

**Request for Research Funding for FY 2022-2023**

**SPR Subpart B Project: PRO-23-02**

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| <b>Requesting Office</b> | Transit  | <b>Priority</b> | 2 of 4 (projects may not have the same ranking – no ties) |
| <b>Proposed Title</b>    | Economic Impact Assessment of Florida’s Transit Services   |                 |   |
| <b>Justification</b>     | <p>It’s generally understood that public transportation is important to maintain the livability and economic vitality of Florida’s communities, and transit can not only help alleviate traffic congestion and improve air quality, but also provide mobility and accessibility to millions of Florida’s residents and visitors, particularly those vulnerable populations including the elderly and the youngsters, persons with disabilities and socioeconomically disadvantaged population. However, there is a controversy about the economic value of public transportation as the farebox recovery ratio is low.</p> <p>But the value of transit service cannot be fully measured by the traditional measure of farebox recovery ratio. To those who cannot afford driving or cannot drive, transit services mean accessibility to jobs, to education, to health services. The life-time earnings from the jobs, education and health services would contribute to economic well-being to the society as a whole. In addition, one passenger on the bus means one less car on the road and one less car’s carbon and pollution emission, which contribute to the societal well-being of public transportation. Therefore, it is important to re-examine how we estimate economic impacts of transit services in Florida and in the nation.</p> <p>The last study completed in Florida on the economic and community benefits of public transportation was completed in a decade ago in 2011. With the rapidly changing transportation landscape (including, but not limited to, ACES initiatives and other strategies related to FDOT’s Vital Few of safety, mobility, and innovation), and the advancement of economic impact analysis methods, the time has come to revisit the work completed in 2011, to include the life-cycle economic impacts of passengers and also include other types of public transportation services like microtransit services in the analyses that may demonstrate additional types of impacts to Florida communities, including those related to public health and quality of life.</p> <p>Therefore, the goal of this research proposal is to develop an economic impact analysis, not the traditional economic cost-benefit analysis, to quantify the economic impacts of transit services in Florida, including the impacts on the local economic productivity, employment and income. The objectives of the project include:</p> <ol style="list-style-type: none"> <li>(1) To quantify the costs of transit service provision, operation and maintenance,</li> <li>(2) To quantify the benefits of transit service,</li> <li>(3) To quantify the impacts of transit service on the elderly, the youngster, and the socioeconomically disadvantaged population,</li> <li>(4) To quantify the impacts of transit service on social well-being, including air pollution, greenhouse gas emissions, energy use, and traffic congestions, and</li> <li>(5) To quantify the overall economic impacts of transit service on social welfare and the overall economy.</li> </ol> |                 |   |
| <b>Impact</b>            | The outcome of this research includes a report showing the economic impacts of transit investment, including GDP, employment and income in the state of Florida and counties, and a spreadsheet-based economic impact analysis tool. This research will help FDOT central office, districts, and local transit agencies to identify and quantify the economic and social impacts of public transportation system and assist decision-makers to make more informed decisions on the investment in public transportation.  |                 |   |
| <b>Affected Offices</b>  | FDOT Transit central office, FDOT Districts, and local transit agencies in the state of Florida.   |                 |   |
| <b>Existing Work</b>     | <p>There are three TCRP (Transit Cooperative Research Program) reports related to this research.</p> <p>(1) TCRP Synthesis 128 (2017): <i>Practices for Evaluating the Economic Impacts and Benefits of Transit</i> provides state-of-the-practice information for transit agencies to help them in incorporating economic benefits and impacts into their decision-making processes, which may lead to more sustainable funding solutions for transit agencies.</p> <p>(2) TCRP Report 186 (2016): <i>Economic Impact Case Study Tool for Transit</i> presents the results of a project to create the prototype for a searchable, web-based database of public transit investment projects and their associated, transit-driven economic and land development outcomes.</p>   |                 |   |

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|  | <p>(3) TCRP Web-Only Document 56 (2012): <i>Methodology for Determining the Economic Development Impacts of Transit Projects</i> explores the development of a method for transit agencies to assess whether and under what circumstances transit investments have economic benefits besides the land development stimulated by travel time savings.</p> <p>However, there are some research gaps in existing work: (1) Those are nationwide study and may not be applicable to the state of Florida. (2) Most research aimed at evaluating the overall economic benefits and impacts of transit services, and ignored community-level social wellbeing benefits, especially the impacts on the vulnerable populations (e.g., the elderly, the youngsters, the disabled, and socioeconomic disadvantaged). (3) The publications were dated since the transit landscape has been substantially changed in recent years.</p> |   |                                      |
| <b>Keywords Used In Existing Work Search</b><br><b>(Cannot leave blank)</b>  | Transit service, Economic impact analysis, Community benefit, Local and regional economy, Cost-benefit analysis  |   |                                      |
| <b>Related Contracts</b><br><b>(Give contract numbers)</b>   | BDV31 TWO 977-119, Life cycle costs and benefits analysis of freight transportation projects   |   |                                      |
| <b>Funding Request</b>   | \$ 285,000   | <b>Anticipated Duration</b>   | 18 months                            |
| <b>Project Manager</b>   | Gabrielle Matthews   | <b>Contracting Method</b>   | direct contract with university (UF) |
| <b>Equipment</b>   | N/A  | Comments* No equipment will be needed.  |                                      |
| <b>Urgency</b>   | 1  | Comments: The last economic impact assessment of transit services in Florida is outdated (completed in 2011). A significant gap exists in estimating such economic impacts over the last decade when the public transportation landscape rapidly changed, particularly in the current pandemic environment. Therefore, there is an urgent need to conduct this research to assess economic impacts and provide up-to-date information to facilitate decision-makers to make more informed decisions in public transportation investments. |                                      |
| <b>Implementability</b>  | 1  | Comments: The results of this project would be directly implementable to FDOT central office in making their investment decisions regarding ACES initiatives and other strategies related to FDOT's Vital Few of safety, mobility, and innovation.  |                                      |
| <b>Project Benefits (Succinct, complete explanation)</b> <ol style="list-style-type: none"> <li>1. This research will help FDOT, MPOs and local agencies to better assess the economic impacts of different transit services in Florida, from the perspectives of both community and local or state economy.</li> <li>2. The results produced by the research will provide information for FDOT and local governments to make more informed decisions about public transportation investment.</li> <li>3. This project will solidate FDOT as the leader in maximizing economic benefits of transit services in the nation, and further increase the national and international visibility of FDOT's innovation in transit services.</li> </ol> |  |   |                                      |
| <b>Project Benefits</b><br><b>(Select all that apply and explain)</b>  | <b>Quantifiable Benefits</b><br><b>(units, dollars, etc...if applicable)</b>   | <b>Methodology or Data Sources Used to Determine Quantifiable Benefits. If not applicable, please give justification of project benefits</b>  |                                      |
| <input type="checkbox"/> Materials Enhancement   |  |   |                                      |
| <input type="checkbox"/> Materials Savings   |  |   |                                      |
| <input type="checkbox"/> Time Savings  |  |   |                                      |

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| ○ Lives Saved/Injuries Prevented |  |   |
| ○ Other (Explain)                | Provide better quantification of the economic benefits of transit services for FDOT, Districts, local governments, and transit agencies. | The results provided by this research would help decision-makers in FDOT, Districts, local governments, and transit agencies to make more informed decisions in transit investments. The benefit is demonstrated if the decision-makers cite this research results when they make transit investment decisions. |

\*Comments should explain and support urgency, financial benefit, and implementability scores