

THE ECONOMIC IMPACT OF RHODE ISLAND'S MARINE TRADES SECTOR



THE
UNIVERSITY
OF RHODE ISLAND

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EXECUTIVE SUMMARY

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- + 1,712 firms**
 - + 13,337 jobs**
 - + \$2.65 billion gross sales**
 - + \$2.64 billion value added in RI**

The Rhode Island Marine Trades Sector is a vibrant group of businesses spanning boat building and repair, retail boat and equipment sales, marinas, marine construction, manufacturing and supply, diving and salvage, charter and cruise services, and even professional service firms.

Approximately 25% of firms and economic activity in the Marine Trades is concentrated in Marine Services & Supply including equipment and parts wholesalers, and marine maintenance services for watercraft and marinas. Another 16% of firms are Marinas, Docks and Yacht Clubs, specializing in docking and storage services for Rhode Island's recreational watercraft. In addition, 42 firms (2.5%) are found in our recent study of the RI Composites sector, spanning boat building, boat repair, and marine manufacturing.

This study is the first in which businesses in the Marine Trades are hand-counted to estimate jobs, gross sales, and economic impacts across the state. Across the entire Rhode Island economy, we estimate that this sector is responsible for 13,337 jobs (+/- 10%) and economic output of \$2.649 billion (+/- 13%).

Marine Trades Sector vs. RI Economy (2016)

Measure	Marine Trades	RI Economy
Firms	1,712	36,182
Value Added per Firm	\$0.847 M	\$1.589 M
Employment per Firm	7.79	11.46
Labor Income per Firm	\$632.2 K	\$619.7 K

Sources: this study, Federal Reserve Bank of St. Louis (FRED), RI Department of Labor and Training (RI DLT), Quarterly Census of Employment and Wages 2016 (QCEW), RI Department of Revenue (RI DOR). Labor income for RI Marine Trades estimated in IMPLAN. Labor income estimate for RI Economy combines QCEW wages with estimated corporate income for CY16 using actual RI DOR corporate tax revenue receipts and 7% tax rate. Value added, employment and labor income estimates for Marine Trades are Direct Effects only from IMPLAN (not Total Effects).

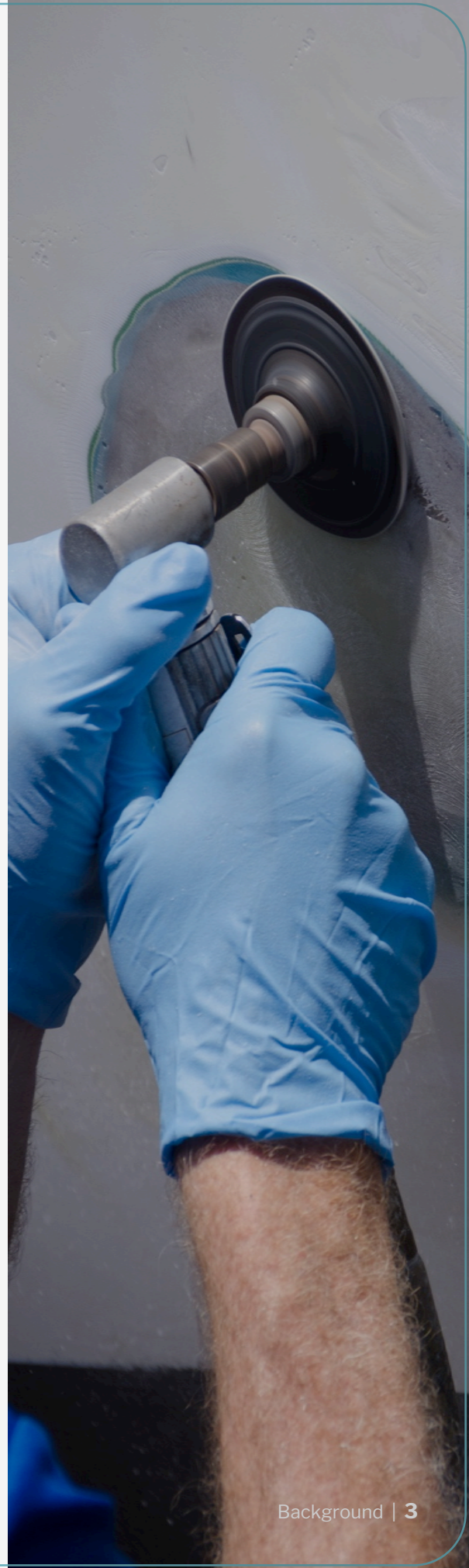
As a group, the RI Marine Trades sector comprises about 4.7% of firms in the Rhode Island economy. These firms are generally smaller than average in the economy as a whole, but they operate with larger labor income per firm. This implies some combination of higher wages and higher profitability, on average, in the Marine Trades, despite fewer employees and smaller economic impact per firm. Note that smaller value added per firm is likely a reflection of business size, since the state average includes several large multinational corporations, but none in the Marine Trades.

BACKGROUND

This study uses the approach of Sproul (2015) and Sproul and Michaud (2018), in which survey data, business listings from the Corporate Database of the Rhode Island Secretary of State, and publicly available marketing databases are combined to estimate gross sales and employment of firms in a given sector of the economy. We apply these methods to the Marine Trades in Rhode Island, locating 1,712 such firms.

Details of our data collection, data cleaning and statistical analysis can be found in the Technical Appendix to this report. Economic impact estimates were generated using the IMPLAN input-output modeling software. All “total effect” impact estimates are reported with the conservative, output multipliers following Crompton et al. (2015).

All confidence intervals presented are 95% intervals, recognizing both potential measurement error in the data collection for each firm, and potential sampling error in terms of which firms provided data to our study. Details of the estimation procedure for these intervals can be found in the Technical Appendix to this report, available at riepr.org.



RESULTS

The RI Marine Trades Sector includes 1,712 firms, generating \$2.649 billion (+/- 13%) in annual gross sales and employing 13,337 people (+/- 10%). Marine Services and Supply is the largest subsector, with 431 firms generating \$583.6 million in gross sales annually and 2,757 jobs.

Gross Sales and Jobs by Subsector

Category	Firms	Sales, \$M	Jobs
Boat Builders	104	246.4	1,336
Boat Repair	99	146.6	1,120
Charter & Cruise Services	306	336.24	1,965
Diving & Salvage	44	97.28	363
Marinas, Docks & Yacht Clubs	269	367.43	2,743
Marine Construction	41	167.07	407
Marine Manufacturing	113	252.91	767
Marine Services & Supply	431	583.6	2,757
Professional Services	145	148.13	1,005
Retail Boat Sales	131	238.32	712
Retail Sporting Goods	29	64.64	163
Total Marine Trades	1,712	2,648.61	13,337

The second largest is Marinas, Docks and Yacht Clubs, comprising 269 firms generating 2,743 jobs and annual gross sales of \$367.43 million. This subsector is followed by Charter and Cruise Services, with 306 firms generating \$336.24 million per year and 1,965 jobs.

Economic impact estimates are presented below. Value Added estimates correspond to Gross State Product (GSP, the state equivalent of GDP). Output estimates correspond to gross sales. Direct Effects are attributed to the RI Composites firms themselves, while Indirect Effects are estimated impacts on suppliers to RI Composites firms and Induced Effects are downstream economic impacts arising from labor income and proprietor income generated by these firms (Lindall and Olson, 2008). Thus, if the Value Added Direct Effects were summed over all sectors of the RI economy, we would expect it to equal the GSP. The Total Effect, on the other hand, represents the answer to the hypothetical question, “what would the RI economy lose if the RI Marine Trades sector were to disappear?”

Figures presented in (+/-) format represent 95% confidence intervals. For example, the total jobs impact of 26,921 +/- 2,250 (8.4%) means we estimate the true total impact has a 95% chance of lying between 24,671 and 29,171.

Economic Impact Estimates

Impact Type	Jobs	Value Added, \$M	Output, \$M
Direct Effect	13,337	\$1,449.81	\$2,648.61
Indirect Effect	5,379	\$496.76	\$826.78
Induced Effect	8,205	\$696.30	\$1,135.57
Total Effect	26,921	\$2,642.87	\$4,610.97
(+/-)	(2,250)	(\$132.84)	(\$487.41)

BOAT BUILDERS

The Boat Builders subsector contains 104 firms generating 1,336 jobs and annual gross sales of \$246.4 million. This sector includes manufacturers of personal, recreational and racing watercraft, via conventional methods and by use of composites materials such as carbon fiber and fiberglass.

Quick Facts for Boat Builders

Number of Firms in RI	104
Jobs	1,336
Gross Sales, \$M	246.4
Jobs per Firm	12.85
Gross Sales per Firm, \$M	2.37
Gross Sales per Employee, \$K	184.43



Of these firms, 21 use exclusively composites in their manufacturing processes and 83 do not. The composites firms appear in our recent study of the RI Composites sector and account for 513 jobs and \$100.25 million of annual sales.

BOAT REPAIR

The Boat Repair subsector includes 99 firms engaged in repair of boats and their mechanicals, especially engines and propellers. These firms generate 1,120 jobs and \$146.6 million of gross sales each year.

Quick Facts for Boat Repair

Number of Firms in RI	99
Jobs	1,120
Gross Sales, \$M	146.6
Jobs per Firm	11.31
Gross Sales per Firm, \$M	1.48
Gross Sales per Employee, \$K	130.89



As with Boat Builders, a subset of these firms are included in our recent study of the RI Composites sector. 10 repair firms specialize in composites-only boat repair, while the other 89 do not. The composites-only repair firms create 166 jobs and revenues of \$29.43 million per year.

CHARTER & CRUISE SERVICES

Charter and Cruise Services represents the second largest Marine Trades subsector by number of firms (306) and third largest by jobs (1,965) and annual gross sales (\$336.24 million). This subsector includes sellers and operators of recreational charters and cruises.

Quick Facts for Charter & Cruise Services

Number of Firms in RI	306
Jobs	1,965
Gross Sales, \$M	336.24
Jobs per Firm	6.42
Gross Sales per Firm, \$M	1.10
Gross Sales per Employee, \$K	171.11



The overwhelming majority of firms in this subsector are sportfishing charters, along with some small cruise operators, ferry services, fleet charter services and sales firms. No major cruise lines are domiciled in Rhode Island, but brokerage services to access them are available.

DIVING & SALVAGE

Diving and Salvage is one of the smaller subsectors with only 44 firms, but they produce gross sales per firm of almost three times the average for all RI Marine Trades.

Quick Facts for Diving & Salvage

Number of Firms in RI	44
Jobs	363
Gross Sales, \$M	97.28
Jobs per Firm	8.25
Gross Sales per Firm, \$M	2.21
Gross Sales per Employee, \$K	267.99



This subsector includes dive shops and diving instructors, but it is predominantly composed of commercial diving and salvage operations and underwater surveyors.

MARINAS, DOCKS & YACHT CLUBS

There are 269 marinas, docks and yacht clubs in Rhode Island, comprising the second largest Marine Trades subsector in terms of both jobs (2,743) and annual gross sales (\$367.43 million).

Quick Facts for Marinas, Docks, Yacht Clubs

Number of Firms in RI	269
Jobs	2,743
Gross Sales, \$M	367.43
Jobs per Firm	10.20
Gross Sales per Firm, \$M	1.37
Gross Sales per Employee, \$K	133.95



These firms specialize primarily in providing storage and docking facilities for watercraft, and generally include some vertical integration of repair services, as well as fuel and supplies sales.

MARINE CONSTRUCTION

Marine Construction is slightly smaller of a subsector than Diving and Salvage, with only 41 firms, but it has the highest per-firm gross sales among all RI Marine Trades with \$4.07 million per firm.

Quick Facts for Marine Construction

Number of Firms in RI	41
Jobs	407
Gross Sales, \$M	167.07
Jobs per Firm	9.93
Gross Sales per Firm, \$M	4.07
Gross Sales per Employee, \$K	410.49



Firms in this sector are predominantly mooring and dock builders, many of which also run dredging operations and/or specialty engineering or diving services supporting their primary construction and contracting business.

MARINE MANUFACTURING

Marine Manufacturing is the fourth largest subsector by gross sales (\$252.91 million) due to its relatively capital-intensive nature, comprising almost 10% of the total for the RI Marine Trades, despite accounting for only 6.6% of Marine Trades firms and 5.8% of Marine Trades jobs.

Quick Facts for Marine Manufacturing

Number of Firms in RI	113
Jobs	767
Gross Sales, \$M	252.91
Jobs per Firm	6.79
Gross Sales per Firm, \$M	2.24
Gross Sales per Employee, \$K	329.74



As with Boat Builders and Boat Repair, Marine Manufacturing contains a number of firms that were also included in our recent study of RI Composites sector. 10 of the 113 firms are engaged in composites-only manufacturing, accounting for 125 jobs and gross sales of \$16.38 million.

MARINE SERVICES & SUPPLY

Marine Services and Supply is the largest subsector with 431 firms, or about 25% of all RI Marine Trades businesses, generating \$583.6 million annually in gross sales and 2,757 jobs.

Quick Facts for Marine Services & Supply

Number of Firms in RI	431
Jobs	2,757
Gross Sales, \$M	583.6
Jobs per Firm	6.40
Gross Sales per Firm, \$M	1.35
Gross Sales per Employee, \$K	211.68



These firms are primarily wholesale suppliers of marine equipment, including components, parts and technology for watercraft, or they are service firms handling maintenance for watercraft or marina facilities, including painting, fuel and lubricant services, and performance retrofitting.

PROFESSIONAL SERVICES

Professional services firms in the marine trades include contractors, designers, engineers and surveyors. They also include insurance agencies, marine real estate companies and developers, marine property management, and environmental services.

Quick Facts for Professional Services

Number of Firms in RI	145
Jobs	1,005
Gross Sales, \$M	148.13
Jobs per Firm	6.93
Gross Sales per Firm, \$M	1.02
Gross Sales per Employee, \$K	147.39



Beyond these basic types, professional services firms in this sector include training and education firms, marine-related media and publishing companies, holding companies for boats, yachts and marine properties, plus competitive racing and captain services for hire.

RETAIL BOAT SALES

Retail Boat Sales is a medium-sized subsector containing 131 firms (7.7% of RI Marine Trades), generating \$238.32 million in annual gross sales (9%) and 712 jobs (5.3%).

Quick Facts for Retail Boat Sales

Number of Firms in RI	131
Jobs	712
Gross Sales, \$M	238.32
Jobs per Firm	5.44
Gross Sales per Firm, \$M	1.82
Gross Sales per Employee, \$K	334.72



These businesses are primarily boat dealers and yacht sellers, brokers or importers. Sales include motorboats and yachts, sailboats, and smaller recreational watercraft, including unpowered and outboard-powered. Some firms offer both sales and service, including marina services.

RETAIL SPORTING GOODS

Retail Sporting Goods is the smallest subsector with only 29 firms and 162 jobs, generating \$64.64 million per year in gross sales. These firms are primarily bait-and-tackle shops or other fishing or boating related outfitters and sporting goods stores.

Quick Facts for Retail Sporting Goods

Number of Firms in RI	29
Jobs	163
Gross Sales, \$M	64.64
Jobs per Firm	5.62
Gross Sales per Firm, \$M	2.23
Gross Sales per Employee, \$K	396.56



For conservatism, we exclude large chain outfitters such as Dick's Sporting Goods and REI from our estimates, even though some portion of their sales is relevant to this study. Similarly, we exclude all generalized sporting goods stores not specializing in marine recreation.

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