeholders affected by intermodal initiatives.

Funded by the US Department of Transportation Office of Research and Technology.

INVESTIGATION OF GENDER DIFFERENCES IN LARGE TRUCK CRASH INJURY SEVERITY IN MISSOURI

Undertaken by the Center’s Big Data Laboratory, this study uses Missouri crash data to analyze circumstances that increase the probability of severity, given a large truck crash occurs. CHAID decision tree models are being developed for both male and female drivers to better understand predictor importance and to uncover interactions among contributing factors.

Funded by the US Department of Transportation Office of Research and Technology.