



Martin County

Transit Development Plan 2020–2029

Executive Summary

August 2019



2020 - 2029

Marty
ON THE MOVE

Marty

2020 - 2029

ON THE MOVE

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Introduction

This study was initiated by Martin County to update the Marty's Transit Development Plan (TDP) for the 10-year period of Fiscal Years (FY) 2020–2029. This TDP, branded Marty on the Move, represents Martin County's vision for transit in its service area during this time period and, at the same time, functions as the strategic guide for future transit service in the community. A major TDP update such as this also allows the agency to outline actions to be taken in the following year and to set goals for subsequent years. As a strategic plan, the TDP will identify needs in an unconstrained fashion and for which there may not currently be funding.

State Requirement

Marty on the Move is consistent with the requirements of the State of Florida Public Transit Block Grant Program, enacted by the Florida Legislature to provide a stable source of funding for public transportation. The Florida Department of Transportation (FDOT) requires recipients of Block Grant Program funds, such as Martin County, to prepare a major update of its TDP every five years. This requirement helps to ensure that the public transportation services being provided and planned are consistent with the community's mobility needs. Each update must be submitted to the appropriate FDOT District Office by September 1st of the year in which it is due.

Marty on the Move Development

Developing *Marty on the Move* involved a number of planning activities, including:

- Documenting study area conditions
- Analyzing socio-economic characteristics
- Evaluating existing transit services
- Gathering and analyzing public input
- Forecasting ridership potential
- Developing a situation appraisal
- Updating the plan's goals
- Identifying future transit needs
- Preparing a 10-year financial and implementation plan

Highlights of the *Marty on the Move* TDP are presented in the remainder of this document.

Marty System Overview

System Profile

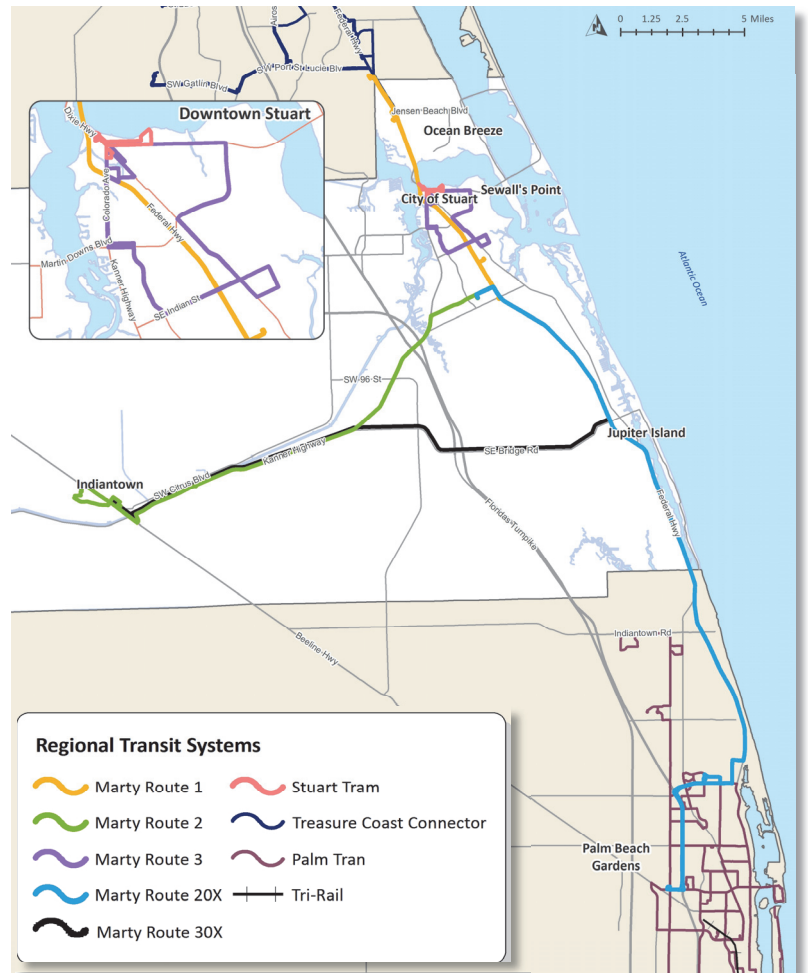
Five routes comprise the current Marty system—two fixed, one deviated fixed, and two express. Other transit agencies with connecting opportunities to Marty routes include Palm Tran, which operates in Palm Beach County, the Treasure Coast Connector, which operates in St. Lucie County, and Stuart’s downtown Tram service, which includes two fixed routes providing stops at key locations within the downtown area.

Fixed-Route/ADA Ridership Trends

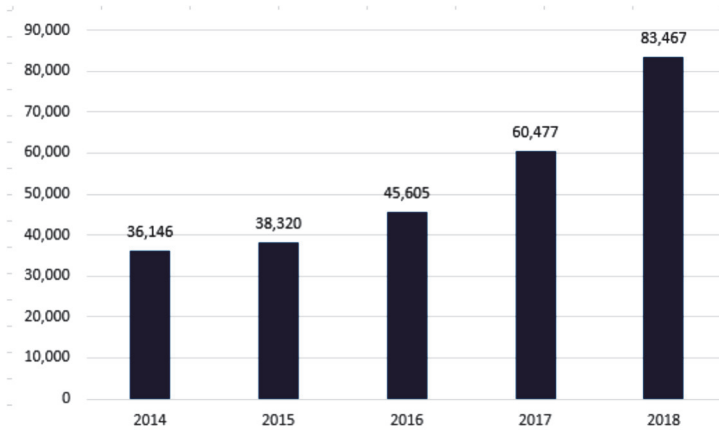
Ridership, also known as passenger trips, is the number of passengers who board a transit vehicle. Marty’s ridership data for 2014–2018 were reviewed as part of the TDP update.

Since 2014, Marty’s ridership has steadily increased by 131% to a peak of nearly 83,500 annual riders in 2018.

ADA service is offered for individuals with disabilities within a ¾-mile buffer of Marty’s fixed routes. During this five-year period, ADA ridership peaked in 2015 and has since decreased. As shown, during the four-year period, ADA ridership declined overall by 25%.

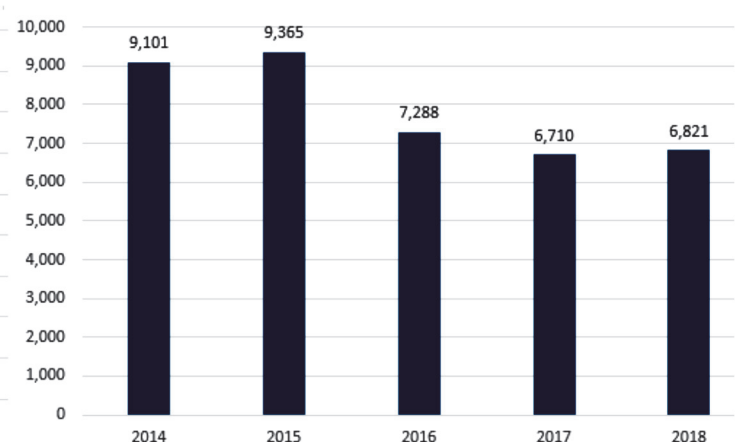


Marty Fixed-Route and Commuter Bus Ridership



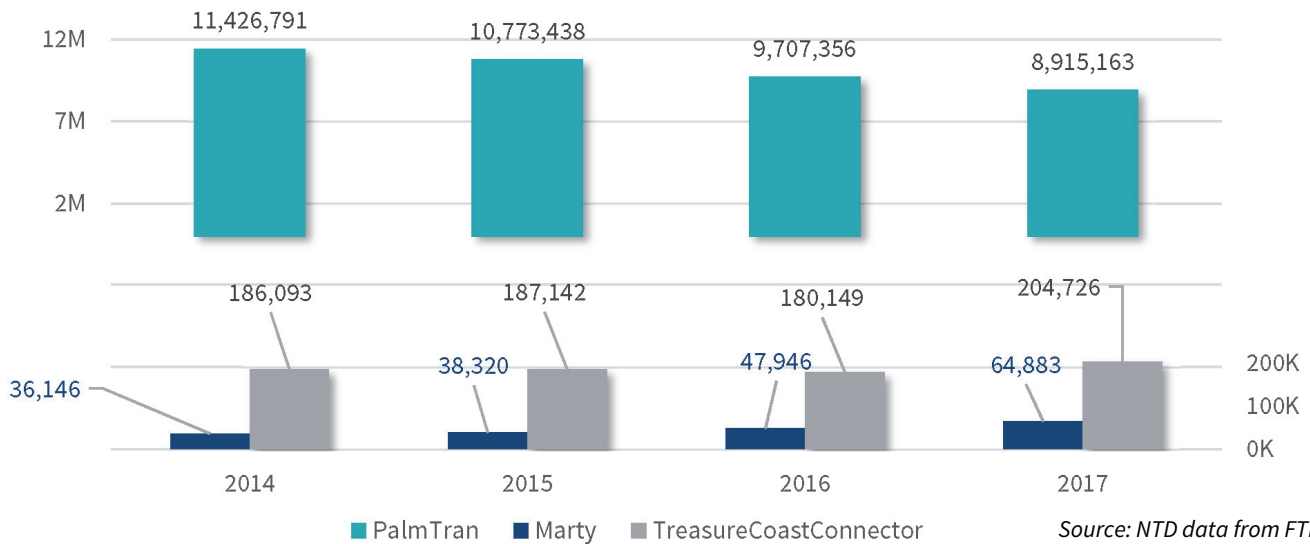
Source: National Transit Database (NTD) data from Florida Transit Information Systems (FTIS)

Marty ADA Ridership



Source: NTD data from FTIS

Marty and Neighboring Agency Annual Fixed-Route Ridership, 2014–2017



Marty Services Evaluation

To assess how efficiently Marty supplies fixed-route transit service and how effectively it meets the needs of the area, a trend analysis of critical performance indicators and measures was conducted using data for 2014–2017 (the most recent data available for all systems).

- **Service Supply** – Revenue miles per capita (service supply) increased by 111% since 2014, suggesting that Marty’s service increased throughout the five-year analysis period.
- **Quality of Service** – The number of revenue miles between failures decreased substantially between 2014 and 2016, suggesting a higher rate of incidents that potentially resulted in interrupted service.
- **Cost Efficiency** – The majority of metrics for cost efficiency decreased, suggesting that Marty’s service has become more economical over time; the operating cost per capita increased by 44%, but it did so at a lower rate than the increase in passenger trips (80%).

Marty Fixed-Route and Commuter Bus Service Trends, 2014–2017

Indicator/Measure	2014	2015	2016 ¹	2017 ¹	% Change (2014–2017)	Status	Desired Trend ²
General Indicators							
Passenger Trips	36,146	38,320	47,946	64,883	79.50%	▲	▲
Passenger Miles	334,591	401,312	383,072	570,375	70.47%	▲	▲
Vehicle Miles	184,418	235,056	368,377	389,118	111.00%	▲	▲
Revenue Miles	172,785	225,884	351,844	376,516	117.91%	▲	▲
Total Operating Expense	\$797,155	\$849,468	\$1,004,421	\$1,189,595	49.23%	▲	--
Effectiveness Measures							
Revenue Miles per Capita	1.18	1.51	2.35	2.50	110.88%	▲	▲
Passenger Trips Per Capita	0.25	0.26	0.32	0.43	73.71%	▲	▲
Revenue Miles Between Failures	86,393	16,135	22,824	n/a	-278.5%	▼	▲
Efficiency Indicators							
Operating Expense Per Capita	\$5.46	\$5.46	\$6.70	\$7.88	44.41%	▲	▼
Operating Expense Per Passenger Trip	\$22.05	\$22.17	\$20.95	\$18.33	-16.86%	▼	▼

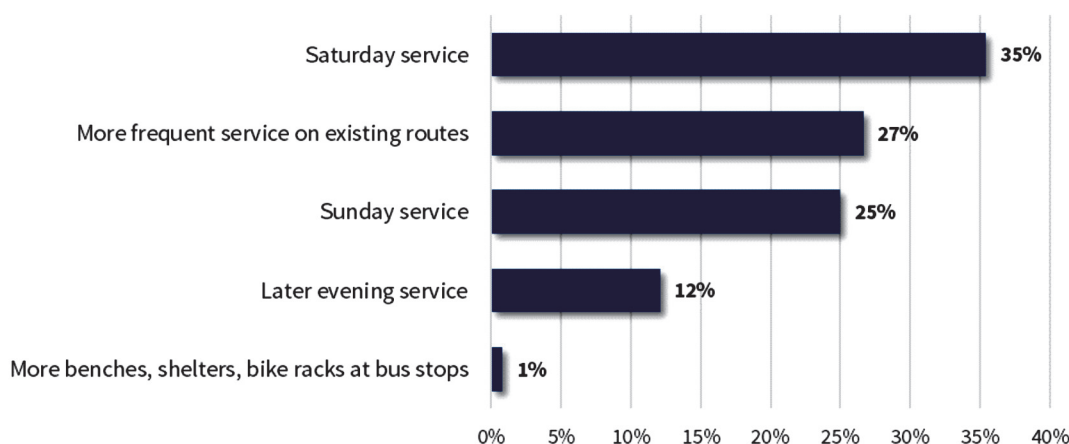
Source: NTD data from FTIS.

Public Outreach

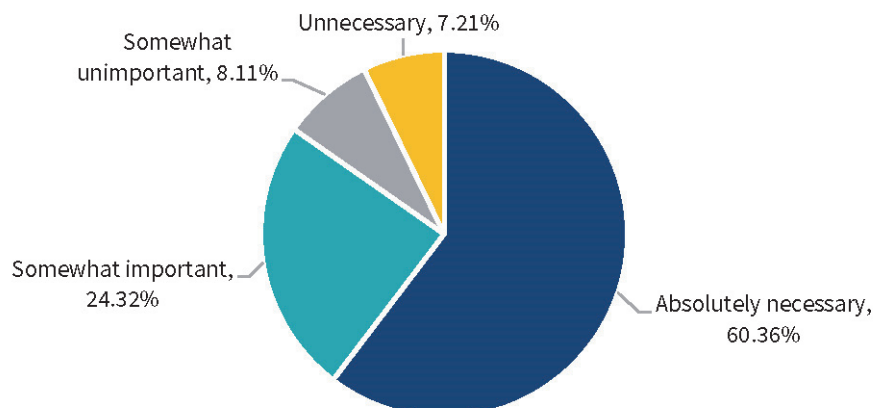
Public outreach during the TDP update process is ongoing and involves continuously receiving and accumulating feedback about services. For *Marty on the Move*, numerous public outreach activities were conducted throughout the county and online to understand and obtain feedback regarding the community's transit needs. To ensure the active participation of both transit users and non-users, outreach efforts included an on-board survey of Marty riders, workshops with public and meetings elected officials, stakeholder discussion groups, an online survey for the general public, and use of social media and email communications.

Outreach Event	Contacts
Project Review Committee	6
Stakeholder interviews (10)	10
Chambers of Commerce discussion group	4
County Connections newsletter subscribers	1,544
County Connections newsletter media list	137
Bus on-board survey	151
Online survey	113
Community events	110+
Indiantown Council meeting	70+
Transit Alternatives survey	56
Total	2,200+

Top Transit Service Improvement Needs



Transit's Role in the Community



Vision and Goals

Vision Statement

Enhance the overall quality of life of Martin County residents, workers and visitors by providing a safe, accessible, reliable, interconnected and attractive public transportation system with growth to meet the community's needs.

Goals and Strategy Update Guidance

The following sources were used to guide the update of the adopted TDP goals and strategies for the next 10 years:

- Goals and Strategies (formerly Objectives) from the last TDP (2015) and progress its 10-year implementation plan.
- Findings from the Situation Appraisal that identified key issues affecting Marty today and that will affect it for the next several years.
- Input received from the public and stakeholders on the needs and direction of transit in Martin County and the Treasure Coast region.
- Findings from plan and policy reviews based on recommendations and goals and objectives/strategies included in other agency plans to ensure consistency with other planning efforts at the national, regional, and local levels.



Goals

- **Goal 1: Transit Service Quality** – Operate a high-quality public transit service to efficiently move people within Martin County and the Treasure Coast region.
- **Goal 2: Transit Service Efficiency and Effectiveness** – Focus on improving the efficiency and effectiveness of transit service provided by Marty.
- **Goal 3: Transit Ridership** – Increase ridership levels by addressing service needs for both traditional and new transportation markets.
- **Goal 4: Branding, Marketing, and Public Awareness** – Promote Marty's brand so it continues to be easily recognizable by existing and potential customers.
- **Goal 5: Intergovernmental Coordination** – Continue building strong partnerships with community and private sector entities and local and regional transportation agencies.



Preliminary Transit Improvements (Alternatives)

Through the TDP process, preliminary improvements for fixed-route service were identified. These improvements represent the transit needs for the next 10 years and were developed without consideration of funding constraints.

The map on the next page provides an illustration of the transit improvements for the next 10 years identified during this TDP update process.

Service Improvements

- Modify existing route alignments.
 - ◊ Extend Route 2.
 - ◊ Split Route 3 into Routes 3a and 3b.
 - ◊ Extend Route 20x.
- Add later service for Routes 1, 2, and 3.
- Add Saturday Service for Routes 1, 2, and 3.
- Double frequencies for Routes 2 and 3.

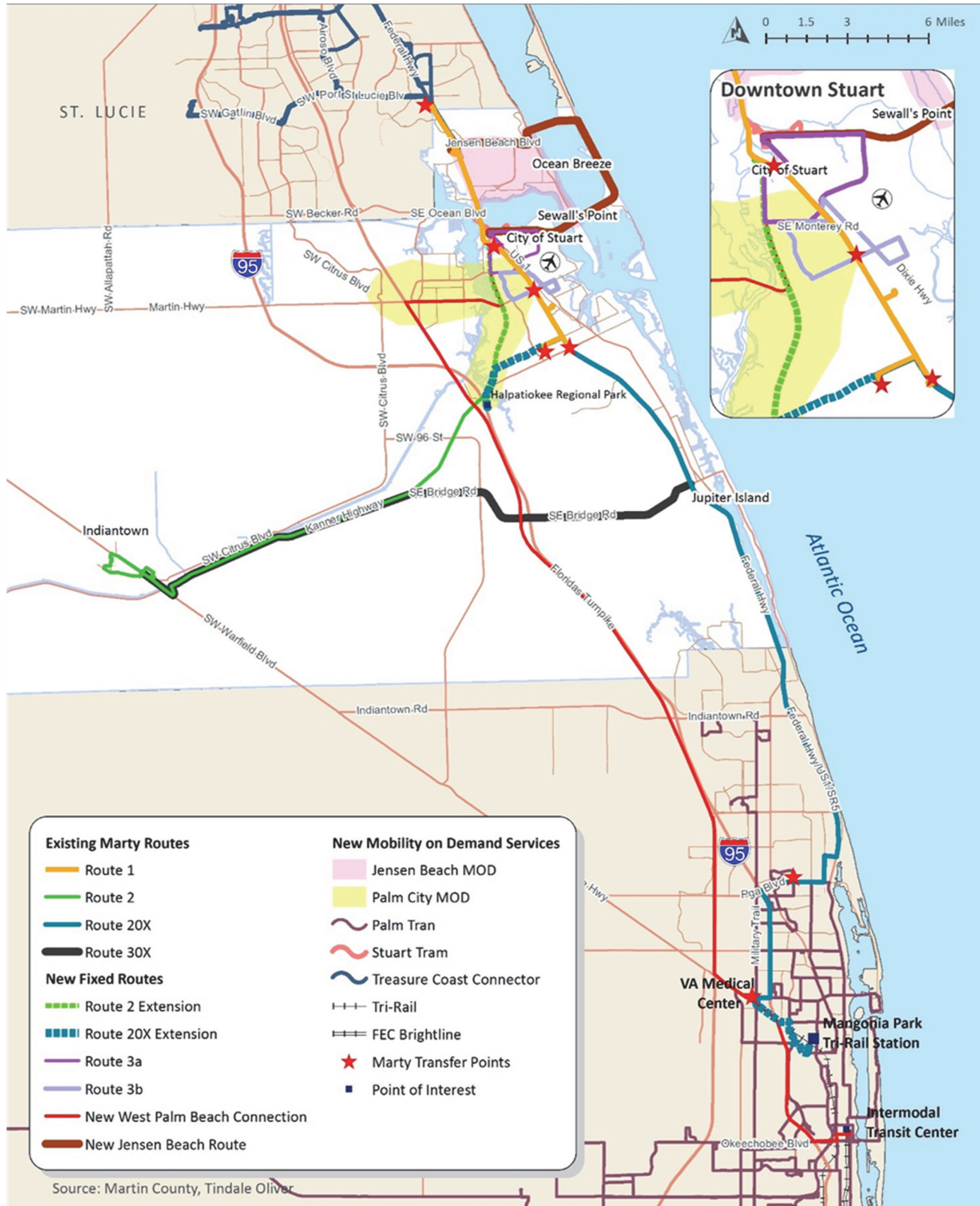
New Service Expansions

- New Jensen Beach route from Treasure Coast Square to Jensen Beach Park
- New regional Turnpike commuter route to West Palm Beach Downtown Intermodal Transit Center
- Mobility on Demand (MOD) service
 - ◊ Palm City MOD
 - ◊ Jensen Beach/Rio CRA MOD (if fixed-route service not implemented)

Capital/Infrastructure Improvements

- Continue to implement vehicle replacement plan.
- Expand and improve bus stop infrastructure and technology.
- Improve bus stop safety and ADA accessibility.
- Maximize use of park-and-ride facilities.
- Construct stand-alone transit operations and maintenance facility.
- Establish intermodal hub.
- Prepare major TDP updates every five years.

Martin County 10-Year Transit Needs

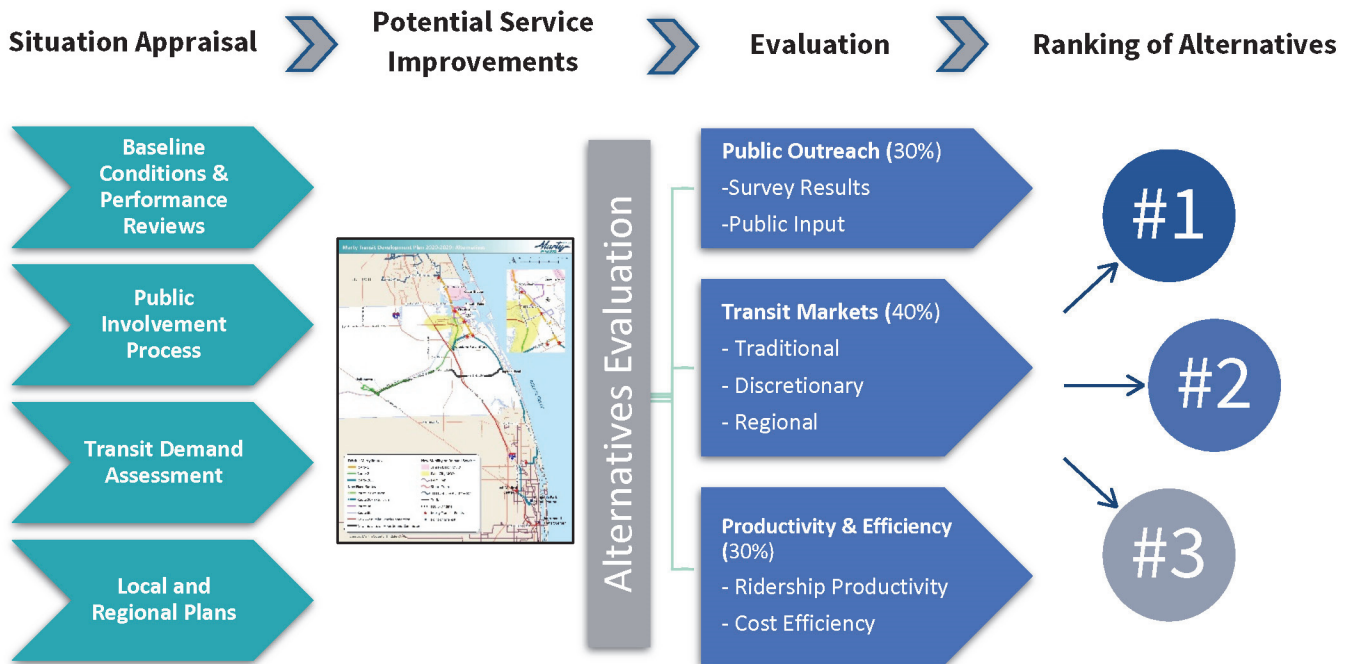


Alternatives Evaluation

The preliminary transit alternatives identified from the analysis and public outreach process serve different geographic areas and provide varying levels of service. It is important for Martin County to prioritize these alternatives to effectively plan and implement them within the next 10 years using existing and/or new funding sources.

To evaluate the benefits of the proposed service improvements and better prioritize them, a methodology was developed that considered public input, transit market assessment results, and service productivity and efficiency measures, as illustrated below. The ranked alternatives resulting from this evaluation process are presented below.

Alternatives Evaluation and Prioritization Process



10-Year Transit Service Priorities

Rank	Service Improvement	Rank	Service Improvement
1	Split Route 3 into Routes 3a and 3b	6	Double frequency
2	Add Saturday service	7	Later service to 10:00 PM
3	New Jensen Beach Route	8	Extend Route 20x
4	Jensen Beach/Rio CRA MOD	9	New Turnpike regional route
5	Palm City MOD	10	Extend and realign Route 2

10-Year Implementation Plan

A 10-year finance plan was developed to help facilitate the implementation of *Marty on the Move* improvements. Cost, revenue, and policy assumptions used to develop the financial plan are presented, followed by a summary of cost and revenue projections for *Marty on the Move*. The summary includes annual costs for the service and technology/capital improvements that are programmed for implementation within the next 10 years together with supporting revenues that are reasonably expected to be available.

The 10-year cost affordable plan prepared for the *Marty on the Move* TDP is focused on maintaining the existing system. Whereas operating costs and revenues are balanced in the first year of the plan, over time, the anticipated increase in annual operating costs is projected to outpace available revenue, thus creating a deficit in funding the existing system. As shown in the table below, this deficit will accumulate over time and is projected to total nearly \$7.3 million by the end of the 10-year period. Unless other Federal or State grant sources are identified, additional local funding in this amount will be needed to maintain existing services starting in FY 2022. For capital, the projected costs and revenues are projected to balance, at nearly \$5.9 million over the 10 years based on the capital improvements identified. If any transit improvements identified in the TDP are to be implemented in the future, additional funding beyond the \$7.3 million required to maintain existing services will need to be identified.

Marty 10-Year Plan (2020–2029)

Cost/Revenue	10-Year Total
Operating Costs	
Maintain Existing Service– Fixed-Route (Non-Urbanized)	\$3,066,355
Maintain Existing Service– Fixed-Route (Urbanized)	\$13,988,199
Maintain Existing Service– Commuter Bus (Non-Urbanized)	\$703,477
Maintain Existing Service– Commuter Bus (Urbanized)	\$5,480,258
Maintain Existing Service– Paratransit	\$4,797,154
Total Operating Costs	\$28,035,443
Capital Costs	
Replacement Vehicles	\$4,805,120
Transit Plans and Studies	\$388,068
Transit Security Equipment	\$102,970
Transit Technology	\$84,356
Other Transit/Bus Stop Infrastructure	\$474,106
Total Capital Costs	\$5,854,620
Total Costs	\$33,890,063
Operating Revenues	
Federal Revenue	\$7,645,714
State Revenue	\$4,541,734
Local Revenue (General Funds)	\$7,560,000
Local Revenue (Fare and Miscellaneous)	\$1,000,190
Total Operating Revenue	\$20,747,636
Capital Revenues	
Federal Revenue	\$5,854,620
Federal Revenue	\$5,854,620
Total Revenue	\$26,602,256
Net Deficient (Revenue – Cost)	(\$7,287,807)

Unfunded Needs

As previously discussed, a number of transit service improvements were identified through the development of *Marty on the Move*. Annual operating costs were estimated for each improvement based on the estimated revenue hours of service and cost per revenue hour. Expanding fixed-route service during weekday evenings, on Saturdays, and within the Jensen Beach area will require complementary ADA service to also be provided at the same time. The operating costs for the expanded ADA service were estimated based on costs to operate current ADA service. As shown in the table to the right, the annual operating costs (in 2020 dollars) for existing services and if all identified transit improvements were implemented are estimated to total \$5.7 million. The annual operating costs of the unfunded transit improvements are estimated to total \$3.2 million.

New transit vehicles and other equipment, facilities, and infrastructure are needed to support the existing Marty network and potential future service expansions. In addition to the capital costs identified in the 10-year Year Financial Plan on the prior page, unfunded capital needs over the next 10 years include 12 additional fixed-route vehicles and 2 ADA vehicles required to operate new or expanded services. These additional vehicles are estimated to cost \$3.4 million in 2020 dollars. In addition to an expanded fleet, \$6.85 million to construct a stand-alone transit operations and maintenance facility is also included in the unfunded needs plan. As shown in the table to the right, the 10-year capital needs are estimated to cost \$15.8 million. Of this total, \$10.2 million is unfunded. The 10-year total, rather than an annual cost, is provided since capital expenditures do not typically reoccur each year.

Implementing *Marty on the Move*

Once adopted, implementation of the recommended 10-year plan will require close coordination among local and regional transit and planning agencies. Marty and Martin County are committed to coordinating efforts to implement *Marty on the Move* and exploring funding opportunities to facilitate implementation of the plan and maintain existing fixed-route services.

Unfunded Transit Needs *Annual Operating Costs (2020 \$\$)*

Operating Costs	FY 2020 \$
Maintain Existing Service - Fixed Route	\$2,032,923
Maintain Existing Service - ADA	\$418,458
Service Modifications - Fixed Route (Unfunded)	\$1,600,918
New Services (Unfunded)	\$544,167
New Service - Deviated Fixed Route (Unfunded)	\$224,069
New Service - ADA (Unfunded)	\$858,184
Total Annual Operating Costs	\$5,678,718
Total Annual Operating Cost (Unfunded)	\$3,227,337

Unfunded Transit Needs *10-Year Total Capital Costs (2020 \$\$)*

Capital Costs	FY 2020 \$
Replacement Vehicles for Existing Service	\$4,805,120
Vehicles Required for New Service (Unfunded)	\$3,363,584
Transit Plans and Studies	\$388,068
Transit Security Equipment	\$102,970
Transit Technology	\$84,356
Other Transit/Bus Stop Infrastructure	\$167,970
Transit Center (Unfunded)	\$6,850,000
Total Capital Costs	\$15,762,068
Total Capital Costs (Unfunded)	\$10,213,584

Regional Collaboration

Martin County will continue to work closely with the agencies and cities as well as its regional transportation partners, including FDOT, St. Lucie County, and Palm Beach County, to continue developing a safe, sustainable, affordable, and well-connected transit network for Martin County and the region.

Acknowledgments

Martin County Board of County Commissioners

Doug Smith, District 1 Commissioner

Stacey Hetherington, District 2 Commissioner

Harold Jenkins, District 3 Commissioner

Sarah Heard, District 4 Commissioner

Edward Ciampi, District 5 Commissioner

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Members of the public that provided valuable input during the development of this plan

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ROUTE 300



KNEELING

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2020 - 2024

Martin
ON THE MOVE

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Marty Transit Development Plan (2020–2029)

Final Report

August 2019

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Prepared by



2020 - 2029

Marty
ON THE MOVE

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Section 1 Introduction

In 1974, the Martin County Council on Aging (COA) was founded. From the early days the COA provided paratransit services to older adults in its service area within Martin County. During the mid-1980s, the COA sought and became the Community Transportation Coordinator (CTC) for Martin County, designated by the Florida Commission for the Transportation Disadvantaged (CTD). The COA's paratransit and other transportation services were expanded with services to disabled and low income persons, as well as the general public.

Leading into the 2000 U.S. Census, population growth in Martin County notably increased and was expected to continue. Local leadership moved forward with implementing more robust public transit services by accessing available federal and state funding programs. By 2005, the COA was under contract to Martin County to operate a small fixed-route bus system. By 2013, several factors and management needs resulted in Martin County implementing enhancements to the transit system. These started with branding the transit system, procuring heavy duty vehicles, implementing an ADA eligibility program, constructing ADA compliant bus stops, developing a bus stop amenity program and contracting with a transportation provider to perform on-road support services.

Marty services are currently provided by Martin County under the Public Works Department. The system offers three fixed routes with ADA complementary services and two commuter bus routes. Marty improves the quality of life for Martin County residents and visitors by offering transit service in a cost-efficient and readily-accessible manner while providing an alternative mode of travel for those who are unable or prefer not to drive.

This study was initiated by Martin County to update Marty's Transit Development Plan (TDP) for the 10-year period of Fiscal Years (FY) 2020–2029. This TDP, branded *Marty on the Move*, represents Martin County's vision for transit in its service area during this time period and, at the same time, functions as the strategic guide for future transit service in the community. A major TDP update such as this also allows transit agencies to outline actions to be taken in the following year and to set goals for subsequent years. As a strategic plan, the TDP will identify needs in an unconstrained fashion and for which there may not currently be funding.

Martin County's adopted 10-year TDP major update was prepared for FYs 2014–2023. This update represents the most recent update for the TDP, as required by Florida Department of Transportation (FDOT), and is due by September 1, 2019.

Objectives of the Plan

The main purpose of this effort is to update the TDP to guide Marty services over the next 10 years, as currently required by Florida law. As part of this process, the TDP will identify and address local issues and objectives, including but not limited to:

- Lower-growth ridership, a trend experienced by many smaller transit agencies in emerging urban areas.
- Limited local funding opportunities to improve and increase service levels.
- Lack of clear understanding what services the Marty provides versus other transportation providers. An increase in private operators and other transit providers within Marty's service area has led to duplicated service situations.
- Regional coordination challenges for inter-county service, which has created public misconceptions and is negatively impacting Marty operations and/or fare revenues.

Upon completion, this TDP will result in a 10-year plan for transit and mobility needs, cost/revenue projections and community transit goals, objectives and policies.

TDP Requirements

Current TDP requirements were incorporated by rule-making into Chapter 14-72 of the Florida Administrative Code (F.A.C.) on February 20, 2007. Major requirements of the rule include the following:

- Major updates must be completed every 5 years, covering a 10-year planning horizon.
- A Public Involvement Plan must be developed and approved by FDOT or consistent with the approved Metropolitan Planning Organization (MPO) Public Involvement Plan.
- FDOT, the Regional Workforce Development Board and the Martin MPO must be advised of all public meetings at which the TDP is presented and discussed. These entities must also be given the opportunity to review and comment on the TDP during the development of the mission, goals, objectives, alternatives and 10-year implementation program.
- Estimation of the community's demand for transit service (10-year annual projections) must use the planning tools provided by FDOT or a demand estimation technique approved by FDOT.

Table 1-1 summarizes the Florida TDP requirements and references where in this report documentation can be found that each requirement been satisfied.

Table 1-1: TDP Checklist

Public Involvement Process		TDP Section
✓	Public Involvement Plan (PIP) drafted	Section 3, Appendix A
✓	PIP approved by FDOT	
✓	TDP includes description of Public Involvement Process	
✓	Provide notification to FDOT	
✓	Provide notification to Regional Workforce Board	
Situation Appraisal		
✓	Land use	Section 6
✓	State and local transportation plans	
✓	Other governmental actions and policies	
✓	Socioeconomic trends	
✓	Organizational issues	
✓	Technology	Section 7
✓	10-year annual projections of transit ridership using approved model TBEST	
✓	Assessment of whether land uses and urban design patterns support/hinder transit service provision	Section 8
✓	Calculate farebox recovery	Appendix F
Mission and Goals		
✓	Provider's vision	Section 9
✓	Provider's mission	
✓	Provider's goals	
✓	Provider's objectives	
Alternative Courses of Action		
✓	Develop and evaluate alternative strategies and actions	Section 7
✓	Benefits and costs of each alternative	Section 10
✓	Financial alternatives examined	
Implementation Program		
✓	10-year implementation program	Section 10
✓	Maps indicating areas to be served	
✓	Maps indicating types and levels of service	
✓	Monitoring program to track performance measures	Appendix G
✓	10-year financial plan listing operating and capital expenses	Section 10
✓	Capital acquisition or construction schedule	
✓	Anticipated revenues by source	
Relationship to Other Plans		
✓	Consistent with Florida Transportation Plan	Section 6
✓	Consistent with local government comprehensive plan	
✓	Consistent with Martin MPO long-range transportation plan	
✓	Consistent with regional transportation goals and objectives	
Submission		
✓	Adopted by Martin County Board of County Commissioners	August 27, 2019
✓	Submitted to FDOT	Prior to September 1, 2019

Report Organization

This report is organized into 10 major sections, including this introduction.

Section 2 summarizes the **Baseline Conditions** for the study area. This includes a physical description of Marty's service area, a population profile and demographic and socioeconomic profiles (e.g., transportation ownership, workforce and journey-to-work characteristics). It also includes a review of economic conditions and tourism information. Land use trends, existing roadway conditions, major employers and historical trends also are explored. The information compiled and presented in this section provides the basis for more detailed analyses completed in subsequent tasks of the TDP.

Section 3, Public Involvement Process, summarizes all outreach efforts completed during the TDP process and documents the key themes and needs resulting from each outreach event. The preferences of the community to current and future mobility needs, as served through transit, are reviewed and combined into an assessment of how to improve Marty services during the planning period.

Section 4, Inventory of Existing Services includes a review of public transit services in Martin County and surrounding areas, including service levels and ridership trends for Marty and other transit agencies. An inventory of other public and private transportation providers in Martin County is also documented.

Section 5, Existing Service Analysis documents fixed-route services using National Transit Database (NTD) information and related sources to create a profile of transit services through a Trend Analysis and a Peer Review. The Trend Analysis presents a detailed examination of operating performance for fixed-route services, and the Peer Review compares Marty's system-wide effectiveness and efficiency indicators with peer transit systems to determine how well transit service in Martin County is performing related to its peers.

Section 6, Situation Appraisal documents the current overall planning and policy environment within the county to better understand transit needs. The appraisal includes an assessment of federal, state and local plans and documents to help identify federal, state policies and local policies relating to transit and mobility. The situation appraisal also examines the strengths and weaknesses of the system and any existing challenges to the provision of transit service in the county along with key opportunities for addressing those threats and/or enhancing the transit-friendliness of the operating environment.

Section 7, Preliminary Transit Improvements documents identified transit needs, or alternatives, for consideration in the TDP. The identified improvements for Marty's services provide a blueprint of transit needs for the next 10 years and developed without consideration of funding constraints.

Section 8, Transit Demand Analysis summarizes the various ridership demand and mobility needs assessments conducted as part of the TDP. The ridership demand for both the existing Marty system

and future system assuming implementation of the identified transit improvements was prepared using a FDOT-approved ridership estimation tool. The market assessment includes an examination of potential service gaps and latent demand using the GIS-based Transit Orientation Index (TOI) and Density Threshold Assessment (DTA) analyses.

Section 9, Vision and Goals serves as a policy guide for implementation of the TDP. A review and update of the goals and objectives for the public transit services outlined in the 2015 TDP major update was completed to match the current goals of the local community with respect to transportation and land use.

Section 10, 10-Year Transit Plan summarizes the *funding and implementation plan* developed for Marty's fixed-route service covering the FY 2020-2029 period. First, this section documents the prioritization of the preliminary transit improvements. Second, the 10-year implementation plan is presented, which identifies funded service recommendations and capital improvements and includes a discussion of revenue assumptions and capital and operating costs used. The 10-year TDP implementation plan also includes a schedule for which service, capital/technology and policy improvements are programmed. Future steps for plan implementation and coordination are also discussed.

Section 2 Baseline Conditions

This section summarizes existing conditions and demographic characteristics within Marty's service area. Baseline conditions establish the context for the delivery of transit services in Martin County and provide background information needed to understand Marty's operating environment. A service area description, demographic characteristics, land use information, commuting patterns and roadway conditions are presented. Information and data reflect the most recent information available at the time of preparation of this plan.

Service Area Description

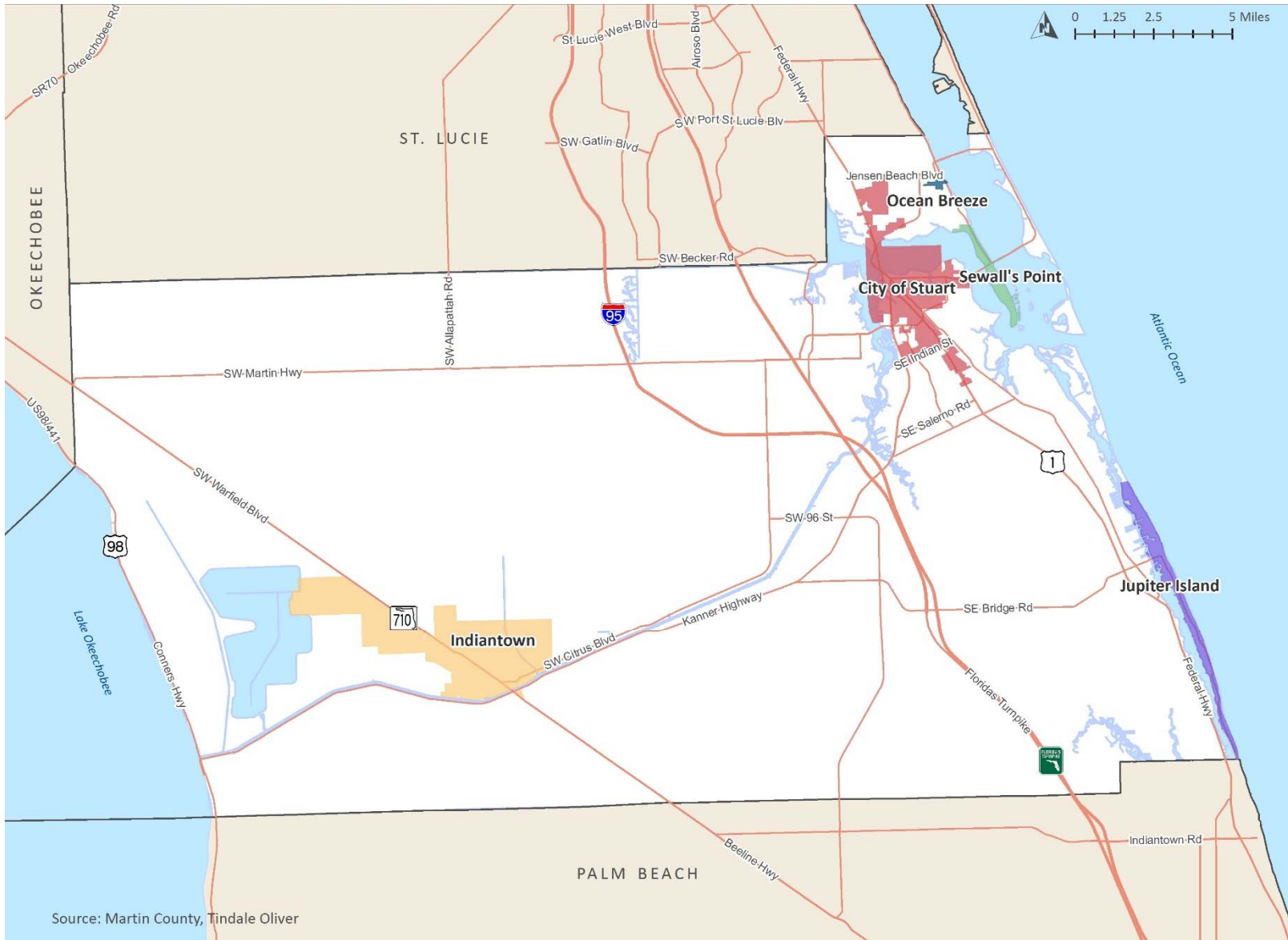
Martin County is in southeast Florida and is bordered to the north by St. Lucie County, to the south by Palm Beach County and to the west by Okeechobee County. The county comprises about 70% land and 30% water, with significant riparian, canal and lagoon systems. Most urbanization has occurred east of I-95, with tracts of rural, agricultural, or conservation land dominating Martin County's western portions. Palm City is the most populous place in Martin County, with 23,668 residents according to 2016 American Community Survey (ACS) estimates. The city of Stuart is the county seat, with a population of 16,204.

Map 2-1 presents a physical representation of the county and its municipalities and transit network. To better understand the study area conditions and demographic characteristics of Martin County, a review of pertinent information was conducted as part of the TDP update process. Map 2-2 displays the current route extent of Marty services. Currently, five routes comprise the Marty system, three fixed-routes and two express routes, which include:

- Route 1, an intercounty route serving US 1 from the Port St. Lucie Walmart to Cove Road and providing connections to the Treasure Coast Connector in St. Lucie County.
- Route 2, primarily serving Indiantown.
- Route 3, primarily serving Stuart.
- Route 20x, an express route providing service from Stuart to Palm Beach County and providing connections to Palm Tran at Palm Beach Gardens Mall and the Veteran's Administration Medical Center (VAMC) in Palm Beach County.
- Route 30x, an express commuter route starting in Indiantown and ending in Hobe Sound at Bridge Road and Dixie Highway, making a connection with Route 20x at Bridge Road and US 1.

The primary sources for this information include the U.S. Census Bureau, ACS, University of Florida's Bureau of Economic and Business Research (BEBR), Martin County MPO, FDOT and Martin County.

Map 2-1: Marty Service Area



Map 2-2: Marty System



Population Profile

Population information from the U.S. Census and ACS was used to develop a population profile for the study area. Table 2-1 shows the population levels for Martin County and Florida. Data from the decennial Census and ACS show that the population of Martin County increased from 126,731 in 2000 to 153,592 in 2016, a growth of 21.2% over the 16-year period. Growth remained fairly steady during this time; however, Martin County's population growth during this period was slightly lower than the population growth of Florida as a whole. A similar trend is true for the increase in number of households, while the increase in number of workers is considerably lower than statewide trends.

Table 2-1: Martin County Population Characteristics

Population Data	2000		2010		2016		% Change (2000–2016)	
	Martin County	Florida	Martin County	Florida	Martin County	Florida	Martin County	Florida
Persons	126,731	15,982,824	144,322	18,801,310	153,592	19,934,451	21.20%	24.72%
Households	55,288	6,337,929	59,203	7,420,802	62,980	7,393,262	13.91%	16.65%
Number of Workers (employed)	53,332	7,221,000	60,387	8,159,000	62,343	9,607,508	16.90%	33.05%
Persons per Household	2.2	2.5	2.6	2.5	2.8	2.7	24.22%	7.14%
Workers per Household	1.0	1.1	1.0	1.1	1.0	1.3	2.62%	14.04%
Persons per Square Mile	233.2	296.4	265.6	348.7	282.6	369.7	21.20%	24.73%
Workers per Square Mile	98.1	133.9	111.1	151.3	114.7	178.2	16.90%	33.08%

Source: U.S. Census Bureau, 2000 Census, 2010 Census, 2016 ACS 5-Year Estimates

Table 2-2 shows growth in population, households and employment in Martin County from 2000 to 2016. As shown, the growth rate of persons outpaces the growth of households and workers during this period.

Table 2-2: Martin County Population Trends

Population Data	2000	2010	2016	% Change (2000–2010)	% Change (2010–2016)	% Change (2000–2016)
Persons	126,731	144,322	153,592	13.88%	6.42%	21.20%
Households	55,288	59,203	62,980	7.08%	6.38%	13.91%
Number of Workers (employed)	53,332	60,387	62,343	13.23%	3.24%	16.90%

Source: U.S. Census Bureau, 2000 Census, 2010 Census, 2016 ACS 5-Year Estimates

Table 2-3 compares population and population density in Martin, St. Lucie, Okeechobee and Palm Beach counties. Of the four, Palm Beach County has the highest population density, at around 2.5 times more than Martin County. Note that these counties have large portions of conservation land, which affect the overall population density per square mile.

Table 2-3: Regional Population and Density (2016)

County	Population	Density*
Martin	153,592	282.6
St. Lucie	293,136	512.5
Palm Beach	1,398,757	710.1
Okeechobee	39,420	51.3

*Density in persons per square mile, using county land area

Source: U.S. Census Bureau, 2016 ACS 5-Year Estimates

City and Town Population and Trends

Table 2-4 presents the population and population change between 2000 and 2016 for incorporated and unincorporated areas in Martin County. North River Shores, Hobe Sound and Palm City experienced the highest rates of population growth between 2000 and 2016, at 31.7%, 25.9% and 17.8% growth, respectively. Overall, the growth trend in the county is positive. Small cities such as Ocean Breeze and Rio experienced population declines. It should be noted that The Village of Indiantown, shown as a Census Designated Place (CDP) in Table 2-4, was incorporated December 2017, being the first municipality incorporated in over 40 years in Martin County.

Table 2-4: Martin County Population Trends for Census Designated Places and Municipalities

Municipality (M) or Census Designated Place (CDP)	2000	2010	2016	% Change (2000–2010)	% Change (2010–2016)	% Change (2000–2016)
Hobe Sound (CDP)	11,376	11,521	14,318	1.3%	24.28%	25.9%
Indiantown (CDP)	5,588	6,083	5,921	8.9%	-2.66%	6.0%
Jensen Beach (CDP)	11,100	11,707	12,178	5.5%	4.02%	9.7%
Jupiter Island (M)	620	817	718	31.8%	-12.12%	15.8%
North River Shores (CDP)	3,101	3,079	4,084	-0.7%	32.64%	31.7%
Ocean Breeze (M)	463	355	214	-23.3%	-39.72%	-53.8%
Palm City (CDP)	20,097	23,120	23,668	15.0%	2.37%	17.8%
Port Salerno (CDP)	10,141	10,091	10,487	-0.5%	3.92%	3.4%
Rio (CDP)	1,028	965	983	-6.1%	1.87%	-4.4%
Sewall's Point (M)	1,946	1,996	2,146	2.6%	7.52%	10.3%
Stuart (M)	14,633	15,593	16,204	6.6%	3.92%	10.7%
Unincorporated	62,431	68,701	71,639	10.0%	4.28%	14.7%
Incorporated	17,662	18,422	19,282	4.3%	4.67%	9.2%

Source: U.S. Census Bureau, 2000 Census, 2010 Census, 2016 ACS 5-Year Estimates

Projected Population and Dwelling Unit Growth

The *2017 Florida Population Studies*, prepared by BEBR at the University of Florida, indicates a population projection for Martin County of 165,800 by 2025 (8.4% growth from 2017); 176,700 by 2035 (15.5% growth); and 185,700 by 2045 (21.4% growth). Table 2-5 provides population projections and estimated growth rate from 2017 through 2045.

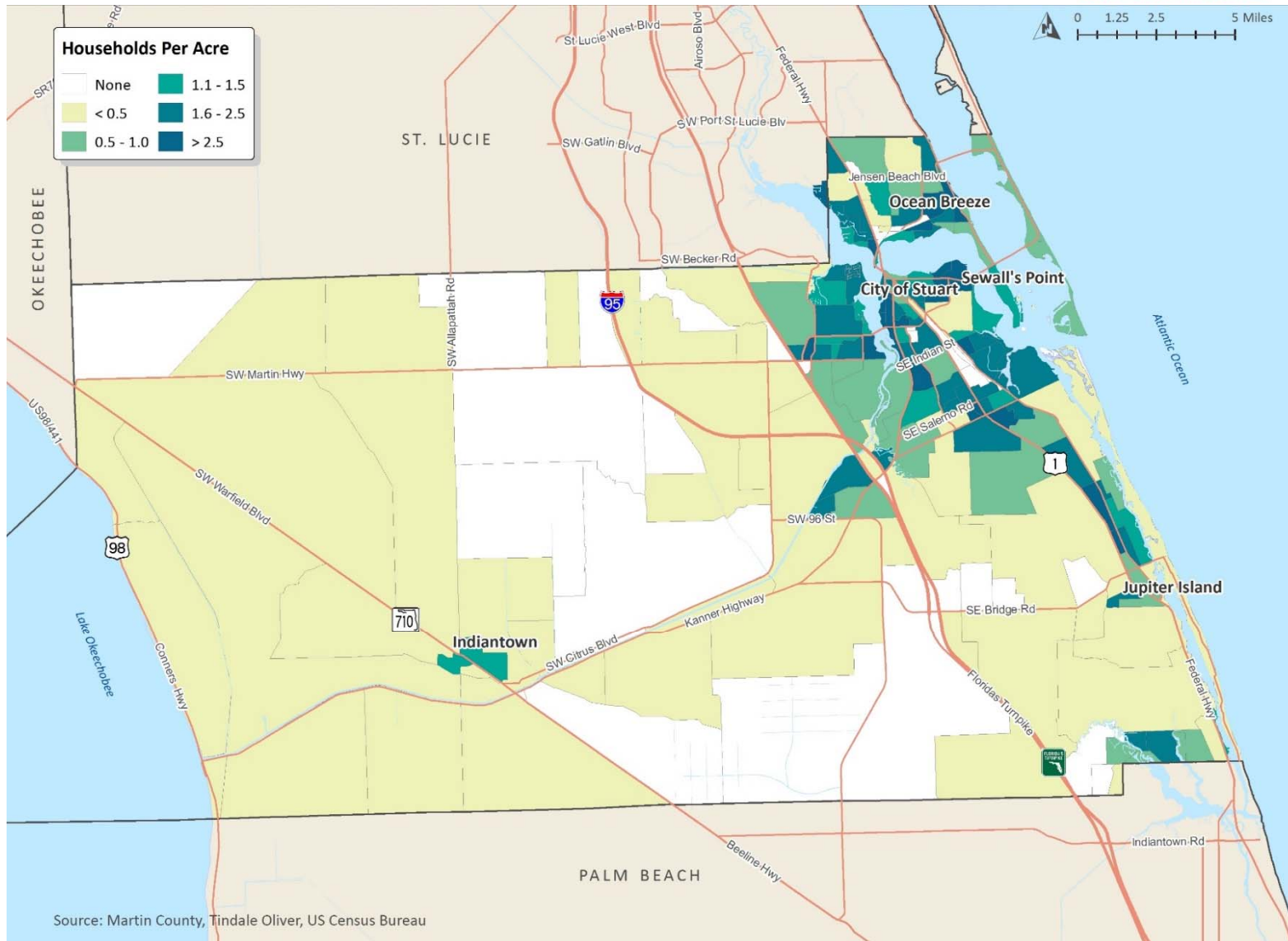
Table 2-5: Population Estimates and Projections – Martin County

Estimates	Projections					
2017	2020	2025	2030	2035	2040	2045
153,022	158,400	165,800	171,700	176,700	181,200	185,700
% change from 2017	3.51%	8.35%	12.21%	15.47%	18.41%	21.36%

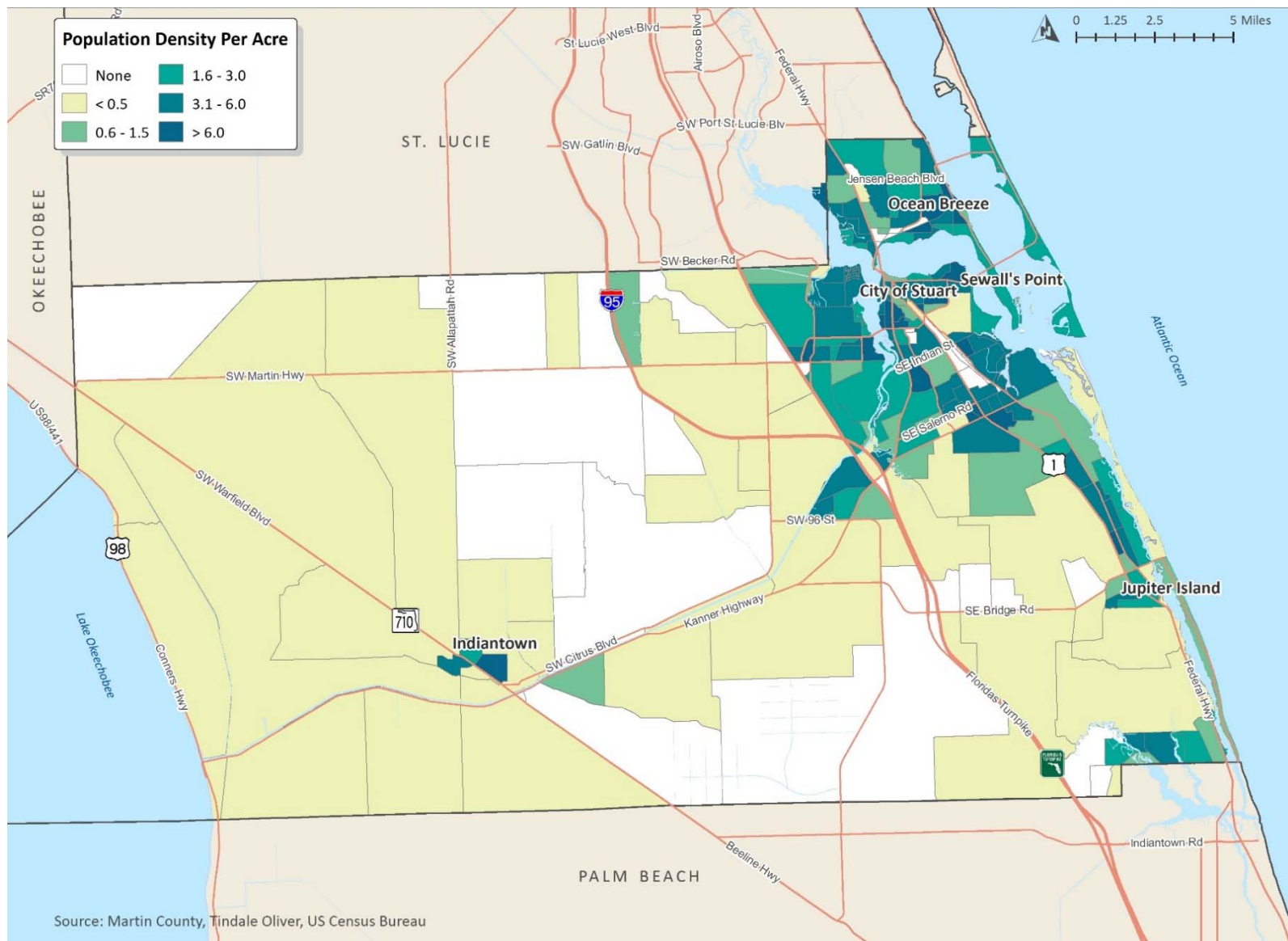
Source: BEBR Projections of Florida Population by County, 2020–2045, with estimates for 2017

Maps 2-3 and 2-4 show the current population and household densities in Martin County. Areas with the highest existing densities generally align with the incorporated areas of the county.

Map 2-3: 2015 Households per Acre



Map 2-4: 2015 Population per Acre



Demographic Profile

This section presents the demographic profile of the Marty service area, including tabular and graphical representations of common indicators for transit dependency, including minority and ethnic populations, youth and older adult populations and low-income and zero-vehicle households.

Minority Population

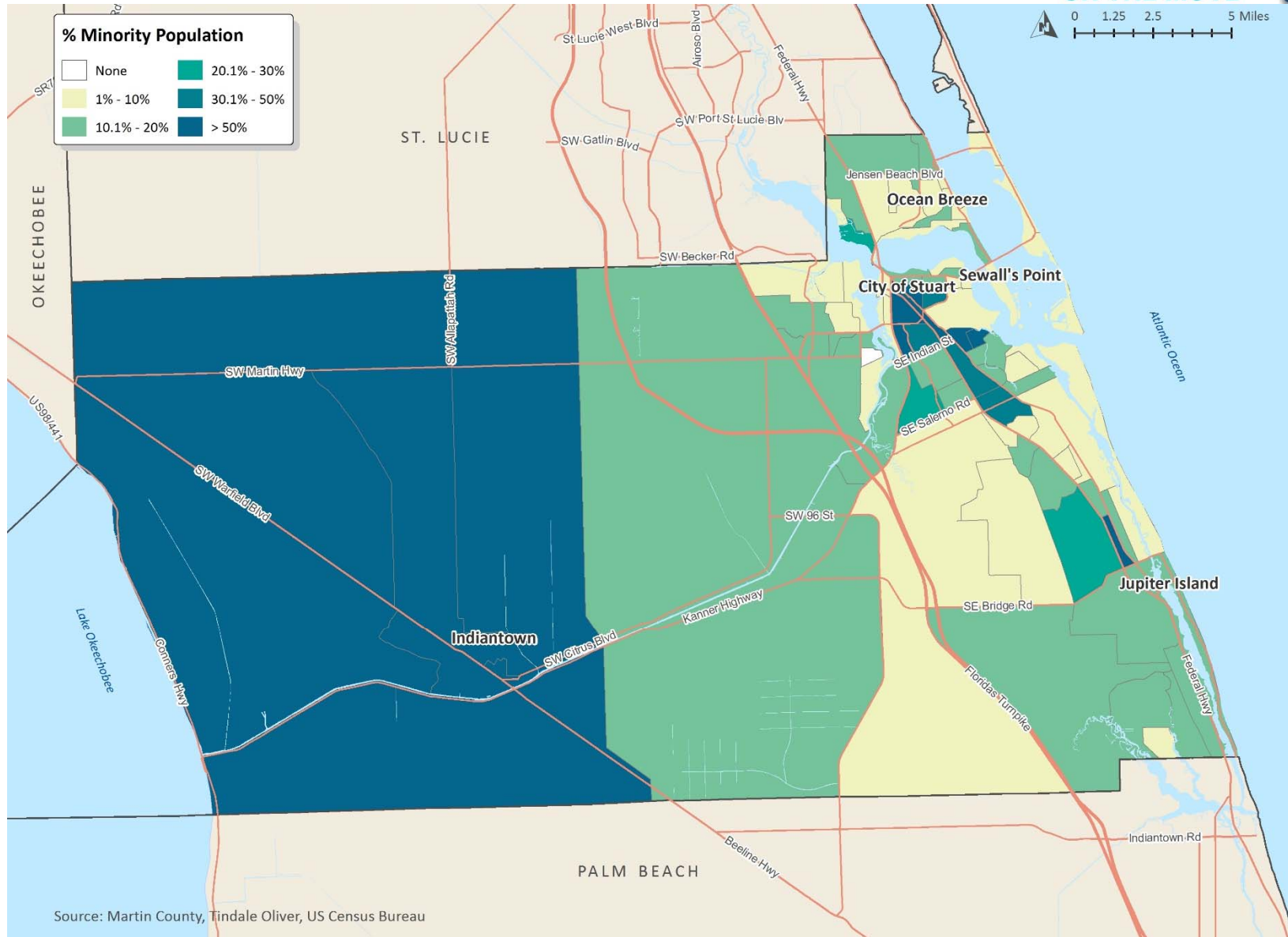
Table 2-6 shows the total and percentage share of the minority and non-minority populations in Martin County and Florida. All racial and ethnic groups are considered to be a minority except non-Hispanic whites, which includes individuals who may identify as white but ethnically are Latino or Hispanic. Martin County has a minority population of 21%, approximately half of Florida’s overall minority percentage of 44%. This information is represented geographically in the Minority Population Map (Map 2-5), which shows that 11 of 93 census block groups are majority-minority. The highest proportions of minority populations are on the west side of the county near Indiantown, an area dominated by agricultural uses and is generally rural.

Table 2-6: Martin County Minority Population

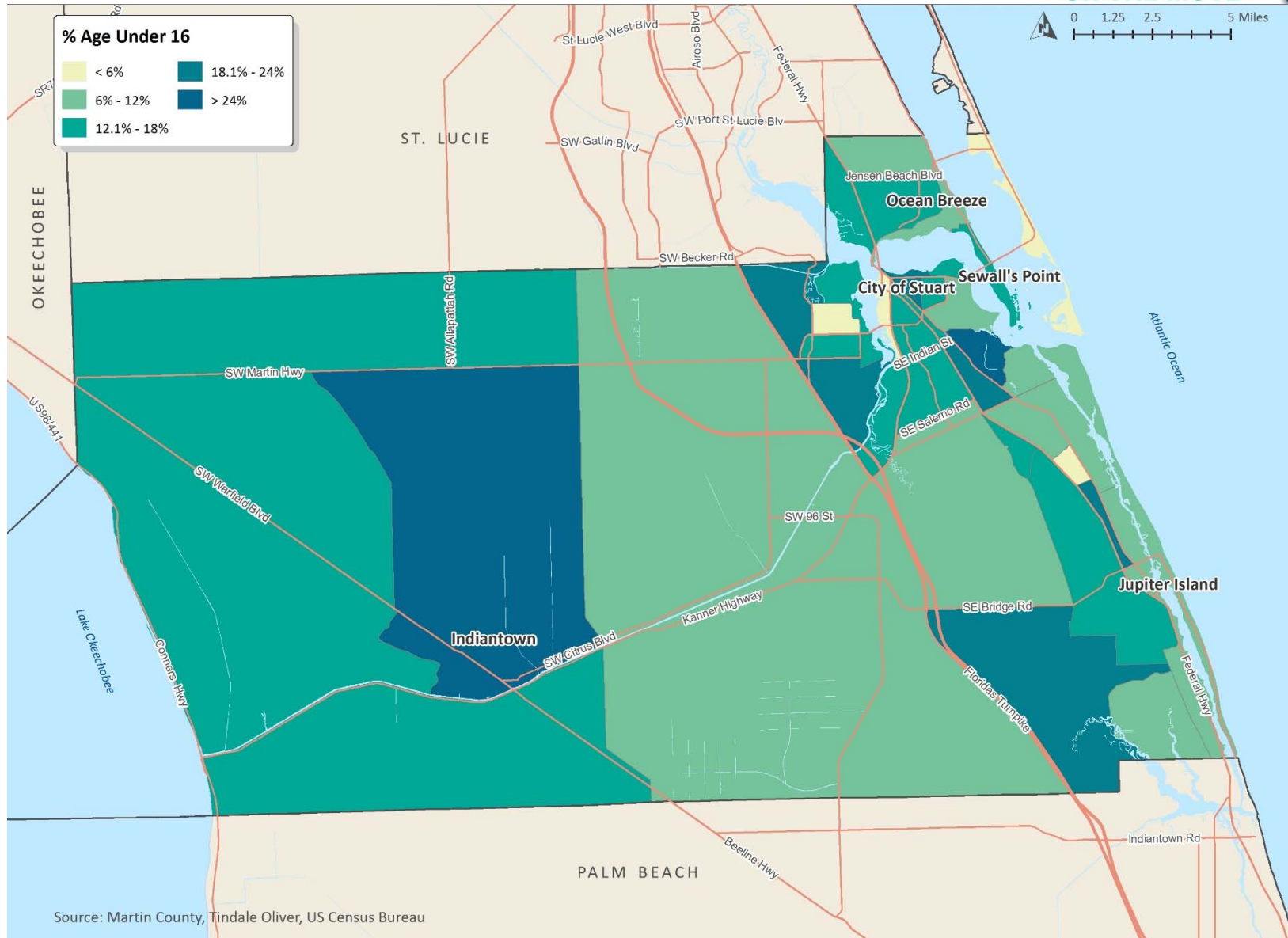
	2010		2016	
	Minority Population	% of Population	Minority Population	% of Population
Martin County	27,147	19%	31,697	21%
Florida	7,579,364	41%	8,854,025	44%

Source: U.S. Census Bureau, 2016 ACS 5-Year Estimates

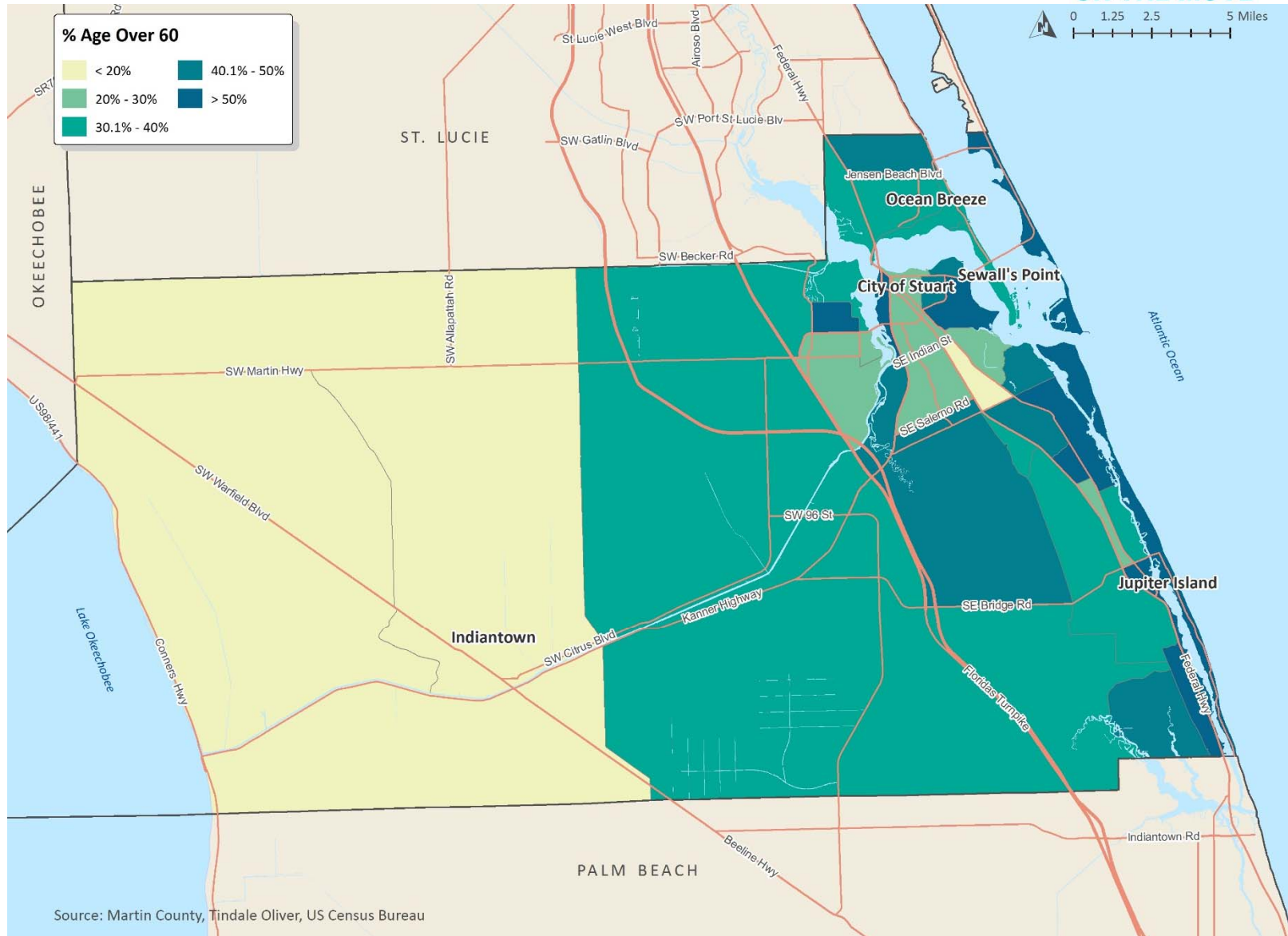
Map 2-5: Minority Population



Map 2-6: Age Under 16



Map 2-7: Age Over 60



Age Distribution

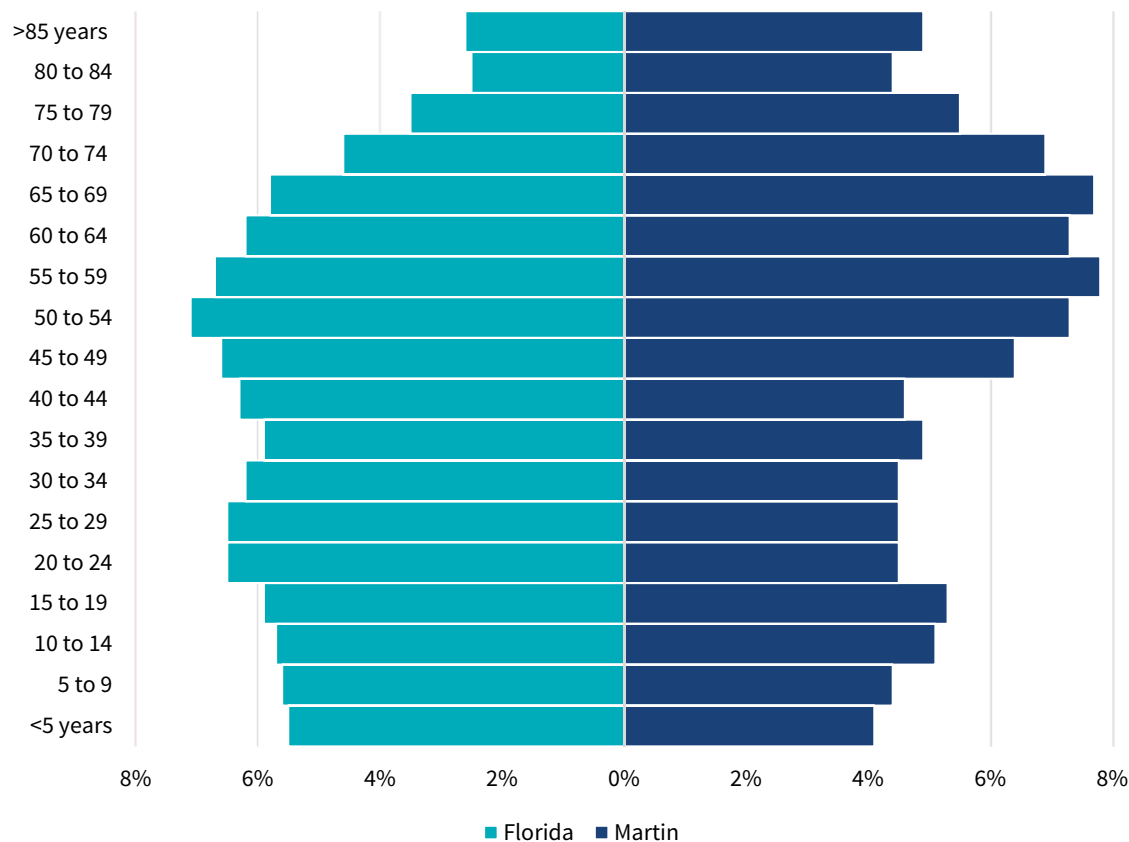
Martin County has a higher proportion of older adults than the rest of the state. In groups under age 50, statewide percentages surpass Martin County percentages; however, above age 50, Martin County consistently has higher population proportions. The county has a high share of older adults, with 29.4% age 65 and older, compared to 19% across the state. Older adults are concentrated along the coast. Table 2-7 and Figure 2-1 compare the 2016 age distribution of Martin County with Florida.

Table 2-7: Age Distribution in Martin County and Florida

Geography	Age Distribution					
	Under 15	15-19	20-24	25-44	45-64	65+ years
Martin County	20,889	8,140	6,912	28,415	44,234	45,156
% of Total Population	13.60%	5.30%	4.50%	18.50%	28.80%	29.40%
Florida	3,348,988	1,176,133	1,295,739	4,963,678	5,302,564	3,787,546
% of Total Population	16.8%	5.9%	6.5%	24.9%	26.6%	19.0%

Source: U.S. Census Bureau, 2016 ACS 5-Year Estimates

Figure 2-1: Martin County and Florida Age Composition



Income

Household income distribution in Martin County, shown in Table 2-8, is similar to that of Florida, with a slightly higher share of households earning \$50,000 or more than the statewide average. This group constitutes just over half of the households in the county. Conversely, less than a quarter of county households earn less than \$25,000. This number alone, however, is insufficient to determine poverty as households vary in size. The Census Bureau assesses poverty by comparing a household's income over a 12-month period to the poverty threshold (a monetary value) specific to the size of the household. The larger the household, the higher the threshold a household must meet to be considered above the defined poverty line.

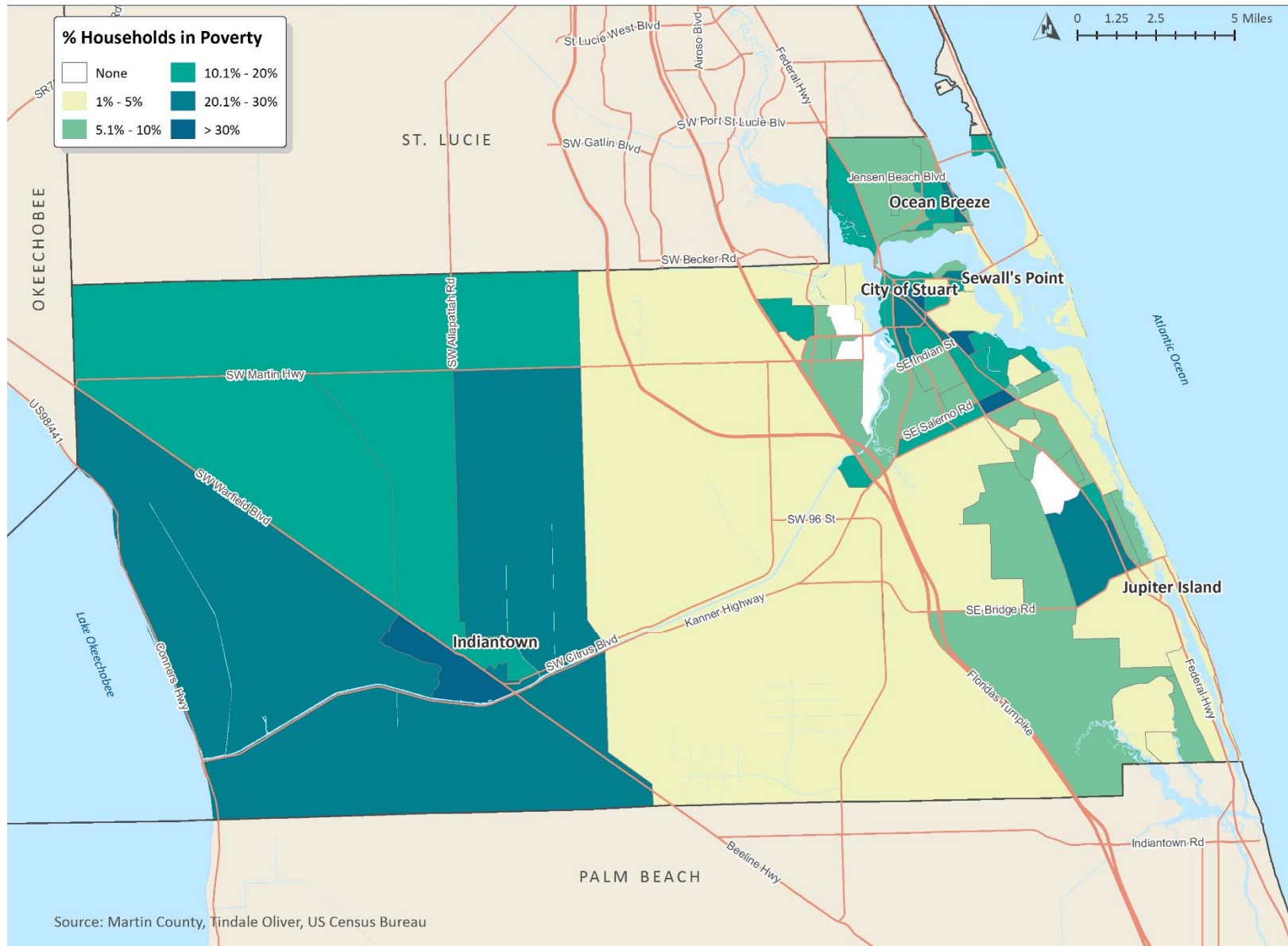
Table 2-8: Household Income in Martin County and Florida

Location	Total Households	\$0–\$9,999	\$10,000–\$14,999	\$15,000–\$24,999	\$25,000–\$34,999	\$35,000–\$49,999	\$50,000+
Martin Households	62,980	3,401	3,149	7,495	6,739	9,069	32,939
% of Total	100%	5.4%	5.0%	11.9%	10.7%	14.4%	52.3%
Florida Households	7,393,262	556,637	398,394	869,520	838,036	1,102,789	3,627,886
% of Total	100%	7.5%	5.4%	11.8%	11.3%	14.9%	49.1%

Source: 2016 ACS 5-Year Estimates

Map 2-8 illustrates concentrations of individuals in poverty throughout the county. High concentrations of poverty, defined in this map by census block groups with greater than 30% of the resident population living in poverty, are located near Indiantown and central Stuart.

Map 2-8: Households in Poverty



Household Vehicle Availability

Areas with a large percentage of households lacking access to a personal vehicle increases the importance of public transit in those areas. Table 2-9 shows the distribution of vehicle ownership in the county compared with Florida. Vehicle ownership and the number of vehicles available to a household is greater than state levels. Only 4.7% of households in the county do not have access to a vehicle; these households, regardless of size, potentially may benefit from access to public transit. Nearly half of all households in the county have access to one or no vehicle.

Table 2-9: Households by Number of Available Vehicles

Location	Total Household	Zero Vehicles	One Vehicle	Two Vehicles	Three or More Vehicles
Martin	62,980	2,943	27,459	24,686	7,892
% of Total	100%	4.7%	43.6%	39.2%	12.5%
Florida	7,393,262	511,316	3,041,709	2,809,607	1,030,630
% of Total	100%	7%	41%	38%	14%

Source: 2016 ACS 5-Year Estimates

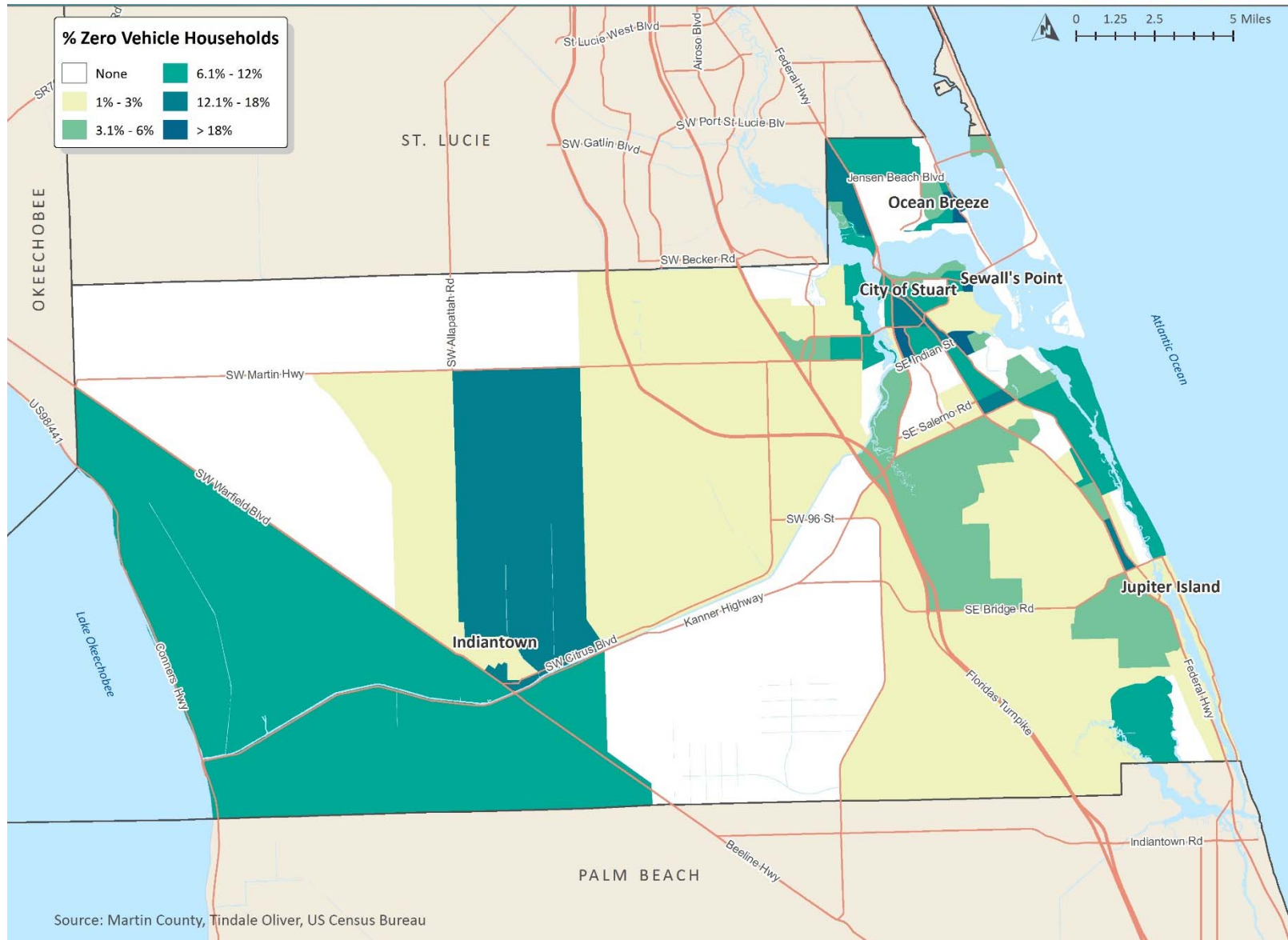
With regard to one-vehicle households, however, it is useful to further disaggregate the data. Table 2-10 shows the number of households by size with access to only one vehicle. It can be assumed that a one-person household with access to one vehicle is more independent. However, the greater the size of the household, the more difficult it may be to arrange travel with fewer vehicles. In Martin County, 1.5% of all households have two or more individuals with access to only one vehicle. Map 2-9 illustrates the percentage of households that do not own a vehicle by census block group.

Table 2-10: Martin County One-Vehicle Households by Size

Vehicles	Total Households	1 Person	2 Persons	3 Persons	4 or More
Total One-Vehicle Households	2,943	2,015	449	163	316
% of One-Vehicle Households	100%	68.5%	15.3%	5.5%	10.7%
% of County Households	4.7%	3.2%	0.7%	0.3%	0.5%

Source: 2016 ACS 5-Year Estimates

Map 2-9: Zero Vehicle Households



Transportation Disadvantaged

The estimated number of residents in Martin County who are transportation disadvantaged (TD) is shown in Table 2-11. According to the 2018–2023 Martin County Transportation Disadvantaged Service Plan (TDSP), 44% of the resident population in 2018 were classified as TD. Of the TD population, around 31% are not older adults but instead possess other characteristics that may reduce their mobility, such as having a disability, being low-income, or both. Of the total TD population who are not older adults, 17% are able-bodied but are low-income and may be able to use fixed-route transit if service were available to make their trips. Older adults make up the remaining 56% of the TD population, with the most vulnerable sub-group including those who have a disability (20% of the total TD population, including elderly persons with a disability who are also low income). The five-year TD forecast anticipates nearly a 6% increase overall by 2022.

Table 2-11: Transportation Disadvantaged Population Forecast (2018-2022)

General TD Population Forecast	Estimates				
	2018	2019	2020	2021	2022
E - Estimated non-elderly/ disabled/low income	2,107	2,131	2,155	2,180	2,205
B - Estimated non-elderly/ disabled/not low income	7,486	7,573	7,660	7,748	7,837
G - Estimated elderly/disabled/ low income	1,006	1,017	1,029	1,041	1,053
D - Estimated elderly/disabled/ not low income	13,274	13,427	13,582	13,738	13,896
F - Estimated elderly/ non-disabled/low income	2,279	2,305	2,331	2,358	2,385
A - Estimated elderly/ non-disabled/not low income	31,562	31,926	32,293	32,665	33,041
C - Estimated low income/ not elderly/not disabled	12,219	12,359	12,502	12,645	12,791
Total general TD population	69,933	70,738	71,552	72,376	73,209
Total population	156,559	160,184	162,029	163,894	165,781

Source: Martin County 2018-2023 TDSP

Labor Force

Table 2-12 shows the total labor force in Martin County and Florida, with Martin County unemployment rates nearly identical to Florida. The Bureau of Labor Statistics considers employed persons as those over age 16 in the civilian population that had been paid for performing at least one hour of work during the survey period (excluding the Armed Forces). Individuals are counted only once, regardless of the number of jobs they hold. Unemployed persons include persons age 16+ who are not employed but are actively seeking work and does not include persons who may be unemployed but have given up looking for work.

Table 2-12: Martin County and Florida Employment

Location	Total Labor Force	Employed	Unemployed	Unemployment Rate
Martin	72,370	69,391	2,979	4.1%
Florida	10,100,268	9,680,822	419,446	4.2%

Source: Bureau of Labor Statistics, 2017 annual averages

Major Employers

The largest industries by employment in Martin County are education/health/social care (21.4%), management and other professional services (13.3%), retail (11.3%) and hospitality services (11.6%). As shown in Table 2-13, Martin County's employment industry mix is largely reflective of Florida.

Table 2-13: Employment by Industry

Industry	Martin	Florida
Agriculture, Forestry, Fishing & Hunting, Mining	1.7%	1.1%
Construction	8.8%	6.8%
Manufacturing	5.5%	5.2%
Wholesale Trade	2.7%	2.8%
Retail Trade	11.3%	13.3%
Transportation & Warehousing, Utilities	4.7%	5.1%
Information	1.9%	2.0%
Finance & Insurance, Real Estate & Rental And Leasing	7.6%	7.7%
Professional, Scientific, Management, Administrative and Waste Management Services	13.3%	12.8%
Educational Services, Health Care and Social Assistance	21.4%	21.1%
Arts, Entertainment, Recreation, Accommodation and Food Services	11.6%	12.3%
Other Services, except Public Administration	5.9%	5.3%
Public Administration	3.6%	4.5%

Source: 2016 ACS 5-Year Estimates

The largest employer in Martin County is Martin Health Systems, which employs 3,505 workers, followed by Martin County School District and Martin County Government. Although many of the employers listed in Table 2-14 are located at a single site, some, such as Martin County School District, have employees distributed across various sites throughout the county. In addition, this list accounts only for jobs targeted by the Business Development Board of Martin County, employers headquartered in Martin County and governmental entities. Employment totals included in this table may be either full-time or part-time.

Table 2-14: Martin County Major Employers

Rank	Company	Sector	Employment
1	Martin Health Systems	Hospitals and healthcare	3,505
2	Martin County School District	Education	2,330
3	Martin County Government	County government	1,714
4	State of Florida	State government	508
5	Liberator Medical Supply	Medical manufacturing	400
6	Triumph Aerostructures	Aviation and aerospace manufacturing	360
7	Paradigm Precision Group	Aviation and aerospace manufacturing	365
8	Seacoast National Bank	Banking and investment	340
9	Florida Power & Light	Utility provider	321
10	City of Stuart	City government	246

Source: 2017 Comprehensive Annual Financial Report

Employment Density

Map 2-10 illustrates the 2015 employment densities by Traffic Analysis Zone (TAZ) for Martin County using base year employment data provided by the Martin MPO for the ongoing 2045 Long Range Transportation Plan (LRTP) update. Forecasted socioeconomic data are currently being developed for the 2045 LRTP and are therefore not yet available to provide future year employment densities at this time. Areas with the highest existing employment densities are primarily within Stuart along major roads, including commercial areas along the US 1 corridor.

Journey-to-Work Characteristics

Commuting Patterns

Tables 2-15 and 2-16 show the commuting patterns of Martin County workers and residents in 2015. Based on these data, the majority of Martin County residents, about 42.4%, both lived and worked in Martin County; 24.4% worked in Palm Beach County and 9.3% worked in St. Lucie County. People employed in Martin County (workers) mostly originate from within Martin County (38.8% of all workers), and 29.6% of workers resided in the neighboring county of St. Lucie, followed by 11.3% in Palm Beach County. Workers traveling from other nearby counties or elsewhere constituted the remaining 20.4% of all workers in Martin County. Map 2-11 also illustrates the overall worker flow patterns for Martin County.

Table 2-15: County of Work for Martin Residents

Total		Martin	Palm Beach	St. Lucie	Broward	Miami-Dade	Orange	Hillsborough	All Other
Number of Workers	56,803	24,080	13,838	5,287	2,592	1,735	1,574	812	6,885
Share of Workers	100.0%	42.4%	24.4%	9.3%	4.6%	3.1%	2.8%	1.4%	12.1%

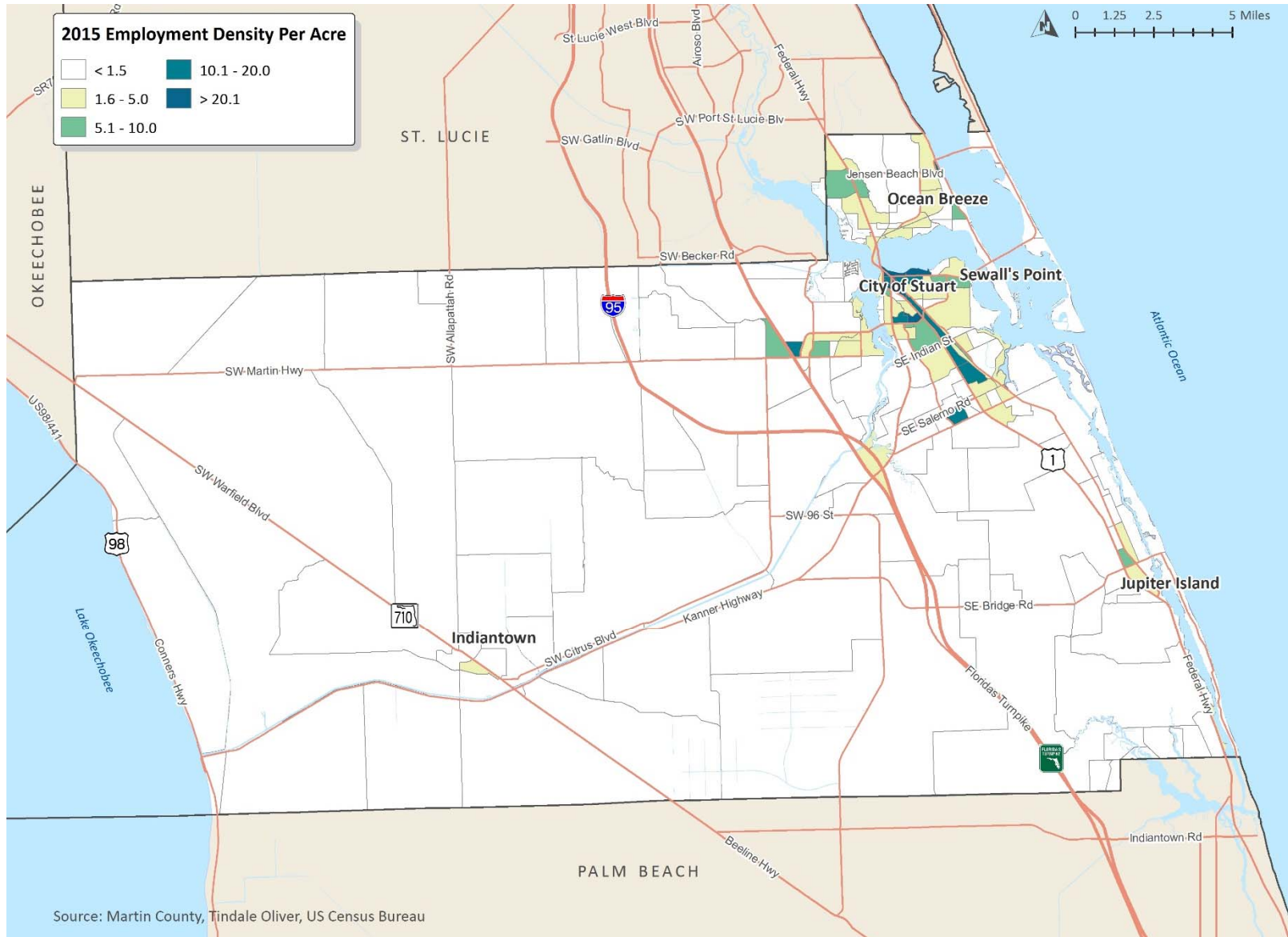
Source: U.S. Census Bureau, OnTheMap Application and LEHD Origin-Destination Employment Statistics 2015

Table 2-16: County of Residence for Martin Workforce

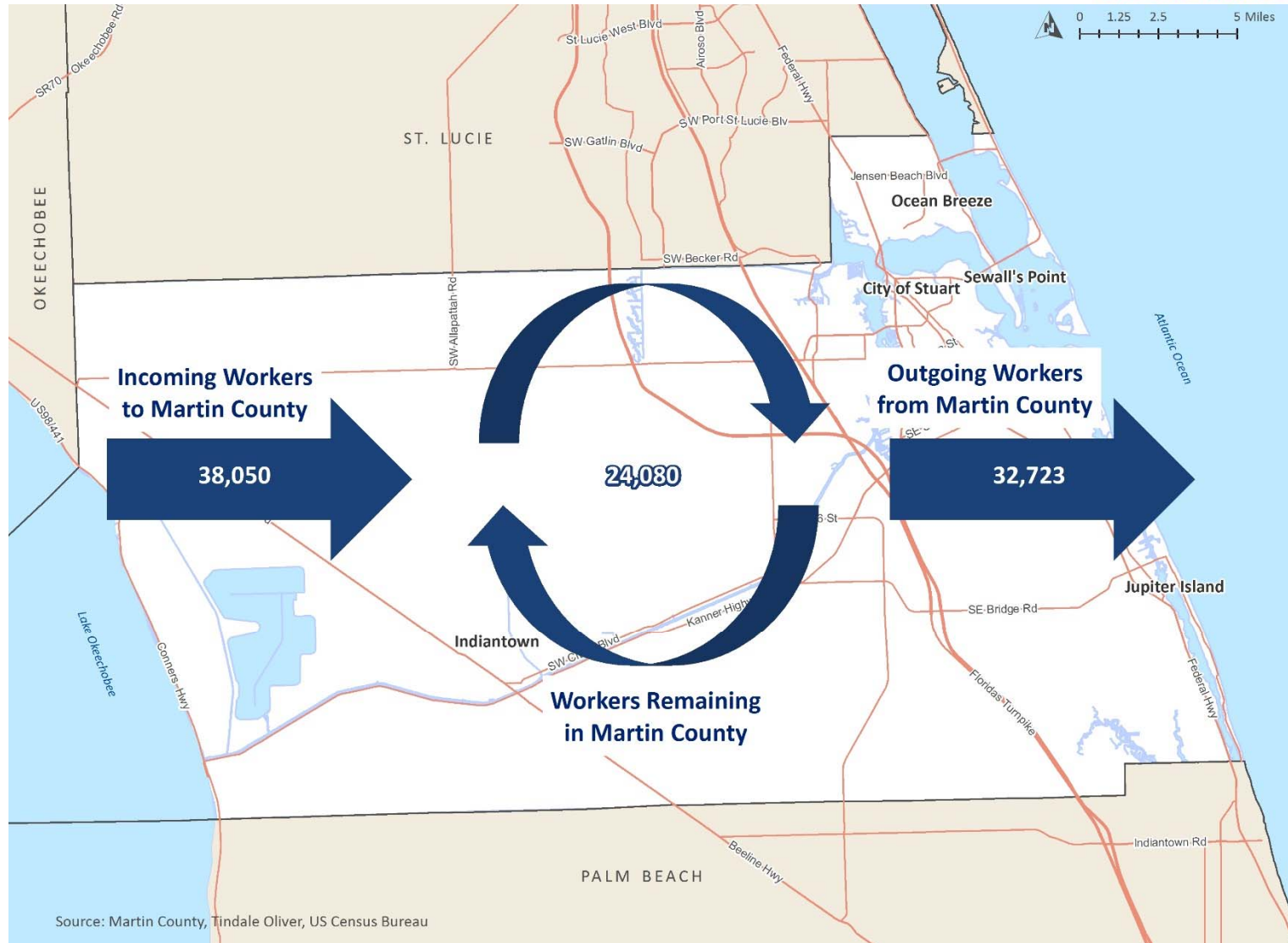
Total		Martin	St. Lucie	Palm Beach	Broward	Miami-Dade	Indian River	Brevard	All Other
Number of Workers	62,130	24,080	18,402	7,027	1,914	1,596	1,408	862	6,841
Share of Workers	100.0%	38.8%	29.6%	11.3%	3.1%	2.6%	2.3%	1.4%	11.0%

Source: U.S. Census Bureau, OnTheMap Application and LEHD Origin-Destination Employment Statistics 2015

Map 2-10: 2015 Employment Density



Map 2-11: Longitudinal Employer-Household Dynamics: Job Inflow/Outflow



Travel Time to Work

Table 2-17 details the average travel time for workers in Martin County compared to the typical Florida resident. In general, Martin County commute times are slightly shorter, with 13.7% of employed residents reaching work within 10 minutes, higher than the comparable state figure. In fact, 63.3% of Martin residents can travel to work within 30 minutes, compared with 60% of Florida residents, and 7.84% of Martin residents have commute times greater than 60 minutes.

Table 2-17: Travel Time to Work

Location	< 10 Min	10–19 Min	20–29 Min	30–44 Min	45–59 Min	> 60 Min
Martin	13.65%	31.38%	18.30%	20.55%	8.27%	7.84%
Florida	9.28%	27.75%	22.97%	23.87%	8.62%	7.51%

Source: 2016 ACS 5 Year Estimates

Means of Travel to Work

As shown in Table 2-18, more than three out of every four workers in Martin County drive alone to work, similar to Florida as a whole. Less than 1% of workers take public transit, which is considerably lower than statewide. Carpooling, walking/biking and other forms of travel to work are comparable to the statewide average mode shares. A slightly larger percentage of workers in Martin County telecommute compared to the statewide share.

Table 2-18: Travel Mode to Work

Location	Drive Alone	Carpool	Public Transportation	Walk/Bike	Work from Home	Other
Martin	77.1%	10.6%	0.3%	2.5%	7.9%	1.6%
Florida	79.5%	9.3%	2.1%	2.2%	5.4%	1.5%

Source: 2016 ACS 5 Year Estimates

Roadway Conditions

Map 2-12 depicts roadway level-of-service (LOS) during peak travel periods in Martin County in 2016. LOS is a measure that describes the quality of traffic service along a given roadway segment. A large component in evaluating a roadway's LOS is the volume of cars compared to the design capacity of the roadway. As this ratio approaches 1.0, congestion increases and travel speeds decrease, resulting in diminished levels of service. Additional factors, such as the number of lanes, travel speed and density of traffic, contribute to formulating LOS scores, a scale of "A" (free-flow) to "F" (failing with significant delays).

As shown in Map 2-12, roadway segments with scores of "D" or worse are found primarily east of I-95, especially surrounding Stuart. Few roadways are severely congested (experiencing queuing, delays, or over-capacity roadways). Palm City Bridge and the Kanner Highway/I-95 interchange exhibit LOS levels of "F". Stretches of A1A along Port Salerno's nearby Manatee Pocket suffer from heavy congestion. The

area surrounding the stop sign-controlled intersection at SE Bridge Road and Powerline Avenue also exhibits heavy delay. Otherwise, most roadways in 2016 were categorized as “C,” exhibiting near free-flow traffic with minor restrictions on traffic movement. Eventual deterioration of roadway LOS throughout Martin County’s roadway system will impact facets of Marty service and likely result in service delays, diminished on-time performance and higher operating costs to maintain transit service levels due to slower operating speeds.

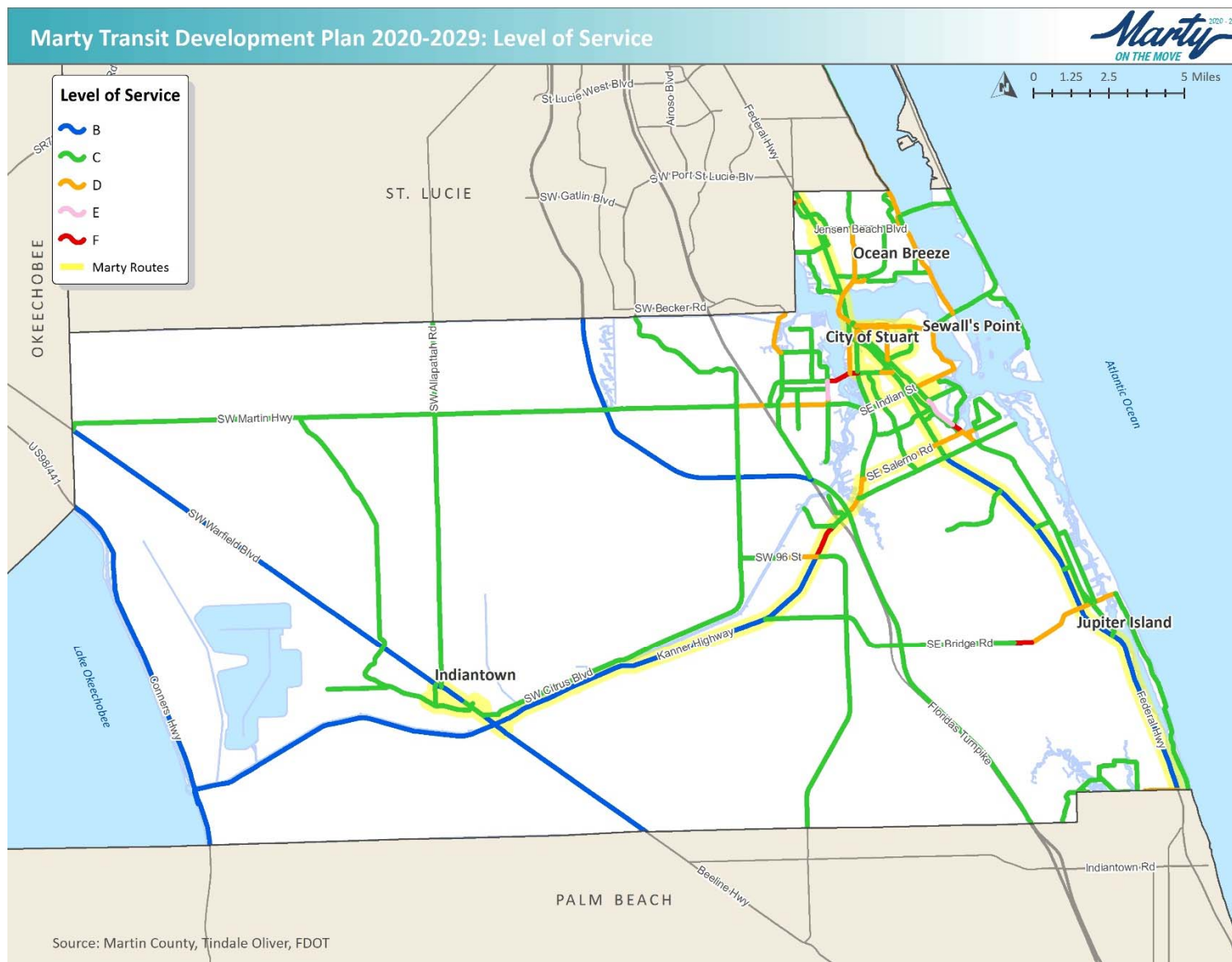
Tourism

Hospitality and tourism play a significant role in the South Florida region, including Martin County. Martin County offers natural attractions, including 22 miles of coastline, more than 75 parks and 93,000 acres of conservation land, lagoons and waterways. Popular recreation activities include golfing, boating, fishing and other water activities. Martin County’s downtown areas such as Stuart also offer high-end shopping and dining opportunities, cultural attractions for the arts and history, galleries, theatre and musical events, as well as festivals are offered throughout the year. According to the Economic Council of Martin County, waterways contribute around \$645 million to the economy annually, and tourism is responsible for generating an approximate \$432 million in revenue for local businesses.

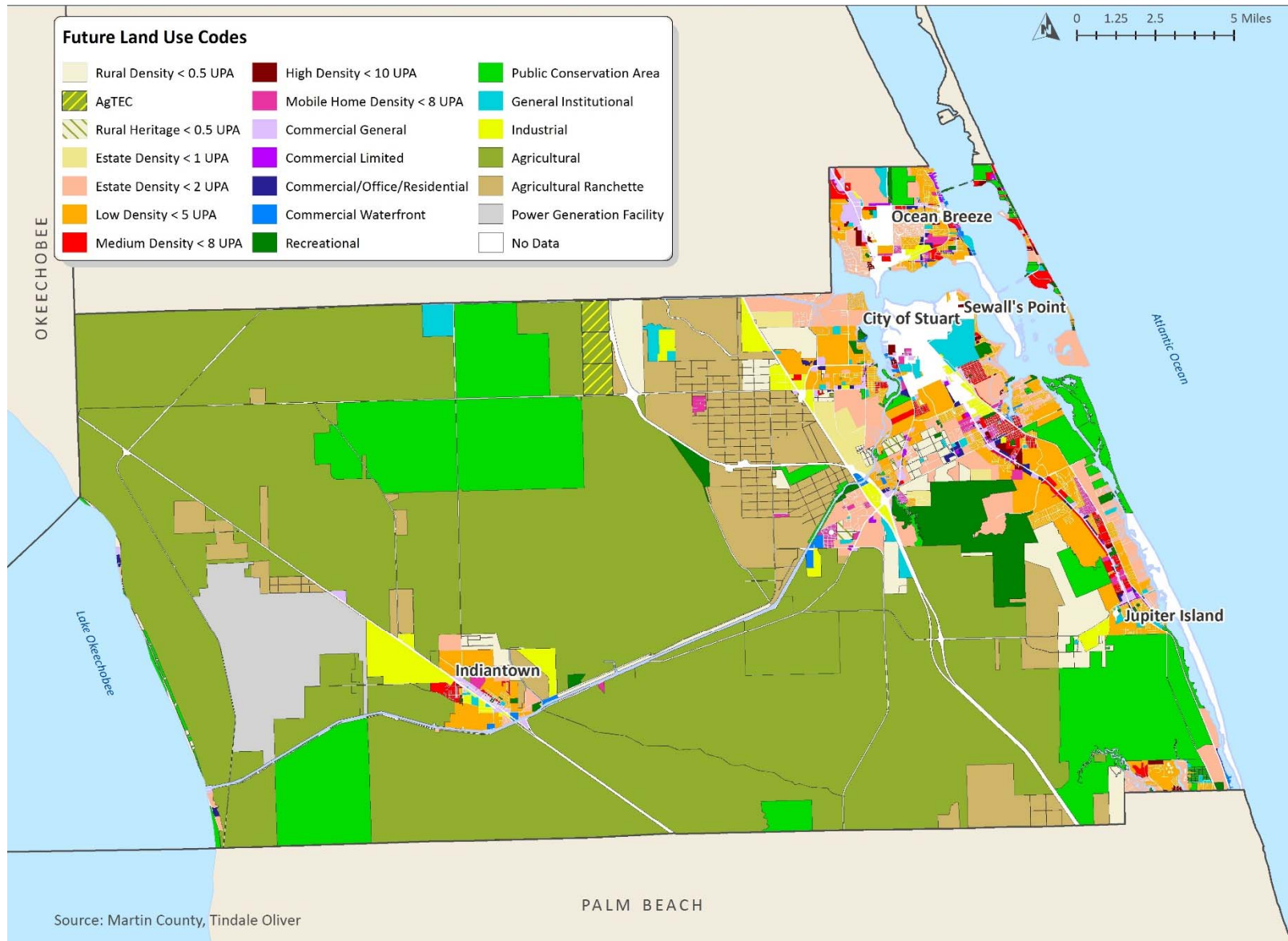
Land Use Characteristics

FDOT’s TDP guidelines promote the review of ongoing and anticipated residential and commercial development activities. Martin County and its municipalities have established land use and zoning maps to guide future developments in the county. Map 2-13 shows the existing zoning in Martin County, while Map 2-14 presents future land use designations. Land use considerations related to public transit will be explored as part of the situation appraisal later in the TDP development process.

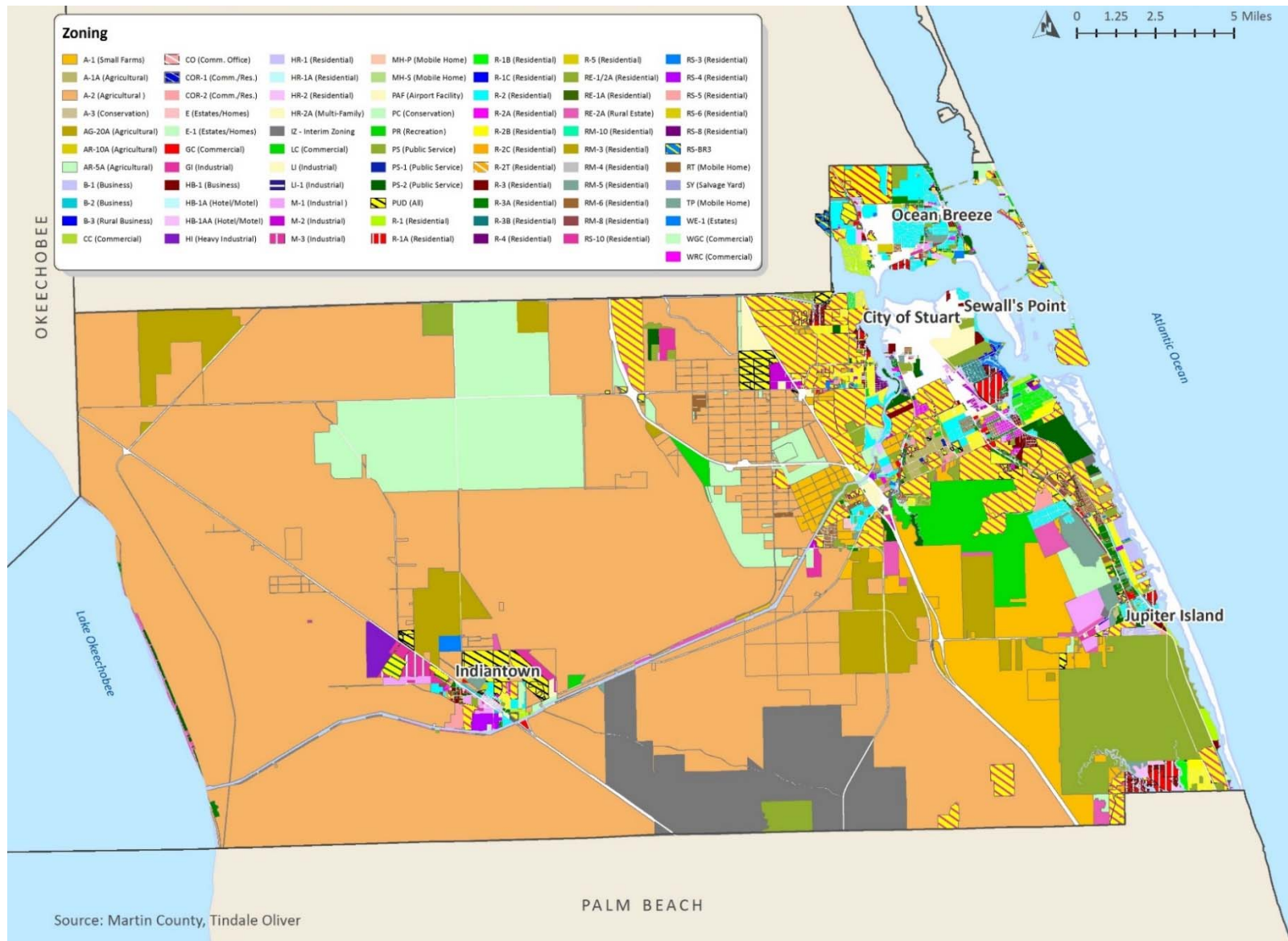
Map 2-12: Level of Service



Map 2-13: Future Land Use



Map 2-14: Zoning



Section 3 Public Involvement Process

The public involvement process for this TDP outlines the outreach activities to be undertaken at different points during the TDP development process. These activities are outlined in the TDP Public Involvement Plan (PIP), which has been approved by FDOT District 4. A copy of the PIP and FDOT compliance letter are provided in Appendix A. The PIP was designed to ensure ample opportunities for the public, including current Marty riders, non-riders, community stakeholders, local agencies and organizations to participate in the development of this TDP.

This section summarizes the public involvement activities that have been undertaken during the TDP major update.

TDP Branding

One of the initial activities for this study was to develop a “brand” to make all related materials and documents easily recognizable and associated with the TDP process. The TDP brand, *Marty on the Move* (see right), builds upon the current Marty logo and overall system brand, which was updated since the last TDP.



Project Review Committee

To help facilitate this TDP process, Martin County has convened a Project Review Committee (PRC) of County staff and other key stakeholders. Specifically the role of the PRC includes:

- Acting as external review committee for Martin County and Consultant staff during the TDP update process.
- Providing input on the TDP process during PRC meetings and via email/telephone between meetings, as needed.
- Assisting in advertising various TDP public involvement opportunities to internal agency members, outside stakeholders and the community, as appropriate.
- Identifying and building champions for public transit in Martin County by promoting Marty’s services.
- Participating in PRC meetings as scheduled.
- Reviewing and providing input on technical memoranda, the draft executive summary and TDP report prior to being finalized for adoption by the Martin County Board of County Commissioners (BOCC).

To facilitate this process, a PRC Work Plan was prepared. A copy of this document is provided in Appendix B.

Table 3-1 lists the Martin County TDP PRC members. The PRC met four times during the TDP development process as noted below.

Table 3-1: Project Review Committee Members

Name	Agency	Email
Terry Rauth	Director of Public Works, Martin County	trauth@martin.fl.us
Diane Moore	Financial Analyst, Martin County	dmoore@martin.fl.us
Jordan Pastorius	Martin County Community Redevelopment Agency (CRA)	jpastori@martin.fl.us
Ricardo Vazquez	Martin Metropolitan Planning Organization (MPO)	rvazquez@martin.fl.us
Jayne Pietrowski	Florida Department of Transportation (FDOT) District 4	Jayne.Pietrowski@dot.state.fl.us
Joe Azevedo	Career Source Research Coast	jazevedo@careersourcerc.com

PRC Meeting #1

The first PRC meeting was held on August 8, 2018. Topics covered include:

- Introductions of the TDP team and PRC members
- Overview of the TDP process and Marty services
- Review of the TDP scope of services
- Review of the project schedule
- Discussion, questions and comments

A PowerPoint presentation addressing the above topics was given. Since this was the first PRC meeting, discussion primarily focused on the TDP process and schedule.

PRC Meeting #2

The second PRC meeting was held on November 5, 2018. Topics covered include:

- Baseline conditions results
- Peer and trend analysis results
- Summary of public outreach activities conducted to date
- Onboard survey results
- Online survey interim results
- Stakeholder interview results
- Upcoming PRC meeting dates and upcoming tasks
- Discussion, questions and comments

A PowerPoint presentation addressing the above topics was given. Discussion focused on:

- The peer and trend analysis and, specifically, that system changes in June of 2013 to initiate fares and revamp some of the operations are creating major fluctuations and anomalies in the data and resulting analyses.
- Understanding of how the on-board survey results could be analyzed by geographic subareas of the county.
- The need to clearly identify other service providers in the TDP so as to clearly understand Marty services versus those of other providers.

PRC Meeting #3

The third PRC meeting was held on March 27, 2018. Topics covered include:

- Summary and results of public outreach activities completed since the last PRC meeting
- Discussion of the preliminary transit improvements
- Brainstorm of the vision, goals and objectives to include in the TDP
- Discussion, questions and comments

A PowerPoint presentation addressing the above topics was given. Discussion focused on:

- Preliminary improvements identified.
- Proposed vision, goals and objectives languages.
- Existing and future ridership projections.
- Marty's history as a fare-free system and associated challenges associated with ridership.

PRC Meeting #4

The fourth PRC meeting was held on May 14, 2018. The 10-year needs and cost affordable financial and implementation plans were presented.

Stakeholder Interviews

Interviews were conducted with 10 stakeholders representing local policy leaders and organizations throughout Martin County with an interest in transportation services, as shown in Table 3-2. Interviews were conducted in person, via phone, or through a written questionnaire during September and October of 2018.

Table 3-2: TDP Stakeholder Interview Participants

Name	Title	Organization
Doug Smith	District 1 Commissioner	Martin BOCC
Ed Fielding	District 2 Commissioner (former)	Martin BOCC
Harold Jenkins	District 3 Commissioner	Martin BOCC
Sarah Heard	District 4 Commissioner	Martin BOCC
Edward Ciampi	District 5 Commissioner	Martin BOCC
Steve Wolfberg	Martin Health System	Martin Health System
Sean Donahue, P.E.	Asst. Dean of Facilities & Sustainability	Indian River State College
Theresa Lynch	Assistant to the Dean	Indian River State College
Joseph Catrambone	President/CEO	Stuart/Martin County Chamber of Commerce
Kevin Freeman	CRA Director	City of Stuart

A list of questions was developed to facilitate the discussion and obtain stakeholders' perceptions of three major areas related to public transit in Martin County, including:

- General perceptions
- Vision for future transit
- Transit funding opportunities

A copy of the interview questions used in all interviews is presented in Appendix C. Common perceptions and themes from stakeholders are summarized below.

General Perceptions

1. *To what level are you currently aware of the Marty and its services?*

All stakeholders were aware of Marty and its services.

2. *How much awareness of and support for transit is there in the community? Do you think the levels of awareness and/or support for transit changed in the last few years?*

In general, stakeholders felt that interest and knowledge about Marty's services is growing. However, the overall level of understanding remains relatively low. Branding, related transit projects and bus replacements were cited as topics that may be aiding in increased awareness.

3. *Do you use Marty? Why? Why not? If you do not use Marty, what improvements would encourage you to ride in the future?*

Stakeholders reported that they did not ride Marty because using a personal vehicle was more convenient. Better advertisement and more convenient service in terms of frequency and to/from where they need to go might encourage them to ride in the future.

4. *Do you believe the public perception of Marty good, satisfactory, or poor? Why?*

All indicated that public perception for Marty was good, especially among those who use the service.

5. *Is your perception of Marty good, satisfactory, or poor? Why?*

All had a positive view on Marty and hoped for service improvements to bolster good perceptions.

6. *What do you believe are the most significant issues facing transit users in Martin County?*

Most stakeholders agreed that a variety of service-related improvements were the most significant issues. This includes headways, frequency, service area and route alignment, regional connections, stop locations and travel times. Funding and awareness of service were also mentioned as challenges.

7. *Do you believe Marty has done an effective job marketing transit service options to riders?*

Stakeholders had mixed responses, but most felt that marketing was adequate with room for improvement.

Vision for Transit

8. *In your opinion, what is the primary trip type for Marty riders (medical, shopping, recreation, work, or school)?*

Responses included all listed options, with medical trips being the most frequently mentioned.

9. *Is there a need for additional transit service in Martin County? If yes, what type of services (more frequent fixed-route service, express bus, later evening service, weekend service, etc.)?*

Unanimously, stakeholders felt a need for additional services. Several responses mentioned maintaining and improving services to Palm City, Indiantown and Golden Gate. Again, frequency of service and increased service were topics of interest (evening and weekend service).

10. *Are there areas currently not served or underserved by transit that should receive a higher priority? If so, where?*

Most agreed that the following areas are underserved: Palm City, Indiantown and Golden Gate. Other areas mentioned include mobile home communities, schools, Jensen Beach and Hobe Sound.

11. *Are there any City, County, or other land use policies that should be changed to help the transit system reach its goals? If yes, where?*

Most stakeholders did not feel that land use policy changes were necessary to further transit goals. Some mentioned community redevelopment areas and workforce housing.

12. What part do you think technology can play in Marty's service provisions and where/how?

Nearly all felt that scheduling or real-time tracking applications would benefit Marty. Some also mentioned Wi-Fi-equipped buses, improved fuel consumption and on-board video cameras. Better integration with transportation network companies (TNCs) such as Uber and Lyft was also referenced as a potential opportunity.

Transit Funding

13. Do you believe that there is a willingness among Martin County residents to consider additional local funding sources for transit? Specifically, do you think there is support for a Municipal Service Taxing Unit (MSTU) to help fund transit?

The majority of stakeholders did not believe there is a willingness to support increased local funding for transit at this time.

14. If no to Question 13, do you believe that such support is needed? If yes, do you have suggestions as to how such support can be generated?

Stakeholders provided mixed responses regarding the need for increased transit funding. Most comments either did not support or had no opinion on the topic and a few stated there is a need for funding but were pessimistic about the ability to generate it. Those supporting the need for transit funding suggested that public sector sources, such as State and federal grants, should be the source.

15. Do you think Martin County policy leaders (Board of County Commissioners) would consider supporting additional local funding for transit if service needs are detailed in the 10-year TDP?

Stakeholders had ambivalent opinions on this topic. Responses varied among opposing (due to a lack of priority), neutral and supporting local transit funding.

16. Have you heard of any businesses requesting additional transit service or interested in creating public-private partnerships for increased transit service for their employees or customers?

No stakeholders were aware of businesses needing additional transit services. However, some suggested the hospitals serve many TD individuals and may benefit from a partnership.

In addition, a list of questions was developed for interviewees who also were an employer/college campus representative, as summarized below:

17. Do you have clients/customers/students and faculty visiting your facility on a daily basis? If yes, how many per day on average? How do they usually travel there?

At Indian River State College, most students visit the facilities to attend classes. The exact number of students traveling to class each day was not readily known. Stakeholders believed more students would ride if the service fit their needs and schedules, especially high school students attending advanced placement classes at the college.

18. *How much interest do you think your employees or clients/customers or students/faculty have in using alternative modes of travel, such as public transit, biking, carpool/rideshare/ride-hail?*
Bikes on buses could yield interest with the proper marketing.

19. *Is providing adequate employee or client/customer parking a problem at this time or as you plan your growth? If yes, have you thought about public transit as one of the solutions to reduce the need for on-site parking?*

Parking currently meets needs, but growth is anticipated to surpass the capacity. Transit may be a helpful for future success.

On-board Survey

An on-board survey was conducted in September 2018 to collect demographic, travel behavior and user satisfaction information from riders. Surveys were distributed on all bus routes for two full weekdays (Tuesday and Wednesday, September 25 and 26). A 23 question paper survey was administered to passengers aboard Marty bus routes. The survey was translated into Spanish for Limited English Proficiency (LEP) passengers. A copy of both survey instruments is provided in Appendix D.

A team of trained survey personnel completed an orientation session covering responsibilities and possible issues or concerns that might arise prior to administering the survey.

Survey Characteristics

The survey consisted of questions to identify passenger socio-demographics, travel characteristics, improvement priorities and rider satisfaction, as summarized below.

Socio-Demographics

- Age
- Race
- Ethnic origin
- Gender
- Household income
- County residency status
- Possession of a mobile phone

Travel Characteristics

- Trip origin for this trip
- Method for reaching the bus for this trip
- Trip destination for this trip
- Bus routes used for this one-way trip
- Number of one-way bus trips typically made per week
- Most important reason for riding the bus
- Mode of travel if not bus
- Number of available vehicles at home
- Length of time using Marty services
- Fare type used

Improvement Priorities and Rider Satisfaction

- Top service improvements
- Top technology improvements
- Level of satisfaction with key service indicators

Survey Results

In total, 151 Marty passengers responded to the survey. Table 3-3 shows that, on average, 102 passengers responded to each question for a completion rate of 67%.

Table 3-3: Responses by Survey Question

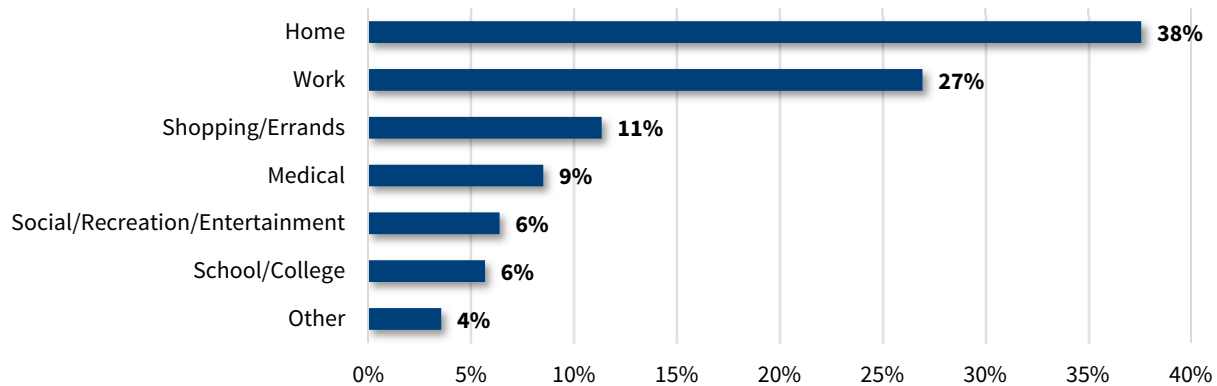
Question #	Question Description	Responses Received	Response Rate
1	Trip Origin	141	93%
2	Mode of Ingress	123	81%
3	Trip Destination	140	93%
4	Order of Routes Taken	84	56%
5	One-Way Trips per Week	121	80%
6	Reason for Riding Bus	135	89%
7	Alternate Transportation Mode	109	72%
8	Working Vehicles at Home	116	77%
9	Length of Marty Use	129	85%
10	Type of Fare	130	86%
11	Top 3 Service Improvements	81	53%
12	Marty Service Characteristics	114	75%
13	Satisfaction with Marty	102	68%
14	Route Information Source	94	62%
15	Cell Phone Ownership	92	61%
16	Top Technology Improvements	62	41%
17	County Residency Status	76	50%
18	Age	104	69%
19	Income Range	74	49%
20	Gender	103	68%
21	Race	71	47%
22	Ethnic Origin	99	66%
23	General Comments	35	23%
Total Surveys Received		151	–
Average Responses Received Per Question		102	67%

Source: Tindale Oliver

Passenger Travel Characteristics

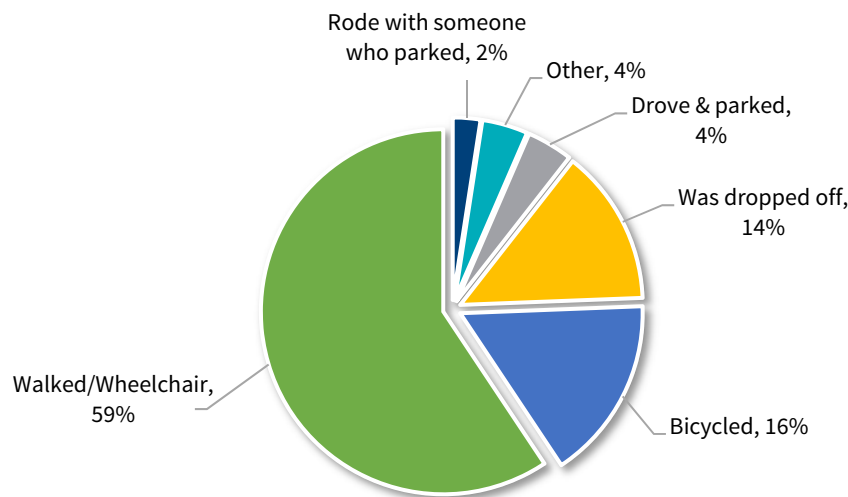
Passengers were asked to identify the origin of their current trip, as shown in Figure 3-1. The majority of respondents (38%) indicated they were coming from home, 27% from work, 11% from shopping/errands, 9% from medical appointments and 6% from social/recreation/entertainment errands; only 6% were traveling from school.

Figure 3-1: Where are you coming from on this trip?



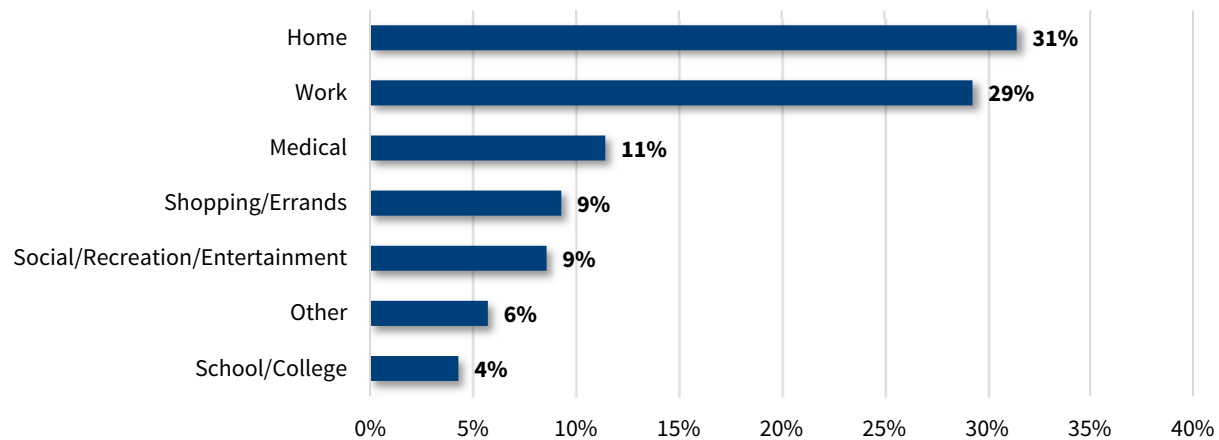
Passengers were asked to identify their mode of transportation to their first bus stop from six choices (Figure 3-2). The majority of riders (59%) noted that they walked or used a wheelchair to get to their stop, followed by 16% who used their bicycles and 14% who were dropped off. The remaining 10% drove and parked at the bus stop, carpooled with someone who parked, or traveled to the bus stop in some other manner.

Figure 3-2: How did you get to the first bus stop of your current trip?



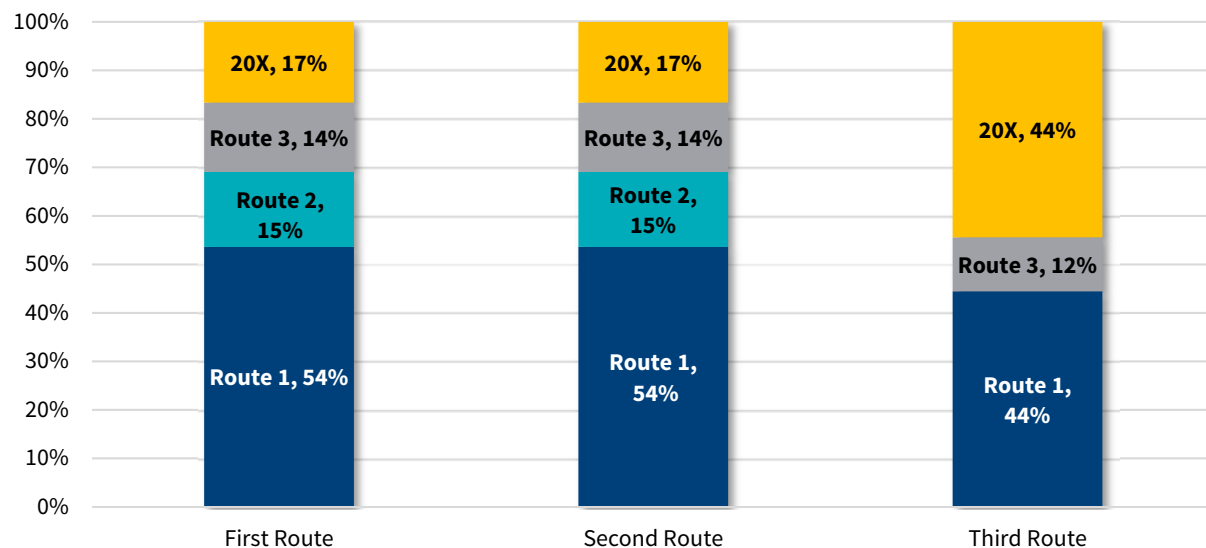
Passengers were asked to identify their destination of their current trip (Figure 3-3). In total, 31% said they were going home, 29% were going to work, 11% were going to medical appointments and 9% were going to shop/run errands.

Figure 3-3: Where are you going on this trip?



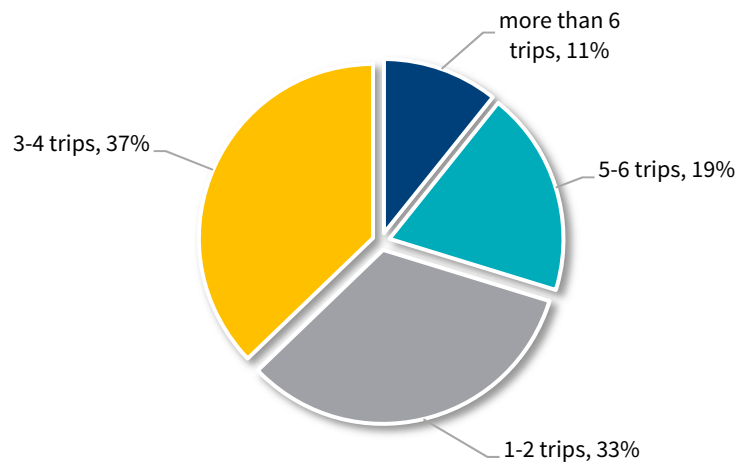
Passengers were then asked to list the order of bus routes they would take to get to their destinations. A majority (54%) started their journey using Route 1 (Figure 3-4). Of those who transferred to other routes to reach their destination, Route 1 was used most frequently for the second part of the trip at 54%, followed by Route 2 at 15%, Route 3 at 14% and Route 20x at 17%. If a third route was used, passengers indicated that Route 1 and Route 20x were each used 44% of the time, followed by Route 3 at 12%.

Figure 3-4: List all bus routes in the exact order you will use to make this one-way trip.



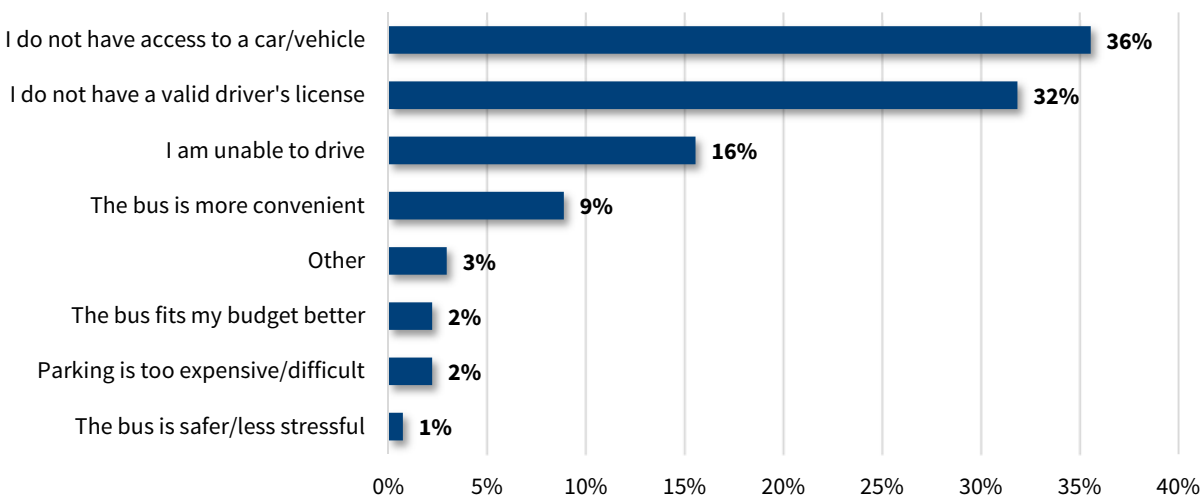
Passengers were asked how many one-way trips they complete per week. The majority (37%) make 3-4 trips per week, 33% make 1-2 trips, 33% make 5-6 trips, 19% make 5-6 trips and 11% make more than 6 trips (Figure 3-5).

Figure 3-5: How many one-way bus trips do you make per week using the bus?



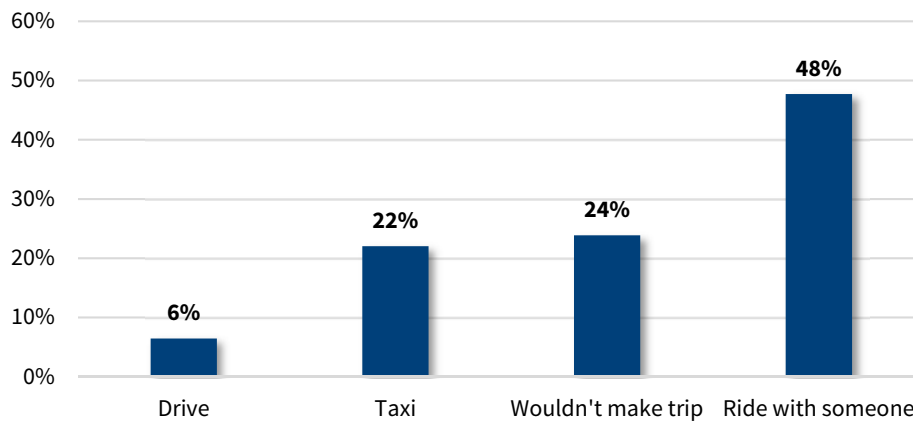
Passengers were asked to choose among eight choices that best describe why they took the bus. As shown in Figure 3-6, the most common responses were not having access to a vehicle (36%) and not having a valid driver's license (32%). These were followed by not being able to drive (16%), bus is more convenient (9%), bus is more economical (2%), parking is expensive/difficult (2%) and bus is safe and less stressful (1%).

Figure 3-6: What is the most important reason you ride the bus?



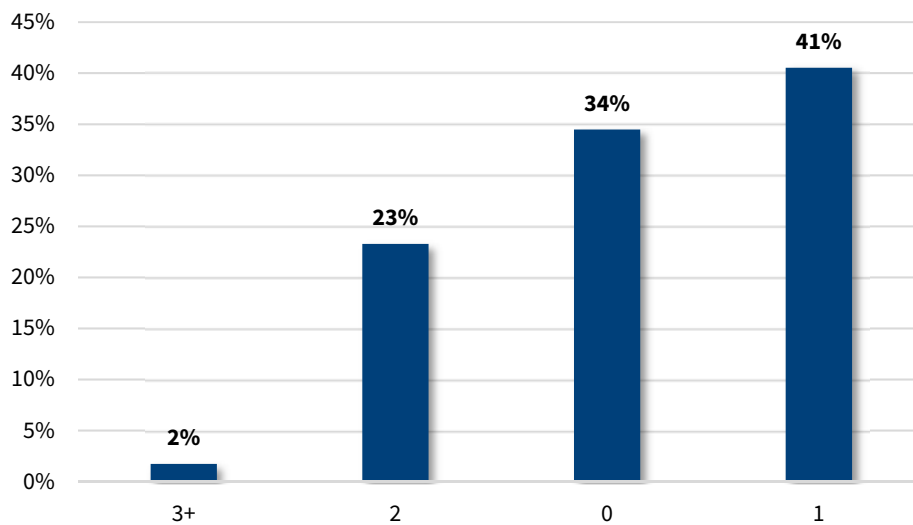
Passengers were then asked to indicate their alternate mode of travel if the bus was unavailable (Figure 3-7). Nearly half (48%) indicated they would ride with someone and 24% said they would not make the trip if not by bus, followed by 22% who would take a taxi and 6% who would drive instead.

Figure 3-7: If the bus is unavailable, how would you make the trip?



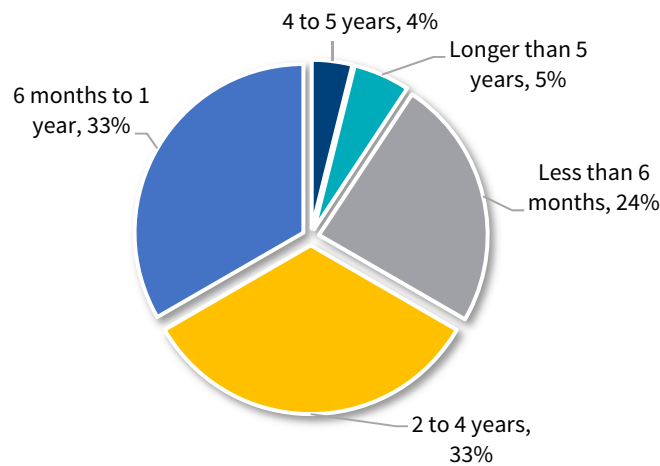
Passengers were asked how many working vehicles were available at home. As shown in Figure 3-8, the most common response was 1 (41%), followed by no working vehicles (34%) or two working vehicles (23%). Of all respondents, 2% have access to three or more working vehicles at home.

Figure 3-8: How many working vehicles (cars, motorcycles, trucks, or vans) are at your home?



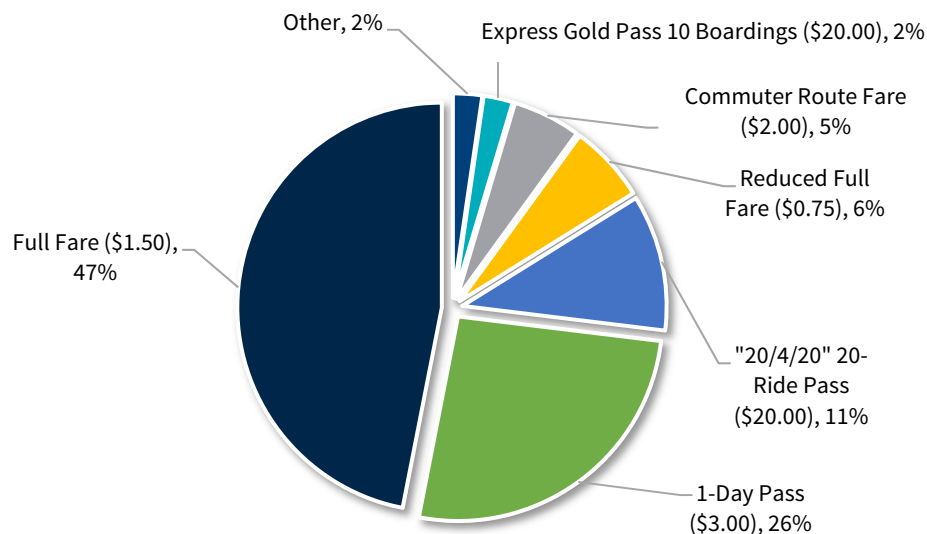
Passengers were asked how long they had been riding Marty. As shown in Figure 3-9, the majority said either 6–12 months or 2–4 years, each at 33%. In total, 24% have ridden less than one year, 5% longer than 5 years and the remaining 4% 4–5 years.

Figure 3-9: How long have you been using Marty bus service?



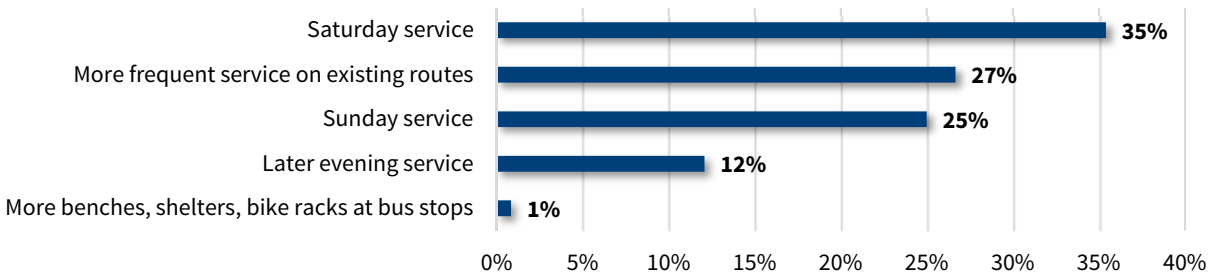
Passengers were asked to indicate what type of fare that they use on Marty. Most (47%) pay full fare (see Figure 3-10). The next most common fare types used were the 1-day pass (26%) and the “20/4/20” 20 ride pass (11%).

Figure 3-10: What is your usual bus fare?



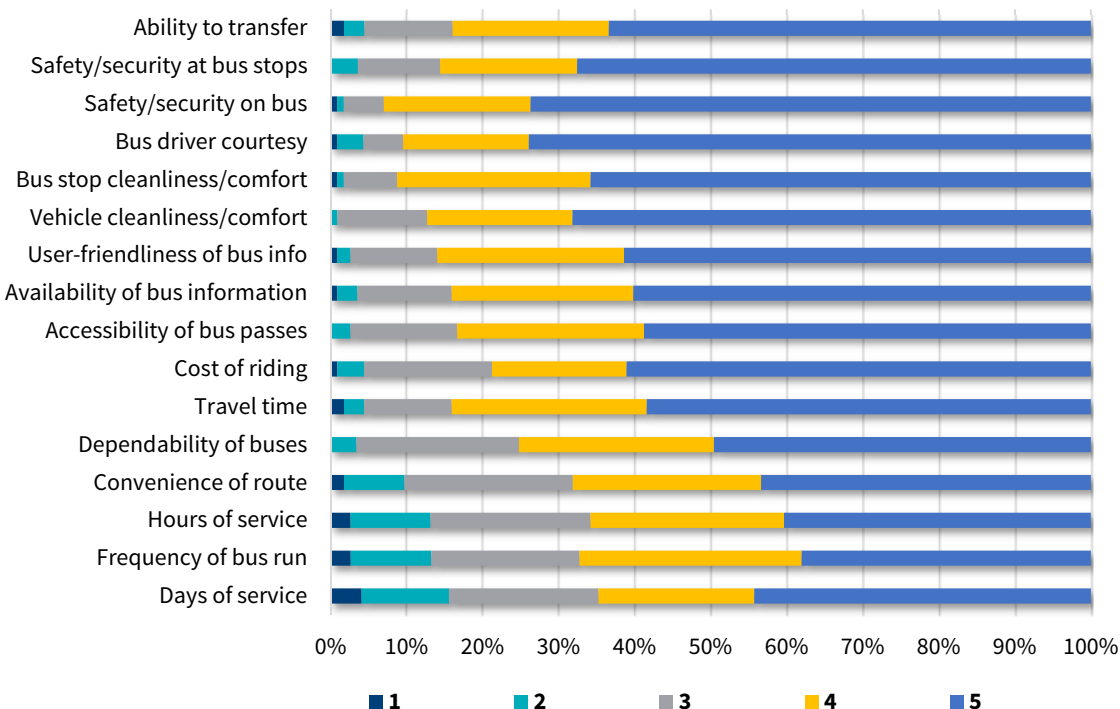
Passengers were asked about service improvements they would like to see for Marty. As shown in Figure 3-11, the most popular response was providing Saturday service (35%), followed by providing more frequent service on existing routes (27%), providing Sunday service (25%) and providing later evening service (12%).

Figure 3-11: What should Marty focus on improving with regard to its service?



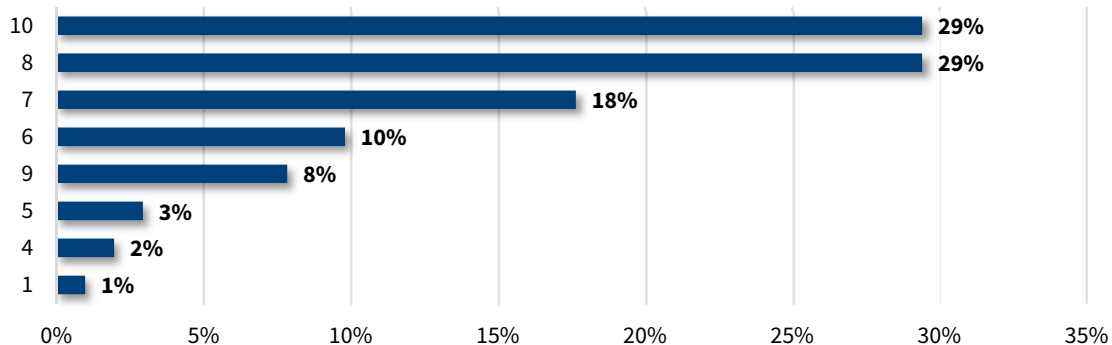
Passengers were asked to rate their satisfaction with Marty on a scale of 1 to 5 for 16 metrics, with 5 being “very satisfied” and 1 being “very unsatisfied.” Figure 3-12 shows that, overall, most passengers are “very satisfied” with Marty’s service. Days of service received the lowest overall score, while safety/security on the bus received the highest. Other high-scoring metrics were bus driver courtesy, safety/security at bus stops, vehicle cleanliness/comfort, bus stop cleanliness/comfort and the ability to transfer. The variety of these metrics indicates that a great overall quality of service is supplied on buses and at the bus stops. The other lowest satisfaction ratings were generally service-related and included frequency of bus run, hours of service, convenience of route, travel time and cost of riding, indicating that passengers desire improvements to Marty’s services.

Figure 3-12: How satisfied are you with each of the following? (1 = lowest, 5 = highest)



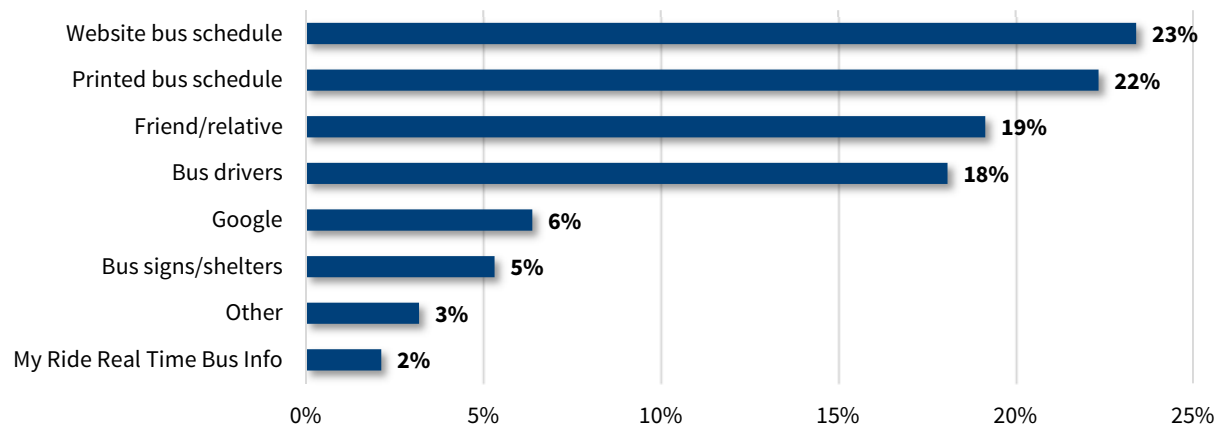
Passengers were asked to rate their overall satisfaction with Marty from 1 to 10, with 10 being “most satisfied” and 1 being “least satisfied.” The most frequent scores were 8 and 10, both receiving 29% of overall responses and the average score was 8 out of 10. This indicates that passengers are generally very satisfied with overall service (Figure 3-13).

Figure 3-13: How satisfied are you with the overall level of service Marty provides?



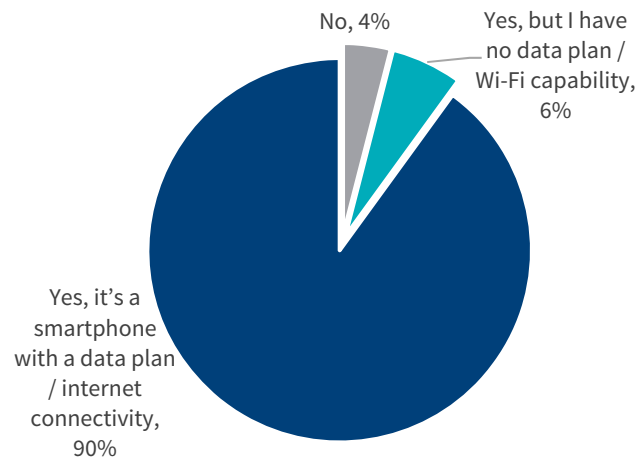
Passengers were asked how they normally accessed information about the bus (Figure 3-14). Most (23%) retrieved information online through Martin County’s website, 22% used printed bus schedules, 19% got it from a friend/relative and 18% got it from Marty drivers. The remaining 16% got information from Google or through information at bus shelters, the My Ride app, or other sources.

Figure 3-14: How do you normally get information about Marty?



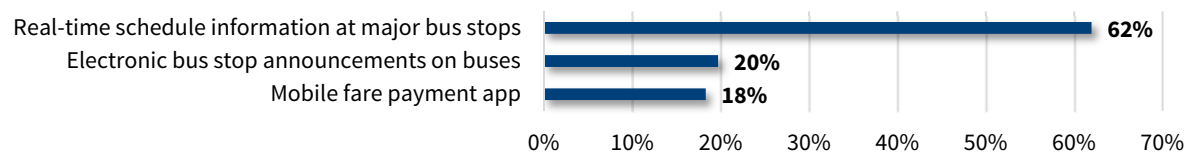
Passengers were asked if they own a cell phone. As shown in Figure 3-15, the majority (90%) own a smartphone with a data plan/internet connectivity; those remaining either own a cell phone without a data plan/Wi-Fi connectivity (6%) or do not own a cell phone (4%).

Figure 3-15: Do you own a cellphone?



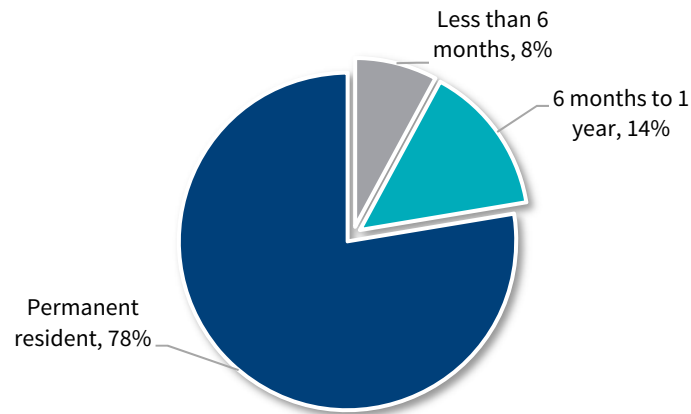
Passengers were asked to indicate what technology improvements they would like to see on Marty, with the majority (62%) indicating real-time schedule information at major bus stops (Figure 3-16).

Figure 3-16: What technology improvements would make Marty better for you?



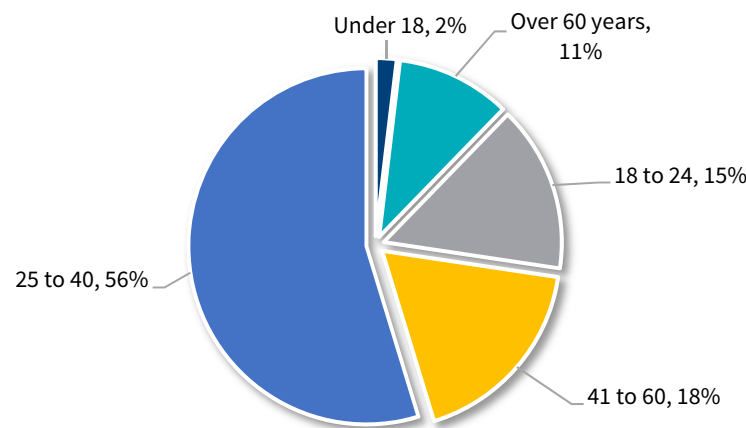
Passengers were asked how long they live in Martin County during the year to understand the residency status of riders. Most respondents (78%) are permanent residents. Another 14% of respondents are seasonal residents that primarily live in Martin County. The remaining 8% of respondents live somewhere other than Martin County most of the year (Figure 3-17).

Figure 3-17: How many months of the year do you reside in Martin County?



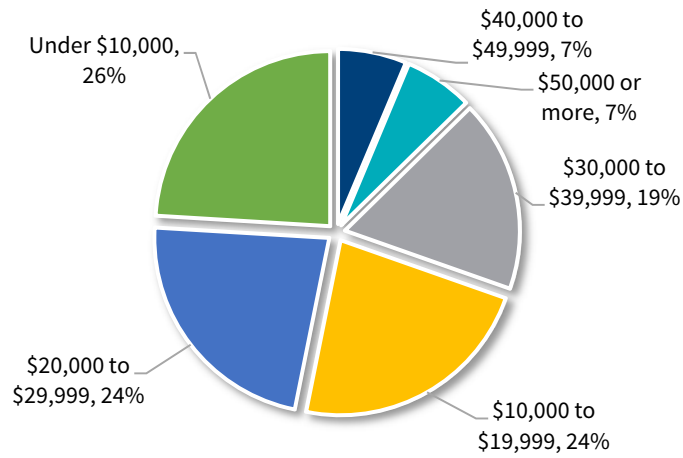
Passengers were asked their age bracket (Figure 3-18). The majority (56%) were between ages 25 and 40, followed by 41 to 60 years (18%), 18 to 24 years old (15%), over 60 years (11%) and under 18 years (2%).

Figure 3-18: What is your age?



Passengers were asked to indicate their annual income range from six categories. As shown in Figure 3-19, the most common response was less than \$10,000 (26%), followed by \$10,000–\$19,999 (24%), \$20,000–\$29,000 (24%), \$30,000–\$39,999 (19%), \$50,000 (7%) and \$40,000–\$49,999 (7%).

Figure 3-19: What is your annual household income (2018)?



Passengers were asked their gender. Figure 3-20 shows that the majority (59%) of passengers are female and 41% are male.

Figure 3-20: What is your gender?



Finally, passengers were asked to select their race from six categories (U.S. Census Bureau). As shown in Figure 3-21, the majority were white (44%), followed by black/African American (31%), American Indian or Alaska native (6%), native Hawaiian or other Pacific Islander (4%) and two or more races (3%), with 49% percent identifying as being of Hispanic, Latino, or Spanish origin (Figure 3-22).

Figure 3-21: What is your race?

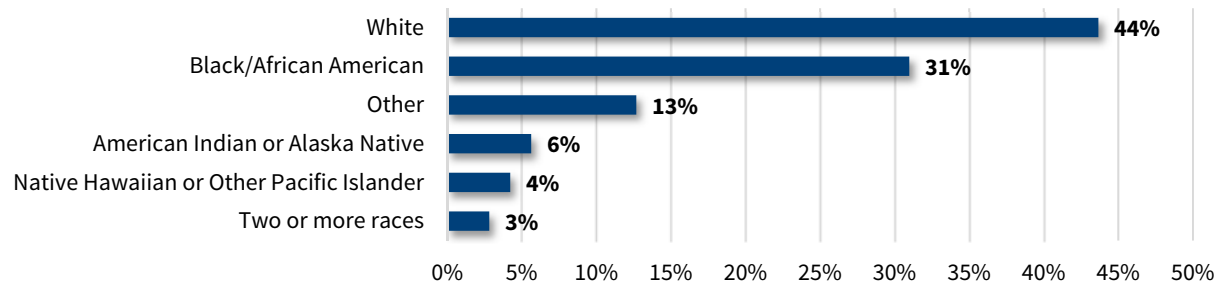
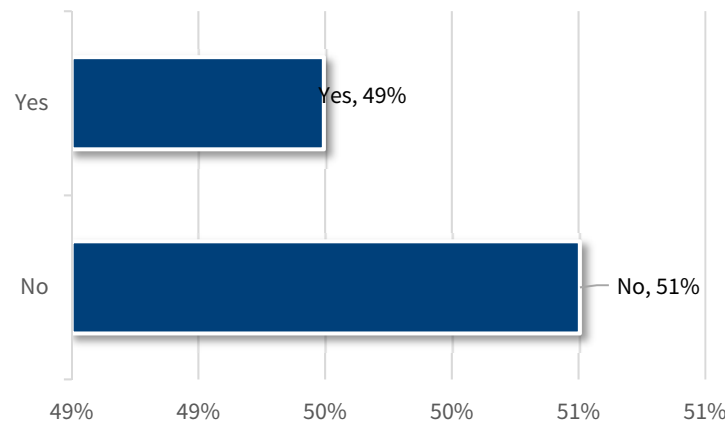


Figure 3-22: Are you of Hispanic, Latino, or Spanish ethnic origin?



Discussion Group

A discussion group was held with representatives of the various chambers of commerce in Martin County to gather input on public transit needs, perceptions and challenges for consideration in the TDP. Representatives from each of the seven chambers of commerce were invited and participants included representatives of the Hobe Sound Chamber, Stuart/Martin County Chamber and Martin County. The meeting opened with a presentation outlining the TDP process and providing an overview of the Marty system, followed by a discussion focused on 10 specific questions. A summary of the responses received to these questions is provided below.

1. *What is your perception of transit's role in the community?*

Responses ranged in that transit may not be regularly known or accepted as a viable mode of transportation in the community, transit may help lower-income persons and transit provides access to needed services.

2. *How much awareness of and support for transit is there in the community? Have the levels of awareness and support changed in the last few years?*

Discussion focused on a need for more awareness and increasing support for transit. Neighborhood or smaller community events may be helpful to spread the word about Marty services. Employment hubs could also be more transit-supportive to attract employee riders. Better amenities and information on how to ride at bus stops may also make people more aware of Marty.

3. *Has Martin County been responsive to community's transit needs? And are those needs communicated to Martin County?*

Generally yes, the County has been helpful and responsive. Service and amenities have been improved and the website has been made more user-friendly; improved bike racks in Golden Gate was specifically mentioned. It was also suggested that the various chambers can be used as a resource to help educate people about Marty.

4. *What do you believe Martin County is doing well?*

Solid, reliable service and slow and methodical growth in service were mentioned. However, limitations were noted, including that service is still rather limited in scale. There is little funding available to grow the system in the future. Clean, good looking buses were also noted as a positive aspect of the system.

5. *What do you believe Martin County can do better?*

Responses to this question include a need for more creative and expansive communication; expanding service to new areas; increasing accessibility to bus stops; increasing the number of bus stops provided; better bus drivers; and improving bus stops.

6. *Are there areas currently not served or under-served by transit that should receive a higher priority? If so, where?*

Adding weekend service and expanding coverage to areas with higher density housing (condos) and along the barrier islands for service industry employees were both mentioned. While not a geographic area, it was discussed that millennials tend to be more choice riders compared to prior generations and Martin County needs to generally better attract this age group.

7. *What improvements in the existing transit system are needed to attract new riders and meet community goals?*

In response to this question, the following improvements were mentioned:

- Wi-Fi on buses (it was noted this is already planned).

- Better marketing of bus stop locations.
- Later evening and adding weekend service.
- Better east-west route connections.
- More stops in high-service areas.
- Better distribution of bus maps (it was noted that new apps will help).
- Bike racks at bus stops and on buses.

8. *Do you believe there is a willingness in the community to consider additional local funding for transit?*

The general sentiment among the group is that there is not likely support for additional local funding, at least not without local policy leaders and the public clearly understanding the specific transit needs. Ad valorem taxes and general funds already have a lot of competition for funding other needs/services, which is a challenge for increasing transit funding. It was discussed that transit infrastructure needs should be assessed specifically within each of the seven Community Redevelopment Areas (CRA) in Martin County as designated funding could support improved/more bus stops in these areas. This also supports improving walkable communities and complete street goals in each CRA. Mobility fees, private business partnerships for bus stop infrastructure and revenue from advertisements on buses (though limited by demand and size) were also discussed as potential local sources that could be explored.

9. *Do you think an improved transit system will support increased economic development in Martin County?*

Responses to this question ranged as noted below:

- Yes, transit helps, but is not a sole factor in increasing economic development.
- Yes, transit helps with jobs access; perhaps this should be a focus for the system.
- More livable housing is needed to make transit more relative.
- A challenge is that a number of workers drive into Martin County from other areas.
- Only those who need it use it, as the service is not convenient for most people and where they want to go.

10. *What should Martin County's priorities for Marty be for the next 10 years?*

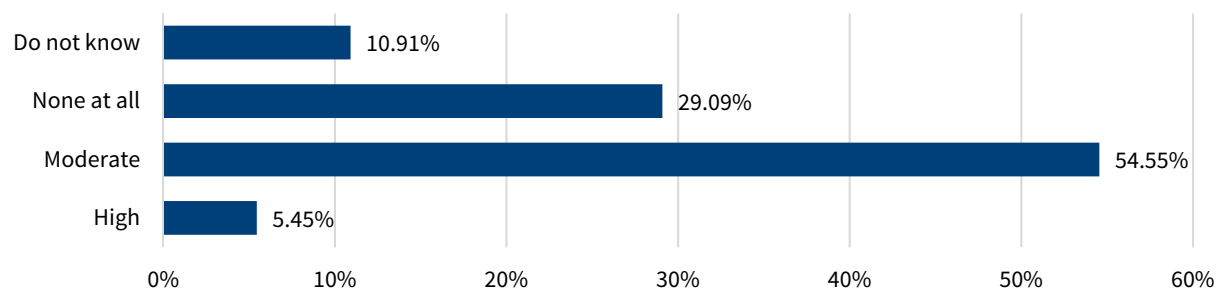
Piggybacking on future sidewalk and road improvements, enterprise zones and employment hubs may provide opportunities to support and prioritize transit in the future.

Online Survey

An online survey was available from September through December 2018 for residents, employees and visitors of Martin County to share their insights regarding Marty’s services. In total, 16 questions were asked to determine willingness to use public transit and the community’s transit needs, gauge public awareness of transit issues in Martin County and gather socio-demographic information of survey respondents. In total, 113 surveys were completed.

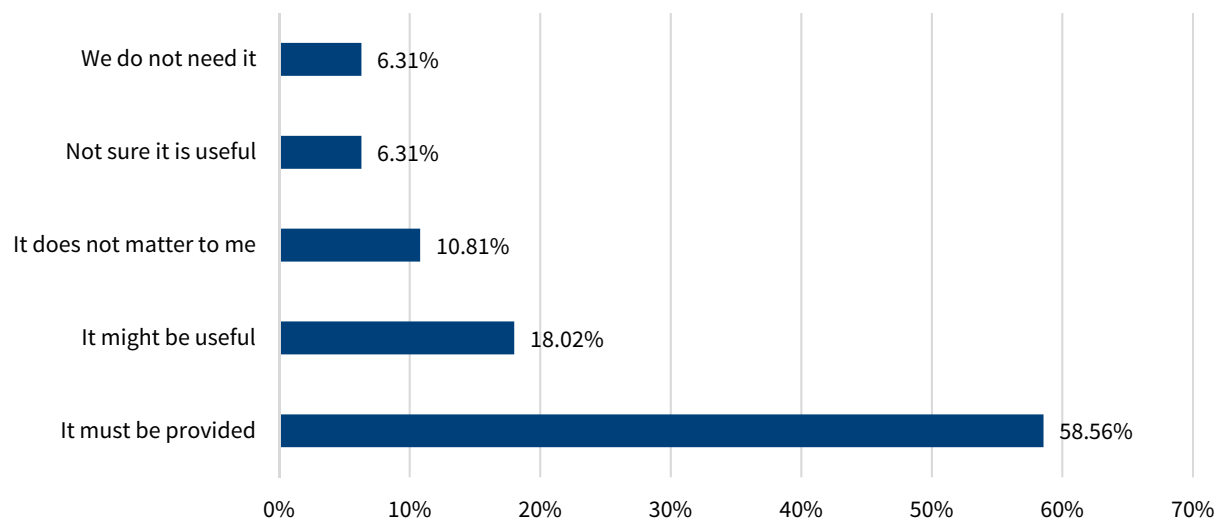
As shown in Figure 3-23, most respondents (55%) reported that there was moderate awareness of transit and public transportation; however, 29% stated there was no at any awareness about transportation in the community. Only 5% of participants indicated that there was high awareness in the community.

Figure 3-23: Awareness in community about transit/public transportation?



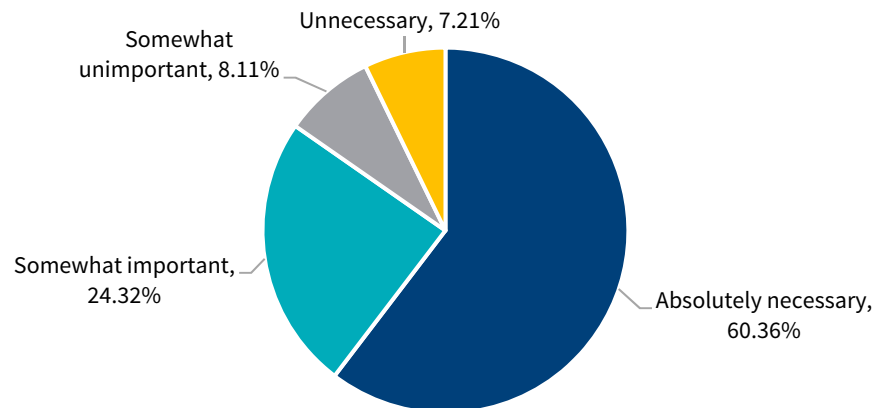
Most participants (59%) indicated that Marty’s services must be provided compared to 18% stating that Marty’s services might be useful. Only 6% of respondents stated that Marty’s services are not needed.

Figure 3-24: Opinion on need/usefulness of Marty?



As shown in Figure 3-25, the majority of respondents (60%) perceive that transit service is absolutely necessary in the community, while approximately 24 percent of participants indicated that it was somewhat important, while approximately 8% responded that transit is either somewhat unimportant or unnecessary to the community.

Figure 3-25: Perception of transit's role in the community?



Participants were asked if they feel traffic congestion is a problem in Martin County. As shown in Figure 3-26, the majority (70%) responded in the affirmative. As a follow-up question, these respondents were then asked if transit would help alleviate the congestion. As shown in Figure 3-27, the majority (71%) indicated that transit either would or could be a solution for alleviating congestion.

Figure 3-26: Traffic congestion as an issue in Martin County?

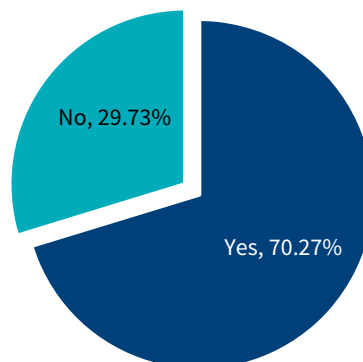
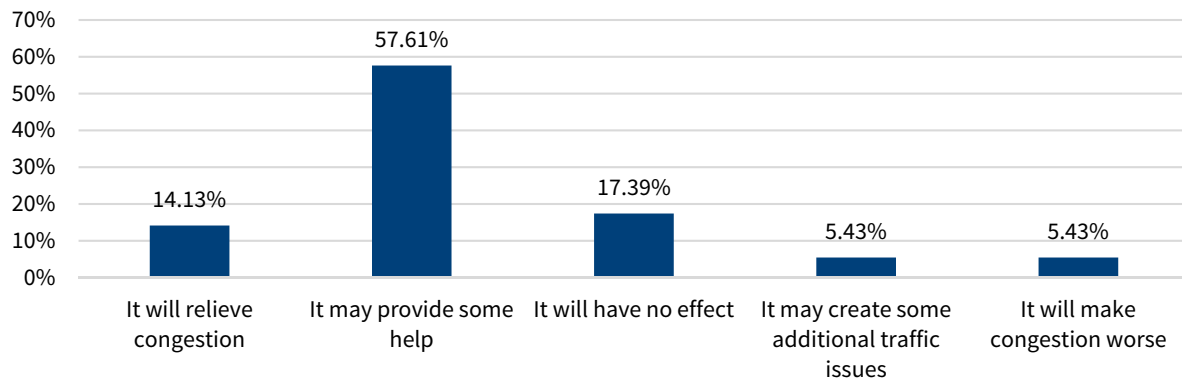
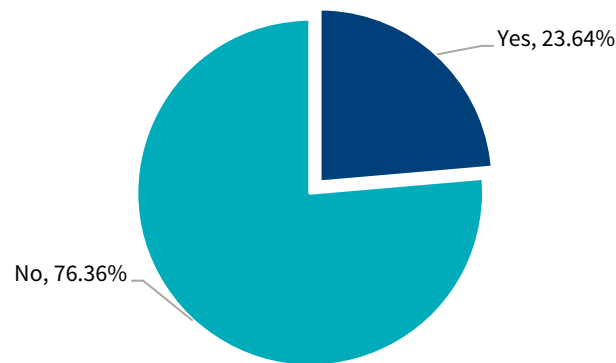


Figure 3-27: Marty's role in alleviating traffic congestion?



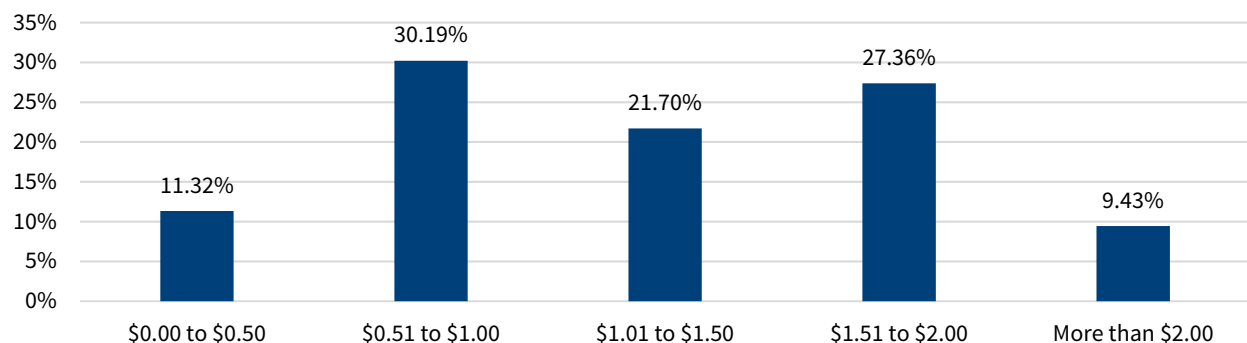
As shown in Figure 3-28, the majority of survey participants have not ridden a Marty bus.

Figure 3-28: Have you ridden the Marty?



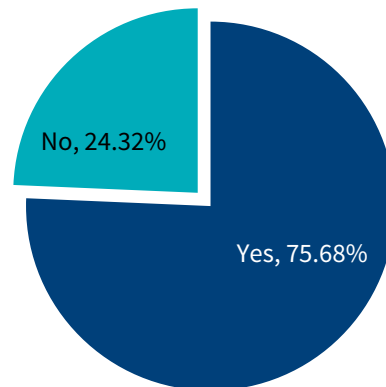
Participants were asked their opinion of a reasonable one-way fare for Marty. As shown in Figure 3-28, the majority of respondents (30%) said a one-way fare of \$0.51 to \$1.00 is reasonable, closely followed by 27% of respondents choosing the \$1.51-\$2.00 range. Overall, 80% of respondents indicated that a fare between \$0.51 and \$2.00 is reasonable.

Figure 3-29: Reasonable one-way fare?



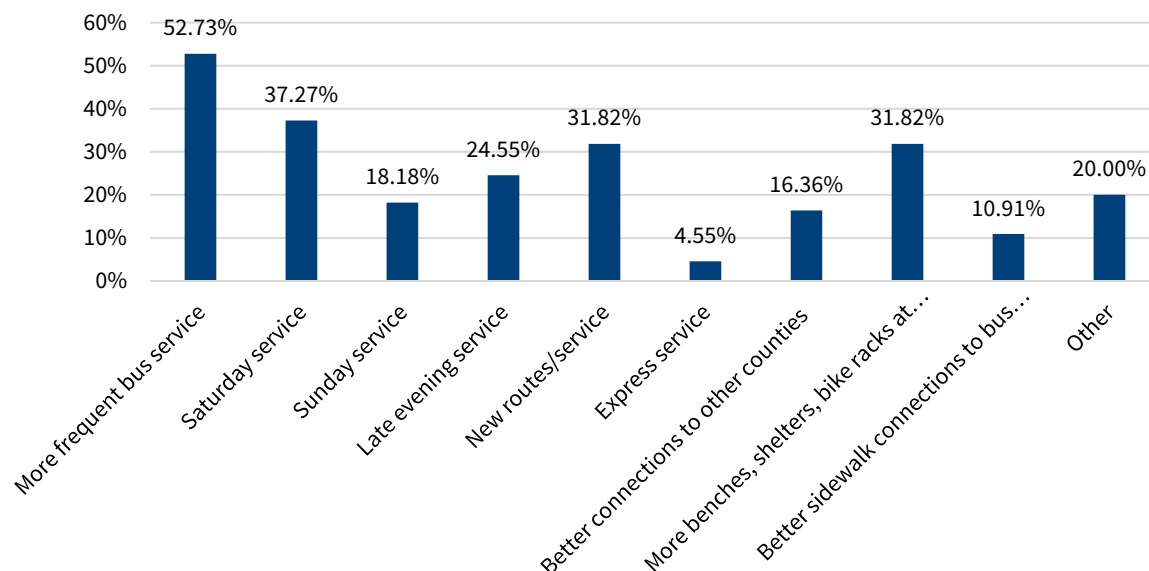
Respondents were asked their opinion regarding a need for more transit service in Martin County. As shown in Figure 3-30, the majority (76%) answered in the affirmative.

Figure 3-30: Need for additional transit?



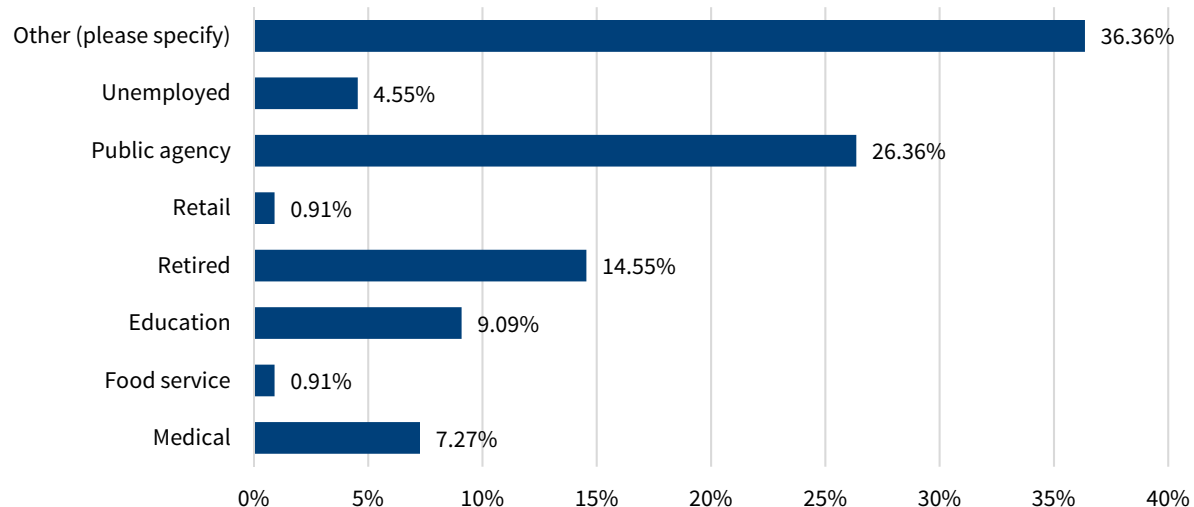
Participants were asked the top three improvements they would like to see for Marty. The most popular response was more frequent service (53%), followed by service on Saturdays (37%) then new routes/service and more benches, shelters, bike racks at stops (32% percent, respectively). Locations for new routes/service noted by respondents include regional service to Palm Beach County (Tri Rail and Brightline/Virgin Trains USA), along Dixie Highway, between Stuart and Hobe Sound, within Palm City and to/from Stuart, Kanner Highway and Indiantown.

Figure 3-31: Top three improvements for Marty?



When asked what sector they are employed in, of the choices provided the majority of respondents selected “public agency” (26%), followed by “retired” (15%). Overall, over one-third of respondents selected “other” and provided a variety of responses. This indicates that the survey respondents have a wide-ranging employment background.

Figure 3-32: Employment sector



When asked about the willingness in the community to consider additional local funding for transit, the majority (42%) indicated the community was “somewhat” willing (Figure 3-33). Participants were then asked about their willingness to pay additional taxes for an expanded transit system; this response closely mirrored the prior question, with 40% indicating they were “somewhat” willing. There was a higher willingness to “definitely” support increased local taxes (28%) than the same level of general community support for additional local funding (13%). Conversely, approximately one-quarter of all respondents do not support additional local taxes or think there is a willingness in the community for increased local funding for transit.

Figure 3-33: Community’s support additional local funding for transit?

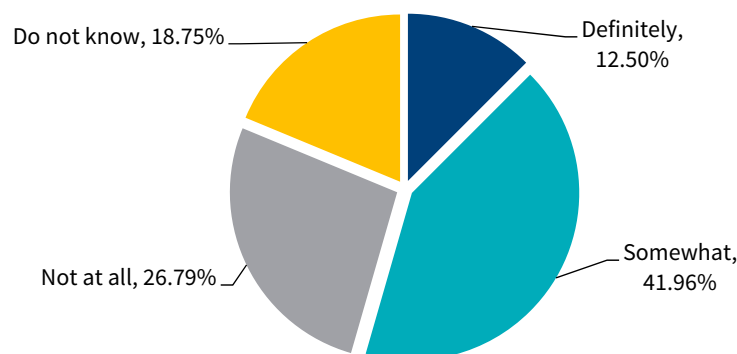
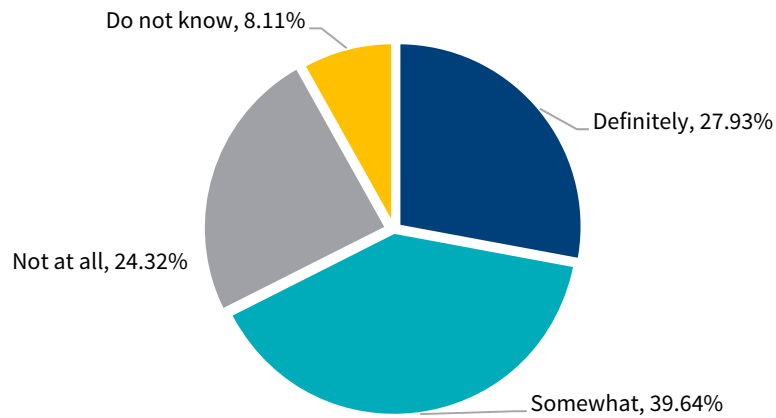


Figure 3-34: Respondent's support for additional taxes to enhance transit?



Participants were then asked a series of questions to understand the demographics of the survey respondents. As shown in Figures 3-35 and 3-36, respectively, the majority of the respondents (40%) are between 41-60 years old and have a household income was \$50,000 or greater (65%).

Figure 3-35: What is your age?

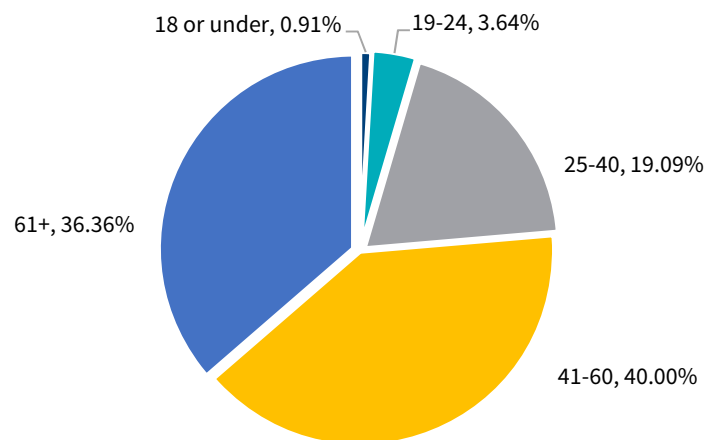
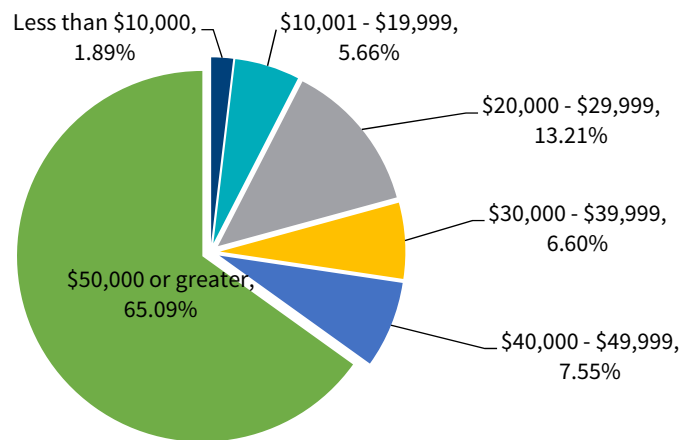
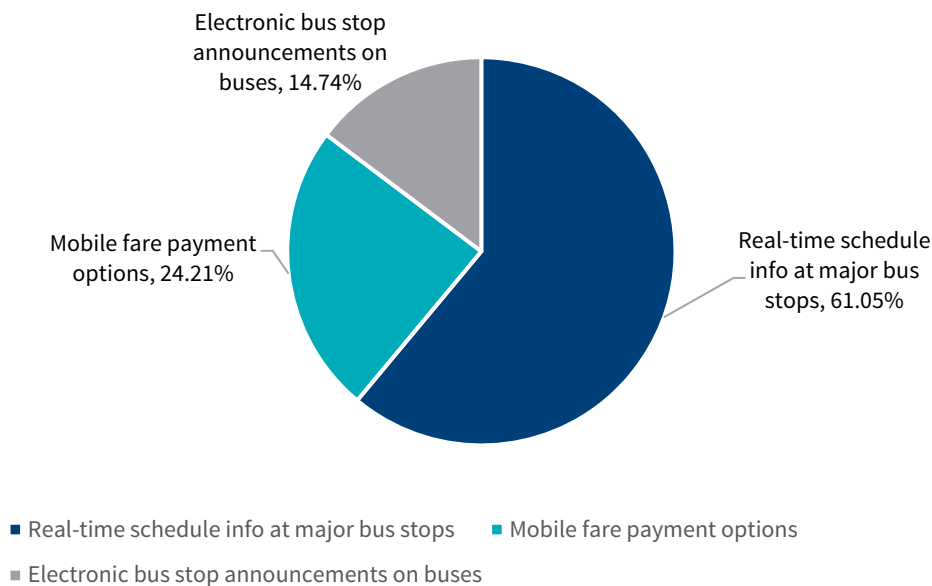


Figure 3-36: What is your annual household income?



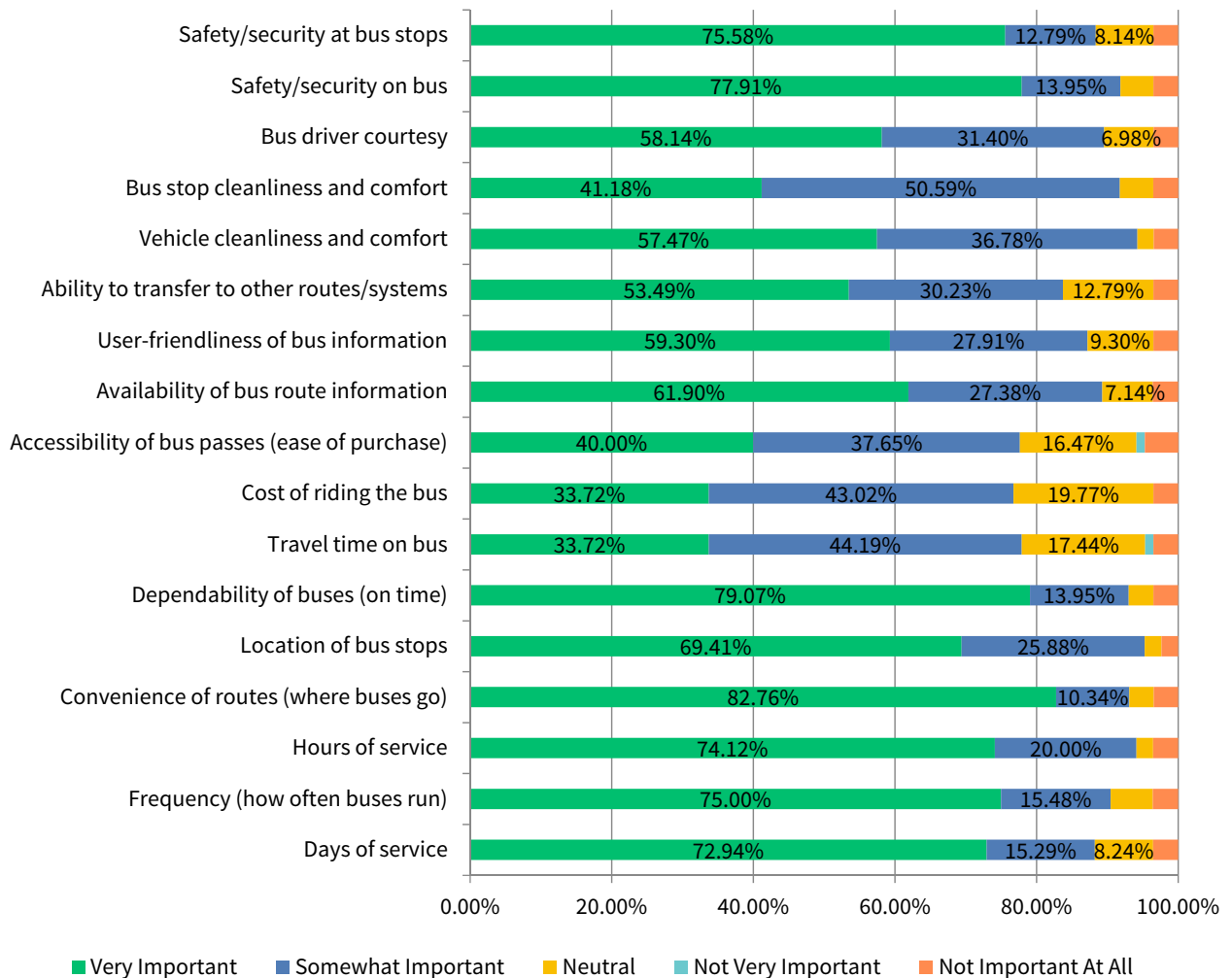
When asked about technology improvements they would like to see enhance transit service, most participants (61%) would like to see real-time schedule information at major bus stops.

Figure 3-37: Transit technology improvements?



Finally, participants were asked to rate the importance of various aspects of Marty's service. Dependability of buses (on-time performance), safety/security on the bus and at bus stops, frequency, hours, days of service and location of bus stops all rated very important by the highest percentages of respondents.

Figure 3-38: Importance of Marty aspects?



Email Communications

Updates related to the TDP were sent out via the *County Connections* newsletter to more than 1,500 subscribers (general public) and nearly 140 members of the media. .

Community Outreach Events and Alternatives Survey

There were two phases of public outreach events/meetings. The first phase was to gather input on the preliminary transit improvements. The second phase was to present the results of the draft TDP for comment prior to being finalized and approved by the BOCC.

Phase 1—Preliminary Transit Improvements

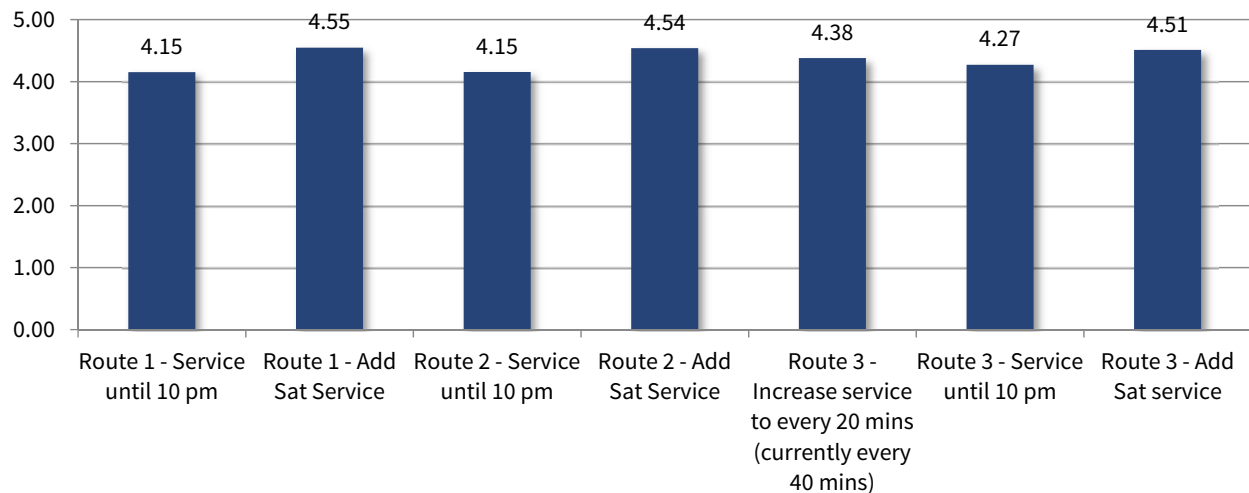
During this first phase, four public outreach events were held at three separate events in Martin County. The three events helped gauge existing and future public transportation needs in Martin County. The first event was held in downtown Stuart at the Martin Luther King Jr. event on January 21, 2019. The second and third events were all-day events held at the Martin County Fair on Friday, February 8th, 2019 and Saturday, February 9th, 2019. The final event was held during the Village of Indiantown Council Meeting at the Indiantown Civic Center on February 28th, 2019.

The survey instrument used at the Martin Luther King Jr. and Martin County Fair events identified potential preliminary improvements to existing service hours and frequencies on Routes 1, 2 and 3. In addition, the second portion of the survey instrument asked participants to refer to a map where illustrations of proposed services were displayed. The survey instrument asked the participant to rank the improvement from very important to not important at all. The participant also was able to select somewhat important, neutral, or not very important as a response. The preliminary transit improvements listed on the survey instrument were as follows:

- Extend Route 2 to serve Halpatiokee Park then travel north on Kanner Highway to connect to Route 3
- Extend Route 20x west to Halpatiokee Park with connection to Route 2
- Extend Route 20x south the Mangonia Tri-Rail Station (Palm Beach County)
- Modify Route 3 to create northern loop to serve Monterey Road
- Modify Route 3 to create southern loop
- New regional route along Florida's Turnpike from Stuart via Palm City to Tri-Rail/West Palm Beach
- Jensen Beach/Hutchison Island Mobility on Demand service area
- Palm City Mobility on Demand service area

As shown in Figure 3-39, participants indicated that the most important service improvement would be adding Saturday service to all routes. In addition, participants also indicated that it would be important to have lower frequency on Route 3, which currently operates at 40-minute frequencies.

Figure 3-39: Potential Improvements to Existing Service Hours and Frequencies



Participants were given the opportunity to provide their feedback based on preliminary transit improvements shown on the map at the event (see Section 7, Preliminary Transit Improvements). As shown in Figure 3-40, most of the participants would like to see Route 20x extended south to the Mangonia Tri-Rail Station for more regional transit connectivity. In addition, participants would also like to see Route 3 split into a northern and southern loop, which would provide lower frequencies in the downtown area and along US 1. Overall, most of the participants agreed that each service enhancement would be a great improvement to Marty.

Participants were also given the opportunity to rank new preliminary transit improvements, as shown in Figure 3-41. Most participants thought a new regional route from Stuart to the Mangonia Tri-Rail Station and West Palm Beach Brightline Station would serve Martin County residents/visitors the best. In addition, participants also thought a Mobility on Demand Service serving Jensen Beach/Hutchinson Island and Palm City would be a very important service improvement.

Figure 3-40: Potential Improvements to Existing Routes

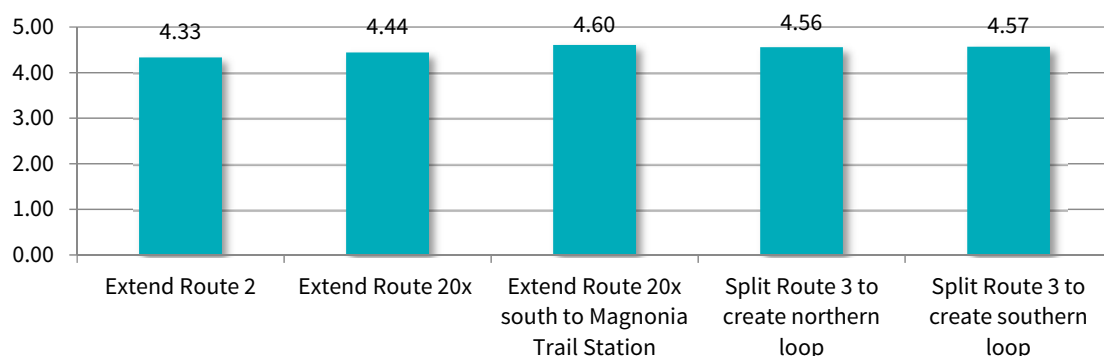
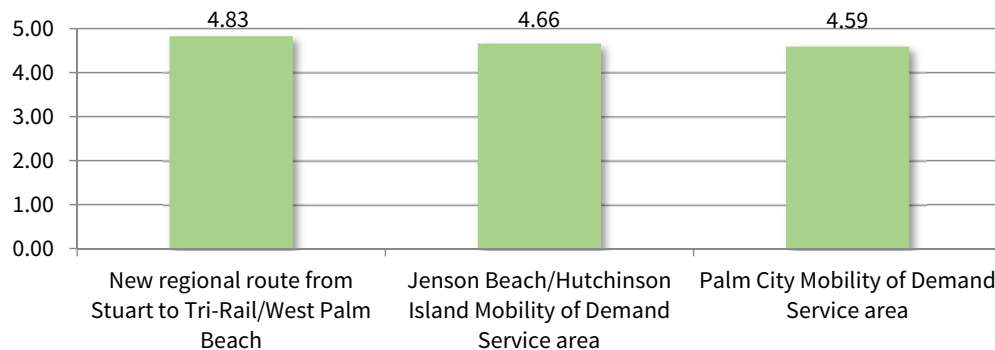


Figure 3-41: Potential New Transit Service



Indiantown Origin-Destination Survey

Prior to Route 30x beginning service in June 2019, members of the Indiantown community were provided an origin-destination survey to assess local transit needs as part of the TDP process. The purpose of this survey was to understand where people need or would like to take transit to from Indiantown and, specially, the level of interest in service between Indiantown and Hobe Sound during peak commuting hours. In total, 41 responses were received.

Overall, 37 participants said they would ride the bus if service was available where/when they needed it. Most participants said they live closest to the Warfield Boulevard or Lincoln Avenue/ Martin Luther King Boulevard bus stops. In addition, most of the participants said Bridge Road and US 1 or Kanner Highway and Bridge Road were closest to their final destinations in Hobe Sound. Of the 41 participants, most need to be at their final destination by 8:00 AM;. Most respondents said they would need a return trip back at 5:00 PM.

Phase 2—Draft TDP

Prior to being adopted by the BOCC, the draft TDP was made available to the public via the Martin County website. An outreach event was also held at the June 30, 2019, Music at the Mansion event put on by the Martin County Parks and Recreation Department. At this event the public was provided information about the Marty system and the transit improvements identified through the TDP process.

Summary of Marty on the Move Public Outreach Efforts

Table 3-4 summarizes the outreach events completed for *Marty on the Move* and estimated the number of contacts from each. Overall, more than 2,000 people were reached through these activities, bringing awareness to both the TDP process and Marty services.

Table 3-4: Marty on the Move Public Outreach Summary

Outreach Event	Timing	Number of Contacts
Project Review Committee (4 meetings)	August 8, 2018 November 5, 2018 March 27, 2019 May 14, 2019	6
Stakeholder Interviews (10)	September–October 2018	10
Chambers of Commerce Discussion Group	November 5, 2018	4
County Connections Newsletter Subscribers	Various	1,544
County Connections Newsletter Media List	Various	137
On-Board Survey	September 2018	151
Community Online Survey	September 2018–January 2019	113
Community Events (3 days) –Transit Alternatives	January 21, 2019 (MLK Jr. Day Event) February 8–9, 2019 (Martin County Fair)	110+
Indiantown Council Meeting	February 28, 2019	70+
Transit Alternatives Survey	January–February 2019	56
Music at the Mansion Event–TDP Draft Report	June 30, 2019	30+
Total		2,230+

Section 4 Inventory of Existing Transit Services

An overview of the existing transportation providers in Marty’s service area or connecting to the Marty system is presented in this section. This provides context of the environment in which Marty operates relative to other transit providers.

Marty Fixed-Route System Overview

Currently, five routes comprise the Marty system—two fixed-routes, one deviated fixed-route and two express routes. Other transit agencies with connecting opportunities to Marty routes include Palm Tran, which operates in Palm Beach County, the Treasure Coast Connector, which operates in St. Lucie County, and Stuart’s downtown Tram route, which as of March 1, 2019 converted from on-demand to fixed-route service and provides stops at key locations within the downtown area through two routes. The route characteristics of Marty and connection opportunities to other systems are provided in Table 4-1.

Table 4-1: Marty Route Characteristics

Route	Description	Span of Service
1	Intercounty route serving US 1 from Port St. Lucie Walmart to Cove Road, providing connections to Marty routes 2, 3, 20x and the Treasure Coast Connector in St. Lucie County	Monday–Friday, 6:00 AM to 8:00 PM
2	Deviated fixed-route serving primarily Indiantown	Monday–Friday, 6:00 AM to 8:15 PM
3	Fixed route serving primarily Stuart, with connections to Route 1 and Stuart’s downtown Tram route	Monday–Friday, 6:00 AM to 8:00 PM
20x	Express route providing service from Stuart to Palm Beach County, provides connections to Palm Tran at Palm Beach Gardens Mall and Veterans Administration Medical Center (VAMC) in Palm Beach County	Monday–Friday, 6:30 AM to 7:35 PM
30x	Express commuter route providing service from Indiantown to Hobe Sound; provides a connection with Route 20x at Bridge Road and Dixie Highway (note: Route 30x began operating June 3, 2019)	Monday–Friday, 6:50 AM to 9:15 AM and

Map 4-1 illustrates Marty’s routes and connection opportunities to other transit systems in adjacent to its service area.

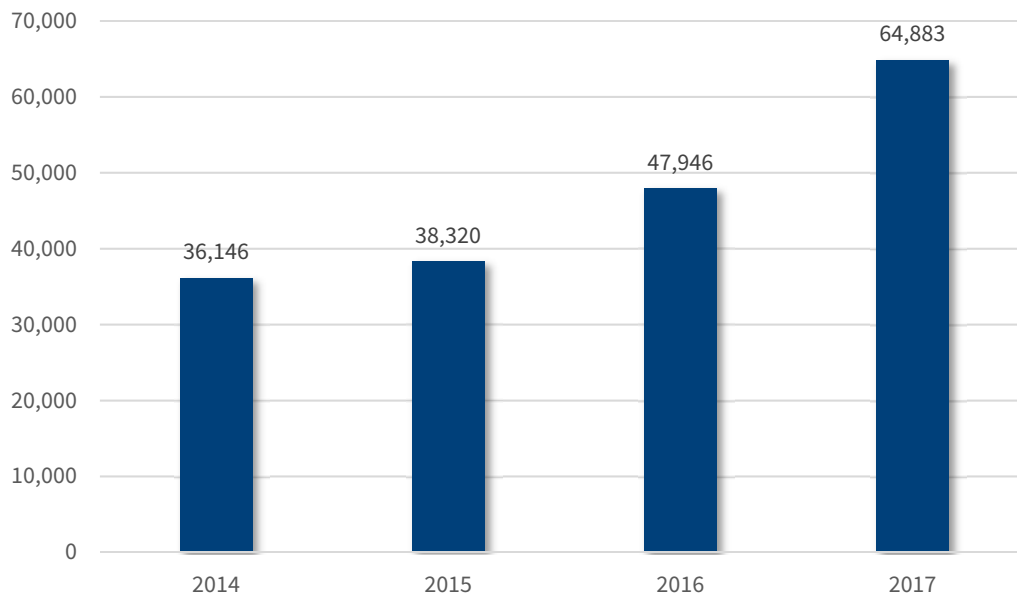
Map 4-1: Marty System and Other Transit Provider Connections



Fixed-Route and ADA Ridership Trends

Ridership, also known as passenger trips, is the number of passengers who board a transit vehicle. Passengers are counted each time they board, no matter how many transfers they make. Therefore, one “trip” in the mind of a passenger is counted as multiple passenger trips if more than one bus is boarded between the origin and destination. This measure, including the counting of transfers as separate passenger trips, allows the full market demand for the service to be analyzed. A historical review of annual ridership is undertaken to understand any discernable trends. Ridership data for the last four years available, 2014–2017, were reviewed so as not consider ridership impacts resulting from significant Marty service changes that occurred in 2012–2013 as part of the longer-term ridership trend. Since 2014, Marty ridership has steadily increased by 80% to a peak of 64,883 annual riders in 2017 (Figure 4-1).

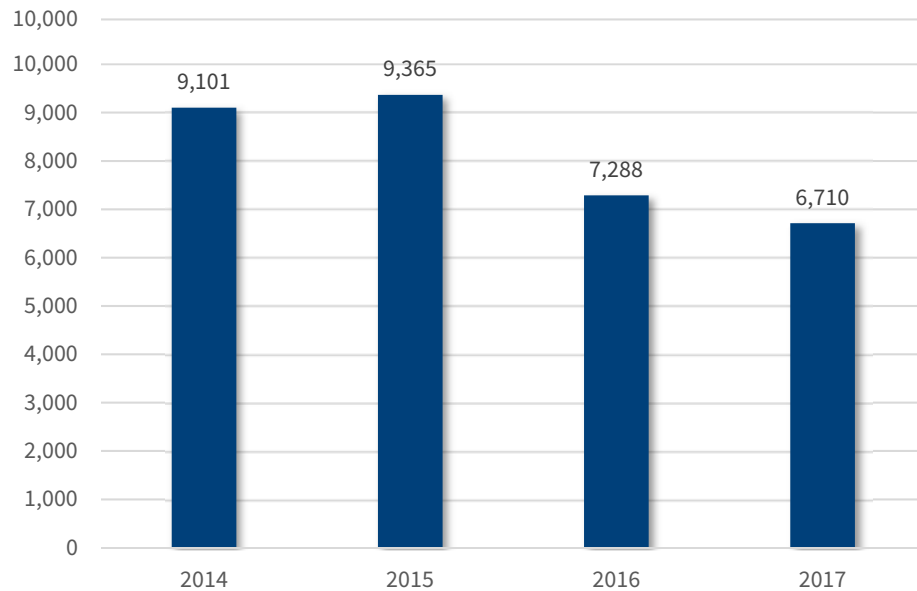
Figure 4-1: Marty Fixed-Route and Commuter Bus Annual Ridership, 2014–2017



Source: NTD data from Florida Transit Information System (FTIS). Within the NTD, Motor Bus and Commuter Bus data are reported separately and have been aggregated in the above figure.

ADA service is offered within a $\frac{3}{4}$ -mile buffer of Marty’s fixed-routes for individuals with disabilities. During the four-year period, ADA ridership peaked in 2015 and has since steadily declined. As shown in Figure 4-2, during the four-year period, ADA ridership declined by 26%.

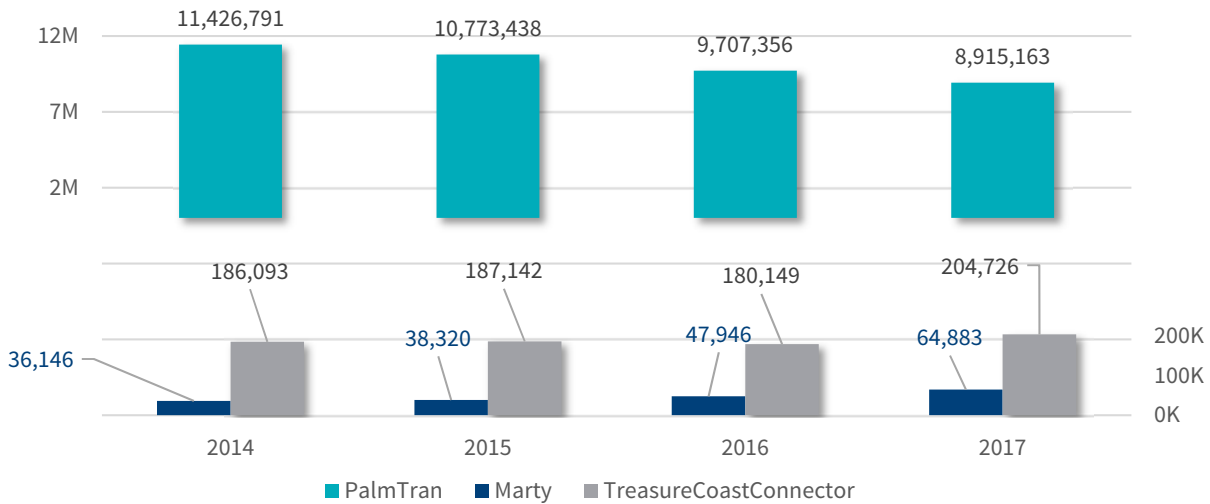
Figure 4-2: Marty ADA Annual Ridership, 2014–2017



As previously noted, Palm Tran operates in Palm Beach County to the south of Martin County and offers connection opportunities with Marty’s Route 20x. The Treasure Coast Connector operates in St. Lucie County, north of Martin County and offers connection opportunities with Marty’s Route 1. Figure 4-3 displays ridership numbers for these agencies in a side-by-side comparison to Marty. Available data since 2014 for all systems from the NTD are illustrated. Ridership data for Stuart’s Tram Route are not reported to NTD and, therefore, are not included in this assessment.

Palm Tran has the highest ridership of the three transit agencies and has experienced a steady decline in ridership since 2014 (-22%). In contrast, St. Lucie County’s Treasure Coast Connector experienced very stable ridership levels over the last five years, with a nearly 14% increase in ridership between 2016 and 2017. This increase is likely the result of converting to a temporary fare free system through 2019 funded by a grant award. Although Marty has the lowest overall annual ridership among the three systems, it is the only one with steadily-increasing ridership (80%) over the four-year period.

Figure 4-3: Marty and Neighboring Agency Annual Fixed-Route Ridership, 2014–2017

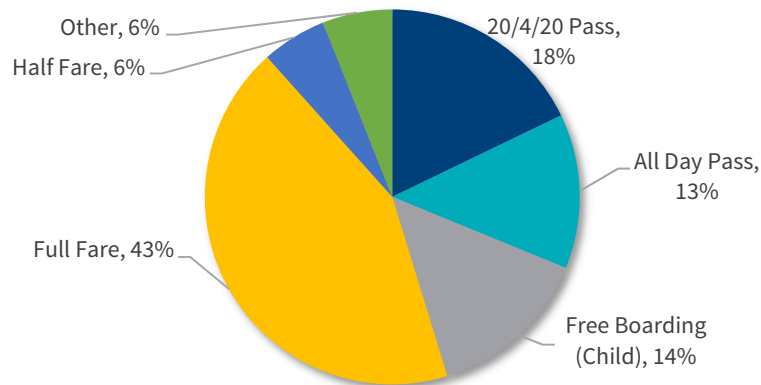


Source: NTD data from FTIS. Within the NTD, Motor Bus and Commuter Bus data are reported separately and have been aggregated in the above figure.

Marty Fare Distribution

A review of the fares paid by Marty passengers in 2017 was undertaken to determine the average fare per boarding. The distribution of fares paid indicates that only 43% of riders paid the full one-way fare of \$1.50 and that the average fare paid in 2017 was \$0.98, taking into account lower fares from the day pass, 20/4/20 pass and reduced/free fares (Figure 4-4).

Figure 4-4: Marty Fare Distribution, 2017



Source: Martin County TripSpark. Average fare calculation assumes day pass users took an average of three trips per day to maximize the value of the day pass over the one-way fare.

Effective January 30, 2019, the Marty fare structure was updated to include fare-free service for Veterans with an approved form of identification. The free fare applies to all MARTY fixed routes and the commuter bus service.

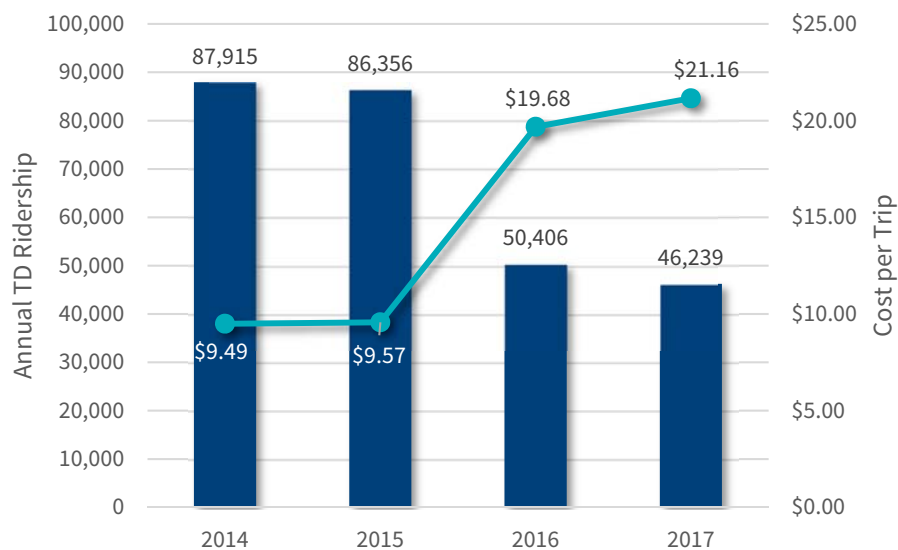
Transportation Disadvantaged Services

In 1989, the Florida Commission for the Transportation Disadvantaged (CTD) was established under Chapter 427, Florida Statutes (F.S.). The Transportation Disadvantaged (TD) program requires the coordination of federal, state and local government funds utilized for the provision of transportation services for the transportation disadvantaged. Chapter 427, F.S. defines “transportation disadvantaged” as:

“those persons who because of physical or mental disability, income status, or age are unable to transport themselves or purchase transportation and are, therefore, dependent on others to obtain access to health care, employment, education, shopping, social activities, or other life-sustaining activities or children who are handicapped or high-risk or at-risk as defined in s. 411.202, Florida Statutes.”

Transportation Disadvantaged (TD) services in Martin County are currently provided by Senior Resource Association (SRA), which serves as the County’s Community Transportation Coordinator (CTC). SRA was designated the CTC on October 1, 2018. Prior to this date, MTM Inc. served as the CTC. As shown in Figure 4-5, TD trips provided have decreased since 2014 as the operating costs and resulting cost per trip has increased.

Figure 4-5: Martin County TD Annual Ridership, 2014–2017



Low income TD riders that are ambulatory and otherwise able to use fixed-route service must rely on TD service in areas where Marty, or other fixed-route services, are not available. As part of this TDP, an analysis of origin-destination patterns of low-income TD riders will be conducted to understand their travel needs relative to the existing fixed-route system. This will help identify potential areas where providing fixed-route service may be more cost-effective than TD service.

Other Transportation Providers

Other private and public agencies offer services for specific client groups in Martin County. This information, shown in Table 4-2, is based on information gathered through online resources, market research and information listed in Martin County's recent Transportation Disadvantaged Service Plan (TDSP). All transportation providers were contacted to provide an inventory of information about the service(s) offered. From this survey, other transportation options for the general public are available primarily through private providers and taxi/Transportation Network Companies (TNCS) such as Uber and Lyft. However, the cost per trip for these providers varies and likely is considerably higher than a one-way trip cost on Marty or another fixed-route provider operating within Martin County or connecting to the Marty system.

Table 4-2: Other Transportation Providers

Provider	Types of Services Provided			Levels of Service		Fare Structure	Types of Vehicles	Address	Phone	Email
	General Service Area	Eligible Trip Purposes	Eligible Riders	Days of Operation	Hours					
CTC-Coordinated Contractors										
ARC OF Martin County	Martin County	Ambulatory, wheelchair	All	Mon-Fri	8:30 AM-5:00 PM	Free	Wheelchair van, ambulance, low-floor mini vans	2001 S. Kanner Hwy Stuart, FL 34994	(772) 283-2525	kmuniz@arcmc.org
A Martin Support	Martin County	Ambulatory/wheelchair	All	Mon-Sat	6:00 AM- 5:00 PM	Fee set through Senior Resource Association (SRA)	Mini to full size vans	5831 NE 2nd Terr Ft. Lauderdale, FL 33334	(954) 990-5438	Amartintransportation@gmail.com
A Quality Care Transport	Martin County and St. Lucie County	Ambulatory/Stretcher / & wheelchair	All	Mon-Sun	24/7, 365 days a year	Fee set through SRA	Wheelchair and stretcher vans	3247 Oleander Ave. #A-5 Ft. Pierce, FL 34982	(772) 448-8823	AQCTransport@gmail.com
Heavenly Place	Martin County	Ambulatory, Wheelchair	Transportation Disadvantaged	Mon-Fri (Sat add'l rate)	6:00 AM - 5:00 PM Appt. only	Ambulatory, base rate of \$8.98 Wheelchair base rate of \$55.00	Sedan, SUV, ambulance wheelchair van	5099 Fiddle Leaf Ct. Port St. Lucie, FL 34986	(772) 940-1697	heavenlypgh@yahoo.com
All Other Transportation Providers										
Advance Medical Transportation	Martin and St. Lucie Counties	Medical	Disabled, elderly, Dementia, Alzheimer's, private pay consumer	Mon-Sun	24/7	Wheelchair transport \$25 one way plus \$3/mi., Advance Life Support (ALS) \$725 + \$12/mi; basic (BLS) \$600 + \$12/mi, Non-medical stretcher \$50 + \$4.50/mi	Wheelchair van, Ambulance, Compact cars, mini-vans	P.O. Box 9010 Stuart, FL 34995	(772) 223-5945 x 17028	amtdispatch@martinhealth.org
Affordable Luxury Transport	Vero Beach south to Boca Raton	Any	Taxi/limo/airport service	Mon-Sun	24/7	Variable	SUV, van, party bus, sedan, minivan	3961 Florida Blvd., Palm Beach Gardens, FL 33410	(561) 818-8274	info.altflorida@gmail.com
Affordable Taxi	St. Lucie, Ft. Pierce and Martin Counties	Any	Taxi service	Mon-Sun	24/7	Variable	Sedan	605 Weatherbee Rd Ft. Pierce, FL 34982	(772) 249-6464	n/a
All County Ambulance of the Treasure Coast	Hendry, Indian River, Martin, Okeechobee & St. Lucie Counties	Medical	Medical Patients	Mon-Sun	24/7	Basic life support, one-way charge plus mileage; advance life support, one-way charge plus mileage.	Ambulance	4227 St. Lucie Blvd. Fort Pierce, FL 34950	(800) 481-2910	mdesouza@allcountyaambulance.com
American Cancer Society Transportation Program-Road to Recovery	Statewide	Medical	Cancer Patients	Mon.-Fri.	8:00 AM - 6:00 PM	Program uses volunteer and private contracted providers. Depending on need, discount vouchers available for other than volunteer drivers.	Sedan	621 Clearwater Park Road, West Palm Beach, FL 33401	(800) 227-2345	n/a
Community Transit	St. Lucie County	Any	For individuals who cannot access the fixed-route service due to some disability. Eligibility for system is required.	Mon-Fri Sat	6:00 AM-8:00 PM 8:00 AM - 4:00 PM	Free (until the end of 2019)	Paratransit bus	1505 Orange Ave. Fort Pierce, FL 34950	(772) 464-8878	info@coasl.com
Council on Aging-Martin County	Martin County	Wheelchair	Private pay customer	Mon-Fri	8:00 AM-5:00 PM	Free for Club Members	Wheelchair van	SE Salerno Road Stuart, FL 34997	(772) 337-7838	n/a
Council on Aging St. Lucie (COASL) Treasure Coast Connector	St. Lucie County	Any	Any	Mon-Fri Sat	6:00 AM-8:00 PM 8:00 AM - 4:00 PM	Free (until the end of 2019)	Bus	1505 Orange Ave. Fort Pierce, FL 34950	(772) 464-8878	info@coasl.com
Gulfstream Goodwill Industries	Martin County	Wheelchair	Private pay customer	Mon-Fri	8:00 AM - 4:30 PM	Variable per hour	Wheelchair van	1101 NW 21st St. Stuart, FL 34994	(772) 337-0077	Sgeyer@gulfstreamgoodwill.org
Helpers for Seniors	Indian River, Martin, St. Lucie Counties	Errands, Medical, Recreation	Disabled, elderly, private pay consumer	Mon-Sun	24/7	\$31.50 plus mileage (one way) \$41.50 + mileage (round trip)	Sedan	5522 SW Badger Terrace Port St. Lucie, FL 34952	(772) 343-0902	helperzack@yahoo.com

Table 4-2: Other Transportation Providers (continued)

Provider	Types of Services Provided			Levels of Service		Fare Structure	Types of Vehicles	Address	Phone	Email
	General Service Area	Eligible Trip Purposes	Eligible Riders	Days of Operation	Hours					
Inlet Cab Company	Northern Palm Beach & southern Martin Counties	Any	Airport service	Mon-Sun	24/7 Appt. Only	Variable	Mini-van	399 N. Cypress Dr. Jupiter, FL 33469	(561) 747-7433	inlet.cab.reservations@gmail.com
Lyft	National	Any	Any	Mon-Sun	24/7	Variable	Variable	n/a	n/a	press@lyft.com
Mobility Freedom of Florida	Statewide	Recreation, Errands	Disabled	Mon-Fri	9:00 AM–5:00 PM	1 Day rental \$135; 2-4 Days \$120; 5-20 Days \$90; 21-29 Days \$85; 30 Days \$80.	Wheelchair van	1925 10th Ave N Lake Worth FL 33461	(561) 586-1997	cindy@mobilityfreedom.com
Mediwheel	Palm Beach County	Medical	Disabled, Medicaid eligible, private pay consumer	Mon-Sat	24/7	Wheelchair van rides, round trip, base rate \$50 + \$2.00/mile	Non-emergency, wheelchair van	1700 N Florida Mango West Palm Beach, FL 33409	(561) 439-9900	mariela1221@aol.com
PSL Transportation & Limo Service	St. Lucie and Martin County	Any	Taxi/limo/airport service	Mon-Sun	24/7	Variable	Sedan, SUV, limo	1802 SW Dalmation Ave Port St Lucie, FL 34953	(772) 985-2279	pslairportshuttle@gmail.com
Run An Errand	Brevard, Martin, St. Lucie counties	Errands, medical, recreation	General public, private pay consumer	Mon-Fri	7:00 AM–10:00 PM	\$2.50/mile	Van	n/a	(772) 924-4346	n/a
Senior Solutions	Indian River, Martin, Palm Beach, St. Lucie counties	Errands, medical, recreation	Elderly	Mon-Fri Sat-Sun	8:30 AM–6:00 PM 8:00 AM–1:00 PM	Range from \$70.00 to \$90.00 flat rate + \$1.50 to \$2.00 per mile.	Wheelchair van	3300 NE Sugarhill Ave Jensen Beach, FL 34957	(772) 334-0424	seniorsolutions1@comcast.net
Star Personal Transportation	St. Lucie and northern Martin County	Any	Taxi/limo/airport service	Mon-Sun	24/7	Variable	Sedan, SUV	6701 Woods Island Cir Port Saint Lucie, FL 34952	(772) 405-7377	n/a
Sunnyvale Medical Transport, Inc.	Statewide	Medical	Cancer patient, disabled, elderly, general public, private pay consumer	Mon-Sun	24/7	Variable	Bus	4280 Lakeview Dr Sebring, FL 33870	(863) 381-3565	n/a
The BusBank	Statewide	Recreation, errands	Disabled, elderly, general public, private pay consumer	Mon-Fri	8:00 AM–6:00 PM	Variable	Bus	100 S State St 4th Floor Chicago, IL 60603	(866) 428-7226	sales@busbank.com
The Florida Express Bus	Statewide	Any	General public, private pay consumer	Mon-Sun	24/7	Variable (starting at \$25 one-way)	Bus	Port St. Lucie / Fort Pierce Turnpike Service Plaza Mile Marker 144 on Florida Turnpike 34945	(407) 442-2810	n/a
Trans Mobility Private Hire Service	Indian River, Martin, Palm Beach, St. Lucie counties	Education, employment, errands, medical, recreation	Cancer patient, disabled, elderly, general public, private pay consumer, veterans	Mon-Sun	6:00 AM–10:00 PM	Variable	Non-emergency stretcher van, wheelchair van	210 SW Ocean Blvd Suite B Stuart, FL 34994	(772) 888-6230	info@transmobilityfl.com
Turbo Transport Services LLC	Brevard, Indian River, Martin, Okeechobee, Orange, Palm Beach, St. Lucie counties	Education, employment, errands, medical, recreation	Cancer patient, disabled, elderly, general public, veterans	Mon-Sun	24/7	Variable	Ambulatory van, car, van	2408 S 10th St Fort Pierce, FL 34982	(772) 332-0293	turbotransportation@gmail.com
United National Transportation Network	Broward, Martin, Miami-Dade, Monroe, Pasco, Suwannee counties	Medical	Disabled, elderly, private pay consumer	Mon-Fri	6:00 AM–7:00 PM	Wheelchair rides: flat rate, \$115 round trip within 12 miles + \$2.50/mile after 12 miles ambulatory rides: flat rate, \$40 within 12 miles + \$1.80/mile after 12 miles.	Ambulatory van, wheelchair van	175 Fontainebleau Blvd Ste 2k8 Miami, FL 33172	(305) 599-0455	n/a
Martin County Veterans Services	Martin County	Medical	Veterans	Mon-Fri	6:00 AM–5:00 PM	Free	Mini-bus	435 SE Flagler Ave Stuart, FL 34994	(772) 288-5448	treese@martin.fl.us
Uber	National	Any	Any	Mon-Sun	24/7	Variable	Sedan, SUV	555 Market St San Francisco, CA 94105	n/a	help.uber.com

Section 5 Existing Services Evaluation

This section includes a trend analysis to assess how efficiently Marty supplies fixed-route transit service and how well those services meet the needs of the area. Also included is a peer analysis of critical performance indicators aimed at understanding Marty's level of performance in comparison to other peer systems.

Various performance measures were used to create a scope of overall system performance. Three categories of indicators and performance measure were analyzed for both the trend and peer analyses, which include:

- **Performance Indicators** – quantity of service supply, passenger and fare revenue generation and resource input.
- **Effective Measures** – extent to which the services are effectively provided.
- **Efficiency Measures** – extent to which cost efficiency is achieved.

Marty Fixed-Route and Commuter Bus Trend Analysis

To assess how efficiently Marty supplies fixed-route transit service and how effectively it meets the needs of the area, a trend analysis of critical performance indicators and measures was conducted for 2014–2017. Data from the Florida Transit Information System (FTIS) were used for 2014–2016, which includes validated NTD data; data obtained directly from the NTD were used for 2017.

The trend analysis is organized by the type of measure or indicator and includes statistics, figures and tables that illustrate Marty's performance over the four-year period. The findings of the trend analysis are presented by indicator in Table 5-1 and a summary of the results is provided at the conclusion of this section. Detailed figures for the trend analysis and peer review analysis can be found in Appendix E.

Table 5-1: Marty Fixed-Route and Commuter Bus Service Trend Analysis, 2014–2017

Indicator/Measure	2014	2015	2016 ¹	2017 ¹	% Change (2014–2017)	Status	Desired Trend ²
General Indicators							
Passenger Trips	36,146	38,320	47,946	64,883	79.50%	▲	▲
Passenger Miles	334,591	401,312	383,072	570,375	70.47%	▲	▲
Vehicle Miles	184,418	235,056	368,377	389,118	111.00%	▲	▲
Revenue Miles	172,785	225,884	351,844	376,516	117.91%	▲	▲
Vehicle Hours	13,924	15,506	19,315	20,307	45.84%	▲	▲
Revenue Hours	12,486	15,186	18,777	19,822	58.75%	▲	▲
Route Miles	76	80	138.5	139	82.89%	▲	▲
Total Operating Expense	\$797,155	\$849,468	\$1,004,421	\$1,189,595	49.23%	▲	---
Vehicles Available for Max. Service	7	8	11	11	57.14%	▲	▲
Total Gallons Consumed	24,552	34,353	50,307	67,835	176.29%	▲	▼
Effectiveness Measures							
Revenue Miles per Capita	1.18	1.51	2.35	2.50	110.88%	▲	▲
Passenger Trips Per Capita	0.25	0.26	0.32	0.43	73.71%	▲	▲
Passenger Trips Per Revenue Mile	0.21	0.17	0.14	0.17	-17.63%	▼	▲
Passenger Trips per Vehicle Hour	2.60	2.47	2.48	3.20	23.08%	▲	▲
Passenger Trips per Revenue Hour	2.89	2.52	2.55	3.27	13.07%	▲	▲
Revenue Miles Between Failures ³	86,393	16,135	22,824	n/a	-278.5%	▼	▲
Efficiency Indicators							
Operating Expense Per Capita	\$5.46	\$5.46	\$6.70	\$7.88	44.41%	▲	▼
Operating Expense Per Passenger Trip	\$22.05	\$22.17	\$20.95	\$18.33	-16.86%	▼	▼
Operating Expense Per Passenger Mile	\$2.38	\$2.12	\$2.62	\$2.09	-12.46%	▼	▼
Operating Expense Per Revenue Mile	\$4.61	\$3.76	\$2.85	\$3.16	-31.52%	▼	▼

Table 5-1: Marty Fixed-Route and Commuter Bus Service Trend Analysis, 2014–2017 (Cont'd)

Indicator/Measure	2014	2015	2016 ¹	2017 ¹	% Change (2014-2017)	Status	Desired Trend ²
Efficiency Indicators (cont'd)							
Farebox Recovery (%)	4.84	3.94	6.46	6.88	42.15%	▲	▲
Revenue Miles Per Vehicle Mile	0.94	0.96	0.95	0.97	3.28%	▲	▲
Revenue Miles Per Total Vehicles	24,684	28,236	31,986	34,229	38.67%	▲	▲
Vehicle Miles Per Gallon	7.51	6.84	7.32	5.74	-14.02%	▼	▲
Average Fare ⁴	\$1.07	\$0.87	\$1.35	\$1.26	17.76%	▼	--

Source: NTD FTIS. Motor Bus and Commuter Bus data are aggregated in the above table.

¹Commuter bus introduced in November 2015.

²Desired trend for general indicators based on expanding transit system.

³Trend calculated based on 2014–2016 data as a 2017 figure was not available for this measure. ⁴

⁴Martin County was required to implement a half fare on service in 2016.

Trend Analysis Summary

- **Service Supply** – Revenue miles per capita (service supply) increased by 111% since 2014, suggesting that Marty’s service increased throughout the five-year analysis period. This agrees with the other service consumption metrics, which are trending upward as noted below.
- **Service Consumption** – All metrics regarding service consumption have increased since 2014. Passenger trips per capita increased by 74%, passenger trips per vehicle hour increased by 23.08% and passenger trips per revenue hour increased by 13%. This trend correlates with the revenue miles per capita and suggests that Marty’s service is supplying enough service in an efficient manner.
- **Quality of Service** – The number of revenue miles between failures decreased substantially between 2014 and 2016 (the most recent data available for this metric). This suggests a higher rate of incidents potentially resulting in interrupted service.
- **Cost Efficiency** – The majority of metrics for the cost efficiency category decreased, suggesting that Marty’s service has become more economical over time. While the operating cost per capita increased by 44%, it did so at a lower rate than the increase in passenger trips (80%). Overall, Marty’s operating expense per revenue mile declined by 32% since 2014.

Marty Fixed-Route and Commuter Bus Peer Review Analysis

A peer system review was conducted to assess how Marty compares to similar/peer agencies. The peer review analysis, when combined with the trend analysis, provides a solid starting point for understanding the efficiency and effectiveness of a transit system.

Peer System Selection Methodology

Selection of fixed-route peer systems was conducted using 2017 NTD data from the FTIS database. The pool of possible peers was assessed and subsequently scored through an objective assessment of nine standard variables, including the following:

- Geography (southeastern U.S.)
- Average speed (revenue miles/revenue hours)
- Passenger trips
- Revenue miles
- Service area population
- Service area population density
- Total operating expense
- Vehicles operated in maximum service
- Revenue hours

The peers first selected were based on geographic location (southeastern states), including Alabama, Arkansas, Florida, Georgia, Kentucky, Louisiana, Mississippi, North Carolina, South Carolina, Tennessee, Texas and Virginia. Fixed-route systems operating in these states were added to the pool of possible peers and were analyzed based on the eight remaining criteria. A potential peer received 1.0 point when one of the eight criteria was within 1 standard deviation of Marty’s performance value. A peer received 0.5 points for each criterion that fell within 2 standard deviations of Marty’s value. The initial set of peers selected using this methodology was presented to Martin County staff for review and revisions. Table 5-2 shows the final set of selected peer systems for the peer system review analysis.

Table 5-2: Selected Systems for Marty Peer Review Analysis

Agency Name	Abbreviation/ Acronym	Location
Anderson Transit Authority	ATA	Anderson, SC
San Marcos Urban Transit District	CARTS	Austin, TX
Central Shenandoah Planning District Commission	CSPDC	Staunton, VA
Clay County Council on Aging, Inc., dba Clay Transit	Clay	Clay County, FL
City of Huntsville, Alabama - Public Transportation Division	Huntsville	Huntsville, AL
Tuscaloosa County Parking and Transit Authority	Tuscaloosa	Tuscaloosa, AL

Peer Analysis Results

A summary of the results of Marty’s fixed-route bus service for 2017 is provided in Table 5-3 for key factors in terms of their deviation pertaining to the peer group mean and general assessment of the findings. Whereas the peer selection process used 2016 NTD data, the analysis considers newly-available 2017 NTD data for Marty and the selected peer agencies. More detail concerning the overall peer analysis results is provided in Appendix E.

Table 5-3: Marty Fixed-Route and Commuter Bus Peer Review Analysis, 2017

Indicator/Measure	Marty % from Mean
General Performance Indicators	
Passenger Trips	-72.65%
Passenger Miles	-63.55%
Vehicle Miles	-6.95%
Revenue Miles	-11.83%
Vehicle Hours	-17.67%*
Revenue Hours	-6.02%
Route Miles	-37.10%*
Total Operating Expense	-4.36%
Vehicles Available for Maximum Service	-8.33%*
Total Gallons Consumed	-6.63%*
Effectiveness Measures	
Vehicle Miles per Capita	-4.82%
Passenger Trips per Capita	73.71%
Passenger Trips per Revenue Mile	-44.65%
Passenger Trips per Vehicle Hour	-57.05%*
Passenger Trips per Revenue Hour	-70.03%
Revenue Miles between Failures	77.47%*
Efficiency Measures	
Operating Expense per Capita	-55.47%
Operating Expense per Passenger Trip	110.86%
Operating Expense per Passenger Mile	86.30%*
Operating Expense per Revenue Mile	-14.78%
Farebox Recovery (%)	-8.82%
Revenue Miles per Vehicle Mile	1.43%*
Revenue Miles per Total Vehicles	17.64%*
Vehicle Miles Per Gallon	-26.54%*
Average Fare	120.62%

Source: NTD FTIS

*2017 data not available, based off 2016 NTD FTIS data

Peer Analysis Summary

- **General Performance Indicators** – Marty is significantly below the peer mean for passenger trips, passenger miles and route miles, suggesting that Marty operates a smaller system than most peers. Additionally, Marty being closer to the peer mean for vehicle miles (-6%) and further from the peer mean for revenue miles (-12%) indicates Marty has a higher ratio of deadhead to revenue miles than its peers.
- **Effectiveness Measures** – Marty places consistently lower than the peer mean in the effectiveness measures. These include vehicle miles per capita (5% of peer mean), passenger

trips per capita (74% of peer mean), passenger trips per revenue mile (45% of peer mean), passenger trips per vehicle hour (57% of peer mean), passenger trips per revenue hour (70% of peer mean) and revenue miles between failures (78% of peer mean). This suggests that Marty has room to improve the effectiveness of its service compared to that being provided by these peer systems. It should be noted that the percentages calculated for passenger trips per vehicle hour and revenue miles between failures is based on 2016 NTD data, the most recent available for these metrics.

- **Efficiency Measures** – Overall, Marty places above the peer mean in operating cost per passenger trip and mile, but lower than the peer mean in operating cost per revenue mile. This reflects the cost impact from the higher ratio of deadhead miles for Marty relative to its peers. While Marty is within 10% from (below) the peer mean for the farebox recovery ratio metric, Marty's average fare is 120% higher than its peer. This could be attributed to Marty providing fewer passenger trips compared to its peers as noted previously.

Section 6 Situation Appraisal

This section documents the Situation Appraisal completed for *Marty on the Move*. First, a review of various transportation planning and programming documents is presented to identify policies or issues that could impact the provision of public transit services in Martin County. Then an assessment of Marty's operating environment with respect to land use, state and local transportation plans, socioeconomic trends, organizational issues, technology and public involvement is presented. The resulting Situation Appraisal serves as the basis for identifying Martin County's transit needs and future goals and objectives for the next 10 years.

Plans and Policy Review

A review of selected federal, regional and local plans, programs, land development codes and studies that influence transit operations, infrastructure and policy was conducted to understand the potential implications for the Marty system. Findings from this review will help to ensure that this TDP is developed consistent with other local planning efforts and help Martin County to better understand its transit operating environment. Table 6-1 provides a summary of plans, programs and studies that were reviewed for this effort and key considerations for the Situation Appraisal.

Table 6-1: Plans Review

Plan/Program/ Study Reviewed	Geographic Applicability	Most Recent Update/ Timeframe	Responsible/ Partner Agencies	Overview	Key Considerations for Situation Appraisal
Fixing America's Surface Transportation (FAST) Act	Federal	October 2015	U.S. Dept. of Transportation (USDOT)	Five-year funding for US surface transportation infrastructure, including transit systems and rail transportation network. Provides long-term certainty and more flexibility for states and local governments, streamlines project approval processes and maintains a strong commitment to safety.	<ul style="list-style-type: none"> Increases dedicated bus funding by 89% over the life of the bill. Provides both stable formula funding and a competitive grant program to address bus and bus facility needs. Reforms public transportation procurement to make federal investment more cost effective and competitive. Consolidates and refocuses transit research activities to increase efficiency and accountability. Establishes a pilot program for communities to expand transit through the use of public-private partnerships. Provides flexibility for recipients to use federal funds to meet their state of good repair needs. Provides for the coordination of public transportation services with other federally-assisted transportation services to aid in the mobility of older adults and individuals with disabilities.

Plan/Program/ Study Reviewed	Geographic Applicability	Most Recent Update/ Timeframe	Responsible/ Partner Agencies	Overview	Key Considerations for Situation Appraisal
DOT Livability Initiative and Federal Sustainable Communities Program	Federal	Partnership for Sustainable Communities formed in 2009	USDOT, Federal Transit Administration (FTA), U.S. Department of Housing and Urban Development (HUD), Environmental Protection Agency (EPA)	Joint initiative that aims to improve access to affordable housing, better transportation choices and lower transportation costs while protecting the environment – essentially making communities throughout the US more livable.	USDOT and FTA support several policies and initiatives intended to help communities improve livability and overall quality of life, including programs to encourage Transit-Oriented Development (TOD), enhanced mobility options, etc.
Florida Transportation Plan: Horizon 2060 (FTP)	State	2010	FDOT	Looks at a 50-year transportation planning horizon and calls for a fundamental change in how and where Florida invests in transportation.	Supports development of State, regional and local transit services through series of related goals and objectives, emphasizing new and innovative approaches by all modes to meet needs today and in future.
FDOT FY 2019–2023 Work Program	State (FDOT District 4, Martin County)	FDOT Adopted February 14, 2018	FDOT	Developed annually by FDOT; project-specific list of transportation activities and improvements developed in cooperation with Martin MPO and local transportation agencies. The Work Program must be consistent, to maximum extent feasible, with capital improvement elements of local government comprehensive plans.	Transit-related projects by type of work funded in adopted FY 2019–2023 Work Plan considered in TDP update. No new or additional funding sources/projects documented in Five-year Work Program.

Plan/Program/ Study Reviewed	Geographic Applicability	Most Recent Update/ Timeframe	Responsible/ Partner Agencies	Overview	Key Considerations for Situation Appraisal
I-95/SR-9 Multimodal Master Plan from Palm Beach/ Martin County Line to Indian River/Brevard County Line	Martin County, St. Lucie County, Indian River County	In process	FDOT, Martin County, St. Lucie County, Indian River County	Will identify short-term and long-term capacity and operational improvements necessary to make corridor compliant with Strategic Intermodal System (SIS) standards. Will also make recommendations for actions to be taken by FDOT and local governments to protect and enhance corridor through 2045.	Improvements to be studied include roadway widening, interchange modification, innovative design elements, traffic signal and intersection modifications, safety improvements, express lanes, advanced intelligent technology enhancements, park-and-ride lots and public transit enhancements.
Comprehensive Growth Management Plan	Martin County	Amended 2018	Martin County Board of County Commissioners	Addresses land use, transportation, capital projects, public facilities and economic development goals, among others, for Martin County.	Goal 5 of Transportation Element includes relevant transit-related objectives and policies: <ul style="list-style-type: none"> • Objective 5.5A addresses providing efficient public transportation services based on existing and proposed major trip generators and attractors; safe and convenient public transportation terminals; land uses; and accommodation of the special needs of the transportation disadvantaged. Includes policies related to financial support for system, consideration of regional transit authority, safety of older adults and other vulnerable persons, employer-based programs and expansion of fixed-route system • Objective 5.5B protects existing public transportation rights-of-way. Includes a policy related to establishing minimum lane widths to support public transportation. • Objective 5.5C protects future public transportation rights-of-way and exclusive

Plan/Program/ Study Reviewed	Geographic Applicability	Most Recent Update/ Timeframe	Responsible/ Partner Agencies	Overview	Key Considerations for Situation Appraisal
					<p>public transportation corridors, as appropriate, as part of long-range planning process. Includes policies related to accommodating curbside pick-up and bus movement and designated public transportation corridors.</p> <ul style="list-style-type: none"> Objective 5.5D supports transit connections from Martin County to neighboring major regional hubs and includes policy related to encouraging transit-friendly neighborhoods.
The Comprehensive Plan	Stuart	2002	City of Stuart	Addresses land use, transportation, capital projects, public facilities and economic development goals, among others, for the city.	<p>Policy 1.8: Transportation System and Demand Management Strategies:</p> <ul style="list-style-type: none"> Downtown rail station/transportation depot, intermodal coordination between St. Lucie and Martin counties, park-and-ride facilities, pricing (peak/off-peak transit fares, fares for older adults and persons with disabilities and reduced transit fares), para-transit (support Council on Aging of Martin County), taxi/group riding program, dial-a-ride, jitney service <p>Objective 6: Mass Transit and Paratransit Services:</p> <ul style="list-style-type: none"> Develop downtown Stuart as transportation hub Provision of transportation services to Stuart Transportation Concurrency Exception Area (TCEA)

Plan/Program/ Study Reviewed	Geographic Applicability	Most Recent Update/ Timeframe	Responsible/ Partner Agencies	Overview	Key Considerations for Situation Appraisal
Martin MPO Transportation Improvement Program FY 18/19 –FY 22/23, adopted June 18, 2018	Martin MPO	April 2018	Martin County	Annual program update, includes listing of all federally-funded roadway, sidewalk, transit and other modal projects in county.	Notable projects include design and construction of new transit facility (unfunded need of \$6.85 million).
Martin County Transit Operations Center Feasibility Study	Martin County	April 2018	Martin MPO	Developed conceptual operations plan for full-service transit operations facility/ customer service center and identified potential sites for development of facility.	28 possible locations identified for further examination that satisfied all or majority of screening factors. Narrowed list to top 10 for further study. Four sites are parcels owned by Martin County and in or within proximity to Stuart.
Long Range Transportation Plan (LRTP) 2040	Martin County	December 2015 (Note 2045 LRTP update in progress)	Martin MPO	Five-year update to Martin County's multimodal transportation plan, identifying road, transit, bike/ped and other modal needs in the county. Cost feasible plan identifies projects to be funded during planning period.	2040 Transit Needs Plan identifies the following improvements: <ul style="list-style-type: none"> • New service on Hutchinson Island, regional service to St. Lucie County, Palm City, Jensen Beach, Sewall's Point along Savannah Road and Indiantown to Mangonia Park Tri-Rail station • Bus shelter amenities • APC software, new admin/operations building, 4 new park-and-ride lots, vehicle acquisition

Plan/Program/ Study Reviewed	Geographic Applicability	Most Recent Update/ Timeframe	Responsible/ Partner Agencies	Overview	Key Considerations for Situation Appraisal
2018-2023 Transportation Disadvantaged Service Plan (TDSP)	Martin County	2018	Martin MPO	Major TDSP update, emphasizes transit improvements and additions that serve needs of transportation disadvantaged population in efficient and cost-effective manner.	Identifies key populations in need (older adult and low-income populations). Guiding policies as part of outlined goals and objectives, relevant to broader Marty system, include: <ul style="list-style-type: none"> • Coordinating with public and private agencies to ensure quality and cost-effective service. • Promote use of public transportation services for those who qualify as transportation disadvantaged.
Martin County Service Analysis Technical Memorandum	Martin County	July 2018	Martin County	Demographic and demand assessment of Martin County and portions of St. Lucie County and detailed service planning analysis that reviewed existing and proposed route alignments, proposed new fixed and express routes and assessed existing service on-time performance, ridership and schedules.	Identified and analyzed following routes: Hutchinson Island Route, Palm City/Port Salerno, West Palm Intermodal and the West Palm Beach Veteran Affairs Medical Center (VAMC).
Martin County Public Transit Business Plan	Martin County	April 2017	Martin County	Prepared to review current transit operations by Martin County and make recommendations to maintain or enhance operations based on identification of strengths and challenges of existing system.	<ul style="list-style-type: none"> • Initiate plan for wholly-owned maintenance and operations/dispatch facility. • Modify existing staffing levels, roles and responsibilities. • Take steps needed to own paratransit vehicles same as with fixed-route vehicles. • Increase levels of coordination with Martin MPO.

Situation Appraisal

Martin County is required to include a situation appraisal of the public transportation operating environment. The purpose of this appraisal is to help develop an understanding of the potential operating environment for public transportation in Martin County in the context of the following elements:

- Socioeconomic trends
- Travel patterns and behavior
- Land use
- Public involvement
- Organizational attributes
- Technology
- Regional transit challenges/barriers

The assessment and resulting implications are drawn from the following sources:

- Baseline conditions assessment
- Results of technical evaluation performed as part of TDP process
- Review of relevant plans, studies and programs
- Outcomes of public outreach activities

The identified challenge/barriers, trends and implications are summarized for each of the major elements in the remainder of this section.

Socioeconomic Trends

To better assess the impact of the growth in population on public transportation needs, it is important to understand the trends and markets that could be impacted and/or may benefit from public transportation service in Martin County. Key findings from an assessment of socioeconomic trends included in the baseline conditions are summarized as follows:

- The *2017 Florida Statistical Abstract* projects that the population of Martin County will reach 171,700 by 2030 and 181,200 by 2040. Since 2010, most of this population growth has occurred in the incorporated areas of the county, which potentially increases the market for transit.
- The highest population densities in the county are in Stuart, along the eastern coastline from Jensen Beach to Jupiter Island, Indiantown, Palm City and Port Salerno.
- The highest employment densities in the county are in Stuart, primarily along US 1 and Dixie Highway.

- According to the *2017 Florida Statistical Abstract*, the age groups that are expected to grow as a share of total population are 45–64 and 65+. According to the on-board survey, most regular transit commuters are ages of 25–44, followed by ages 45–64.
- Based on Census and American Community Survey (ACS) Five-Year Estimates, Martin County is becoming more ethnically diverse; the share of Caucasian population increased 19% between 2000 and 2017 and the population of Hispanic/Latino origin increased by 54%. According to the on-board survey, minority populations are well-represented among transit riders (56%), and their growth will continue; Martin County suggests that growth in demand for transit service will also occur.

Implications

Martin County should continue to strive to meet the growing demand for public transportation within the county as the population and key segments of traditional and discretionary riders continue to grow. It also should continue to target its base ridership (traditional bus users) while at the same time working to gain discretionary transit riders. Growth in traditional rider markets, such as older adults, may indicate that the county is becoming more transit-supportive (e.g., population demographics that align with traditional bus user demographics), demographically speaking and therefore, a natural trend on which Marty can capitalize.

Marty's continued success depends on expanding its traditional rider base as well as attracting new transit markets and riders by operating an attractive service (safe, reliable and frequent service) in areas of higher density. Therefore, Marty should continue efforts to increase its share of discretionary riders, particularly young adults and those who work in service, sales and office occupations in existing areas of higher ridership (downtown Stuart and primarily commercial corridors, such as US 1 and Dixie Highway). It is also worth noting that people in occupations that may work outside of traditional office hours, such as the service industry, may require extended transit service hours to meet the demands of their work schedule.

Travel Patterns and Behaviors

To assess the impact of travel patterns and behavior on potential public transportation needs, journey-to-work data from the ACS for 2000, 2010 and 2015 and origin-destination data for 2016 were analyzed. The analyses identified the following key trends:

- Most of the travel time to work spent by commuters in Martin County is under 30 minutes (63%). However, more than 16% of Martin County commuters travel more than 45 minutes to work.
- Since 2000, driving alone, carpooling, walking and the use of taxis or other forms of transportation increased, although less than 1% of workers take public transit. Additionally, on average, commuters cover longer distances than in 2000.

- A review of regional travel behavior indicates the need for more regionally-connected transit services as the number of residents who work outside Martin County continues to increase. More than 30,000 Martin County residents commute outside of Martin County for work, and more than 38,000 residents from other areas in the state commute into Martin County for work.

Implications

Like many Florida transit agencies, Marty is faced with the ongoing challenge to provide local and connecting regional service to those dependent on public transportation for access to work, shopping, educational services, etc. Additionally, ongoing coordination with regional partners, including FDOT and Tri-Rail, is necessary to meet the mobility demands of commuters traveling into and outside of Martin County for work. Based on the high net outflow of commuters from Martin County to surrounding areas, Marty has significant challenges to overcome to provide the quantity of transit service required to sufficiently meet these travel volumes.

In addition, it will be important to accommodate the needs of regional travel flows outside peak periods to make the service more attractive to its users and non-users. With increased regional and local attention to transit, it will soon become a major part of the overall transportation network in Martin County for more of its citizens, and a better, well-connected and more frequently-operated transit service can help.

Regional and Local Transit Challenges/Barriers

Various local and regional transportation issues and programs impact Marty funding and operations. Reviewing regional transportation challenges identified the following key trends.

Local Conditions to Consider

Marty is a small yet efficient system that provides transit services to a growing population. The growth in traditional rider markets, such as older adults, may indicate transit may continue to play an important role in providing transportation for certain population segments. This is a natural trend such that Marty can capitalize on specific demographic groups. However, there are multiple service providers in Martin County operating within the same area as Marty (e.g., the Stuart Tram serving downtown and the Treasure Coast Connector serving US 1 from Port St. Lucie to the Treasure Coast Mall). It may be a challenge for Marty to attract riders if directly competing with other providers, such as the Treasure Coast Connector along US 1, which is free (for a limited time). At the same time, connecting service between Marty and other transit providers may be a benefit depending on where a person is traveling. For example, a Marty rider can travel on the bus to downtown Stuart where they can then transfer to the tram, which provides a fare-free circulator service downtown.

Virgin Trains USA (Brightline)

Virgin Trains USA, though still branded as Brightline, is a private intercity high-speed rail system currently operating in South Florida. Virgin Trains USA/Brightline began operating of its first segment between downtown West Palm Beach and downtown Fort Lauderdale on January 13, 2018. A second segment operating between Fort Lauderdale and downtown Miami began operating several months later. Future plans include extension of the line north to a multi-modal terminal located at the Orlando International Airport with a stop somewhere along the Treasure Coast in Martin or Indian River counties. One potential location for this station is along the rail corridor at the junction of SE Ocean Boulevard and S Colorado Avenue near Kiwanis Park in downtown Stuart.

Implications

As Martin County continues to grow, Marty will need to consider expanding the system and prepare for additional staff to support such an expansion. In addition, it will likely need to increase frequency and adjust service hours and service coverage. It also will need to examine the possibility of operating intermittent weekend service for those in Indiantown or other distant areas of the county. Once Virgin Trains USA expands service to the Treasure Coast, Marty may serve an increasing role in providing connecting bus service to and from the rail station depending on where the station is ultimately located.

Land Use

Development patterns and density are the primary drivers of transit demand. Population and employment densities along a route determine how many people will be able to access transit and ultimately influence the level of service that can be efficiently supported in a given area. Areas with higher densities and mixed-use development tend to support greater frequencies of service, and lower-density, single-use areas are typically better-suited to lower-frequency fixed-route service or alternative modes such as flexible routes or demand-response service. In addition, urban design also influences effective transit service, as areas with gridded street networks and pedestrian infrastructure tend to promote walkability and access to bus stops. A review of the land use designations within the Martin County Comprehensive Growth Management Plan and the Stuart Comprehensive Plan identify policies that are transit-supportive:

- Martin County Comprehensive Growth Management Plan:
 - Martin County and cities shall encourage the development of transit-friendly neighborhoods that support transit specific design features.
 - Martin County shall establish land use measures that provide adequate right-of-way for implementation of future transit stops.

- Stuart Comprehensive Plan:
 - Stuart shall promote mixed-use developments that encourage multi-modal accessibility and reduce automobile travel, which includes providing transit stops near new developments.
 - Stuart shall include land development regulations that complement transit-oriented development and promotes pedestrian oriented land use patterns.

Implications

Transit plays an essential role in facilitating future growth and supporting increased population and employment densities in Martin County by providing alternative transportation modes. Land use patterns in Martin County encourage multi-modal land use and transit-oriented design principles in targeted areas, which promotes higher-density developments around transit alignments. Areas of new development and redevelopment will need to ensure that adequate infrastructure, such as sidewalks and accessible paths to connect land uses to bus stops, are provided.

Martin County's land use policies directly impact and shape future land development opportunities within the county. One notable future development project is Pineland Prairie, a 5.3-acre property in western Palm City. This site is proposed for a future mixed-use development with residential, village retail, office space and three school campuses and extensive preservation space. The buildout for this development is estimated around 2040, so future transit serving this development will likely be addressed in future TDP updates. The Martin County Commission will review for final approval in August.

One challenge facing Martin County with respect to existing land use is lower-density residential areas (e.g., Palm City) or along more rural roads with a lack of sidewalks (e.g., Kanner Hwy). Even when fixed-route transit service is shown as a demonstrated need in these areas, the lack of available infrastructure to provide safe and accessible bus stops can prevent future service from occurring.

Public Involvement

The results of the public involvement efforts are summarized in Technical Memorandum 1. General conclusions drawn from public involvement efforts conducted for this TDP include the following.

Stakeholder Interviews

Key stakeholders were interviewed to obtain the general perception of transit in Martin County. Questions included general perceptions, vision for future transit and transit funding opportunities. All key stakeholders are aware of Marty and its services. Generally, the stakeholders felt that citizen

interest and knowledge about Marty services are growing; however, continuing to promote Marty's brand and bring awareness to the system was cited as a top need.

Most stakeholders agreed that service improvements were the most significant issues (i.e., headways, frequency, service area and route alignments). Some areas that may be underserved include Palm City, Indiantown and Golden Gate.

Discussion Groups

Discussion groups were held with representatives of the various chambers of commerce in Martin County to gather input on public transit needs, perceptions and challenges for consideration in the TDP. Representatives from each of the seven Chambers of Commerce were invited, and participants included representatives of the Hobe Sound Chamber, Stuart/Martin County Chamber and Martin County. The meetings opened with a presentation outlining the TDP process and providing an overview of the Marty system, followed by a discussion focused on 10 specific questions.

Most participants believed that improved awareness efforts should focus on neighborhoods or smaller community events to spread the word about Marty services and that employment hubs could be more transit-supportive to attract employee riders. Overall, participants believed that Marty services and amenities have improved, and that websites and applications have become more user-friendly. Most said that expanding weekend service and coverage to areas with higher densities should be considered. Suggested improvements included Wi-Fi on buses, more marketing, evening services and more stops in high-density areas.

On-board Survey

Passengers were asked to identify service improvements they believe would make Marty better for their use. Noted were the addition of Saturday service (35%), improved frequency (27%), Sunday service (25%), later evening service (12%) and more bus stop amenities (1%).

Passengers were asked to identify technology improvements they believed would make Marty better for their use. Noted most often was real-time information at major stops (62%), electronic bus stop announcements on buses (20%) and mobile fare payment (18%).

Implications

Increasing the frequency of bus routes and providing Saturday service was the most requested improvement and will help attract choice ridership to Marty services. The addition of Saturday services may help attract riders who travel for different purposes or may convince non-users to use Marty services. Technology improvements can also improve the attractiveness of the service to existing and

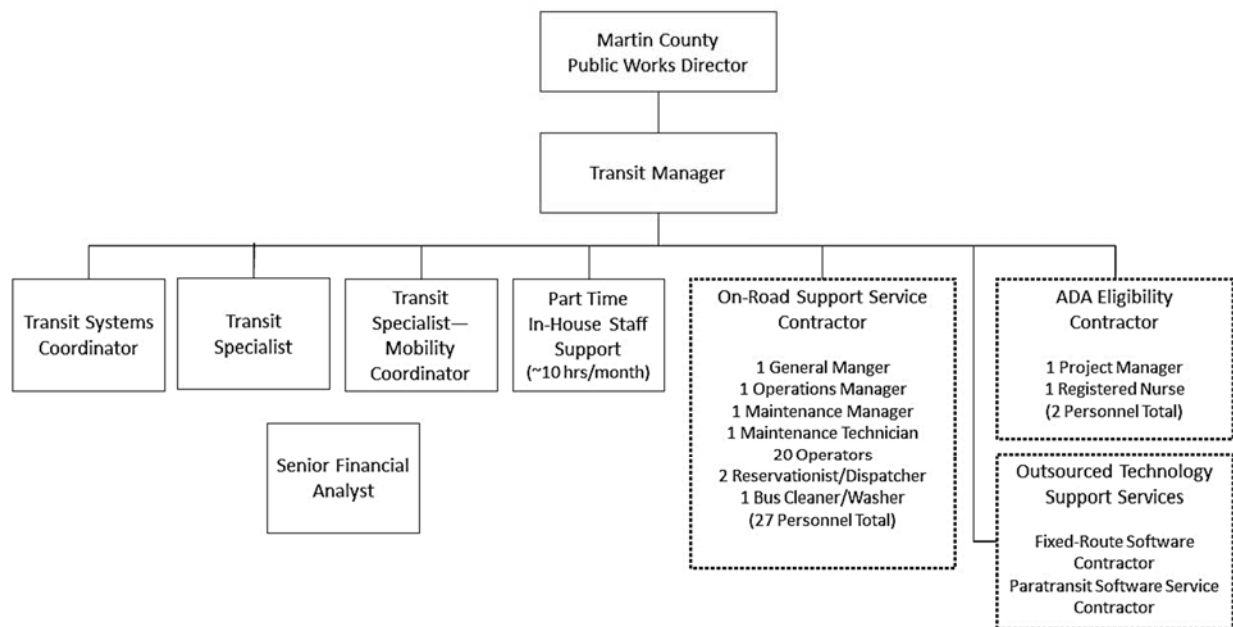
potential transit users. Improving bus stop amenities with existing pedestrian infrastructure can help make the service safer and easier to use.

Participants in public outreach efforts play a critical role in the TDP process by emphasizing the importance of transit in Martin County. Transit supports job growth and economic development and promotes regional connectivity. Unanimously, all participants indicated that Marty was doing well, especially among those who use the service on a regular basis.

Organizational Attributes

Organizationally, Marty operates within the Public Works Department under the direction of the Martin County Board of County Commissioners (BOCC). The BOCC appoints the County's Chief Executive Officer, who implements BOCC-approved programs and directs the functions of County government. Under the direction of the Public Works Director, Marty is staffed by five full-time County staff and one part-time support position. Operations staff, including vehicle operators and those responsible for scheduling and technology, are outsourced. Figure 6-1 displays Marty's current organizational structure.

Figure 6-1: Marty Organizational Structure



Marty has four transit locations in Stuart at which work is performed. Administration, planning and field operations are conducted from 2401 SE Monterey Road; fueling bus washing, over-night parking and pre-trip inspections operate from 2225 SE Avenger Circle; additional over-night parking and pre-

inspections are conducted from 2990 SE Dixie Highway; and customer service/reservations, dispatching and vehicle maintenance are conducted at 3091 SE Waaler Street.

Implications

Marty's current organizational structure is on the leaner side in terms of full-time staff versus system size compared to peer transit agencies. Marty's primary staff must "wear several different hats," and there is limited room for additional responsibilities within the existing staff structure. Therefore, Marty's management and staffing will need to be closely assessed as the transit system grows in the future. As with many systems, Marty faces challenges in operator turnover, which can affect the quality of services being provided if not monitored.

Operating service from multiple locations has led to inefficiencies and increased costs from additional deadhead miles, thus increasing overall operating costs. Marty has recognized the need for a centralized operations/maintenance facility and initiated a study in 2018 to identify potential sites.

Technology

Martin County continues to evaluate new technology components that will enhance the rider's overall transit experience. Notably, Marty has implemented the following technology platforms:

- **MyRide** – a smartphone application and website interface that connects passengers to real-time bus location information and trip planning functions. Using this application, passengers can select their route and see where the bus is in real time while also locating stops along the route.
- **TripSpark** – a comprehensive software developed for fixed-route systems. TripSpark organizes Marty's passenger count and Automatic Vehicle Location (AVL) data and corresponds to the MyRide app to help support the needs of passengers. Marty uses a manual passenger count process as passengers board the bus at each stop; TripSpark technology connects the manual count of passengers at each stop and links it via GPS, which helps identify popular stops and time frames and improves system reliability and efficiency.
- **Wi-Fi** – provided on Marty buses free of charge.

Implications

Martin County should continue to monitor new developments in technology that could improve transit service in a cost-efficient manner. For example, prior assessments have determined that Automated Passenger Counters (APCs) on buses would be duplicative of the information gathered through TripSpark and the manual count process at a high cost for the technology. Further, exploration of automated fareboxes on buses and/or at bus stops, which can reduce the expense and risk from handling traditional paper currency, are cost-prohibitive for a system the size of Marty.

Although at a cost, technology investments such as MyRide can attract discretionary riders to Marty services. Other technology improvements can enhance the rider experience and improve the efficiency of service delivery. Martin County should consider the following new technologies:

- **Mobile ticketing** – Mobile ticketing enables passengers to buy their bus fare in advance then bus operators can examine the mobile device screen to ensure payment has been complete and eliminate the rider’s need to carry cash. The mobile management of fares adds convenience and attracts new riders while eliminating boarding times for those who typically buy fares as they board. Mobility ticketing also reduces staff costs associated with counting and depositing cash fare payments.
- **Next stop voice announcements on buses** – Voice Annunciation Systems (VAS) are units that make next stop arrival voice announcements on fixed-route buses. This technology can be programmed to make automatic announcements of each upcoming stop in 24 languages, which can aid in safety for those with visual impairments or those who are unfamiliar with the area. In combination with VAS, LED signage is encouraged to help those with hearing impairments. These systems have pre-calculated locations to make announcements for the next stop, transfer station or major landmark. Additionally, VAS supplements the travel experience for all passengers by keeping them informed of the current location of the bus. Capital costs of these systems are estimated to be \$30,000 for a systemwide installation, with minimal operation and management costs.
- **Next bus arrival signs at bus stops** – These are helpful for riders who do not have access to smartphones, do not know how to navigate a technological interface, or who are from out of town and simply need to navigate their way around Marty services. These signs are installed at bus stops to enhance the passenger experience for when the next bus will arrive. These signs are also ADA-compliant with the option to push a button and hear the message being displayed for those who are visually impaired. Many screen options are available for the display signs; LED is the most common, but weatherproof LCD screens are available, which are carefully sealed to withstand rain, wind and direct sunlight. There also are options for solar-powered, grid-powered and a hybrid to power the signs, with the option to use them in conjunction with other technologies to improve the journey. An application can be attached to the display board to transmit messages of the next bus stop arrival, delay, or any other emergency message that the agency may need to display. The average cost of the design, installation and operation of these signs is approximately \$10,000–\$15,000, but it may vary based on system size and the number of signs. These signs could be prioritized and added at high ridership stops or transfer points.

Section 7 Preliminary Transit Improvements

This section identifies potential transit improvements to be considered in the development of the 10-year TDP. The preliminary improvements, or alternatives, for fixed-route service represent the transit needs for the next 10 years and were developed without consideration of funding constraints; they were prioritized using an evaluation process described later. The prioritized list of improvements is used to aid the development of the 10-year implementation and financial plan presented in Section 10. As Martin County continues to grow, the prioritized transit needs will assist Martin County and Marty in selecting and implementing service improvements as funding becomes available.

Development Process

The preliminary transit needs consist of improvements to enhance existing Marty services and expand transit services to new areas. The improvements reflect the transit needs of the community and have been developed based on information gathered through the following methods:

- **Public workshops and stakeholder discussions** – These have been an effective technique for obtaining substantive public input on transit needs throughout the *Marty on the Move* planning process. Several meetings, workshops and discussion groups were held to gather input from the public, stakeholders and policy leaders regarding transit needs and which alternatives should be considered for the next 10 years.
- **Transit surveys** – Four surveys were conducted as part of the TDP planning process to obtain additional input from riders and non-riders in the community. An on-board bus survey was used to gather input from existing Marty riders, and an online survey was provided to gather input from both riders and non-riders. In addition, Marty bus operators were asked to complete an online survey to gather input on rider and operator comments/concerns. A brief origin/destination questionnaire was provided to residents and business owners in Indiantown to gather input on transit needs between Indiantown and elsewhere in Martin County, and a survey on potential transit improvements was handed out at public outreach events to gauge interest in the various service options being explored for this TDP.
- **Transit demand assessment** – A market assessment of transit demand and needs was conducted for Martin County that included an analysis of current and projected socioeconomic data using various GIS-based analysis tools. These technical analyses, together with the baseline conditions assessment and transit performance reviews conducted previously, also were used in developing the list of transit alternatives by identifying areas that have characteristics shown to be supportive of transit.
- **Situation Appraisal** – Requirements for a 10-year TDP in Florida include the need for a situation appraisal of the environment in which the transit agency operates. The purpose of this appraisal is to help develop an understanding of the transit operating environment in Martin County in the context of the following elements:

- Socioeconomic trends
- Travel behavior
- Land use
- Public involvement
- Organizational attributes
- Technology
- Regional transit issues

Preliminary Transit Improvements

From the above methods, preliminary transit improvements were identified and grouped into the following categories:

- Service Improvements
- Capital/Infrastructure
- Policy/Other

Specific improvements identified within each of these categories are summarized below.

Service Improvements

Preliminary service improvements to existing routes include frequency enhancements, increased service spans and route alignment modifications and extensions. Also included under this category is service expansion to areas not currently served by Marty.

New Funded Route

Route 30x (Indiantown/Hobe Sound commuter route) – Input from stakeholders and from origin/destination surveys conducted in Indiantown indicated a need for limited stop commuter service starting in Indiantown and ending in Hobe Sound at Bridge Road and Dixie Highway, making a connection with the current Route 20x at Bridge Road and US 1. Funding for this route was provided through a surplus of existing federal grant funds. This route serves employees living in Indiantown and traveling to work in Hobe Sound and began operating on June 3, 2019.

Improvements to Existing Routes

Increasing frequencies and improving the efficiency of existing bus routes are significant needs identified through the public involvement efforts performed as part of the development of *Marty on the Move*. Potential improvements to existing fixed routes include the following:

- **Modify route alignments** – Considering prior planning efforts, proposed route alignments were generated to maximize the efficiency of the Marty system. The following summarizes the modifications to the proposed route alignments:

- **Extend Route 2** – The proposed alignment adds a stop at Halpatiokee Park during peak commute hours and continues east along Kanner Highway to the Publix on US 1 and Kanner Highway, where riders can transfer to Routes 1 and 3. During non-peak hours, the service will remain closed-door. Since commuter service is being proposed, this improvement does not require complementary ADA service to be provided along Kanner Highway when adding the stop at Halpatiokee Park.
- **Split Route 3 into Routes 3a and 3b** – The new routes would have roughly the same service coverage area but will provide new service along Monterey Road between Willoughby Boulevard and US 1. The routes would provide more efficient service within the existing Route 3 service area, keep existing headways and maintain transfer opportunities to Route 1 and to each other.
- **Route 20x extension** – This route would remain unchanged except for extensions on the north and south ends of the route. The northern end of the route would extend service to Halpatiokee Park, and the southern end would extend service to Mangonia Tri-Rail Station in Palm Beach County during peak commute hours. During non-peak hours, the route would follow its current route, terminating at Robert Morgade Library. As commuter service is being proposed, this improvement does not require complementary ADA service to be provided for the route extension.
- **Add later service** – Service for Routes 1, 2 and 3 would extend from approximately 8:00–10:00 PM. This was identified as a high priority through the public outreach process.
- **Add Saturday service** – service for Routes 1, 2 and 3 would be provided on Saturday from 6:00 AM–8:00 PM. Providing Saturday service was identified as a high priority during the public outreach process.
- **Double frequency for Routes 2 and 3** – Input from the public involvement process identified higher frequencies in general as a high priority, providing a substantial improvement to existing and potential riders. Route 2 service headways currently alternate between 40 (when the route loops through Indiantown) and 95 minutes (when the route loops through Indiantown and continues eastbound with closed-door service to Stuart). Increasing service through the addition of one bus would decrease headways to 20 and 48 minutes; adding two buses to Route 3 would decrease the current headway of 40 minutes to 20 minutes.

New Service Expansions

Service improvements also could include the provision of new service as follows:

- **New Jensen Beach route** – The need for a new route serving the Jensen Beach area was identified in Martin County’s 2015 TDP, which was the last major update of the 10-year plan. This route is proposed to start at Treasure Coast Square, then the bus would travel east serving Hoke Library, then continue east on NW Jensen Beach Blvd to Jensen Beach Park. From there

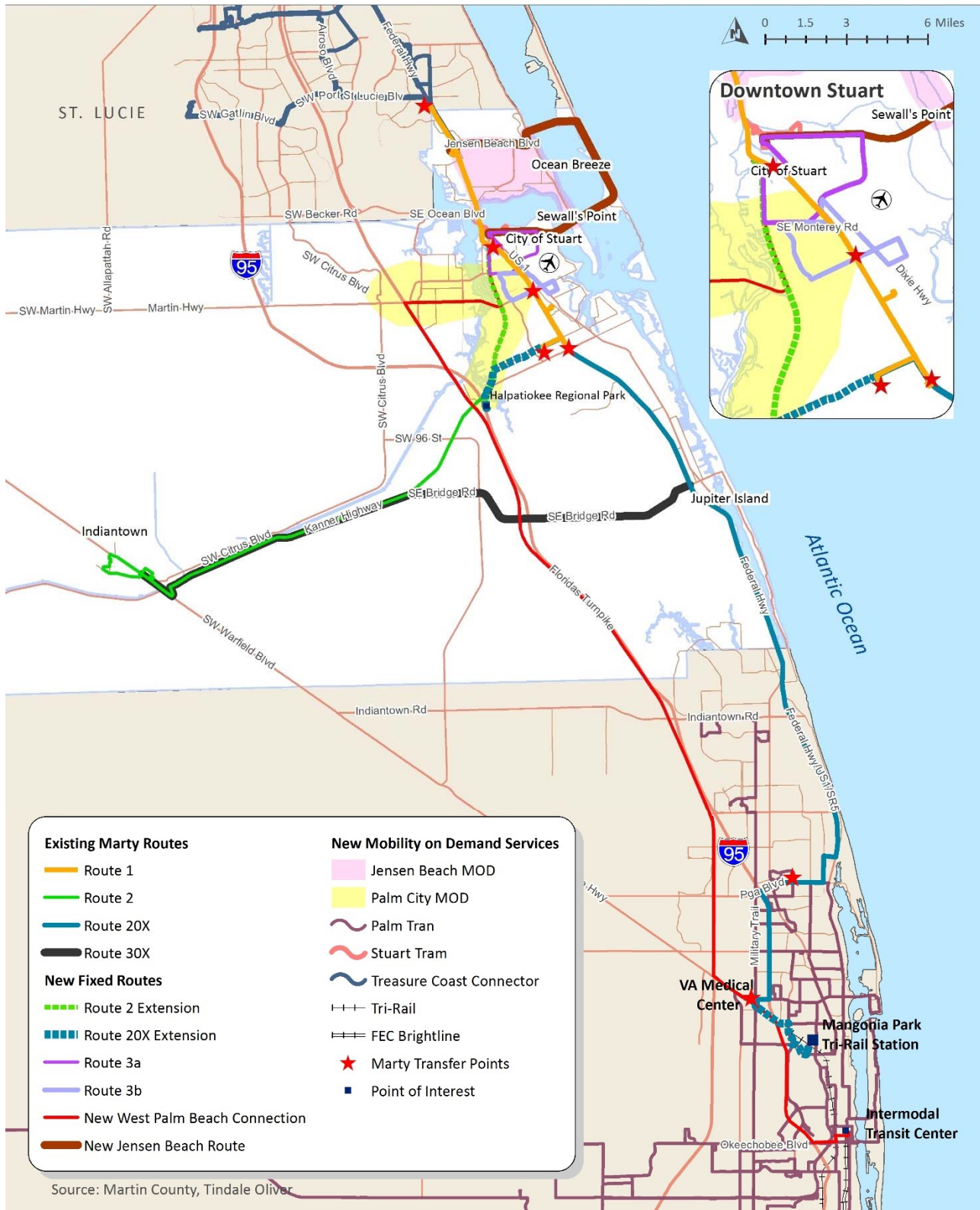
the bus would travel south on SR A1A along Hutchinson Island, then loop west along SR A1A/SE Ocean Blvd to the Kiwanis Park-and-Ride in downtown Stuart.

- **New regional turnpike commuter route to West Palm Beach Downtown Intermodal Transit Center** – Route 20x is currently funded entirely through FDOT’s Service Corridor grant program, which is set to expire by FY 2020. Local funding will need to be identified to maintain all or a portion of Route 20x service. The expiration of these funds provides an opportunity for new regional service to be implemented. Input from the technical analysis and public involvement activities conducted as a part of *Marty on the Move* indicates a need for regional express service to West Palm Beach and transfer opportunities to Tri-Rail and Virgin Trains USA/Brightline. The proposed service could begin in the vicinity of US 1 and Kanner Highway, stop at the FDOT park-and-ride adjacent to Florida’s Turnpike on SW Martin Highway, and continue along Florida’s Turnpike to Bee Line Highway before continuing to downtown West Palm Beach via I-95, where it would serve the West Palm Beach Virgin Trains USA/Brightline station and City Place before terminating at the Intermodal Transit Center approximately 0.6 miles east of the Virgin Trains USA/Brightline station. The Intermodal Transit Center is adjacent to the West Palm Beach Tri-Rail station and serves 11 Palm Tran routes and Greyhound services, providing regional connectivity to both bus and rail modes. To start, the proposed service could include two morning and two evening trips during peak commute hours, operating Monday through Friday.
- **Mobility on Demand (MOD) service** – Uses on-demand information, real-time data and predictive analysis to provide travelers with transportation choices that best serve their needs and circumstances. MOD service provides first/last mile connections to and from the transit network and works well in areas where fixed-route service may not be efficient, a high percentage of customers have limited mobility to bus stops, or the necessary infrastructure is not available for people to safely or conveniently access bus stops. MOD service can range from flex-type routes to on-demand service requested in advance or dynamically in real-time. When considering MOD service, the capabilities of the County’s current route scheduling software TripSpark were reviewed. One limitation of this software is that it provides same-day service scheduling but cannot provide real-time requests by the customer through a mobile application; therefore, the convenience of real-time on-demand functionality is not maximized.
 - **Palm City MOD** – Input from public involvement and discussions with stakeholders indicated the need for expanded transit service to the Palm City area. In addition to interest expressed via the various outreach activities, this area serves a high number of low-income TD trips where riders would otherwise use Marty if service were available. In Palm City, there is a lack of existing sidewalk infrastructure, which provides a challenge to providing accessible bus stops and paths if fixed-route local service were to be implemented. MOD overcomes this challenge by providing flexible service for pick-ups and drop offs at locations other than designated bus stops within a certain area and reduces income-related TD trips. MOD services also often use technology such as phone apps to book trips, but integration into the County’s existing scheduling software must be considered.

- **Jensen Beach/Rio CRA MOD** – Input from public involvement and review of demographics and travel patterns indicate the need for transit service within Jensen Beach and the Rio Community Redevelopment Area (CRA). A challenge in this area is that residential areas are separated by higher-speed and rural -like roads that limit opportunities to provide safe and accessible bus stops and connected walking paths needed for local fixed-route service. If a fixed route is not implemented in this area, then flexible MOD service could provide targeted pick-up and drop-off points within this community with service to connecting Marty routes.

Map 7-1 presents the proposed Marty 2020–2029 TDP service improvements for the next 10 years.

Map 7-1: Preliminary Transit Improvements



Capital/Infrastructure Improvements

Potential capital/infrastructure improvements include the following:

- **Expand and improve bus stop infrastructure** – Martin County should continue to identify opportunities for bus stops, including benches, shelters, bicycle storage facilities and other infrastructure needed to improve the rider experience at bus stops and increase the potential for attracting new riders. Enhancing bus stop infrastructure will also provide greater awareness in the community regarding Marty services.
- **Evaluate bus stop spacing** – In areas where spacing between bus stops is greater than ½ mile, Martin County should assess whether additional bus stops are needed to reduce pedestrian travel time to the nearest stop. Priority for new bus stops should be given to those that serve a high number of riders, major trip generators/attractors, multiple bus routes and those that will be ADA-compliant (both bus stop/infrastructure and accessible path).
- **Improve bus stop safety and ADA accessibility** – Martin County should continue to identify opportunities to improve bus stop safety, lighting and accessibility for existing and future bus stops, where appropriate.
- **Maximize use of park-and-ride facilities** – Park-and-ride facilities provide collection points for travelers to transfer from auto to transit or between autos (from a single-occupant vehicle to a carpool or vanpool). When conveniently located and carefully planned and implemented, park-and-ride facilities are integrated into the overall transportation network and can encourage a shift from single-occupant vehicles to transit or other alternative modes. Several preliminary improvements have identified opportunities to maximize the use of existing park-and-ride facilities in Martin County— the Route 20x extension is proposed to serve the park-and-ride facility located at Halpatiokee Park during peak hours, and the new regional Turnpike route is proposed to serve the park-and-ride facility east of Florida’s Turnpike on SW Martin Highway.
- **Construct a stand-alone transit operations and maintenance facility** – Martin County currently contracts out its operations and does not own any transit capital facilities or equipment other than vehicles. Recognizing the need for a centralized full-service transit operations facility/customer service center, Martin County undertook a study in 2018 to evaluate potential locations. Such a facility would improve operational costs per mile by reducing vehicle deadhead miles and provide more efficient customer service and operations.
- **Establish an intermodal hub** – There is potential for Virgin Trains USA/Brightline to serve Martin County when rail service is extended from West Palm Beach to Orlando International Airport. A station in Martin County could be located along the rail corridor at the junction of SE Ocean Boulevard and S Colorado Avenue near Kiwanis Park. As plans for a potential station in this vicinity become more concrete, Martin County and stakeholder partners, including Virgin Trains USA, the City of Stuart and the Martin MPO, should explore the possibility of creating an intermodal hub adjacent to the planned train station.

Section 8 Transit Demand Analysis

This section summarizes the ridership demand assessment conducted as part of the *Marty on the Move* development process. The assessment techniques are summarized, followed by the results of each analysis used to assess the demand for transit services in Martin County.

Transit demand and mobility needs were assessed using the following assessment techniques:

- **Baseline ridership analysis** – Projected ridership demand for existing fixed-route transit services over the next 10 years was analyzed assuming that existing Marty service levels will be maintained. The projections were prepared using T-BEST (Transit Boardings Estimation and Simulation Tool) Version 4.5, an FDOT-approved ridership estimation software.
- **Ridership analysis for future improvements** – Using T-BEST, projected ridership for the Marty system was analyzed assuming the existing service improvements and service expansions documented in the prior section are implemented.
- **Market assessment** – Two market assessment tools were used to assess demand for transit services for the next 10 years. The tools assessed traditional and discretionary transit user markets in Martin County for various time periods.

T-BEST Overview

T-BEST is a comprehensive transit analysis and ridership-forecasting model that can simulate transit demand at the individual route level. The software was designed to provide near- and mid-term forecasts of transit ridership consistent with the needs of transit operational planning and TDP development. In producing model outputs, T-BEST also considers the following:

- **Transit network connectivity** – the level of connectivity between routes within a bus network—the greater the connectivity between bus routes, the more attractive the bus service becomes.
- **Spatial and temporal accessibility** – service frequency and distance between stops; the larger the physical distance between potential bus riders and bus stops, the lower the level of service utilization. Similarly, less frequent service is perceived as less reliable and, in turn, utilization decreases.
- **Time-of-day variations** – peak-period travel patterns accommodated by rewarding peak service periods with greater service utilization forecasts.
- **Route competition and route complementarities** – competition between routes is considered; routes connecting to the same destinations or anchor points or that travel on common corridors experience decreases in service utilization, and, conversely, routes that are synchronized and support each other in terms of service to major destinations or transfer locations and schedule benefit from that complementary relationship.

The following section outlines the model input and assumptions, describes the T-BEST scenario performed using the model and summarizes the ridership forecasts produced by T-BEST.

Model Inputs / Assumptions and Limitations

T-BEST uses various demographic and transit network data as model inputs. The inputs and the assumptions made in modeling Marty's system in T-BEST are presented below. The model used the recently-released T-BEST Land Use Model structure (T-BEST Land Use Model 2018), which is supported by parcel-level data developed from the Florida Department of Revenue (DOR) statewide tax database. DOR parcel data contain land use designations and supporting attributes that allow the application of Institute of Transportation Engineers (ITE)-based trip generation rates at the parcel level as an indicator of travel activity.

Transit Network

The transit route network for all existing Marty routes was created to reflect 2018 conditions, the validation year for the model. October 2018 General Transit Feed Specification (GTFS) data for Marty were obtained from the Florida Transit Data Exchange (FTDE) as the base transit system. Data include:

- Route alignments
- Route patterns
- Bus stop locations
- Service spans
- Existing headways during peak and off-peak periods (frequency at which a bus arrives at a stop—e.g., one bus every 60 minutes)

GTFS data were verified to ensure the most recent bus service spans and headways, with edits made as needed. Transfer locations were manually-coded in the network properties.

Socioeconomic Data

The socioeconomic data used as the base input for the T-BEST model were derived from American Community Survey (ACS) Five-Year Estimates (2012–2016), the Bureau of Labor Statistics, the Bureau of Economic Analysis, 2015 InfoUSA employment data and 2015 parcel-level land use data from the Florida DOR. Using the data inputs listed above, the model captures market demand (population, demographics, employment and land use characteristics) within ¼ mile of each stop.

T-BEST uses a socioeconomic data growth function to project population and employment data. Using the 2045 socioeconomic data forecasts developed for the Treasure Coast Regional Planning Model, population and employment growth rates were calculated. Population and employment data are hard-coded into the model and cannot be modified by end-users. As applied, the growth rates do not reflect fluctuating economic conditions as experienced in real time.

Special Generators

Special generators were identified and coded into T-BEST to evaluate the opportunity for generating high ridership. Marty's special generators include the following, among others:

- Indian River State College
- Transfer hubs: Veterans Affairs Medical Center (VAMC), The Gardens Mall in Palm Beach County; Robert Morgade Library, US 1 & SE Cove Road, US 1 & SE Johnson Avenue, Martin Square Shopping Center in Martin County; Port St. Lucie Walmart Supercenter in St. Lucie County
- Treasure Coast Mall, Martin Square Shopping Center, The Gardens Mall
- Kiwanis Park-and-Ride
- Martin Memorial Hospital
- Martin County Airport-Witham Field

T-BEST Model Limitations

It has long been a desire of FDOT to have a standard modeling tool for transit demand that could be standardized across the state, similar to the Florida Standard Urban Transportation Model Structure (FSUTMS) model used by metropolitan planning organizations in developing long range transportation plans (LRTPs). However, whereas T-BEST is an important tool for evaluating improvements to existing and future transit services, model outputs do not account for latent demand for transit that could yield significantly higher ridership. In addition, T-BEST cannot display sensitivities to external factors such as an improved marketing and advertising program, changes in fare service for customers, fuel prices, parking supply, competing transportation service providers, walkability and other local conditions; correspondingly, model outputs may overestimate demand in isolated cases. As the model cannot interact with roadway network conditions, ridership forecasts will not show direct sensitivity to changes in roadway traffic conditions, travel time comparisons to traffic or roadway connectivity.

Although T-BEST provides ridership projections at the route and bus stop levels, its strength lies more in its ability to facilitate relative comparisons of ridership productivity. As a result, model outputs are not absolute ridership projections, but, rather, are comparative for evaluation in actual service implementation decisions. T-BEST has generated interest from departments of transportation in other states and continues to be a work in progress that will become more useful as its capabilities are enhanced in future updates to the model. Consequently, it is important for Marty to integrate sound planning judgment and experience when interpreting T-BEST results.

Baseline Ridership Analysis

Using these inputs, assumptions and 2018 route level ridership data obtained from Marty, the T-BEST model was validated. Using the 2018 validation model as the base model, T-BEST ridership forecasts for this TDP major update planning starting year (2020) and horizon year (2029) were developed. The

generated annual ridership forecasts for these scenarios reflect the estimated level of service utilization if no changes were to be made to any of the fixed-route services.

Table 8-1 shows the projected number of status quo and vision riders annually by route in 2020 and 2029 derived from T-BEST.

Table 8-1: Projected Marty Annualized Ridership and Growth Rates 2020–2029*

Weekday Annualized Ridership Summary			
Route	2020 Status Quo	2029 Status Quo	Growth Rate
1	49,332	53,054	7.5%
2	14,921	16,175	8.4%
3	22,042	23,711	7.6%
20x	9,014	9,614	6.7%
30x**	N/A	400	100%
Total	95,309	102,954	8.0%

* Based on T-BEST model

**New Indiantown/Hobe Sound commuter route in service starting June 3, 2019.

Based on the T-BEST model results, maintaining the status quo will result in a moderate increase in Marty ridership for all routes over time. According to the projections, overall average annual ridership for the 2020 status quo is expected to increase by 8% by 2029. The service improvements identified in this plan, in other transit planning efforts and from the public feedback received combined will provide better transit services for the service area.

Market Assessment

The TDP market assessment includes an evaluation from two perspectives—the discretionary market and the traditional market, the two predominant rider markets for bus transit service. Analytical tools for conducting each market analysis include a Density Threshold Assessment (DTA) for the discretionary market and a Transit Orientation Index (TOI) for the traditional market. These tools can be used to determine whether existing transit routes are serving areas of the county considered to be transit-supportive for the corresponding transit market. The transit markets and the corresponding market assessment tool used to measure each are described below.

Discretionary Market Assessment

The discretionary market refers to potential riders living in higher-density areas of the county that may choose to use transit as a commute or transportation alternative. The DTA conducted used industry-standard thresholds to identify the areas within Martin County that experience transit-supportive residential and employee density levels. Martin County socioeconomic data developed for the 2045 LRTP were used to conduct the existing DTA using 2015 values. As future year socioeconomic data for the 2045 LRTP are under development, a future year DTA could not be performed at this time. In

addition, as dwelling unit data are not available in the Martin County socioeconomic dataset, household unit data are the closest comparable metric. Housing unit and employment data provided by Martin County from year 2015 of the 2045 Treasure Coast Regional Planning Model were used to conduct the DTA.

Three density thresholds were developed to indicate whether an area contains sufficient density to sustain some level of fixed-route transit operations:

- **Minimum Investment** – reflects minimum dwelling unit or employment densities to consider basic fixed-route transit services (i.e., local fixed-route bus service).
- **High Investment** – reflects increased dwelling unit or employment densities that may be able to support higher levels of transit investment (i.e., increased frequencies, express bus) than areas meeting only the minimum density threshold.
- **Very High Investment** – reflects very high dwelling unit or employment densities that may be able to support higher levels of transit investment (i.e., premium transit services) than areas meeting the minimum or high-density thresholds.

Table 8-2 presents the dwelling unit and employment density thresholds associated with each threshold of transit investment (note that households are used in absence of dwelling units for Martin County).

Table 8-2: Transit Service Density Thresholds

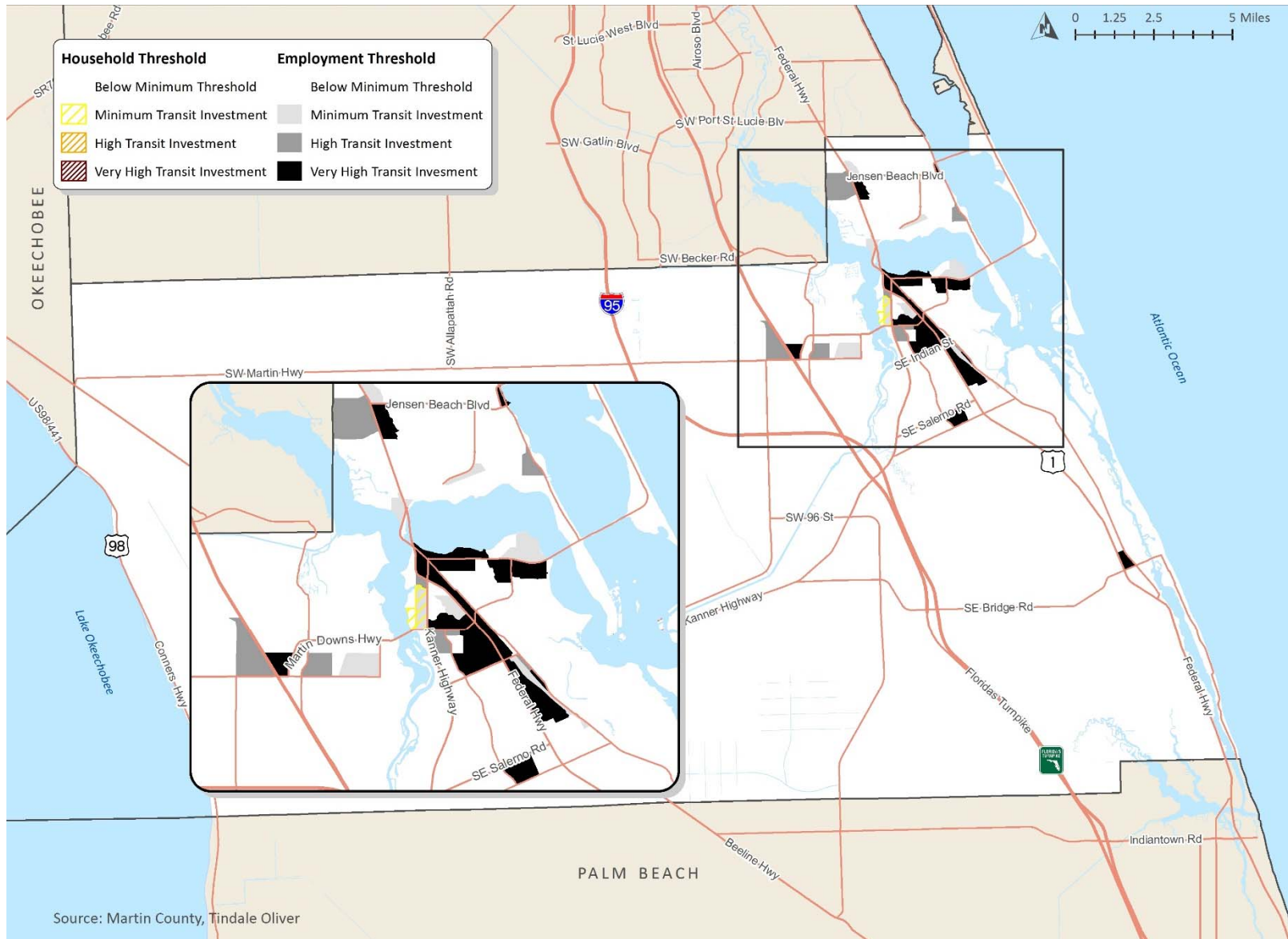
Level of Transit Investment	Dwelling Unit Density Threshold ¹	Employment Density Threshold ²
Minimum Investment	4.5–5 dwelling units/acre	4 employees/acre
High Investment	6–7 dwelling units/acre	5–6 employees/acre
Very High Investment	≥8 dwelling units/acre	≥7 employees/acre

¹ Transportation Research Board (TRB) National Research Council, TCRP Report 16, Volume 1 (1996), “Transit and Land Use Form,” November 2002, Metropolitan Transportation Commission (MTC) Resolution 3434 Transit Oriented Development (TOD) Policy for Regional Transit Expansion Projects.

² Based on a review of research on the relationship between transit technology and employment densities.

Map 8-1 illustrates the results of the 2015 DTA analysis and identify areas that support different levels of transit investment based on existing dwelling unit and employment densities. The analysis indicates that the employment-based discretionary transit market is concentrated in and around the Stuart area. Corridors such as A1A, US 1 and SR-714 consistently have “high” to “very high” employment-related transit investment areas. Household unit-based discretionary areas with transit investment opportunities are few. The only area in the county in which density surpasses the minimum dwelling unit threshold is located just west of Kanner Highway, north of SW Monterey Road. Again, due to absence of dwelling unit data, household data were used. This metric differs slightly from the intended analysis metric but is a comparable alternative dataset.

Map 8-1: 2015 Density Threshold Assessment



Traditional Market Assessment

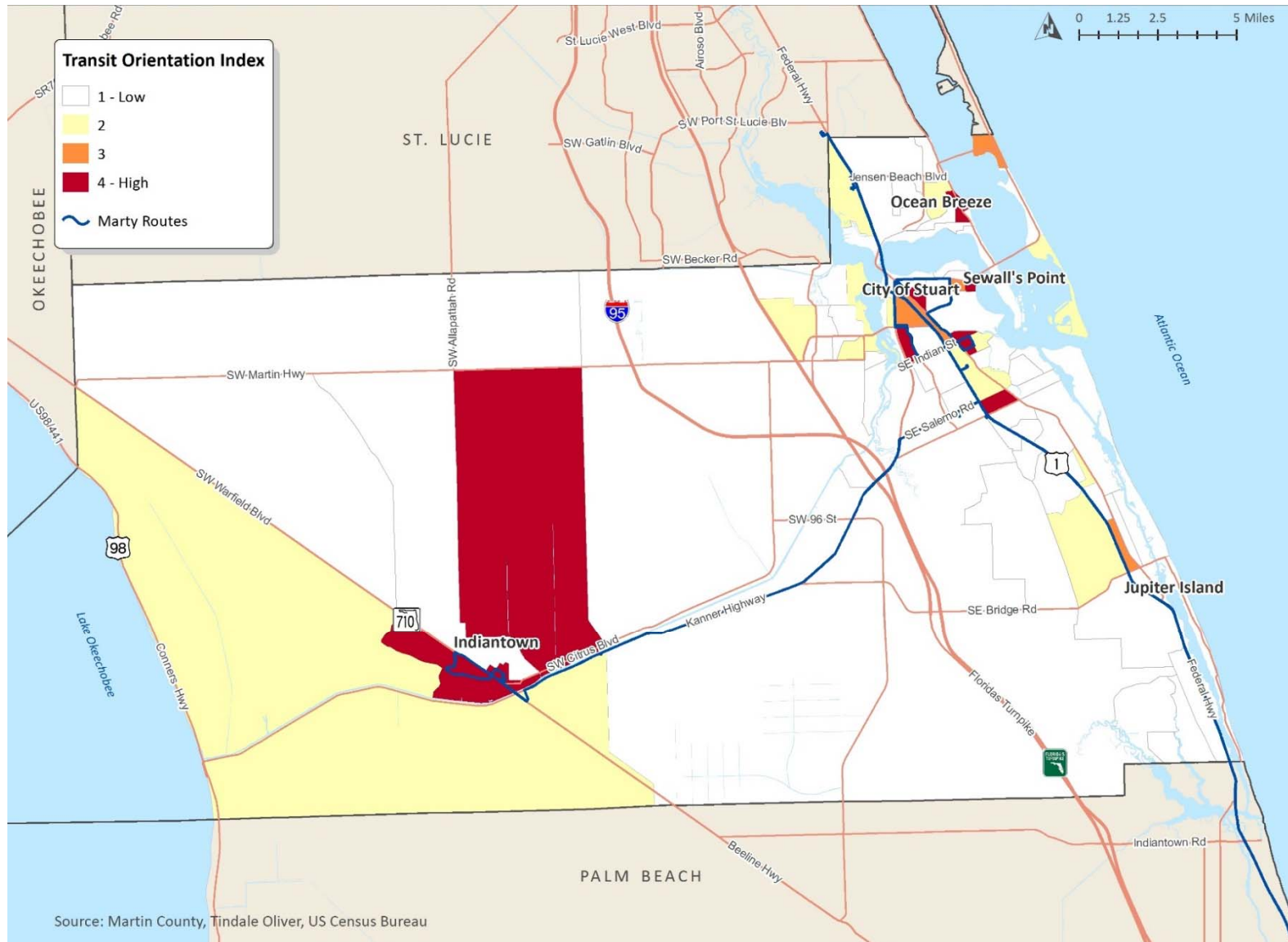
A traditional transit market refers to population segments that historically have had a higher propensity to use transit and be dependent on public transit for their transportation needs. Traditional transit users include older adults, youth and households that are low-income and/or have zero vehicles. A TOI assists in identifying areas of the county where a traditional transit market exists. To create the TOI for this analysis, demographic 2016 ACS 5-Year Estimates were compiled at the census block group level and categorized according to each block group's relative ability to support transit based on the prevalence of specific demographic characteristics. Four population and demographic characteristics that are traditionally associated with the propensity to use transit were used to develop the TOI and include:

- Proportion of population age 65 and over (older adults)
- Proportion of population ages 10–14 (youth)
- Proportion of population below poverty level (\$25,000 for family of 4)
- Proportion of households with no vehicles (zero-vehicle households)

Using data for these characteristics and developing a composite ranking for each census tract, each area was ranked as 1, 2, 3 or 4 (with 1 being low and 4 being high) in their respective levels of transit orientation. Map 8-2 illustrates the TOI, reflecting areas throughout the county with varying traditional market potential. Also shown is the existing transit route network to exhibit how well Marty routes covers those areas.

Indiantown includes block groups with significant youth and poverty populations. The western portion of Port Salerno accommodates multiple affordable multi-family housing complexes and mobile home parks, yielding high values for poverty and zero-vehicle households. The Golden Gate neighborhood, already recognized as a transit-dependent community, comprises mainly low-income families with young children and without access to a vehicle. Remaining areas around Stuart and along Kanner Highway have similar demographics, especially regarding low-income and zero-vehicle households. Most areas share a variety of housing types and businesses. Ocean Breeze has a high TOI, with statistics indicating many older adults and many low-income and zero-vehicle households. Income values and vehicle ownership may be correlated to the higher median age in this community.

Map 8-2: Transit Orientation Index



Ridership Analysis for Preliminary Improvements

Productivity potential and cost-efficiency for the existing service improvements and new service expansions were analyzed using ridership forecasts developed in T-BEST. Information from this analysis will be used as input in the evaluation process for the service alternatives developed for Marty.

Two 10-year ridership scenarios were created in T-BEST to represent the existing service improvements and the new service expansions potentially implemented over the next 10 years. The first scenario includes frequency and service span enhancements to existing routes; the second includes new routes and service area expansions. For both scenarios, ridership forecasts in 2029 were compared to the ridership forecasts in the 2029 Status Quo Scenario.

Existing Service Enhancements

The following improvements were coded into the Existing Service Enhancements Scenario:

- Later Service to 10:00 PM (Routes 1, 2 and 3)
- Add Saturday service (Routes 1, 2 and 3)
- Double frequency (Routes 2 and 3)

Tables 8-3 through 8-5 compare the annualized ridership of the 2029 Status Quo Scenario to the Existing Service Enhancements Scenario for the weekday, Saturday and nighttime periods. Note that T-BEST does not allow for ridership changes to be calculated for 8:00–10:00 PM (the proposed extended hours specific to Marty); therefore, a more general evening period representing 6:00 PM and later was used to project ridership.

As shown, the improvements under the Existing Service Enhancements Scenario are estimated to increase annual weekday ridership in 2029 by 33% over the projected 2029 weekday ridership of the current Marty system. Implementing new Saturday service is anticipated to generate nearly 19,000 annual riders by 2029, and extending service to 10:00 PM on weekdays could increase nighttime service by nearly 50%. However, this estimate is likely overstated, as T-BEST does not allow for ridership changes to be calculated for 8:00–10:00 PM (the proposed extended hours specific to Marty); therefore, a more general evening period representing 6:00 PM and later was used to project ridership.

Table 8-3: 2029 Annual Weekday Ridership for Status Quo vs. Existing Service Enhancements*

Route	2029 Status Quo Total Boardings	2029 Existing Service Enhancements Total Boardings	Additional Boardings	Percent Change
1	53,054	54,316	1,262	2.4%
2	16,175	29,502	13,327	82.4%
3	23,711	43,140	19,429	81.9%
20x	9,614	9,615	1	0.01%
Total	102,554	136,573	34,019	33.2%

* Based on T-BEST model

Table 8-4 2029 Annual Saturday Ridership for Status Quo vs. Existing Service Enhancements*

Route	2029 Status Quo Total Boardings	2029 Existing Service Improvements Total Boardings	Additional Boardings	Percent Change
1	0	6,658	6,658	100%
2	0	6,746	6,746	100%
3	0	5,252	5,252	100%
20X	0	0	0	0%
Total	0	18,656	18,656	100%

* Based on T-BEST model

Table 8-5: 2029 Annual Night Ridership for Status Quo vs. Existing Service Enhancements

Route	2029 Status Quo Total Boardings	2029 Existing Service Enhancements Total Boardings	Additional Boardings	Percent Change
1	6,676	7,847	1,171	17.5%
2	2,506	4,813	2,307	92.1%
3	3,826	6,823	2,997	78.3%
20X	253	254	1	0.4%
Total	13,261	19,737	6,476	48.8%

* Based on T-BEST model

New Service Area Expansions Scenario

The following proposed route realignments, route extensions and new transit services were coded into the New Service Area Expansions Scenario:

- Extend and realign Route 2
- Split Route 3 to 3a and 3b
- Extend Route 20x
- New Regional Turnpike Route to West Palm Beach Downtown Intermodal Transit Center
- New Jensen Beach route

Table 8-6 compares the weekday annualized ridership of the 2029 Status Quo Scenario to the 2029 New Service Area Expansions Scenario. Comparisons for Saturday and nighttime boardings were not evaluated, as new service expansions were not proposed during those time periods. Note that the MOD services were not coded due to limited comparative benefits from T-BEST.

As shown, the improvements under the New Service Area Expansion Scenario are estimated to increase annual ridership in 2029 by 69% over the projected 2029 ridership of the current Marty system.

Table 8-6: 2029 Weekday Annualized Ridership for Status Quo vs. New Service Area Expansions

Route	2029 Status Quo Total Boardings	2029 Existing Service Improvements Total Boardings	Additional Boardings	Percent Change
1	53,054	54,297	1,243	1.5%
2 Extended and Realigned	16,175	22,414	6,239	38.6%
3a + 3b	23,711	44,120	20,409	84.9%
20x Extended	9,614	11,482	1,868	19.4%
30x**	N/A	400	400	100%
New Jensen Beach Route	N/A	38,791	38,791	100%
Regional Route WPB Connection	N/A	1,765	1,765	100%
Totals	102,554	173,269	38,791	68.9%

Note: estimates do not include MOD service.

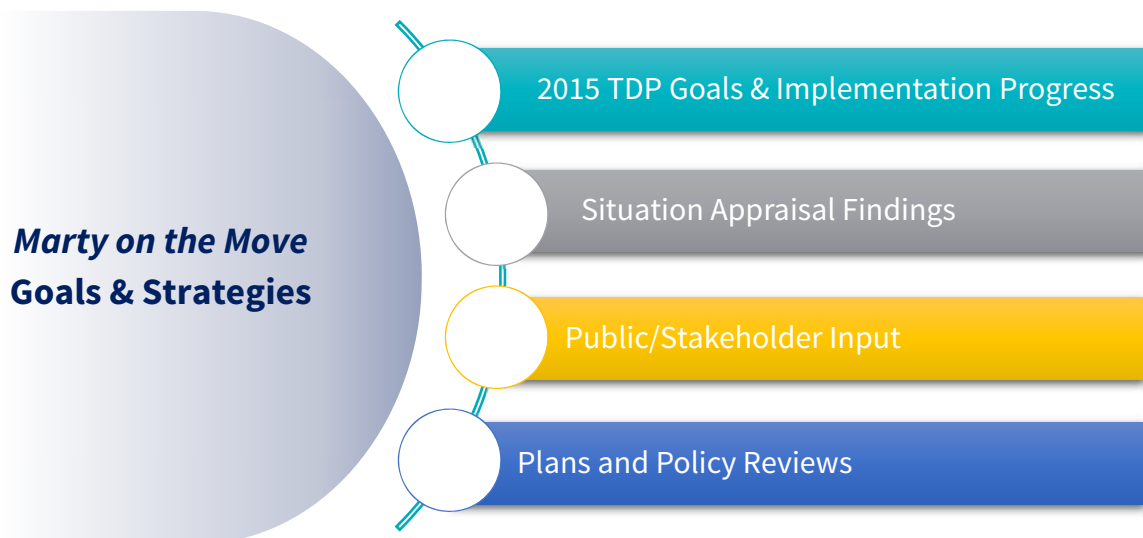
Section 9 Vision and Goals

Goals and supporting strategies are an integral part of *Marty on the Move* as they provide the policy direction to achieve the community's vision while helping guide Marty as it grows. The TDP goals and strategies were updated based on a review and assessment of existing conditions, feedback received during the public involvement process and the applicable policy direction from local plans and policies.

Goals and Strategy Update Guidance

The following sources were used to guide the update of the adopted TDP goals and strategies for the next 10 years:

- Goals and strategies (formerly objectives) from the last TDP adopted in 2015 and progress its 10-year implementation plan.
- Findings from the Situation Appraisal that identified key issues affecting Marty today and that will affect Marty over the next several years.
- Input received from the public and stakeholders on the needs and direction of transit in Martin County and the Treasure Coast region.
- Findings from plan and policy reviews based on recommendations, goals and objectives/strategies included in other agency plans to ensure consistency with other planning efforts at the national, regional and local levels.



Vision Statement

Enhance the overall quality of life of Martin County residents, workers and visitors by providing a safe, accessible, reliable, interconnected and attractive public transportation system with growth to meet the community's needs.

Goals and Strategies

Goal 1: Transit Service Quality

Operate a high-quality public transit service to efficiently move people within Martin County and the Treasure Coast region.

Strategy 1.1: Prioritize expansion of service to key destinations and areas not currently served by public transportation in Martin County.

Strategy 1.2: Evaluate expansion of regional fixed-route bus service, prioritizing connectivity of Marty routes to places with multiple modes of public transportation.

Strategy 1.3: Increase span of service during weekday evenings and provide Saturday transit service.

Strategy 1.4: Increase bus frequency to meet rider needs.

Strategy 1.5: Implement and update, as appropriate, the County's bus stop accessibility study to prioritize bus shelters and amenities (e.g., bike racks, benches, trash receptacles, etc.) and to ensure that all stops and pathways are ADA accessible.

Strategy 1.6: Provide sidewalks and bicycle facilities, where feasible, for customers to access transit services.

Strategy 1.7: Conduct a comprehensive operational analysis (COA) to ensure the system operates effectively and efficiently.

Strategy 1.8: Ensure that bus stops spacing is adequate for passenger safety and convenience, prioritizing areas with highest passenger activity.

Goal 2: Transit Service Efficiency and Effectiveness

Focus on improving the efficiency and effectiveness of transit service provided by Marty.

Strategy 2.1: Improve ridership productivity (effectiveness) and cost-efficiency of the transit system.
Strategy 2.2: Continue to implement new technologies that improve the efficiency of service in a cost-effective manner.
Strategy 2.3: Continue to implement the fleet replacement plan to maintain established asset management performance standards.
Strategy 2.4: Select a site to construct a transit operations and maintenance facility for fleet parking and bus-wash station and to provide centralized customer service.
Strategy 2.5: Develop a system performance monitoring process to track system process and monitor overall performance.
Strategy 2.6: Conduct a fare study to review Marty's fare structure and policies to ensure that the desired balance between the cost of service and the farebox recovery is maintained.

Goal 3: Transit Ridership

Increase ridership levels by addressing service needs for both traditional and new transportation markets.

Strategy 3.1: Continue to maintain a base ridership growth rate consistent with the projected Martin County population growth rate over the 10-year plan period (approximately 1% growth per year).
Strategy 3.2: Strive to implement service improvements and new services to grow the system by 50%-75% over the 10-year plan period.
Strategy 3.3: Continue to identify service improvements that will attract new choice riders, tourists and students to increase transit ridership to the extent possible.
Strategy 3.4: Coordinate with Martin County's Community Transportation Coordinator (CTC) to identify opportunities to shift higher-cost transportation disadvantaged (TD) trips to Marty fixed routes for ambulatory low-income riders.

Goal 4: Branding, Marketing and Public Awareness

Promote Marty's brand so that it continues to be easily recognizable by existing and potential customers.

Strategy 4.1: Continue to raise public awareness of the Marty brand and services through direct marketing activities that target area residents, employers, chambers of commerce and other special interest groups.

Strategy 4.2: Identify community events where Marty's vehicles and services can be showcased to increase awareness of the system, particularly among non-riders.

Strategy 4.3 Ensure transit information and trip planning technologies made available to the public are easy to access, easy to understand and simple to use.

Strategy 4.4: Explore opportunities for raising additional revenue that are complementary to branding efforts.

Goal 5: Intergovernmental Coordination

Continue building strong partnerships with community and private sector entities as well as local and regional transportation agencies.

Strategy 5.1: Conduct coordinated public outreach efforts to existing riders and potential transit system users in the Treasure Coast region.

Strategy 5.2: Monitor regional and intergovernmental coordination activities.

Strategy 5.3: Support policies and agreements that encourage development and expansion of regional transit service.

Strategy 5.4: Continue to use transportation demand management (TDM) strategies and provide transit services that have synergy with South Florida Commuter Services program.

Strategy 5.5: Help support and advance local jurisdictions' transit-supportive land use policies including reviewing and providing input on local plans.

Strategy 5.6: Coordinate with the Community Redevelopment Areas (CRAs) within Martin County to identify opportunities to piggy back transit service and infrastructure improvements with roadway projects.

Section 10 10-Year Transit Plan

This section summarizes the funding and implementation plan developed for Marty's fixed-route service covering the FY 2020–2029 period. This section documents the prioritization of the preliminary transit improvements and presents the 10-year implementation plan, which identifies funded service recommendations and capital improvements and includes a discussion of revenue assumptions and capital and operating costs used. The 10-year TDP implementation plan also includes a schedule for which service, capital/technology and policy improvements are programmed.

Evaluation of Preliminary Transit Improvements

This section summarizes the evaluation process for the preliminary transit improvements, or service alternatives, developed for *Marty on the Move*. Because many preliminary improvements are identified, ranging from enhancements of existing routes to implementation of new routes, it is important for Martin County to prioritize these improvements to effectively plan and implement them within the next 10 years using existing and/or new funding sources.

Alternatives Evaluation Methodology

A methodology was developed to evaluate and prioritize the preliminary transit improvements previously presented in Section 8. To prioritize and program these service improvements, it is important to weigh the benefits of each service improvement against the others. By conducting an alternatives evaluation, Martin County can better prioritize projects and allocate funding using an objective prioritization process. The remainder of this section identifies and defines the evaluation criteria used to prioritize the service improvements.

Three evaluation categories were identified for determining criteria for the evaluation:

- Public Outreach
- Transit Markets
- Productivity & Efficiency

Table 10-1 lists these evaluation categories and their corresponding criteria, the associated measure of effectiveness and the assigned weighting for each criterion. A description of the elements in the table follows.

Table 10-1: Alternative Evaluation Measures

Category	Criteria	Measure of Effectiveness	Relative Weighting	Overall Category Weight
Public Outreach	Survey Results	Level of interest in specific alternatives (Very High, High, Moderate, None), as indicated by Transit Priorities Survey	15%	30%
	Public Input	Level of interest in specific improvements (Very High, High, Moderate, None), as gathered from overall public input	15%	
Transit Markets	Traditional Market	Presence of “High” or “Very High” transit orientation area	15%	40%
	Discretionary Market	Presence of “Minimum” Density Threshold Assessment (DTA) threshold for employment or dwelling-unit density	15%	
	Regional Market	Connectivity to adjacent counties	10%	
Productivity & Efficiency	Productivity	Trips per hour (TBEST generated trips per revenue hour of service)	15%	30%
	Cost Efficiency	Cost per trip (including new trips)	15%	
Total			100%	100%

Public Outreach

An extensive public outreach process was conducted for *Marty on the Move* that resulted in numerous opinions and suggestions on transit services from transit users, non-users, and operators and business, academic, social and medical organizations. It also included discussions with policy leaders and Marty/Martin County staff to gauge their views on transit services. Based on an in-depth review of input received, preliminary transit improvements were identified. Interest in a specific route or type of service was gauged based on the results of the alternatives survey distributed at public outreach events and general public input.

Transit Markets

For the evaluation of alternatives, three transit markets were identified:

- **Traditional Market** – Existing population segments that historically have had a higher propensity to use transit and/or are dependent on public transit for their transportation needs. For this evaluation, the presence of “High” or “Very High” transit-oriented area was calculated.
- **Discretionary Market** – Potential riders living in higher-density areas of the county that may choose to use transit as a commuting or transportation alternative. The presence of “Minimum” dwelling unit or employment density threshold in the 2015 DTA was calculated and used for this evaluation.

- **Regional Market** – Each potential route was assessed for regional connectivity. Based on conclusions drawn from public involvement input, regional service to adjacent counties is a desired attribute for future Marty routes.

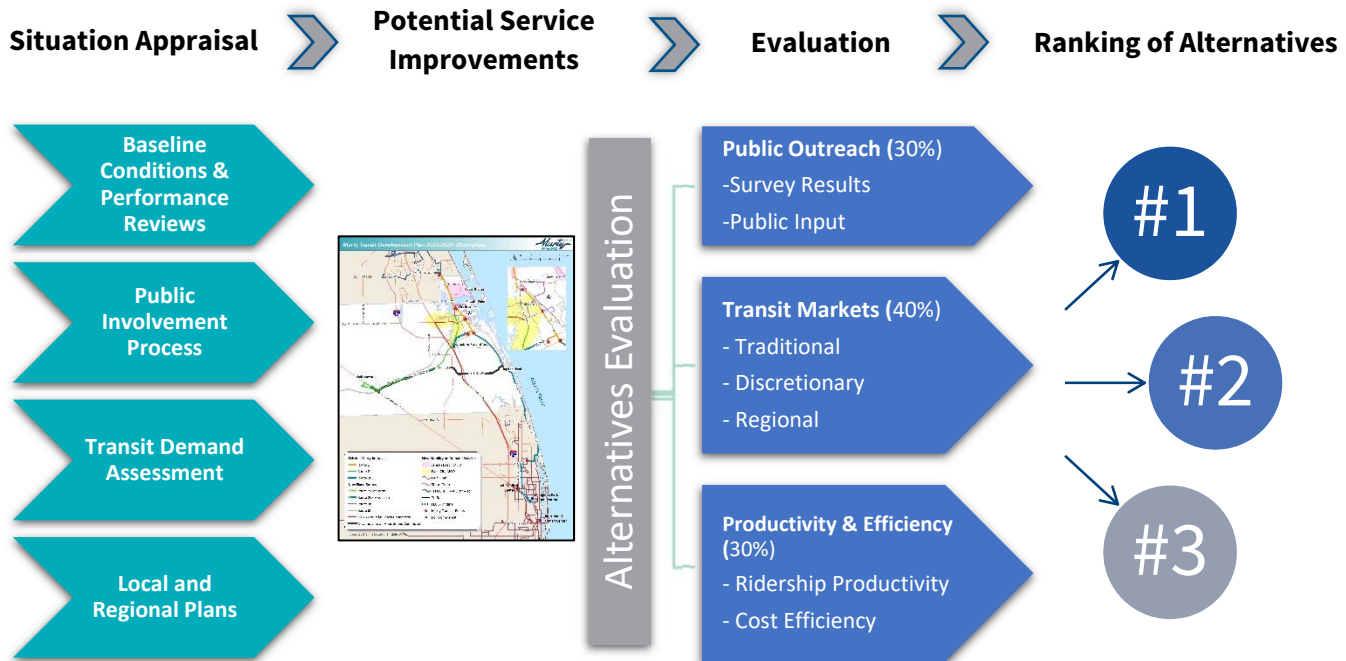
Productivity and Efficiency

Productivity is generally measured in terms of ridership and cost-efficiency measures used by transit agencies to gauge how well it uses existing resources. Ensuring productivity and cost-efficiency is critical to the success of the agency, and services projected to perform well in terms of their productivity and efficiency should receive a higher priority. Forecasts of ridership, revenue hours and operating costs for each individual alternative are used in this evaluation process.

- **Ridership productivity** – measured in terms of annual passenger trips per revenue hour of service. To provide for an equal comparison between alternatives, passenger trips and revenue hours of service were generated using output from TBEST 2029 ridership data.
- **Cost efficiency** – evaluated for each alternative using a transit industry standard efficiency measure, operating cost per passenger trip, which uses Marty performance data and T-BEST 2029 ridership data.

Figure 10-1 shows the 10-year transit service alternatives evaluation process, including criteria, measures and weights used for each category. A summary of various criteria and measures used in each step, as well as the alternatives scoring thresholds, are presented in the remainder of this section.

Figure 10-1: Transit Service Alternatives Evaluation Process



Alternatives Scoring Thresholds

As noted, each criterion is assigned a weight. Weighting the criteria affords the opportunity to measure the relative importance of each among the group of criteria to be applied. For each transit alternative, a score was determined either through the computation of the selected measure or through the educated judgment of the assessor. Scores for the more qualitative criteria (i.e., public input and regional connectivity) were assigned based on a relative comparison of each transit alternative with other transit alternatives. A higher score is consistent with a higher ranking for a given alternative for the criterion being evaluated.

The thresholds for computation-based criteria (traditional market, choice market, trips per hour and operating cost per trip) were determined using the average of the entire data set and one standard deviation above or below the average. Table 10-2 shows the thresholds and scoring for each criterion used in the evaluation.

Table 10-2: Alternatives Evaluation – Scoring Thresholds

Criteria	Range	Score
Survey Results – Transit Priorities Survey	Less than (Average – 1 SD)	1
	Between (Average – 1 SD) to Average	3
	More than Average to (Average + 1 SD)	5
	More than (Average + 1 SD)	7
Public Input – General Discussions	None	1
	Moderate	3
	High	5
	Very High	7
Traditional Market Potential	Low	1
	Moderate	3
	High	5
	Very High	7
Discretionary Market Potential	None	1
	Low	3
	Medium	5
	High	7
Regional Connectivity	No	1
	Yes	3
Trips per Hour	Less than (Average – 1 SD)	1
	Between (Average – 1 SD) to Average	3
	More than Average to (Average + 1 SD)	5
	More than (Average + 1 SD)	7
Operating Cost per Trip	More than (Average + 1 SD)	1
	More than Average to (Average + 1 SD)	3
	Between (Average – 1 SD) to Average	5
	Less than (Average – 1 SD)	7

Note: SD = statistical Standard Deviation

Alternatives Evaluation Results Summary

Each alternative received a score by using the process summarized previously. The alternatives were then ranked based on their respective score. Detailed results of the evaluation are presented in Table 10-3, and Table 10-4 presents the detailed results of the prioritization process. It should be noted that this evaluation and prioritization exercise is intended to serve as a guide, rather than an absolute, when implementing future improvements.

Table 10-3: 10-Year Transit Service Alternatives Ranking

Proposed Improvement	Evaluation Score	Rank
Split Route 3 into Routes 3a and 3b	4.90	1
Add Saturday service	4.80	2
New Jensen Beach route	4.70	3
Jensen Beach/Rio CRA MOD	4.50	4
Palm City MOD	4.20	5
Double frequency	4.00	6
Later service to 10:00 PM	3.80	7
Extend Route 20x	3.40	8
New Turnpike regional route	3.40	9
Extend and realign Route 2	3.20	10

Table 10-4: Results of Alternatives Evaluation

Evaluation Criteria	Scoring Details	Later Service to 10 PM	Add Saturday Service	Double Frequency	Extend and Realign Route 2	Split Route 3 into 3a and 3b	Extend Route 20x	Jensen Beach/Rio CRA MOD	Palm City MOD	New Turnpike Regional Route	New Jensen Beach Route
Survey	Composite Score	4.19	4.53	4.38	4.33	4.56	4.52	4.66	4.59	4.83	4.66
	Score	1	5	3	1	5	3	5	5	7	5
	Weight	15%	15%	15%	15%	15%	15%	20%	20%	15%	20%
Public Involvement	Level of Interest	Very High	Very High	High	Moderate	Moderate	High	High	High	Moderate	High
	Score	7	7	5	3	3	5	5	5	3	5
	Weight	15%	15%	15%	15%	15%	15%	20%	20%	15%	20%
Traditional Market	% in Trad. Market	Very High	Very High	Very High	High	Very High	Moderate	High	Moderate	Moderate	High
	Score	7	7	7	5	7	3	5	3	3	5
	Weight	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%
Choice Market	% in Choice Market	Medium	Medium	Medium	Low	High	Medium	Medium	Medium	Low	Medium
	Score	5	5	5	3	7	5	5	5	3	5
	Weight	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%
Regional Market	Regional Yes/No?	No	No	No	No	No	Yes	No	No	Yes	No
	Score	1	1	1	1	1	3	1	1	3	1
	Weight	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%
Connectivity	Improve Connectivity?	No	No	No	Yes	Yes	Yes	No	No	Yes	No
	Score	1	1	1	3	3	3	1	1	3	1
	Weight	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%
Additional Trips per Hour	Trip/Hr	2.12	4.29	3.16	13.06	8.46	1.28	3	3	1.53	5.45
	Score	3	5	3	3	7	3	3	3	3	5
	Weight	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%
Operating Cost per Trip	Cost/Trip	\$41.42	\$20.52	\$19.92	\$4.83	\$7.45	\$49.37	\$18.33	\$18.33	\$54.41	\$11.55
	Score	3	5	5	7	5	1	5	5	1	5
	Weight	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%
Total Score		3.80	4.80	4.00	3.20	4.90	3.40	4.50	4.20	3.40	4.70

10-Year Finance and Implementation Plan

A 10-year finance plan was developed to help facilitate the implementation of *Marty on the Move* improvements. First, cost, revenue and policy assumptions used to develop the financial plan are presented. This is followed by a summary of cost and revenue projections for *Marty on the Move*. The summary includes annual costs for the service and technology/capital improvements that are programmed for implementation within the next 10 years together with supporting revenues that are reasonably expected to be available.

Cost Assumptions

Operating Cost Assumptions

Numerous assumptions were made to forecast transit-operating costs from 2020 through 2029. These assumptions are based on a variety of factors, including service performance data, discussions with Martin County staff and information from other recent Florida TDPs.

Annual operating costs for existing Marty fixed-route service and complementary ADA services were developed consistent with Martin County's five-year budget. Beyond the first five years, operating costs were inflated at 3% annually based on historical growth in costs and consistent with Martin County's five-year budget. In FY 2020, operating costs for existing Marty fixed-route services are anticipated to be \$2.03 million and, when inflated over time, are projected to total \$23.2 million over the 10-year period. Similarly, in FY 2020, operating costs for paratransit services are budgeted at approximately \$418,500 and total \$4.8 million over the 10-year period. Collectively, operating costs for fixed-route and paratransit services are estimated to cost \$28 million over the next 10 years.

Capital Cost Assumptions

Cost projections for capital improvements needed to support existing Marty services are based on Martin County's five-year projected transit budget and discussions with Martin County staff. These capital improvements are to replace fixed-route vehicles that provide existing services, conduct future major TDP updates due every five years and improve bus stop infrastructure, technology and security systems over the 10-year timeframe. These capital costs are estimated to total nearly \$5.9 million over the 10-year period.

Revenue Assumptions

Federal, state and local operating and capital revenues identified in the proposed FY 2020 Martin County budget for the Marty services have been included in the 10-year financial plan as follows:

- Operating revenues
 - Federal revenue sources include FTA Section 5307 Urbanized funds, 5311 Non-Urbanized funds and Section 5310 funds totaling nearly \$7.7 million over the 10-year period.
 - State revenue sources include FDOT State Block Grant funds totaling nearly \$3.5 million and Florida Transit Corridor Grant Program funds with annual appropriations of \$350,000 over the first three years of the plan, totaling nearly \$1.1 million.
 - Local funds total nearly \$8.6 million over the 10-year period. This includes nearly \$7.6 million of Martin County general funds and \$1 million in fare revenue. A copy of Marty's farebox recovery report, a required component of the TDP, is provided in Appendix F.
- Capital revenues
 - Federal revenue sources include nearly \$590,000 annually of Section 5307 and Section 5339 funds, totaling \$5.9 million over the 10-year period.

State Block Grant funds are inflated at 3% annually. All other revenue sources are carried through the 10-year plan with no inflation to be conservative and consistent with recent historical trends and based on discussions with Martin County staff.

10-Year Cost and Revenues

The 10-year cost affordable plan prepared for the *Marty on the Move* TDP is focused on maintaining the existing system. This 10-year plan is illustrated in Table 10-5. Whereas operating costs and revenues are balanced in the first year of the plan, over time the anticipated increases in annual operating costs are projected to outpace available revenue, creating a deficit in funding the existing system. In addition, FDOT Transit Corridor Grant funds will expire after FY 2022, eliminating \$350,000 in annual revenue available in the first three years of the plan.

As shown in Table 10-5, this deficit will accumulate over time and is projected to total nearly \$7.3 million by the end of the 10-year period. Unless other federal or state grant sources (along with the appropriate local match) are identified, additional local funding in this amount will be needed to maintain existing services starting in FY 2022.

On the capital side, the projected costs and revenues are projected to balance at nearly \$5.9 million over the 10 years based on the capital improvements identified.

Table 10-5: Marty on the Move 10-Year Financial Plan

Source	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	10-Year Total
OPERATING AND CAPITAL COSTS											
<i>Operating Costs</i>											
Maintain Existing Service - Fixed Route (Non-Urbanized)	\$267,480	\$275,504	\$283,769	\$292,282	\$301,051	\$310,082	\$319,385	\$328,966	\$338,835	\$349,000	\$3,066,355
Maintain Existing Service - Fixed Route (Urbanized)	\$1,220,198	\$1,256,804	\$1,294,508	\$1,333,343	\$1,373,343	\$1,414,544	\$1,456,980	\$1,500,689	\$1,545,710	\$1,592,081	\$13,988,199
Maintain Existing Service - Commuter Bus (Non-Urbanized)	\$67,200	\$67,200	\$67,200	\$67,200	\$67,200	\$69,216	\$71,292	\$73,431	\$75,634	\$77,903	\$703,477
Maintain Existing Service - Commuter Bus (Urbanized)	\$478,046	\$492,387	\$507,159	\$522,373	\$538,045	\$554,186	\$570,812	\$587,936	\$605,574	\$623,741	\$5,480,258
Maintain Existing Service - Paratransit	\$418,458	\$431,012	\$443,942	\$457,261	\$470,978	\$485,108	\$499,661	\$514,651	\$530,090	\$545,993	\$4,797,154
Total Operating Costs	\$2,451,381	\$2,522,907	\$2,596,578	\$2,672,459	\$2,750,617	\$2,833,135	\$2,918,130	\$3,005,673	\$3,095,844	\$3,188,719	\$28,035,443
<i>Capital Costs</i>											
Replacement Vehicles	\$480,512	\$480,512	\$480,512	\$480,512	\$480,512	\$480,512	\$480,512	\$480,512	\$480,512	\$480,512	\$4,805,120
Transit Plans and Studies	\$0	\$0	\$0	\$188,068	\$0	\$0	\$0	\$0	\$200,000	\$0	\$388,068
Transit Security Equipment	\$10,297	\$10,297	\$10,297	\$10,297	\$10,297	\$10,297	\$10,297	\$10,297	\$10,297	\$10,297	\$102,970
Transit Technology	\$84,356	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$84,356
Other Transit/Bus Stop Infrastructure	\$10,297	\$75,297	\$10,297	\$10,297	\$94,653	\$94,653	\$41,585	\$32,077	\$10,297	\$94,653	\$474,106
Total Capital Costs	\$585,462	\$566,106	\$501,106	\$689,174	\$585,462	\$585,462	\$532,394	\$522,886	\$701,106	\$585,462	\$5,854,620
Total Costs	\$3,036,843	\$3,089,013	\$3,097,684	\$3,361,633	\$3,336,079	\$3,418,597	\$3,450,524	\$3,528,559	\$3,796,950	\$3,774,181	\$33,890,063
OPERATING AND CAPITAL REVENUE											
<i>OPERATING REVENUES</i>											
<i>Federal</i>											
Section 5307 Urbanized	\$782,800	\$854,595	\$621,335	\$569,335	\$569,335	\$569,335	\$569,335	\$569,335	\$569,335	\$569,335	\$6,244,075
Section 5311 Non-Urbanized	\$136,124	\$136,124	\$136,124	\$136,124	\$136,124	\$136,124	\$136,124	\$136,124	\$136,124	\$136,124	\$1,361,240
Section 5310	\$27,678	\$12,721	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$40,399
<i>State</i>											
FDOT State Block Grants	\$299,734	\$314,201	\$323,627	\$333,336	\$343,336	\$353,636	\$364,245	\$375,172	\$386,427	\$398,020	\$3,491,734
FDOT Transit Corridor Grant Program	\$350,000	\$350,000	\$350,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,050,000
<i>Local</i>											
Local (General) Funds	\$756,000	\$756,000	\$756,000	\$756,000	\$756,000	\$756,000	\$756,000	\$756,000	\$756,000	\$756,000	\$7,560,000
<i>Other</i>											
Farebox Revenues	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000	\$1,000,000
Non-Transportation Revenue	\$19	\$19	\$19	\$19	\$19	\$19	\$19	\$19	\$19	\$19	\$190
Total Operating Revenue	\$2,452,355	\$2,523,660	\$2,287,104	\$1,894,814	\$1,904,814	\$1,915,114	\$1,925,723	\$1,936,650	\$1,947,905	\$1,959,497	\$20,747,636
Total Operating Cost	\$2,451,381	\$2,522,907	\$2,596,578	\$2,672,459	\$2,750,617	\$2,833,135	\$2,918,130	\$3,005,673	\$3,095,844	\$3,188,719	\$28,035,443
Net Operating (Revenues-Costs)	\$974	\$753	(\$309,474)	(\$777,645)	(\$845,803)	(\$918,021)	(\$992,407)	(\$1,069,023)	(\$1,147,939)	(\$1,229,222)	(\$7,287,807)
Cumulative	\$974	\$1,727	(\$307,747)	(\$1,085,392)	(\$1,931,195)	(\$2,849,216)	(\$3,841,623)	(\$4,910,646)	(\$6,058,585)	(\$7,287,807)	

Source	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	10-Year Total
OPERATING AND CAPITAL REVENUE (CONT'D)											
CAPITAL REVENUES											
Federal											
Section 5307	\$460,297	\$460,297	\$460,297	\$460,297	\$460,297	\$460,297	\$460,297	\$460,297	\$460,297	\$460,297	\$4,602,970
Section 5339	\$125,165	\$125,165	\$125,165	\$125,165	\$125,165	\$125,165	\$125,165	\$125,165	\$125,165	\$125,165	\$1,251,650
Local											
Local Revenue	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total Capital Revenue	\$585,462	\$585,462	\$585,462	\$585,462	\$585,462	\$585,462	\$585,462	\$585,462	\$585,462	\$585,462	\$5,854,620
Total Capital Cost	\$585,462	\$566,106	\$501,106	\$689,174	\$585,462	\$585,462	\$532,394	\$522,886	\$701,106	\$585,462	\$5,854,620
Net Capital (Revenues-Costs)	\$0	\$19,356	\$84,356	(\$103,712)	\$0	\$0	\$53,068	\$62,576	(\$115,644)	\$0	\$0
Cumulative	\$0	\$19,356	\$103,712	\$0	\$0	\$0	\$53,068	\$115,644	\$0	\$0	
TOTAL COSTS VS. REVENUES											
Total Revenue	\$3,037,817	\$3,109,122	\$2,872,566	\$2,480,276	\$2,490,276	\$2,500,576	\$2,511,185	\$2,522,112	\$2,533,367	\$2,544,959	\$26,602,256
Total Cost	\$3,036,843	\$3,089,013	\$3,097,684	\$3,361,633	\$3,336,079	\$3,418,597	\$3,450,524	\$3,528,559	\$3,796,950	\$3,774,181	\$33,890,063
Net Total (Contingency/Need)	\$974	\$20,109	(\$225,118)	(\$881,357)	(\$845,803)	(\$918,021)	(\$939,339)	(\$1,006,447)	(\$1,263,583)	(\$1,229,222)	(\$7,287,807)
% Local Government Share of Total Revenue	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0

Unfunded Transit Needs

As previously discussed, a number of transit service improvements were identified through the development of *Marty on the Move*. Annual operating costs were estimated for each improvement based on the estimated revenue hours of service and cost per revenue hour. Expanding fixed-route service during weekday evenings, on Saturdays, and within the Jensen Beach area will require complementary ADA service to also be provided at the same time. The operating costs for the expanded ADA service were estimated based on costs to operate current ADA service. As shown in Table 10-6, the annual operating costs (in 2020 dollars) for existing services and if all identified transit improvements were implemented are estimated to total \$5.7 million. The annual operating costs of the unfunded transit improvements are estimated to total \$3.2 million.

Table 10-6: Unfunded Transit Needs—Annual Operating Costs (2020 \$s)

Operating Costs	FY 2020 \$
Maintain Existing Service - Fixed Route	\$2,032,923
Maintain Existing Service - ADA	\$418,458
Service Modifications - Fixed Route (Unfunded)	\$1,600,918
New Services (Unfunded)	\$544,167
New Service - Deviated Fixed Route (Unfunded)	\$224,069
New Service - ADA (Unfunded)	\$858,184
Total Annual Operating Costs	\$5,678,718
Total Annual Operating Cost (Unfunded)	\$3,227,337

New transit vehicles and other equipment, facilities, and infrastructure are needed to support the existing Marty network and potential future service expansions. In addition to the capital costs identified in the 10-year Year Financial Plan (Table 10-5), unfunded capital needs over the next 10 years include 12 additional fixed-route vehicles and 2 ADA vehicles required to operate new or expanded services. These additional vehicles are estimated to cost \$3.4 million in 2020 dollars. In addition to an expanded fleet, \$6.85 million to construct the stand-alone transit operations and maintenance facility previously discussed in Section 7 is also included in the unfunded needs plan. As shown in Table 10-7, the 10-year capital needs are estimated to cost \$15.8 million. Of this total, \$10.2 million is unfunded. The 10-year total, rather than an annual cost, is provided since capital expenditures do not typically reoccur each year.

Table 10-7: Unfunded Transit Needs—10-Year Total Capital Costs (2020 \$s)

Capital Costs	FY 2020 \$
Replacement Vehicles for Existing Service	\$4,805,120
Vehicles Required for New Service (Unfunded)	\$3,363,584
Transit Plans and Studies	\$388,068
Transit Security Equipment	\$102,970
Transit Technology	\$84,356
Other Transit/Bus Stop Infrastructure	\$167,970
Transit Administration/Operations Center (Unfunded)	\$6,850,000
Total Capital Costs	\$15,762,068
Total Capital Costs (Unfunded)	\$10,213,584

Peer Funding Analysis

As previously discussed, revenue available to operate Marty services is projected to be less than the operating costs starting in 2022, creating a compounding deficit each year thereafter. To understand how Martin County's funding profile compares to other Florida systems, a comparison of 2017 NTD data was completed. As shown in Table 10-7, Martin County is on the lower end of the range compared to these other systems. Marty has the lowest ridership count of these systems; however, its ridership has grown 80% since 2014, as documented in the peer and trend analysis in Section 4. During the time when its ridership and service levels grew, Marty had the lowest operating cost, the lowest amount of Federal and State funding assistance and the lowest operating cost per capita of these systems. Marty also has the second lowest local funding contribution compared to these other systems.

Table 10-8: Peer Funding Analysis (2017)

Transit System/County	County	County Population	Passenger Trips	Local Funding Contribution	State Operating Assistance	Federal Operating Assistance	Total Operating Expense	Expense per Capita
Collier Area Transit	Collier	357,500	996,499	4,647,866	1,767,211	1,820,576	8,235,653	\$23.03
Escambia County Area Transit (ECAT)	Escambia	313,400	1,566,258	6,228,032	3,838,405	3,491,211	13,557,648	\$43.25
St. Lucie Council on Aging (COA)	St. Lucie	297,600	304,388	2,140,363	1,411,699	1,662,069	5,214,131	\$17.52
The Wave	Okaloosa	195,500	210,193	673,856	1,154,881	1,483,121	3,311,858	\$16.94
Bay Town Trolley	Bay	178,800	716,364	192,704	1,203,905	1,862,421	3,259,030	\$18.22
Charlotte County Transit (CCT)	Charlotte	172,700	133,258	1,149,333	658,016	1,466,861	3,274,210	\$18.95
Marty	Martin	153,000	71,593	601,694	452,009	569,285	1,622,988	\$10.60
GoLine	Indian River	149,000	1,255,136	937,382	1,166,375	2,559,518	4,663,275	\$31.29

Source: NTD 2017 data. Other Florida systems are those operating in counties with less than 360,000 population and that are the only mass transit operator within the county.

Plan Implementation and Coordination

Obtaining the support of decisionmakers who approve the budget required to implement the *Marty on the Move* is only the first step in a longer process of bringing the TDP to fruition. This section provides key elements to consider as Martin County implements its plan maintain its existing service and potentially grow the system into the vision that is outlined in the TDP.



Implementing Recommendations

Due to inevitable changes in operating environment, adoption of the TDP does not necessarily mean Martin County will be able to adhere to the implementation plan according to schedule. The following action items should be completed to ensure that public support and funding and operational support are preserved until the next major TDP update:

- **Funding “Plan of Action”** – Address each recommendation and outline steps to take in the current year and succeeding years to secure the best chance possible of obtaining the needed funding.
- **Operational Support** – Establish a blueprint to determine how a recommended alternative will be incorporated into the existing network from an operational perspective.
- **Progress beyond Adoption** – Use the adopted TDP as a tool to justify and explain the reasons for continued investments to transit services and facilities.
- **TDP Annual Progress Report** – Use updates to provide needed motivation to reiterate the benefits of the recommended alternatives.



Continued Marketing/Outreach

Promoting the TDP after adoption will improve the likelihood of achieving the implementation plan. Martin County has already done extensive public outreach as part of the TDP process that can be expounded upon to market other planning efforts, such as service initiation efforts, marketing programs and campaigns and budget plans. The *Marty on the Move* branding used for the TDP can serve as the foundation for a post-TDP marketing campaign, which can be developed for the full TDP or for individual recommendations.

- **TDP Executive Summary** – Promotion of the TDP should extend beyond the adoption of the TDP. The accompanying *Marty on the Move TDP Executive Summary* should be used as a promotional tool and an effective medium to continue generating support for the TDP’s recommendations.



Building on TDP Efforts/Relationships

Throughout the *Marty on the Move* public involvement process, Martin County staff identified advocates and educated the public and can leverage these relationships to continue building support for the implementation strategies. These individuals may serve as facilitators for a “grassroots” outreach program or could become transit cheerleaders/ambassadors that can provide a foundation/support network for future outreach. These future efforts can build upon the tools and lessons afforded by the TDP and aid in prioritizing specific target markets to engage.



Plan Coordination/Integration

In the future, Martin County should consider coordination of the TDP with other planning efforts:

- **Comprehensive Operational Analysis (COA)** – With potential implementation of regularly-scheduled transit, it is recommended that Martin County consider a service efficiency assessment and repeat it at least every five years to maintain operational health. Effective coordination on the timing of a COA may be beneficial in the goal to provide efficient transit services. The findings of a COA can be fed into the capital and operational recommendations for the initial years of the 10-year plan so that near-term system improvements can be set.
- **Coordination with Other Plans** – Ensuring consistency with key State, regional, and local plan priorities should be a primary focus of *Marty on the Move*. Coordinating the timing of the TDP with the recent Transit Asset Management Plan requirement should be considered, as both plans are designed to govern investment strategies based on needs.
- **Informing Other Plans** – The analyses completed during development of the *Marty on the Move* TDP can be used to help update required plans for ADA access and Title VI service provisions, as it documents how the system will meet or serve older adults, persons with disabilities and populations that fall under Title VI protections. The adopted TDP can also be useful for other entities with subsequent planning efforts, such as local comprehensive plans, Florida’s SIS Needs Plan, and the Martin County MPO’s Unified Planning Work Program (UPWP) and Transportation Improvement Program (TIP), etc.

What’s Next?

Implementing the plan will require the actions generally outlined above; however, following are several key steps to get implementation in motion and to move forward successfully.

First Six Months after Adoption

- **Identify a strategy for additional local funding to maintain existing services.** As discussed earlier in this section, the 10-year financial plan shows a shortfall in operating revenue to

maintain existing services starting in FY 2022, which will compound annually to total nearly \$7.3 million by the end of the 10-year period.

- **Continue its marketing/awareness campaign**, including targeting meetings, activities, events and other venues at which to share the Marty on the Move Executive Summary and provide details of the planned transit growth to educate the community and leaders while keeping the momentum of the TDP process and effort fresh and moving ahead. These may include homeowner associations, civic clubs, service organizations, elected and/or appointed boards or committees, public events or festivals and/or other locations as identified.
- **Meet with the District 4 Commuter Services program** to develop a plan of action to improve commuter programs in Martin County, especially in newer and emerging job markets.
- **Identify potential grants and apply for funding** to implement transit alternatives, and use the information provided in the TDP to develop project applications, including defining/describing the projects, justifying needs, providing service and operational parameters, outlining a proposed budget and providing performance measures.

Before End of First Year

- **Continue the marketing/awareness campaign**, assess where additional efforts would be beneficial and develop plans to initiate.
- **Submit applications for funding** as identified to implement alternatives included in the implementation plan and/or unfunded needs list.
- **Working with the District 4 Commuter Services program**, identify and approach major employers and initiate employee commuter programs and sale of passes and introduce new routes and/or other commute options to improve access to current and emerging jobs.
- **Working with Martin County policy leaders**, plan and implement at least the minimum projects and/or expanded services as approved in the TDP Implementation Plan.
- **Prepare and submit Annual Progress Reports** using the preparation and approval process to continue the annual progress updates to the adopted *Marty on the Move* TDP.

Appendix A

Public Involvement Plan and FDOT Compliance Letter



Florida Department of Transportation

RICK SCOTT
GOVERNOR

3400 West Commercial Boulevard
Fort Lauderdale, FL 33309

MIKE DEW
SECRETARY

July 2, 2018

Ms. Claudette Mahan
Transit Manager
Martin County Board of County Commissioners
2401 SE Monterey Rd.
Stuart, FL 34996

SUBJECT: Transit Development Plan Public Involvement Plan (TDP PIP) Compliance Determination

Dear Ms. Mahan:

As previously communicated via e-mail, the Florida Department of Transportation (The Department) has reviewed and approves the Martin County Transit's 2019-2028 TDP PIP and finds that the agency has satisfied its obligations pursuant to the requirements of Chapter 14-73 of the Florida Administrative Code.

The Department's District Four TDP contact is Jayne Pietrowski and can be reached at 954-777-4661. If you have any questions or comments regarding the results of the TDP PIP review process, please do not hesitate to call.

Sincerely,

A handwritten signature in blue ink, appearing to read "Amie Goddeau", written over a light blue circular stamp.

Amie Goddeau, P.E.
District Modal Development Administrator
District Four

AG/jap

cc: File

MARTIN COUNTY
2019 TRANSIT DEVELOPMENT PLAN
MAJOR UPDATE

Public Involvement Plan

February 2018

SECTION 1: INTRODUCTION

1.1 Project Purpose and Background

Florida Statutes require transit providers that receive State Transit Block Grant funds to adopt a Transit Development Plan (TDP) and conduct a major update of that TDP every five years. State legislation also requires that the transit agency document its public involvement plan to be used in the development of the TDP. Pertinent language from the TDP rule is provided below:

The TDP preparation process shall include opportunities for public involvement as outlined in a TDP public involvement plan, approved by the Department, or the local Metropolitan Planning Organization's (MPO) Public Involvement Plan, approved by both the Federal Transit Administration and the Federal Highway Administration.

— *Florida Rule 14-73.001*

Martin County is preparing a major update of its TDP in consultation with a contracted private firm to assist in completing all required activities.

The development of a Public Involvement Plan (PIP) is one of the initial steps in a TDP major update. The purpose of the PIP is to identify the process of how and when interested parties can be involved. Information gathered from the public, stakeholder agencies/organizations, and other interested parties helps identify and assess community perceptions of public transportation service as well as issues and opportunities to consider during the development of the TDP.

1.2 Project Review Committee

A Project Review Committee (PRC) will be convened to provide overall management of the update and strategic direction for PIP implementation. The PRC is expected to comprise of Martin County staff, Florida Department of Transportation (FDOT), Career Source Research Coast and additional staff as needed.

SECTION 2: COORDINATION

2.1 Stakeholder Identification

The stakeholders for the TDP update are the general public, transit riders, transportation disadvantaged populations, elected officials, community leaders, community service agencies, schools, and major employers, among others. To

facilitate coordination among all key stakeholders the PRC will maintain a list of all committees, local government contacts, and key stakeholder representatives who will be notified as to various public involvement activities, provide input and feedback, and receive regular communications during the TDP update process.

2.2 Public Involvement Plan

The TDP rule requires that each transit agency develop its own PIP and have it approved by FDOT or use the Metropolitan Planning Organization's (MPO) Public Involvement Plan.

Martin County has elected to develop its own PIP in compliance with FDOT's recommended activities.

SECTION 3: PUBLIC INVOLVEMENT ACTIVITIES

3.1 Public Involvement Objectives

The TDP Major Update's public involvement objectives include the following:

- Develop a multi-faceted outreach effort that will keep the general public and all stakeholder groups informed about the status of the TDP update.
- Clearly define the TDP's purpose and objectives early in the process.
- Identify and document concerns, issues, and needs from key stakeholders.
- Encourage participation of all stakeholder groups while paying special attention to underserved communities.
- Provide frequent opportunities and a consistent access point for community input.
- Identify tools to gather information from stakeholders who cannot participate in daytime meetings, such as social media, questionnaires, or public outreach activities at weekend events or in the evenings.

3.2 Public Involvement Activities

Several public involvement techniques were selected for inclusion in the public involvement plan to ensure the active participation of stakeholders. Each of them is discussed in this section.

- ***PRC Meetings*** – PRC meetings will occur during the course of developing the TDP, including an initial project kick-off meeting. The PRC is expected to meet monthly with additional meetings scheduled as needed.
- ***Outreach Efforts*** – Outreach efforts will be conducted throughout the update process to solicit public input. Efforts could include hosting booths at special events (fairs, festivals, etc.), facilitating a speakers bureau (Chamber of Commerce meetings, homeowners' association meetings, etc.), and other opportunities identified in the planning process. Co-location with events generating significant foot traffic will assist in gaining insight from a large cross-section of the community. Efforts will be made to participate in outreach events that are geographically dispersed and scheduled at various times.
- ***Social Media/Dedicated Website*** – Existing social media sites hosted by the County and South Florida Commuter Services will be used as outreach. These sites will provide links to the social media sites of transportation partners. A dedicated project website will be developed and linked appropriately.
- ***On-Board Survey Data*** – On-board survey data will be used to assess the perceptions and service improvement priorities of existing bus riders. On-board surveys are a key component of any public outreach effort and are the most effective way to gather information from current bus riders.
- ***Presentations*** – Once a draft plan is created, formal presentations of the TDP will be made to the Martin County BOCC. The final version of the TDP will incorporate comments received from the BOCC and adopted to include Board directed changes.

3.3 Information Distribution Techniques

Information distribution techniques used for the TDP Update will include the following:

- ***Notification of General Public*** – The general public will be notified of public meetings through several methods, including press releases, information posted to the County website and social media sites, and flyers. Radio, newspaper, and newsletter promotional opportunities will be identified.
- ***Notification of State and Local Agencies*** – CareerSource Research Coast, FDOT and the MPO will be advised of all public meetings via email. In addition, all three agencies will be an opportunity to review and comment during the development of the mission, goals, objectives, alternatives, and the ten year implementation program.

- ***Reports and Information for Websites/Social Media*** – Technical reports, community workshop and meeting schedules, surveys or questionnaires, and other appropriate items will be posted.

SECTION 4: STAKEHOLDER COMMENT PERIOD

TDP stakeholders; the general public, transit riders, transportation disadvantaged populations, elected officials, community leaders, community service agencies, schools, and major employers, among others will have the ability to comment in writing via US mail or through the dedicated project website throughout the TDP process. Once all components of the draft TDP are completed, a public notice will be advertised to announce the 30 day public review and comment period prior to its adoption.

Appendix B

Project Review Committee Work Plan

Martin County Transit Development Plan (2020 – 2029)

Project Review Committee Work Plan

August 2018

Prepared for



Prepared by



2020 - 2029

Marty
ON THE MOVE

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Section 1 Project Review Committee Composition and Roles

Martin County is in the process of completing a Major Update of the 10-Year Transit Development Plan (TDP) for the “Marty,” the public transit system operated by the Transit Division of the Martin County Public Works Department. To help facilitate this process, Martin County has convened a Project Review Committee (PRC) of County staff and other key stakeholders. The PRC is expected to meet six times between August 2018 and August 2019. Table 1-1 lists the Martin County TDP PRC members.

Table 1-1: Project Review Committee Members

Name	Agency	Email
Terry Rauth	Director of Public Works, Martin County	trauth@martin.fl.us
Diane Moore	Financial Analyst, Martin County	dmoore@martin.fl.us
Alice Bojanowski	Martin County Community Redevelopment Agency (CRA)	abojanow@martin.fl.us
Ricardo Vazquez	Martin Metropolitan Planning Organization (MPO)	rvazquez@martin.fl.us
Jayne Pietrowski	Florida Department of Transportation (FDOT) District 4	Jayne.Pietrowski@dot.state.fl.us
Joe Azevedo	Career Source Resource Coast	jazevedo@careersourcerc.com

Specifically the role of the PRC includes:

- Acting as external review committee for Martin County and Consultant staff during the TDP update process.
- Providing input on the TDP process during PRC meetings and via email/telephone between meetings, as needed.
- Assisting in advertising various TDP public involvement opportunities to internal agency members, outside stakeholders, and the community, as appropriate.
- Identifying and building champions by promoting Marty’s services.
- Participating in PRC meetings as scheduled.
- Reviewing and providing input on technical memoranda and the draft executive summary and TDP report prior to being finalized for adoption by the Martin County Board of County Commissioners.

The Study Management Plan and Public Involvement Plan document the public involvement activities planned for the TDP update process and anticipated schedule for completion (see Figure 3-1 of the Study Management Plan).

Section 2 Project Review Committee Work Plan

Table 2-1 summarizes the anticipated work plan for the PRC, including the timing and purpose of future meetings and the major deliverables to be provided at each.

Each PRC member will be provided with a notebook at the initial meeting. The notebook will initially contain the Study Management Plan, PRC Work Plan, and Public Involvement Plan prepared early in the TDP update process. As technical memoranda, PRC meeting materials, and the TDP executive summary and report are prepared, copies of each will be emailed to PRC members or provided in-person at future meetings.

Table 2-1: Project Review Committee Work Plan

Meeting #	Target Date	Meeting Purpose	Major Deliverables
1	August 8, 2018	<ul style="list-style-type: none"> • Introduce TDP team and PRC members • Provide an overview of the TDP process and The Marty services • Review scope of services • Review project schedule 	<ul style="list-style-type: none"> • PPT presentation • PRC notebook containing: <ul style="list-style-type: none"> • Study Management Plan • PRC Work Plan • Public Involvement Plan
2	Late October 2018	Preliminary update on: <ul style="list-style-type: none"> • Baseline conditions assessment • Initial public outreach (stakeholder interviews, discussion groups, public workshops) • On-board survey 	<ul style="list-style-type: none"> • PPT presentation • Draft Technical Memorandum #1 (to be emailed after PRC meeting)
3	Early December 2018	Review final results of: <ul style="list-style-type: none"> • Baseline conditions assessment • Initial public outreach • On-board survey <ul style="list-style-type: none"> • Comments received on Technical Memorandum #1 	<ul style="list-style-type: none"> • PPT presentation • Final Technical Memorandum #1 • Draft Technical Memorandum #2 (to be emailed after PRC meeting)
4	Early February 2019	<ul style="list-style-type: none"> • Comments received on Technical Memorandum #2 • Goals, objectives, and policies • Progress on Technical Memorandum #3 <ul style="list-style-type: none"> • Plans review • Situation appraisal • Preliminary transit alternatives 	<ul style="list-style-type: none"> • PPT presentation
5	Early April 2019	<ul style="list-style-type: none"> • Final transit alternatives • Alternatives prioritization • Ridership forecast 	<ul style="list-style-type: none"> • PPT presentation • Draft Technical Memorandum #3 (to be emailed after PRC meeting)
6	Mid-June 2019	<ul style="list-style-type: none"> • Public workshop results • 10-year service and financial plan • Draft TDP comment process 	<ul style="list-style-type: none"> • Draft TDP and Executive Summary (to be emailed after PRC meeting) • Final TDP (to be published August 2019)

Section 3 Project Team Contact Information

Contact information for the TDP Project Team is provided below.

Claudette Mahan

Martin County Transit Manager

TDP Project Manager

(772) 419-4081

cmahan@martin.fl.us

Richard Dreyer, AICP, CCTM

Tindale Oliver

Consultant Project Manager

(863) 533-8454 x 3223

rdreyer@tindaleoliver.com

Margaret (Peggy) Brassard

Martin County

Transit Specialist/Mobility Coordinator

(772) 419-4081

cmahan@martin.fl.us

Elisabeth Schuck, AICP, LEED GA

Tindale Oliver

(813) 224-8862 x 6236

eschuck@tindaleoliver.com

Appendix C

Stakeholder Interview Questions

Stakeholder Interview Questions

Marty on the Move

Martin County 2020-2029 Transit Development Plan (TDP) Update

- A TDP is a strategic guide for public transportation development in the county.
- The TDP:
 - Evaluates existing services,
 - Reviews demographic information of riders and their travel behaviors,
 - Gauges public perception through accessible activities for the general public and interested parties, and
 - Reviews performance of the local system.
- It is a 10-year implementation plan that provides recommendations on:
 - How, where, when, and if new transit services should be introduced to the transit system, and
 - Adjusting, removing, or improving aspects of the transit system that may not be adequately serving the public or that is not meeting performance measures.
- Finally, a 10-year financial plan is constructed as part of the TDP that:
 - Estimates costs of existing and new services, and
 - Projects known and potential revenues.
- TDPs can be very useful as they provide a review of the current transit system, recommendations for improvements, and outlines the cost of improvements.
- TDPs are not budgets or capital improvement programs and do not necessarily bind decision-makers to elements of the TDP. However, great effort is put into developing a comprehensive overview of the transit system and planning for the future needs of the general public that can:
 - Help residents, businesses, and elected officials understand transit needs,
 - Use transit to improve/manage congestion in the local area,
 - Promote sustainable and environmentally friendly transportation, and
 - Improve overall quality of life of residents.
- Candid discussions and continued participation from stakeholders in the transit development process allows:
 - Decision-makers to become more knowledgeable about the transit planning process.
 - Martin County to construct and support a plan that not only has input from the local public, private and government sector, but helps foster consensus in the decision-making process ("everyone is on the same page").

General Perceptions:

1. To what level are you currently aware of The Marty and its services?
2. How much awareness of and support for transit is there in the community? Do you think the levels of awareness and/or support for transit changed in the last few years?
3. Do you use The Marty? Why? Why not?
 - a. If you do not use The Marty, what improvements would encourage you to ride in the future?
4. Do you believe the public perception of The Marty good, satisfactory, or poor? Why?
5. Is your perception of The Marty good, satisfactory, or poor? Why?
6. What do you believe are the most significant issues facing transit users in Martin County?
7. Do you believe The Marty has done an effective job marketing transit service options to riders?

Vision for Transit:

8. In your opinion, what is the primary trip type for The Marty riders (medical, shopping, recreation, work, or school)?
9. Is there a need for additional transit service in Marty County? If yes, what type of services (more frequent fixed-route service, express bus, later evening service, weekend service, etc.)?
10. Are there areas currently not served or under-served by transit that should receive a higher priority? If so, where?
11. Are there any City, County or other land use policies that should be changed to help the transit system reach its goals?
 - a. Example: Changing current land use and/or zoning requirements to enable increased densities and more intense land uses.
 - b. If yes, where?
12. What part do you think technology can play in Marty's service provisions and where/how?

Transit Funding:

13. Do you believe that there is a willingness among Martin County residents to consider additional local funding sources for transit?
 - a. Specifically, do you think there is support for a Municipal Service Taxing Unit (MSTU) to help fund transit?
14. If not, do you believe that such support is needed? If yes, do you have suggestions as to how such support can be generated?
15. Do you think Martin County policy leaders (Board of County Commission) would consider supporting additional local funding for transit if service needs are detailed in the 10-year TDP?
16. Have you heard of any businesses requesting additional transit service or interested in creating public-private partnerships for increased transit service for their employees or customers?

In addition, a list of questions has also been developed for any interviewee who also is an employer/college campus representative, as summarized below:

17. Do you have clients/customers/students & faculty visiting your facility on daily basis?
 - a. If yes, how many per day on average? How do they usually travel there?
18. Do you perceive transportation to be a challenge for your organization to hire and retain employees and clients, or a challenge for those you serve/represent?
 - a. If yes, what are a few of the reasons why you feel this challenge exists?
19. How much interest do you think your employees or clients/customers or students/faculty have in using alternative modes of travel, such as public transit, biking, carpool/rideshare/ride-hail?
20. What do you know about The Marty's services/connections to your organization's location?
21. Is providing adequate employee or client/customer parking a problem at this time or as you plan your growth?
 - a. If yes, have you thought about public transit as one of the solutions to reduce the need for on-site parking?

Appendix D

On-Board Survey Instruments

Martin County (The Marty) On-Board Survey



Martin County would like your input to help improve The Marty transit service. Please help us serve you better by completing this survey. Thank you.

1. Where are you coming from on this trip? (Please select only **ONE**)

- 1__ Work

2__ Social/Recreation/Entertainment

3__ Shopping/Errands

4__ Home
- 5__ Medical

6__ School/College

7__ Other (specify)_____

2. How did you get to your **FIRST** bus stop on this trip? (Please select only **ONE**)

- 1__ Walked/Wheelchair ➡ # blocks? _____

2__ Bicycled ➡ # blocks? _____

3__ Drove & parked ➡ # miles? _____
- 4__ Was dropped off

5__ Rode with someone who parked

6__ Other (specify)_____

3. Where are you going on this trip? (Please select only **ONE**)

- 1__ Work

1__ Social/Recreation/Entertainment

3__ Shopping/Errands

4__ Home
- 5__ Medical

6__ School/College

7__ Other (specify)_____

4. LIST ALL of the **BUS ROUTES** in the **EXACT ORDER** you will use to make **THIS ONE-WAY TRIP** INCLUDING CONNECTIONS TO/FROM OTHER TRANSIT SYSTEMS:

FIRST Bus Route

➡

SECOND Bus Route

➡

THIRD Bus Route

5. Typically, how many **ONE-WAY** bus trips do you make **PER WEEK** using the bus?

- 1__ 1-2 trips
- 2__ 3-4 trips
- 3__ 5-6 trips
- 4__ more than 6 trips

6. What is the **MOST IMPORTANT** reason you ride the bus? (Please select only **ONE**)

- 1__ I do not have a valid driver's license

2__ I do not have access to a car/vehicle

3__ Parking is too expensive/difficult

4__ I am unable to drive
- 5__ The bus is more convenient

6__ The bus fits my budget better

7__ The bus is safer/less stressful

8__ Other (specify)_____

7. If the bus **WERE NOT AVAILABLE TODAY**, how would you travel to your destination?

- 1__ Drive

2__ Ride with someone
- 3__ Taxi

4__ Wouldn't make trip

8. How many working vehicles (cars, motorcycles, trucks, vans) are at your home? (Please select only **ONE**)

- 1__ 1
- 2__ 2
- 3__ 3 or more
- 4__ None

9. How long have you been using The Marty bus service?

- 1__ Less than 6 months

2__ 6 months to 1 year
- 3__ 2 to 4 years

4__ 4 to 5 years
- 5__ Longer than 5 years

10. What is your **usual** bus fare ? (Please select only **ONE**)

- 1__ Full Fare (\$1.50)

2__ Reduced Full Fare (75¢)

3__ 1-Day Pass (\$3.00)

4__ Commuter Route Fare (\$2.00)
- 5__ "20/4/20" 20-Ride Pass (\$20.00)

6__ Express Gold Pass 10 Boardings (\$20.00)

7__ Other (specify)_____

11. What three **SERVICE IMPROVEMENTS** would make The Marty better for you to use? (Please select **THREE**)

- 1__ More frequent service on existing routes
- 2__ Saturday service
- 3__ Sunday service
- 4__ Later evening service
- 5__ New routes/service. Where? _____
- 6__ Express service. Where? _____
- 7__ Better connections to other counties. Where? _____
- 8__ More benches, shelters, bike racks at bus stops. Where? _____
- 9__ Better sidewalk connections to bus stops
- 10__ Other (Specify) _____

12. How satisfied are you with each of the following? Circle a score for each characteristic.

Please indicate	Very Satisfied		Neutral		Very Unsatisfied
a. Days of service	5	4	3	2	1
b. How often the buses run (frequency)	5	4	3	2	1
c. Hours of service	5	4	3	2	1
d. Convenience of route (where the buses go)	5	4	3	2	1
e. Dependability of buses (on-time performance)	5	4	3	2	1
f. Travel time on bus	5	4	3	2	1
g. Cost of riding the bus	5	4	3	2	1
h. Accessibility of bus passes (ease of purchase)	5	4	3	2	1
i. Availability of bus information	5	4	3	2	1
j. User-friendliness of bus information	5	4	3	2	1
k. Vehicle cleanliness & comfort	5	4	3	2	1
l. Bus stop cleanliness & comfort	5	4	3	2	1
m. Bus driver courtesy	5	4	3	2	1
n. Safety/security on bus	5	4	3	2	1
o. Safety/security at bus stops	5	4	3	2	1
p. Ability to transfer	5	4	3	2	1

PLEASE CONTINUE ON BACK OF SURVEY



13. How satisfied are you with The Marty service? Circle a score where 10 is the **MOST** satisfied and 1 is the **LEAST** satisfied

Most	10	9	8	7	6	5	4	3	2	1	Least
------	----	---	---	---	---	---	---	---	---	---	-------

14. How do you **USUALLY get information on bus service? (Please select only **ONE**)**

- 1__ Printed bus schedule
2__ Website bus schedule
3__ Google
4__ My Ride Real Time Bus Info
- 5__ Bus drivers
6__ Bus signs/shelters
7__ Friend/relative
8__ Other (specify) _____

15. Do you use or own a CELL PHONE? (Please select only ONE)

- 1__ Yes, it's a smartphone with a data plan / internet connectivity
2__ Yes, but I have no data plan / Wi-Fi capability
3__ No

16. What technology improvements would make The Marty better for you to use?

- 1__ Real-time schedule information at major bus stops
- 2__ Mobile fare payment app
- 3__ Electronic bus stop announcements on buses

17. How many months out of the year do you reside in Martin County?

- 1__ Less than 6 months 2__ 6 months to 1 year 3__ Permanent resident

18. Your age is?

- 1__ Under 18 3__ 25 to 40 5__ Over 60 years
2__ 18 to 24 4__ 41 to 60

19. What was the range of your total household income for 2018?

- 1__ Under \$10,000 4__ \$30,000 to \$39,999
2__ \$10,000 to \$19,999 5__ \$40,000 to \$49,999
3__ \$20,000 to \$29,999 6__ \$50,000 or more

20. Are you male or female? 1__ Male 2__ Female

21. What is your race? (Please select only **ONE)**

- 1__ American Indian or Alaska Native 5__ Native Hawaiian or Other Pacific Islander
2__ Black/African American 6__ Two or more races
3__ White 7__ Other (specify) _____
4__ Asian

22. Are you of Hispanic, Latino, or Spanish origin? 1__ Yes 2__ No

23. Please add any other comments or suggestions on The Marty services:

This image shows a single sheet of white paper with horizontal blue ruling lines. The lines are evenly spaced and run across the width of the page. There are approximately 20 lines visible. The paper has a slightly textured appearance and is set against a dark background.

THANK YOU FOR COMPLETING THE SURVEY!

Encuesta de Pasajeros del Condado de Martin (The Marty)



El condado de Martin desea su opinión para ayudar a mejorar el servicio de transito de “The Marty”. Ayúdenos a servirle mejor completando esta encuesta. Gracias.

1. ¿De donde vienes en este viaje? (seleccione solo **UNO**)

- 1__ Trabajo

2__ Social/Recreacional/Entretenimiento

3__ Compras/Diligencias

4__ Casa
- 5__ Medico

6__ Escuela/Universidad

7__ Otro (especifique) _____

2. ¿Como llegaste a tu PRIMERA parada de autobús de este viaje? (seleccione solo **UNO**)

- 1__ Camine/Utilice silla de ruedas # ____cuadras

2__ Monte bicicleta # ____cuadras

3__ Maneje # ____millas
- 4__ Alguien me trajo

5__ Viaje con alguien que se estaciono

6__ Otro (especifique)_____

3. ¿A donde vas en este viaje? (seleccione solo **UNO**)

- 1__ Trabajo

1__ Social/Recreacional/Entretenimiento

3__ Compras/Diligencias

4__ Casa
- 5__ Medico

6__ Escuela/Universidad

7__ Otro (especifique) _____

4. **NOMBRE TODAS** las **RUTAS DE AUTOBUS** en la **ORDEN EXACTA** que usara para realizar este viaje **UNIDIRECCIONAL** incluyendo las conexiones a/desde otros sistemas de transito:

PRIMERA Ruta	→	SEGUNDA Ruta	→	TERCERA Ruta

5. Típicamente, ¿cuántos viajes en autobús **UNIDIRECCIONALES** haces por **SEMANA??**

- 1__ 1-2 viajes

2__ 3-4 viajes

3__ 5-6 viajes

4__ mas de 6 viajes

6. ¿Cuál es la razón **MAS IMPORTANTE** por la que usas el autobús? (seleccione solo **UNO**)

- 1__ No tengo licencia de conducir valida

2__ No tengo acceso a un carro/vehículo

3__ Parqueo es muy costoso/difícil

4__ No puedo conducir
- 5__ El autobús es mas conveniente

6__ El autobús se ajusta mejor a mi presupuesto

7__ El autobús es mas seguro/menos estresante

8__ Otro (especifique) _____

7. . Si el autobús **NO ESTUVIERA DISPONIBLE HOY**, ¿cómo viajaría a su destino?

- 1__ Manejar

2__ Viajar con alguien

3__ Bicicleta
- 4__ Taxi

5__ No haría el viaje

6__ Otro (especifique) _____

8. ¿Cuántos vehículos que funcionan (automóviles, motocicletas, camiones, camionetas) están en su hogar? (seleccione solo **UNO**)

- 1__ 1

2__ 2

3__ 3 o mas

4__ Ninguno

9. ¿Cuanto tiempo lleva usando el servicio de autobús de “The Marty”?

- 1__ Menos de 6 meses

2__ 6 meses a 1 año
- 3__ 2 a 4 años

4__ 4 a 5 años
- 5__ Mas de 5 años

10. ¿Cual es tu tarifa habitual de autobús? (seleccione solo **UNO**)

- 1__ Tarifa completa (\$1.50)

2__ Tarifa completa reducida (75¢)

3__ Pase de 1-Dia (\$3.00)

4__ Tarifa de ruta de cercanías (\$2.00)
- 5__ “20/4/20” Pase de 20 viajes (\$20.00)

6__ Pase Express Gold 10 abordajes (\$20.00)

7__ Otro (especifique) _____

11. ¿Qué tres **MEJORAS DE SERVICIO** harán que “The Marty” funcione mejor para usted? (seleccione **TRES**)

- 1__ Servicio mas frecuente en rutas existentes

2__ Servicio los Sábados

3__ Servicio los Domingos

4__ Servicio nocturno

5__ Nuevas rutas/servicio ¿Donde? _____

6__ Servicio Express ¿Donde? _____

7__ Mejores conexiones a otros condados ¿Donde? _____

8__ Mas bancas, refugios, portabicicletas en las paradas de autobús ¿Donde? _____

9__ Mejores conexiones de acera a paradas de autobús ¿Donde? _____

10__ Otro (especifique) _____

12. ¿Que tan satisfecho estas con cada uno de los siguientes?

Por favor marque con un circulo el numero que mejor refleja su opinión	Muy Satisfecho		Neutral		Muy Insatisfecho
a. Días de servicio	5	4	3	2	1
b. Frecuencia del servicio de autobús	5	4	3	2	1
c. Horas de servicio	5	4	3	2	1
d. Conveniencia de la ruta de autobús	5	4	3	2	1
e. Confiabilidad de los autobuses (rendimiento a tiempo)	5	4	3	2	1
f. El tiempo que lleva hacer un viaje en autobús	5	4	3	2	1
g. Costo de viajar en autobús	5	4	3	2	1
h. Accesibilidad de los pases de autobús (facilidad de compra)	5	4	3	2	1
i. Disponibilidad de información del autobús	5	4	3	2	1
j. Facilidad de uso de la información del autobús	5	4	3	2	1
k. Limpieza y comodidad del vehículo	5	4	3	2	1
l. Limpieza y comodidad de la parada de autobús	5	4	3	2	1
m. Cortesía del conductor del autobús	5	4	3	2	1
n. Seguridad en el autobús	5	4	3	2	1
o. Seguridad/protección en la parada de autobús	5	4	3	2	1
p. Capacidad de transferir	5	4	3	2	1

CONTINUE EN LA SIGUIENTE PAGINA



13. ¿Que tan satisfecho estas con los servicios de “The Marty”? Circule el puntaje apropiado donde 10 es el **MAS** satisfecho y el 1 es el **MENOS** satisfecho

Mas	10	9	8	7	6	5	4	3	2	1	Menos
------------	----	---	---	---	---	---	---	---	---	---	--------------

14. ¿Como usted **GENERALMENTE** obtiene información sobre el servicio de autobús? (seleccione solo **UNO**)

- 1__ Horario impreso del autobús
2__ Horario de autobuses del sitio web
3__ Google
4__ Información de My Ride Real Time Bus
- 5__ Conductor del autobús
6__ Rótulos de autobús/paradas de autobús
7__ Amigo/Familiar
8__ Otro (especifique)

15. ¿Usas o tienes un TELEFONO CELLULAR? (Seleccione solo UNO)

- 1__ Si, es un teléfono inteligente con un plan de datos/conectividad a internet
2__ Si, pero no tengo plan de datos/capacidad de Wi-Fi
3__ No

16. ¿Cual de las siguientes **MEJORAS TECNOLOGICAS** harían que “The Marty” sea mejor para usted?
(selecciona solo **UNO**)

- 1__ Información de horarios en tiempo real en las estaciones principales
- 2__ Aplicación de pago de tarifa móvil
- 3__ Anuncios de parada de autobús electrónicos en los autobuses

17. ¿Cuántos meses del año resides en el condado de Martin?

- 1__ Menos de 6 meses 2__ 6 meses a 1 año 3__ Residente permanente

18. ¿Cual es tu edad?

- 1__ Menos de 18 años 3__ 25 a 40 5__ Mayor de 60 años
- 2__ 18 a 24 4__ 41 a 60

19 ¿Cual fue el rango de los ingresos totales de su casa para el 2018?

- | | |
|-------------------------|-------------------------|
| 1__ Menos de \$10,000 | 4__ \$30,000 a \$39,999 |
| 2__ \$10,000 a \$19,999 | 5__ \$40,000 a \$49,999 |
| 3__ \$20,000 a \$29,999 | 6__ \$50,000 o mas |

20. ¿Cual es tu genero? 1__ Masculino 2__ Femenino

21. ¿Cual es tu herencia étnica? (seleccione solo **UNO)**

- 1__ Nativo Americano o Nativo de Alaska
2__ Afroamericano
3__ Blanco
4__ Asiático
- 5__ Nativo de Hawái u otra isla del Pacifico
6__ Dos o mas rasas
7__ Otro (especifique) _____

22. ¿Eres de origen Hispana, Latina, o Española? 1__ Si 2__ No

23. Por favor agregue cualquier otro comentario o sugerencia sobre los servicios de “The Marty”:

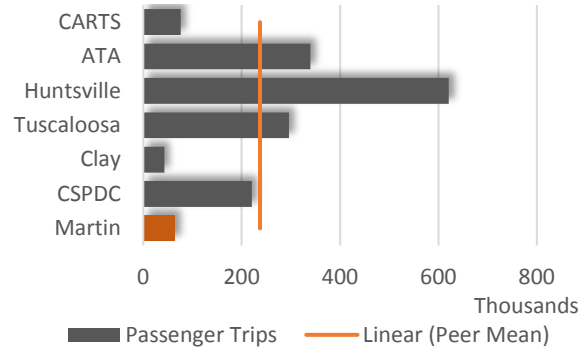
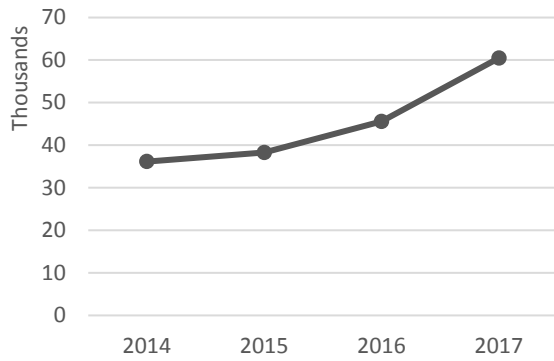
[illegible]

GRACIAS POR COMPLETAR ESTA ENCUESTA!

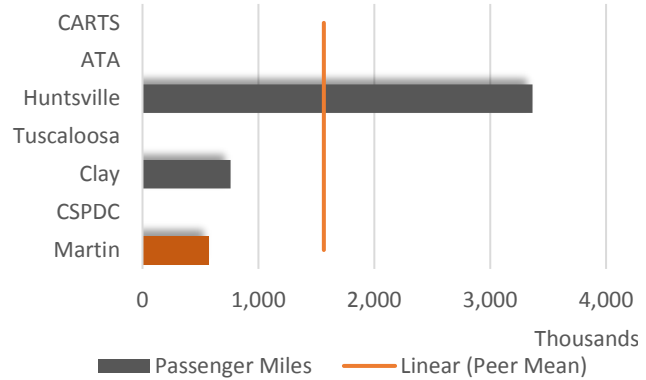
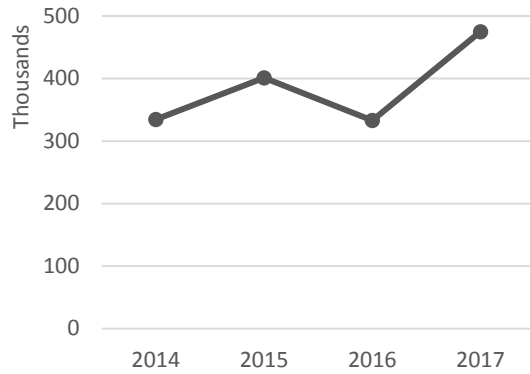
Appendix E

Fixed-Route Trend Analysis & Peer Review Figures

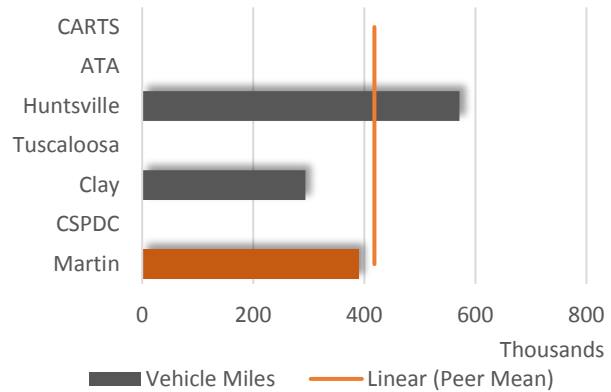
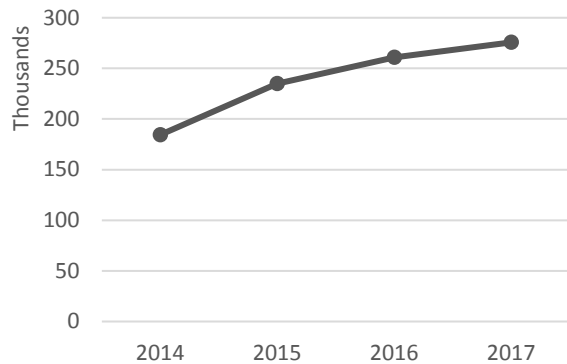
Passenger Trips



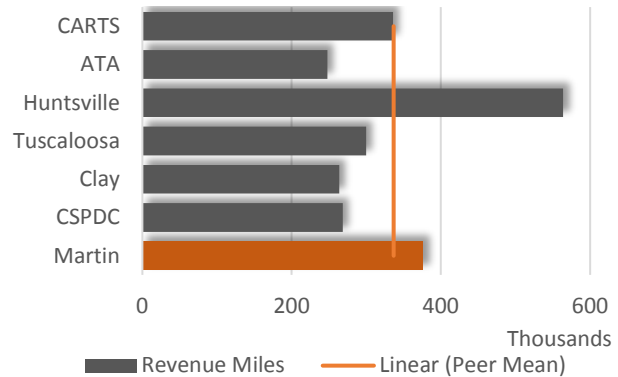
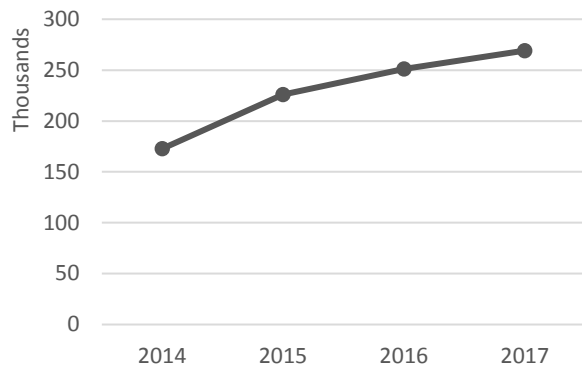
Passenger Miles*



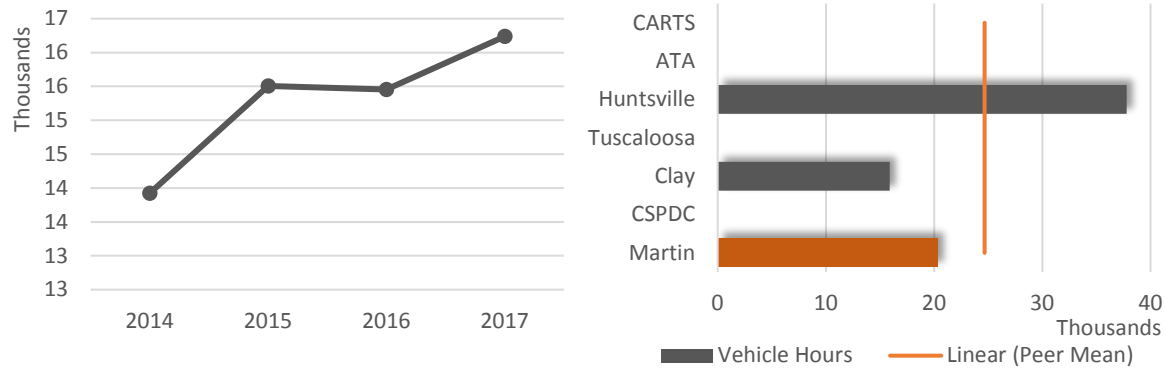
Vehicle Miles*



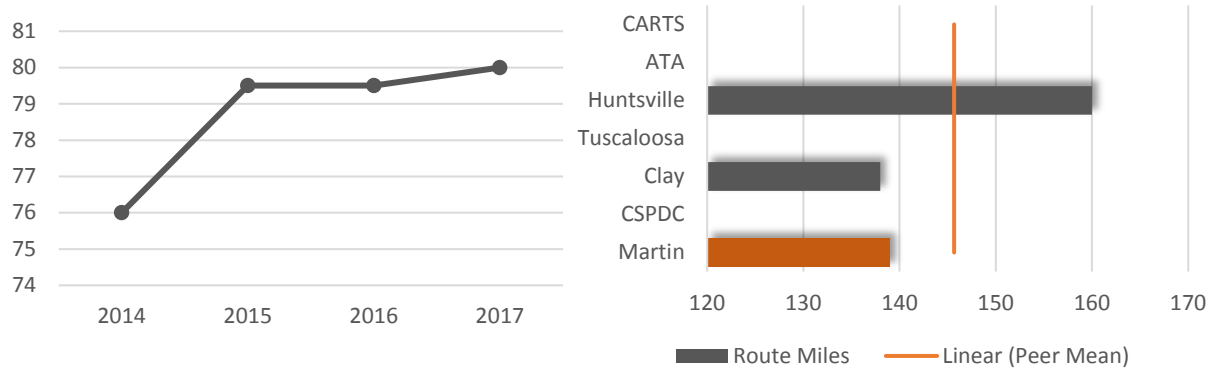
Revenue Miles



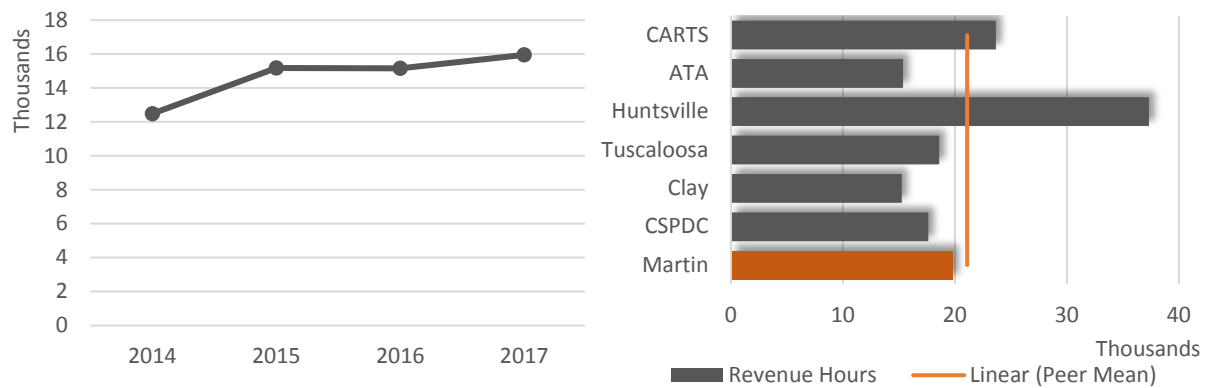
Vehicle Hours*



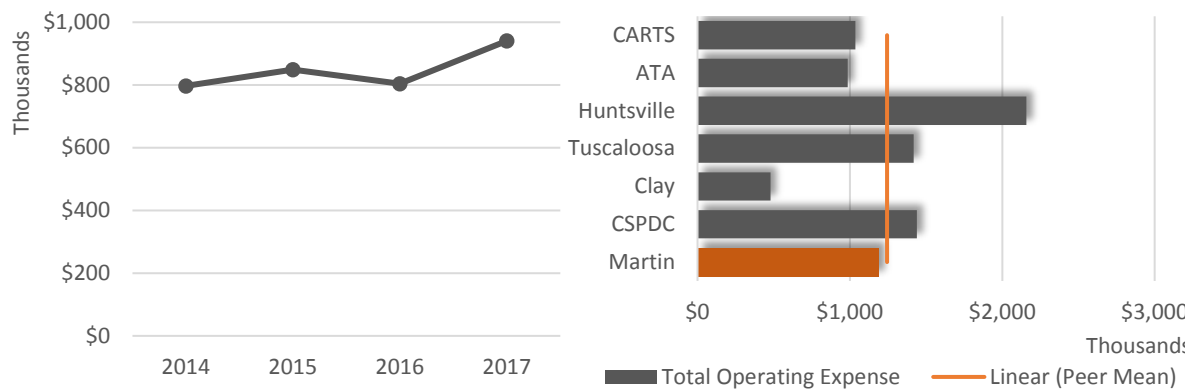
Route Miles*



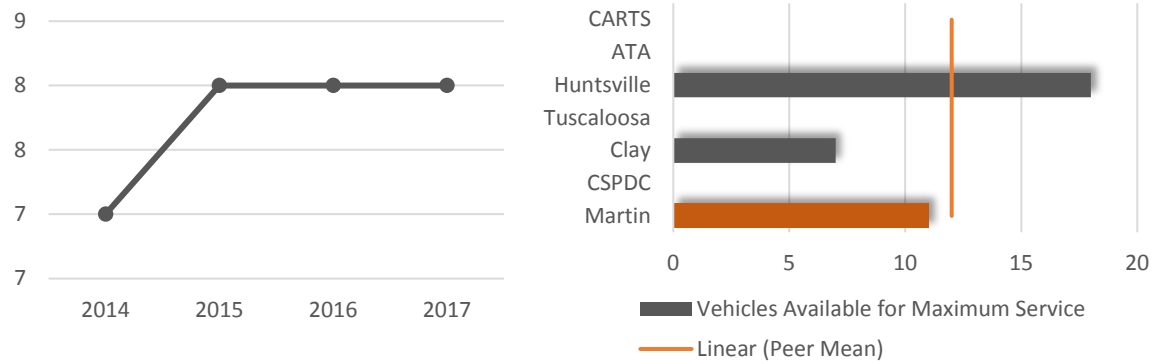
Revenue Hours



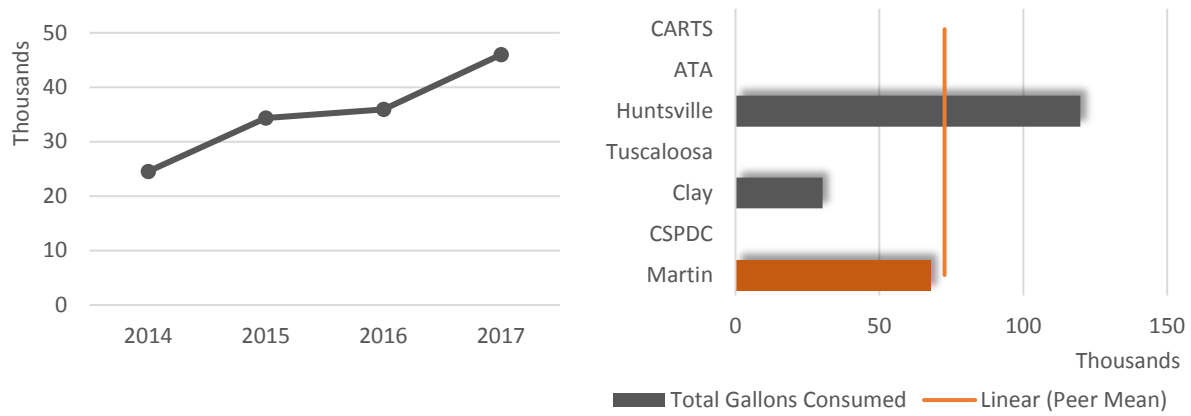
Total Operating Expense ^



Vehicles Available for Maximum Service



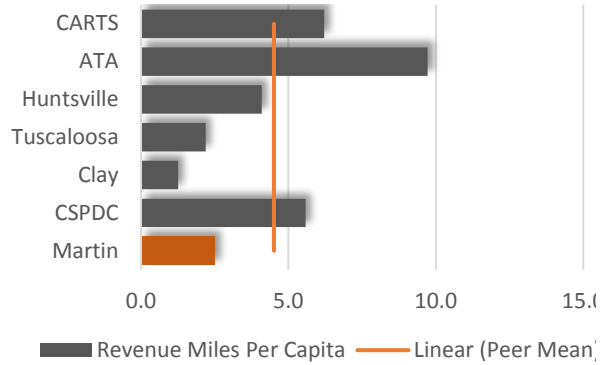
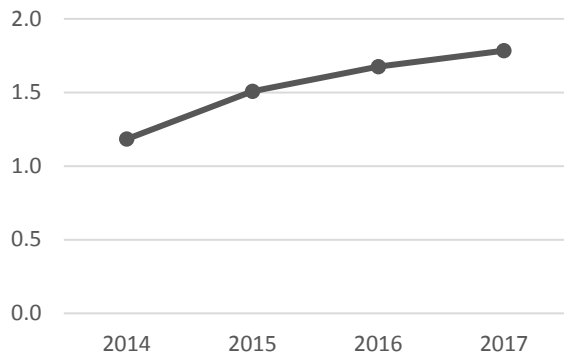
Total Gallons Consumed*



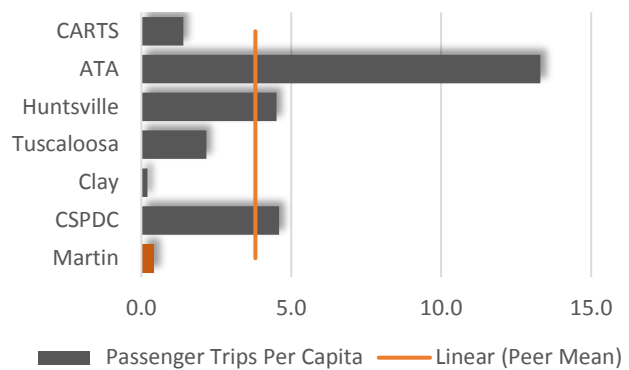
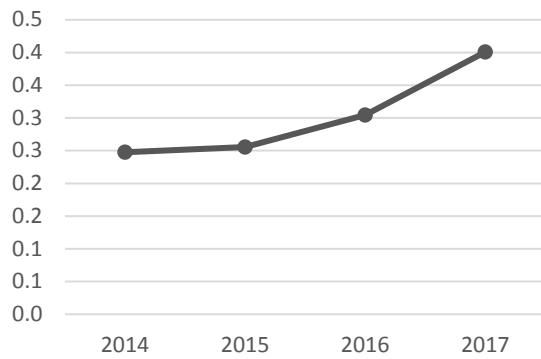
*2017 data not available, based off 2016 NTD FTIS data

FY 2017 total operating cost and associated metrics reported in NTD includes approximately \$63,000 in lease expenses for Route 20x vehicles.

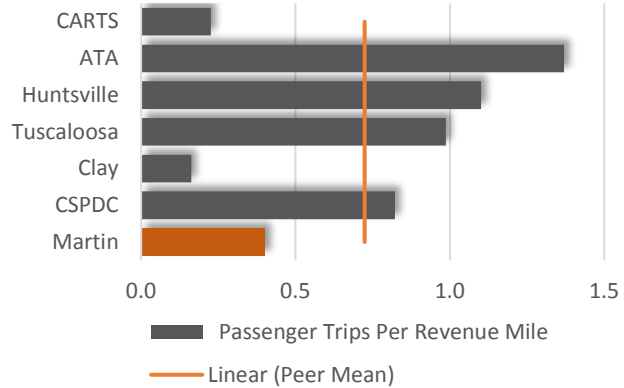
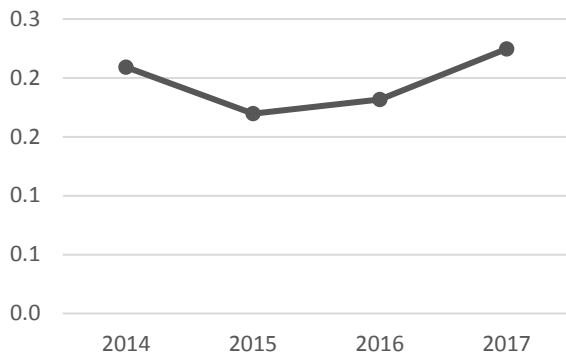
Revenue Miles per Capita



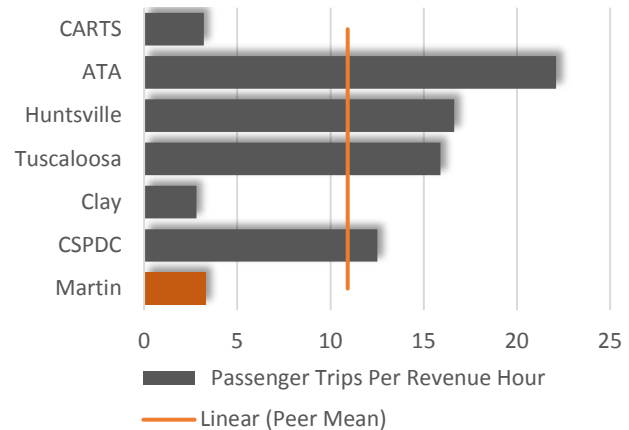
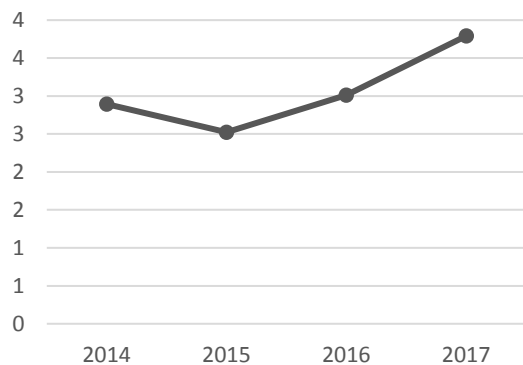
Passenger Trips per Capita



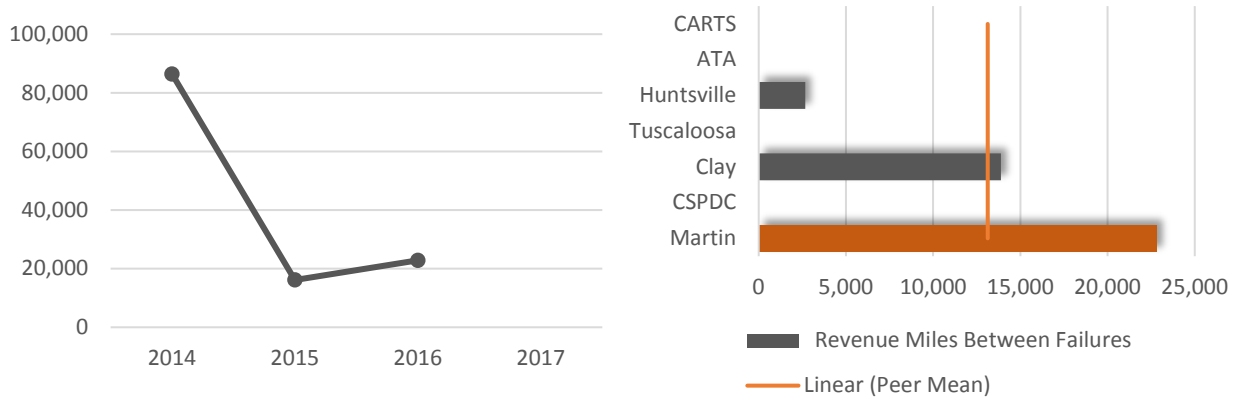
Passenger Trips per Revenue Mile



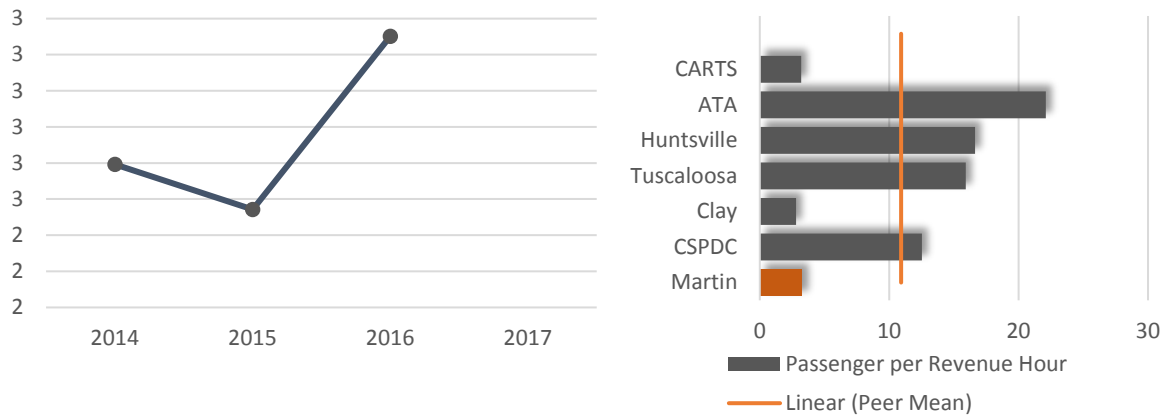
Passenger Trips per Revenue Hour



Revenue Miles Between Failures*

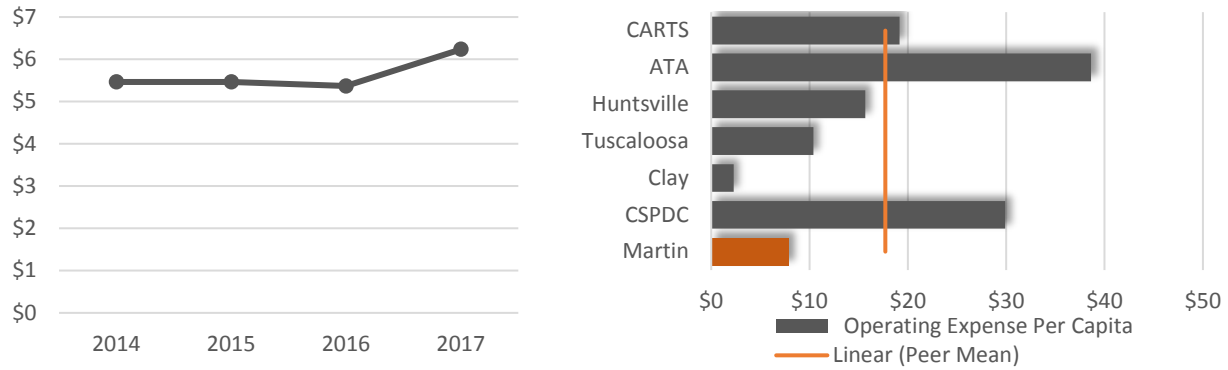


Passenger Trips per Vehicle Hour

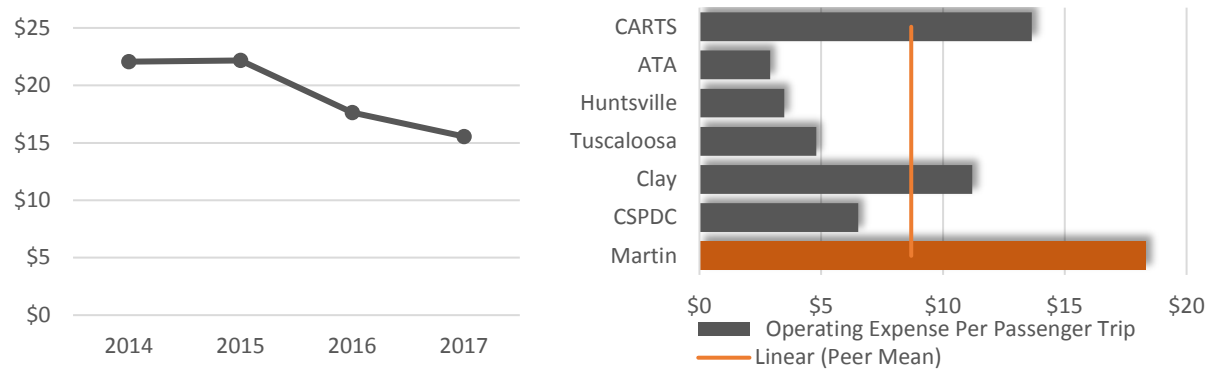


*2017 data not available, based off 2016 NTD FTIS data

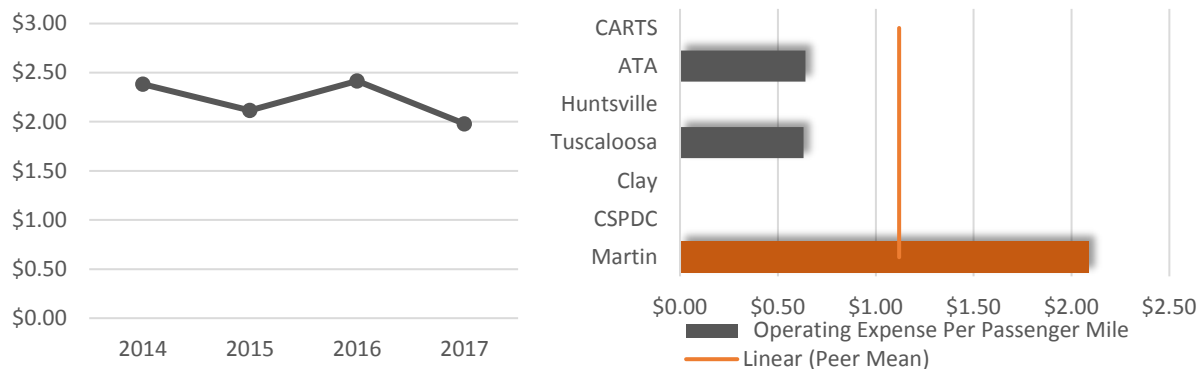
Operating Expense per Capita[^]



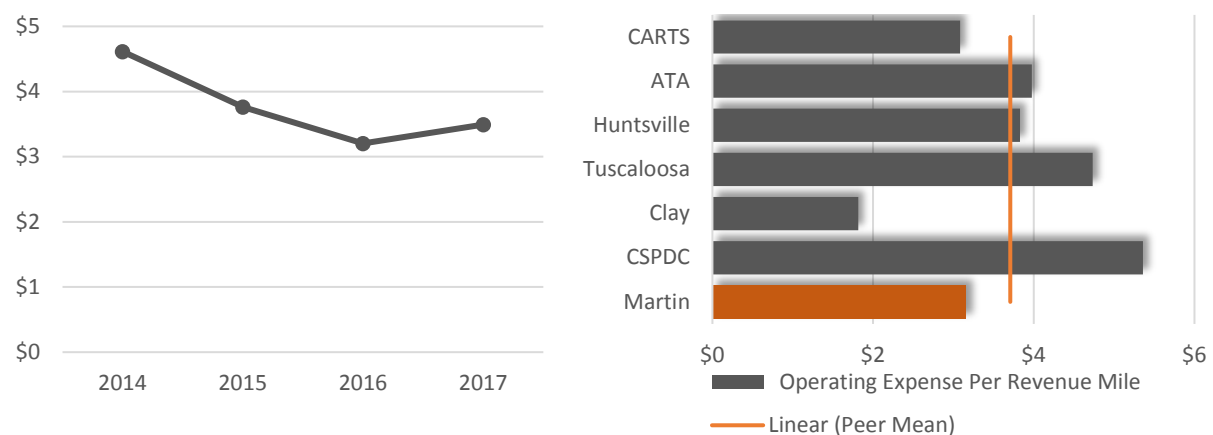
Operating Expense per Passenger Trip[^]



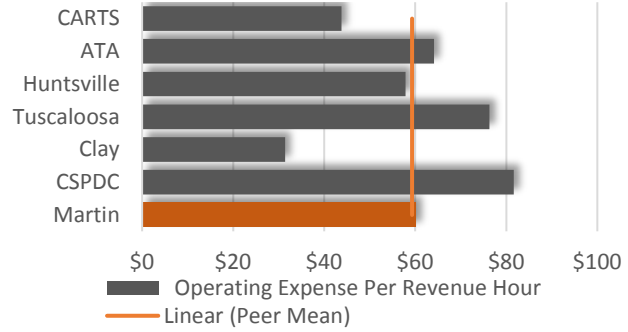
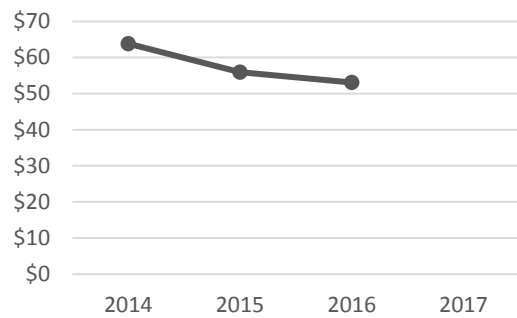
Operating Expense per Passenger Mile[^]



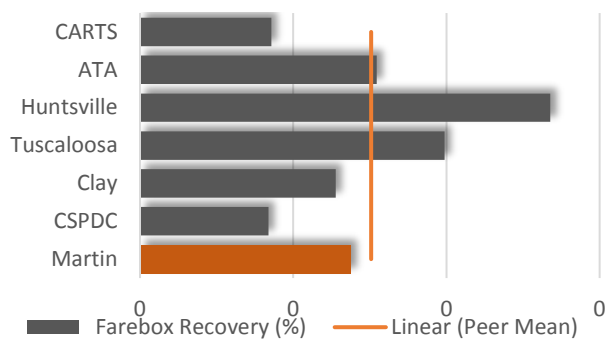
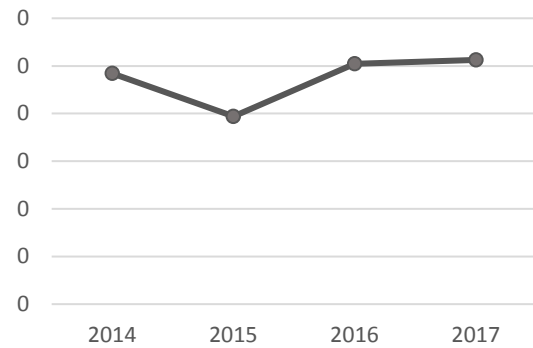
Operating Expense per Revenue Mile[^]



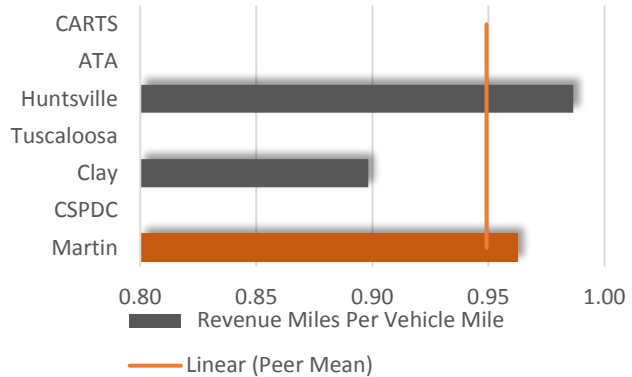
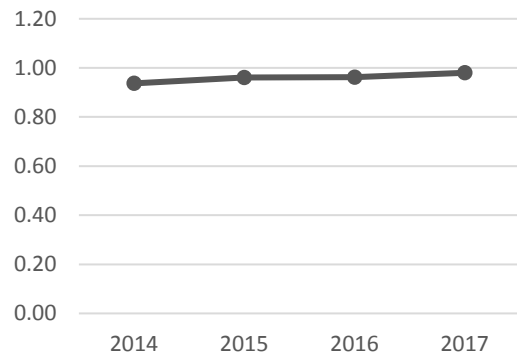
Operating Expense per Revenue Hour



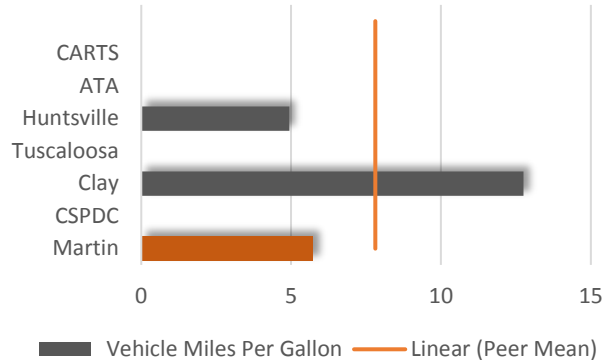
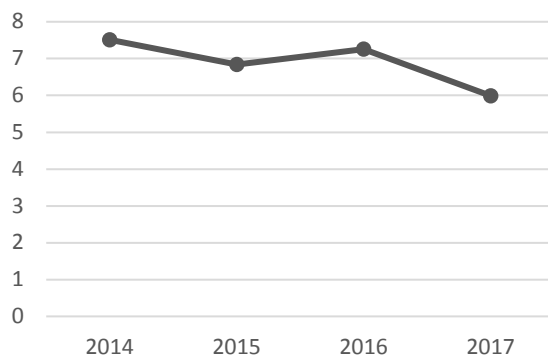
Farebox Recovery (%)



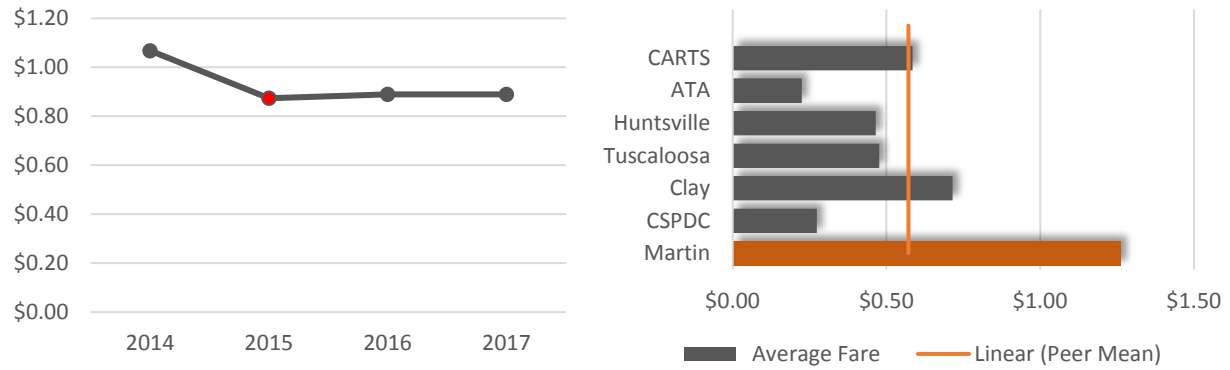
Revenue Miles per Vehicle Mile*



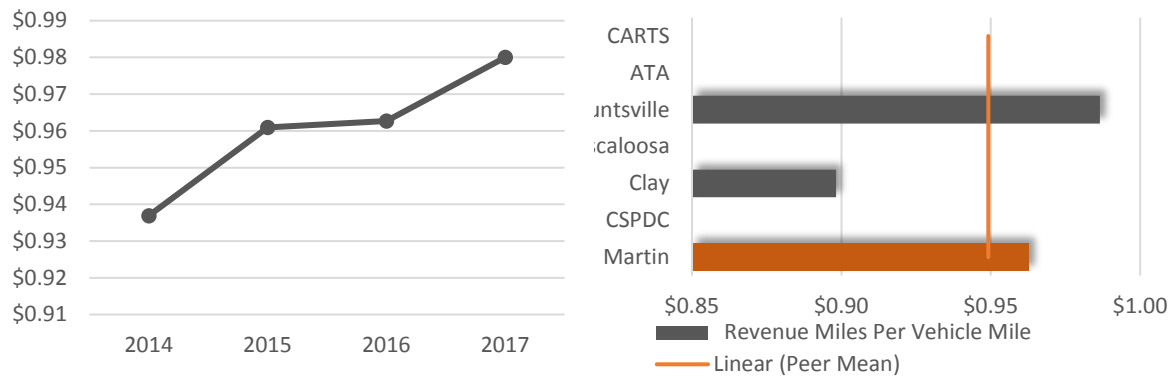
Vehicle Miles per Gallon*



Average Fare



Revenue Miles per Vehicle Mile



*2017 data not available, based off 2016 NTD FTIS data

^FY 2017 total operating cost and associated metrics reported in NTD includes approximately \$63,000 in lease expenses for Route 20x vehicles.

Appendix F

Marty Farebox Recovery Report

Current Farebox Recovery Ratio

The farebox recovery ratio refers to the percentage of a transit system's total operating expenses that are funded with fares paid by passengers. This ratio is calculated by dividing the total fare revenue collected by the total operating expenses. This value is reported to NTD, as required for FTA grant recipients, by transit agencies using a standardized equation. The farebox recovery ratio for the Marty, was 6.8% in FY 2018. The background with regards to the farebox recovery ratio is documented in the remainder of this appendix.

Prior Year Fare Studies and Changes

The Marty fares were last increased in 2013 when the base fare was increased to \$1.50 and half fare was increased to \$0.75. The reduced fare is available to senior passengers, those with disabilities and those with a Medicare card. Effective January 30, 2019, the Marty fare structure was updated to include fare-free service for Veterans with an approved form of identification. The free fare applies to all MARTY fixed routes and the commuter bus service.

Proposed Fare Changes for the Upcoming Years

No fare increase have been proposed since 2013.

Strategies that will Affect the Farebox Recovery Ratio

The following is a list of strategies the Marty will employ to improve the farebox recovery ratio:

- Continuously monitor performance to determine if adjustments need to be made.
- Minimize costs required to operate and administer transportation services.
- Increase ridership by coordinating with the CTC to transition ambulatory low-income TD riders to fixed-route service.
- Determine the most cost-effective service type on all major corridors, given demand, routings and coverage areas.
- Increase ridership while maintaining costs to operate and administer transportation services by engaging the public to refine services and aim to better meet the needs of customers.
- Improve attractiveness of transit service to riders through the dissemination of real-time bus location information.
- Evaluate fare structure to analyze opportunities for instituting additional passes.
- Work with key employers, community-based contracts and homeowner associations to expand marketing efforts aimed at increasing ridership and revenue for the fixed-route system.

Appendix G

Performance Monitoring Program

Performance Monitoring Program

Performance Measures and Indicators

As proposed transit services are implemented, the following performance indicators and measures should be monitored by the Martin County staff on a quarterly basis for its fixed-route services as part of the recommended performance-monitoring program:



Passenger Trips – Annual number of passenger boardings on the transit vehicles.



Revenue Miles – Number of annual miles of vehicle operation while in active service (available to pick up revenue passengers).



Revenue Hours – Number of annual hours of vehicle operation while in active service (available to pick up revenue passengers).



Passenger Trips per Revenue Hour – Ratio of passenger trips to revenue hours of operation.

However, as fixed-route-type services typically take up to three years to become established and productive, the performance data up to that point should be reviewed and interpreted cautiously. Furthermore, if Mobility on Demand (MOD) services are implemented in the future, this will be a new type of service in Martin County and therefore have few benchmarks with which to compare initially. Although adjustments/modifications are encouraged, outright discontinuations based on performance monitoring data alone are discouraged.

Evaluation, Methodology and Process

This process is based on two measures, trips per mile and trips per hour, which are weighted equally to derive an overall route score. An individual route's score for a particular measure is based on a comparison of the measure as a percentage of the system average for that particular measure. These individual measure scores are added together and divided by two to get a final aggregate score. This final composite performance score is an indication of a route's performance for the two measures when compared to the system average for those measures. A higher score represents better overall performance when compared to other routes.

The noted comparative performance evaluation can be beneficial, but caution should be exercised when using the final scores and rankings, because these figures are comparing routes to one another and may not reflect the specific goals established for a specific route (i.e., geographic coverage vs. ridership performance). The process is particularly useful, however, in highlighting those routes that

may have comparative performance-related issues. These routes can then be singled out for closer observation in future quarters or years to determine specific changes that may help mitigate any performance issues.

Once a route score is determined, routes can be ranked to show the highest performing and lowest performing routes. The rankings are a useful proxy for determining the comparative performance of any route, as well as highlighting changes in performance over time. To track the performance variation over time, three performance levels have been developed:

- **Level I – Good ($\geq 75\%$)** – Transit routes in this category are performing efficiently compared with the average level of all the agency’s routes.
- **Level II – Monitor (30–74%)** – Routes in this category exhibit varying levels of performance problems and require more detailed analysis (e.g., ride checks, on-board surveys, increased marketing efforts, etc.) to aid in identifying specific changes that can be made to help improve the route’s performance.
- **Level III – Requires Attention ($\leq 29\%$)** – Routes in this category exhibit poor performance and low efficiency. Recommendations for these routes may include truncation of the route, reduction in the route’s number of revenue hours, or discontinuation of the route.

Figure G-1 illustrates the three evaluation levels and notes the recommended thresholds for each level.

Figure G-1: Route Performance Evaluation Levels

