

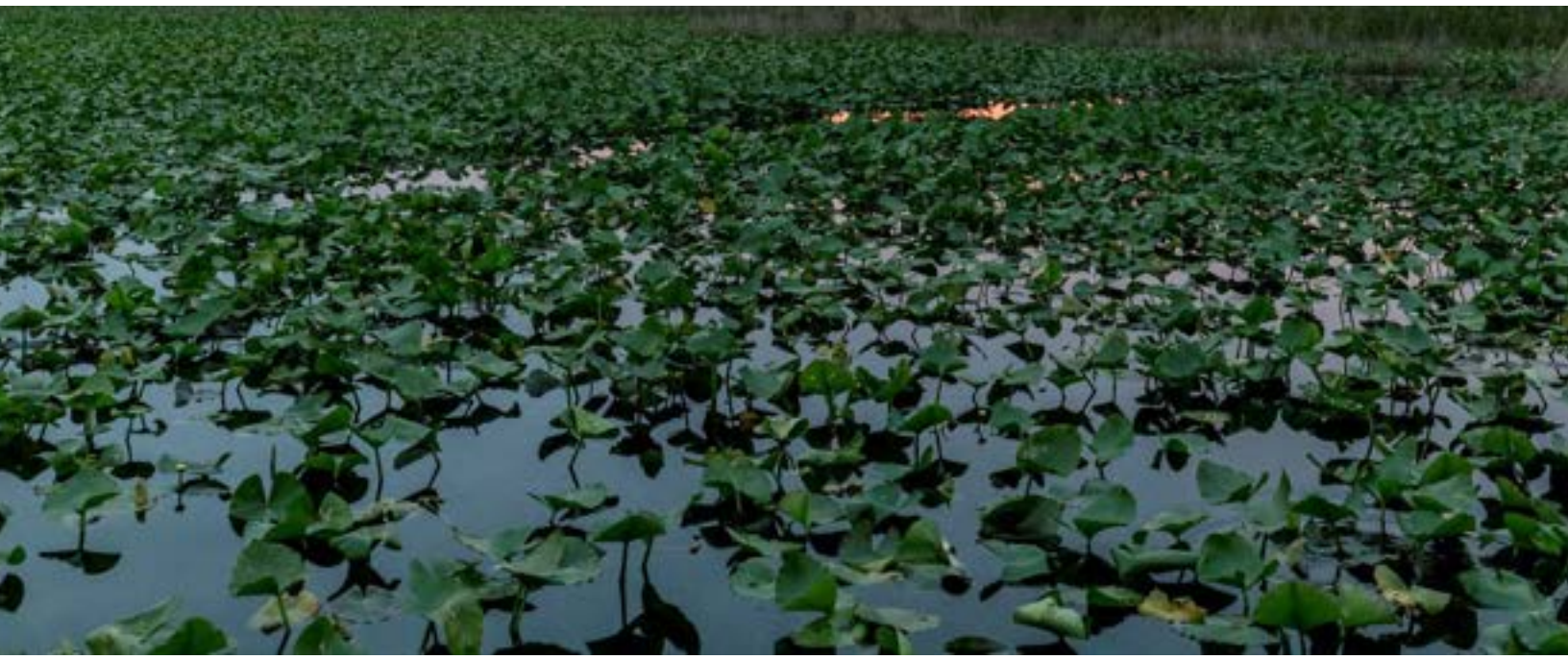
Projected Economic Impact of UNESCO World Heritage Site Designation: The Okefenokee National Wildlife Refuge

February 2024

Lance Gloss

Program Manager, Natural Resource Economy

The Conservation Fund



Executive Summary

Designation of the Okefenokee Swamp as a World Heritage Site by the United Nations Educational, Scientific and Cultural Organization (UNESCO) will likely influence the economies of the three Georgia counties surrounding the Okefenokee. This study assesses the economic impact of tourism and related spending, both at present and in the likely case that World Heritage status is achieved—and engaged for maximum benefit.

Based on data collected by public agencies and private businesses, over 800,000 people visit the Okefenokee each year, spending \$91.5 million in Ware, Charlton, and Clinch Counties. This spending has direct effects, as well as indirect and induced effects—the ripple effects of visitor spending on the region’s economy. These broader ripple effects are sizable: tourism supports 750 jobs, \$79 million in economic output, and \$11.1 million in annual tax revenue in the area.

Tourism is already growing at 4% annually—World Heritage may increase this rate to 6% or 8%. If the bid to designate the Okefenokee as a World Heritage Site is successful, the region can expect number of visits to double to 1.4 million or 1.6 million visits by 2035.

Depending on the extent, geographic distribution, and character of new visitation, the Okefenokee region can expect to gain as many as 700 new jobs and grow its economic output to over \$140 million. This translates to a 1-2% increase in GDP regionwide.

Because of these ripple effects, the regional economy is likely to benefit beyond the tourism sector. World Heritage would boost related industries and spending by employees of businesses that provide products and services to tourists. While harder to measure, quality of life is also likely to improve, with benefits for small businesses and business recruitment.

Notably, the number of visits and the revenue generated by tourism are uneven across counties. Some 80% of visits to the Okefenokee are made through Charlton County, but 90% of revenues are captured in Ware County. Investing in lodging, retail, and food service businesses would help the two less populous counties—Charlton and Clinch—to leverage this opportunity for growth. Dispersing investments may also reduce pressure on Ware County’s infrastructure and lengthen visitor stays, benefitting the whole region.

This study also considers the direct impact that new visitation infrastructure may have on the region. Four new visitor services facilities are planned—with a total cost of nearly \$38 million—that will improve visitor experiences and quality of life. These projects will generate immediate economic activity, including over 300 construction jobs, as well as long-term benefits.

Further, the average visitor to the Okefenokee region today appears to spend less than half of what the typical visitor to Georgia spends. The region may readily seek to increase the revenue associated with each visit—through lengthened stays and more unique experiences. Doing so will allow communities adjacent to the Okefenokee to manage growth while maximizing opportunity for residents and businesses.

About This Report

In 2023, Okefenokee Swamp Park, Inc., the Okefenokee National Wildlife Refuge, The Conservation Fund, and other private, non-profit, and government entities determined the need to estimate economic impact associated with World Heritage Site designation. The Conservation Fund, a national non-profit organization dedicated to partnership-driven conservation and economic development, initiated this study as a part of its platform for Activating the Natural Resource Economy, which has received funding from the Richard King Mellon Foundation. Cover photo by The Okefenokee Swamp Park, Inc.

Special thanks to Peter McNeary, Evan Smith, Lindsay White (The Conservation Fund), E. Brent Lane (Ohio University), Kim Bednarek, Levi Welling, Martin Cheatham (Okefenokee Swamp Park), Michael Lusk (U.S. Fish and Wildlife Service), Bryan S. Gray (Georgia Department of Natural Resources), and the State of Georgia Department of Economic Development.

Definitions

World Heritage Site – A location recognized by the United Nations Education, Scientific, and Cultural Organization as providing Outstanding Universal Value to humanity.

United Nations Education, Scientific, and Cultural Organization – An agency of the United Nations founded in 1945 and dedicated to promotion of science, education, culture, and the arts as a means of promoting cooperation among nations.

Direct Effects – Effects of actual jobs created, wages, and other spending by a change in an industry. This typically reflects growth in an industry due to increased spending in that industry.

Indirect Effects – Effects of purchases made by businesses with a direct supplier relationship with a changing industry. This typically reflects growth in an industry due to increased spending in other, related industries.

Induced Effects – Effect of increased expenditures made as a result of changes in income that are caused by direct and indirect effects. This typically reflects how spending of wages made by employees in a growing industry leads to growth in other industries.

IMPLAN – Software package designed for economic impact assessment based upon an input-output methodology and various public datasets.

Leakage – Refers to money that leaves an area's economy, and indicative of unmet opportunity for local value creation.

Location Quotient – A statistical measure of an industry's concentration in a geographic area, relative to the concentration of that industry in a larger area.

NAICS Code – Standard system for classifying businesses by industry in the United States.

Introduction

The Okefenokee is an economic and cultural anchor that brought some 800,000 visitors to southeast Georgia last year. Visitation and associated economic activity are concentrated in the counties that encompass the swamp: Clinch, Charlton, and Ware Counties of southeast Georgia, and areas of northeast Florida.

This economic impact assessment examines how the anticipated designation of the majority of the Okefenokee National Wildlife Refuge (NWR) as a World Heritage Site is likely to influence the economy of these three Georgia counties.

World Heritage Site designation would focus on the ecological value of the Okefenokee Swamp, the largest blackwater wetland ecosystem in North America. The Okefenokee is the headwaters of two major rivers—the Suwanee River to the south and the St. Marys River to the east. The United States Department of Interior will nominate the swamp as a World Heritage Site candidate to UNESCO in early 2025, with designation expected in the summer of 2026.

Whereas the ecological value of the swamp is the primary focus of UNESCO, this assessment focuses on the economic value of the swamp. It projects how changes to visitation that result from designation would influence economic output, job growth, and tax revenue over the following decade, to 2035.

Visitation outcomes are linked not only to World Heritage, but to the context of associated economic development strategies currently underway and aimed at preparing the region to leverage designation for economic benefit. This context is also considered here.



Above: An American alligator (*Alligator mississippiensis*) dips its tail into the dark freshwater of the Okefenokee. Photo by The Okefenokee Swamp Park, Inc.

Economic Modeling

This study uses an industry-standard input-output model and baseline regional economic data to estimate the economic impact of visitation and construction on Charlton, Clinch, and Ware Counties. This input-output model is a function of the Impact Analysis for Planning (IMPLAN) econometric modeling software program.¹

The input-output model estimates three types of impact. Each is derived from spending patterns allocated across industry groups, based on actual data from the Bureau of Economic Analysis (BEA), Department of Agriculture (USDA), Bureau of Labor Statistics (BLS), and others. These data allow a measurement of direct, indirect, and induced effects of spending, as follows:

Direct effects are effects of actual jobs created, wages, and other spending by an industry.

Indirect effects are effects of purchases made by businesses with a direct supplier relationship with affected industries.

Induced effects are effects of increased expenditures made by employees of direct and supplier businesses.

In typical studies of tourism's economic impact, key data points include several expenditure categories, most importantly visitor spending, as well as capital investments and operations and maintenance related to visitor services. Inputs for the model are derived from the best available local data, as is the case here.

To estimate visitation rates, this study uses data provided by Georgia State Parks, the U.S. Fish and Wildlife Service, and The Okefenokee Swamp Park, Inc. These data provide for an estimate of current visitation rates, from which an estimate of future visitation was projected.

Visitor expenditures—both in magnitude and allocation across industries—were provided by the State of Georgia Department of Economic Development, the primary entity in the state for collection of these data. These expenditures are reported across the categories of food, travel, lodging, retail, and recreation and entertainment.

Estimates of costs associated with visitor services infrastructure are sourced from the U.S. Fish and Wildlife Service and The Okefenokee Swamp Park, Inc. for the four major visitor infrastructure projects considered herein.

Alternative approaches to economic impact assessment rely on surveys of visitor spending. Such approaches require the conducting of medium- to large-sample-size surveys, online or in-person, across the geographies measured. Rather than survey data, this study uses actual 2022 spending data collected by the State of Georgia Department of Economic Development for the three counties under study.

World Heritage Site Designation

In 1972, the United Nations adopted the “Convention Concerning the Protection of the World Cultural and Natural Heritage.” This Convention was prompted by several efforts across the globe, including a bipartisan coalition of U.S. legislators and the Lyndon B. Johnson and Richard Nixon administrations. Since that time, UNESCO has designated 25 sites across the United States as World Heritage Sites, all of which remain under U.S. sovereignty after designation.

Outstanding Universal Value is the measure by which UNESCO decides on World Heritage designation. A site must demonstrate that, based on criteria applied to either natural or cultural sites, it is “so exceptional as to transcend national boundaries and to be of common importance for present and future generations of all humanity.”ⁱⁱ

World Heritage designation for sites of natural importance is determined by ten criteria, of which at least one must be met to achieve designation. These include the following criteria under which the Okefenokee is most likely to proceed:

Criterion IX: An outstanding example representing significant on-going ecological and biological processes in the evolution and development of terrestrial and freshwater ecosystems and communities of plants and animals.

In this regard, the Okefenokee’s intact, precipitation-based hydrology sets it apart from other wetland ecosystems in the nation, particularly for its size. The Okefenokee region also includes sections of southern yellow pine savanna, an ecosystem that once dominated the southeastern United States and today retains only 4% of its original range.

Criterion X: Contains the most important and significant natural habitats for in-situ conservation of biological diversity, including those containing threatened species of outstanding universal value from the point of view of science or conservation.

Here, in addition to its unique status as a headwaters swamp—a relative rare wetland type—the Okefenokee’s peat batteries, land prairies, creek channels, cypress forests, and longleaf pine flatwoods are home to more than 600 plant species and numerous fauna. It is a noted hotspot for endemic species of reptiles, amphibians, and birds, and contains large populations of cypress trees, many of them over 500 years old. It hosts a substantial population of black bears and has been considered as a relocation site for Florida panthers.

The technical details of designation are numerous and are applied in a context of complex land ownership. Notably, approximately 90% of the more than 400,000-acre swamp is protected by the Okefenokee NWR. Other portions are privately owned or controlled by the State of Georgia. Within the NWR, 353,981 acres are designated as a National Wilderness Area (NWA). It is technically the NWA that would be designated by UNESCO as a World Heritage Site. Yet, based

on the experience of other World Heritage Sites, the impact of World Heritage status is relevant to the entire region.

The Okefenokee NWR would, if inscribed, become the first in the National Wildlife Refuge system to achieve World Heritage status. All other World Heritage sites in the country are under the purview of the National Park Service. However, the National Park Service Office of International Affairs will be the entity to nominate the Okefenokee to UNESCO on behalf of the United States, expected in December 2024. If successful, World Heritage inscription would be confirmed in the summer of 2026.

Right: A cluster of Hooded Pitcher Plants (*Sarracenia minor*) in the Okefenokee National Wildlife Refuge. Photo by The Okefenokee Swamp Park, Inc.



Left: An aerial photo of wetlands, cypress forests, and land prairies in the Okefenokee National Wildlife Refuge. The Okefenokee swamp is more than 400,000 acres in size. Photo by The Okefenokee Swamp Park, Inc.

Current Visitation to the Okefenokee

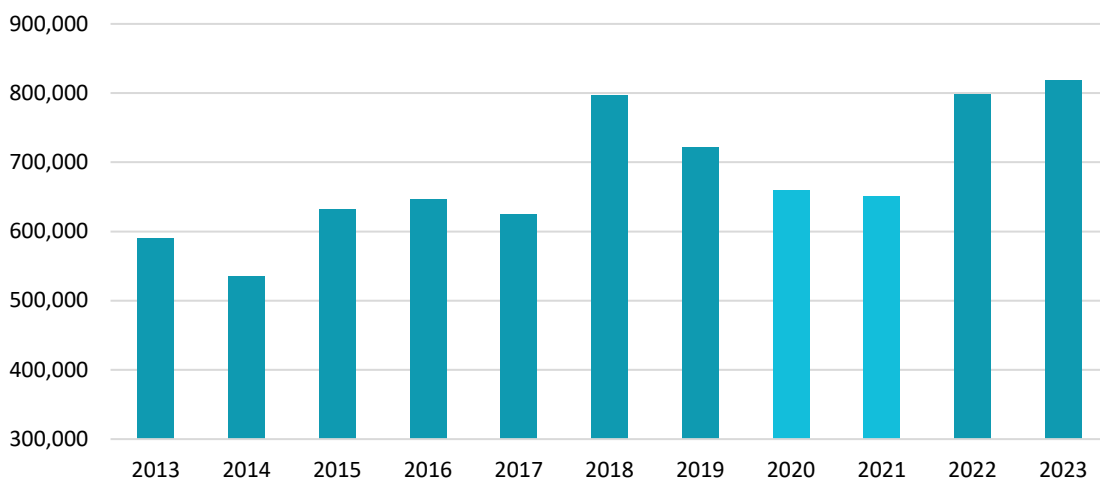
The Okefenokee swamp is a major ecotourism destination for Georgia, attracting about 834,000 visits in 2023—the highest year on record. The swamp is generally recognized as one of the Seven Natural Wonders of Georgia, an informal list that also includes major attractions like Providence Canyon near Lumpkin and Stone Mountain in the Atlanta area.

Despite its high profile, the Okefenokee is seen by just 0.5% of visitors to the state, and the Okefenokee region captures just 0.23% of statewide visitor spending. Thus, the region is in a position to capture a far greater visitation.

As the figures above suggest, the average visitor to the Okefenokee spends less than half the amount spent by the average visitor statewide. The Okefenokee region may seek to grow its revenue by designing higher value visitor experiences for which tourists may pay a premium.

The Okefenokee appears to be moving in this direction, with the number of visits to the swamp on the rise. Total visits increased by over 200,000 or 35% in the last decade, equal to a more than 4% annual growth rate. Visitation levels are also increasing at all major entrances to the Okefenokee. This long-term increase has continued despite a notable decrease in visitation during 2020 and 2021—years in which the COVID-19 response disrupted many sectors of the economy nationwide.

Visits to the Okefenokee by Year (All Entrances)



The chart above reflects total visitation across all four entrances to the Okefenokee. The principal entrances include Stephen C. Foster State Park in Clinch County; the Okefenokee Swamp Park operating on State land in Ware County; and both the Okefenokee NWR and Okefenokee Adventures in Charlton County. Years assumed to have been affected by the COVID-19 response are shaded in light blue.

Visitation rates for each entrance are summarized in the table below. As illustrated, the Okefenokee NWR attracts more than 75% of all visits, while Stephen C. Foster State Park captures about 15% of visits.

Some discrepancies may exist in the visitation tracking systems used by each entrance. For example, the Okefenokee NWR tracks visits (including multiple trips by the same visitor), whereas Okefenokee Swamp Park tracks visitors. Here, visits are used as the primary metric; this conservative approach likely results in an undercount of total visits to the Okefenokee.

Visitors to the Okefenokee by Entrance			
Entrance	County	Managing Entity	Annual Visitors*
Stephen C. Foster State Park	Clinch	Georgia State Parks	114,571
Okefenokee National Wildlife Refuge	Charlton	U.S. Fish and Wildlife Service	575,236
Okefenokee Swamp Park	Ware	The Okefenokee Swamp Park, Inc.	39,647
Okefenokee Adventures	Charlton	The Okefenokee Swamp Park, Inc.	13,434

*(5-year average, 2019-2023)



Left: Interpretive map of the Okefenokee, showing entrances and key gateway communities. Map by Okefenokee Swamp Partnership.

Tourism growth in the Okefenokee occurs in the context of growing outdoor recreation and tourism industries in Georgia and the U.S. overall. These industries—and their overlapping sector of ecotourism—represent a growing share of the state and national economy.

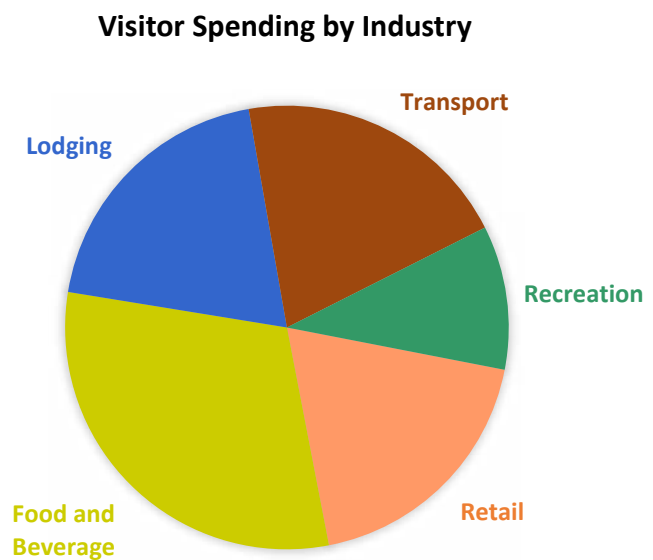
To illustrate, Georgia saw a 13% increase in visitation from 2021 to 2021, with attendant economic benefits. According to the Georgia Department of Economic Development, the state attracted 167.7 million visitors and \$39.8 billion in visitor spending last year. State economic impact assessments have determined that the total direct, indirect, and induced impact of this spending reaching \$73 billion and supported over 442,600 jobs.ⁱⁱⁱ

Outdoor recreation—an industry fueled by both visitors and residents—is also an increasingly important economic driver. According to Headwaters Economics, a think tank, 2.1% of Georgia’s GDP is attributable to outdoor recreation, an industry that supports 167,870 jobs in the state. Nationally, outdoor recreation made a \$564 billion value-added contribution to GDP—nearly three times as much as oil, gas, and coal.^{iv} Thus, the growth of tourism in the Okefenokee must be viewed as part of an expansive long-term trend that shows no real sign of lapsing.

Direct Spending by Visitors – Current Conditions

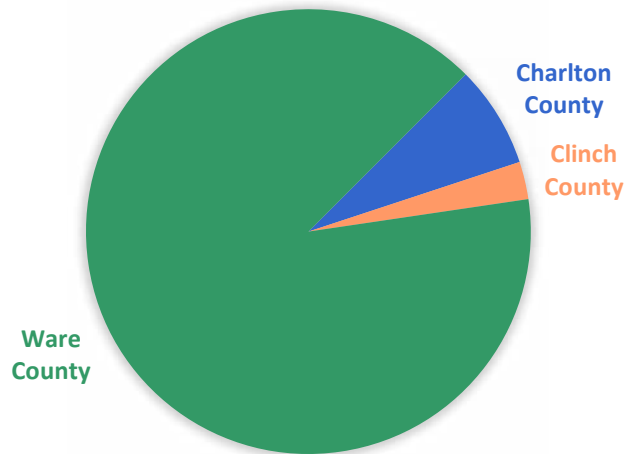
Direct spending by visitors to the Okefenokee is a major economic factor in Charlton, Clinch, and Ware Counties. Data provided by the State of Georgia suggest that current visitor spending in the region amounted to \$91.5 million in 2022. State records show that about a third of all spending is made on food and beverages, with the remainder spent on lodging, transportation, retail, and recreational activities (see graph).

Approximately 90% of this revenue is captured in Ware County. The evident disparity in revenue between Ware County and the two less-populated counties can be attributed, at least in part, to the different composition of the three counties’ economies. Ware County contains an outsize share of the industries that capture tourism revenue—such as lodging, restaurants and retail—concentrate in Ware County.



This may reflect a combination of two factors. First, Ware County and its principal city, Waycross, function as a regional commercial hub, and serve as a destination for residents in adjacent counties to access services. Second, Ware County and Waycross serve as the local hub for tourists visiting the Okefenokee, due to the greater access to services, and allowing for the further growth of those same sectors.

Visitor Spending by County



The disparity among counties is illustrated by the table of selected location quotients below. Location quotients measure the relative concentration of an industry in an area. A value of 1, in this case, indicates that an industry makes up the same share of the local economy as it does of the national economy. Values higher than 1 indicate a concentration that exceeds the national average, or vice versa for below the national average.

Location Quotients for Employment in Selected Industries – Annual Average (2022)						
	Lodging and Restaurants	Arts and Recreation	Retail	Farming and Forestry	Manufacturing	Professional Services
NAICS	(Accommodation and Food Services - 72)	(Arts, Entertainment, and Recreation - 71)	(Retail Trade - 44-45)	(Agriculture, Forestry, Fishing and Hunting - 11)	(Manufacturing - 31-33)	(Professional, Scientific, and Technical Services - 54)
Charlton County	n.d.	n.d.	1.13	n.d.	2.37	0.3
Clinch County	n.d.	n.d.	0.65	8.76	4.89	0.13
Ware County	1.18	0.76	1.45	1.2	1.2	0.19
State of Georgia	1.01	0.77	1.05	0.59	1.03	0.96

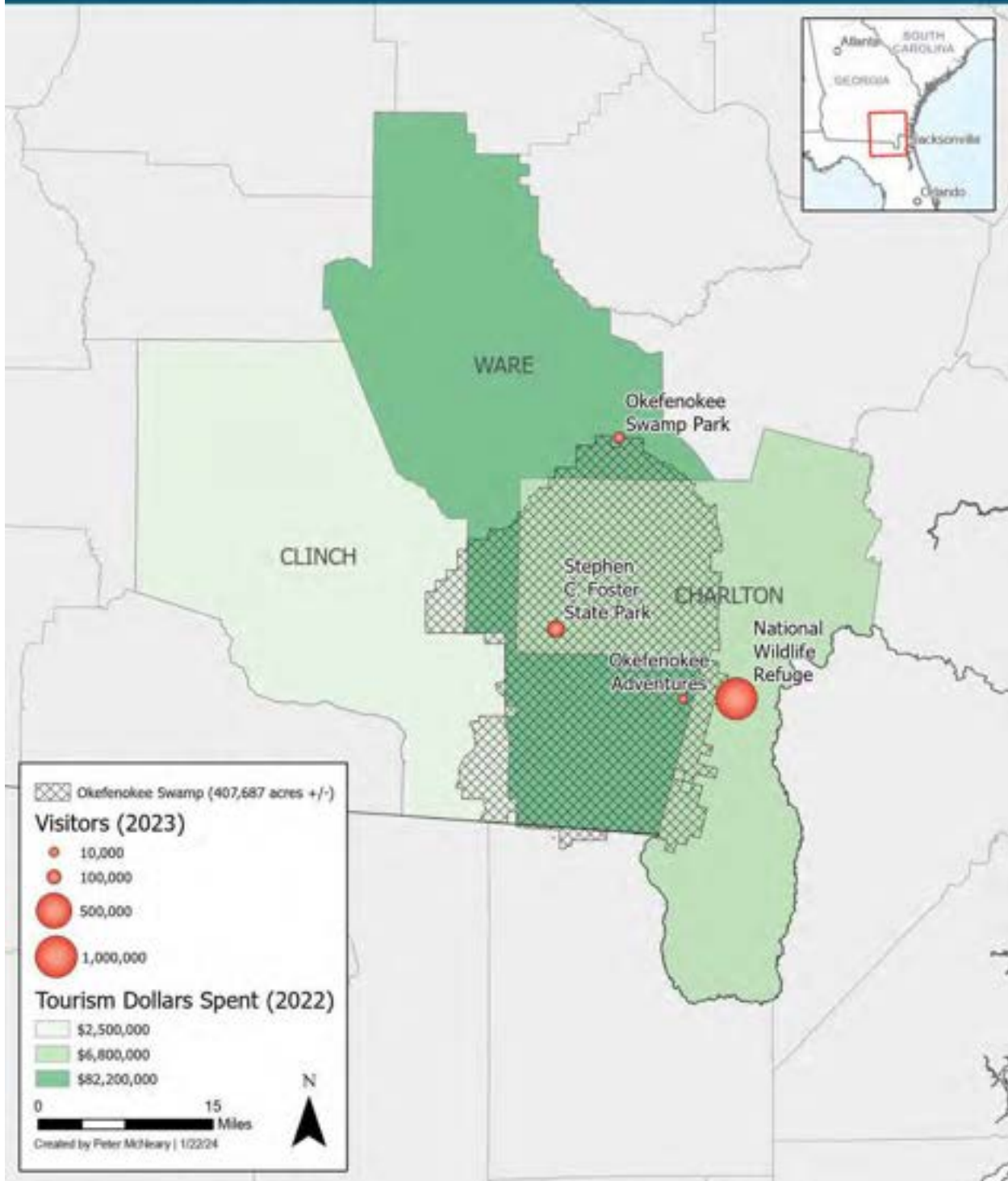
All Data by U.S. Bureau of Labor Statistics - Quarterly Census of Employment and Wages - 2022 - <https://www.bls.gov/cew/about-data/location-quotients-explained.htm>

Areas of the table indicating no data available (n.d.) are those where there are too few establishments in the relevant sector for the U.S. Bureau of Labor Statistics to publish data while protecting privacy. It is thus reasonable to infer that location quotients in these sectors are relatively low, indicating a low concentration of that business type. That is, lodging, restaurants, and arts and recreation businesses are relatively rare in Charlton and Clinch Counties. Instead, businesses in farming, forestry, and manufacturing are highly represented.

Okefenokee Swamp

Tourism Dollars Spent

THE CONSERVATION FUND



Above: Map showing the magnitude of visitation at each entrance to the Okefenokee and actual visitor spending in each county. Map by The Conservation Fund.

Economic Impact of Tourism – Current Conditions

Based on the allocation of spending across industries and counties described above, the input-output model yields an estimate of the total economic impact of tourism in the Okefenokee region today. To make this estimate, the \$91.5 million is allocated across a more detailed industry mix. For example, of the 31% of visitor spending on food and beverages, typical spending patterns suggest that an allocation of 50% to fast food restaurants, 20% to snack foods, and 30% to full-service restaurants is appropriate.

Economic Impact - 2022							
	Jobs	Wages (\$)	Output (\$)	Tax Revenue (\$)			
				County	State	Federal	Total
Direct	641	15.2 M	61.7 M	1.3 M	2.6 M	3.6 M	9.1 M
Indirect	77	2.8 M	12.3 M	0.2 M	0.3 M	0.7 M	7.4 M
Induced	32	1.3 M	4.7 M	0.05 M	0.1 M	0.3 M	0.6 M
Total	750	19.3 M	78.8 M	1.5 M	3.1 M	4.5 M	11.1 M

Note: Subcounty tax (special district and municipal) makes up an additional tax revenue category, accounting for the difference between Total Tax Revenue the sum of County, State, and Federal Tax Revenue.

These findings are consistent with previous estimations of tourism’s local impact. A 2017 report prepared by the US Department of Interior, *Banking on Nature*, the total recreational expenditures in the region totaled \$64.7 million, with 92% of these expenditures made by non-residents.^v This accounted for over 750 jobs and \$5.4 million in local, state, and federal taxes when considering direct, indirect, and induced effects. These 2017 results closely correspond to the findings of this measure of 2022 data, with increased measures of output likely due to the increase in visitation since 2017.

As with direct spending, the total economic impact of tourism is unevenly distributed among the three counties. Ware County is by far the greatest beneficiary of visitation. This is reflected by all major measures, such as jobs, wherein 690 of the 750 jobs sustained by tourism in the area are located in Ware County.

Relative Contribution of Tourism to Area GDP			
	Value Added from Tourism (2022) (\$)	Gross Domestic Product (2022) (\$)	% of GDP from Tourism
Charlton	1.9 M	250.3 M	0.8%
Clinch	0.6 M	238.9 M	0.3%
Ware	33.0 M	1,681.7 M	2.0%
Region	19.3 M	2,170.9 M	0.9%

Another way to measure economic activity is value-added, which is directly comparable to gross domestic product (GDP). Whereas economic output measures the value of all goods and services sold, GDP and value-added measure only the new value created locally. Using these directly comparable measures, the table above illustrates that about 1% of GDP in the region is attributable to tourism. By this measure again, Ware County’s economy benefits substantially more than Charlton and Clinch Counties.

Effects of World Heritage Designation on Tourism

World Heritage designation has promoted visitation to comparable sites in North America. The experiences of other World Heritage Sites in the United States help to calibrate expectations of how tourism may change after designation. Notably, many long-established World Heritage Sites receive tremendous visitation. For example, Everglades National Park (designated in 1979) attracts over one million visits annually; Yellowstone National Park attracts between 3 million and 4.5 visits each year. World Heritage status has been found to influence travel decisions.^{vi}

Visitation Rates at Select World Heritage Sites		
World Heritage Site	Year Designated	Visits (2022)
Yellowstone (WY, MT, ID)	1978	3,290,242
Everglades (FL)	1979	1,155,193
Mammoth Caves (KY)	1981	663,147
Mesa Verde (CO)	1978	499,790
Redwood (CA)	1980	458,400
Olympic (WA)	1981	2,432,972

Data: United States Department of Interior. National Park Service. "National Park Service Visitor Use Statistics." Updated 2023. <https://irma.nps.gov/Stats/Reports/Park/EVER>

Several sites in the US and Canada have been more recently designated, and are more illustrative of likely outcomes for the Okefenokee. The following table shows visitation rates at the most recently dedicated World Heritage Sites in the US. As the table makes evident, visitation rates vary widely and are not necessarily tracked or made public.

Recent and Pending World Heritage Sites in US		
World Heritage Site	Year Designated	Visits (2022)
Poverty Point (LA)	2014	n.d.
San Antonio Missions (TX)	2015	1,238,920
Frank Lloyd Wright Architecture (Various)	2019	n.d.
Hopewell Ceremonial Earthworks (OH)	2023	51,850

Data: United States Department of Interior. National Park Service. "National Park Service Visitor Use Statistics." Updated 2023. <https://irma.nps.gov/Stats/Reports/Park/EVER>

Organizations engaged in several of these other World Heritage Sites have made similar assessments of the economic impact associated with World Heritage Site designation. Their findings are helpful in framing this approach.

Hopewell Ceremonial Earthworks

The Hopewell Ceremonial Earthworks in Ohio, a series of sites, form the most recently designated World Heritage Site in the U.S., designated in 2023. A 2018 study entitled “Economic Impact of Prospective UNESCO World Heritage Site Designation: Hopewell Ceremonial Earthworks” used survey data to estimate trends in visitation following designation, which is pending decision by UNESCO.^{vii} This study estimated a 75% to 100% increase in visitation as a result of World Heritage, including an increased share of overnight and international visitors. The study found that designation of these relatively small sites would yield a \$12.5 million increase in local economic output, with 181 added jobs.

San Antonio Missions

The San Antonio Missions of Texas were designated a World Heritage Site in 2015. A 2013 study entitled “Potential Economic Impact of World Heritage Site Designation for the San Antonio Missions” used a scenario-based approach, similar to the one used here, to estimate World Heritage impacts on the region’s economy.^{viii} They estimated a total increase in local economic output of between \$122 million and \$227 million, and up to 2373 added jobs.

If the Okefenokee becomes a World Heritage Site in 2026, and visitation increases as expected, several outcomes are likely to follow. The first is an increase in total visitor spending. The second is a change in the character of visits and visitors, including more overnight and international visits, with consequences for the magnitude of increase in spending.

These changes are particularly likely when considered in the context of other developments in the region’s capacity to support tourism. Efforts to increase lodging availability and hospitality business starts in this three-county region of southeast Georgia are widely viewed as essential to capturing economic benefit from World Heritage designation.

Further, World Heritage is likely to interact positively with investments in the visitor experience, driving activity to new venues and capitalizing on the experiences that these venues make possible. Governments and non-profits in the region are actively pursuing additions to the visitor experience. Four major capital investments—a Dark Sky Observatory, Nature Center, and Cultural and Community Center, and a new visitor center at the NWR entrance—would have implications for the economic impact of World Heritage designation. These impacts are considered here and described in more detail below.

Economic Impact of Tourism – World Heritage Scenarios

Four scenarios help to illustrate how World Heritage designation may affect economic activity in the region. Each draw on distinct assumptions about the likely magnitude and quality of increased visitation to the Okefenokee.

Scenarios A and B examine an increase in visitation of 75% to 100% Scenarios, without a significant change in the distribution or character of visitation. Scenarios C considers changes in the geographic distribution of visitation, while Scenario D illustrates how and increase in overnight and international visitation may further benefit local economies.

Scenario A – Limited Increase in Visitation

Studies of North American regions with recently designated as World Heritage sites, as referenced below, suggests that visitation is likely to increase by at least 75%. This magnitude of change is represented by Scenario A. To achieve by 2035 would imply an annual increase of 6.25%, as compared to the 4.13% annual increase since 2013.

Scenario A assumes that the increase in visitation is not linked to a change in the behavior or composition of visitors. Under this scenario, visitors continue to make an outsize share of expenditures in Ware County. Likewise, international visitors, domestic overnight, and domestic day visitation would grow at an even rate and would continue to make up the same share of visitors as they do today.

Scenario A - 75% Increase in Visits - Economic Impact - 2035							
	Jobs	Wages (\$)	Output (\$)	Tax Revenue (\$)			
				County	State	Federal	Total
Direct	1125	26.6 M	108.5 M	2.3 M	4.5 M	6.3 M	19.0 M
Indirect	136	5.0 M	21.6 M	0.3 M	0.6 M	1.2 M	2.5 M
Induced	57	2.2 M	8.3 M	0.1 M	0.3 M	0.5 M	1.1 M
Total	1318	33.8 M	138.4 M	2.7 M	5.4 M	8.0 M	19.6 M

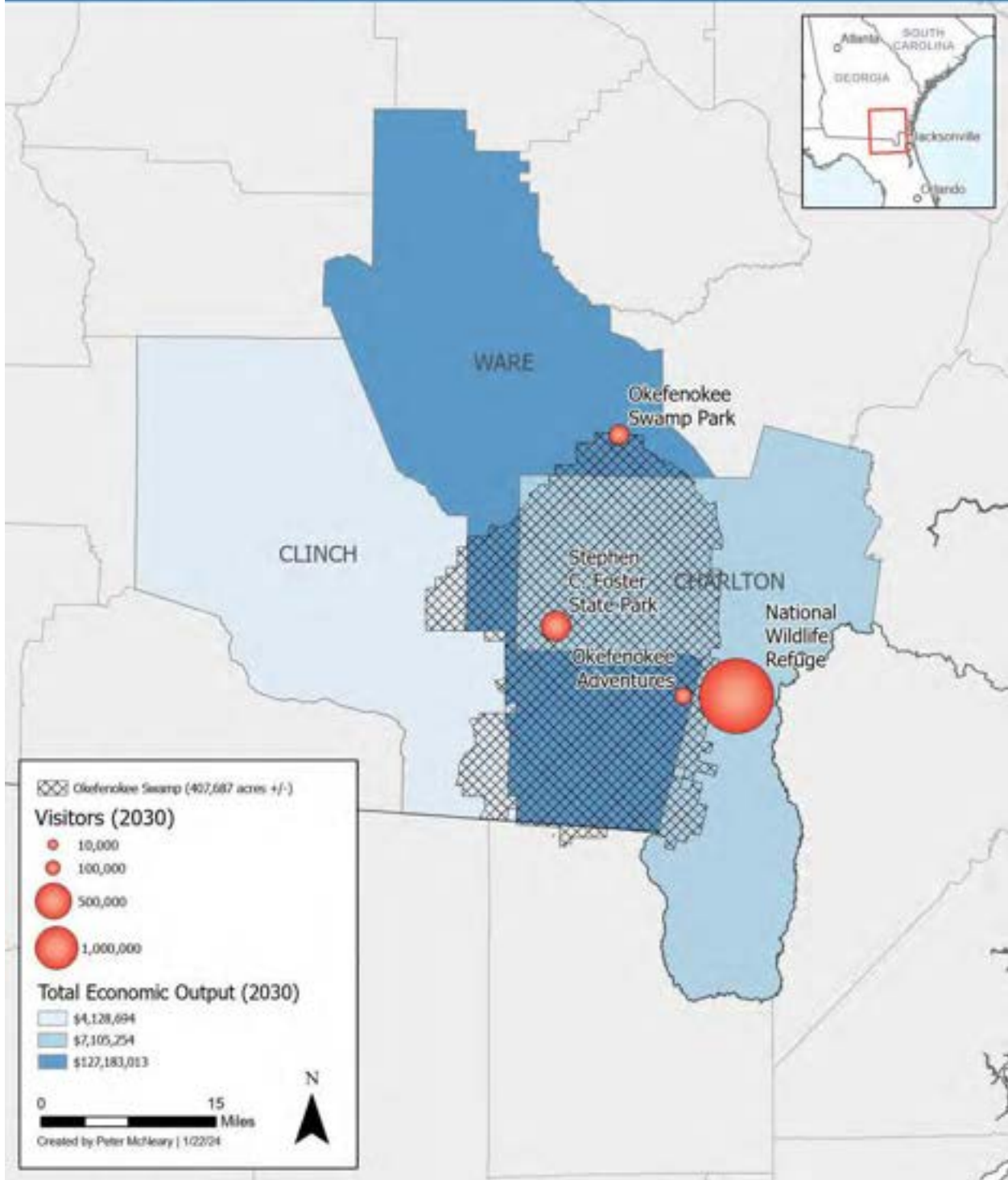
Note: All economic estimates, including reports of current impact and estimations of future impact (2035), are reported to in 2022 dollars and not adjusted for inflation.

Scenario A represents the most conservative estimate of the economic impacts of World Heritage Site designation. However, the impact would still be significant, when compared to current conditions. A 75% increase in overall visitation would generate and sustain some 568 new jobs, mostly concentrated in key hospitality industries—including lodging, food service, and retail. Meeting this demand would almost certainly require the establishment of new businesses in these sectors, creating opportunities for business recruitment and new small business starts by the region’s residents.

Okefenokee Swamp

Scenario A | Economic Output

THE CONSERVATION FUND



Above: Map showing the magnitude of visitation at entrances and visitor spending in each county under Scenario A conditions (uniform 75% increase in visits). Map by The Conservation Fund.

Scenario B – Likely Increase in Visitation

A 100% increase in visits—or a doubling of visitation—is a reasonable target for newly designated sites, as represented by Scenario B. To achieve by 2035 would imply an annual increase of 8.33%, as compared to the 4.13% annual increase since 2013. As with Scenario A, the behavior and composition of visitors—geographically, of domestic or international origin, and whether they stay overnight—remains consistent with current conditions.

Scenario B - 100% Increase in Visits - Economic Impact - 2035							
	Jobs	Wages (\$)	Output (\$)	Tax Revenue (\$)			
				County	State	Federal	Total
Direct	1282	30.4 M	123.5 M	3.6 M	5.1 M	7.1 M	18.2 M
Indirect	154	5.7 M	2436 M	0.3 M	0.7 M	1.3 M	2.9 M
Induced	65	2.5 M	9.5 M	0.1 M	0.3 M	0.6 M	1.2 M
Total	1501	38.6 M	157.6 M	3.1 M	6.1 M	9.1 M	22.3 M

As with Scenario A, a 100% increase in visitation would substantially increase the economic impact of visitor spending in the Okefenokee region. Notably, total tax revenue and job creation would more than double compared to current conditions—a result of increased value capture and growth in directly affected and adjacent industries.

Scenario C – Growth and Geographic Dispersal of Visits

Scenario C tests how the impact of World Heritage designation, coupled with new investments in visitor infrastructure, may create more opportunity in the counties that currently receive less economic benefit from visitation.

Today, the less populous Charlton and Clinch Counties capture much less (7% and 3%, respectively) tourism revenue than Ware County (90%). This is likely due to the concentration of visitor services—especially lodging—in Ware County.

As noted above, four major visitor services investments are planned for the region. In Charlton County, a new Visitor Center is underway for the Okefenokee NWR entrance, and a future Cultural History and Community Center is in early planning stages. In Clinch County, a Dark Sky Observatory is in planning stages. A new Nature Center is also planned for Ware County at the Okefenokee Swamp Park entrance. These investments—coupled with private sector growth in lodging, food service, and retail in Charlton and Clinch Counties—can be expected to disperse spending by visitors more evenly across the region.

Thus, Scenario C tests the effect of an 80% increase in visitor spending in Ware County, coupled with a 250% increase in the two less-populated counties. A summary of these impacts is shown in the table below. At a regional level, the outcome resembles Scenarios A and B.

Scenario C - Growth and Dispersal of Visits - Economic Impact - 2035							
	Jobs	Wages (\$)	Output (\$)	Tax Revenue (\$)			
				County	State	Federal	Total
Direct	1244	29.3 M	119.8 M	2.6 M	4.8 M	6.9 M	17.5 M
Indirect	148	5.4 M	23.4 M	0.3 M	0.7 M	1.3 M	2.7 M
Induced	61	2.4 M	9.0 M	0.1 M	0.3 M	0.6 M	1.2 M
Total	1454	37.1 M	152.3 M	3.1 M	5.8 M	8.8 M	21.4 M

However, when disaggregated by County, the effects would be proportionally greater in Charlton and Clinch Counties. Compared to Scenario A—the 75% flat increase in visitor spending across counties—this geographically dispersed scenario would double the economic impact of World Heritage in Charlton County, and increase the impact in Clinch County by 75%.

The reason that this improvement in the benefits accrued by Charlton and Clinch Counties is not proportional to the increase in visitation to these counties in each county is straightforward. These areas do not currently have the capacity—in lodging, food services, retail, and other industries—to capture the full potential revenue. This underscores the need for investment in small businesses in these areas.

The positive effects of geographically dispersed visitation are also evident in *per capita* measures of economic growth in Charlton and Clinch Counties. As the table below illustrates, per capita measures of jobs, economic output, and tax revenue are greatly strengthened for the less populated counties under Scenario C.

Measures of Growth Adjusted for Population									
	Total Tax Revenue per Capita (\$)			Jobs per Thousand Residents			Economic Output per Capita (\$)		
	Current	Sc. B	Sc. C	Current	Sc. B	Sc. C	Current	Sc. B	Sc. C
Charlton	45	91	159	3	7	12	324	649	1135
Clinch	33	66	116	2	5	5	310	620	1087
Ware	286	571	514	19	38	34	2005	4010	3609
Region	201	402	368	13	27	26	1422	2843	2747

Scenario D – Outsize Growth of Overnight and International Visits

This scenario tests the same total rate of growth in visitation as Scenario A—or a 75% total increase in visits by 2035—but engages with the likelihood that overnight and international visitation will increase after World Heritage Designation.

Specifically, Scenario C also assumes that international visitation increases from 10% of visitors at present, to 15% of visitors in 2035. Scenario D also assumes that overnight domestic visitation increases from 20% of visits to 25% of visits.

Visitation Characteristics of Relevant Destinations					
Visitor Profile	Alamo NHP	Tybee Island ^{ix}	Yellowstone NP	Okefenokee Current Estimate	Okefenokee 2035 WHS Estimate
Domestic Day	72%	61%	83%	70%	60%
Domestic Overnight	22%	39%		20%	25%
International	8%	0.4%	17%	10%	15%

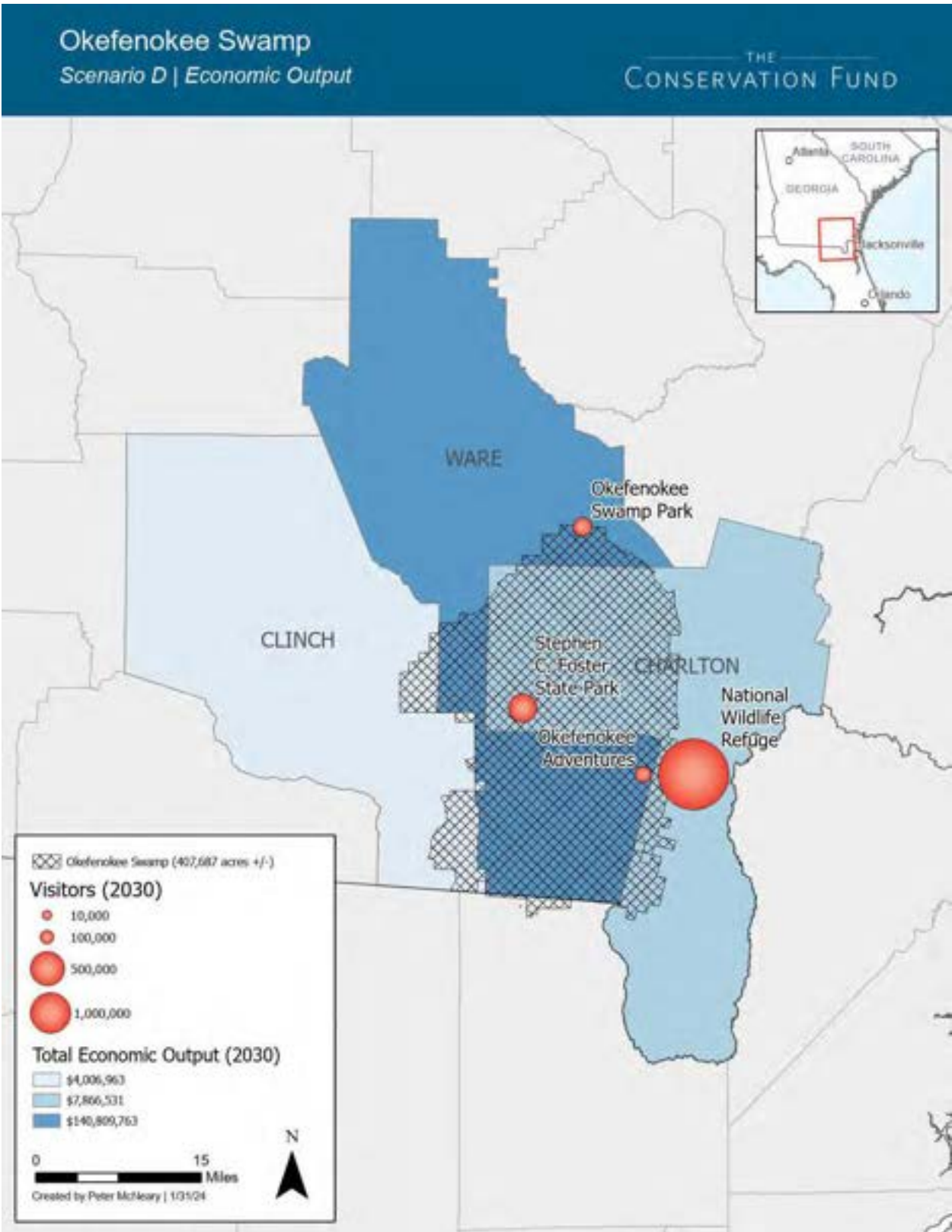
Data: United States Department of Interior, National Park Service. "National Park Service Visitor Use Statistics." Updated 2023. <https://irma.nps.gov/Stats/Reports/Park/EVER>;

For this assumption to affect the model, a distinction must be drawn between spending habits of different visitor types. Based on similar studies, it is reasonable to assume that an overnight domestic visitor spends about twice as much as a daytime-only domestic visitor, and that an international visitor spends about three times that amount. Based on 2022 figures, the spending pattern of each visitor type can be estimated, as shown in the table to the right.

Spending per Visit by Visitor Type	
Domestic Day	\$80.14
Domestic Overnight	\$160.29
International	\$240.43

Based on these assumptions, Scenario D tests a 75% increase in overall visitation in which the visitor composition skews further toward overnight and international visitation. This yields a much higher total economic impact than Scenario A, despite the overall growth in visitation being constant.

Scenario D - Outsize Growth of Overnight and International Visits - Economic Impact – 2035							
	Jobs	Wages (\$)	Output (\$)	Tax Revenue (\$)			
				County	State	Federal	Total
Direct	1242	29.4 M	119.6 M	2.5 M	5.0 M	6.9 M	17.6 M
Indirect	150	5.5 M	23.9 M	0.3 M	0.7 M	1.3 M	2.8 M
Induced	63	2.5 M	9.2 M	0.1 M	0.3 M	0.6 M	1.2 M
Total	1454	37.4 M	152.7 M	3.0 M	6.0 M	8.8 M	21.6 M



Above: Map showing the magnitude of visitation at entrances and visitor spending in each county under Scenario D conditions (outsized increase in overnight and international visits). Map by The Conservation Fund.



Above Left: Rendering of the planned Nature Center at Okefenokee Swamp Park. Image by Haskell Plannng + Design Collaborative and Breedlove Land Planning for the Georgia Department of Natural Resources and The Okefenokee Swamp Park, Inc.

Above Right: View of the camping experience on an overnight platform at the Okefenokee NWR. Photo by The Okefenokee Swamp Park, Inc.

Anticipated Investments in Visitation Infrastructure

Independent of World Heritage Site designation, a series of investments in the infrastructure serving visitors to the Okefenokee region have been planned or are underway. Notably, the Department of Interior has begun construction of a new Visitor Center at the Okefenokee NWR—at a construction cost of \$4.5 million, with additional investments in exhibits and experiences.

Three additional venues are in planning stages. Collectively described as the Okefenokee Experience, this includes a total of \$33.5 million in capital projects across the three counties. At the Okefenokee Swamp Park entrance, master planning is complete for a new Nature Center, with an estimated cost of \$11 million for construction, or up to \$16.9 million when including adjacent improvements.

Master plans are forthcoming for the other two capital projects. In Clinch County, a site has been identified for a Dark Sky Observatory, intended to capitalize on Stephen C. Foster State Park's status as a Dark Sky Park recognized by DarkSky International. Construction costs are estimated at \$5.4 million. In Charlton County, a Cultural History and Community Center has been envisioned, at a likely cost of \$10.8 million.

These improvements are likely to have a dynamic relationship with World Heritage designation—the visibility of World Heritage can be expected to drive visitors to these new venues, and the existence of these venues is likely to improve and extend the experience of visitors, with positive economic results.

Planned Investments in Visitor Experience - Economic Impact – 2035							
	Jobs	Wages (\$)	Output (\$)	Tax Revenue (\$)			
				County	State	Federal	Total
Direct	306	13.7 M	37.2 M	0.1 M	0.4 M	2.8 M	3.2 M
Indirect	30	1.2 M	5.0 M	0.2 M	0.2 M	0.3 M	0.8 M
Induced	26	0.9 M	3.9 M	0.1 M	0.1 M	0.2 M	0.5 M
Total	362	15.8 M	46.1 M	0.3 M	0.7 M	3.3 M	4.6 M

Construction itself is likely to have significant economic impacts. Based on the cost estimates above, the combined Okefenokee Experience and NWR Visitor Center will support an estimate 306 jobs in construction (direct impacts) and 56 jobs in supporting services (indirect and induced). As shown in the table above, construction alone would also yield a total tax revenue of over \$4.6 million, including \$682,000 in state taxes. Ongoing operation of the facilities is likely to sustain at least 47 new jobs and generate over \$430,000 in annual tax revenue.

Implications for Tourism-Based Economic Development

These findings illustrate the vast potential for economic development that World Heritage designation would create for the gateway communities that provide access to the Okefenokee. Importantly, the magnitude and quality of economic impact hinges on how these communities, the State of Georgia, the U.S. Fish and Wildlife Service, and businesses and non-profits act in order to capitalize on the opportunity.

Branding – One strategic decision to increase economic impact would be to capitalize on the World Heritage brand and to integrate it into a broader regional brand. Outreach to potential visitors, online and print marketing both in Georgia and beyond, and efforts to craft the experience of visitors to align with the World Heritage brand would be appropriate tactics.

Comprehensive Visitor Experience – World Heritage visitors, especially international visitors, are likely to seek more than just general exposure to the Okefenokee swamp. Cultural and historical experiences, experiences related to agriculture, forestry, and freight rail that characterize the region’s economy and lifestyle, and a range of lodging and dining experiences would likely encourage international and overnight visitation.

Small Businesses – To meet new hospitality demand, all three counties will likely need to increase the number of hotel beds (or similar, including short-term rentals), restaurants, retail businesses, outdoor recreation outfitters, and other tourist-facing businesses. These industries are not presently robust enough to capture the full revenue potential of current visitation, such that a large share of economic development potential is left on the table.

Residents can be supported by local governments, regional colleges and universities, entrepreneurial support organizations, lenders, and other institutions to start businesses in these sectors. It is also possible to recruit established companies to expand their operations in the area, such as by recruiting new hotels.

However, small business starts are more likely to improve wealth-building outcomes for residents. One limitation of tourism-based economic development is that many hospitality sectors pay relatively low wages, when compared to industries like agriculture and forestry or professional services, as illustrated by the table below. Small business owners that control equity in their operations are likely to accrue more economic benefit.

Average Annual Wages for Employment in Selected Industries – Annual Average (2022) (\$)						
	Lodging and Restaurants	Arts and Recreation	Retail	Farming and Forestry	Manufa-cturing	Professional Services
NAICS	(Accommodation and Food Services - 72)	(Arts, Entertainment and Recreation - 71)	(Retail Trade - 44-45)	(Agriculture, Forestry, Fishing and Hunting - 11)	(Manufacturing - 31-33)	(Professional, Scientific, and Technical Services - 54)
Charlton County	n.d.	n.d.	26,733	n.d.	50,252	35,361
Clinch County	n.d.	n.d.	28,726	45,974	54,056	40,285
Ware County	18,321	15,545	33,639	43,314	48,640	50,991
State of Georgia	24,671	44,401	39,288	45,447	66,512	104,801

All Data by US Bureau of Labor Statistics - Quarterly Census of Employment and Wages - 2022 - <https://www.bls.gov/cew/about-data/location-quotients-explained.htm>

Business Recruitment – While it is difficult to measure the impact of tourism on business recruitment, many investments in the visitor experience are likely to improve quality of life. New restaurants and retail options, robust cultural and nature-based experiences, and a more powerful regional brand are likely to improve quality of life overall. This can be expected to improve business recruitment outcomes, and to make it easier for industries across the earnings spectrum to train, retain, and recruit a talented workforce.

Conservation – Outcomes for ecotourism are closely linked to outcomes for natural resource conservation. The success and longevity of tourism in the Okefenokee region rests on the ecological viability of the Okefenokee swamp itself; a degraded natural resource is much less likely to achieve and retain World Heritage status or attract numerous visitors. Positively, ecotourism may generate new revenue and will for conserving the natural resources of the Okefenokee swamp and its surroundings. This would help to sustain ecotourism as well as other natural resource sectors like agriculture and forestry through improved wildfire management, water quality, and more.

Outdoor Recreation – While this study focuses on tourism, outdoor recreation is an important complementary sector with strong economic potential. Building opportunities to access the swamp at multiple levels of exertion in the Okefenokee and on the St. Marys and Suwanee Rivers—with kayak, canoe, and other boat tours—may enhance the experience of residents and visitors. These elements may be particularly important for attracting domestic visitors. Likewise, investing in infrastructure and businesses to support fishing, hiking, and cycling in the area may diversify the range of visitors and increase the number of overnight and repeat visits.

Local Education – Investments in the experience of World Heritage visitors to the Okefenokee will likely have positive effects for local educational offerings related to the swamp. The same venues that serve visitors can—and should—also serve residents, especially young people whose connection to the swamp is important to the culture of the region. Crucially, many visitors seek information from locals outside of formal tourism channels. The ability of residents to engage with visitors—in informal settings such as restaurants, gas stations, on the street, and at the swamp’s edge—relies on local understanding of this important natural resource.

In sum, the Okefenokee region is well-positioned to grow local economic opportunity. Engaging in these strategies will contribute to local wealth-building and the long-term viability of ecotourism in the region. World Heritage is one critical component in this economic development pathway, and its benefits are most likely to emerge in the context of targeted investments in the overall experience of the region.



Above: An American White Water Lily (*Nymphaea odorata*) blooming in the Okefenokee NWR. Photo by The Okefenokee Swamp Park, Inc.

ⁱ All economic modeling herein is attributed to the author and to the IMPLAN® model, 2022 Data, using inputs provided by the user and IMPLAN Group LLC, IMPLAN System (data and software), 16905 Northcross Dr., Suite 120, Huntersville, NC 28078 www.IMPLAN.com

ⁱⁱ UNESCO. 2023. "Operational Guidelines for the Implementation of the World Heritage Convention." P. 24. <https://whc.unesco.org/en/guidelines/>

ⁱⁱⁱ Tourism Economics for the Georgia Department of Economic Development. 2023. "2022 Economic Impact of Tourism in Georgia" <https://industry.exploregeorgia.org/resource/2022-economic-impact-tourism-georgia>

^{iv} Headwaters Economics. 2023. The Outdoor Recreation Economy by State.

<https://headwaterseconomics.org/economic-development/trends-performance/outdoor-recreation-economy-by-state/>

^v U.S. Fish and Wildlife Service. 2017 "Banking on Nature 2017: The Economic Contribution of National Wildlife Refuge Recreational Visitation to Local Communities."

https://www.fws.gov/sites/default/files/documents/USFWS_Banking_on_Nature_2017.pdf

^{vi} G. Jason Jolley, Nicole Kirchner, Robert Delach, Daniel Kloepfer, Matt Trainer, Natalie Wilson, and E. Brent Lane. 2018. "Economic Impact of Prospective UNESCO World Heritage Site Designation: Hopewell Ceremonial Earthworks."

https://www.researchgate.net/publication/360851498_Economic_Impact_of_Prospective_UNESCO_World_Heritage_Site_Designation_Hopewell_Ceremonial_Earthworks;

Halpenny, E., Kono, S. and Moghimehfar, F. 2018. "Predicting World Heritage site visitation intentions of North American park visitors", *Journal of Hospitality and Tourism Technology*, Vol. 9 No. 3, pp. 417-437.

<https://doi.org/10.1108/JHTT-10-2017-0109>

^{vii} G. Jason Jolley, Nicole Kirchner, Robert Delach, Daniel Kloepfer, Matt Trainer, Natalie Wilson, and E. Brent Lane. 2018. "Economic Impact of Prospective UNESCO World Heritage Site Designation: Hopewell Ceremonial Earthworks."

https://www.researchgate.net/publication/360851498_Economic_Impact_of_Prospective_UNESCO_World_Heritage_Site_Designation_Hopewell_Ceremonial_Earthworks

^{viii} The Harbinger Consulting Group for Bexar County, Texas Commissioners Court Office of the County Manager Facilities and Parks Department. 2013. "Potential Economic Impact of World Heritage Site Designation for the San Antonio Missions: Technical Report" <https://www.bexar.org/DocumentCenter/View/5180/World-Heritage-Designation-Impact-Study-Technical-Report-PDF>

^{ix} Center for Business Analytics and Economic Research & EDA University Center Program Georgia Southern University for City of Tybee Island & Visit Tybee Island. 2023. "Tybee Island Tourism Economic Impact Study." <https://www.cityoftybee.org/DocumentCenter/View/3926/TybeeIslandTourismEconomicImpact-Report?bidId=>