

OPPORTUNITIES FOR GROWTH:

A SUMMARY ECONOMIC ANALYSIS OF FLORIDA'S BIG BEND REGION



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EXECUTIVE SUMMARY

The Big Bend region of Florida—Jefferson, Taylor, Dixie, and Levy Counties—is a land of abundant natural resources. Productive working forests and farms, freshwater rivers and springs, and an extensive Gulf coastline define the work and lives of the people who call this place home. The growth of more and better jobs and further economic development in the Big Bend hinges on continued careful management of these natural resources in the years ahead.

The people of this rural region rely more on the natural resources for their livelihood and recreation than in most places in Florida. A recent study of the region's population and economy based on secondary data, bolstered by on-site visits and interviews of local officials and state economic professionals, finds a region rich in the traditions of "Old Florida" but striving to keep pace with rapid changes and growth in other areas of the state.

AMONG KEY FINDINGS:

- The analysis demonstrates the central role that natural resource industries play in the Big Bend. The health and continued productivity of the natural resource base—its lands, especially the working forests, and its waters—are critical to the region's economic future.
- The area is very rural with a declining population that is characterized by lower incomes, lower education levels, net out-migration, and higher rates of aging than the rest of the state. Yet, more recently, income and education levels are rising.
- The leaders and residents have a strong appreciation for the unique nature of their region and are protective of its cultural heritage.
- During interviews, county government leaders expressed broad support for maintaining current protections and conservation of the region's natural assets as the basis for long-term economic growth and sense of place. This sentiment was echoed by representatives of the area's timber industry in conversations specifically about the forest resources.
- County leaders identified the need for balance between growth and conservation: maintaining existing natural resource areas and working lands such as farms, forests, and waterfronts to support the economy and quality of life for residents while using other areas for compatible development. This approach recognizes the need for a multi-layered strategy for economic growth.
- The region seeks growth but will need to consider creative approaches to make fuller use of available resources. Mature industries such as forestry, farming, and natural resource-based manufacturing must continually innovate to stay competitive. The industries must also sustain the health of the natural resources upon which they rely to ensure continued economic growth.

Further analysis and thoughts are summarized in later sections, particularly under Opportunities and Challenges and Ideas for Growth. Those sections provide some initial ideas with the hope of generating additional engaged discussion, evaluation, and solutions among Big Bend's leaders to reflect the unique needs and desires of the Big Bend region and its communities and people.

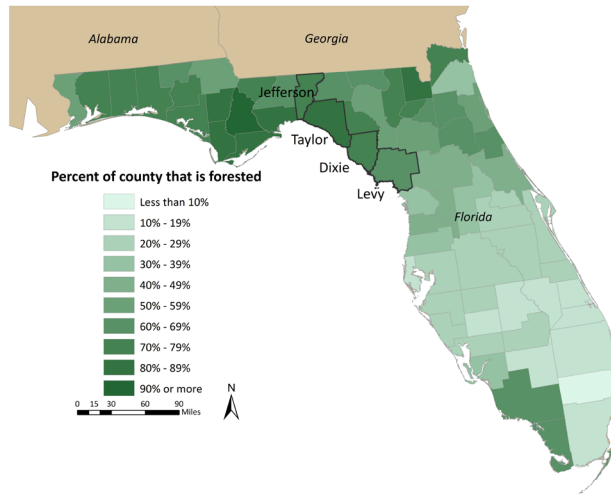
BACKGROUND

The Conservation Fund (TCF) works with community, government, and business partners throughout America to help them balance economic and environmental goals. TCF has been an active partner in the Big Bend area for over 15 years, helping to keep working forests in economic production and supporting the associated benefits of maintaining the community's way of life, protecting water quality, preserving recreational access, and continuing the area's hunt club traditions.

In response to community needs and concerns, TCF conducted an analysis of the region's industries and economy to be used by local leaders and to help inform local and regional decision making. TCF engaged Southwick Associates, a Florida consulting firm with extensive experience in natural resource economics, to assess the opportunities and challenges that face the Big Bend area. On-site visits and follow-up interviews were conducted with county managers and economic development and tourism specialists to both supplement and ground-truth existing economic data analysis. With a particular emphasis on the role of natural resources, this Report highlights how these assets will continue to play a key role in the region's economic future, examines policies that could affect the region's development, and explores new directions at the regional or local levels for strengthening the Big Bend economy and community. The Report provides a framework for a region-wide dialogue that will engage a broad range of stakeholders with an interest in protecting, enhancing, and utilizing the natural environment as a resource for sustainable economic growth. The Report's results and recommendations are summarized here. The full economic Report with detailed methodology and statistics is available from The Conservation Fund.



THE BIG BEND'S WORKING FORESTS AND WATER RESOURCES ARE ITS BACKBONE



The Big Bend region includes some of the most heavily forested areas in Florida, in the heart of Florida's "woodbasket"—the area north of Orlando where counties have at least 50% forestlands. All four Big Bend counties have more than 60% forest cover, and one of them, Taylor County, is nearly 90% forested. These pine and hardwood forests maintain the health of water resources, supporting clean rivers, creeks, and springs, fish and wildlife habitat, and drinking water.

Just as important, these forests are key to the economy and quality of

life for the people who live in the region. Big Bend forests form the basis of the strong timber, paper, and wood products industries that employ many of the area's residents and are also essential to the health of other industries, including agriculture and the hard clam aquaculture. These forests also provide an abundance of wildlife, attracting hunters, birders, and other nature enthusiasts. The clean rivers and natural springs within these forests likewise attract anglers, kayakers, canoeists, divers, and swimmers. These nature enthusiasts—both residents and visitors—generate additional economic impact by spending money locally.

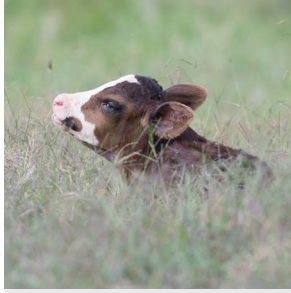
“Protecting what we have is important. We want people to move in and support economic growth, but to also keep rivers clean for use and recreation. It's a tough balance.”

—County tourism official

The Big Bend area is not just about forests. Its natural coastline, including the Big Bend Seagrasses Aquatic Preserve—the state's largest aquatic preserve, supports commercial and recreational fisheries and attracts saltwater anglers, kayakers, and other recreationists from near and far. Open lands provide for cattle ranches, large-scale agriculture with crops like corn, forage, and peanuts, and smaller farms that can fill niche markets like specialty crops, local foods, and agri-tourism.

The vitality of these natural resource industries relies on the health of the resources themselves. Just as the health of the forests support the health of forest industries and drinking water, so too does the health of the rivers and Gulf waters determine the health of fisheries and shellfish businesses. The region's forests, waters, and other natural resources have shaped its culture and economy, and if well-managed, will continue to fuel economic growth opportunities into the future.

THE BIG BEND, “BY THE NUMBERS”

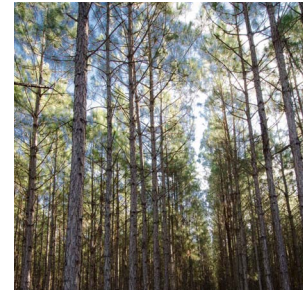


Jefferson County

- 14,256 people
- Median age: 45.4 years
- Percent with high school diploma or less: 56.5%
- Key job providers: farming, professional & technical services, retail trade, transportation & warehousing, construction
- Private forest lands: 235,800 acres (79% of all forests)
- Conservation lands: 107,800 acres (24% of total land area)

Taylor County

- 22,744 people
- Median age: 41.3 years
- Percent with high school diploma or less: 61.6%
- Key job providers: retail trade, health & social services, construction, pulp and paper products, accommodation & food services
- Private forest lands: 466,500 acres (86% of all forests)
- Conservation lands: 111,900 acres (32% of total land area)

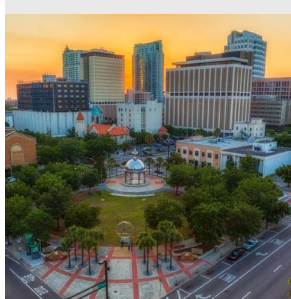


Dixie County

- 16,126 people
- Median age: 45.6 years
- Percent with high school diploma or less: 62.1%
- Key job providers: transportation & warehousing, wood products mfg., farming, retail trade, construction
- Private forest lands: 317,900 acres (90% of all forests)
- Conservation lands: 169,200 acres (24% of total land area)

Levy County

- 40,025 people
- Median age: 46.4 years
- Percent with high school diploma or less: 55.3%
- Key job providers: retail trade, construction, health & social services, farming, professional, tech and mgt. services
- Private forest lands: 353,400 acres (80% of all forests)
- Conservation lands: 92,800 acres (14% of total land area)



Florida

- 19.3 million people
- Median age: 41.3 years
- Percent with high school diploma or less: 44.6%
- Key job providers: professional, tech and mgt. services, finance, insurance & real estate, retail trade, health & social services
- Private forest lands: 10.4 million acres (63% of all forests)
- Conservation lands: 34.5 million acres (30% of total land area)

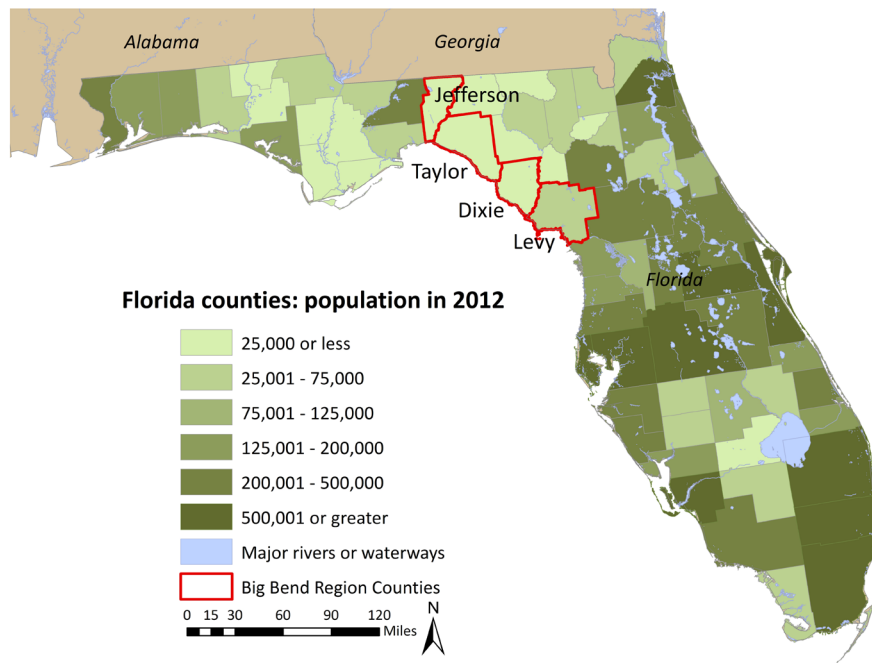
THE PEOPLE OF THE BIG BEND POWER ITS GROWTH

A vibrant, growing economy relies on a stable population of educated, working-age citizens. The Big Bend area currently has a shrinking population, aging citizens, lower income and higher poverty levels, and lower average educational levels than other places in Florida. However, recent data indicate more positive educational trends with increasing training and education.

THE BIG BEND AREA IS LARGELY RURAL AND LOSING POPULATION

The four counties in the Big Bend together cover 3,465 square miles and have a total of about 93,000 people. With only about 27 people per square mile compared to an average of 354 people per square mile for Florida overall, these counties are among the most rural in the State.

Unlike much of Florida, the number of people in the Big Bend region is declining. Since 2010, the population of three of the four counties in the Big Bend area (Jefferson, Dixie, and Levy) has steadily dropped. The major factor in each declining county has been a net out-migration of working-age residents.



“Education is key for the area. We need to make a greater impact in our schools and provide continuing education and training for seasoned workers. We especially need post-secondary education, both college and vocational education, to ensure we have a skilled workforce.”

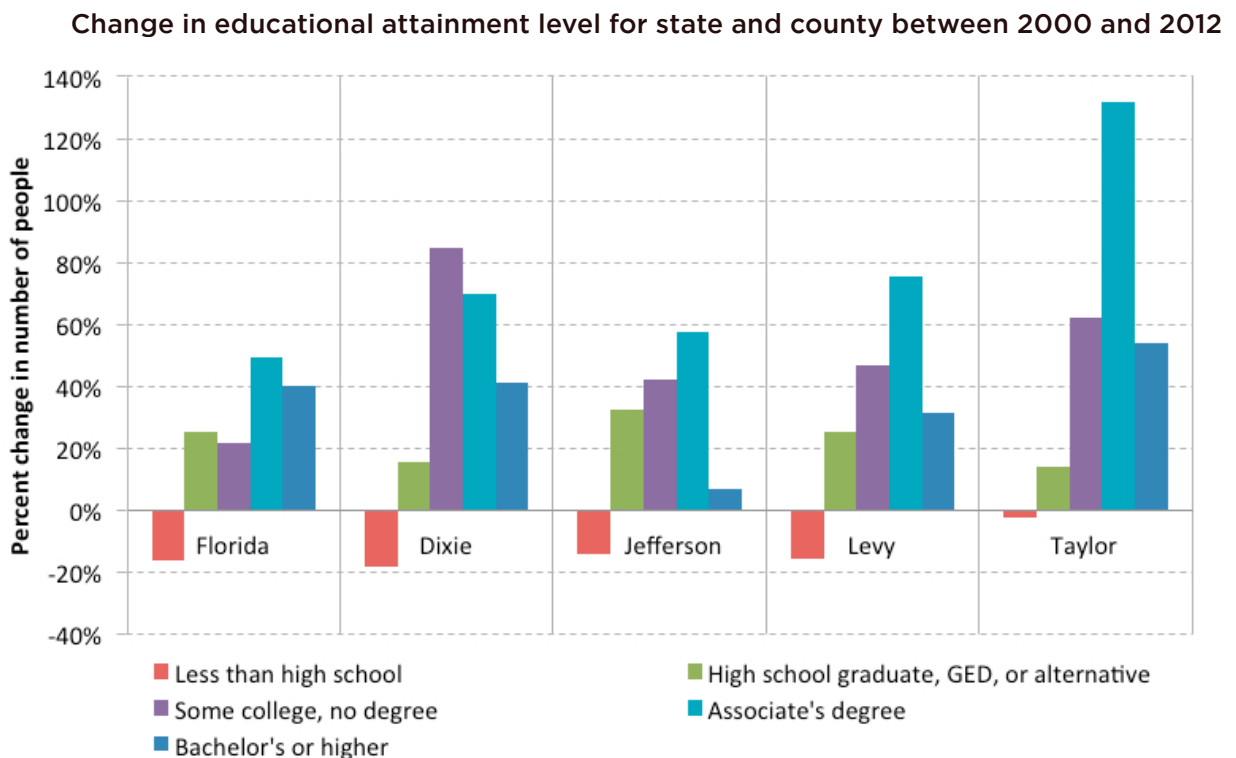
—Industry leader

THE BIG BEND POPULATION IS OLDER AND AGING FASTER THAN THE REST OF FLORIDA

The dynamics of the aging population indicate a need for a steady supply of new workers to offset those retiring or moving away. The Big Bend area has a median age that is generally four to five years older than the general population of Florida and the older age categories are growing faster here than across the state. In Dixie, Levy, and Jefferson counties, growth in the working-years category (18-65 years old) has lagged behind the rest of Florida. These three counties also have a distinctly lower proportion of people in the prime working ages of 25 to 44 years compared to those in the 45 to 65 year old category, and this proportion is much lower than for Florida as a whole. Despite this demographic challenge, employment in the region has increased in recent years. For now, it is unclear whether continued job growth can reverse this demographic trend and lead to a younger population, or if future job growth will stall due to workforce shortages.

HISTORICALLY LOW EDUCATION LEVELS STARTING TO INCREASE

A population of well-educated workers provides the skills needed to attract businesses that offer better jobs. At present, the average education level of Big Bend residents lags behind much of Florida, including the number of residents with high school diplomas. However, the launch of community college and dual-enrollment programs in recent years seems to be having a positive effect. Big Bend residents are attaining higher levels of education at a faster rate than in the state as a whole, and the proportion of people with less than a high school education is also shrinking faster. These changes should eventually lead to higher incomes for Big Bend residents. Currently, household incomes are lower and poverty rates are higher in the Big Bend than the state of Florida. However, since 2005, household income in the Big Bend has grown faster than the state overall and poverty rates have risen more slowly.



THE BIG BEND ECONOMY

Economic measures - such as the number and quality of existing jobs, new job creation, employment stability, and average wages are key indicators of economic health and provide insight into the region's vitality.

“The abundance of the natural resource base in this area is amazing. This is why people visit.”

—County tourism official

JOBS IN THE BIG BEND AREA CENTER ON NATURAL RESOURCES

Employment trends in the Big Bend region generally follow the broader economic cycles of expansion and recession in Florida and the rest of the country. But jobs in the Big Bend are much more concentrated in the natural resources and related manufacturing sectors than in the statewide economy. About 13% of all private sector jobs in the four counties involve farming, forestry, fishing, and agricultural support services and 9.1% of all jobs are in manufacturing, compared to 1.5% and 3.8% of the Florida economy, respectively. Even the large manufacturing sectors in Dixie and Taylor counties, dominated by wood products manufacturing and the pulp and paper industries, rely on well-managed forest resources. Other industries, such as commercial fisheries, aquaculture, and agriculture, also rely on the forest lands and the clean water resources they provide. Agriculture depends further on good soil management. Emerging tourism ventures, such as canoeing, kayaking, diving, bird/wildlife watching, and recreational fishing businesses and attractions are also dependent on healthy freshwater and saltwater.

COMPOSITION OF PRIVATE SECTOR EMPLOYMENT*

Industry Sector	Florida	Big Bend	Dixie County	Jefferson County	Levy County	Taylor County
Farming, forestry, fishing, and agri. support	1.5%	13.1%	17.1%	15.7%	15.3%	7.1%
Mining, quarrying and oil and gas extraction	0.3%	0.3%	0.2%	0.2%	0.0%	0.7%
Utilities and construction	6.4%	10.7%	8.1%	10.0%	12.8%	9.6%
Manufacturing	3.8%	9.1%	10.9%	0.5%	5.0%	17.2%
Trade and transportation	19.9%	22.0%	25.3%	22.0%	21.9%	20.4%
Finance, insurance, real estate and info.	15.5%	5.0%	6.1%	4.6%	5.4%	4.2%
Business and professional services	17.7%	7.2%	5.6%	12.4%	7.0%	6.0%
Education and health care	14.7%	10.1%	6.1%	11.0%	10.4%	11.5%
Tourism and recreation**	12.4%	8.8%	5.0%	11.0%	9.8%	8.6%
Other services	7.9%	13.7%	15.6%	12.6%	12.5%	14.7%

*Industry sectors under North American Industry Classification System. Some industry categories have been aggregated for conciseness. See Technical Report for more information.

**Combines the Arts, entertainment and recreation sector and the Accommodation and food services sector.

Source: Headwaters Economics, Economic Profile System - Human Dimensions Toolkit. <http://headwaterseconomics.org/tools/eps-hdt>

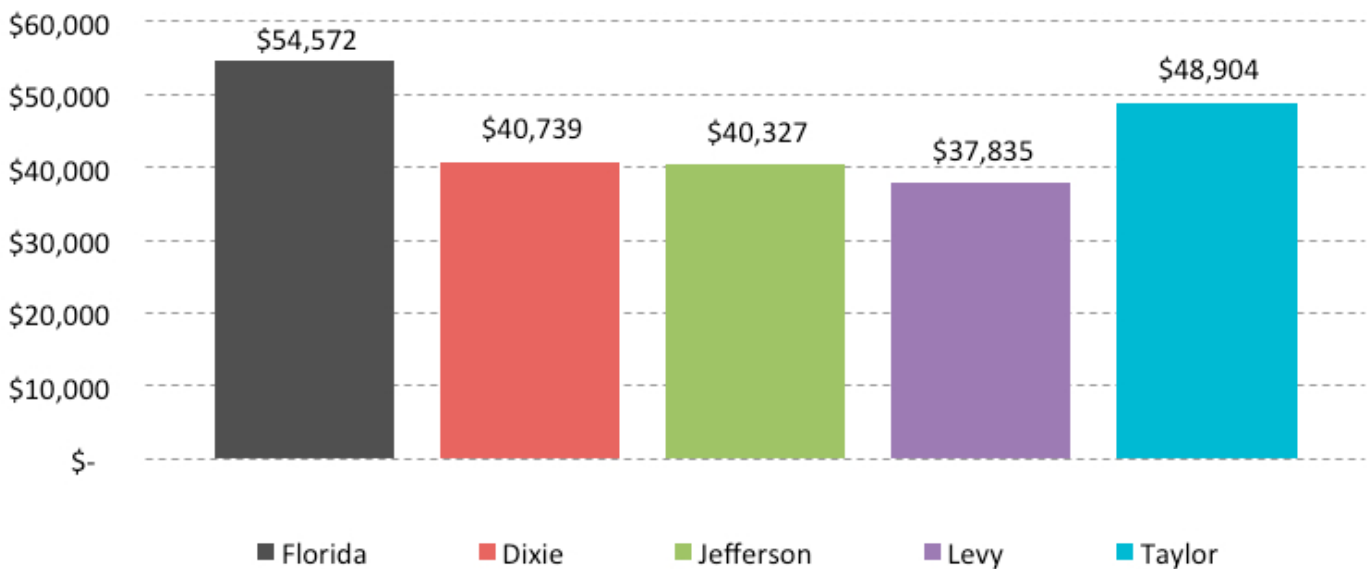
Any changes in these industries will multiply and ripple across the region with impacts on other businesses. For example, each job created (or lost) in the wood products industry in Dixie County creates (or eliminates) 1.2 more jobs elsewhere in the Big Bend and generates (or loses) a total income of \$99,300. Similarly, in Taylor County, each job in pulp and paper production ripples across the area, generating 1.4 jobs in other Big Bend industries with a total income impact of \$159,700¹. These results differ due to the regional impacts for specific industries, which vary depending on labor income levels and economic outputs.

ATTRACTING HIGHER PAYING JOBS TO THE BIG BEND AREA

Average employee compensation, including wages and benefits, is lower in the Big Bend region compared to Florida statewide. The particular mix of industries, the lower education level of its residents, and the reduced competition for workers play a role in the region's lower compensation. Lower wages are often said to attract businesses, but a careful balance is needed to ensure the availability of higher paying jobs as well. The average wages in forestry, fishing, and agriculture typically lag behind the overall county averages, yet the high concentration of these industries in the Big Bend means that they still make a more significant contribution to the area's overall labor compensation than those industries do statewide.

Most successful businesses attract and retain skilled employees and locate in places that can provide a higher quality of life. Increasingly, businesses seek out areas with high-quality natural and cultural assets. Pleasing natural features, like the forested landscapes, fresh-water springs, and the rivers and coastal marshes of the Big Bend region, can provide desirable places for growing businesses. These natural amenities are a positive factor for the four Big Bend counties in attracting better paying businesses and jobs.

AVERAGE COMPENSATION PER JOB IN 2012



Source: U.S. Bureau of Economic Analysis, Local Area Personal Income and Employment, Statistics from BEA's interactive data application.

¹Estimates are based on an economic impact analysis conducted for the study. Additional details are available in the Technical Report.

ENCOURAGING A DYNAMIC BUSINESS SECTOR

A dynamic business sector characterized by high levels of both new business startups and business failures is associated with innovation and entrepreneurship, and thus a sign of a healthy, growing economy. However, this activity in Florida and in the Big Bend region has been generally declining since the early 2000's. Most recently, county-level employment dynamics show the hiring rate in the Big Bend counties may be turning around. The Big Bend, like most rural areas, relies more heavily on small businesses. In three of the counties (Dixie, Jefferson and Levy) businesses with fewer than ten workers account for 84% to 88% of all businesses compared to 78% statewide. This small business presence is vital to a sustainable and diversified economy and can be an important asset for growth.

THE BIG BEND AREA IS HEAVILY RELIANT ON NATURAL RESOURCE INDUSTRIES FOR THE JOBS OF TODAY AND TOMORROW

Healthy natural resources contribute to the economic vitality of a region in several ways, including provision of ecosystem services (e.g., water filtration, air quality, erosion control, buffering of storm impacts), support for tourism and recreation, and as a source of raw materials for industry and renewable energy. In the Big Bend region, industries directly based on natural resource utilization account for nearly one-quarter of all economic activity in the region. According to further analysis, tourism accounts for an estimated additional 1.6% of the Big Bend's economic output. With a surprising amount of differentiation across the counties, direct utilization of natural resources generates from \$47.5 million of output in Jefferson County to \$592.0 million of output in Taylor County.

DOLLAR VALUE OF OUTPUT (SALES) IN THE NATURAL RESOURCE-BASED INDUSTRIES, 2012 (\$MILLION)

Industry	Florida	Big Bend Region	Dixie County	Jefferson County	Levy County	Taylor County
All Industries	1,212,045.1	3,672.4	473.2	429.1	1,320.8	1,449.3
Natural resource based industries	17,851.8	906.3	139.7	47.5	127.0	592.0
Natural resources industries %	1.5%	24.7%	29.5%	11.1%	9.6%	40.8%
Farming	8,400.0	142.8	21.9	41.0	73.1	6.8
Crops	6,977.3	103.2	14.3	33.7	51.6	3.6
Livestock	1,422.7	39.5	7.5	7.4	21.4	3.1
Aquaculture	88.5	na	na	na	11.8	na
Forestry	872.4	70.3	9.3	3.1	23.2	34.7
Support for farming and forestry	1,411.2	24.3	0.5	2.5	20.3	1.0
Commercial fishing and hunting	462.2	23.2	12.2	0.8	4.3	6.0
Natural resource based mfg.	6,706.1	645.7	95.9	0.2	6.1	543.5
Wood products	1,628.0	125.7	95.9	0.2	6.1	23.5
Pulp and paper	5,078.1	520.0	0.0	0.0	0.0	520.0
All other manufacturing	120,788.9	330.7	5.5	5.2	126.8	193.2
Utilities, construction and mining	87,023.8	430.1	30.5	62.3	222.0	115.3
Trade and transportation	168,234.2	449.0	78.1	64.9	178.9	127.1
Services	705,532.0	1,183.2	152.5	191.3	526.3	313.2
Government	112,614.4	373.1	66.9	57.9	139.8	108.5

*"na" denotes county-level sales data that is suppressed by the USDA for confidentiality. In 2012, aquaculture operations included 3 farms in Dixie County, 1 farm in Jefferson County, 96 farms in Levy County, and 1 farm in Taylor County.

Source: Aquaculture estimates are from USDA Census of Agriculture 2012. All other are from Implan input-output models (Implan Group LLC), 2012.

Forestry, fishing, hunting, and agricultural support industries are 10 times more important to—or more concentrated in—the economy of the Big Bend region than in the rest of Florida. These industries are also more concentrated in the economies of individual counties, ranging from a high of 12 times more in the Levy County economy, 11 times in Dixie County, and almost 7 times in Jefferson and Taylor counties. Farming is also 10 times more concentrated regionally and especially important to Jefferson and Levy counties (22 times and 12 times more important respectively). These key industries and the lands that support them, with their sizeable number of jobs and large ripple effect on the rest of the economy, serve as the economic base of the region. Whether these businesses are involved in wood products manufacturing, agriculture, or shellfish harvesting, they are dependent on healthy forests and clean water supplies. Any threats to timber supply or water quality/quantity would have a significant impact on the overall economy of the region.

“Having plans in place that attract growth but do not deplete natural resources is essential. The biggest driver in [our] County for economic development is natural resources.”

—Local economic development official

The types of industries that are central to the Big Bend economy are typically considered mature and slow-growing. As a result, job growth in the area from 2001 to 2013 lagged behind the rest of the state. Job growth was also impacted by the recession that hit the forest products industry hard. Still, some industries, especially those with a natural resources link, have a competitive advantage that has enabled them to grow faster in the Big Bend than statewide. If not for the competitive advantage enjoyed by these industries, overall job growth would have been far less in recent years. More information is available in the detailed Technical Report.

SELECTED INDUSTRIES WITH A COMPETITIVE ADVANTAGE IN THE BIG BEND

Dixie County	Jefferson County	Levy County	Taylor County
<ul style="list-style-type: none"> • Business services • Manufacturing* • Education services • Finance & insurance 	<ul style="list-style-type: none"> • Business services • Farming • Transportation • Farming 	<ul style="list-style-type: none"> • Forestry, fishing, hunting • Manufacturing • Construction • Transportation 	<ul style="list-style-type: none"> • Manufacturing* • Retail trade • Construction

Note: Industry categories are condensed due to data limitations.

**The manufacturing industries in Dixie and Taylor counties are dominated by wood products and pulp and paper, respectively.*



EXPORTS OF NATURAL RESOURCE-BASED PRODUCTS BRING NEW MONEY INTO THE BIG BEND AREA

Exports of goods and services from an area bring in new dollars, creating opportunities for business development, job growth, and higher incomes. Across the region, pulp and paper producers export the greatest dollar value of products, followed by wood products manufacturers, crop farmers, and forest product companies. Farming, including both crop and livestock production, is also a source of exports for three of the counties, individually. The hard clam aquaculture industry in Cedar Key exports 75% of the clams grown in the region with a wholesale value of \$19.9 million, an economic impact of \$44.9 million, and support for 556 jobs (Adams, et al. 2009). Tourism also functions as an export industry by providing or “exporting” the local experience to people who visit an area. Tourism is currently a relatively small piece of the region’s trade but is poised for more growth. These exporters all rely on high-quality natural resources for their success.

THE LARGEST EXPORTING INDUSTRIES IN THE BIG BEND

Dixie County	Jefferson County	Levy County	Taylor County
<ul style="list-style-type: none"> • Wood products mfg • Transportation • Forestry • Crop farming • Livestock 	<ul style="list-style-type: none"> • Crop Farming • Other services • Transportation • Livestock • Forestry 	<ul style="list-style-type: none"> • Crop farming • Forestry • Other services • Livestock • Gov’t 	<ul style="list-style-type: none"> • Pulp and paper • Product mfg • Forestry • Durables mfg • Wood products mfg

Note: Industry categories are expanded here due to data sources and are in order by export amount.

OPPORTUNITIES AND CHALLENGES

Decision-makers face on-going challenges in balancing the multiple, complex, ever-changing, and often-competing issues that must be addressed for the public good. County leaders in the Big Bend region have recognized that the working forests, natural areas, farmland, and marine and freshwater resources provide the basis for future economic growth, if managed wisely. They expressed an understanding for protecting and managing the area’s natural resources, but they also have the responsibility to promote economic growth for the overall health and vitality of their communities.

“Use Terra Firma but protect it when necessary.”
 —County Administrator

The timber and forest products industry, which is at the heart of the region’s future growth, provides a good example of the balanced approaches decision-makers must take. Currently, the forest products industry is in great flux with rapid changes in ownership, manufacturing practices, and economic changes. According to the U.S. Forest Service, product and process innovations in the past two decades have made the industry more efficient (e.g., computer-aided manufacturing), led to new products (e.g., glulam beams, laminated strand lumber), and enabled the use of alternative raw materials (e.g., small-log processing, biomass energy). More research and development of new ideas like those above can drive future expansion of the industry and open new markets for forest products. This could be accomplished through individual industry research and development or potentially through regional partnerships with economic development agencies and universities supporting industry innovation.

At the same time, there are trade-offs and market realities that must be considered when recruiting new industries. Research by the University of Florida, for example, indicates that bioenergy yields positive contributions to gross domestic product, employment, and state revenues, as well as decreased fossil fuel imports. The forest landowners in the region would benefit from increased demand and prices with a new biomass facility, but the existing forest products manufacturing sector may be adversely affected by competition for wood resources and higher prices for materials. Alternatively, innovations to create added value from manufacturing by-products can lead to new forest-based business activity without competing for raw materials.



Water is another issue that requires the careful consideration of decision-makers across multiple jurisdictions and industries, looking at the impacts to the long-term health of the natural resources in the region. For example, accelerated conversion of forests to commodity agriculture and accompanying chemical, sediment, and nutrient inputs, or intensive uses like mining, can place significant – and expensive – burdens on downstream water and sewer infrastructure as well as public land and water investments. Balanced land use planning and coordination across county boundaries, paired with best management practices and water conservation and protection techniques, can sustain the health of the Big Bend region, the Gulf, and the region’s drinking water, recreation, and shellfish and fisheries.

“We need to continue to improve our land use policies to protect natural resources, particularly water, and to direct growth so as to not impact the county’s cultural and historical way of life.”

—County economic development official

Decision-makers are to be commended for putting in place local plans that acknowledge that the health of the natural resources is essential for supporting the area’s existing and nascent industries and quality of life for residents. The “Taylor County Vision 2060” plan adopted by Taylor County in 2008, for example, creates a long-term strategy for growth and conservation. The Jefferson County Commission adopted its “Jefferson County Vision ACTION Plan” in 2014, highlighting economic and small business development, tourism, agriculture, downtown development and planning, and natural resources as key elements for the county’s future prosperity. Continuing these initiatives to identify new opportunities linked to its assets—what’s called asset-based economic development—can help the Big Bend strengthen, broaden, and diversify its economy. Such efforts highlight the need to keep “working lands”—farms, forests, ranches, waterfronts—working to produce the raw materials that support local industry and increase output through value-added products and services. Creating and implementing such local economic development plans can help sustain and grow business across the region.

As noted earlier, educational rates are low, but improving across the Big Bend. Education and training, as investments in the future, are the ultimate opportunities for the area—improving youth education, building a stronger workforce, developing and retraining residents for changing businesses, and encouraging entrepreneurial activity. In the Big Bend, the local economies are already more reliant on entrepreneurial businesses for employment than statewide, due in part to the large number of small farms. As farms consolidate these trends could shift; in the interest of a robust, diversified economy, counties should consider how to support and strengthen existing small business operations and cultivate new entrepreneurs.

Tourism remains a smaller part of the Big Bend economy compared to the rest of the state. Big Bend tourism has delivered mixed economic results since the recession's onset, with little growth or a decline across the region. Yet, the Big Bend is poised to increase tourism. The area has unique and high-quality resources and is within driving distance to metropolitan areas whose residents seek rural getaways and to airports that bring national and international visitors to the state. Cedar Key, Steinhatchee, Suwannee, and other coastal cities and towns all support ecotourism via fishing boats, canoe/kayak rentals, guide services, boating service facilities, and lodging, while the area's springs, rivers, and bicycle, hiking, and horseback riding trails provide additional recreational experiences. The landscapes of the Lower Suwannee National Wildlife Refuge, Big Bend Wildlife Management Area, and other public lands have extensive hunting opportunities.

“We need to be sure that anything we do is sustainable so natural resources are here for decades to come.”

—Regional Economic Development Official

Such opportunities for sustainable tourism, including nature-based tourism, cultural heritage tourism, and outdoor recreation, provide a high potential for growth, particularly if paired with community engagement, investments in local needs, and small business development. They deliver higher yield, lower volume experiences that can offer better wages than mass-market tourism and create markets for local products, while stewarding the natural resources and diversifying the local economy. Any tourism strategy should, at the forefront, include the needs and skills of the residents. Investing in local needs cultivates a pride in place and may spur additional investments that can reverse the outmigration of young people and skilled workers when they witness opportunities and improvements in their community.

In fact, research indicates that creative businesses are attracted to areas with high-quality natural and cultural resources, a trend borne out anecdotally in the area by some corporate leaders visiting and purchasing second homes in the Big Bend due to the natural and recreational opportunities (Florida, 2003). Nationally, some communities—such as Traverse City, Michigan—have even proactively developed strategies for reaching out to vacationing business owners, inviting them to consider the area for new businesses and relocations.

The fact that much of the region is rural is also a challenge to the economic viability of the area. It is difficult to attract businesses to places with limited infrastructure and access to transportation (interstates, airports, ports, and rail hubs), and challenging to attract or retain skilled workers as well. Local leaders cited the loss of higher-paying jobs from the area. Yet residents certainly value the region's rural character and traditions, and that same character may be a draw for tourists as well as small, “foot-loose” businesses that can locate anywhere. Physical distances from population centers can be addressed, in part, with good communications and transportation investments, infrastructure to serve overnight visitors, and longer-term plans for targeted infrastructure improvements.

REGIONAL STRENGTHS, WEAKNESSES, OPPORTUNITIES, AND THREATS (SWOT) ANALYSIS

STRENGTHS

- Ample timber, fisheries, and agricultural resources
- Abundant natural amenities, including public lands, the Gulf, and the region's rivers and springs
- Underutilized available labor
- Parts of the region are served well by transportation infrastructure
- Industrial parks available for expansion
- Increasing support for greater economic development efforts
- Support from economic and tourism development agencies
- Effective resource protection tools exist for most natural resources
- Access to the Gulf for tourism, recreation, and commercial fisheries, (including aquaculture)

WEAKNESSES

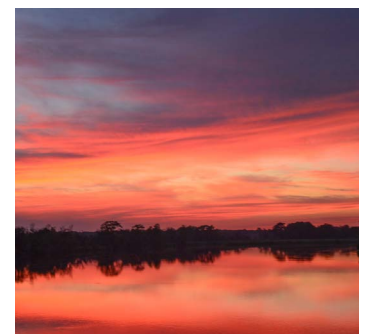
- Lack of industrial lands or tenant-ready buildings (in certain locales) to accommodate new industries
- Under-educated work force. Need for stronger core academics and workforce development
- Inadequate supply of qualified truck drivers
- Limited capital to expand education, infrastructure, and transportation
- Underserved health care and other services to serve residents
- Out migration of young and skilled workers
- Limited or no access to the Gulf in certain locales
- Limited funds to market and advertise the area's tourism opportunities

OPPORTUNITIES

- Timber supplies to support increased pulp & paper production, bioenergy, and wood products manufacturing
- Growing for local fisheries and crops due to niche agriculture/locavore movement benefits smaller growers and producers
- Growing demand for nature tourism, eco-tourism, and agri-tourism from domestic and international tourists
- Responsive programming at community colleges, including technical, hospitality, and other training programs
- Access to abundant clean water
- Access to public lands to attract ecotourism investments
- Cultural support for keeping working lands working for existing industry, new businesses, and entrepreneurs
- Draw as a regional forestry hub in the heart of Florida's "wood basket"
- Opening of nearby Klausner saw mill
- Coordination of Gulf restoration funding through the RESTORE Act
- Growth of hard clam fisheries

THREATS

- Over-reliance on small concentration of firms for significant employment
- Changing business practices, costs, ownership, and/or manufacturing could affect industry viability
- Lack of balance between potential economic growth and natural resource protection
- Conversion of forests to more intensive land uses that reduce timber supply, impact fisheries, and threaten water quality/quantity
- Intensive fertilizer and water use can result in degraded water resources, including the region's rivers, springs, and fisheries
- Consolidation of small farms by out-of-town owners
- Need to continually improve forest management practices, especially for small private landowners
- Concern that forests being overcut, not enough reforestation
- Potential lack of unity within the region for new efforts



IDEAS FOR GROWTH

Economic growth in the Big Bend can build upon and preserve the character of local communities while offering opportunities for business development and jobs. The Big Bend's natural resources define the region and hold the key to its future. Unique and innovative businesses that can leverage the value of the natural resource base while protecting it for future generations can put the region on a trajectory for sustainable growth. Protecting freshwater resources, supporting growth in the timber and forest products industries, developing opportunities for small scale farming and fishing, and enhancing recreational access are areas where creative solutions can make a difference to the region's economic future.

Overall, the Big Bend counties share a common geography and related economies. Working together could provide opportunities to realize stronger economic and community outcomes. Local officials indicated the importance of proactively coordinating efforts across counties to ensure conservation that sustains the Big Bend's people and economy. In addition, discussions with state and federal agencies indicate that evidence of regional vision and partnership could create additional funding opportunities.

FORESTRY, TIMBER, AND FOREST PRODUCTS

Although the acreage of working forests is unlikely to expand significantly, communities can take steps to maintain and protect existing forests and develop stronger partnerships with forest-based industries to support economic growth, markets, and jobs. A local forest industry leader underscored the importance of good and continually-improving management practices, stating that "to sustain the industry, you have to sustain the forest." Other industry and community leaders stressed the need to improve forest markets and to ensure that reforestation exceeds forest cuts for future forest health. Maintaining healthy working forests contributes to clean water for people and fisheries, increased recreational opportunities, and resiliency from natural hazards, as well as continued economic opportunities. Working forest investors are seeking communities interested in sustainable forest production and related industries - opportunities found in the Big Bend region.

As part of Florida's "woodbasket," the region can create a timber products hub through partnerships focused on training, infrastructure, and marketing assistance that supports the industry's future vitality. Local forest industry representatives have indicated the shortage of trained commercial truck drivers. Locally delivered training could help meet this demand. More broadly, the area could consider creating a facility focused on training needs for forestry and other natural resource industry jobs and businesses. In addition, helping small forest owners retain and better manage their property through stewardship planning and forest certification will help ensure supplies of forest products for the mills and the continued health of working forests and forest products.

Spotlights for Action

- Continually improve forest management
- Become a regional hub for forest innovations
 - Identify new products
 - Research new markets
- Training for needed skills
 - Commercial truck drivers
 - Forestry contractors
 - Small forest owners
- Regional branding initiative of forest products
- Additional economic research on the value of the region's forests



One of the strongest opportunities is to capitalize on new markets for forest products. The existing Gainesville wood-fired biomass plant provides new opportunities as it expands its market and the two new planned pellet plants in the middle Suwannee River basin offer new bioenergy opportunities. In addition, the new Klausner saw mill, located in Suwannee County, opens yet another regional market opportunity. The area can further explore the viability of harvesting underutilized waste wood or pulpwood for use locally or for international markets.

“To sustain the industry, you have to sustain the forest.”
—Forestry industry Leader

OTHER OPPORTUNITIES INCLUDE:

- Non-timber wood products. Collection of pine straw is one such possibility, with some areas realizing revenues equal to pulpwood. Resin tapping is another process seeing a resurgence, with new tapping methods leading the way. Both are labor-intensive processes but provide potential complementary revenue streams to timber production, subject to additional research.
- New markets for manufacturing by-products. Uncovering new uses for current by-products of the wood products and pulp and paper industries could provide another way for value-added utilization of the area’s forest resources without competing with existing industry for raw materials.
- Carbon offset markets. Such markets are still in development but can be opportunities for longer-term consideration as a means to create additional revenue streams and incentives for landowners to sustain their working forests.
- Branding Big Bend forestry products. One opportunity is to market Big Bend wood for use in green building projects. Florida’s growing green building demand and rebounding construction may provide market opportunities for Big Bend’s products.
- Reforestation programs. New genetic research is increasing yields, but policy also needs to prevent drains on forest production. The first step is to determine an accurate count of actual cuts. Then, incentives for reforestation could support replanting and good management to stave off possible shortages due to increasing market demands.
- Agri-tourism related to forestry and timber production. More people are seeking experiences instead of passive recreation for their time off. Learning about wood products and timber harvesting could be coupled with the area’s existing forest heritage attractions such as the Forestry Museum in Perry.

Finally, when and where appropriate, conservation easements can provide a revenue source for forest owners to sustain their business. The injection of a new source of capital can provide greater local certainty and community benefits along with resources for investing in priority business needs.

“The key to keeping land in forests is strong forest markets.”
—Forest Industry Expert

TOURISM

Spotlights for Action

- Training for hospitality businesses and employees
 - Best mgmt. practices
 - Tourism marketing
- Apply “Old Florida” as a regional tourism brand
- Inventory tourism assets
- Explore opportunities for expansion of recreational access to public lands

Nationally, sustainable tourism, including nature-based, agri-tourism, cultural heritage, and experiential tourism, has been a fast-growing part of the tourism industry for the past decade. According to the Outdoor Industry Association research, in 2012, Florida generated \$38.3 billion in consumer spending from outdoor recreation. The Big Bend communities can capitalize on these trends by leveraging existing tourism attractions including its freshwater springs, trails, recreational hunting, fishing and scalloping, and traditional hunt clubs.

In addition, the wide range of state and federal lands could help expand economic opportunities for local communities. While resource management is paramount, further discussions could explore opportunities for additional boating, trails, and other facilities within state and federal lands, thus providing additional access and assets that help local communities thrive while building local advocates for agencies and their programs and mission.

“Our tourism is completely dependent on natural resources, while industrial development depends on greater use of the same resources. The greatest need is to continue maintaining and monitoring that balance to sustain the area’s tourism, economy, and our quality of life.”

—County Administrator

An inventory of the tourism assets across the region would further contribute to the area’s ability to develop tourism products and connections and eventually market tourism across the four counties and beyond. Tourism products and connections with a regional flavor can be formulated to market the “Old Florida” experience in the Big Bend or highlight the area’s forestry heritage. Cultural, historical, and nature-based tourism can be widely promoted, especially to international audiences that are willing to pay more for high quality outdoor experiences they cannot obtain in their home countries. The region can also capitalize on its existing assets, telling the story of its forestry heritage, the tremendous success of hard clam fisheries in Cedar Key, the historic railroad industry and recent conversion to recreational trails, and other assets reflective of the area’s history and culture.



AGRICULTURE, INCLUDING AQUACULTURE

Spotlights for Action

- Expand or continue best management practices
- Develop value-added processing infrastructure
- Expand clam and oyster cultivation
- Promote locally grown foods
- Partner with tourism networks and hospitality business to promote agri-tourism
 - o Farm bed-n-breakfast
 - o Open farm days



Agriculture is also an important industry, providing a high percentage of local jobs across the Big Bend and some of the highest net exports in three of the four counties. While farming in Florida is heavily skewed toward crop production, farming in the Big Bend is somewhat evenly balanced between crops and livestock production, accounting for \$142.8 M in economic output. Levy and Jefferson counties have the largest farm economies, together generating 80% of the region's farming output.

As with forestry, the ongoing commitment to good agricultural management practices provides multiple benefits to farms large and small. Conservation tillage, no-tillage, cover crops, and erosion control help maintain the soil structure and prevent runoff. Conservation tillage also can reduce fuel consumption and costs. Some Big Bend farmers also rotate row crops to grass crops to reduce fertilizer use, improve soil structure, and use less water. A local agricultural expert noted the common use of these practices and the area's intact sense of stewardship. As evidence he cited comments from a local farmer who expressed the desire to keep water on his property, but if it does run off, he wants the water to be clear and clean. As with forestry, conservation easements are also available for protecting farmland.

Across the Big Bend, both large agricultural operations and small-scale farming have the need for infrastructure to support value-added processing including refrigeration, storage, and processing facilities. Such infrastructure would enable smaller scale farms to pursue direct farm sales and for both large and small operations to capture the added value, enabling vertical integration. Training on basic business principles and technical assistance on using online direct marketing are also identified as needs, especially among family and small farm owners.

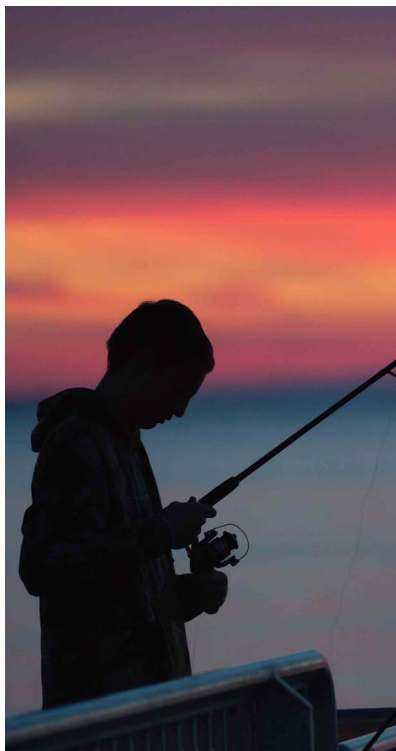
In the Big Bend, agriculture includes the commercial hard clam aquaculture industry of Cedar Key (aquaculture is grouped under agriculture; wild shellfish fisheries are a part of commercial fishing). Cedar Key's hard clam industry arose from job retraining efforts to counter the loss of oyster harvesting grounds and commercial net fishing. Building on one of the most successful retraining efforts in Florida, the region should continue to capitalize on the industry by pursuing related business opportunities, such as further expansion of leases, modification of leases for water column usage, new culture and processing technologies, or diversification of the shellfish species, such as recent investments in oyster culture.

Local officials noted the trend for locally-sourced foods and specialty foods that creates opportunities for expanding the area's niche farming industry. The region can expand cooperative promotions and sales efforts and develop opportunities for food hubs, value-added food businesses, farmers' markets, community-supported agriculture, farm visits, online markets and marketing, and direct connections between farms and institutional markets like schools and hospitals. Many areas in the U.S. have also created regional farming brands. The promotion of Cedar Key Sweets Littleneck Clams is a local branding example. Securing organic certification can also help the local-foods farmers.

COMMERCIAL AND RECREATIONAL FISHERIES

Elsewhere in the region, the coast supports a commercial shellfish industry including oysters, pink shrimp, and blue crab. Commercial fishing accounts for \$23.2 M in output across the Big Bend. Dixie County has the highest concentration of this industry, accounting for \$12.2 M, more than half of the region's output. Taylor generates another third, with \$6.0 M of output. The seagrass beds and salt marshes of the Big Bend Seagrasses Aquatic Preserve provide nursery and forage areas for finfish and shellfish, including commercially and recreationally important species such as mullet, sea trout, redfish, flounder, shrimp, oysters, and scallops. According to the University of Florida, commercial craft may fish the Big Bend's waters, but typically make landings closer to population centers with air and land connections.

In 2011, Florida's recreational anglers spent \$4.6 billion on fishing-related activities. More boat ramps might increase recreational fishing in the area, but limited access is actually good for fisheries, as increased development can decrease catch. The Big Bend is also a popular destination for recreational scalloping, especially in Keaton Beach and Steinhatchee. More engaged discussion can help explore how to increase the economic output of commercial and recreational fishing without negative impacts to the fishery resources.



EDUCATION, JOB TRAINING, AND ENTREPRENEURIAL DEVELOPMENT

Recent improvements in educational attainment are possibly a reflection of investments in public schools and community colleges. These investments should be continued, and opportunities to expand and strengthen the programs that are working should be explored. Partnerships between industries and community colleges, for example, might create training programs that will strengthen local workforce skills. Likewise, establishment of internship and apprenticeship programs can be important investments in industry-specific workforce development. Finally, early career-based education can cultivate work skills and opportunities for Big Bend's youth—the future workforce.

Programs and policies directed at small business and entrepreneurial support can encourage business formation and job creation. For example, a 12-county region in Pennsylvania created a small business outreach coordinator to work across the area, cultivating and supporting recreational equipment manufacturers, outfitters and other outdoors-focused retailers, farmers, and tourism outposts like bed and breakfasts and restaurants. A North Carolina program provided small planning grants for youth-led efforts in creating small businesses; the program helped young adults from rural areas learn business skills and improve opportunities in their communities. Other areas hold small business or entrepreneur training or other educational opportunities at community colleges and training centers. In addition, special job-specific training, such as commercial driving licenses for logging truck contractors and vocational education for repairing the increasingly sophisticated agricultural and forestry equipment, can build local skills.

FUNDING

Funding is always in demand. This analysis revealed some opportunities to access additional funding for the area, particularly through state and federal programs. For example, the USDA Rural Development staff indicated their agency's focus on regional initiatives and their interest in receiving applications to support the needs of the Big Bend region. More funding sources are listed in the Technical Report and are available through USDA's three Rural Development offices across the area. The Florida Department of Economic Opportunity and Enterprise Florida also expressed interest in inquiries from the area.

“Funding is the most important need. We need it to change and improve things. You can have visions and plans, but without money they will never come to reality.”

—County Tourism Official

In addition, there may be funding opportunities associated with penalties arising from the 2010 Deepwater Horizon oil spill via the RESTORE Act. Finally, given the focus on keeping working lands working, there may be funds available through the recently-approved Florida Water and Land Conservation Initiative (Amendment 1) to purchase conservation easements on working forests and farms. This is one way to generate additional income for the land-owners, while keeping the lands on the tax rolls.

WHAT'S NEXT

The ideas included here are not an exhaustive list of ideas or industries, but rather initial thoughts based on the economic analysis, with hopes to spur more engaged discussion and evaluation across the region. Industries—natural resource based or in other fields—can contribute to strengthening the Big Bend region economically while securing the well-being of the natural resources. As stated repeatedly by local officials, the goal is to sustain the natural resources that support the Big Bend's unique character, community, and economic health and to catalyze opportunities and partnerships that make the region even stronger.

Together with federal and state agencies, there are many separate initiatives underway in the region at any given time. Coordination among the various public and private organizations toward a common long-term vision is the key to successful and sustainable economic development against a backdrop of shared environmental strengths and related concerns that unify the region and highlight the unique challenges and opportunities that make each county distinct in its own way. Collaboration and creation of a regional identity can command the attention of funders and other resources for the area. Further discussion among the region's leaders can help create a common purpose and specific actions.

This Report is a starting point with opportunities for collaboration that can catalyze on-the-ground action and implementation of specific steps that can strengthen the region's economy, community, and environment. Only then, can the region really thrive.



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www.conservationfund.org
703-525-6300

CONTACT:

Kendra Briechle

Senior Training Associate,
 Conservation Leadership Network
 Email: kbriechle@conservationfund.org

Lauren Day

Florida Representative,
 Conservation Acquisition
 Email: lday@conservationfund.org



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