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RHODE ISLAND MARINAS AND BOAT YARDS 1970

NIELS RORHOLM AND SIDNEY FELD
DEPARTMENT OF RESOURCE ECONOMICS
UNIVERSITY OF RHODE ISLAND

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This report is based on research sponsored by the University of Rhode Island College of Resource Development and the Sea Grant Program of the United States Department of Commerce. *Niels Rorholm is professor of resource economics, Department of Resource Economics, University of Rhode Island. Sidney Feld was a graduate assistant in the department when this report was prepared.*

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RHODE ISLAND MARINAS AND BOAT YARDS - 1970

Niels Rorholm and Sidney Field

During the last eight years, there have been significant increases in the demand for the services of Rhode Island marinas and boat yards from both Rhode Islanders and people in other states. This paper will report the results of a survey of Rhode Island boat yards and marinas conducted during the summer of 1970, and will make some comparisons with earlier studies.

NUMBER OF BOATS IN RHODE ISLAND

No consistent series of data is available that gives a good picture of changes in the number of boats owned in Rhode Island over a period of years. A careful count of boat registrations as of January 1, 1968, revealed a total of 10,980 boats of which 91.1 percent, or 10,003, were pleasure boats. In addition there were 172 documented vessels for a total of 10,175 pleasure boats.

The latest data (January 1, 1970) made available from the Division of Enforcement, Rhode Island Department of Natural Resources, enumerate a total of 15,190 boat registrations. Assuming the same percentage of pleasure boats as in 1968 would mean 13,834 pleasure boats in 1970, distributed roughly as in Table 1.

Table 1. Number of pleasure boats registered by size and source of power, Rhode Island, January 1, 1970.

Length in Feet	Outboard	Inboard	Total	Percent
Less than 16	7,334	393	7,727	55.8
16 - 27	3,619	1,367	4,986	36.0
28 - 39	34	1,020	1,054	7.6
40 and Over	1	66	67	.6
Total	10,988	2,846	13,834	
Percent	79.4	20.6	100	100.0

The figures in Table 1 do not include information on documented yachts; no summary of these is available at the present. An educated guess is that there are between 300 and 500 of these in Rhode Island, which would typically be inboard boats above 35 feet in length.

Taking the above-quoted registration data at face value would mean that boat registration in Rhode Island has increased by 18 percent per year from 1968 to 1970. That would seem excessive, and it would lead one to suspect that the data for the two years are not strictly comparable.

A second set of data is available from surveys of marinas and boat yards in 1962, 1967, and 1970. Speaking now only of boats moored or berthed at marinas, the growth seemed to average 5.7 percent per year between 1962 and 1967 and about 10 percent per year between 1967 and 1970. That numbers of boat registrations and the numbers surveyed do not tally is not proof that one is right and the other is wrong. The number of boats found in the survey is a function, not only of the boats that exist, but also of the capacity of yards to handle them. If there is pressure on capacity, more of the smaller boats will be taken home on trailers between trips.

In terms of percentages, the group of boats that has grown the most rapidly in the last few years seems to be inboard-powered boats between 28 and 39 feet long whereas, from the point of view of actual numbers, outboards less than 16 feet long account for about half of the estimated growth. Many of these boats, however, do not show up at marinas but are returned home on trailers instead. Hence, the proportionately large growth in the middle-sized inboards is probably significant to marinas and yards. The data do not give any indications of the relative growth of auxiliaries and power boats.

MARINAS AND BOAT YARDS

The firms that provide primary services, such as dockage, supplies, and winter storage, to pleasure boats in Rhode Island range from corporations deserving the name shipyard through full-time marinas and/or boat yards, or nonprofit clubs, to small part-time businesses handling a few boats either in summer or winter or both.

Of the 59 commercial firms that provided data for this study, 45 were full-time and seven were part-time businesses, and seven firms were primarily involved in selling boats and/or equipment (more than 60 percent of their volume was derived from sales), but served some marina purposes as well.1/

Summer Slips and Moorings

Table 2 summarizes the number of boats kept in the Rhode Island coastal zone during the summer months. These data do not include boats that are used in salt water and taken home on a trailer between trips. Rowboats kept in the coastal zone (typically less than 12 feet in length) are not included either.

1/ See also Appendix, Part 1.

Table 2. Boats in slips and at moorings, Rhode Island coastal zone, 1970.

	Boats in Slips by Length of Boat						
	15 Feet or Less	16-25	26-40	41 and Over	Total in Slips	Total at Moorings	Total
Full-time Marinas and Boat Yards	221	1,705	1,500	325	3,751	911	4,662
Part-time Businesses	0	45	48	15	108	28	136
Primarily Sales Organizations	34	73	123	14	244	16	260
Non-profit Organizations	229	270	277	136	912	667	1,579
Private Moorings						2,422	2,422
Total	484	2,093	1,948	490	5,015	4,044	9,059

The largest group of boats by far (4,662) is kept at full-time marinas or boat yards, followed by those kept at private moorings (2,422) and third, those kept at non-profit organizations, such as yacht clubs and state facilities. The total number kept in the coastal zone, 9,050, is about 65 percent of the total number of boats registered. The two figures are not strictly comparable, however, for the number kept in the coastal zone includes an unknown number of boats that appear to be permanently berthed in Rhode Island waters but are registered in other states, notably Connecticut, Massachusetts and New York. It is of interest to note that 4,001 boats (1,579 + 2,422), or 44.2 percent, are handled either at private moorings along the coast or by non-profit organizations. Thus, only 55.8 percent of the boats are handled commercially for summer dockage.

The size distribution of boats kept at moorings in the Rhode Island coastal zone is shown in Table 3.

Table 3. Distribution of boats at moorings, Rhode Island coastal zone 1970, by length and source of power.

Size in Feet	Sailboats	Power Boats	Total No.	Total %
15 or Less	689	1,301	1,990	49.2
16 -25	556	946	1,502	37.2
26 -40	347	160	507	12.5
41 and Over	37	8	45	1.1
Total	1,629	2,415	4,044	100.0

Nearly one-half of the boats are less than 15 feet long; this usually means between 12 and 15 feet. In the larger-size classes, there are more sailboats at moorings than there are power boats, a natural consequence of the fact that the average sailboat can "live longer" without electricity than the average power boat over 25 feet long can.

Nearly two-thirds of the marina owners contacted, reported they had turned away customers for slips or moorings due to lack of space.

Winter Storage

Slightly more than one-half of the boats kept in the coastal zone during the summer are stored by commercial establishments during the winter.

Table 4. Winter storage of boats by commercial establishments, Rhode Island, 1970.

	Inside Storage		Outside Storage		
	No. of Boats	Percent of Firms	No. of Boats	Percent of Firms	Total Boats
Full-time Firms	560	38	3,553	87	4,113
Part-time Firms	56	57	162	43	218
Primarily Sales Firms	111	43	188	57	299
Total	727		3,903		4,630
Percent	16		84		100

Of the boats stored in such establishments, 84 percent are kept outside (Table 4); the remaining 16 percent are stored in buildings. Only 38 percent of the full-time marinas offer inside storage while the majority (87 percent) offer outside storage. Nearly one-half of the firms involved in the survey report that they had to turn winter storage customers away due to shortage of space. Apparently there is somewhat greater pressure on summer space than on winter storage space, a reflection of the fact that the greater proportion of boats in Rhode Island are small boats that can easily be stored in, or next to, owners' houses during the winter.

FULL-TIME MARINAS

Capacity and Resources

By today's standards, Rhode Island's full-time marinas are not large. On the average those that had slips to rent (93 percent) had a capacity of 90 boats. The size distribution was as follows:

Capacity	Number of Marinas with Specified Capacity
Less than 50 Boats	15
50 - 99 Boats	8
100 - 149 Boats	10
150 - 199 Boats	7
200 and Over	2
Total with Slips	42

The 25 marinas that rented out moorings averaged 36 moorings each.

The average full-time marina employs four or five people in the yard in the summer, one or two people in the office, and some part-time dock personnel. In the winter there is little change in the number of office personnel, but in the yard the average drops to three or four people, and the part-time people, of course, are not needed.

The amount of shoreline used by a full-time marina varies from a low of 120 feet to a high of 1,500 feet. On the average the firms each occupy 473 feet of shoreline. The total land-area occupied also varies considerably. On the average it is 3.6 acres per firm.

The average full-time Rhode Island marina, then, has a capacity of 90 boats in slips and 36 at moorings. It has winter storage capacity for 88 percent of the boats it services in the summer, meaning that some boats are moved for the winter to owners' homes or, perhaps, to other areas for storage. The above number of boats and service requirements from other boats generate jobs for from five to seven people per business plus part-time help in summer; in winter employment is from four to six people. The business requires 473 feet of shoreline and 3.6 acres of land adjacent (or at least close) to the shore.

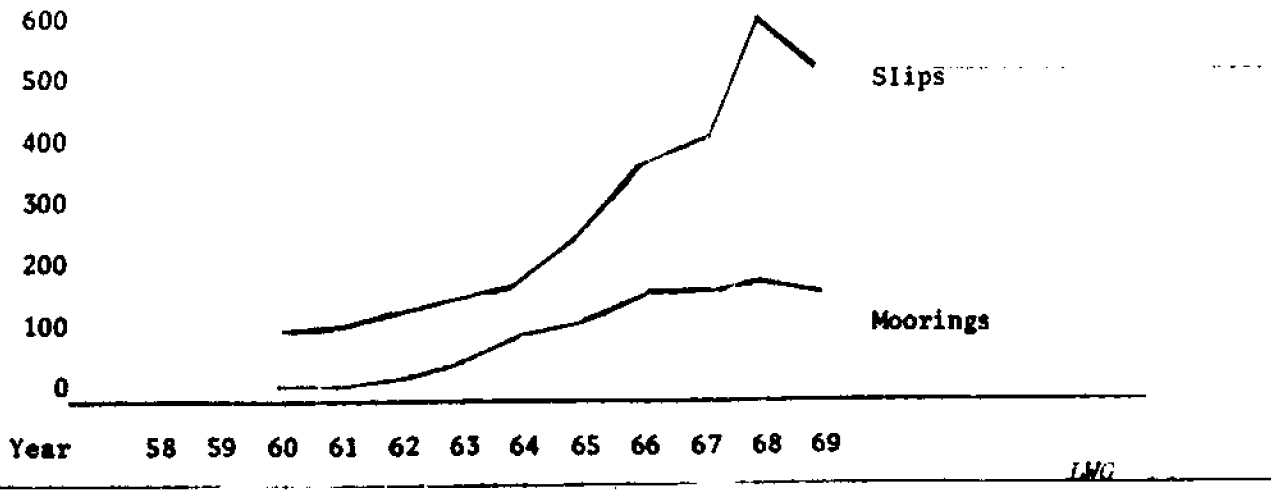
Growth in Capacity

Data from this study, when compared with those from a study of Narragansett Bay in 1962, indicate that the capacity of marinas for summer boating and moorings has increased about nine percent per year since 1962, or a total of 98 percent. This rate of growth has not been uniform, however. It was fairly slow in the first part of the 1960's and picked up speed in the last third of the decade.

Almost three-fourths of the growth in the number of slips available took place in the last four years, 1967-70 inclusive, and almost two-thirds of the expansion in number of moorings occurred in that same time span. Figure 1 shows the growth graphically. To even out the year-to-year variations a bit, a three-year moving average was used in graphing the data.

Figure 1 indicates that the rate of expansion may be slowing down. Whether that is the case remains to be seen; one single year does not tell the story. It would be unreasonable to expect a slowdown, however. Much of the recent expansion has taken place on existing land resources, primarily by the introduction of new configurations of docks and flow and by expansion

Figure 1. Annual growth of boat capacity in slips and at moorings, Rhode Island coastal zone, 1958-70.*



*Three-year moving average.

toward the edges of navigable channels. Thus, for expansion to continue means that more land area and more shoreline is going to be needed. In many cases this also means dredging and, in some cases, breakwater construction. More land and private dredging mean tremendous capital requirements for the marina owners; channel dredging and breakwater construction mean considerable expenditures of public funds. Both are in short supply at this time.

The expansion plans of marina owners project an increase in capacity of almost 1,700 boats over the next few years. Of the 14 people who had plans to expand their summer capacity, nine were held back by a lack of capital and eight mentioned the need for dredging either at the marina or in the channel. If the profitability of dredging for private purposes can be demonstrated (and that is by no means certain in all cases), then much of the dredging problem can also be classed as a capital problem, except in cases where dredging might encroach upon a tidal marsh, protected under state law.

It seems fairly certain that obtaining capital for expansion is going to be a serious problem for the industry. Solutions to these problems would have to be tackled on a marina-by-marina basis, however. It would be necessary to budget each case separately. Thus, it is not possible without detailed study to say whether the expansion plans discussed above would be profitable, and if they were profitable, whether it would be possible to get the resources with which to carry them out. It is possible to suggest, however, that it would be extremely difficult for a standard marina (one that is not combined with some other type of business which it supplements) to show a high enough return to capital to permit the owners to bid for land needed for expansion in competition with the private individual who wants this land for a summer or year-round residence.

Ownership and Management

The majority (30) of the full-time marinas or yards are in some form of closed corporate ownership. Twenty-two of the 30 are family corporations. Twelve of the businesses are owned by individuals, and there are three partnerships. Thus, the limited corporate structure prevails, and the majority of these are in family ownership.

Thirty-six of the yards are managed by the owners, or in case of corporate structures, the chief officer of the corporation; only four businesses employ a paid manager.

It appears from the survey that there has been a fairly frequent change in ownership of Rhode Island's marinas and boat yards. Thirty-one of the businesses were organized by the present owners after 1960 and six of them, in the 1950's. The oldest yard appears to be the Newport Shipyard which dates back to 1843. This is a difficult topic to summarize, however, without tracing each individual case back through town or city records. In one case, for example, a boat yard was opened in 1873 and owned and operated in the same family until 1962. But, in 1957, individuals bought land adjacent to this yard and operated a marina there until 1962, when they purchased the yard and combined the two operations into one. Thus, the present marina consists of two parts, one dating back to 1873 and one to 1957.

Gross Income

Based on the survey, Rhode Island marinas and boat yards had an estimated gross income in 1969 of $8 million.2/ Of this, about $6 million were earned by full-time marinas and $2 million by part-time businesses plus those firms with income derived primarily from boat and equipment sales, but also with some marina functions.

On the average, the gross income of the 45 full-time marinas on which data were received was derived from summer dockage, 20 percent; winter storage, 15 percent; repairs including supplies, 61 percent, and sales, 4 percent. Adjusting for one or two unusual cases, a more typical distribution would be dockage, 27 percent; winter storage, 20 percent; repairs and supplies, 46 percent, and sales, 7 percent.

Based upon replies from full-time marinas and yards it appears that as much as 46 percent of their gross income was earned from people living in other states. Thus, Rhode Island marinas bring about $2.7 million annually to the state. If part-time and sales organizations are added to the total, $3.4 million, or 43 percent of the $8 million gross, is derived from sales to out-of-state customers.

Economic Impact

Based on this survey and on previous research3/, it can be estimated that the $8 million gross business of marinas and boat yards generates an additional $6 million worth of economic activity in other businesses in Rhode Island and the surrounding area. Of the $14 million total, $6.8 million is in the form of personal income.4/ Most of this income and its associated employment are spread throughout the year rather than being concentrated in the summer.

Based upon this economic impact data the "average" Rhode Island marina described on Page 5 above would have the following estimated impact:

Gross Sales	Approx.	$120,000
Additional Gross Sales generated in other businesses		91,733
Total Gross Impact (transactions)		211,773
Total Personal Income generated in the area		101,445

When applied to a single community these values are uncertain. There is no way to state specifically what the economic impact would be on a community without knowing, in detail, the components of industry and business in the area. Some unknowns would tend to increase the impact, and others would tend to decrease it.

2/ See Appendix, Part 2.

3/ Niels Rorholm, H.C. Lampe, Nelson Marshall, and J.F. Farrell, Economic Impact of Marine-Oriented Activities - A Study of the Southern New England Marine Region, Bulletin 396, Tables 27 & 40. 1967.

4/ See Appendix, Part 3.

TECHNICAL APPENDIX

Part 1. Number of Firms Contacted

A total of 87 "clusters of boats around piers" was identified in the survey. In some cases it was not possible to obtain data on an operation or, indeed, find out what kind of an operation it was. In most of these cases, however, the places were small and their absence from the summaries do not materially affect the results. More attention will be paid to these places in subsequent work aimed at determining more accurately the capacity of the Rhode Island shore for expansion of boat-service facilities.

In summary the 87 "contacts" are composed of the following:

Full-time Marinas & Yards	45
Part-time Marinas & Yards	7
Primarily Boat Sales (over 60% of gross)	7
Non-profit	18
No Data	10
TOTAL	87

Part 2. Estimating Gross Income

Some of the firms included in the study did not wish to provide data on their dollar volume of business. Using data from firms that gave complete answers, a regression equation was developed from which it was possible to predict the missing values with a fairly high degree of accuracy.

The regression equation includes five variables. The dependent variable (Y) represents gross income from summer dockage and winter storage. The independent variables ($X_1 \ldots\ldots X_4$) are, respectively, total footage in slips, number of moorings, capacity of indoor storage, and the number of boats stored outside.

The following linear regression equation was computed:

$$Y = -3775.88 + 5.14\ X_1 + 346.00\ X_2 + 477.79\ X_3 + 138.14\ X_4$$

The equation produces a multiple R^2 of 81.18, i.e., 81.18 percent of Y is explained by the four independent variables.

The parameters arrived at are dollar values. The last three coefficients are statistically significant at the 95 percent confidence level. Thus, these parameters can be deemed as reliable estimators of Y. The Y-intercept (-3,775.88) produces a T-value sufficiently below any reasonable confidence level and is therefore not statistically significant.

All firms in the study provided information on $X_1 \ldots\ldots X_4$ and the percent of total gross sales derived from dock facilities. Thus, the regression equation permitted a fairly accurate estimate of total gross income for those firms giving incomplete information.

Part 3. Estimation of Economic Impact

Based on the survey, 43 percent of gross income ($3.4 million) was derived from out-of-state sales (exports) leaving $4.6 million from in-state sales. The $14 million total impact was derived as follows:

(3.400,000 x 2.76) + (4.600,000 x .60 x 1.69) = $14 million

where

2.76 = dollar increase in economic activity per $1.00 increase in final demand for the output of marinas and yards (Table 27, reference p. 14).

and where

.60 = "household" component of input to marina services (.45) plus an estimated .15 for unmeasured local inputs (Table 40, reference p. 14).

and where

1.69 = dollar increase in economic activity per $1.00 increase in final demand for "household" services (Table 27, reference p. 14).

The personal income effect was derived as follows:

(3,400,000 x .94) =(4,600,00 x .60 x 1.29) = $6.8 million

where

.94 = dollar returns to households (personal income) per $1.00 increase in final demand for the output of marinas and yards (Table 27, reference p. 14).

and where

.60 = as defined above

and where

1.29 = dollar increase in personal income per $1.00 increase in final demand for the output of "household" services (wages, profit, salaries, interest, and rent). See Table 27, reference p. 14.