

Virginia Marine Trades Feasibility Study

## **Virginia Marine Trades Feasibility Study**

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*Submitted to:*

**Virginia Department of Housing and Community Development**

**ECONOMIC ASSISTANCE PLANNING GRANT PG#04-PG-02**

*Completed by:*

Northern Neck Planning District Commission

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On behalf of  
Northumberland County

March 31, 2004

**Final Report**

*Co-Sponsored by:*

**Virginia Sea Grant College Program**

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## Introduction

Workforce development is vital to the future of recreational marine industry in the mid-Atlantic region. Without an adequate pool of qualified employees the industry cannot continue to grow and the entire coastal economy will suffer. Marine trades are prevalent throughout the Chesapeake region. Under the general heading of "Marine Trades" are a host of private enterprises that define marine recreation as a business; and, as such, are crucial elements serving the needs of coastal watercraft users. As providers of necessary inputs, services and materials, in addition to providing a physical interface for boat access, the marine trades combine to provide requisite support for all commercial and recreational watercraft; including both large and small boats, private boat anglers, charter boats, head boats, tourist boats, etc.

All of these groups represent activities that to varying extents support the economies of Virginia's coastal cities, rural areas and towns. At the same time, the provision of infrastructure in the form of marinas, boatyards, launching ramps, boating and the fishing activities themselves, increase the sustainable economic value derived from the environment. In a direct way the marine trades allow for the transfer of natural resources into economic resources that provide employment, income, value-added exports and tax base to the coastal communities.

A local or regional training infrastructure does not currently exist in these trades and the development of such a capability would likely be a significant positive development for local marine trades and the communities they serve.

As a result of the efforts initiated at a steering committee meeting held last April in Lancaster, Virginia, funding was sought and matching funds received by the Northern Neck Planning District Commission (NNPDC) from both the USDA and the Virginia Department of Community Development to complete a "Marine Trades Workforce Development Strategy." The workforce committee has continued to work in a unified fashion to help the marine industry and all of Tidewater, Virginia.

The survey reported on here was designed to solicit information necessary to evaluate the need for targeted skills training in the Chesapeake Bay region's marine trades industry. At the request of marine trades in Virginia, public agency sponsors of this survey are considering the development of a marine trades training curriculum aimed at making the industry more competitive and profitable. In order to determine that investments in such programs are warranted, the survey sought the benefit of industry's views on the actual need for marine trades training.

Within the four state's surveyed there are an estimated 1,500 marine trades businesses including hundreds of marine service and supply firms, boat builders and other support industries necessary to serve marinas and boatyards which ultimately serve owners of the 850 thousand registered recreational watercraft in the region.<sup>1</sup>

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<sup>1</sup> Sea Grant College programs in New Jersey, Maryland, Virginia and North Carolina provided information obtained from respective states. It should be noted in addition to the industry results that the institutions that cooperated with this survey are vitally interested in the issue of marine trades workforce training and development.

## **Background**

As a result of an initial Steering Committee (Appendix 1) meeting held April 30, 2003 in Lancaster Virginia, a pilot survey (“Virginia Marine Industries Work Force Development Survey”) (Appendix 3) was distributed to marine industry firms in the Northern Neck and Middlesex County area. The main goal of this exercise was to gather information that would provide an understanding of the existing trades in the industry, and the current and future needs of employers with respect to job positions common in the marine trades.<sup>2</sup>

The pilot survey included questions about the current number of employees in each of the industry trades; the number of job positions that currently need to be filled; the estimated number of job positions (by 2005) for each trade; questions about advertising techniques; types of training needed; and workforce challenges.

Given the short time period for soliciting, surveying and summarizing the pilot results the survey was restricted geographically. However, it was believed that overall the information was representative of the status of the marine trades workforce development as it relates to the need for a broad geographically inclusive Marine Trades Feasibility Study.

The conclusion that seemed most clear from the preliminary survey was consensus that a local or regional training infrastructure does not currently exist in these trades and the development of such a capability would likely be a significant positive development for local marine trades.

## **Feasibility and Workforce Needs Assessment Survey**

Based upon the initial findings a comprehensive survey assessment of the potential market for marine trades training was considered to be the next necessary step in addressing the real potential for a sustainable marine trades training program in the region.

In order to complete a regional assessment the VIMS Sea Grant Marine Advisory Service (“VIMS”) was contracted to conduct a regional survey on behalf of the Northern Neck Planning District Commission (“NNPDC”).

To efficiently and expediently implement a the broad regional survey, VIMS enlisted coordination of the educational outreach and the survey implementation with its Sea Grant College counterparts in North Carolina, Maryland and New Jersey. Those Sea Grant programs in turn cooperated with their respective state marine trades organizations to enhance survey awareness and the development of trade survey mailing lists.

## ***Educational and Training Needs Assessment Survey Results***

The more focused work force training needs assessment survey was implemented in New Jersey, Maryland, Virginia and North Carolina. The regional survey was intended to more specifically assess the regional market and general financial feasibility of developing a sustainable marine trades program in the central coastal Virginia. A total of 1,500 surveys

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<sup>2</sup> Thomas J. Murray, Marine Business & Coastal Development Specialist, also conducted the pilot survey. Virginia Institute of Marine Science. Gloucester Point, VA. Telephone 804-684-7190 (tjm@vims.edu).

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were distributed during January and February 2004. 320 completed surveys were returned as of February 20, 2004, the date of this compilation; an overall survey response rate of 21.3%.<sup>3</sup>

The data collected suggest that the significance of this response is further strengthened by the overall consistency of the responses and industry's needs in terms of the educational curriculum priorities, training methods and the private sector's willingness to pay to support participation by employees in the needed training programs.

### **Types of Companies and Employment**

The majority of the companies providing completed surveys were multi-faceted enterprises providing more than one type of service to the boating sector. Of the 320 responding companies, the majority of the operations included lines of business in the following categories: Boatyard/Marina (211), Marine Service & Supply (131), Boat/Motor Dealerships (102), Boat Brokerage (70), Boat and equipment Manufacturing (27).

Taken together the 320 firms responding to the survey employed 5,765 full time employees. The majority of the companies had between 1 and 10 employees. The number of full time employees ranged from 1-1,000 among the respondents. Together the group reportedly employed 1,142 part time workers and currently the firms have 470 full time positions that they are currently attempting to fill.

Marine industry leaders have acknowledged the need for all industry to enhance the consumer's boating experience and satisfaction that is considered to be a key to long-term customer loyalty.

In order to better gauge the views of the industry on the general subject of industry certification, firms were first asked whether they view industry certification as needed.

### **Need for Industry Certification and Vocational Training**

TABLE 1 reflects the summary of responses by state and for the region overall. The response strongly suggests industry's awareness of the need for some type of certification. There is a widespread acknowledgement of the need for certification, with the exception of North Carolina where a significant percentage of respondents (37%) reportedly do not know if certification to increase service quality is needed. However, both within Virginia and the throughout the region as a whole, a need for such marine trades certification is acknowledged by industry.

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<sup>3</sup> The numbers of firms responding, by state, were: Virginia 85, Maryland 105, New Jersey 69, and North Carolina 61.

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<b>Table 1. Need for Marine Industry Certification to Increase Service Quality (% Of Firms Responding)</b>			
<b>Location</b>	<b>Certification Needed (%)</b>	<b>Certification Not Needed (%)</b>	<b>Don't Know (%)</b>
Virginia	85%	5%	10%
Maryland	74%	10%	16%
New Jersey	81%	12%	7%
North Carolina	48%	15%	37%
<b>Region</b>	<b>73%</b>	<b>10%</b>	<b>17%</b>

Following upon the question of certification, companies were asked to indicate what type of on-going employee training would be desirable to them. The respondents were asked to list whether the certification and improvement of existing skills (such as through ABYC) or basic trades/vocational training was needed. The comparative results are displayed in TABLE 2.

<b>Table 2. General Type(s) of On-Going Employee Training Needed (% Firms Listing) <sup>4</sup></b>		
<b>Location</b>	<b>Certification</b>	<b>Basic Trades/Vocational</b>
Virginia	63%	49%
Maryland	52%	58%
New Jersey	53%	39%
North Carolina	38%	49%
<b>Region</b>	<b>51%</b>	<b>49%</b>

Overall for the region, there appears to be no significant difference in ranking these two types of training. Both Virginia and New Jersey however do reflect a relative priority for certification while also indicating support for basic vocational training. To summarize, the respondents seem to feel that the two levels of training are more complementary than exclusive.

<sup>4</sup> Region-wide 19% of the responding firms indicated that both certification and basic trades training are needed, while 26% of Virginia companies indicated both types are needed.

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**Priority Marine Trades Training Areas**

In order to assess the priority training areas for curriculum development respondents were asked to rank in order of importance the types of skill set training needed. TABLE 3 summarizes the results of the ranking in order of importance with # 1 being the top priority for training.

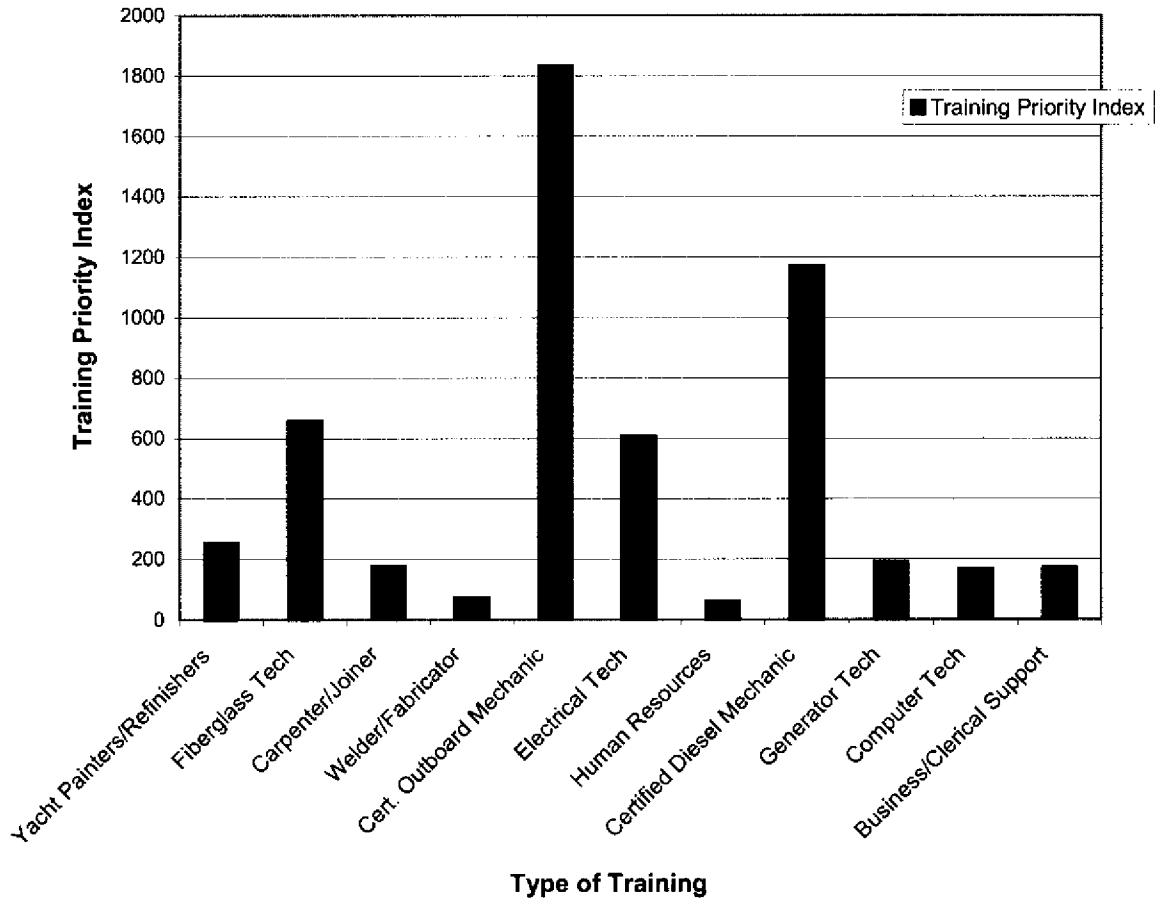
<b>Table 3. Numerical Ranking of Training Needs For Virginia and the Region (#1 Highest)</b>		
<b>Ranking</b>	<b>Overall Region</b>	<b>Virginia</b>
Yacht Painter/Refinishers	5	6
Fiberglass Technician	3	3
Carpenter/Joiner	7	9
Welder/Fabricator	10	7
Electrical Technician	4	4
<b>Certified Outboard Mechanic</b>	<b>1</b>	<b>1</b>
Certified Diesel Mechanic	2	2
Generator Technician	6	5
Computer Technology	9	8
Clerical& Business Support	8	11
Human Resources	11	10

As indicated, there was a great deal of consistency between training needs for Virginia and the region overall. The top four priority areas were the same for both regions and as depicted in the graph below, the four areas are clearly the consensus areas of training importance.

FIGURE I on the following page reflects an index ranking for each type of skill area and the index includes a summary of the relative numerical rankings as well as the number of times the training area was selected as the top (“1”) training priority.

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FIGURE I: Overall Regional Marine Trades Training Priority Ranks





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**Marine Trades Training Methods and Media**

TABLE 4 shows the percentage of respondents who selected preferred methods of training. The respondents were asked to select their top three methods of employee training. Overall Virginia and the region view classroom seminars, customized off/on site training and videos or CD Rom as the preferred training venues. The differences between customized off-site and on-site training cannot be viewed as significant from these survey results. Discussion with industry suggests that firms would prefer that any off-site training be conducted at a site not associated with a competitive business.

<b>Table 4. Best Methods of Receiving Employee Training (% of Responses)</b>		
<b>Type of Training or Medium</b>	<b>Overall</b>	<b>Virginia</b>
Cable or Satellite TV	8%	9%
Classroom Seminars	51%	51%
Customized off-site	37%	46%
Customized on-site	37%	40%
Internet	27%	19%
Self-Study Print	26%	31%
Videos or CD-ROM	40%	38%

**Willingness to Pay for Employee Training**

Central to the feasibility of developing a sustainable marine trades training program and facility is the potential financial support for such an endeavor. To obtain feed back on the potential to offset training facility operations with industry revenue, the survey elicited views on industry's willingness to support employee training. Table 5 shows the percentage of firms by state and region that express a willingness to send employees to another location for the purpose of skills training.

<b>Table 5. If you contracted for employee training services, would you be willing to send employees to another location?</b>		
<b>Location</b>	<b>% Firms Willing to Send</b>	<b>% Firms Not Willing to Send</b>
Virginia	84%	16%
Maryland	88%	12%
New Jersey	85%	15%
North Carolina	74%	26%
<b>Region</b>	<b>84%</b>	<b>16%</b>

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Clearly, industry would support such training efforts on behalf of employees. It should be noted however that North Carolina reflects somewhat more reticence to such support than other states within the region as a whole. However, nearly 3 of 4 North Carolina respondents indicated that they would support sending employees to train.

TABLE 6 similarly addresses the willingness to pay to support employee training. In particular the survey solicited information from firms that specified their willingness to provide employees support for payment of tuition and travel to a training program in central coastal Virginia if nationally accepted marine industry certification courses were offered.

<b>Table 6. Willing to Pay to Enroll, Travel and Lodge Employees for Training at Central Coastal Virginia Location</b>		
<b>Location</b>	<b>Willing to Pay</b>	<b>Not Willing to Pay</b>
Virginia	83%	17%
Maryland	74	26
New Jersey	72	28
North Carolina	55	45
Region	72%	28%

Again, Virginia and the regional marine industry express considerable willingness to financially support employee training at a relatively distant location. Again North Carolina industry is apparently less willing than other states within the region to provide such support however, just over one-half of responding North Carolina firms expressed a willingness to pay.

### Survey Comments

Further survey comments indicated that firms had sent employees to become certified in electrical repairs and diesel mechanics at ABYC<sup>5</sup>; carpentry at the Wooden Boat School; and refinishing school conducted by Interlux.<sup>6</sup> All of the training is valuable and more could be offered employees if it was conducted closer to home. A local or regional training infrastructure does not currently exist in these trades and the development of such a capability would likely be a significant positive development for local marine trades.

Small boatyards (under 100 slips) need multi-purpose personnel. An outside mechanic qualified in out-drives, generators, and electrical. A painter qualified in fiberglass, waxing, and hull fittings. Boatyard safety courses including forklift, travel lift, hazardous materials, safety equipment, show equipment safety, electrical safety, diving safety, OSHA requirements, etc. would also be very helpful.

<sup>5</sup> ABYC is the "American Boat and Yacht Council." ABYC writes safety standards and provides training and certification relative to government boat safety standards.

<sup>6</sup> Interlux is a paint manufacturer specializing in fiberglass bottom and antifouling paints and finishes.

## Preliminary Economic Impact Analysis

The potential for economic development resulting from the creation of a Marine Trades Training School in the Northern Neck is considered to be significant by industry as well as community leaders.

One measure of the potential for economic impact associated with the successful implementation of the Marine Trades Training School is the satisfaction of unmet demand for trained personnel in Tidewater Virginia boatyards and marinas. According to the 85 Virginia firms responding to the 2004 survey a total of 86 full time positions were currently unfilled.

If the School was effective in supplying qualified workforce for these current position vacancies the firms would be operating closer to capacity and realizing increased output and income in conjunction with the additional full time employees. An estimate of these increases in output and income can be made by use of a standard input output framework.

Based upon an input output model for Virginia, 25 full time employees in the marina and boat yard industry are needed to generate \$1 million in gross output. Further, as a case in point, each \$ 1 million in gross output by Virginia boat yards generates an estimate \$471,000 in wages and compensation and \$182,000 in proprietor incomes. Using these relationships with the reported employment possibilities provided by the firms responding to the survey, the direct impact of the school successfully training and placing the initial 86 individuals would be an increase in \$3.44 million in Virginia boatyard output, \$1.62 million in Virginia employee wages and compensation and \$.626 million in proprietor's income.<sup>7</sup>

<b>Table 7. Boat Yard Sector Economic Impacts Related to Filling Existing Job Vacancies-2004</b>				
	<b>Direct</b>	<b>Indirect</b>	<b>Induced</b>	<b>Total</b>
<b>Output</b>	<b>\$3,444,000</b>	<b>\$1,146,852</b>	<b>4,146,576</b>	<b>\$8,737,428.00</b>
<b>Income</b>	<b>\$2,286,816</b>	<b>\$ 473370</b>	<b>1,555,034</b>	<b>\$4,315,220.00</b>
<b>Employment</b>	<b>86</b>	<b>22</b>	<b>78</b>	<b>186</b>

As depicted in Table 7 above, accompanying the increase in direct activity at the boat yards and marinas, resulting from the expansion in Virginia's workforce capacity, businesses selling to marinas and boatyards will also see an increase in sales, income and ultimately employment. These indirect or "backward linked" impacts will primarily be created within Virginia as support businesses provide necessary inputs to the marina and boat yard sectors.

<sup>7</sup> The economic impact estimates are based upon the input output model IMPLAN as adapted to Virginia marine industries through primary surveys conducted in 1994. While somewhat dated the primary data and economic linkages are believed indicative of the industry linkages that exist today.

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Finally, by virtue of the increases in sales, employment and incomes in the direct and indirect sectors other Virginia businesses not directly or indirectly involved in marine trades, that serve households (restaurants and groceries, shoe stores, hardware stores, etc.) also feel the *induced* impacts of increase in sales, employment and income.

This overall economic impact in Virginia is initiated by the increase in business activity That would accompany the increased capacity in the marine trades.

Additionally, the School's attraction of out of state students which was further identified in the survey would generate additional economic impact to Virginia by virtue of the tuition, travel, lodging and associated costs paid while attending the training programs. Overall the majority of the 235 non-Virginia firms indicated that they would be willing to sponsor enrollment and travel to a marine trades workforce training facility in central coastal Virginia.

### Conclusion

The original intent of the feasibility study was to better identify the Middle Atlantic marine-related industries in order to insure the sustainability of an education facility. This initial survey effort conclusively identifies significant needs for training both with Virginia's marine industry and throughout the mid Atlantic region. In addition to representing corroboration of the need for such a program, the information collected will be of great value in the next phase of marine trades training program development, which will address specific establishment of initial curricula, training methods, duration, audiences and training facility location.

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**Appendix 1**

***Virginia Marine Trades Training Project Management Steering Committee***

Ivy Beringer .....Rappahannock Community College  
Jerry Davis .....Northern Neck Planning District Commission  
Kenny Eades .....Northumberland County  
Randy Long.....Northern Neck Vocational Technical Center  
John Hornby.....Coan River Marina  
Ken Knull.....Yankee Point Marina/Tidewater Marine Trades Association  
Donald McCann .....Marine Surveyor/NNPDC  
Tom Murray .....Virginia Institute of Marine Science  
Keith Ruse.....Deltaville Boatyard  
Guy Sorensen.....Chesapeake Marine Training Institute  
Marilyn Toulson .....Virginia Employment Commission  
Scott Vail .....Vail Yacht Brokers  
Don Ward.....Virginia Employment Commission

## Appendix 2

### *Virginia Marine Industries Work Force Development Survey 2004*

#### **Background**

This survey is designed to solicit information to evaluate the need for targeted skills training in the Chesapeake Bay region's marine trades industry. At the request of marine trades in Virginia, public agency sponsors of this survey are considering the development of a marine trades training curriculum aimed at making the industry more competitive and profitable. In order to determine that investments in such programs are warranted, they are seeking the benefit of your views on the actual need for marine trades training. The following brief survey is being used to gather this information and your assistance in completing it will be of great benefit in making this effort as successful as possible.

Within the three state areas from North Carolina to Maryland we have identified and are surveying over 2,000 marine-related businesses such as yours, including over 1,500 marinas and boatyards. Additionally hundreds of marine service and supply firms, boat builders and other support industries are necessary to support these marinas and boatyards who directly serve 750 thousand owners of registered recreational watercraft in the region. The Sea Grant College programs in Virginia, Maryland and North Carolina are partnering to complete this survey in their respective states, so that any training needs that do exist along the Middle Atlantic coast are assessed in a uniform fashion and potential regional training offerings can be developed. All involved in this public-private effort would sincerely appreciate your assistance in this brief survey. All information provided will be held in the strictest confidence and used to summarize overall industry training needs. Absolutely no information will be reported in any way that identifies your firm or any specific individual. Results will be released only in aggregated form.

The survey should take about 5-10 minutes to complete. Please return the survey by fax at the number identified below, or return the survey in the enclosed postage-paid envelope. If you would prefer, e-mail the contact person below requesting an electronic copy of the survey. Also, for questions about the survey please contact:

Thomas J. Murray  
Marine Business Specialist  
Virginia Institute of Marine Science  
College of William & Mary  
P.O. Box 1346  
Gloucester Point, Virginia 23062  
Phone: 804-684-7190/ Fax: 804-684-7161  
E-mail [tjm@vims.edu](mailto:tjm@vims.edu)

**Please return the survey as soon as possible after receiving it, so that the data summary and final report may be completed during January 2004.**

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Virginia Marine Industries Work Force Development Survey 2004

1. What type of company are you? (Check all that apply)  
 Boatyard/Marinas  Boat/Motor Dealership  Broker  Manufacturer   
Services & Supplies
2. How many full-time workers does your company currently employ? \_\_\_\_\_
3. How many part-time workers does your company currently employ? \_\_\_\_\_
4. How many open positions are you currently trying to fill? \_\_\_\_\_
5. Do you believe the Marine Industry should support certification in order to increase service quality? Yes \_\_\_\_\_ No \_\_\_\_\_ Don't Know \_\_\_\_\_
6. For which of the following do you believe training needs to be offered? (Please rank in order with #1 being top priority)

a. <input type="checkbox"/> Yacht Painters/Refinishers	b. <input type="checkbox"/> Fiberglass Technician
c. <input type="checkbox"/> Carpenter/Joiner	d. <input type="checkbox"/> Welder/Fabricator
e. <input type="checkbox"/> Certified Outboard Mechanic	f. <input type="checkbox"/> Electrical Technician
g. <input type="checkbox"/> Human Resources	h. <input type="checkbox"/> Certified Diesel Mechanic
i. <input type="checkbox"/> Generator Technician	j. <input type="checkbox"/> Computer Technology
k. <input type="checkbox"/> Business/Clerical Support	l. <input type="checkbox"/> Other _____
7. What type(s) of on-going employee training do you need?
  - a.  Certification and improvement of skills (such as ABYC)
  - b.  Basic trades vocational training
8. If you contracted for employee training services, what THREE ways would you prefer to receive such service:
  - a.  Cable or Satellite TV
  - b.  Classroom Seminars
  - c.  Customized off-site training
  - d.  Customized on-site training
  - e.  Internet
  - f.  Self-study printed materials
  - g.  Videos or CD-ROM
  - h.  Other, please describe: \_\_\_\_\_
9. If you contracted for employee training services, would you be willing to send employees to another location? Yes \_\_\_\_\_ No \_\_\_\_\_
10. Would you be willing to pay to enroll and pay for travel and lodging for an employee to a location in central coastal Virginia if it offered nationally accepted marine industry certification courses? Yes \_\_\_\_\_ No \_\_\_\_\_

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**Please fill in the following information about your company.**

Company Name:

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Your Name:

---

Address:

---

Phone: \_\_\_\_\_ Fax: \_\_\_\_\_ Email:

---

**Thank you for taking the time to complete this survey!**  
**Please return the survey as soon as possible after receiving it, so that the data**  
**Summary and final report may be completed during January 2004.**



### Appendix 3

#### Pilot Survey Results

This section will present an overview of the findings from the pilot survey data.

#### Types of Companies and Full and Part-Time Workers

The majority (9) of the 15 companies providing completed were multi-faceted enterprises that provide more than one type of service to the boating sector. Of the respondents the majority were Boatyard/Marinas (13), followed by Marine Services & Suppliers (6), Boat/Motor Dealerships (4), Brokers (3), Manufacturers (3).

Taken together the 15 firms employed 129 full time employees. The majority of the companies had between 1 and 10 employees. The number of full time employees ranged from 3 - 26 among the respondents. Together the group employees 16 part time workers (range 1-5) and currently the 15 firms have 12 positions that they are attempting to fill (range 0-2).

#### Current Filled and Open Positions

The total number of filled and open positions is listed in TABLE 1.

<b>TABLE 1. Filled and Open Positions for Each Marine Trade</b>		
<b>Trade</b>	<b>Filled Positions<sup>8</sup></b>	<b>Open Positions</b>
Yacht Painter/Refinishers	17	5
Fiberglass Technician	23.5	3
Carpenter/Joiner	17.5	1
Welder/Fabricator	6	2
Outside Mechanic	28.5	13
Electrical Technician	15	3
Certified Outboard Mechanic	11	10
Certified Diesel Mechanic	19	6
Generator Technician	17	7
Technology	3	1
Human Resources	6.5	0
Clerical	12.25	2
Other Technical	63.75	19
Other Trades & Professions	18.75	8
Business Support	10.5	3
<b>Total</b>	<b>269.25</b>	<b>83</b>

<sup>8</sup> Filled Positions include those where one full time employee conducts a combination of trades. For example, small boatyards (under 100 slips) need multi-purpose personnel. An outside mechanic qualified in out-drives, generators, and electrical. A painter qualified in fiberglass, waxing, and hull fittings.

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<b>TABLE 2. Types of Local Training by Trade.</b>	
<b>Trade</b>	<b>Number of "Yes" Respondents</b>
Yacht Painter/Refinishers	11
Fiberglass Technician	13
Carpenter/Joiner	6
Weilder/Fabricator	6
Outside Mechanic	10
Electrical Technician	10
Certified Outboard Mechanic	12
Certified Diesel Mechanic	13
Generator Technician	7
Technology	6
Human Resources & Business Support	4

In response to the open-ended question (" What types of training do you need offered") respondents listed the following top four:

ABYC<sup>9</sup> Certification

OSHA Compliance Classes

Certified Lift and Sling lift Operation

Compliance with government regulations

**Conclusion/Comments**

Further survey comments indicated that firms had sent employees to become certified in electrical repairs and diesel mechanics at ABYC; carpentry at the Wooden Boat School; and refinishing school conducted by Interlux.<sup>10</sup> All of the training is valuable and more could be offered employees if it was conducted closer to home.

Small boatyards (under 100 slips) need multi-purpose personnel. An outside mechanic qualified in out-drives, generators, and electrical. A painter qualified in fiberglass, waxing, and hull fittings. Boatyard safety courses including forklift, travel lift, hazardous materials, safety equipment, show equipment safety, electrical safety, diving safety, OSHA requirements, etc. would also be very helpful. One course for workers, and one for supervisors, emphasizing OSHA requirements.

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<sup>9</sup> ABYC is the "American Boat and Yacht Council." ABYC writes safety standards and provides training and certification relative to government boat safety standards.

<sup>10</sup> Interlux is a paint manufacturer specializing in fiberglass bottom and antifouling paints and finishes.

## **Virginia Marine Trades Feasibility Study**

### **Regional Workforce Needs Assessment Survey**

This proposal will further implement the pilot survey detailed above in Tidewater Virginia as well as coastal Maryland and North Carolina. The applicant will administer the standard survey in conjunction with North Carolina and Maryland Sea Grant programs and will be responsible for all data assimilation and analysis on behalf of the Northern Neck Planning District Commission.

**Marine Industries Association of Virginia 2003 Pilot Survey**

1. What is your type of company? (Check all that apply)  
13 Boatyard/Marinas 4 Boat/Motor Dealership 3 Broker 3 Manufacturers 6 Marine Services & Supplies
2. How many full-time workers does your company currently employ? 129
3. How many part-time workers does your company currently employ? 16
4. How many open positions are you currently trying to fill? 12
5. For the positions of **Yacht Painters/Refinishers**, please fill in the numbers or check if **Not Applicable** 5

	<u>Number of Positions Filled</u>	<u>Number of Positions Needed to be Filled</u>
Prep Man	<u>8</u>	<u>1</u>
Senior Prep Man	<u>2</u>	<u>1</u>
Refinisher	<u>4</u>	<u>1</u>
Senior Refinisher	<u>1</u>	<u>2</u>
Lead Man Refinisher	<u>2</u>	<u>      </u>
6. By 2005, how many **Yacht Painters/Refinisher** positions do you believe your company will have? 24
7. For the positions of **Fiberglass Technician**, please fill in the numbers or check if **Not Applicable** 5

	<u>Number of Positions Filled</u>	<u>Number of Positions Needed to be Filled</u>
Grinder	<u>6</u>	<u>      </u>
Laminator	<u>7</u>	<u>1</u>
Technician	<u>5</u>	<u>      </u>
Certified Technician	<u>1</u>	<u>2</u>
Lead Man Fiberglass Technician	<u>4.5</u>	<u>      </u>
8. By 2005, how many **Fiberglass Technician** positions do you believe your company will have? 22.5
9. For the positions of **Carpenter/Joiner**, please fill in the numbers or check if **Not Applicable** 7

	<u>Number of Positions Filled</u>	<u>Number of Positions Needed to be Filled</u>
Carpentry Helper	<u>3</u>	<u>      </u>
Carpenter	<u>7</u>	<u>      </u>
Senior Carpenter	<u>5</u>	<u>1</u>
Lead Man Carpenter	<u>2.5</u>	<u>      </u>
10. By 2005, how many **Carpenter/Joiner** positions do you believe your company will have? 10
11. For the position of **Welder/Fabricator**, please fill in the numbers or check if **Not Applicable** 7

	<u>Number of Positions Filled</u>	<u>Number of Positions Needed to be Filled</u>
Polisher/Cutter	<u>1</u>	<u>      </u>
Arc Welder	<u>2</u>	<u>      </u>
MIG/TIG	<u>2</u>	<u>2</u>
Layout	<u>1</u>	<u>      </u>
Senior Fabricator	<u>      </u>	<u>      </u>
12. By 2005, how many **Welder/Fabricator** positions do you believe your company will have? 9

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13. For the positions of **Outside Mechanic**, please fill in the numbers or check if **Not Applicable** \_\_\_\_\_

	<u>Number of Positions Filled</u>	<u>Number of Positions Needed to be Filled</u>
Mechanic Helper	8.5	4
Drive Train Technician	5	
Senior Mechanic	5	4
Yacht Systems Technician	6	5
Lead Man	4	

14. By 2005, how many **Outside Mechanic** positions do you believe your company will have? 39

15. For the position of **Electrical Technician**, please fill in the numbers or check if **Not Applicable** 5

	<u>Number of Positions Filled</u>	<u>Number of Positions Needed to be Filled</u>
Electrician Helper	1	
Electrician	4	
Certified Marine Electrician	5	2
Yacht Systems Technician	3	1
Lead Man	2	

16. By 2005, how many **Electrical Technician** positions do you believe your company will have? 18

17. For the positions of **Certified Outboard Mechanic**, please fill in the numbers or check if **Not Applicable** 7

	<u>Number of Positions Filled</u>	<u>Number of Positions Needed to be Filled</u>
Mercury	3	3
OMC	2	1
Honda		2
Yamaha	3	3
Mariner	1	
Suzuki	1	
Tohatsu		
Nissan	1	1

18. By 2005, how many certified **Outboard Mechanic** positions do you believe your company will have? 10

19. For the positions of **Certified Diesel Mechanic**, please fill in the numbers or check if **Not Applicable** 6

	<u>Number of Positions Filled</u>	<u>Number of Positions Needed to be Filled</u>
Detroit Diesel	4	3
Caterpillar Diesel	2	1
Volvo Penta	2	
M.A.N.		
M.T.U.		
Yanmar	5	1
Lugger		
Deutz		
Cummins	4	1
Perkins	1	
John Deere	1	

20. By 2005, how many **Certified Diesel Mechanic** positions do you believe your company will have? 18

21. For the positions of **Generator Technician**, please fill in the numbers or check if **Not Applicable** 7

	<u>Number of Positions Filled</u>	<u>Number of Positions Needed to be Filled</u>
Onan	5	2
Kohler	3	1
Northern Lights	3	1
Westerbeke	4	1

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Panda	<u>  2  </u>	<u>  1  </u>
John Deere	<u>          </u>	<u>  1  </u>
Detroit Diesel	<u>          </u>	<u>          </u>
Caterpillar	<u>          </u>	<u>          </u>
Kilo Pak	<u>          </u>	<u>          </u>

22. By 2005, how many **Generator Technician** positions do you believe your company will have?   4  

23. For **Technology** positions, please fill in the numbers or check if **Not Applicable**   10  

	<u>Number of Positions Filled</u>	<u>Number of Positions Needed to be Filled</u>
Computer Programmers	<u>  2  </u>	<u>  1  </u>
Systems Engineers	<u>          </u>	<u>          </u>
Network Administrator	<u>  .5  </u>	<u>          </u>
Website Manager	<u>  .5  </u>	<u>          </u>

24. By 2005, how many **Technology** positions do you believe your company will have?   5  

25. For **Human Resources** positions, please fill in the numbers or check if **Not Applicable**   10  

	<u>Number of Positions Filled</u>	<u>Number of Positions Needed to be Filled</u>
Benefits Administrator	<u> 2.25 </u>	<u>          </u>
Payroll	<u> 3.25 </u>	<u>          </u>
Trainers	<u>  1  </u>	<u>          </u>

26. By 2005, how many **Human Resources** positions do you believe your company will have?  1.5 

27. For **Clerical** positions, please fill in the numbers or check if **Not Applicable**   3  

	<u>Number of Positions Filled</u>	<u>Number of Positions Needed to be Filled</u>
Receptionists	<u>  3  </u>	<u>          </u>
Clerks – A/P, A/R	<u> 3.25 </u>	<u>  1  </u>
Administrative Assistant	<u>  5  </u>	<u>  1  </u>
Collections	<u>  1  </u>	<u>          </u>

28. By 2005, how many **Clerical** positions do you believe your company will have?  13.50 

29. For **Other Technical** positions, please fill in the numbers or check if **Not Applicable**   3  

	<u>Number of Positions Filled</u>	<u>Number of Positions Needed to be Filled</u>
Marine Electronics Installer	<u>  7  </u>	<u>  3  </u>
Marine Electronics Technician	<u>  1  </u>	<u>          </u>
Hydraulics Service Tech/Engineer	<u>  2  </u>	<u>          </u>
Waxer/Polisher	<u> 13.25 </u>	<u>  3  </u>
Certified Straddle Lift Operator	<u> 6.5 </u>	<u>  1  </u>
Certified Fork Lift Operator	<u>  5  </u>	<u>  1  </u>
Yard Crew Bottom Painter	<u> 13.5 </u>	<u>  7  </u>
Sail Boat Rigging Technician	<u> 1.5 </u>	<u>  1  </u>
Small Boat Rigger	<u>  1  </u>	<u>          </u>
Sail Makers	<u>          </u>	<u>          </u>
AC & Refrigeration Technicians	<u>  1  </u>	<u>  1  </u>
Appliance Technician	<u>  1  </u>	<u>          </u>
Desalination Tech/WQ Engineer	<u>  1  </u>	<u>          </u>
Fire Control Service Technician	<u>  1  </u>	<u>          </u>
Certified Shipyard Person	<u>  1  </u>	<u>  1  </u>
Certified "Hazwopper"	<u>          </u>	<u>          </u>
Propeller Technician	<u>  2  </u>	<u>          </u>
Machinist	<u>  2  </u>	<u>          </u>
Canvas and Upholstery	<u>  2  </u>	<u>  1  </u>

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Furniture Makers 2 \_\_\_\_\_  
 Marine Surveyors \_\_\_\_\_

30. By 2005, how many **Other Technical** positions do you believe your company will have? 13

31. For **Other Trades and Professions** positions, please fill in the numbers or check if Not Applicable 4

	<u>Number of Positions Filled</u>	<u>Number of Positions Needed to be Filled</u>
Marine Insurance Specialists	_____	_____
Marine Insurance Adjusters	_____	_____
Customer Service Reps	_____	_____
Service Writers	<u>3</u>	<u>1</u>
Warranty Writers	<u>2</u>	_____
Dockmaster	<u>2.75</u>	_____
Dock Hands	_____	_____
Yacht Brokers	<u>7</u>	<u>3</u>
Charter Brokers	_____	<u>1</u>
Yacht Management	_____	_____
Captains	<u>1</u>	<u>1</u>
Mates	_____	_____
Engineers	_____	_____
Chefs	_____	_____
Stewardess	_____	_____
Towing and Salvage	<u>1</u>	<u>2</u>
Certified Naval Architects	_____	_____
Certified Naval Engineer	_____	_____
Draftsman	<u>1</u>	_____
Stylists	_____	_____
Interior Designers	<u>1</u>	_____
Sign Painters	_____	_____
Graphic Artists	_____	_____
Boat Transport Truck Drivers	_____	_____
Manufacturers Representatives	_____	_____
Consultants	_____	_____
Maritime Attorneys	_____	_____
Scuba Drivers	_____	_____
Other _____	_____	_____
Other _____	_____	_____

32. By 2005, how many **Other Trade & Professions** positions do you believe your company will have? 3.75

33. For **Business Support** positions, please fill in the numbers or check if Not Applicable 7

	<u>Number of Positions Filled</u>	<u>Number of Positions Needed to be Filled</u>
Controller	_____	_____
Customer Service	<u>3.25</u>	<u>1</u>
Receiving/Shipping Clerk	<u>2</u>	<u>1</u>
Accountant Manager	<u>2</u>	<u>1</u>
Finance Officers	<u>1.25</u>	_____
Environmental Compliance Techs	<u>1</u>	_____
Safety Compliance Technicians	<u>1</u>	_____
Marketing and Sales	_____	_____

34. By 2005, how many **Business Support** positions do you believe your company will have? 4.25

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35. Which of the following do you use to advertise open positions? Please rate the effectiveness of each.

<u>Means of Advertising</u> (Check all that apply)		<u>Effectiveness</u>					
<u>11</u>	Newspaper	<u>7</u>	Poor	<u>2</u>	Good	___	Excellent
<u>5</u>	Internet	<u>1</u>	Poor	<u>2</u>	Good	___	Excellent
<u>10</u>	Walk-ins	<u>6</u>	Poor	<u>3</u>	Good	___	Excellent
<u>12</u>	Word of Mouth	<u>2</u>	Poor	<u>6</u>	Good	<u>2</u>	Excellent
<u>6</u>	Employee referral	___	Poor	<u>4</u>	Good	<u>2</u>	Excellent
___	Employment/Staffing Agency	___	Poor	___	Good	___	Excellent
<u>1</u>	Other Satisfied Customer	___	Poor	___	Good	___	Excellent
___	State Employment Commission	___	Poor	<u>1</u>	Good	___	Excellent

36. For which of the following do you believe local training needs to be offered? (Check all that apply)

<u>11</u>	Yacht Painters/Refinishers	<u>13</u>	Fiberglass Technician
<u>6</u>	Carpenter/Joiner	<u>6</u>	Welder/Fabricator
<u>12</u>	Certified Outboard Mechanic	<u>10</u>	Outside Mechanic
<u>10</u>	Electrical Technician	<u>1</u>	Human Resources
<u>13</u>	Certified Diesel Mechanic	<u>7</u>	Generator Technician
<u>6</u>	Technology	<u>3</u>	Business Support

37. What type(s) of training for your employees do you need the Marine Associations of Virginia to offer? See #36. ABYC Certified. Safety, OSHA Compliance Classes, Certified Lift and Sling lift Operator, Compliance with Gov. Regs. Skills and work ethic. We have sent people for training in Diesel Mechanics, Electrician to ABYC and they have their certifications. We would like that to be available closer to home. We have also sent technicians to Wooden Boat School for Carpentry and to Interlux refinishing school. Both could be much closer to reduce transportation and lodging costs. All of the above. Bring in service schools from major manufacturers for engines, out drives, spray paint finish. Provide general handling construction courses for beginners to learn about boats so they can understand why they are making repairs. Diesel mechanic, cutting and welding.

38. Do you believe the Marine Industry should support certification in order to increase quality of the industry?  
 \_\_\_ No                      12 yes                      3 Don't Know

39. Which of the following are workforce challenges and/or issues for your company? (Check all that apply)

<u>4</u>	Turnover/Retention	<u>5</u>	Wages/Benefits	___	Language Barriers
<u>1</u>	Hiring	<u>9</u>	Certification Process	<u>12</u>	Availability of Applicants
<u>11</u>	Quality of Applicants	___	Other		

Health Insurance cost. Very few qualified/certified industry applicants. Finding Help

**Please fill in the following information about your company. (Optional)**

Company Name: \_\_\_\_\_

Your Name: \_\_\_\_\_

Address: \_\_\_\_\_

Phone: \_\_\_\_\_ Fax: \_\_\_\_\_ Email: \_\_\_\_\_