



An Economic Impact Analysis of the Everglades Memorial Loop for the City of Coral Springs, Florida - Final Report

For:

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Sustainability**

The City of Coral Springs



**By: The Florida State
University Center for
Economic Forecasting and
Analysis (FSU CEFA)**

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Executive Summary

There are over 175 state parks, trails, and historic sites in the state of Florida in addition to 800,000 acres of outdoor recreation in the state. In late 2023 the Florida State University Center for Forecasting and Analysis (FSU CEFA) contracted with the City of Coral Springs, Broward County, Florida, to conduct an economic impact and valuation analysis of the proposed, 10-mile Everglades Memorial Loop. As noted in previous literature, the development of the 10-mile trail could result in long-lasting economic, social, and wellness-related effects. Enabling pedestrian and bicycle connectivity across the city, the proposed loop seeks to append approximately 6 miles to the already existing 4-mile crush rock path along the Everglades Conservation Levee Greenway. More significantly, the development of the loop signifies greater access to recreational and residential areas, educational institutions, and local businesses.

The proposed loop is estimated to cost approximately \$15 million. The development of the loop will be distributed between three phases, each focusing on a different section of the loop. Included in the construction cost are the significant renovations set to be made to Coral Springs' Sportsplex Park. The following sections provide a summary of the study's economic impact and valuation analysis findings.

Economic Impact Analysis Results

The economic impact results show the substantial economic activity derived from the development of the Everglades Memorial Loop project. This report evaluates the economic value the proposed loop will bring to the local economy. The study anticipates that a total of 162 jobs will be supported by the Everglades Memorial Loop project (113 as direct, and 49 as indirect and induced employment) generating a total \$9.8 (or \$10) million in income or wages. Economic output associated with business activity linked to the project is expected to have a \$16 million impact on the local economy. Accounting for the indirect and induced economic impacts, the study anticipates that the local economy will benefit from a total economic output close to \$26 million. During the lifespan of the project, the state and local economy will benefit from a total of \$743,014 in taxes generated by the operations and construction activities associated with the Everglades Memorial Loop project.

Introduction

The purpose of this research study directed by the FSU Center for Economic Forecasting and Analysis (CEFA), is to conduct an economic impact analysis of the proposed Everglades Memorial Loop for the City of Coral Springs, Florida.

The proposed Everglades Memorial Loop will provide the City of Coral Springs with a new multi-use space for walking and safe biking. The 10-mile loop connects the nature of the Everglades to the city via the Everglades Conservation Levee Greenway at Atlantic Boulevard, looping through Coral Springs, from Lakeview Drive, down Sportsplex Drive, across Sample Road, leading underneath the Sawgrass Expressway at Wiles Road. Once completed, the loop will open up the largest subtropical wilderness in the United States to residents of the area and nature enthusiasts.

The Everglades Memorial Loop, still years in the making, is estimated to cost close to \$15 million. The development of the loop is set to be completed through a multi-phase approach which includes widening sidewalks to facilitate greater pedestrian and bicycle traffic, and the incorporation of landscaping, among other amenities. Each section of the loop was designated to one of nine different segments, each assigned to one of three phases. Phase 1 consists of sidewalk widening of existing sidewalk in segments 2,3,5,6, and 7 – and construction begins from Atlantic Boulevard to Sample Road. Phase 1 is estimated to cost around \$2.2 million. Phase 2 is estimated to cost \$3.8 million and consists of segment 8. A 10' wide floating dock has been proposed for segment 8 which would connect Sample Road to Wiles Road. Lastly, Phase 3 consists solely of segment 9 which comprises the construction of a pedestrian bridge above the Sawgrass Expressway, connecting Wiles Road to the Everglades Conservation Levee Greenway. Construction of the pedestrian bridge is estimated to cost \$9.2 million. Additionally, significant renovations are set to be completed in the 5-acre Sportsplex Park. The proposed amenities include an observation tower, open pavilion, small restaurant, restroom building, and bike fix-it station. At approximately \$2.7 million, the construction of the mile long composite wood-plastic floating dock across segment 8 represents the highest individual cost among the three phases. The pedestrian bridge embankment, which is estimated to cost around \$2.6 million, accounts for about 30 percent of the total budget allocated for Phase 3. Tree removal across Phase 1 and 3 combines for a total cost of around \$2 million. Lastly, general conditions described as mobilization and maintenance of traffic combine for a total cost of \$1.9 million between Phases 1 and 3.

The following section presents a literature review relating to multi-use trails worldwide, nationally and locally, followed by a discussion of the commercial and residential property valuation in the 5-mile area (around the Everglades Memorial Loop). The next section

discusses the economic data, methodology and results relating to the economic impact analysis. Lastly, the conclusions are summarized, followed by an extensive Appendices section covering GIS maps of commercial industries and the 5-mile buffer zone, and demographic data pertaining Broward county, the City of Coral Springs and an overview of the economic impact of State Parks and Trails.

Literature Review

The following is a review of the literature concerning economic modeling studies on the effects of greenways as vehicles for regional development. Included in the literature review are studies that measure the economic impact of greenways on regional economies as well their effects on physical activity and overall consumer surplus derived from the proximity to greenways. Finally, the literature review is divided into global, national, and state sections.

Global

Globally, there are numerous studies that have examined the economic impacts of greenways on regional economies and physical activities. Hunter et. al. (2022) examined the economic and health-related impacts of the 10-mile Connswater Community Greenway in Belfast, Northern Ireland. To quantify the expected monetary impact derived from the greenway on property values, the study conducted a hedonic regression employing neighborhood and locational factors. After analyzing approximately 50 thousand residences along the greenway, the study finds that residences 5, 10, and 15 minutes in walking distance from the greenway are estimated to experience a 10 percent, 5 percent, and 2 percent increase in property value(s), respectively. Additionally, Hunter et. al. (2022) estimated the overall impact on labor productivity by stipulating that accessibility to the greenway decreases sick leave by 0.4 days annually. When examining the impact over a 40-year period, the increase in labor productivity is associated with a monetary value of about \$4.4 million (in 2013 \$). Furthermore, measured through the number of health incidents prevented across a 40-year period, the study calculated the total monetary value associated with the health-related impacts of the greenway. After combining the value of a statistical life of \$2.7 million, as calculated by the United Kingdom's Department of Transport in 2013, and associated healthcare cost savings,¹ the total cost savings derived from the greenway range from \$18.6 million to \$81.3 million.

¹ Calculated according to the following: "calculated the value to society of the deaths prevented by multiplying the total number of deaths each year, for each disease, by the value of a statistical life".

Moreover, Bai et. al. (2023) investigated the relationship between accessibility to greenways and cycling behavior across 23 urban greenways in the city of Shenzhen, China. Employing data from the years 2020 and 2021, the study isolated the effect of the greenways on the amount of cycling trips derived purely as leisure, by restricting the sample to recorded observations between 10 am and 3 pm. As the sample contains a large proportion of zeros, a Poisson regression model is employed to predict the frequency of cycling trips. Bai et. al. (2023) establishes that greenway width is associated with an increase in the frequency of cycling trips of 26 percent, while the number of parks and plazas along the greenway positively impacts the frequency (by about four percent) throughout the week.

National

Next, an extensive search of economic studies at the national level was conducted. Campbell, et. al. (2007) examined the relationship between proximity to greenways and property values in Charlotte, North Carolina. To quantify the resulting impact of greenways on property values, the study is limited to properties proximate to an existing greenway. Following a hedonic regression which controls for locational and neighborhood specific attributes, the study concludes that a one percent decrease in proximity to the greenway results in a 0.03 percent premium on single-family properties and a 0.0013 percent premium on multi-family properties. In 2007 dollars, from the median home value of \$106,188, the premium derived from vicinity to the greenway is about \$3,200 for single-family properties. Nicholls, et. al. (2005) performed a comprehensive study of the effect of greenways on property values in three homogenous neighborhoods in Austin, Texas. Again, a hedonic regression controlling for locational, and neighborhood specific attributes was performed. Moreover, the study presents the estimated effect as distance from the greenway increases by quarter-mile increments. Findings in 2005 dollars revealed that in two of three studied neighborhoods, home values for houses located within one-quarter of the greenway increased by \$21,433.68 and \$46,085.99, respectively. Huang, et. al. (2020) estimated the impact on home values for houses located within three miles of the Memphis Shelby Farms Greenline in Memphis, Tennessee. Furthermore, the study employed panel data comprised of house sale records from 2004 through 2015 in Shelby County, Tennessee. Following the opening of the greenway in 2010, the study concluded that the premium derived from accessibility to the greenway increased by \$17,750 and \$14,870 for houses within 1.5 miles and between 1.5 and 3 miles of the greenway, respectively.

Furthermore, Crompton (2012) examined the return generated by the development of a 245-mile trail along the existing network of greenways in Houston, Texas. The study estimated the effects of the greenway network by observing the population density within 1.5 miles of the greenways. As suggested by the U.S. Army Corps of Engineers in 2011 through the publication of the "Unit Day Values for Recreation", recreational related expenditures averaged to \$4.50 resulting in an approximate economic value of \$63 million in 2012 dollars when accounting for 13.4 million annual trail users. Further, the study assessed the economic

value associated with health care costs derived from the Houston greenway network. According to The Trust for Public Land in 2010, daily exercise resulted in \$350 yearly health care savings. Therefore, the projected annual health care savings derived from the extension amounts to approximately \$13.9 million in 2011 dollars.

In addition to examining the relationship between accessibility to greenways and property values, studies at the national level have also analyzed the consumer surplus derived from greenways. Lindsey, et. al. (1999) implemented a contingent valuation (CV) method to calculate the total willingness to pay (WTP) and thus the economic value of the Crooked Creek Greenway in Indianapolis, Indiana. Moreover, the study calculated the WTP for residents in Indianapolis via a series of surveys ranging from questions regarding WTP to solicitation of funds to support projects along the greenway. The findings in 1999 dollars show that for a population of 319,886, the resulting mean WTP of \$1.51 indicates that the greenway is valued at \$486,028 to Indianapolis residents.

A literature search also revealed studies on the overall impact attributed to the accessibility to greenways on an individual's health and well-being. Coutts (2008) examined the impact on physical activity associated with an increase in the level of greenway segment accessibility and a greater degree of land-use mixture in two greenways located in the cities of Lansing and Battle Creek, Michigan. After controlling for socio-demographic factors as well as population density, the resulting findings indicate that the level of land-use mixture together with proximity to the greenway significantly increases foot traffic. Furthermore, the study concludes that the compounded effect of high population density with accessibility to the greenway significantly increases physical activity. Fitzhugh, et. al., (2010) offers insight into the relationship between built environments and physical activity by analyzing panel data across three separate years and 7 neighborhoods in Knoxville, Tennessee. The study follows a baseline group associated with observations captured before the completion of the greenway in 2005 and a post-intervention group accounting for observations in 2007. The findings indicate a significant change in the overall physical activity levels of the neighborhoods proximate to the specific greenways. The study noted significant changes in the number of 2-hour exercise periods across a given week for walkers and cyclists.

State/Local

A literature review of greenway-related studies in the State of Florida revealed a significant focus on the economic, health, and social impact of greenways on regional communities. A 2011 case study published by the Miami-Dade County Park and Recreation Department in collaboration with AECOM, an infrastructure consulting firm, established that the opening of the 5.6-mile long, Ludlam Trail, in the last quarter of 2023 will produce significant economic, environmental, and social benefits. The case study employed as comparable two trails located in Florida and Oregon to estimate the future impact of the greenway on property values and retail sales. In 2011 dollars, the study establishes that across a 25-year period, properties located within a half-mile or 10-minute walk from the greenway are expected to experience an increase in property value between \$121 million and \$282 million. In other

words, proximity to the Ludlam Trail is associated with a 0.32 percent to 0.73 percent increase in property values relative to properties in Miami-Dade County. Moreover, in a span of 25 years, the assessed increase in property values for houses within walking distance to the greenway is estimated to generate between \$98,000 and \$229,000 in net new property taxes annually. Additionally, retail sales as a result of the greenway are expected to range between \$3.19 million and \$8 million with \$3.50 and \$9.30 as the low and high user expenditure estimates. In addition, limiting the scope of the environmental impact to the total population accommodated within ½ miles of the greenway, the study estimates that following the opening of the Ludlam Trail, the community would experience a reduction of 860,700 vehicle miles travelled which translates to \$101,450 fuel costs saved annually.

A 2011 economic impact analysis conducted by the East Central Florida Regional Planning Council examined the economic impact of the Little Econ Greenway, West Orange, and Cady Way Trails on Orange County's regional economies. Using responses gathered from a survey on user spending habits associated to each trail, REMI, a customized dynamic econometric model was employed to analyze the impact of the three separate trails on Winter Garden's business activities. The study establishes that total employment supported by all three trails amounts to 516 jobs which is attributed, in 2011 dollars, to an economic impact of \$42.6 million. Additionally, examining the economic impact on the 31 restaurants operating in Downtown Winter Garden, Orange County, the study concludes that 25 percent of the \$14.6 million in sales generated by these restaurants was induced by the trails. That is, the trail-related impact on Winter Garden's economy amounts to \$5 million in 2011 dollars.

In addition to analyzing the economic impact attributed to greenways and trails, state-level studies have also examined the relationship between proximity to greenways and its effect on physical activity. Coutts et. al, (2013) employs county-level data for all 67 counties in Florida to explore the impact of distance to a greenway and physical activity. Furthermore, the study implemented GIS to determine the population density proximate to greenways across Florida. Data associated with the level of activity was gathered from the 2007 Behavioral Risk Factor Surveillance System (BRFSS) survey. The findings revealed that living within a quarter-mile, half-a-mile, or a mile from the nearest greenway is associated with a one percent increase in moderate or vigorous physical activity.

Businesses and Property Values in Memorial Loop 5-Mile Buffer Area

This section analyzes the Everglades Memorial Loop 5-mile buffer using the National Establishment Time Series (NETS)² database, including all businesses in Florida (using 2020 data).³ The research team examined both: 1) all the industry types (all NAICS codes) in the 5-mile buffer area, and 2) the Everglades Memorial Loop recreational-specific industry or NAICS codes in the 5-mile buffer area. The following section provides information relating to an analysis of those Everglades Memorial Loop businesses that were included in the NETS database. The Everglades Memorial Loop market area list of businesses (by industry type) is reported for the 5-mile buffer in Broward County in Appendix A. The following Figures present the Everglades Memorial Loop businesses found in NETS, in terms of employees and sales, by business type.

Businesses within the 5-mile Buffer

Table 1 displays sales and employment information of industries associated with the tourism and recreation sector of the economy⁴. For instance, the retail sector is comprised of subcategories representing the sale of apparel and shopping goods; the medical sector consists of mainly medical offices and clinics; the transportation industry comprises gasoline service stations; the food and accommodation sector consists of eating and drinking places as well as the hospitality sector; the recreation sector is solely comprised of business facilitating recreation services; and industries such as collection and disposal services and recreational program administration and government which do not fall under a particularly large sector of the economy, comprised the last sector.

Table 1 provides information on the number of businesses comprising each sector of the economy related to tourism and recreation. Note that the food and accommodation sector represent the largest sector, with 652 and 10,648 businesses in the City of Coral Springs and Broward County, respectively. On the other hand, the retail sector generated more sales than any other sector with approximately \$455 million and \$1.3 billion in sales at the city and county level, respectively. Lastly, the food and accommodation sector derived the biggest direct economic impact by employing a total of 8,976 and 153,466 individuals in the City of Coral Springs and Broward County, respectively.

² *The 2020 National Establishment Time-Series Publicly Listed Database*© (NETS-Publicly Listed) is a historical database that provides time-series information on establishment sales growth performance, job creation and destruction, changes in primary markets, merger and acquisitions, mobility patterns, and historical D&B ratings. [Using NETS Data at Duke - Ford Library](#)

³ The most recent NETS database is for the 2020 data year.

⁴ Data only consists of businesses with sales and employment data available for year 2020.

Table 1. Number of Businesses and Employment and Total Sales Associated with Industries Related to Tourism & Recreation, Within the 5-mile Buffer

Business, Sales, and Employment Per Sector at City and County Level				
	Sector (By SIC)	Number of Businesses	Number of Employees	Total Sales
Coral Springs, FL	Retail Trade	228	2,611	\$ 455,388,939
	Transportation	35	181	\$ 47,874,142
	Food & Accommodation	652	8,976	\$ 34,446,435
	Medical	561	3,766	\$ 408,963,390
	Recreation	115	460	\$ 16,596,908
	Other	7	289	\$ 2,701,511
	Totals	1,880	20,804	\$ 1,461,530,642
Broward County, FL	Retail Trade	3,577	15,351	\$ 1,355,172,480
	Transportation	612	3,524	\$ 1,045,219,013
	Food & Accommodation	10,648	153,466	\$ 6,275,089,722
	Medical	7,717	52,667	\$ 6,067,546,443
	Recreation	1,646	7,379	\$ 356,118,438
	Other	289	4,810	\$ 198,260,828
	Totals	24,489	237,197	\$ 15,297,406,924

Table 2 outlines the number of businesses and employees and total sales for businesses operating within five miles of the proposed Everglades Memorial Loop. As the largest economic sector in the area surrounding the Everglades Memorial Loop project, the food and accommodation sector encompassed a total of 1,249 businesses, 16,084 workers and generated \$581,180,960 in total sales in 2020. The recreation sector, on the other hand, currently represents a small proportion of the market, total sales amounted to \$42,572,773 while employing 1,070 workers at 252 businesses.

Table 2. Number of Businesses and Employment and Total Sales Within 5-mile Buffer

Business, Sales, and Employment Per Sector within 5-mile Buffer			
Sector (SIC)	Number of Businesses	Number of Employees	Total Sales
Retail Trade	498	3,603	\$ 572,407,524
Transportation	79	407	\$ 98,396,868
Food & Accommodation	1,249	16,084	\$ 581,180,960
Medical	1,042	6,652	\$ 760,225,745
Recreation	252	1,070	\$ 42,572,773
Other	57	757	\$ 38,303,159
Totals	3,177	28,573	\$ 2,093,087,029

Property Values Within the 5-mile Buffer

Table 3 reports market value information of residential and commercial properties within 5 miles of the Everglades Memorial Loop⁵. For the year 2021, single-family units make up approximately 2/3 of the total market value accrued by residential units. Representing the largest number of units in the 5-mile buffer with 74,292 units, single-family units registered an average market value of \$356,301.03. On the other hand, commercial property makes up about 5 percent of the total market value across all property types. However, it should be noted that the average market values for commercial properties including eating and drinking places, and hotels, are \$1.5 million and \$6.9 million, respectively.

⁵ Market value information was sourced from the Florida Department of Revenue, 2021

Table 3. Market Value of Properties in Proximity to the Everglades Memorial Loop

Market Values Within the Everglades Memorial Loop Buffer				
	Land Use	Number of Units	Average Market Value	Total Market value
Residential	Vacant Residential	1,134	\$ 112,677	\$ 127,775,820
	Single Family	74,292	\$ 356,301	\$ 26,470,315,818
	Multi-Family	1,363	\$ 2,071,734	\$ 2,823,773,890
	Condominiums	43,827	\$ 114,977	\$ 5,039,108,150
	Other	1,907	\$ 1,487	\$ 2,834,840
	Total	122,523	\$ 2,657,176	\$ 34,463,808,518
Commercial	Stores	352	\$ 3,144,996	\$ 1,107,038,540
	Office Buildings	861	\$ 917,464	\$ 789,936,260
	Eating and Drinking Places	105	\$ 1,548,435	\$ 162,585,630
	Hotels	13	\$ 6,875,902	\$ 89,386,720
	Total	1,331	\$ 12,486,796	\$ 2,148,947,150
Grand Total		123,854	\$ 15,143,972	\$36,612,755,668

Furthermore, the anticipated effect on property values derived from the construction of the Everglades Memorial Loop is in line with the analysis results of the Fred Marquis Pinellas Trail in Pinellas County, Florida. An analysis of the economic impact of the Fred Marquis Pinellas Trail establishes the annual effective premium in property values ranges between 3 and 7 percent. Therefore, including both, residential and commercial properties, the development of the Everglades Memorial Loop has the potential of increasing the total market value between \$49 million and \$72 million over the 10-year period following the completion of the Everglades Memorial Loop. It is worth noting that as distance to the loop increases, the expected effect on property values is likely to decrease.

The Chuck Huckelberry Loop in Tuckson, Arizona presents further evidence of the positive economic impact derived from the development of loops or multi-use trails. A 2013 report indicates that for every dollar invested in the loop, the local economy perceives \$9 in return and for every \$1 million invested in the loop, close to 10 jobs were generated. Accounting for the \$15 million in construction costs associated with the Everglades Memorial Loop, the local economy could benefit from approximately 150 new jobs following the completion of the loop.

Economic Data and Methodology

During January, the FSU CEFA research team collected data from the City of Coral Springs team relating to projected costs or expenses (in 2023\$) associated with the construction of the Everglades Memorial Loop project. The data was based on a report outlining the projected costs associated with the Everglades Pedestrian Bike Loop.⁶ After the final data was collected, the FSU CEFA research team compiled the data into the following input data categories:

- Construction/Capital Outlay
 - Sidewalk
 - Floating Dock, and;
 - Pedestrian Bike Bridge
- Employment (Jobs) for one Restaurant (Sit down, 3,300 square feet)

Economic Model and Analysis

The next step in this research study was to conduct the economic impact analysis. FSU CEFA used a well-established analytical tool known as the Impact Analysis for Planning, or IMPLAN^{®7} model. IMPLAN is a widely accepted integrated input-output model that is used extensively by state and local government agencies to measure proposed legislative and other program and policy economic impacts across the private and public sectors. There are several advantages to using IMPLAN:

- It is calibrated to local conditions using a relatively large amount of local, county, and state of Florida specific data;
- It is based on a strong theoretical foundation, and;
- It uses a well-researched and accepted applied economics impact assessment methodology supported by many years of use across all regions of the U.S.

The economic impact model used for this analysis was specifically developed for the counties of Florida, and includes 544 sectors, 25 institutional sectors, and most recent dataset⁸ – year 2022 data. IMPLAN’s principal advantage is that it may be used to estimate direct, indirect, and induced economic impacts for any static (point-in-time) economic stimulus. IMPLAN uses an economic multiplier approach to estimating impacts. Consistent with standard

⁶ Projected cost data obtained from Ms. Kristine Holowiki, Grant Manager, Budget and Sustainability, for the City of Coral Springs from a document “Basis of Design Report” by Carnahan, Proctor, and Cross, Inc., Dec. 2023

⁷ IMPLAN is a regional economic analysis software application that is designed to estimate the impact or ripple effect (specifically backward linkages) of a given economic activity within a specific geographic area through the implementation of its Input-Output model. [Economic Impact Analysis for Planning | IMPLAN](#)

⁸ Florida 2022 data was released at the end of December 2023, and used in this study.

practice, the direct impacts, as well as the indirect and induced impacts, are calculated for the Everglades Memorial Loop market area.⁹ There is a direct effect that comes from the increase in revenues associated with the change in sales. Next, there is an indirect effect that comes from retailers and others paying their suppliers and employees. Finally, an induced effect comes from the increase in wealth experienced by suppliers and employees of retailers and others who spend their increased revenues in the local economy. This study evaluates the Everglades Memorial Loop's broader economic impacts, measured in terms of economic output, local jobs, and income. Calculations are provided for two categories of impacts: a) Construction (or Temporary) impacts; and b) Permanent impacts associated with the ongoing operation of the commercial activities. The total economic impact of the Everglades Memorial Loop Project is the summation of the one-time economic impacts associated with the construction phase of the project(s) and the ongoing, annual (permanent) operations of the Everglades Memorial Loop Project.¹⁰ These Everglades Memorial Loop-related economic activities will generate the following:

- Direct Impacts: Relate to: a) the short-term business activity associated with project construction, and b) the ongoing business activity associated with the businesses associated with the project.
- Indirect Impacts: Will result when local firms directly impacted by the project in turn purchase materials, supplies, or services from other firms.
- Induced Impacts. Relate to the consumption and spending of employees of firms that are directly or indirectly affected by the project. These would include all of the goods and services normally associated with household consumption (i.e., housing, retail purchases, local services, etc.).

Economic Impact Results

The total economic impacts of the Everglades Memorial Loop Project are shown in Table 4 and are estimated to be a total of 162 jobs, \$9.8 (or \$10) million in income or wages and about \$25.6 (or \$26) million in total economic output. The construction impacts are estimated to total 152 jobs, about \$9.4 million in income or wages and nearly \$24.3 million in total economic output. On an annual (permanent) basis, the project is projected to generate at least 10 jobs, nearly \$450 thousand in income or wages, and about \$1.3 million in total economic output (sales/revenues).

⁹ The Everglades Memorial Loop market area is defined as Broward County.

¹⁰ Commercial operations were defined as being limited to one sit-down restaurant at this time.

Table 4. Economic Impact Analysis Results for the Everglades Memorial Loop Project

Everglades Memorial Loop	Economic Output (Sales/Revenues)	Employment	Income
Economic Measure			
Construction	\$24,290,282	152	\$9,418,556
Operations	\$1,309,577	10	\$449,041
Grand Total	\$25,599,859	162	\$9,867,597

* in 2024 \$

IMPLAN calculates both the direct impact of a change in economic activity and the indirect and induced impacts as described in the methodology section. Tables 5 and 6 show the total direct, indirect, and induced effects of the expected economic impacts based on the 2023 data for the Everglades Memorial Loop project, and the projected state and local, and federal taxes. The FSU CEFA research team estimates that state, local and federal taxes generated by the additional economic activity will be approximately \$3.1 million.

Table 5. Economic Impact Results for the Everglades Memorial Loop Project

Economic Impacts Total	Direct	Indirect	Induced	Total
Output	\$16,004,905	\$4,542,541	\$5,052,413	\$25,599,860
Jobs	113	21	28	162
Income	\$6,985,484	\$1,402,724	\$1,479,389	\$9,867,599

Table 6. Estimated State and Local, and Federal Taxes, for the Memorial Loop Project

Everglades Memorial Loop	Operations	Construction	Grand Total
Economic Measure			
State & Local Taxes	\$67,606	\$675,409	\$743,014
Federal Taxes	\$110,341	\$2,216,298	\$2,326,640
Grand Total	\$177,947	\$2,891,707	\$3,069,654

* in 2024 \$

Social Benefits of the Everglades Memorial Loop

Social benefits measure the improvement of the quality of life for residents of an area. Although not all social benefits can be quantified, the introduction of the Everglades Memorial Loop has the potential of benefiting the community in numerous ways. For instance, Appendix C-2 shows that close to 13 thousand students attend schools within 2 miles of the proposed loop. Using the Ludlam Trail located in Miami-Dade County as a comparable, the development of the Everglades Memorial Loop could increase pedestrian accessibility by 10 percent for students attending schools proximate to the loop.

The Everglades Memorial Loop has the potential of increasing accessibility to several community parks including Sportsplex Park, Westchester Lake Park, Dr. Paul's Dog Park among other parks located within the community. Using the Ludlam Trail located in Miami-Dade County as a comparable trail to the Everglades Memorial Loop, bicycle accessibility could increase by approximately 23 percent following the construction of the Everglades Memorial Loop.

In addition to these community parks, the Sawgrass Nature Center and Florida National Scenic Trail could benefit from the construction of the loop as it could incentivize local and regional ecotourism. The latest report conducted on the Florida National Scenic Trail estimated that in FY 2018-2019 more than 370,000 hikers visited the 1,500-mile trail. Additionally, each year since its inception in 1995, the Sawgrass Nature Center has provided educational presentations to about 7,000 students. With the construction of the Everglades Memorial Loop, foot traffic to community and state parks is likely to improve. Transferring a similar effect as the other recent local trail projects described herein, one could expect foot traffic from locals to increase by approximately 12 percent following the construction of the loop. When accounting for regional visitors, traffic to all these sites is likely to be greater.

Conclusions

The economic impact results show the substantial economic activity derived from the development of the Everglades Memorial Loop project. This report evaluates the economic value the proposed loop will bring to the local economy. The study anticipates that a total of 162 jobs will be supported by the Everglades Memorial Loop project, of which 113 will come as direct employment, and indirect and induced employment will generate 21 and 28 jobs, respectively. Economic output associated with business activity related to the project is expected to have a \$16-million impact on the local economy. Accounting for the indirect and induced economic impact of the project, the study anticipates that the local economy will benefit from a total economic output close to \$26 million. During the lifespan of the project,

the state and local economy will benefit from a total of \$743,014 in taxes associated to operations and construction activities tied to the Everglades Memorial Loop project.

Literature on the economic impact of parks and trails found across the United States indicates the positive economic impact local economies derive from outdoor recreation. Evidence from similar multi-use trail developments in the state of Florida demonstrates that the Everglades Memorial Loop has the potential of facilitating foot and bicycle access to schools, business, and residential neighborhoods in the city of Coral Springs. Pedestrian and bicycle accessibility to community parks and local attractions and businesses is likely to increase with the development of the trail.

In addition to the social benefits, the local economy will likely derive significant economic benefits from the construction of the Everglades Memorial Loop. Parcels proximate to the proposed loop could derive an annual property valuation increase of between 3 and 7 percent compared to comparable properties located farther away from the loop. Lastly, businesses surrounding the loop are likely to benefit from the development of the loop as more than a total of 100 direct jobs could be created during, and once the loop is open, to the public.

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Appendix A. Data Sources and GIS Data Pre-Processes Steps for Analysis

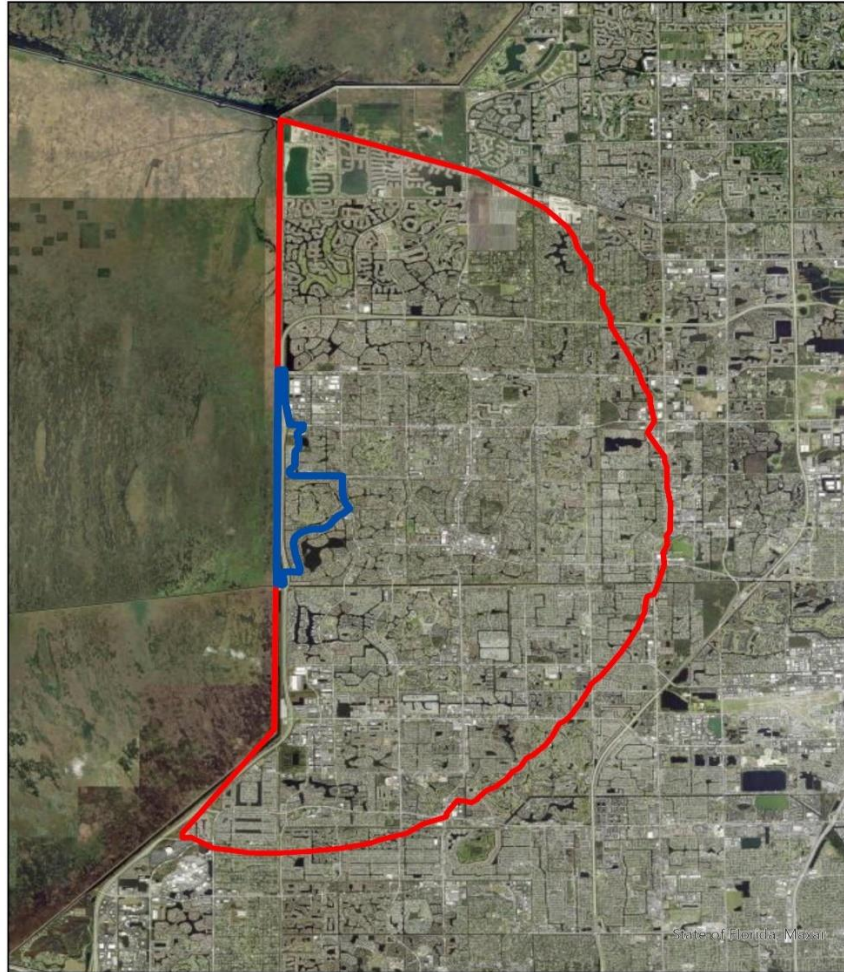
Table A-1. Data Sources Used for this Project

Data Sources			
Source	Type of Data	Purpose for this Project	Format
Everglades Memorial Loop Buffer Boundary	5-mile buffer boundaries	Define analysis boundary	GIS shapefile
NETS 2020	Business data	Analyze business sales and employment over time and by SIC classification	CSV file
Florida Department of Revenue (FDOR)	Property appraiser data for Broward County	Analyze just values for property parcels and land use categories	GIS shapefile
JobsEQ	Employment data	Analyze employment trends at the national, state, and county level	CSV file

Table A-2. GIS Data Pre-Processes Used to Prepare Data for Analysis

GIS Data Pre-Processing Steps		
Data	Processing Step	Result
Everglades Memorial Loop buffer boundary	Used GIS to create a 5-mile buffer around the proposed Everglades Memorial Loop.	GIS shapefile (polygon format)
NETS 2020	Used GIS to convert CSV data into a GIS shapefile	GIS shapefile of businesses (point format). Used GIS to spatial join the NETS point data to the FDOR property appraiser data
JobsEQ	n/a	Original CSV file format

Appendix B. Everglades Memorial Loop 5-mile Buffer Analysis



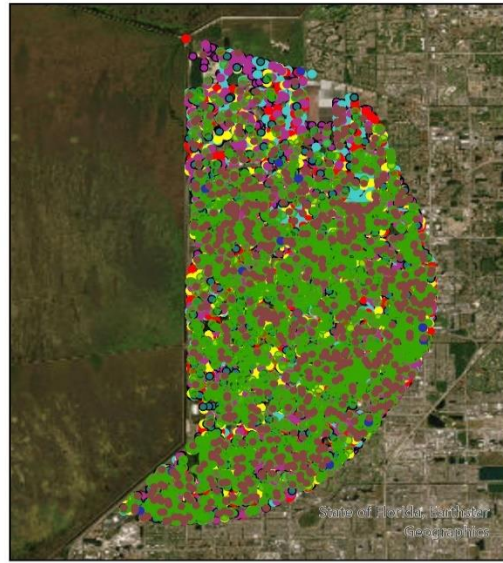
- Legend**
- Everglades Memorial Loop
 - Everglades Memorial Loop 5-mile Buffer

0 2 4 Miles

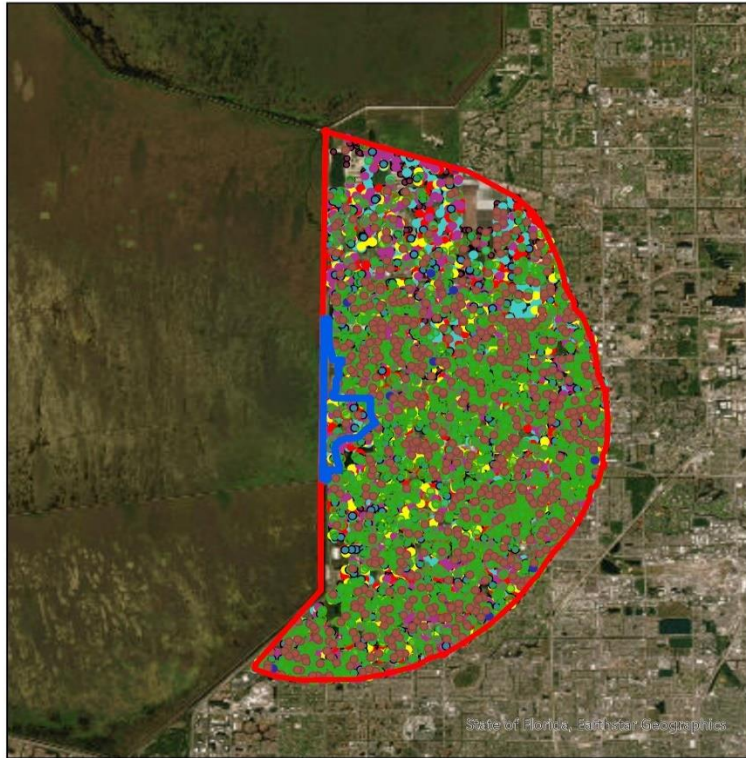
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Figure B-1. Everglades Memorial Loop



- Legend**
- Everglades Memorial Loop
 - Everglades Memorial Loop 5-mile Buffer
- Businesses By SIC Codes**
- Construction
 - Wholesale Trade
 - Retail Trade
 - Financial Services
 - Manufacturing
 - Transportation
 - Misc Services
 - Public Administration
 - Agriculture
 - Mining
 - No data



Created by Simone Di Mattia On 03/01/2024; Citation CEFA

Figure B-2. Businesses By SIC codes Within Everglades Memorial Loop 5-mile Buffer

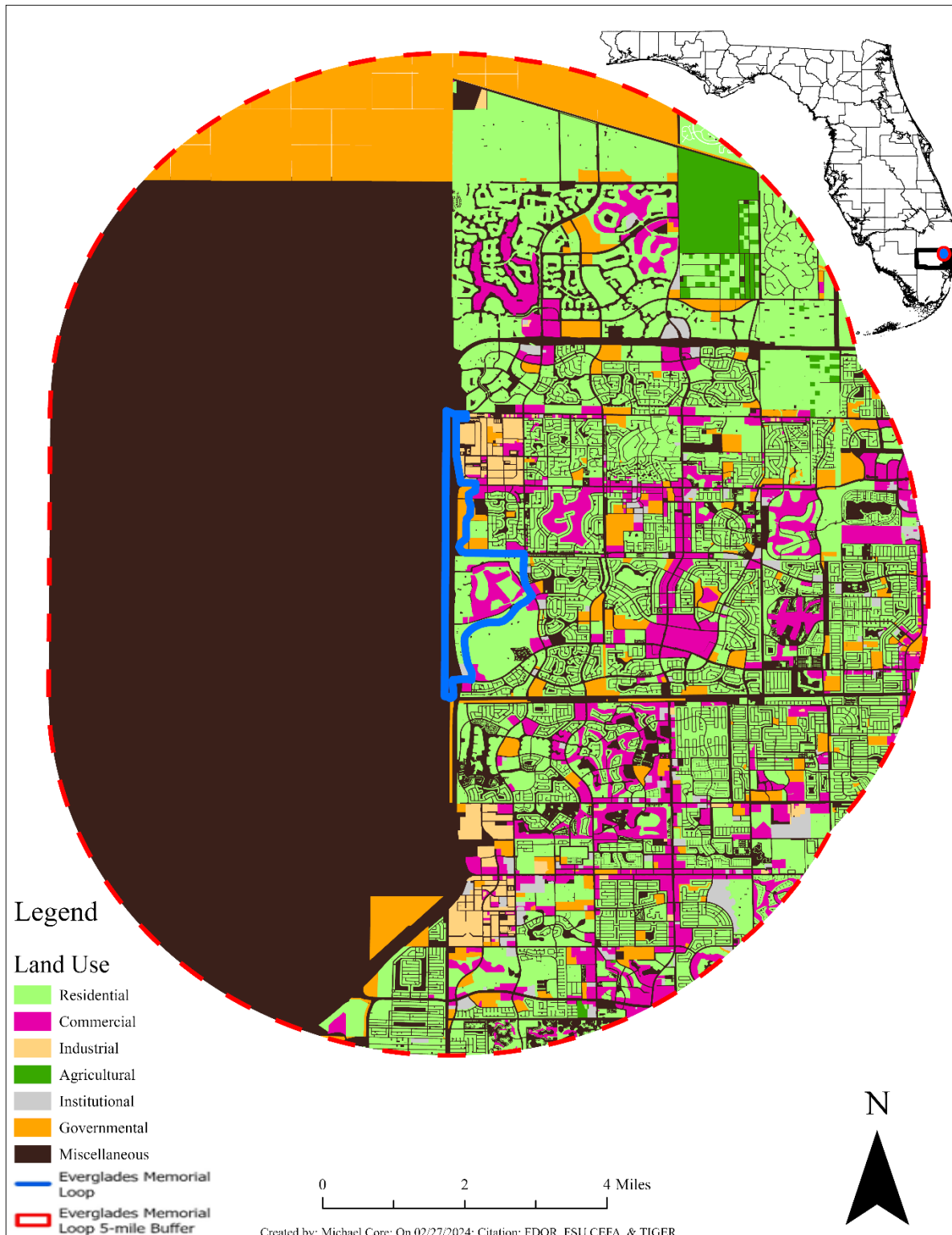


Figure B-3. Parcel Properties by Land Use

Table B-1. Market Values of Parcels Within the Everglades Memorial Loop 5-mile Buffer

Land Use Category	Number of Parcels	Total Market Value
Residential	77,188	\$ 34,463,808,518
Commercial	1,933	\$ 3,684,279,080
Industrial	782	\$ 1,171,345,620
Agricultural	94	\$ 149,902,950
Institutional	273	\$ 943,655,370
Governmental	608	\$ 1,967,351,816
Miscellaneous	80,994	\$ 42,855,867,120
Total	161,872	\$ 85,236,210,474

Table B-2. Businesses, Employees, and Sales Per Sector Within Everglades Memorial Loop 5-mile Buffer

Business, Sales, and Employment Per Sector Within the 5-mile Buffer			
Sector (By SIC)	Number of Businesses	Number of Employees	Total Sales
Agriculture, Forestry and Fishing	762	2,473	\$ 133,019,953
Mining	14	61	\$ 13,507,064
Construction	3,338	10,969	\$ 1,243,696,522
Manufacturing	1,021	6,818	\$ 1,241,213,295
Transportation	2,529	12,293	\$ 2,022,063,180
Wholesale Trade	1,994	8,330	\$ 1,977,480,088
Retail Trade	5,078	41,244	\$ 5,226,727,010
Financial Services	5,129	17,520	\$ 2,307,528,054
Miscellaneous Services	36,236	1,27,621	\$ 8,803,267,276
Public Administration	10	145	\$ 4,613,502
Total	56,111	227,474	\$ 22,973,115,944

The 5-mile buffer surrounding the proposed Everglades Memorial Loop comprises parcels in the cities of Coral Spring, Parkland, Tamarac, Margate, North Lauderdale, Coconut Creek, and Sunrise. ArcGIS was employed to define the 5-mile buffer and generate maps detailed in Appendix B. This section analyzes land use, residential prices by Gulf views, and business employment and sales.

Land Use

Figures B-1 and B-2 show a map of the distribution of businesses by SIC codes and property parcels designated by land use, respectively, within the 5-mile buffer. Table B-1 enumerates the number of parcels and market value for each land use category. The residential and miscellaneous categories account for the highest total market values. The residential category accounts for over 77,000 properties and over \$34.5 billion in market value. There are close to 2,000 commercial properties scattered along the 5-mile buffer with over \$3 billion in the land market value. Table B-2 displays the aggregated number of businesses, employees, and sales per sector as designated by SIC codes. Retail trade and financial services are the largest sectors by number of employees, businesses, and sales. Each of these sectors is comprised of over 5,000 businesses, had combined number of employees of about 60,000, and generated close to \$8 billion in total sales in 2020.

Appendix C. Demographics Relating to the Everglades Memorial Loop Project

The following section details population and other relevant statistics for Broward County, FL. All data collected came from JobsEQ¹¹ unless otherwise noted. In 2021, the population of Broward County was estimated to be 1,934,551. It saw 4 percent in growth from years 2016-2021. Figure C-1 compares the population growth in Broward County to the City of Coral Springs, Florida, and the United States. As shown by the Figure C-1, the population of Broward County increased at roughly the same rate as the United States did over the period. Compared to Florida, the population of Broward County increased at a much lower rate (4 percent vs. 7 percent in Florida). Lastly, the Figure also indicates that over the same period, the City of Coral Springs experienced a population growth slightly greater than Broward County (5 percent vs 4 percent in Broward County).

¹¹ See: <https://www.chmura.com>

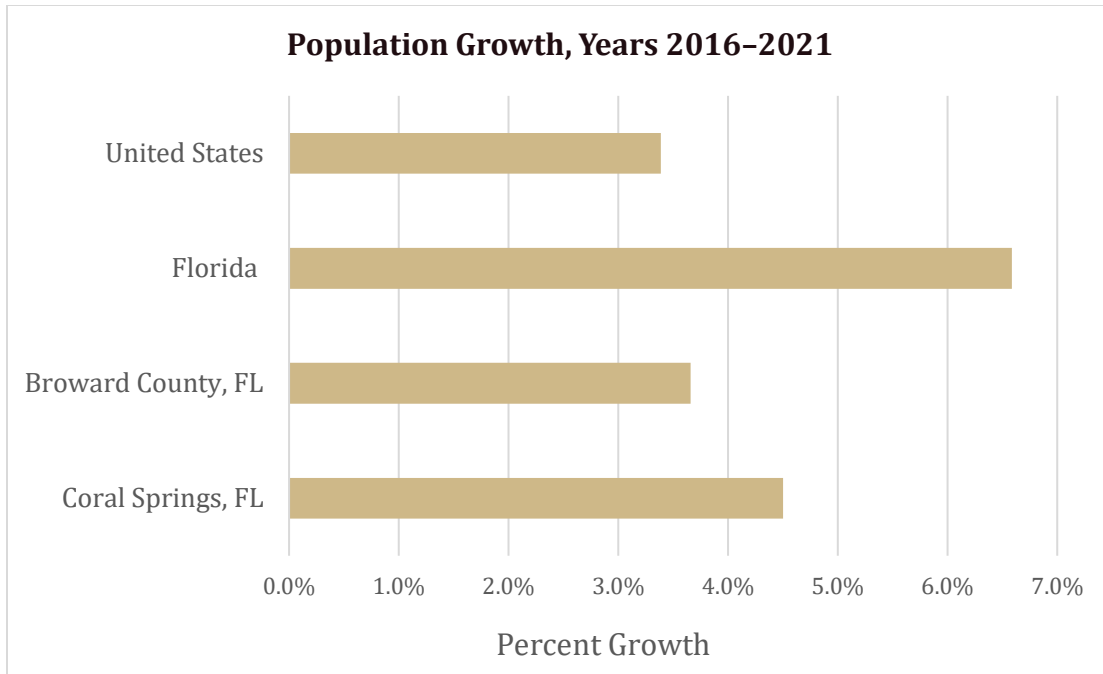


Figure C-1. Population Growth Rate for the City of Coral Springs, Broward County, Florida, and the United States, Years 2016–2021

The Broward County population is projected to grow 11 percent from years 2025–2050¹². By 2050, the population is estimated to be 2,257,500. Figure C-2 visualizes the projected population over the period.

¹²University of Florida, Bureau of Economic and Business Research: Population Projections by Age, Sex, Race, and Hispanic Origin for Florida and its Counties, 2025-2050, With Estimates for 2022 (<https://bebr.ufl.edu/population/>)

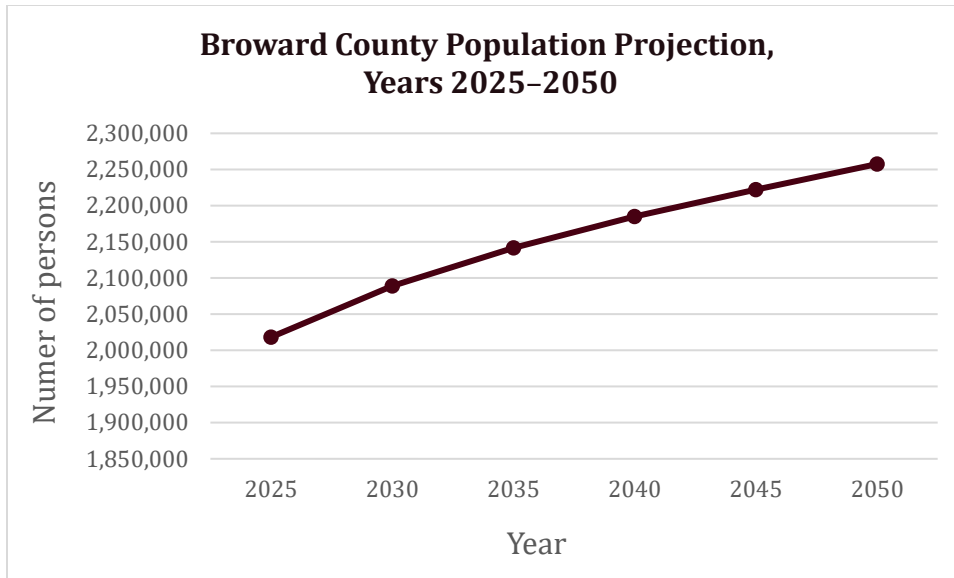


Figure C-2. Broward County Population Projection for Years 2025-2050

In 2021, the median age in Broward County was 40.7 years. To better understand the age breakdown in Broward County, it is worthwhile to examine the age distribution. As shown by Figure C-3, approximately 42 percent of the population is below the age of 35 years, while 58 percent are between 35 and 75 years or older. The age distribution for Broward County is roughly similar to the distribution for the entire state of Florida. Compared to the United States, a larger percentage of the Broward County population is between 35 and 64 years of age.

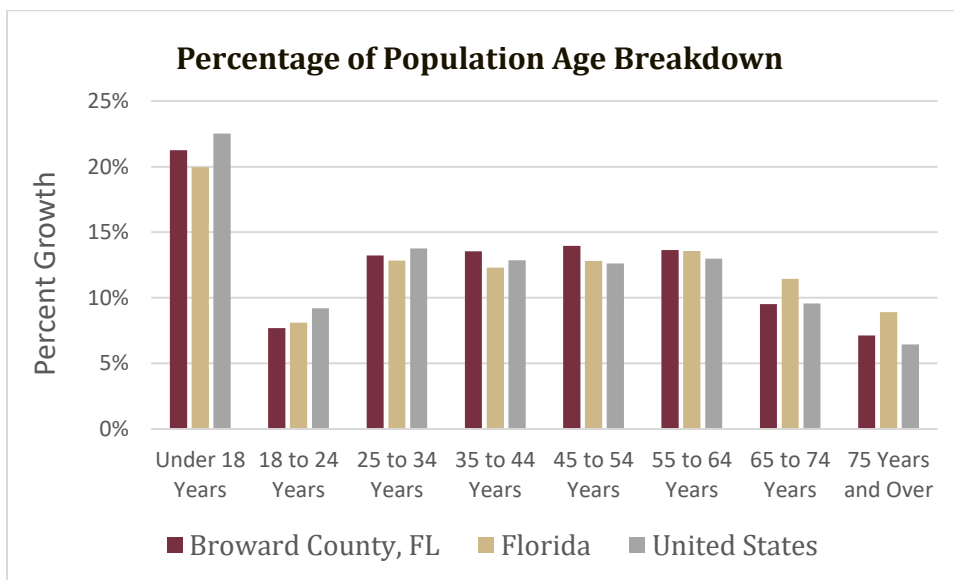


Figure C-3. Population Age Breakdown for Broward County, Florida, and the United States

From years 2016–2021, the unemployment rate in Broward County decreased by approximately three percentage points. Figure C-4 shows this trend was roughly in line with Florida and the United States overall. As of 2021, the unemployment rate in Broward County was 6 percent, compared to 5 percent in Florida, and 5 percent nationally.

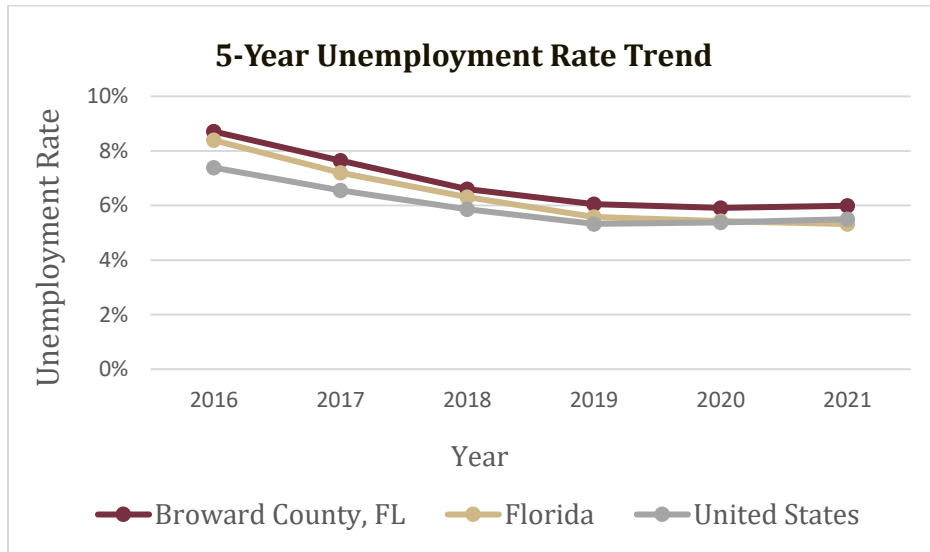


Figure C-4. 5-Year Unemployment Rate Trend for Broward County, Florida, and the United States, Years 2016–2021

The labor force participation rate, as of 2021, in Broward County was 66 percent for ages sixteen years and greater, 86 percent for ages between 25 and 54 years, and 83 percent for Veterans between the ages of 18 and 64 years. Figure C-5 compares the labor force participation of Broward County with Florida and the United States. For every category of labor force participation, the rate is higher within Broward County. This is especially true for ages 16 and older, and veterans between the ages of 18 and 64 years.

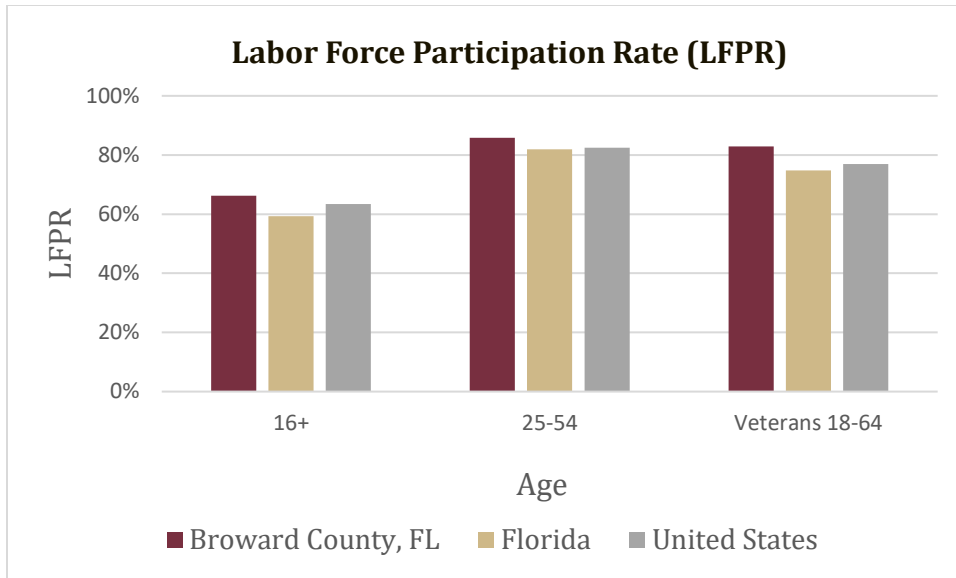


Figure C-5. Labor Force Participation Rate for Broward County, Florida, and the United States

In 2021, the median household income in Broward County was \$64,522. This number was significantly larger than the median household income for Florida at the time (\$61,777). Figure C-6 visualizes the median household income for Broward County, Florida, and the United States. As shown by Figure C-6, the median household income in Broward County was about \$4,000 less than the national figure (\$69,021). Lastly, Figure C-6 displays the City of Coral Springs as the area with the highest median household income, at \$82,944.

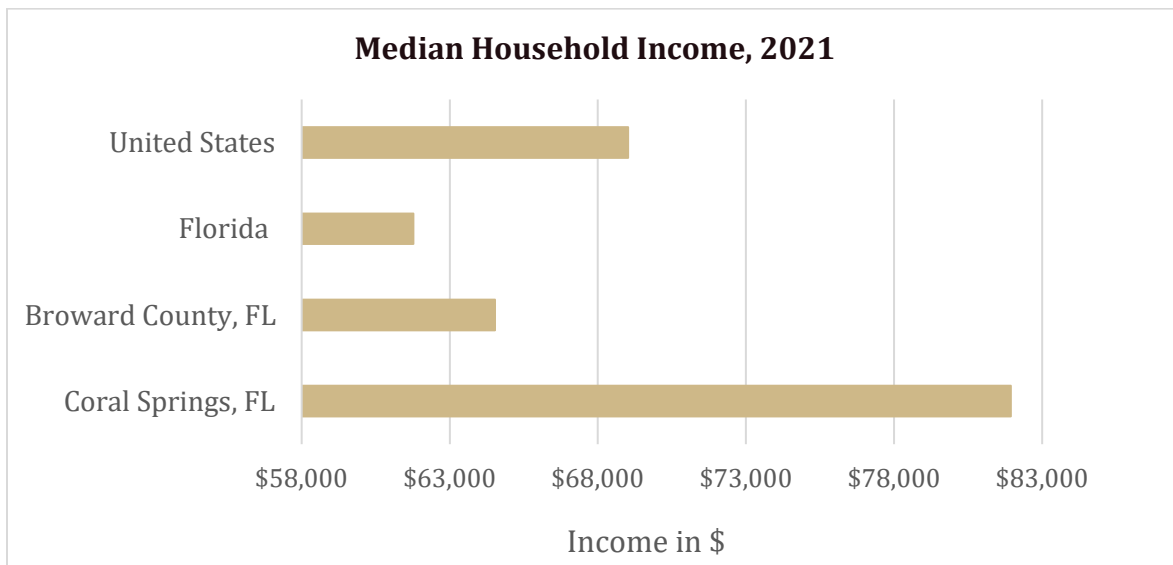


Figure C-6. Median Household Income for the City of Coral Springs, Broward County, Florida, and the United States, Year 2021

Figure C-7 displays the taxable value —property value estimated by the tax collector — at the city and county level for a 6-year period, from 2018 through 2023¹³. Despite the economic downturn sustained during the onset of the Covid-19 pandemic, the taxable value of properties in the City of Coral Springs and Broward County experienced a period of growth. From 2018 to 2023, the taxable value at city and county level increased by 36.7 percent and 34.5 percent, respectively.

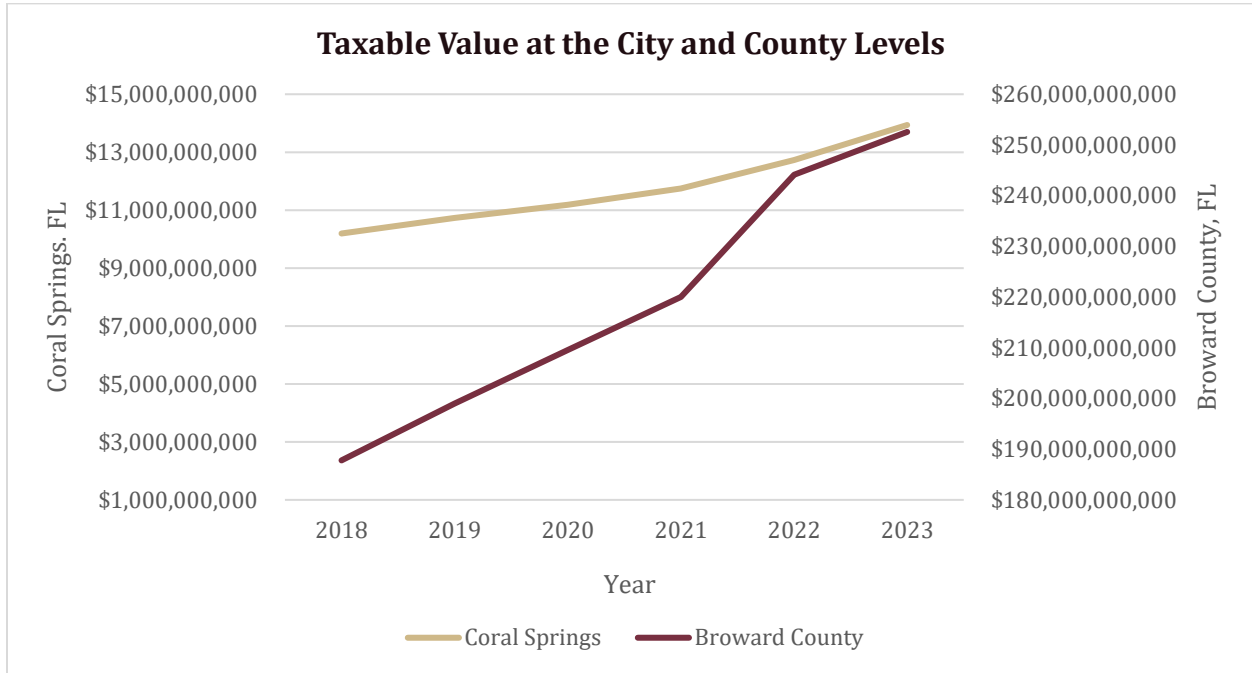


Figure C-7. Taxable Value for Properties Located in the City of Coral Springs and Broward County, Years 2018–2023

Also of interest are population statistics that measure physical activity and driving behavior. According to the Florida Department of Health,¹⁴ only 43 percent of adults in Broward County meet aerobic requirements. Twenty-four percent of adults are considered sedentary while 58 percent are considered inactive or insufficiently active. Relating to driving behavior in 2021, over 42 million daily vehicle miles were traveled in Broward County.¹⁵

¹³ See [Florida Dept. of Revenue - Property Tax - Data Portal \(floridarevenue.com\)](https://www.floridarevenue.com) for taxable value data corresponding to Coral Springs, FL and Broward, FL.

¹⁴ Florida Department of Health, Bureau of Community Health Assessment: Broward County Health Status Summary Profile 2021

(<https://www.flhealthcharts.gov/ChartsReports/rdPage.aspx?rdReport=ChartsProfiles.CountyHealthSummary>)

¹⁵ Florida Department of Transportation, Reports of Highway Mileage and Travel (DVMT): Broward County (<https://www.fdot.gov/statistics/mileagD-rpts/default.shtm>)

Table C-1. Age Distribution of Workers Living Outside the City of Coral Springs and Broward County, that are Employed in the City of Coral Springs and Broward County, Year 2021

Internal Jobs Filled by Outside Workers				
Age distribution	Coral Springs		Broward County	
Workers Aged 29 or younger	7,705	24.3%	65,803	20.6%
Workers Aged 30 to 54	16,383	51.6%	173,473	54.4%
Workers Aged 55 or older	7,684	24.2%	79,667	25.0%

Table C-1 displays information on the age distribution of individuals who in 2021 resided outside of the City of Coral Springs and Broward County but occupied jobs in the respective areas¹⁶. Of approximately 39 thousand jobs available in the City of Coral Springs, only 19 percent were occupied by individuals who also reside in the city; on the other hand, 81 percent were occupied by outside (the City of Coral Springs) workers. Conversely, in Broward County, approximately 39 percent of total jobs in the county were occupied by outside workers. Although the proportion of outside workers in Broward County is lower than in the City of Coral Springs, outside workers in Broward County still account for about 318,900 workers.

Table C-2. School Attendance within the City of Coral Springs and Respective Distance to the Everglades Memorial Loop, 2021–2022

List of Public Schools within a Mile of the Loop		
School	Number of Students	Miles to Everglades Loop
Sawgrass Springs Middle School	1,170	≈ 0.04
Coral Glades High School	2,753	≈ 0.04
Westchester Elementary School	1,092	≈ 0.1
Riverside Elementary School	681	≈ 0.8
Eagle Ridge Elementary School	819	≈ 1.1
Parkside Elementary School	594	≈ 1.3
Coral Springs Elementary School	672	≈ 1.4
J.P Taravella High School	2,752	≈ 1.5
Country Hills Elementary School	863	≈ 1.8
Coral Springs Middle School	977	≈ 1.9
Maplewood Elementary School	607	≈ 2.3

¹⁶ See [OnTheMap \(census.gov\)](https://www.census.gov)

Table C-2 displays all the public schools within proximity to the Everglades Memorial Loop¹⁷. About 13 thousand students attend schools located within 2.3 miles of the loop. Accessibility to the loop has the potential of stimulating outdoor recreation and increasing willingness to walk longer distances. As three schools, Westchester Elementary School, Sawgrass Springs Middle School, and Coral Glades High School are located within a half mile of the loop, accessibility to the loop could enhance transit to nearby neighborhoods, including parks and retail shops¹⁸.

Appendix D. Overview of the Broward County Economy

This section characterizes the current economy of Broward County using industry employment data. All industry employment data was collected from JobsEQ¹⁹ unless otherwise noted. The North American Industrial Classification System (NAICS) code list was employed to identify the principal industries Broward County. Figure D-1 shows the relevant NAICS industry categories in Broward County by the percentage of the workforce in each industry. Figure D-1 reveals that Healthcare and Social Assistance, Retail Trade, and Accommodation and Food services are the three largest industries by employment, respectively. The Figure also shows that industries such as Agriculture, Forestry, Fishing, and Hunting, Utilities, Mining, and Waste Management and Remediation are a marginal percentage of the workforce.

¹⁷ Estimated distance to the Everglades Memorial Loop was gathered using Google maps.

¹⁸ Number of students was sourced from <https://www.usnews.com/education/>

¹⁹ See: <https://www.chmura.com>

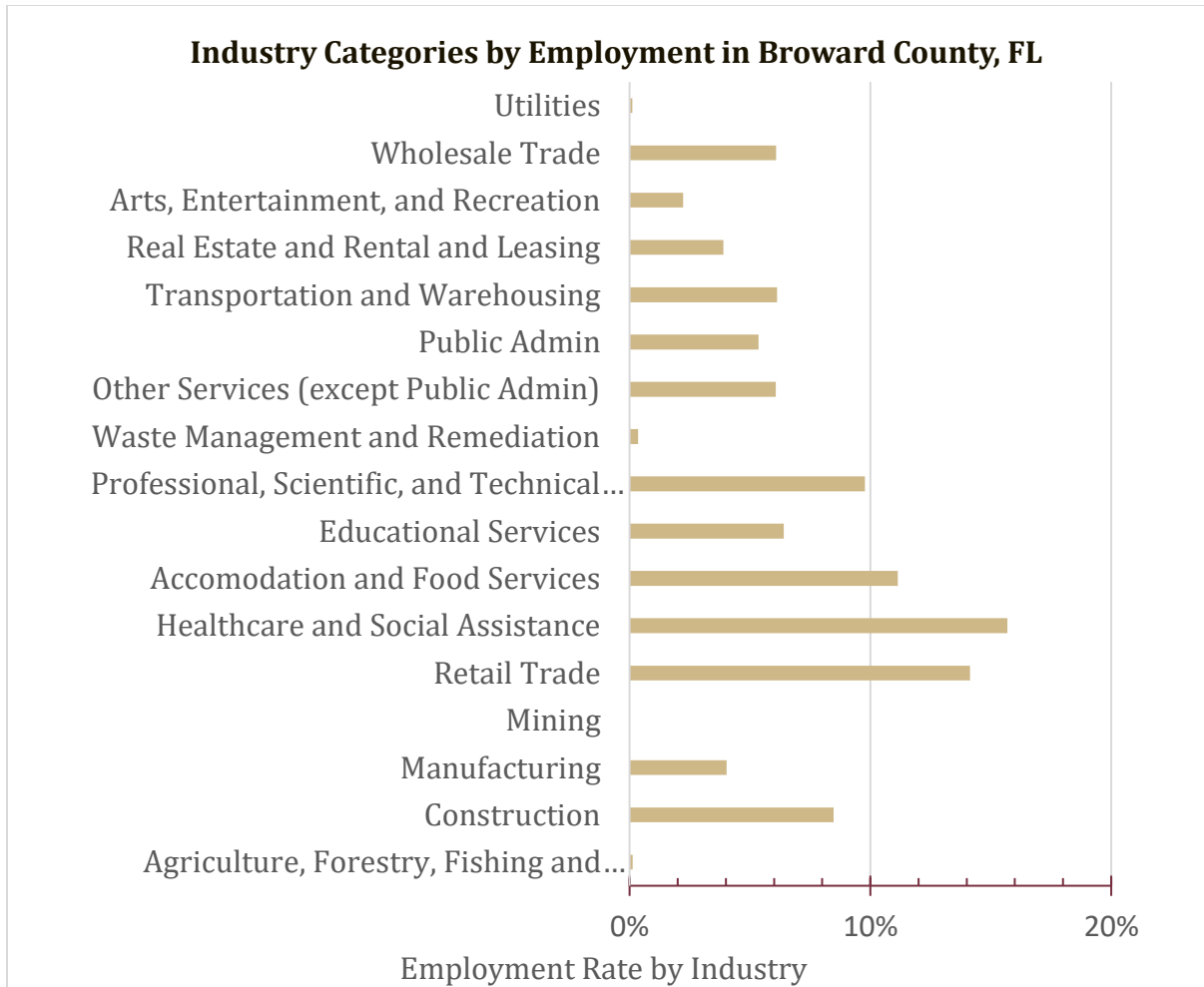


Figure D-1. Relevant Industry Categories by Employment in Broward County

The relevant industries in Broward County can be separated into two distinct categories: Goods Producing and Services. A goods producing industry is one with physical outputs that are either sold as final goods or used as inputs in the production process. Figure D-2 visualizes the employment trend in the goods producing sector from 2008-2023. The largest industries by employment over the period were Construction and Manufacturing. As shown by Figure D-3, Construction accounted for 66.9 percent of the goods producing workforce in 2008, and Manufacturing accounted for 31.7 percent of the goods producing workforce. Agriculture, Forestry, Fishing, Hunting, and Mining made up less than 2 percent of the goods producing workforce in 2008. From 2008-2023, Construction and Manufacturing employment, as a percentage of the goods producing workforce, remained roughly the same. Agriculture, Forestry, Fishing, and Hunting, as a percentage of the goods producing workforce, decreased by a marginal amount.

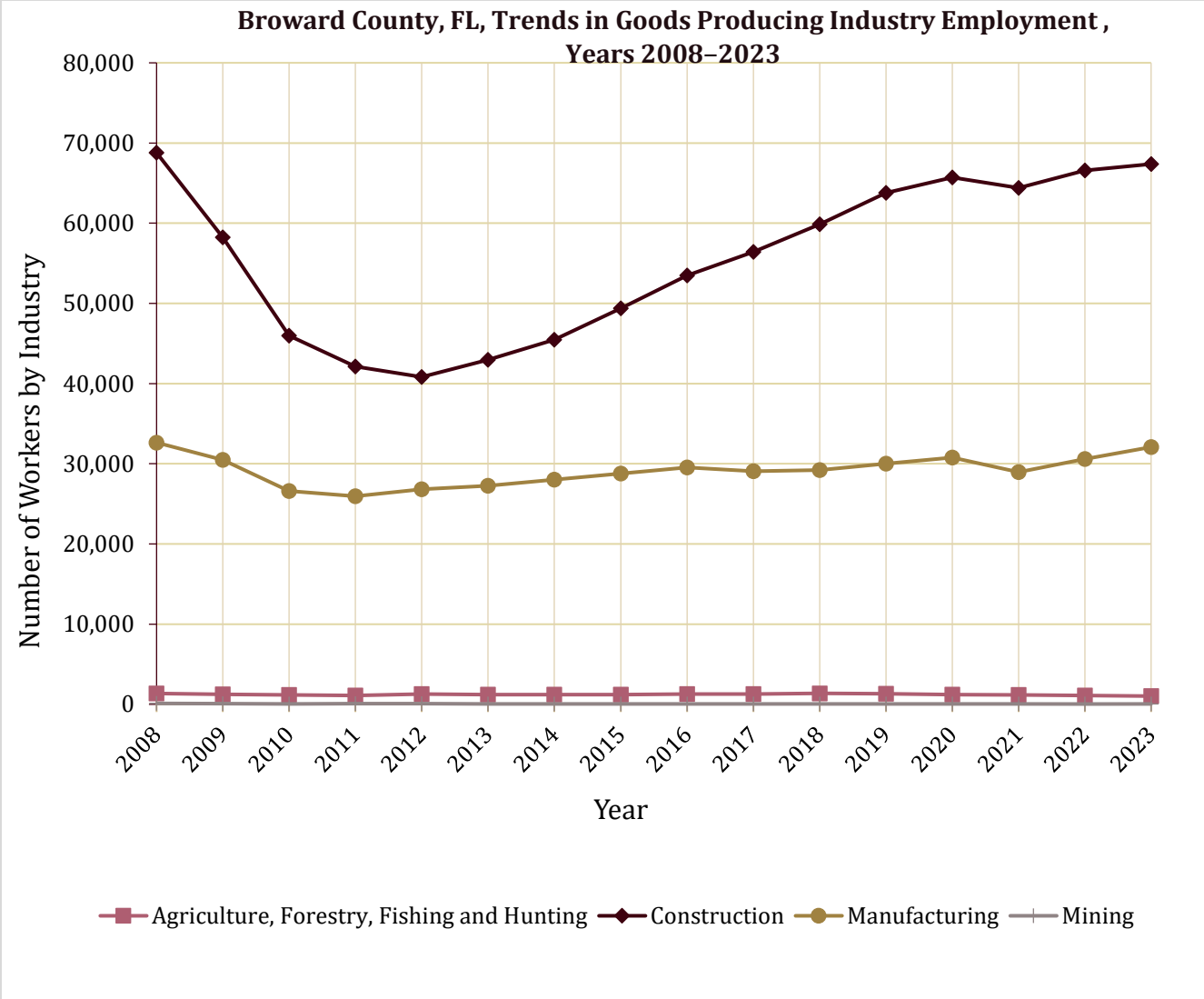


Figure D-2. Trends in Goods Producing Industry Employment, Years 2008–2023

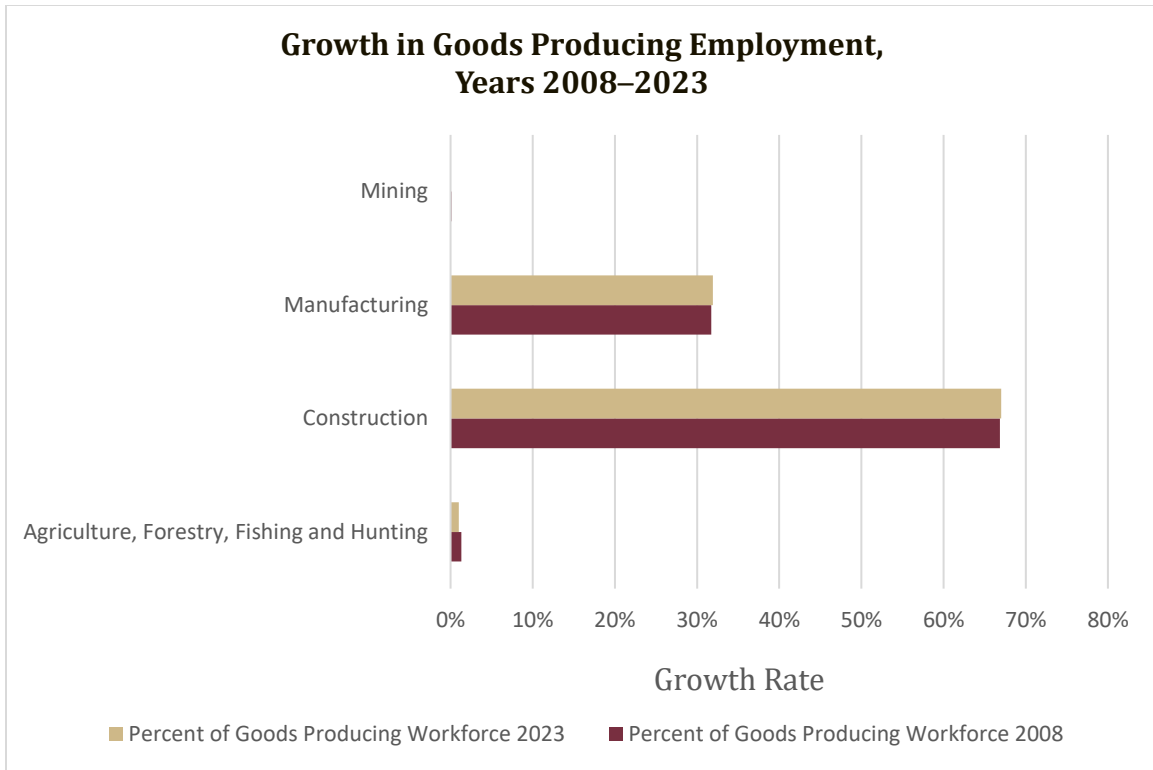


Figure D-3. Growth in Goods Producing Employment, Years 2008–2023

Compared to the goods producing industry, the service industry does not provide tangible goods. Instead, tasks are performed for businesses or consumers. Figures 10 and 11 display the 15-year trend in service industry employment within Broward County. As shown by Figures D-4 and D-5, the largest industries by employment over the period were Healthcare and Social Assistance, Retail Trade, and Accommodation and Food services. Compared to the goods producing industries, service industries saw employment decrease quite dramatically during the COVID-19 related economic downturn from 2020-2021. Every industry except Professional, Scientific, and Technical Services had employment decreases. It should also be noted that Healthcare and Social Assistance employment has grown consistently over the period to become the largest industry by employment.

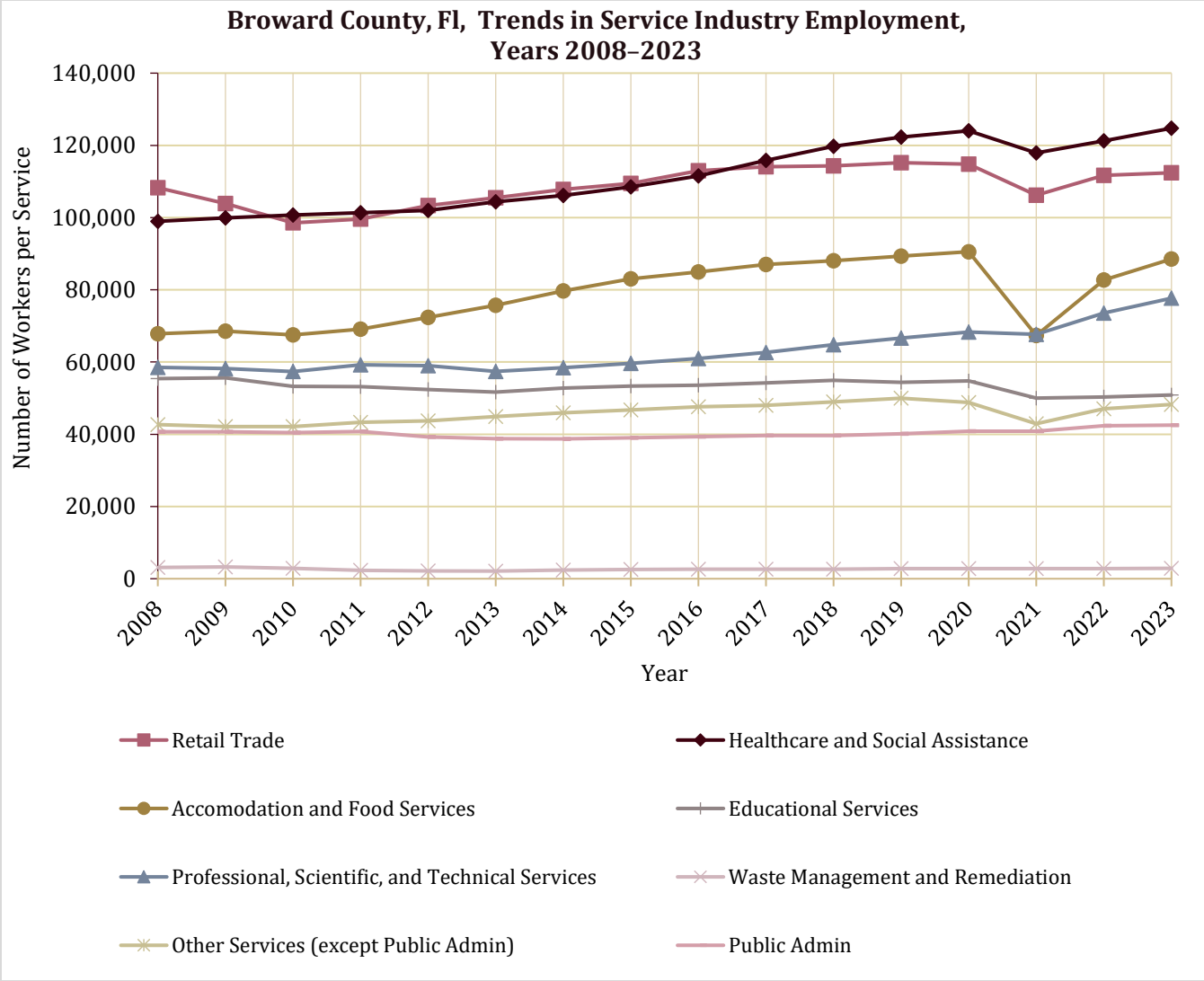


Figure D-4. Trends in Service Industry Employment, Years 2008–2023

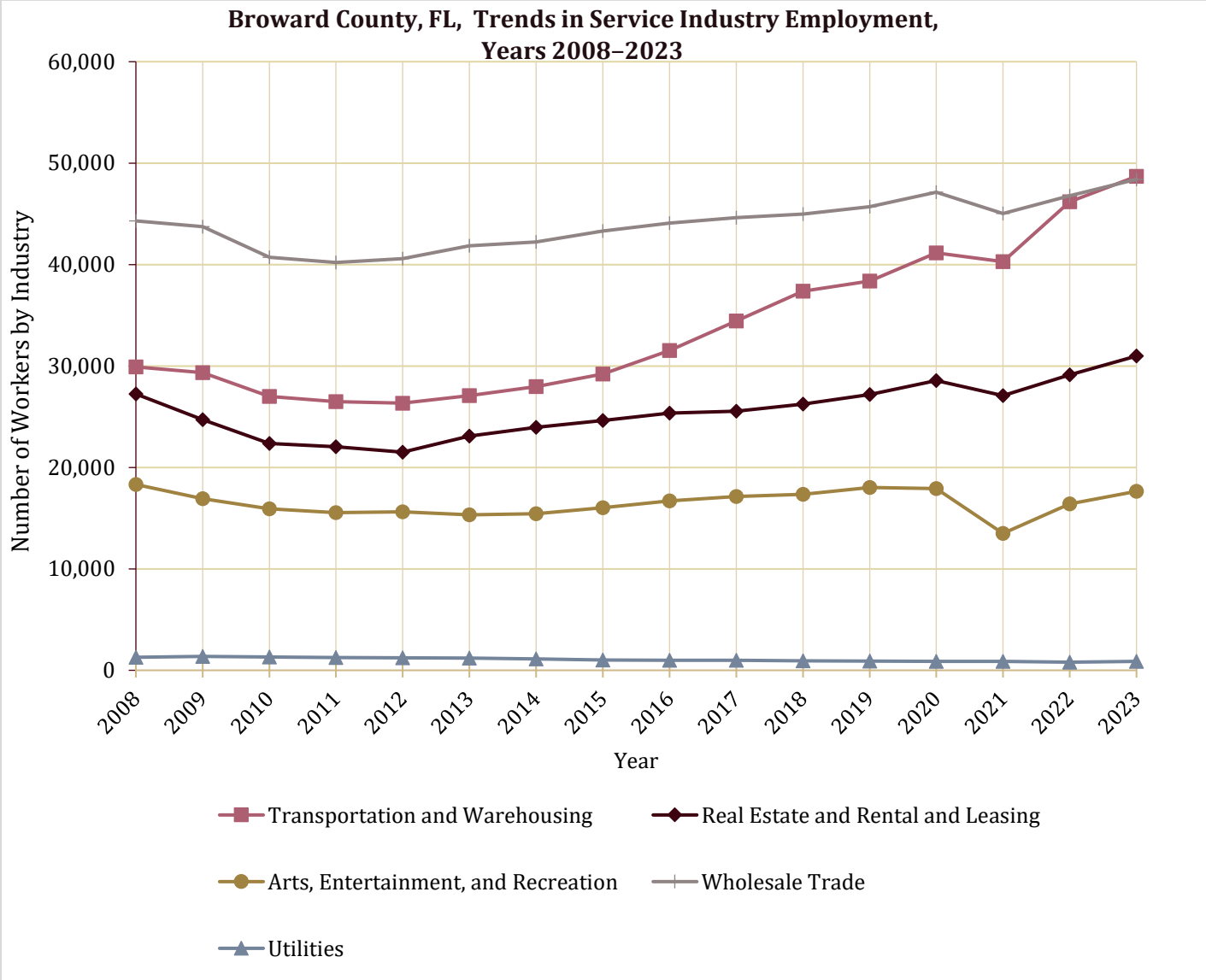


Figure D-5. Trends in Service Industry Employment, Years 2008-2023 (Cont.)

Figure D-12 displays changes in the makeup of the service industry from 2008-2023. Retail Trade, Healthcare and Social Assistance, and Accommodation and Food Services made up 18.1 percent, 16.6 percent, and 11.4 percent of the service industry workforce in 2008, respectively. From 2008-2023, Healthcare and Social Assistance and Accommodation and Food Services employment increased as a percentage of the service industry workforce, while Retail Trade decreased by approximately 2 percentage points. Other industries, such as Professional, Scientific, and Technical Services and Transportation and Warehousing saw their percentage of the service industry workforce increase by about 2 percentage points from 2008-2023.

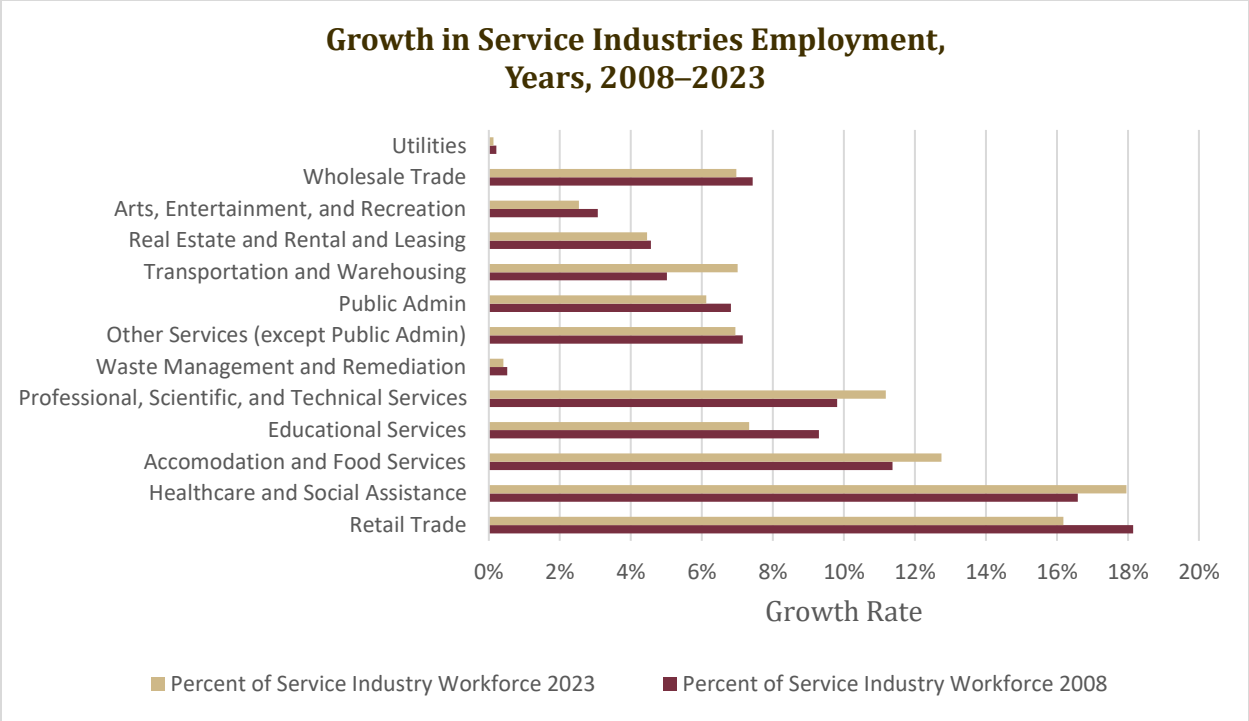


Figure D-6. Growth in Service Industry Employment, 2008–2023

Appendix E. Economic Impact of State Parks and Trails

State parks and trails serve as a significant source of revenue for local communities. Through job creation and direct economic impact as measured via sales tax revenue, this section provides historical background of the economic benefits that communities derive from state parks and trails. First, Figures E-1 and E-2 employ data from the Florida Department of Environmental Protection. Lastly, Figure E-3 employs data from the Florida Department of Revenue to demonstrate sales tax revenue generated by Broward County from tourism and recreation activities.

In addition to data encompassing the impact of parks and trails at the state level, Table E-1 displays data specifically on the revenue generated by the City of Coral Springs through its public parks.

Figure E-1 details the direct economic impact and sales tax revenue generated from visits to Florida's 175 state parks, trails, and historic sites from FY 2018–2019 through FY 2021–2022.²⁰ Consistent with the state of Florida's tourism during the Covid-19 pandemic — which saw a sharp decline of 19.1 percent and 10.6 percent in FY 2018-2019 and 2020–2021, respectively²¹ — the overall economic contribution of Florida's state parks and trails experienced a similar sharp decline. As a result, the direct economic impact and sales tax revenue fell from \$2.6B in FY 2018-2018 to approximately \$607M in FY 2020–2021, representing a 76 percent decline in the two-year period. Similarly, sale tax revenue fell by 76 percent, from \$176M in FY 2018–2019 to \$41M in FY 2020–2021. However, an increase of visits to Florida's state parks and trails in FY 2021–2022 resulted in approximately a 50 percent increase in both direct economic impact and sales tax revenue relative to pre-pandemic numbers.

²⁰ Sourced from Florida Department of Environment Protection, [Recreation and Parks | Florida Department of Environmental Protection](#)

²¹ Sourced from The Florida Legislature Office of Economic and Demographic Research, [state.fl.us](#)

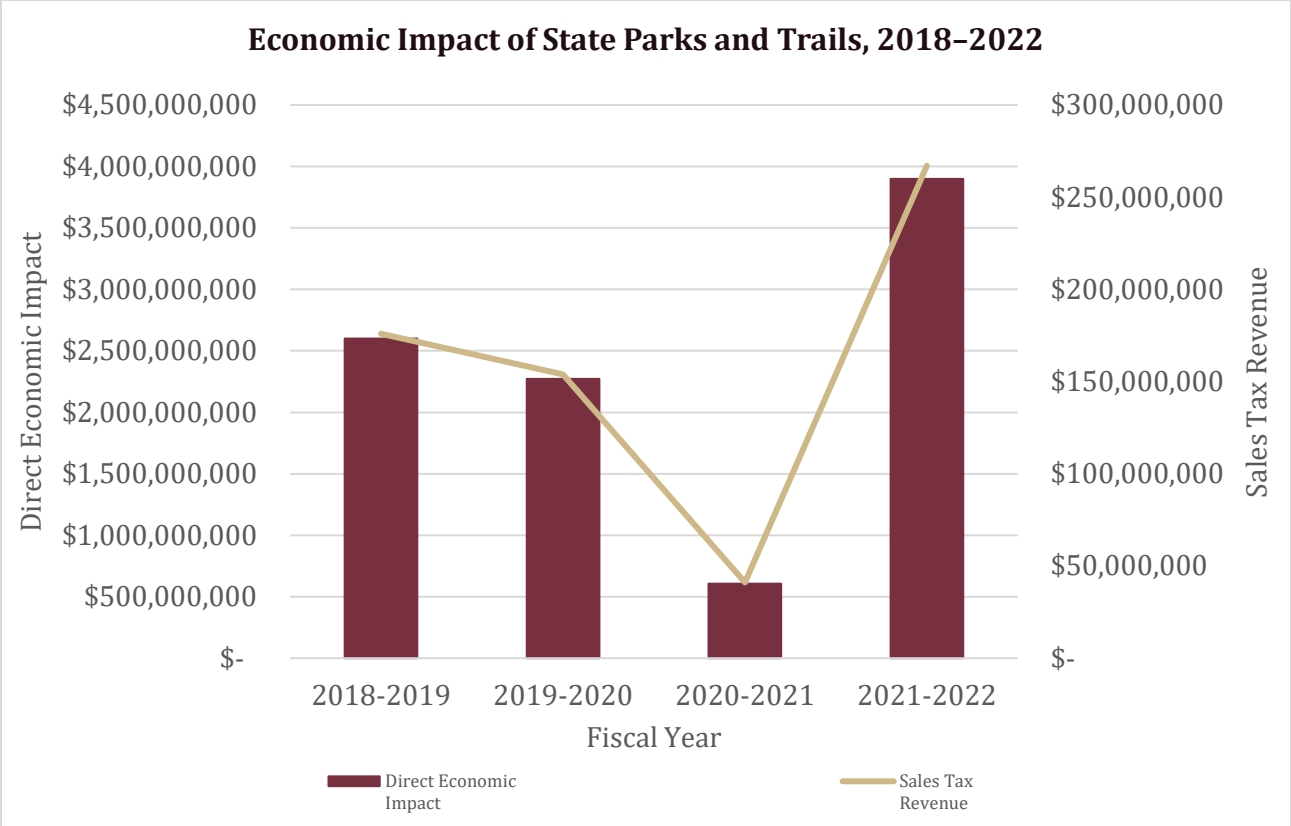


Figure E-1. Economic Contribution of Florida State Parks and Trails, Years 2018-2022

Figure E-2 shows the number of yearly visitors to Florida’s 175 state parks, trails, and historic sites as well as the number of jobs supported through outdoor recreation. Although the number of visitors and jobs created moved in accordance with the rest of the economy during the Covid-19 pandemic, note that numbers for FY 2021-2022 increased significantly over pre-pandemic visits. For instance, FY 2021-2022 saw the number of visitors increased to 32 million, a 2.6 million increment from pre-pandemic figures. The number of jobs created also saw an increase in FY 2021-2022 relative to FY 2018-2019 of about 17,000 jobs.

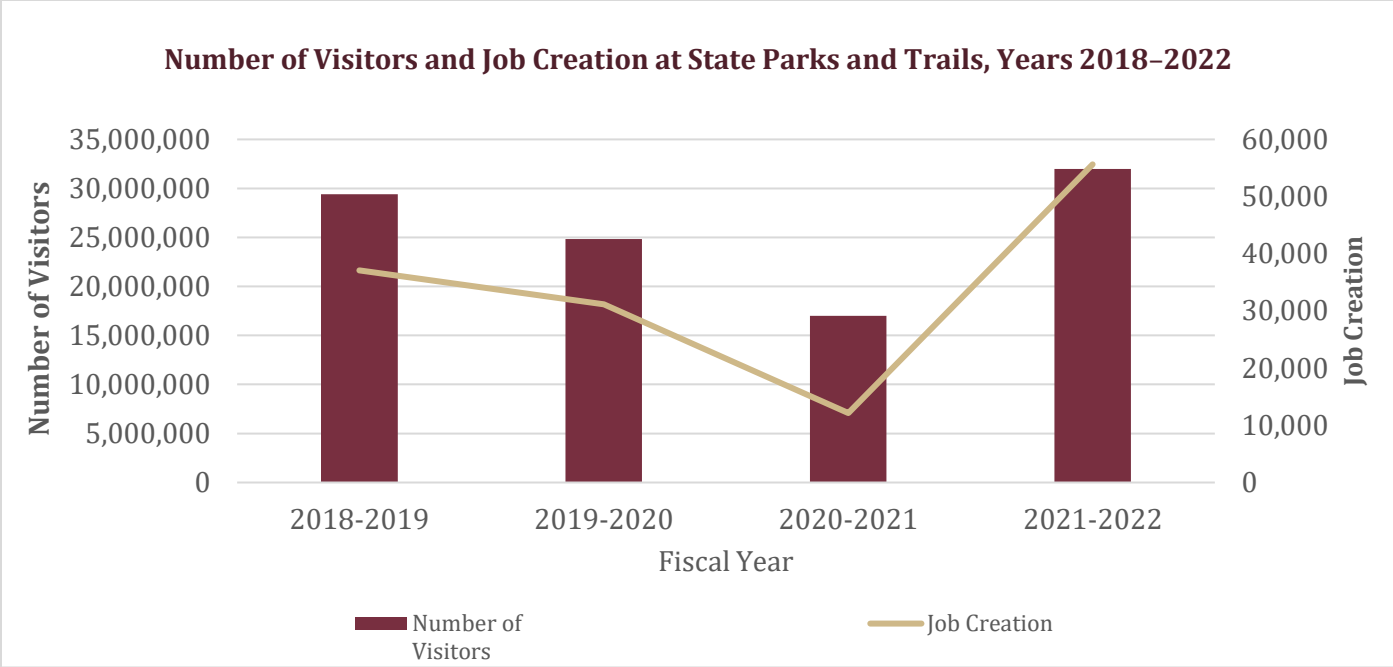


Figure E-2. Number of Visitors at State Parks and Trails and Total Jobs Created, Years 2018-2022

Figure E-3 demonstrates historical sales tax revenue data for Broward County pertinent to tourism and recreation activities. Note that from the trough sustained during the Covid-19 pandemic, year-over-year sales tax revenue increased through the beginning of 2023. Sales tax revenue in January 2021 decreased by approximately 31 percent compared to the previous year, however, sales tax collections substantially increased by 74 percent in January 2022, and grew by 9 percent in January 2023 from the previous year. Lastly, April 2023 registered the highest level of sales tax revenue at \$64,290,742 across the 4-year period.

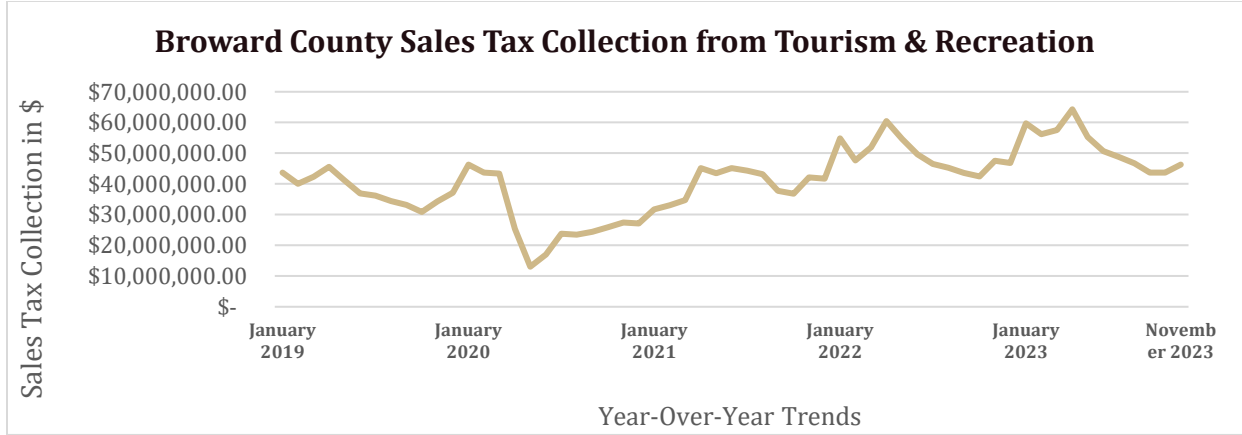


Figure E-3. Sales Tax Collection derived from Tourism and Recreation in Broward County, Years 2019-2023

Also of interest is the revenue generated by the City of Coral Springs through its public parks and facilities²². The city offers 49 public parks and 5 recreational centers and on average, 4 million patrons visit the city’s parks and public facilities each year. Based on the fees collected via reservations, rentals, and other miscellaneous fees related to camps and classes, the City of Coral Springs has collected an average of \$1.6 million per year in revenues since 2012. The city’s multi-facility Sportsplex Park has generated an average of \$360,000 in annual revenues since 2012.

Table E-1. Revenue Generated by the City of Coral Springs Through Public Parks, 2020

Parks and Recreation Revenues from 2012-2020		
Fiscal Year	Sportsplex	Coral Springs
2012	\$ 294,650	\$ 1,678,657
2013	\$ 277,730	\$ 1,583,808
2014	\$ 368,942	\$ 1,645,464
2015	\$ 380,385	\$ 1,693,904
2016	\$ 384,399	\$ 1,695,906
2017	\$ 378,961	\$ 1,539,324
2018	\$ 480,192	\$ 1,538,774
2019	\$ 360,639	\$ 1,352,161
2020	\$ 347,500	\$ 1,912,644

²² Data was collected through the City of Coral Springs Revenue Manual, 2020.