# Commercial Fishing Economic Contribution Report 2021: Nassau County

A data report for the Nassau County Tourist Development Council and Board of County Commissioners prepared by:

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## Overview Summary

*Why this report might be important*
This report describes the economic contributions of marine commercial fishing in Nassau County. Marine commercial fisheries are especially important to Florida, and provide livelihoods for fishers and those in related sectors throughout the state. While state-level economic metrics are often made available by federal or state agencies, metrics for specific counties are usually not available. This report addresses this need by describing the economic activity supported within Nassau County that results from marine commercial fishing. We believe this information can be useful to several people and entities in Nassau County and the broader region, such as the the Nassau County Tourist Development Council and Board of County Commissioners, as well as county commissioners and the fishing industry.

*What this report can be used for*
This report describes the importance of marine commercial fishing to the Nassau County economy, in terms of market activity (spending, revenue, and jobs). The report first provides background information about economic market activity so that the terms and numbers used here can be understood an interpreted correctly. Then the report details some of the most valuable fish species landed in Nassau County for 2019. Finally, the report describes several important metrics measuring economic market activity associated with the entire (pooled across species) marine commercial fishing in Nassau County. **This report describes for specificallyNassau County** :

- The total economic activity associated with marine commercial fishing
- The total number of jobs supported by marine commercial fishing
- The most important species-specific fisheries, measured in terms of total landed value.

We believe this information can inform discussions and decision making related to policy, management, or environmental changes in or around Nassau County that might impact commercial fishing activity, or when discussing similar changes that occur at a regional or state-wide scale but might affect Nassau County.

*Where the information from this report comes from*
The data used in this report come from Florida Fish and Wildlife Conservation Commissions (FWC). This information is collected by FWC and is publicly available at https://myfwc.com/research/saltwater/fishstats/commercial-fisheries/landings-in-florida/. Economic results were created by using these data along with licensed Impact Analysis for Planning (IMPLAN©) regional economic modeling software (IMPLAN Pro) and associated state and county level data representing economic structure for .

## Methods and Background Information

*What is Economic Contribution?*
Economic contributions measure the market activity associated with ongoing economic activity, such as market activity associated with a particular sector of the economy (e.g.,

commercial fishing or agriculture). Market activity is simply a term that represents money "exchanging hands" within the formal economy and does not include information transactions such as bartering or other types of informal exchange, nor does it include the economic value of goods and services that are not formally exchanged such as ecosystem services. Economic contributions are one measure of market activity. Readers might also be familiar with the related term economic impacts, but this terminology (and associated methods) are more appropriate for measuring changes in market activity from something like a policy change, or environmental disturbance (like a red tide). Unlike economic impact, economic contribution studies are most useful when quantifying ongoing economic activity associated with a particular industry or pastime, such as commercial fishing. Economic contributions are always described for a specific time and place. For this report, the time is the year 2019 (due to data availability and the potential influence of the COVID-19 pandemic), and the place was Nassau County. It is critical to understand that what is described here, economic contribution, is not the same as economic value. Economic value is a measure of the benefits to society, whereas measures of economic activity, specifically economic contributions, describe the way things are without describing whether this level of activity is optimal or even good for society or the environment. Economic contribution metrics are go beyond simply measuring the sales revenues or employment within the sector of interest and quantifies the relationships amongst industries within an economy. More information about market activity, economic metrics, economic contribution, and economic impact can be found in scientific literature Miller and Blair (2009), and the IMPLAN Group's Support Site (www.support.implan.com).

*What was the overall approach we used?* When measuring the economic contributions of an industry, like commercial fishing, information is needed about the market price (value) of what is sold, as well as detailed information about the specific industry that allows calculating contribution. The information about the market price is made available for Florida commercial fisheries by FWC. The information about the commercial fishing industry is included within the proprietary IMPLAN© software. The IMPLAN© software is what is used to calculate total economic contributions, which include multiplier effects. IMPLAN© is a commonly used software tool based on input-output (IO) analysis. More information on IMPLAN© be found at the IMPLAN Group's Support Site (www.support.implan.com).

*What economic metrics do we report?* We report 6 total metrics:

- **Industry Output**: The dollar value of the goods or services produced by an industry. From the sales perspective, output is the sum of sales to final users in the economy, sales to other industries, and changes in business inventories. This is the most common metrics used to describe the magnitude of an industry
- **Employment**: Measure of the number of jobs involved, including full-time, part-time, and seasonal positions, exclusive of H2-A certified guest workers. It is not a measure of full-time equivalents (FTE). This is what it sounds like—the numbers of jobs supported by an industry
- **Value Added**: A broad measure of income, representing the sum of employee compensation, proprietor income, other property income, indirect business taxes

and capital consumption (depreciation). Value added is a component of output and is a useful measure of wealth created by a sector or an economy.

- **Labor Income**: The sum of wages and salaries, benefits, and payroll taxes (employee compensation) and payments received by self-employed individuals or unincorporated business owners (proprietor income). This may be important for the for-hire commercial fishing sector.
- **Other Property Income**: This represents income generated by industries from non-operating activities. It includes things like dividends, royalties, corporate profits, and interest income, and accounts for the fact that industries make money beyond selling things.
- **Indirect Business Tax**: A measure of the taxes paid by business associated with an industry. It includes taxes on sales, property, and production, but not employer contributions for social insurance, as well as taxes on employee income. This number effectively represents the taxes businesses pay.

Each metric can be quantified through four different effects:

- **Direct Effects**: The component of market activity describing the amount that was directly spent on a good or service within a region, in this case, total expenditures on marine commercial fishing within Nassau County in .
- **Indirect Effects**: Summed value of the purchase of input goods and services sourced from within a region across multiple rounds of spending
- **Induced Effects**: Household expenditures of employees working in the directly or indirectly supported industries, often including items such as groceries, housing, and clothing.
- **Total Effects**: The sum of direct, indirect, and induced effects.

*Are there any important caveats about the information reported here?* The economic contribution values describe the economic magnitude of marine commercial fishing, which can be helpful for describing the relative importance of this activity to the Nassau economy. However, it is critical to remember that the economic contribution numbers reported for Nassau County are not equivalent to economic value, and thus they do not represent economic benefit to Nassau County. A second important caveat is to understand that the data used to calculate economic contributions for Nassau County are not perfectly precise. The numbers reported here rely on information reported commercial fishers to FWC for the 2019 year. Some reporting error is possible in either the pounds or especially the total market price (which is variable throughout the year). Further, the amount of fish landed and value per pound varies year-to-year, and using 2019 gives a snapshot of the information. Nonetheless, this report represents the most detailed descriptions of the economic contribution of marine commercial fishing to Nassau County that we are aware of currently.

## Results

*Overview*
The economic contribution results for Nassau County are described in terms of the total commercial fishery, including all species. While we cannot provide economic contribution for specific species, we do show some of the top species landed as measured by value (the expected market price).

### Top commercial fishery species by landed value

We organized all the species commercially fished for in Nassau County by landed value, and report the top five here (**Table 1**). These fisheries generally be important for the overall economic contribution, but we do not want to ascribe specific contribution to individual species.

**Table 1**. The top fish commercially landed fish in Nassau County by value

*Top 5 Commercial fisheries by Value, Nassau County,2019*

| Species | Pounds | Trips | Value |
|---|---|---|---|
| Shrimp, white | 935834 | 146 | 2328689 |
| Misc. invertebrates | 333571 | 73 | 392685 |
| Shrimp, brown | 99452 | 31 | 214341 |
| Crabs, blue | 109697 | 519 | 207028 |
| Shrimp, rock | 35898 | 4 | 82549 |

### Total contribution of commercial fishing for all species

Total contributions in terms of output (or sales revenues) in Nassau County associated with all marine commercial fishing trips in 2019 was estimated to be $3.58M, and these trips supported 33 jobs. Additional details describing other contribution metrics and effect levels are provided in **Table 2**.

**Table 2**. Economic contribution of all marine commercial fishing trips from Nassau County in . Contributions are described in terms of six metrics, and four levels. Metrics cannot be added to each other, but levels can, and Total represents the sum of Direct, Indirect, and Induced (with any discrepancies due to rounding).

*Nassau County 2019 Marine Comm. Fishing Contribution*

| Contribution Metric | Direct | Indirect | Induced | Total |
|---|---|---|---|---|
| Industry Output ($M.) | 3.37 | 0.01 | 0.2 | 3.58 |
| Employment (Jobs) | 32 | 0 | 2 | 33 |
| Value added($M.) | 3.34 | 0 | 0.11 | 3.46 |
| Labor Income($M.) | 0.5 | 0 | 0.05 | 0.55 |
| Other Property Income($M.) | 2.66 | 0 | 0.05 | 2.71 |
| Indirect Business Tax($M.) | 0.18 | 0 | 0.01 | 0.2 |

## Summary

The report provides a detailed description of the economic contribution that marine commercial fishing makes to the Nassau County economy. We first describe the some of the most valuable species by landed value. Then we describe overall contribution in terms of multiple metrics (e.g., output, employment, etc.) and different levels (direct, indirect, induced, and total). This approach should allow more precise descriptions of how different types of marine commercial fishing effect Nassau County. The most critical thing to remember is that the numbers here do not describe the economic value—i.e. benefit to society of marine commercial fishing. What this means is that commercial fishing is important to people as a commercial activity, regardless of how much money is spent around it. Thus, even if the total economic contribution for commercial fisheries is lower than another sector (such as recreational fisheries), it does not mean that commercial fisheries are unimportant. Commercial fishing provides entire livelihoods for many people involved with them, as well as social and cultural values to certain communities. This cannot be wholly captured in the analyses we present, but is important to recognize. This information should help inform understanding of this important commercial activity, and may be useful for making decisions about commercial fishing in Nassau County.

## References

Miller, R. E., and P. D. Blair. 2009. *Input-Output Analysis: Foundations and Extensions*. Cambridge university press.