**Rhode Island Economic Monitoring Collaborative**
**FY08 Economic Monitoring Report**

**Final Draft for Collaborative Review, March 2008**

## Table of Contents

## Introduction

The Rhode Island General Assembly created the RI Bays, Rivers and Watersheds Coordination Team (the Coordination Team) to protect Narragansett Bay and its watersheds as well as to promote sustainable economic development for businesses that rely on these resources. The General Assembly called for several standing committees, including the Economic Monitoring Collaborative (the Collaborative)[1] to aid the Coordination Team in achieving its mission, by guiding the development of a Systems-Level Plan (SLP) and by supporting the projects that the Coordination Team undertakes.

According to the enabling legislation (RIGL 46-31), the purpose of the Collaborative is to develop and implement an economic monitoring strategy to inform the "promotion of sustainable economic development of the water cluster" and "provide the necessary information to adapt the (systems-level) plan in response to changing conditions."

The Collaborative's inaugural report (FY07) provided baseline metrics from which to track changes in the water cluster, identified areas for more intensive study and highlighted issues for future policy consideration. The Collaborative intends to update the baseline metrics on a regular interval (every two to three years) and complement this tracking in the intervening years with more focused research into key industries, critical issues and/or specific geographies as are identified through the baseline monitoring.

This year's monitoring effort focused on developing a better understanding for two elements of the state's water cluster – peak season tourism's impact on the state and the economic linkages between the marine trades and the rest of Rhode Island's economy. In addition to the findings of these two focus studies, this report provides a summary of several complementary studies and/or initiatives underway or recently completed. Drawing on the Collaborative's research as well as complementary research by partner organizations, the report includes key policy observations and recommendations for the Coordination Team's consideration.

### Key Observations

The Collaborative identified several key findings in its analysis of both the focus and complementary studies:

### Tourism's Multiple Bottom Line for Rhode Island

Understanding the value of tourism to Rhode Island requires a different analytical approach than the standard used for most industry specific analyses. Although tourism contributes to job creation, as was highlighted in last year's monitoring report and the 2006 Tourism Satellite Account analysis (see appendix), it plays a more powerful role in supporting a set of high-quality places that are beyond those which local residents can support by themselves. Recent research illustrates this point:

- Out-of-state visitors generate 64 percent of the State's beach and park revenues while representing 43 percent of admissions. More than half of non-resident revenues are generated at Misquamicut Beach[2].

[1] See Appendix A for list of Collaborative Members. To add updated list.
[2] See Peak Season Tourism Focus Study for more detail.

- Tourism contributed 10.8 percent of state revenue in 2006 while representing 4.2 percent of Gross State Product.

Also, this year's research finds that the "accommodation capacity" of our south coasts nearly doubles the region's population. This potential level of activity requires us to carefully manage growth and the protection of our natural and recreational assets[3]. Further, recent research also indicates the popularity of the south coast for recreational fishing in the summer, a point to consider as the State considers future planning and investment in aquaculture as well as offshore energy.

The quality of Rhode Island's recreational assets is critical to maintaining a healthy tourism industry as well as healthy and vibrant places for residents. It is in the State's best interest to manage our natural and recreational assets so that out-of-state and local users do not overwhelm these places. The visitor experience has to be positive; and a significant portion of visitor spending has to go to the creation and or preservation and maintenance of high-quality place amenities.

Several efforts underway show promise in helping the State and municipalities make effective policies and investments. Work underway on the Aquidneck Island Special Area Management Plan and the effort to integrate geotourism principles into state and local policies offer two examples[4].

**Bay Health Affects Economic Activity**

The health of Rhode Island's waters is essential to maintaining a high level tourism and recreational activity. Research has consistently shown high participation rates for water-based activities (e.g. going to the beach and fishing) for Rhode Islanders and visitors alike. Further, as upper Narragansett Bay becomes cleaner, we are likely to see these activities grow in this region.

The health of the Bay is also important to other industries in our economy. For instance, Rhode Island holds a significant share of the national shellfish market[5]. This market faces changes in the mix between wild harvested catch and farmed supply; the closure of Rhode Island's shellfish beds exacerbates the shift towards farmed supply. Further, our sites for aquaculture could also be negatively impacted by pollution, in the Bay as well as along Rhode Island's south coast.

**Planning for the Future of Rhode Island's Waterfronts**

Several initiatives summarized in this report highlight the interest and tough questions that surround future changes to Rhode Island's coastal waterfront, particularly in our urban areas. These efforts point to the need for us to foster a shared understanding of the perceived and real conflicts between different land uses and work collaboratively to tailor and implement policies and investments appropriate for our waterfronts.

The economic value of waterfront activity is an important factor in determining future waterfront policy and investment. This value is realized through job creation as well as through state and local tax revenues. Currently, the question of the waterfront's economic value is front and center in Providence as the City works to update its

---

[3] See Peak Season Tourism Focus Study for more detail.
[4] See Complementary Studies section summaries of these two initiatives.
[5] See Value Chain Analysis Focus Study for more detail.

Comprehensive Plan. Studies are underway or in the proposal stage that will examine the economic value of the City's waterfront activities[6].

Other studies illustrate how waterfront activities' economic value is shared at the city, state and regional scale. For instance, a 2006 analysis found that ProvPort maritime activities generated $178.8 million in total economic activity, accounted for 939 direct jobs and provided $16.3 million in state and local taxes. Of those direct jobholders, 26 percent live in Providence, 26 percent in larger Rhode Island and the balance living out of state. This study also pointed to the need to plan for long-term space and infrastructure needs to support port growth. Several studies underway will build upon existing information available and provide new insights as plan for our waterfronts' future (see complementary studies section).

Several issues are central to achieving the great potential of our urban waterfronts:

- Developing new ways to generate local government revenues so that municipalities are not tied to promoting land uses that generate the most property tax at the least municipal cost

- Teasing out what land and water uses conflict versus those for which we can incorporate new design solutions to mitigate possible conflict

- Making the necessary investment in transportation infrastructure (maritime, rail, transit and road) to support new growth

- Planning for the anticipated changes due to global climate change, such as sea level rise and more intense storm events.

**Progress Made on Tracking Land Use Change**

Last year's monitoring report presented measures to track changes land use and noted the value in developing a parcel-based analysis to be used in combination with existing land use data. As is highlighted in the last section of this report, Rhode Island's Division of Planning is working with The Providence Plan on examining the feasibility of assessing land use change with local GIS data.

## FY09 Monitoring Recommendations

Many organizations have been studying ways to promote vibrant waterfronts in Rhode Island. The Collaborative could play a significant role in designing an initiative that would integrate and add to this body of research by applying it more directly to specific waterfronts in the state. This initiative could engage key partners in identifying the remaining gaps in information necessary to determine specific investments and policies. Two waterfront possibilities include building on previous studies and those underway in the Metro Bay and Newport.

The Collaborative also identified possibilities for linking economic and environmental monitoring activities. Options include presenting the measured impacts of the water quality best practices implemented by marine industries and tracking the impacts of the Urban Coastal Greenways Policy.

---

[6] See Complementary Studies section for a summaries of the City of Providence's Request for Proposals for a waterfront analysis and the Providence Working Waterfront Alliance's economic analysis of Allens Avenue currently underway. A related regional study is in the works to examine the potential short sea shipping; this study is being led by the I-95 Corridor Coalition.

## Collaborative Focus Studies

### Peak Season Tourism / Ninigret Partners

Ninigret Partners (NP) was hired by the Collaborative to gain a better understanding of Rhode Island's peak season (summer) coastal tourism activity. NP was asked to provide three types of analyses:

- Survey summer visitors to understand their visiting patterns and activities;
- Estimate the impact of summer tourists on key lifestyle amenities such as beaches, parks, and museums; and
- Develop metrics to monitor and measure the impact of summer tourism in terms of economic value and environmental considerations

Intercept surveys were used to gain a sense of summer visitors, their activities and their place of residence. It was not intended to develop estimates of the number of visitors to the Ocean State. It should be noted that caution is necessary when interpreting cross-tabulated results due to the small sample sizes. However, NP does believe that some of these cross-tabulations are informative and worth considering their potential implications.

NP findings suggest several key issues for the collaborative to monitor going forward:

1. Summer visitor levels: Summer visitors, particularly out-of-state visitors, provide the majority of money to maintain our beaches and parks and preserve several of the state's most important historic assets;
2. Quality of the state's outdoor recreational amenities: The state's outdoor recreational amenities are a major attraction for summer tourists spanning from fishing and boating to parks, beaches and visiting scenic vistas
3. Infrastructure and land use: The south coast's present "accommodation" capacity nearly doubles the region's population requiring active management of growth and protection of environmental assets – keys to the area's attractiveness to visitors

*Intercept Survey Findings*

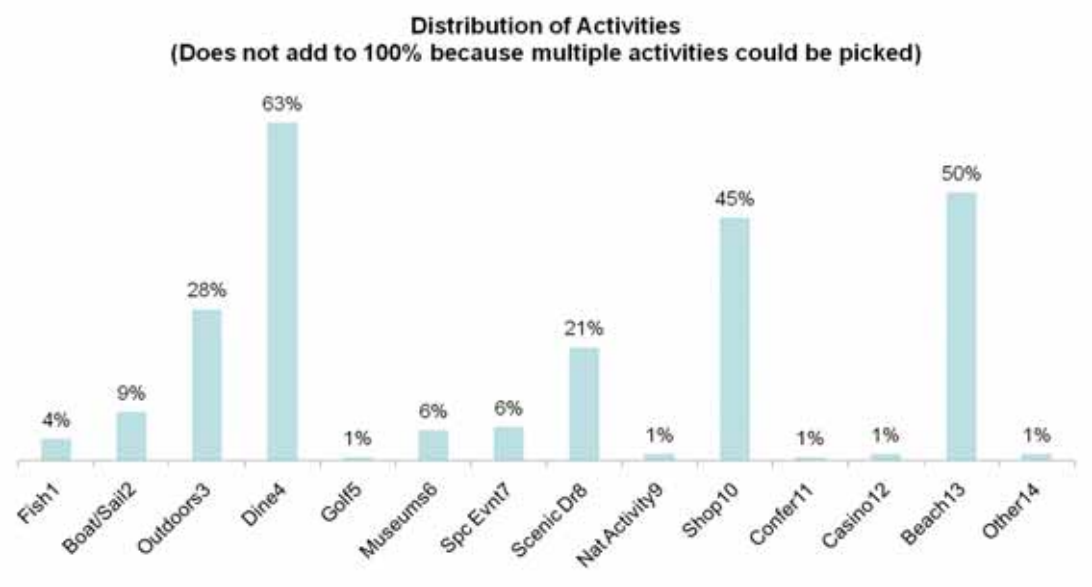
Ninigret Partners conducted a series of intercept interviews from July 5th to August 18th at fourteen (14) sites across the state's south coast[7]. Total intercepts surveys of 315 were completed. Because the intent of the survey was to understand the visitor mix in these locations NP did not screen out local residents.

Based on the survey findings RI'ers represented 37% of visitors to the state's south coast. Tourists from both Massachusetts and Connecticut made up nearly 40% of the visitors. Visitors from the New Jersey and New York region represented another 11% of those visiting in Rhode Island. The balance (14%) of visitors came from the mid-Atlantic, Florida and other locations. 3% of visitors were international.

[7] Locations included: Watch Hill; Misquamicut Boardwalk and Beach area; East Matunuck & Charlestown Breachway state parks; Newport – Thames and America's Cup, Bellevue Ave Cliff Walk, Bannister's Wharf, Visitor Center; Little Compton / Tiverton Four Corners; Narragansett – Roger Wheeler, Scarborough, Seawall, Point Judith Ferry area; Wickford

55% of visitors surveyed were involved in a visit that did not include an overnight stay (herein a day trip). Approximately 30% were involved in either a vacation or weekend trip.

The chart below shows the types of activities visitors engage in while visiting the state's south coast. Nearly 63% of those surveyed indicated that they participated in dining activities. Approximately 50% visited the beach/and or shopped. Nearly 28% of those surveyed indicated that they participated in outdoor activities (different from going to the beach) and nearly 21% enjoyed taking scenic drives. Nearly 10% of those interviewed participated in some kind of boating activity. Less than 1% of those surveyed indicated that they participated in gaming/casino-related activity. Based on this finding it is clear that the state's outdoor amenities and preserved vistas are important components of the state's coastal tourism product.




Based on the interviews, day visitors without an overnight stay spent an average of $64 per trip. Visitors with multiple nights in RI spent an average of $1193 during their visit.

There is a substantial difference among visitors based on their activities. According to our survey findings day visitors to Newport as an example, spend approximately $122 during their visit. Visitors whose primary activity was a day trip to the beach spent on average approximately $49. Also the survey results indicate that summer home renters and transient boaters spend substantially more than other overnight visitors. However, this group collectively represents 10% of the overnight stays therefore given the small sample this finding should be taken with caution.

Summer visitors to the state's south coast have some impact on other areas of Rhode Island. Approximately 4% of out-of-state visitors visiting the state's South Coast traveled to Providence as part of their itinerary. A series of small discussion groups with seasonal residents revealed that increased travel to Providence to visit the local restaurant scene might occur if there were comfortable transportation options available to them to avoid the drive. An interesting observation from the

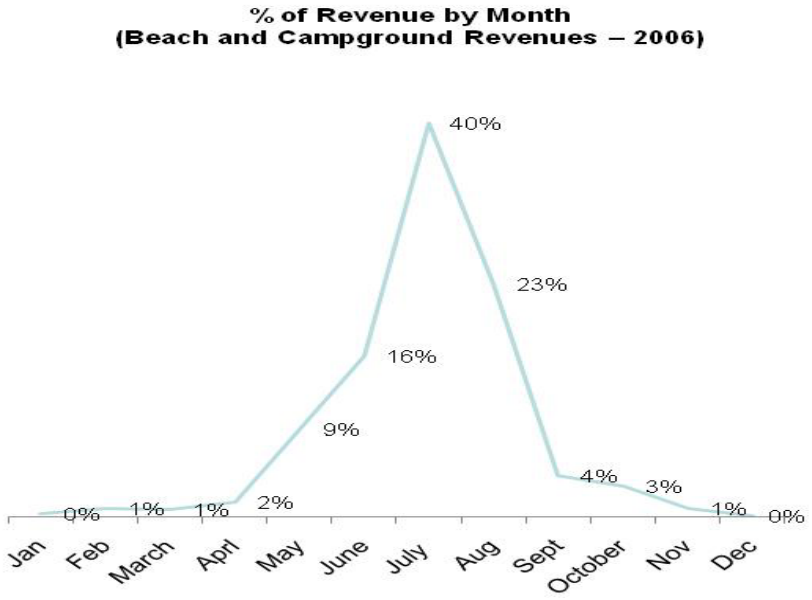
survey results is that multiday visitors to the South County area were more likely to visit Newport whereas Newport multiday visitors were less likely to leave the area.

*Importance of the Summer Tourist Season*

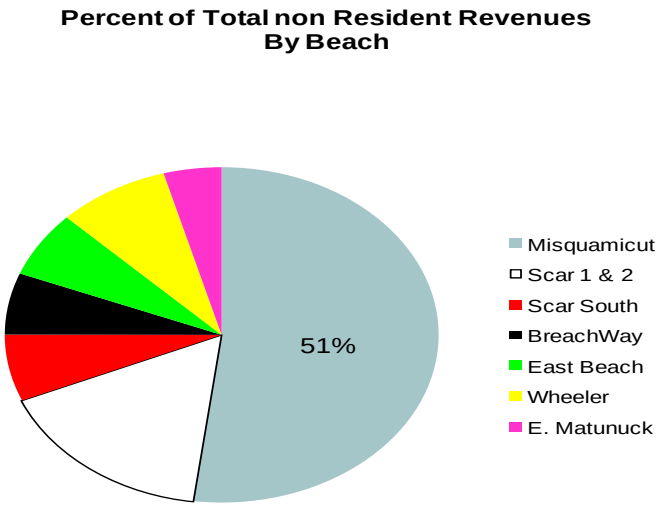
In prior work NP demonstrated the impact the summer season has on employment, income and selected industry revenues for the state's coastal communities. This section furthers that analysis to include beaches, parks, cultural institutions and recreational boating.

Beaches and Parks

Analysis of DEM beach and campground attendance and income statistics demonstrates that Rhode Island's state's beaches and coastal campgrounds are vital to the continued operation of the State's entire park system. The beach and campground revenue represents nearly 82% of the State's entire park system revenue. Nearly 79% of beach and campground revenues are generated during the three peak summer months – June, July and August (2006 data).




What the research has shown is that loss of out-of-state visitors would have a detrimental impact on the state's ability to maintain its park system. While state residents drive beach attendance (representing about 57% of admissions); non residents generate most of the revenues (64% of revenues). Indeed, more than half (51%) of the non-resident revenue stream is generated at one beach – Misquamicut Beach.




A substantial decline in out-of-state visitors would have a series of negative impacts in addition to the loss of revenue to support the state park system. For example, at current pricing, resident beach attendance would need to increase by 58% (approximately 127,000 additional car trips) into South County above the current 217,000 generated by the beaches during the peak beach period (7/1-9/4).

If one translates into a per day increase, this means resident trips would have to increase from 3,507 to 5,561. Given this level of demand and assuming the distribution of attendance remains the same among the beaches, parking demand would exceed capacity, unless there was a shift where residents disproportionately visit Misquamicut.

Museums and Cultural Institutions

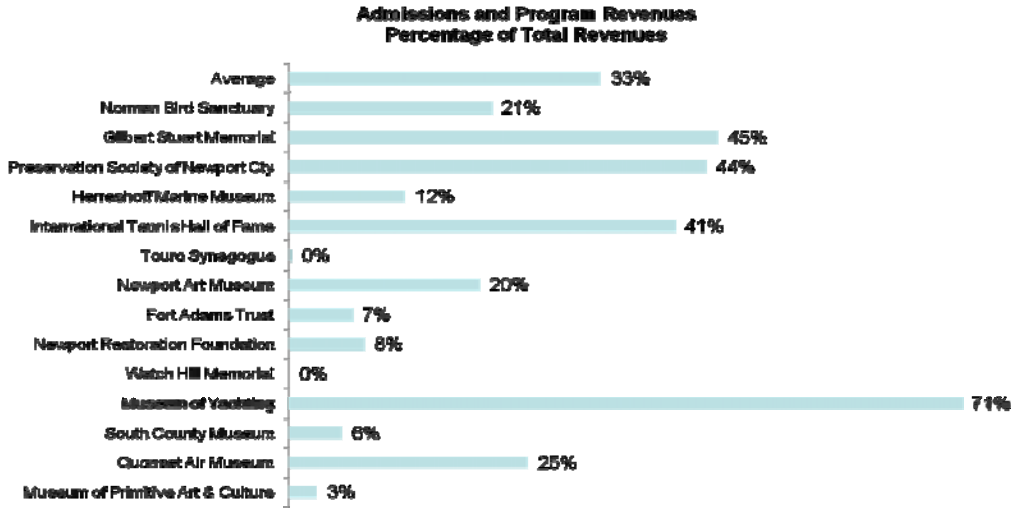
Museums and cultural institutions along the state's south coast generate total revenues in excess of $35 million. More than ½ of this revenue is generated by the Newport Preservation Society. For purposes of this analysis what is critical to understand is what role admissions and program revenue play in providing financial support for these organizations. NP reviewed IRS Form 990[8] to examine the revenue sources for these institutions.

On average, admissions and program revenues as a percentage of total revenues among different institutions is approximately 33%. However this average is heavily influenced by the Preservation Society. As previously noted more than ½ of revenue for these institutions resides with the Preservation Society.

The dependency on admissions as a key source of revenue varies significantly. As the chart (next page) suggests the range is a low of less than 1% at Touro Synagogue and Watch Hill Memorial to a high of 71% at the Museum of Yachting.

[8] IRS Form 990 is an annual financial report required to be filed by tax-exempt institutions. All Form 990s were obtained through Guidestar.org

Moreover, when using admissions revenue to derive attendance[9] it suggests that several of these museums have relatively low levels of attendance. It is important to note that in some cases such as Touro, admission is cannot be used as an indicator of attendance.




Source: IRS Form 990 Line 93 revenues from Guidestar.org; NP calculations

Nearly 45% of the Preservation Society's revenues rely on admissions and program revenues – equating to nearly $8.0 million. It is important to understand that the Preservation Society represents more than 70% of all reported admissions revenue for this group of institutions. In an average year 65% of Newport Mansions' attendance takes place between Memorial Day and Labor Day. Clearly summer tourism is critical for the largest cultural institutions in coastal RI.

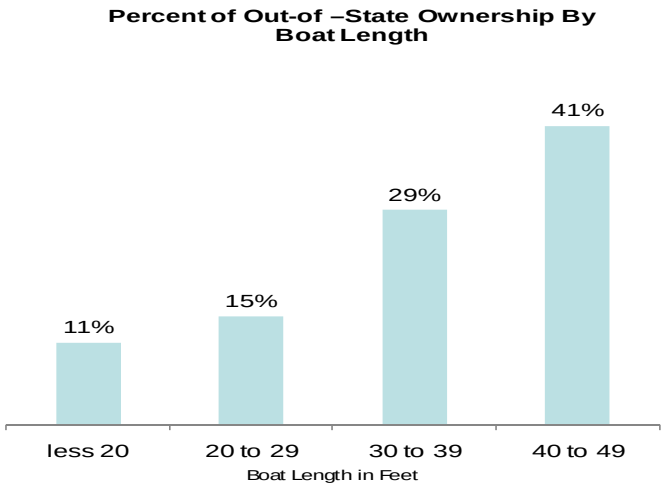
Recreational Boating

As the intercept survey indicated transient boating represents a small but important component of the state's summer tourist economy. There are indications based on the survey that transient boaters spend substantially more than typical visitors to the Ocean State. NP furthered this analysis by obtaining the state's boat registration data to understand the role of visitors in the state's recreational boating activity.

In 2006 there were approximately 43,000 boats registered in RI. Overall boater spending for registered boats in Rhode Island could total $182 million annually. This excludes the substantial level of spending by transient out-of-state boaters. Out-of-state boat ownership represents approximately 14% of boats registered in Rhode Island – a significant but minor portion of overall boating. However, what is important in terms of the impact of this ownership is the distribution of the size of the boat. For example research performed by the Recreational Marine Research Center (RMRC) at Michigan State University indicates that a 40ft boat will have annual spending tied to maintaining the boat (this excludes trip related costs such as fuel) that is 16 times greater than a 24 foot boat.[10]

[9] Admissions revenue / ticket price
[10] See http://www.marinaeconomics.com

Approximately 80% of the boats registered in RI are less than 29 ft in length. Recall that only 14% of boats registered in RI are owned by out-of-state owners but as size of the boats increase the percentage of out-state boat owners dramatically increases.




Applying the RMRC models to this distribution generates some interesting findings. To place this in perspective the 1003 boats in excess of 40ft have nearly the same economic spending level as the 18000 boats in the state between 20 and 29 feet and greater spending than the 15000 boats that are less than 20ft. Therefore 1% of the boat ownership in RI[11] could represent 20-30% of total recreational boater spending.

Moreover, non-resident boats represent a key market for marinas, primarily impacting marinas located along the State's southern coast. Nearly all (96%) of out-of-state boats are kept at marinas, and nearly 50% of those are kept along the State's southern coast. Specifically, nearly 30% of boats registered out of state are kept along the South County Shore.[12] It appears that where non-resident boat owners keep their boats can play a significant role in a marina's revenue stream. It is conceivable that out-of-state boats (including transients) represent more than a third to potentially one-half of Rhode Island's south shore marina and mooring activity. For example, for boats in excess of 40 feet, 45% of those boats registering Newport as their location are owned by non-residents. Approximately 25% of boats located in Newport between 30-39 feet are registered by non-residents. It is possible that out of state boat owners represent at least 20% and potentially one-third of the boats in Greenwich Bay.

*Metrics*

In gaining a better understanding of the impact tourism is having on the region, there are a number of metrics to consider. A key component of this revolves around accommodation capacity – how many "slots" for people are in a location at a given moment in time. This includes public parking capacity, hotel, motel, inn and bed and breakfast rooms, camping sites, vacation rentals, transit capacity and marina slips

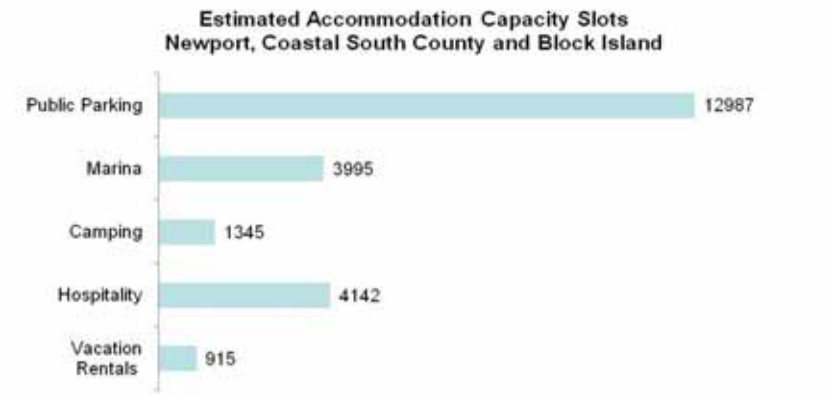
[11] 3% of boats are greater than 40ft * 41% registered to out-of-state owners
[12] Note: this is self-reported data at time of registration and is subject to errors and omissions

and moorings. This metric was chosen because it serves three purposes. First, it provides a measure of visitation capacity which heretofore has been difficult to ascertain. Second, it provides a sense of the relative stress and strain on infrastructure if this visitor capacity is fully used. Third, it can provide insight into the balance between needing to improve the visitor experience through accommodation capacity expansion versus the additional stresses and strains on existing infrastructure.

Accommodation slots were determined as follows:

- Public parking estimates: in the case of Newport this is based on a 1999 parking study conducted by Parsons Engineering. Discussions with the city Planning staff suggested there may not have been significant change since that study. For the other areas it was derived by estimating parking lot sizes by doing a combination of space counts and dimensional measurement using parking conventions.
- Marina: reported marina space (moorings and slips) determined through marina directories, or selected calls to some marinas.
- Camping: determined from camping directories and DEM statistics
- Hospitality: rooms in hotels, motels, bed and breakfast and inns as reported by the local visitor and convention bureaus.
- Vacation rentals: rental directories. NP took these directories and made a best efforts attempt to reduce double counting due to the multiple listings with different agents for the same properties. We excluded seasonal residents due to the difficulty in obtaining accurate information.

NP estimates that Rhode Island has approximately 23,000 accommodation slots on the south coast and Block Island. Newport represents approximately 33% of the total capacity. South County's shoreline communities and Block Island represent the difference.




The importance of understanding "accommodation capacity" is how it relates to potential expansion of people in an area. Examining accommodation capacity as it relates to potential visitors requires using estimates of how many visitors are traveling together. For example using an estimate of 2 people per accommodation slot would suggest that the 23,384 slots could represent approximately 47,000 visitors. Assuming 4 people per slot would suggest 93,000 visitors at a given moment in time with capacity fully utilized.

What matters most is the implication for communities and the associated tourism industry. For example Newport's 7800 slots could translate to an additional 31000 people or approximately 4500 people greater than the city's population. Additional accommodation capacity depending on its type and location could severely strain the city's existing "movement infrastructure"[13] if increased visitation occurred during the peak summer months.

For coastal South County the state of RI is the largest owner of "accommodation capacity" representing almost 2/3 of all slots. This is largely due to the beach parking as well as campgrounds owned by the state. The dilemma for the state is that increased traffic is vital to the continued viability of the state's beaches and campgrounds under the present parking-based revenue model. However, continued strains on the infrastructure due to traffic volume increases as well as the attendant non point source pollution need to be recognized.

In the case of Newport, South County, and Block Island tourism-related economic activity is vital to those areas[14] providing a substantial number of jobs and additional wages. However, the ability to grow this sector of their economy faces real space, infrastructure and land use constraints to expand the peak summer tourism season.

[13] Sidewalks, roadways, parking

[14] See previous Economic Monitoring Collaborative report and the RIEDC Tourism Economic Impact Satellite Report

**Industry Value Chain and Economic Linkages / Ninigret Partners**

The Collaborative asked Ninigret Partners (NP) to understand the linkages of the coastal economy and its penetration into the economy statewide. NP with the guidance of the Collaborative focused on the following sectors of the coastal economy:

- Commercial fishing and seafood processing industry
- Recreational boating
- Competitive sailboat racing
- Marine trades

NP synthesized the following sources of information to develop the value chains:

- Interviews with key industry participants
- Secondary source material such as policy documents from other states, trade publications and industry analyst reports
- Sales directors and related materials
- Prior NP work in this field

*The Commercial Fishing and Seafood Processing Industry*

Commercial fishing has been a mainstay of Rhode Island's economy since the state's inception. Commercial fishing and its associated activities continue to play an important role in Rhode Island's economy. Developing estimates of the state's commercial fishing industry is difficult for a variety of reasons:

- There have been no detailed prior studies of the commercial fishing industry in RI to use as a benchmark;
- Large numbers of commercial fishing crews are self-employed limiting the amount of easily collectible data through traditional sources such as ES 202 unemployment filing data;
- Distributors are varied in their product mix so discerning how much is seafood-related is difficult;
- Disconnection between where a boat is domiciled versus where the catch may "land';
- Using catch estimates as a measure for seafood processing is inaccurate due to the differences between distributor activities and seafood product processing versus local catch estimates

NP developed a series of protocols to develop estimates of the commercial fishing industry and its downstream linkages. NP used a variety of industry databases such as D&B and Manta; business directories pertinent to the various industries; and government reports and datasets where available. Finally these various sources were combined to develop estimates that were tested by the expertise on the Economic Monitoring Collaborative.

RI's commercial fishing catch over the last five years has had substantial variability in pounds landed. However, due to changes in types of landed catch the value of the catch has steadily increased. Figure 1 shows the changes in pounds landed and value of the catch since 2001.

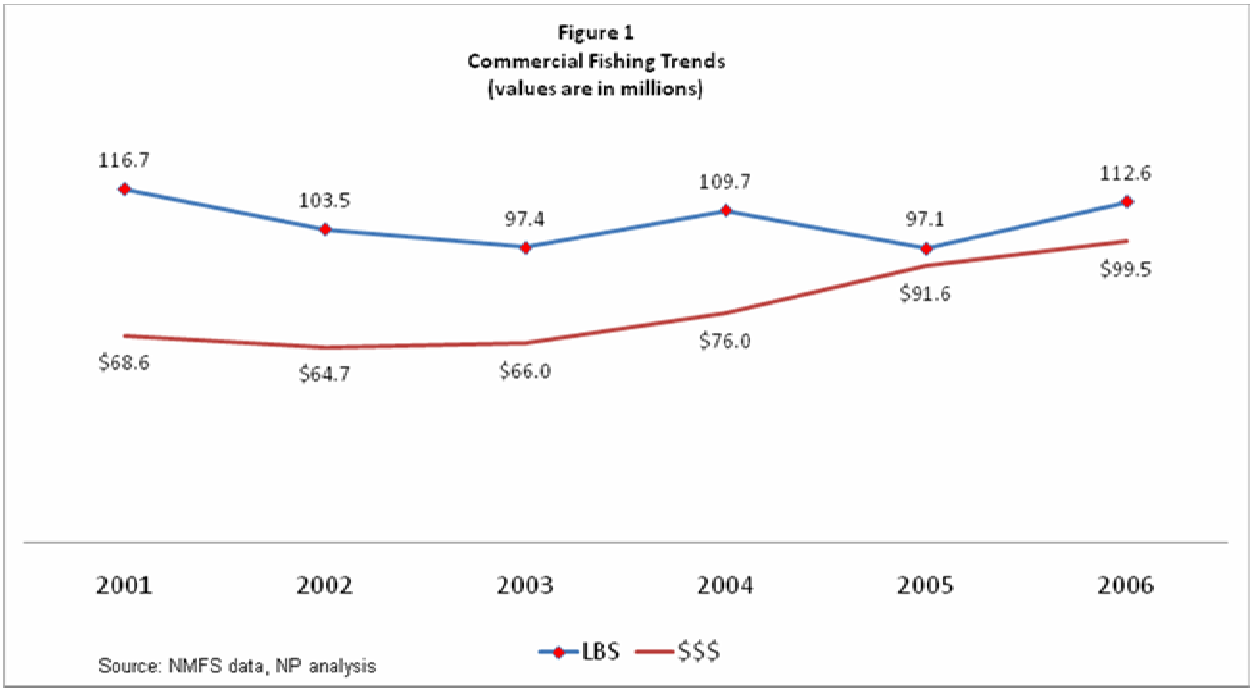
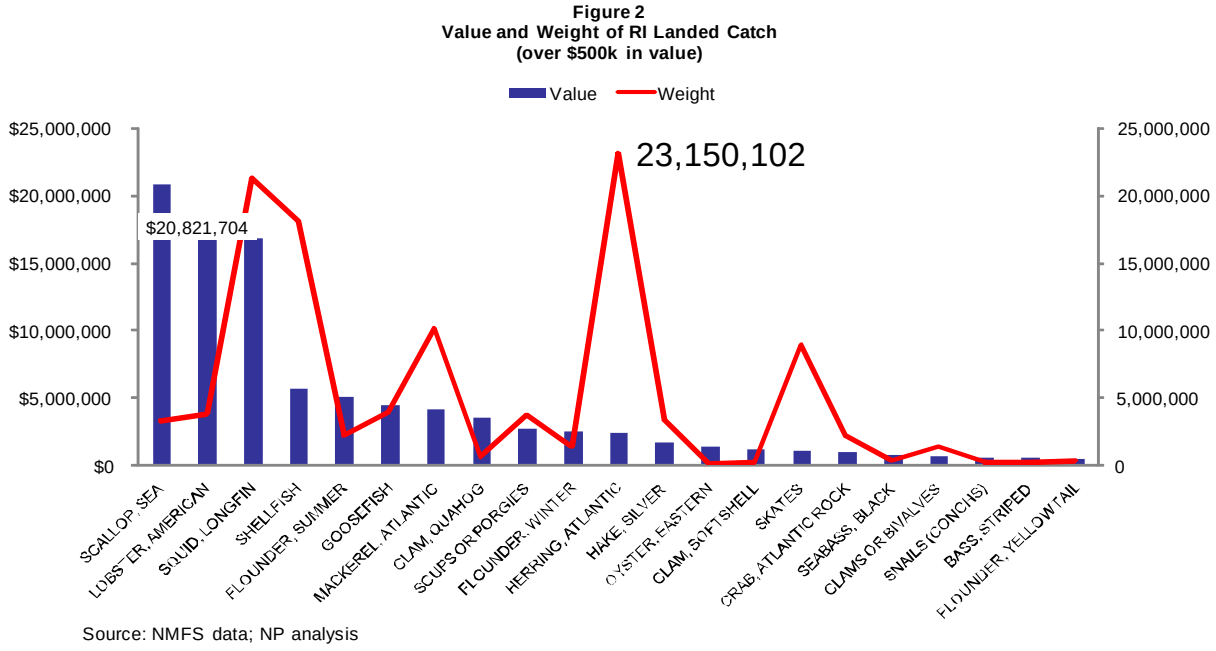
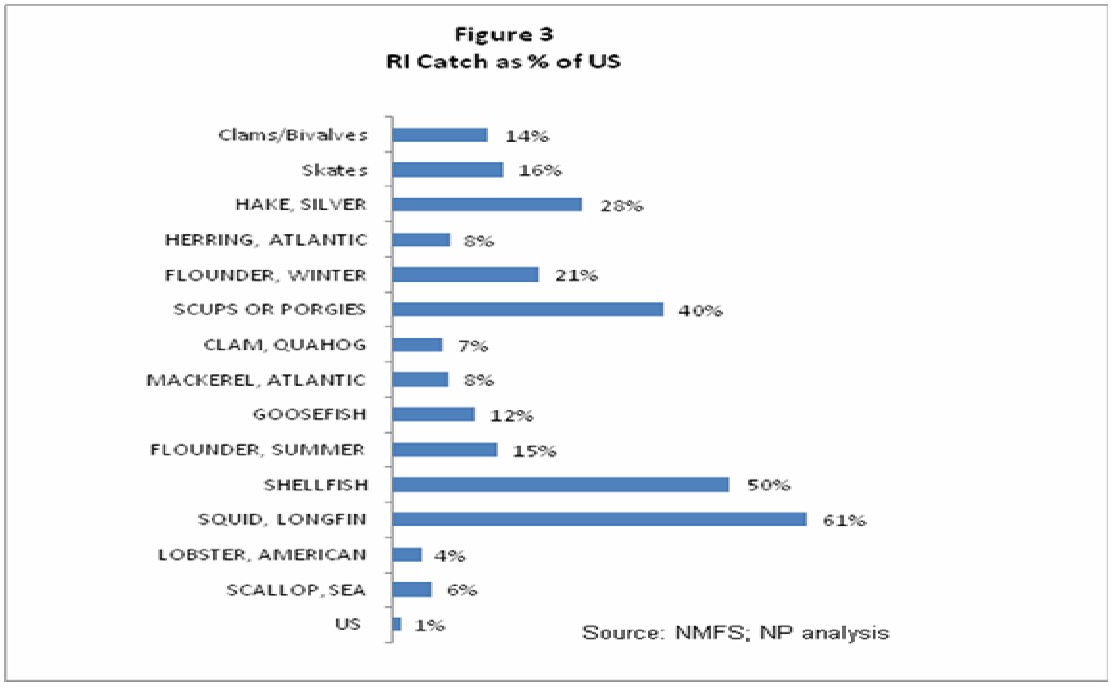



Figure 2 shows the value of the catch and the landed weight by species. Sea scallop is the most important landed species in terms of commercial value. The scallop catch represents almost 20% of the value of the total catch. However, herring is the most important commodity in terms of weight with squid a close second. Herring and squid represent approximately 44 million tons.



NP estimates that the direct commercial fishing industry represents approximately 1700 jobs and as much as $98 million in wages.[15] In addition NP estimates that the RI fleet spends another $11 to $18 million in boat operating costs and approximately $9 to $15 million in maintenance associated costs. In total RI's commercial fishing industry is likely responsible for at least $100 million in annual economic activity and perhaps as much as $130 million annually.

Figure 3 shows the role RI's catch plays in the national markets across a variety of species.




What is important about this data is the impact closing of RI's fishing and shellfishing grounds may have on the overall marketplace for selected species. As an example, RI represents a large share of the wild harvested shellfish and related species catch in the United States. An unintended consequence of the closing of the state's shellfishing beds due to the pollution control issues in parts of the Bay may actually increase the penetration rates of aquacultural products due to substitution of unavailable wild harvested catch. Therefore, it is conceivable that the challenges facing RI's shellfishermen due to the increase in competition from aquaculture product are in part caused by the state's ability to control pollution in the bay and key shellfishing grounds. Therefore, over time, pollution control in Narragansett Bay and the state's coastal waters will likely be an important determinant in the future of the state's shellfishing industry.

The development of the commercial fishing industry and the constraints of distribution capabilities early in the development of the industry led to close association of the downstream processing activities with fishing ports. This

[15] Employment estimates were based on using ES 202 reported data plus the number of individual commercial permits. NP estimated employment totals by taking an average employment per permit. This was derived by reviewing estimates of other fishery studies with selected discussions with boat crews based in Pt. Judith. Wage estimates were based on both national and regional ES 202 data. This estimate may be overstated since it is not adjusted for FTE associated issues due to the difficulty of estimating an industry with high levels of temporary self employment.

clustering of production and processing activities created significant economic value and wealth for local fishing communities.

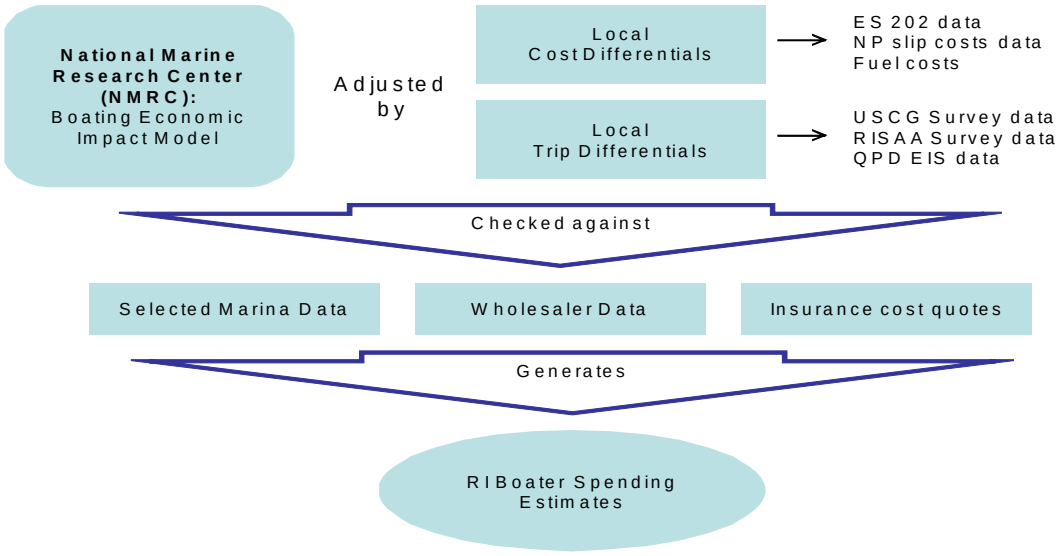
The remnants of this clustering continue to exist in part due to the capital intensity of the industry. However, global logistics and improvements in refrigeration technology allow for fishery markets and processing to be less dependent on geographic proximity and be global in nature. Therefore in many cases downstream seafood processing industries may be less dependent on the local catch than in prior times. Moreover, these improvements in global logistics have changed the nature of consumer markets as well.

NP estimates that the processing and brokering function represents approximately 448 jobs and $18 million in wages in Rhode Island. Finally NP estimates that the final step in the chain (consumer markets) represents approximately 2500 jobs and wages of $39 million in Rhode Island.

*Recreational Boating*

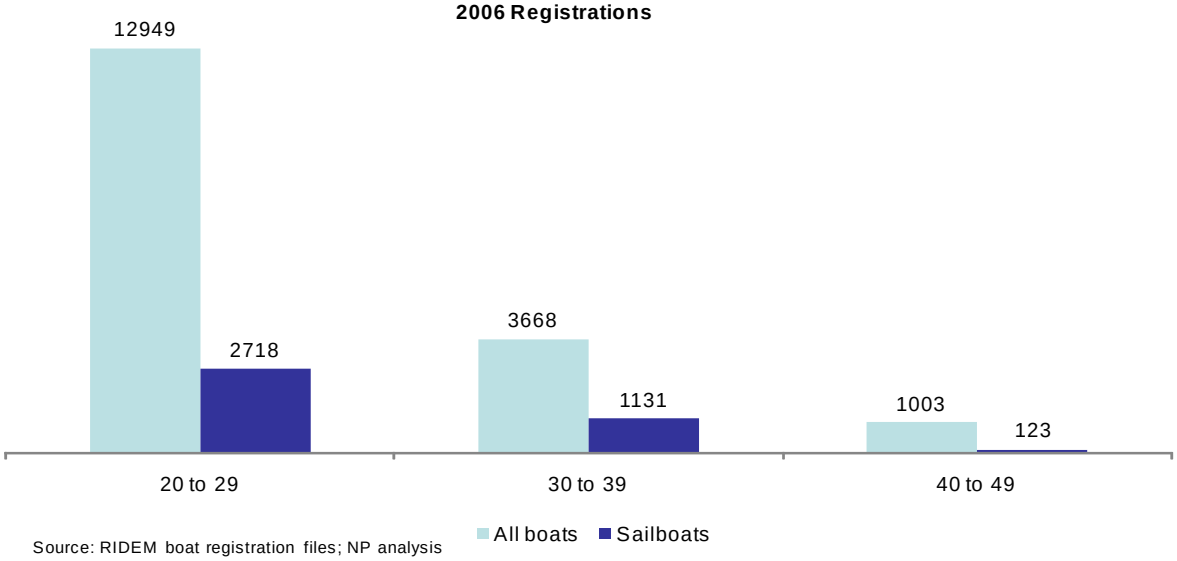
Recreational boating in Narragansett Bay and along RI's coastline is a key element of the state's tourist amenities and lifestyle offerings. Recreational boating is also an important component of the state's economy. The Collaborative asked NP to evaluate the impact of recreational boating on the state's economy.

After discussions with several members of the state's marine trades industry as well as the review of proprietary datasets NP maintains on the marine trades industry in RI, it was decided that the National Marine Research Center (NMRC) economic model should be used with adjustments to reflect local market conditions. The NMRC model is based upon more than 10000 responses from boaters across the country regarding their spending patterns. The following graphic demonstrates how NP built the economic estimates:



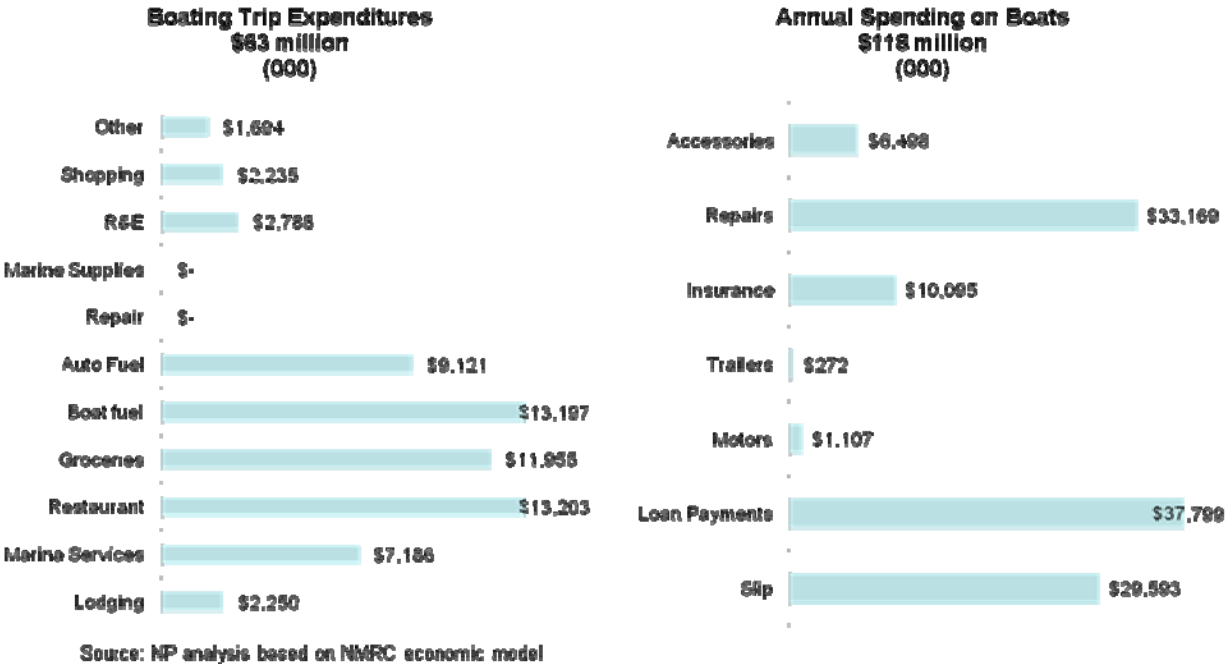
NP used DEM's boat registration database to understand two additional key variables for the model – boat size and type. Figure 4 shows the distribution of boats in RIDEM database by size and type.

**Figure 4**
**Boat Distribution by Type and Size**
**2006 Registrations**




Source: RIDEM boat registration files; NP analysis

Using the economic model and the adjustments described above it is estimated that the RI's 43,000 registered boats spending (excluding transients, megayachts, and regatta participants) totals approximately $182 million. The model divides expenditures between boat trips and annual required spending due to ownership.




Source: NP analysis based on NMRC economic model

It should be noted that several of these categories such as loan payments represent a significant portion of total spending but may have little multiplier impact on the Rhode Island economy. In contrast, items such as repairs have a significant multiplier impact on the RI economy due to the large marine trades industry in the state.

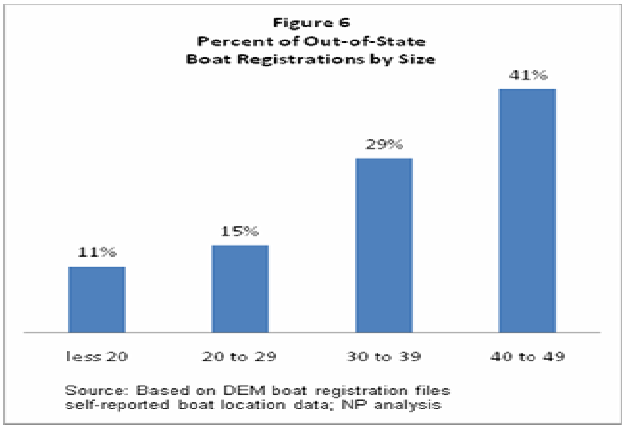
Boat size has a significant impact on spending. For example the model generates statistics that show a 40 ft power boat has annual spending more than 16 times greater as that of a 24 ft boat. If you exclude loan payments the differential is still nearly 14 times.

[redacted]

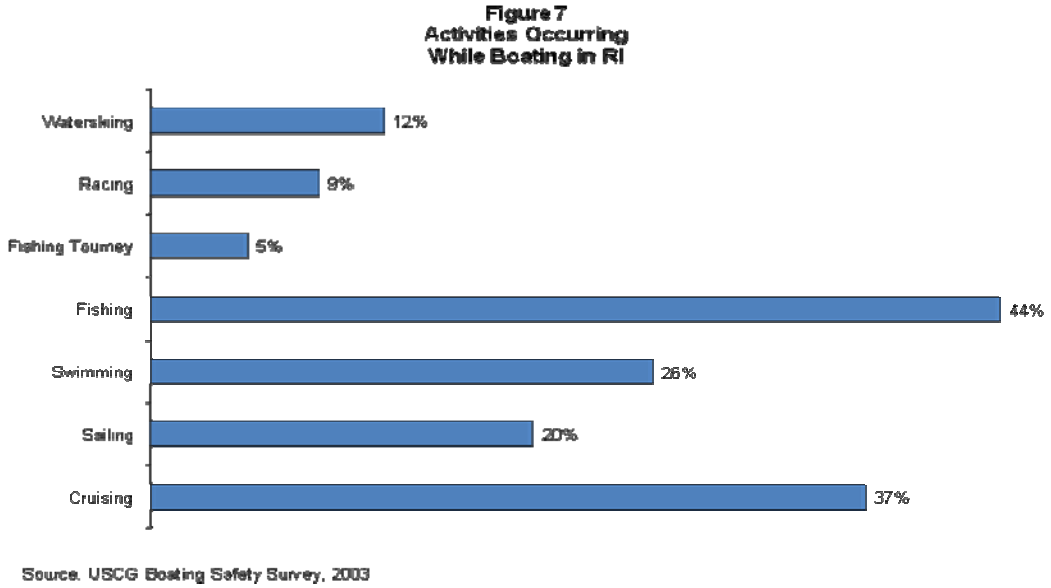
Based on the RMRC model, the 1003 boats greater than 40ft in length generate nearly as much ($24.8 million) spending as the nearly 19,000 boats between 20-29 ft ($28.3 million). But more importantly 40% of the spending in the largest category is likely from out-of-state boaters keeping boats in Rhode Island.

There are a couple of important caveats about this model. First, it represents averages within each category. Second, for the category of Power 40 and Sail 40 (power boats over 40 ft and sailboats over 40 ft) these averages could represent boats with lengths approaching 100 ft. Therefore, the average within this category could be overstated. Therefore, these calculations should be used with caution and provide a directional sense of the spending impact rather than represent a detailed accounting of the boater spending.

Examining RI's boater registration data more closely reveals an important statistic. Rhode Islanders represent the vast majority (86%) of the state's 43,000 registered boats. However, as boat size increases out-of-state registrations become a more important factor. Figure 6 shows the percentage of out-of-state registrations as boat size increases.



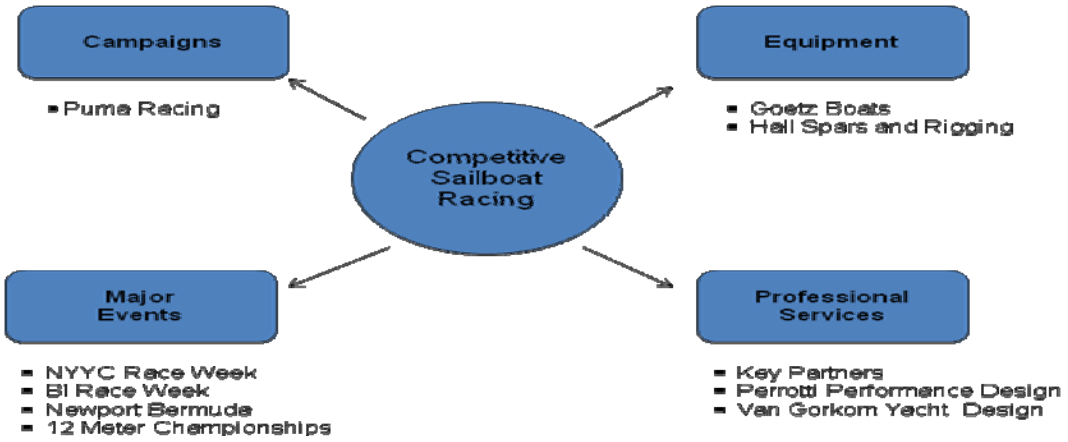
Recreational saltwater fishing is another important aspect of recreational boating in RI. A 2003 USCG Boaters Survey found that fishing was the most prevalent activity when boating.




A 2007 study conducted by NP on the recreational saltwater fishing industry in RI found that bait and tackle sales in addition to fishing tournaments generated another $16 million in sales. [16]

*Competitive Sailboat Racing*

Sailboat racing is an important subsector of the state's recreational boating scene. Moreover the state's history in competitive racing has generated a cluster of key capabilities and companies that participate in the globally competitive high performance sailboat racing industry. Below represents a small illustration of this cluster and companies associated with various aspects of it.




[16] RISAA & Ninigret Partners, (2007) "Recreational Saltwater Fishing in RI"

NP discussions with Rhode Islanders active in this sector suggest that there are somewhere between 30 to 40 Rhode Islanders who make a substantial portion of their living racing sailboats. It is estimated that another 200 to 300 people serve as paid crew on a racing sailboats on an as needed basis. NP's check of websites with crew postings supports estimates by industry participants. While it is difficult to generate a "hard number" due to the transient nature of the employment as well as the self-employed status of a number of these people, NP estimates wages for this group are approximately $11 million based on current per diems as well as estimated racing days.

Moreover, Rhode Island and Block Island are key venues for competitive races. In 2008 Rhode Island will represent 7% (12 of the 168) major listed races around the world[17]. What is important to note are the expenditures generated by these types of events. Detailed economic studies have not been conducted on major sailing events since the mid 1980s and early 1990s.

For example the last detailed analysis of the Newport Bermuda Race conducted in 1992 found total economic activity of approximately $6.5 million[18] associated with the race with approximately $1.2 million in RI. Expenditures per yacht in RI averaged approximately $10,700. The 2006 Newport Bermuda race was the largest on record with 265 boats participating. Without adjusting for inflation over this 15 year period and applying the 1992 averages, the 2006 Newport Bermuda race may have generated at least $2.8 million in expenditures in RI. The Block Island Race Week had 183 entries with less than 10% coming from RI.

In 2007 Allianz sponsored an economic impact study of the relative impacts of holding an America's Cup in a variety of communities around the world. Newport was included in this analysis. It was estimated that holding the 2010 America's Cup in Newport would generate total economic activity of $886 million.[19]

Boat spending spans across several economic categories (Figure 8 next page). The vast majority of spending is tied to race expenditures. This usually involves the purchase of sails, gear and other boat equipment. Occasionally repairs are required. The next largest category is hospitality related expenditures in the areas of food and lodging.

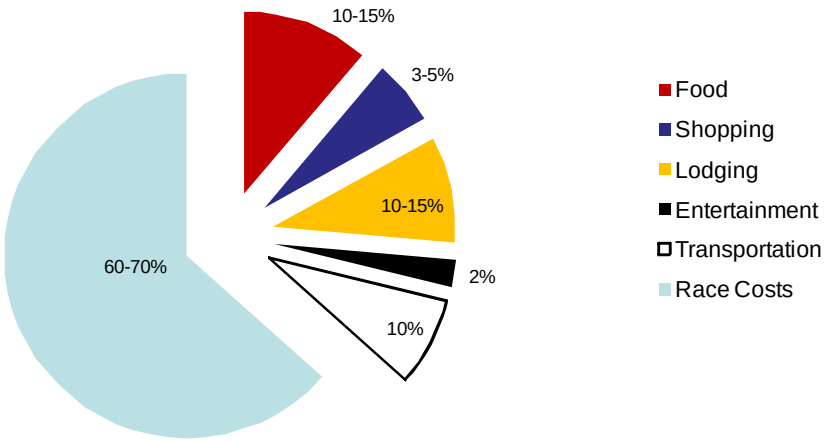
Additionally, RI is a major supplier to the competitive sailboat racing industry. NP estimates that approximately 160 employees with wages of approximately $7.2 million across a variety of companies are tied directly to globally competitive yacht racing. This excludes expenditures with marine trades businesses and associated professional services during the various regattas that take place in RI.

[17] As of 12/03/2007

[18] "Compendium of Economic Impacts of RI Tourism Events, January 1999." Office of Travel, Tourism and Recreation, URI.

[19] Includes pre event buildup and event specific activity (Allianz Economic Impact Report on the America's Cup, 2007)

**Figure 8**
**Competitive Racing Yacht Distribution of Expenditures**
**Spending Distribution**
**Does not add to 100 since it represents averages**




Source: NP interviews and Event Economic Impact reports

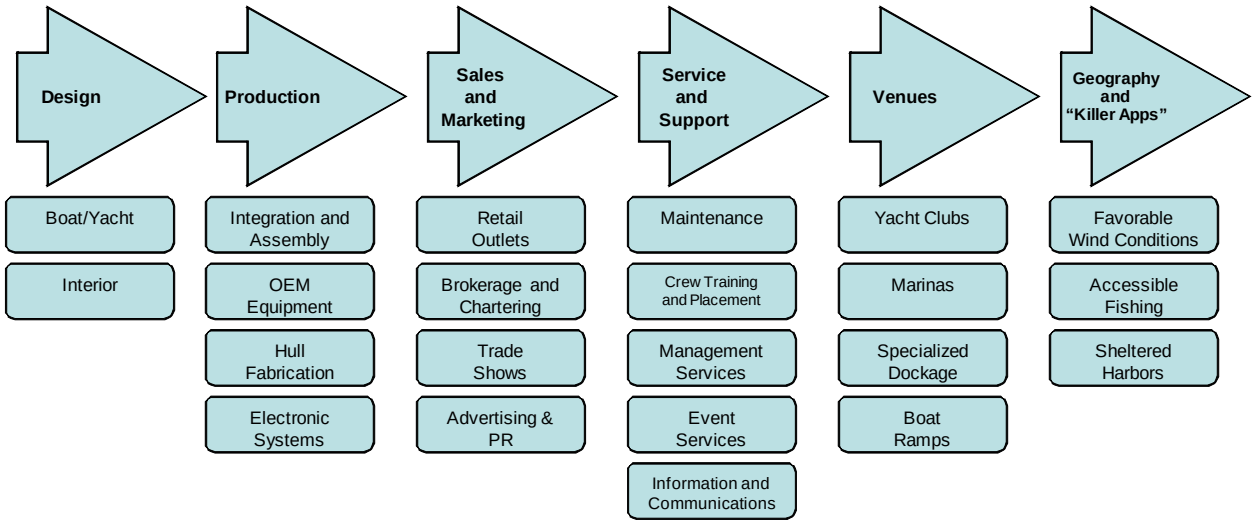
A key challenge to maintaining and growing this sector in the state is the availability of adequate space in areas that allow for easy access to the sailing waters off Rhode Island's coast. High level race activity is limited to southern waters due to limitations in upper Narragansett Bay including tidal flow, inadequate depth for the keel length of larger vessels and the long tow up the Bay.

*Marine Trades*

Marine trades are an important component of the state's economy. A recent study by the Rhode Island Marine Trades Association estimates that over 2,300 businesses in RI are engaged or provide support to the marine trades sector. These employers represent more than 6,600 jobs and nearly $260 million in wages.

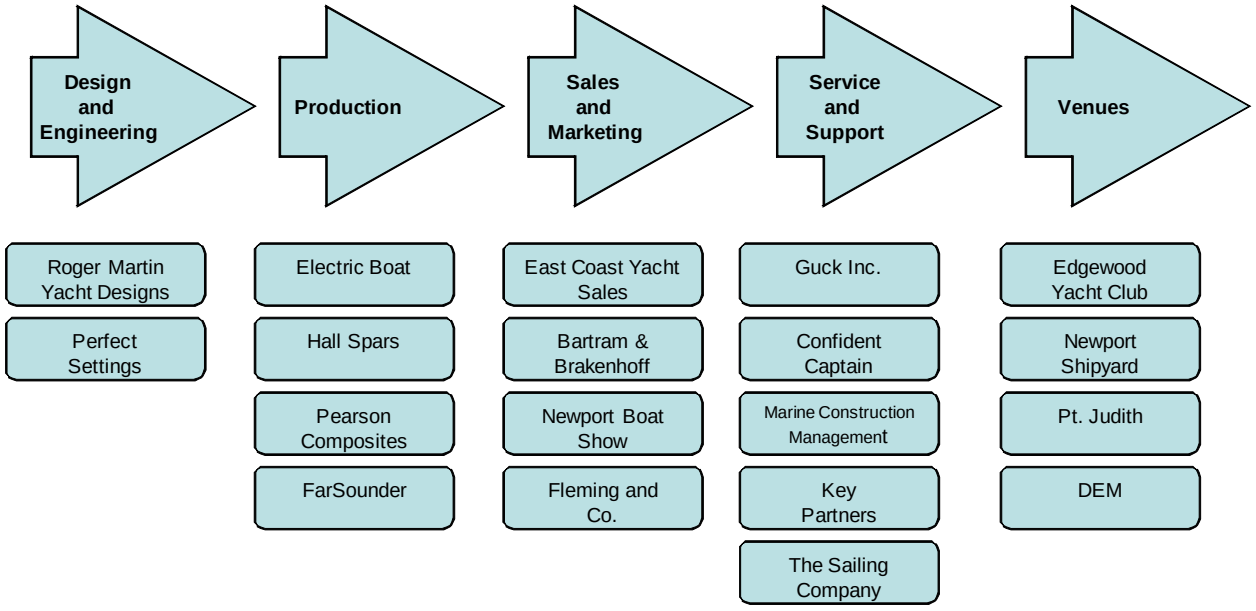
The scale and scope of this industry can be explained by the structure of marine trades in Rhode Island. Marine trades is one of the few industries in the state where the full value chain of the industry is present and the associated clustering of smaller specialized capabilities are readily apparent. As the Marine Trades Value Chain graphic demonstrates, marine trades in RI encompass every facet of the industry. Note that this value chain excludes a number of businesses that have ties to the industry or are beneficiaries of its spending such as the hospitality industry and fuel services.

**RI Marine Trades Value Chain**




The following graphic demonstrates the scope of this industry by providing company examples. Note that these companies do not necessarily represent the largest companies in their respective but sectors. It is intended to provide policy makers and the public with tangible examples of each type of company.

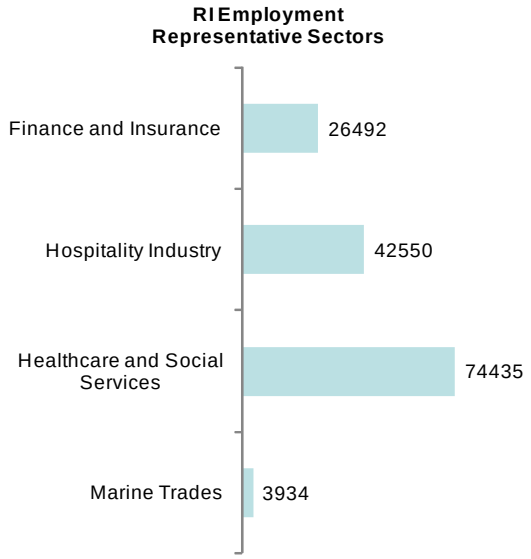
**RI Marine Trades Value Chain**
**Company Examples**

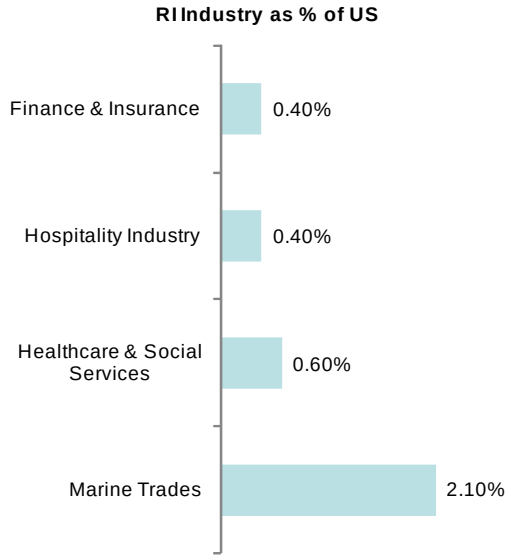



The comprehensiveness of the value chain and the associated clustering of specialized services and talent are due to the historical legacy of marine trades within Rhode Island, stretching back to colonial times. Key factors such as favorable sailing conditions, sheltered harbors and cruising grounds as well as access to

fisheries have allowed this industry to continue to thrive. Today marine trades are the only industry in the state that has national scale. Using a narrow definition of marine trades that encompasses only the boat building and marina sectors to allow for comparisons with other regions, Rhode Island represents approximately 2 percent of national employment. The chart below shows the sizes of some key industries in Rhode Island relative to their national scale.

However, using this definition of marine trades, RI's industry has recently slipped behind its national counterparts. From 2001 to 2006, employment in RI's marine trades sector grew by 13% or nearly three times the national rate of 5%. However, a notable decline of approximately 343 jobs in the ship/boat building sector in RI caused approximately a 10% decline in employment. Nationally this sector showed a growth rate of 1.4%. What the causes are behind this decline are not clear and beyond the scope of this report.




The key challenges facing the marine trades are:

- Workforce availability and training (to be detailed in upcoming RIMTA report)
- Cost and access to waterfront land
- Overall economic climate that negatively affects discretionary spending, of which boating activity is a part.

While the last challenge is cyclical in nature, the first two are structural and the State needs to determine its policy and investment role in addressing them.

## Complementary Studies & Initiatives

The following information provides a summary of key studies and/or initiatives recently completed or underway that complement the research conducted by the Collaborative. The projects highlighted are those which have been suggested by Collaborative members as well as have been identified through this year's research effort.

### Allens Avenue Economic Impact Assessment

Study Sponsor: Providence Working Waterfront Alliance
Funding: Private Sources
Study Cost: Confidential
Status: Estimated Completion Date - March 2008

The Providence Working Waterfront Alliance contracted FXM Associates, an economic research and planning firm, to evaluate the economic impact of several water-dependent, heavy industrial, and specialized commercial companies located on Allens Avenue along the Providence waterfront between Thurbers Avenue and I-195. Based on interviews with company representatives and secondary source data, the study will document the type and amount of current business activity, potential growth and plans for expansion. Using the R/Econ input-output model, this analysis will estimate direct (business sales, employment, income, and taxes), indirect (sales to regional business and purchases from regional supplier), and induced (spending of wage earnings) effects of existing business operations on the state and regional economy. The study will provide a factual basis for the economic importance of industries along Allens Avenue and of the Providence working waterfront, Rhode Island's only deep-water port.

### Aquidneck Island Special Area Management Plan (SAMP)

Study Sponsor(s): Coastal Resources Management Council, RI Sea Grant/Coastal Resources Center
Funding: RI Sea Grant, Coastal Resources Management Council, Prince Charitable Trusts
Study Cost: $60,000
Status: Underway

With government, citizens, and the private sector Coastal Resources Center staff will work with an advisory committee to identify the island's pressing bay-based resources issues, and develop tailored policies to address those issues. SAMP activities include 1) Implementing a strategy to strengthen the island's disaster resilience and reduce impacts of natural hazards, 2) Revising state water-type classifications to reflect the desired uses of island waters; 3) Guiding coastal growth center development; and 4) Increasing recreation opportunities and public access to and along the coast. These areas of focus are compatible with the implementation of the West Side Master Plan. Each issue will include the development of educational materials and training and/or public events to communicate the science and management known about each issue as well as methods for resolving these issues.

**Assessing Land Use Change With Local GIS Data: A Feasibility Study**
Study Sponsor(s): RI Division of Planning and The Providence Plan
Funding: Federal planning funds with private matching dollars
Study Cost: $25,280
Status: Underway

This study will investigate the feasibility of assessing short term land use trends on a statewide level using a combination of municipal GIS-based parcel data and digital tax assessment records. The effort will initially focus on the development of functional GIS methodologies using data from a singular locale over three distinct points in time and shift to identifying opportunities and weaknesses associated with statewide application.

The analysis may also experiment with combining parcel based information and RIGIS Land Use data along with zoning and infrastructure assumptions to calculate baseline development potential. The estimated completion date for the study is June 2008.

**Bay City: The Providence Waterfront Project**
Study Sponsor: Rhode Island School of Design & City of Providence
Funding: Study sponsors
Cost:
Status: Underway

The Bay City Project is a RISD research project funded by the City of Providence to assists its efforts in developing a Master Plan for the Providence Waterfront. During the fall and winter sessions, the Project will involve the development of a set of approaches to master planning by looking into the existing conditions, identifying priorities and critical systems, reviewing national and international case studies, and proposing design scenarios for a variety of waterfront types. After the completion of the project, the City will use this research work as part of a public design charrette to be held in the spring.

**BayScape Project**
Study Sponsor: University of Rhode Island, Department of Marine Affairs
Funding: Rhode Island Sea Grant and Narragansett Bay National Estuary Research Reserve
Cost: Approximately $200,000
Status: Ongoing

Bayscape was initially a two-year effort aimed at better understanding the activities on Narragansett Bay and along its shoreline, in which researchers surveyed human activities on and along the upper bay (from Conimicutt Pt to the end of Blackstone Blvd.), Greenwich Bay, and around and in the Narragansett Bay National Estuary Research Reserve (Prudence and the surrounding islands).

This study provides a new level of detail on activities by conducting systematic, observational surveys and simultaneously creating a spatially specific record with attribute data for each observation. The researchers can use this GIS database to document and statistically analyze the spatial and temporal patterns of shoreline and on the water activities. This new data has great potential to inform policy decision-making on a variety of topics. The researchers have presented some of their findings from the 2006 data at academic conferences and are currently analyzing the

combined 2006 and 2007 data. They intend to expand the spatial coverage of the database in the future.

**Creating a Diverse and Vibrant Newport Harbor**
Study Sponsor(s): RI Sea Grant/Coastal Resources Center
Funding: van Beuren Charitable Trust Inc. and The Rhode Island Foundation
Study Cost: $71,858
Status: Underway

The Coastal Resources Center is providing technical expertise to the city of Newport and other partners to identify and implement tools and techniques to achieve the new community-based vision for Newport Harbor redevelopment and ensure that the issue of hurricane preparedness is a component of this visioning process. Project results will be integrated into the city's 2008 Newport Harbor redevelopment planning process.

**Creating Vibrant Waterfronts in Rhode Island, October 2008**
Study Sponsor(s): RI Sea Grant
Funding: Prince Charitable Trusts, RI Division of Planning, Urban Land Institute/RI Chapter, RI American Institute of Architects, University of RI Coastal Institute, Coastal Resources Management Council, Coastal Resources Center, RI Sea Grant.
Study Cost:
Status: Complete

The 6th Annual Ronald C. Baird Sea Grant Science Symposium brought the public together to explore how coastal communities - locally, regionally, and nationally - are using the latest environmental, economic, and social science and cutting-edge techniques to enhance and achieve vibrancy along their waterfronts. While the symposium featured the waterfronts of Pawtucket, East Providence, and Newport Harbor, key topics (Sea Level Rise and Hurricanes; Economics) remain critical for all Rhode Island waterfronts and their stakeholders.

**How Important is Tourism to Rhode Island? 2006 Tourism Satellite Account**
Study Sponsor(s): Rhode Island Tourism Division and seven state tourism councils)
Funding: study sponsors
Cost: $56,000
Status: Complete

This analysis, conducted by Global Insight, estimates the contribution of tourism to Rhode Island's economy. Global Insight uses the Tourism Satellite Account approach, which is the UNWTO-approved international standard for measuring tourism's impact. This methodology now replaces the prior study approach contracted to the URI Office of Travel & Tourism Research by RI Tourism. For the first time the Global Insight study provides detailed breakouts of regional tourism data in addition to statewide data. The study also breaks out the activity of visitors from more than 50 miles away or that included an overnight stay (the TSA definition) from visitors from within 50 miles of the state. This differentiation is important because it allows for the separation of what is likely the contribution of a significant percentage of Rhode Islanders to tourism activities (e.g. entertainment, dining out, shopping).

The study found that the almost 8 TSA million visits in 2006 contributed $3.69 billion in expenditures and $860 million in state and local taxes. The study found that this activity supported 47,854 jobs and $1.38 billion in wages. The analysis highlights

that while tourism is responsible for 4.2 percent of Gross State Product it contributed 10.8 percent of state revenue. The regional breakdown (which also includes visitors from within 50 miles of the state) illustrated the significance of gaming activity particularly in the Blackstone Valley and growth in four of the five categories of spending but a drop in retail spending in all regions (between 2005 and 2006).

**Identifying Innovation Solutions to Guide Development Along the Providence River, May 2007 SAMP Workshop**
Study Sponsor(s): Coastal Resources Management Council, RI Sea Grant/Coastal Resources Center, NOAA
Funding: Study sponsors, RI Foundation, RI Economic Policy Council, Sprague Energy, Promet Marine Services, Providence Piers
Study Cost: $30,000
Status: Complete

This two-day workshop, part of the Metro Bay Special Area Management Plan (SAMP) effort, focused on addressing the competing demands on the Metro Bay by a variety of uses and stakeholders. Using a mix of presentation and group discussion among local participants and local and national experts, it provided an opportunity to identify major stakeholder needs and visions, examine challenges and opportunities and collectively propose innovation solutions.

Some of the key outcomes included support for SAMP and long-range planning to integrate maritime and non-maritime uses, recognition of the need to bolster the municipal tax base and an interest in collaborating around solutions. Possible actions were also discussed such as creating a long term agreement between cities and state for revenue sharing, creating a comprehensive plan for the waterfront industry and examining the feasibility of reinstating the RI Port Authority.

**Literature Review for the Northeast Needs Assessment**
Study Sponsor(s): RI Sea Grant/Coastal Resources Center
Funding: NOAA Coastal Services Center
Study Cost: $23,530
Status: Underway

The goal of this project is to gather information to produce a clear and insightful synthesis of coastal management issues in the Northeast Region to inform the design of products and services that support regional ecosystem management and foster community resilience.

**The Local and Regional Economic Impacts of Maritime Activity at ProvPort**
Study Sponsor: ProvPort
Funding: ProvPort
Status: Complete, August 2006

This study, conducted by Martin Associates, estimates the regional economic impacts of the cargo and vessel activity at the ProvPort terminal. The study is based on a phone survey of ProvPort firms and was supplemented with data from a variety of secondary sources.

The analysis found that in fiscal year 2006, 939 direct jobs were attributable to ProvPort activities with a total of $40.9 million wages. Approximately 26% of these jobholders live in Providence, an additional 26% live in RI with the balance residing

outside the state. An additional 1,458 induced, indirect or influenced/related jobs were tied to ProvPort activities for a total of 2,397 total jobs.

ProvPort activities generated $178.8 million in total economic activity. The study estimates that the terminal activity generated $16.3 million in state and local taxes. This analysis also provides useful metrics such as job impacts per ton (by commodity) and notes the importance of planning for future port growth, in particular, the space and infrastructure necessary to support different commodities.

**One River Project**
Study Sponsor: Rhode Island School of Design & RI Economic Policy Council
Funding: National Endowment for the Arts, Study Sponsors
Status: Underway

The One River Project is a multi-year project that has studied several waterfronts along the Blackstone River, both in Massachusetts and Rhode Island. The Project's aim is to develop and test new strategies for building at the water's edge that restore natural systems, provide public access, preserve cultural heritage and assure long-term economic health. These strategies have been developed through design studios at RISD as well as a series of public workshops that brought experts from science, planning, policy, and the design disciplines.2007 efforts culminated in a full-day public symposium. A website highlighting ideas and outcomes is currently under development.

**Providence Waterfront Economic Analysis and Land Use and Transportation Study, Request for Proposals**
Study Sponsor: Providence Redevelopment Authority, City of Providence
Status: Proposals due March 18

The City of Providence recently posted a Request for Proposals (RFP) to analyze the market trends and conditions that affect industrial waterfront industries and explore possibilities for Providence's working waterfront. The RFP also calls for identifying future mixes of land uses and densities necessary to support multi-modal transportation and connections to neighboring communities.

**RI Geotourism Initiative**
Sponsors: Preserve Rhode Island
Funding: in-kind support from a variety of institutions led by the National Geographic Society
Status: ongoing

In May 2007 Governor Carcieri along with Preserve Rhode Island and the National Geographic Society signed the "Geotourism Charter" recognizing Rhode Island's commitment to preservation, conservation and destination stewardship. Geotourism is a key program of National Geographic's Center for Sustainable Destinations which aims to increase the practice of sustainable tourism around the globe. Geotourism is defined as tourism that sustains or enhances the geographical character of a place – its environment, culture, aesthetics, heritage and the well being of its residents. Preserve Rhode Island has convened the Geotourism Collaborative, a group of Rhode Island thought leaders representing non profits, state agencies and business with interests in advancing the stewardship of Rhode Island's distinctive local character and community vitality. Members of the collaborative share information, brainstorm new ideas, open channels of communication, cultivate new ideas and initiatives, and

celebrate best practices in Geotourism. Collaborative members have already sparked two collaborative efforts: establishing the Historic Sites Coalition and the Green Hospitality Program.

**RI Marine Trades Skill Gap Analysis**
Study Sponsor(s): Rhode Island Marine Trades Association, International Yacht Restoration School
Funding: Governor's Workforce Board
Study Cost: $38,000
Status: Estimated publication date: March 2008

This study, conducted by Planning Decisions, is analyzing the employment potential and skills gap within the marine trades. This employment study is utilizing a survey to gather data from a comprehensive list of marine trades firms in the state. The study will also provide detail on the scale and composition of the marine trades in Rhode Island.

**RI Ports and Commercial Harbors: An Inventory and Recommendations for Resolving Statewide Issues**
Study Sponsor(s): RI Sea Grant/Coastal Resources Center
Funding: RI Division of Planning
Study Cost: $50,000
Status: Underway

The objective of this study is to create the state's first comprehensive inventory of existing resources, marine infrastructure and uses, and conditions of Rhode Island ports and commercial harbors. Outputs will include recommendations to bolster potential for these facilities to collectively resolve some pressing state issues such as traffic congestion, solid waste transport, and economic development. The proposal is geared to provide new statewide data (including GIS data), help decision-makers make sound waterborne-freight and marine transportation planning and permitting decisions, encourage the integration of smart growth tools and techniques into these processes, and ultimately enhance the economic viability and value of the state.

**RI Recreational Saltwater Fishing Industry Trends & Economic Impact**
Study Sponsor: Rhode Island Saltwater Anglers Foundation
Funding: Study sponsors
Status: Completed January 2007

This study, conducted by Ninigret Partners, provides an estimate of the economic impact of recreational saltwater fishing in Rhode Island. Ninigret Partners used a combination of primary data sources (interviews and surveys) and secondary data sources.

The analysis found that saltwater recreational fishing generates a total economic impact of $160 million with direct expenditures estimated at $70 million a year; 1,000 jobs and $24 million in wages are tied directly to this sector. The analysis found that saltwater fishing is the 8$^{th}$ largest tourist attraction in the state with over 50 percent of anglers coming from out of state. Much of the fishing activity take place along the southern shoreline and there is a high likelihood that most of the activity occurs in the summer season rather than in the prime fishing season (late spring and early fall).

## Appendix A: RI Economic Monitoring Collaborative Membership

Christopher Bergstrom, RI Economic Policy Council (Chair)
Austin Becker, RI Sea Grant/URI Coastal Resources Center
David DePetrillo, RI Tourism
Michael Doherty, RI Economic Development Corporation
Andrew Dzykewicz, Chief Advisor to the Governor on Energy
John Gates, URI – Dept. of Environmental and Resource Economics
Steven King, Quonset Development Corporation
Michael Keyworth, Brewer Cove Haven Marina
Kenneth Kubic, RI Marine Trades Association
Beth Laney, General Dynamics – Electric Boat Corporation
Michael Marchetti, Point Judith Fisherman's Memorial Foundation
Michael McGiveney, RI Shellfisherman's Association
E. Howard McVay, Jr., Northeast Pilots Association
Stephen Medeiros, RI Saltwater Anglers Association
Richard Nadolink, Newport Engineering & Science Company
Marisa Paul, Raytheon Intergrated Defense Systems
Tom Rich, New England Boatworks
Eric Reid, Deep Sea Fish of RI
Curt Spalding, Save the Bay
Bruce Vild, RI Division of Planning