

Evaluation of a Recreational “Marine Hub” in Lancaster County, Virginia

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Assessment of the Concept of a Recreational “Marine Hub” in Lancaster County, Virginia

The concept of the marine hub arose as part of the “Northern Neck Comprehensive Economic Development Strategy” (CEDS) process conducted by Virginia Tech (Appendix 1).

Following a related presentation to VISION February 21, 2013 of the “Economic Significance of Boating in Virginia” In April 2013 (Appendix 2), VIMS was requested to collaborate with VISION to assist in evaluating the potential development of Lancaster and Northumberland Counties as a Mid-Atlantic marine-hub. The discussions that ensued focused on evaluating the current trends and outlook for the marine industry in the region to inform the possible development of local strategies to foster such a “Marine Hub”.

The work aimed to support local community promotion and protection of the region’s water dependent businesses and recreation. The region’s economy has been anchored to the water and the land for over 200 years. It was felt by VISION that the region’s future is likely tied to these assets as part of the traditional economy as well as gateways to the new economy.

The main community goal of this work is both jobs retention and creation. As part of this regional priority VIMS has developed a current understanding of the marine industry conducting an assessment of the current business climate and estimating its economic base. The work entailed individual meetings with marine business owners, regionally specific trade survey assessment, and focus group discussions. Initially marine industries included those related to recreational boating, fisheries and aquaculture. As the project progressed, VISION requested a singular focus on the Lancaster County recreational marine industry.

Methods

Meetings and structured interviews helped to identify business leader’s views on their sectors situation and outlook. The discussions helped to obtain informed opinions on opportunities and impediments for business growth and retention in their sector and related industry. In addition to existing capacity utilization and trends in business activity impediments and efforts needed to remove impediments were identified. Such impediments have been perceived to include workforce development constraints, local fiscal policies, land use and permitting, etc.

Based on the individual meetings a brief targeted needs assessment survey was sent to a sample of registered boat owners that dock their boat in Lancaster County. The surveys assessed use as well as overall boating conditions and concerns.

An economic assessment was completed, as well, to evaluate the economic activity associated with recreational boating in the study area. An IMPLAN input-output analysis of the regional economic impacts was completed based upon the recently completed Virginia statewide boating economic study. The results of these efforts were presented to VISION March 2, 2014. And that presentation of findings appears in Appendix 3.

Following that presentation it was requested that a specific survey of federally documented vessels be conducted. The main interest was to assess what factors serve to attract or discourage larger documented vessels to Lancaster County. A documented vessel survey was completed to further focus

on the larger vessel population which may have been under-surveyed when using the Virginia State registration data base, as federally documented vessels need not also register with the State in Virginia. The survey emphasized an evaluation of why documented vessels did or did not choose Lancaster County as a home port or destination. A presentation was provided VISION on those findings October 16, 2014 (Appendix 4 pages 30-46).

Findings Summary 2013-2014

Meetings and Stakeholder Engagement

A single Group meeting was held in June, 2013 with attendees primarily from the marine industry in Lancaster County. The initial discussion centered on the definition of a “marine hub”. Generally the industry felt the following attributes defined such a “hub”:

1. Concentration of marine businesses
2. Customer convenience
3. Means to keep money in the community
4. Means to attract outside money-tourism
5. A magnet for boaters

The facilitated discussion continued to discuss existing impediments to a “hub” or weaknesses that prevent the area from becoming a hub? The following weaknesses were defined as a consensus of weaknesses impeding the development of a “hub”:

1. Lack of skilled labor pool likely resulting from lack of demand for boating
2. The Northern Neck is essentially an unknown area
3. Lack of community infrastructure; great water access but nothing on land to keep tourists/transients
4. The current population is disappearing—no reason to live here; area has not grown with the times
5. Private docks are taking customers because they are permitted to have several boats in one location so friends and family all dock privately
6. Fuel costs
7. Less people in boating

What is needed?

1. Attract larger boats here for service
2. Local population are retirees who need health care and services
3. A marketing plan for the area
4. A way to attract families or future boaters
5. Jobs to support population
6. Join with other counties to create a hub—join Deltaville in their efforts instead of compete; collaborate but keep the area’s individual identity (get away from it all in Lancaster County etc.)
7. Support businesses that are already here
8. Find or define the niche market of the area (e.g. only marina to be able to lift catamarans)
9. Tax breaks and promises of skilled workforce to attract business.

Taxes?

1. If Deltaville reduces taxes all boaters here will leave if we don't do the same
2. Local commissioners will not look at tax reductions because it is seen as helping the rich
3. Boats that aren't registered here are not captured in economic profile
4. Other taxes like sales tax might affect boating habits
5. Facilities now taxed on property not best use of the land

Documented Vessel Survey

As presented October 16, 2014 to VISION (Appendix 4; pages 30-46) the survey of documented vessel owners provides interesting findings which may be useful as local discussions regarding boating related public policy continue.¹

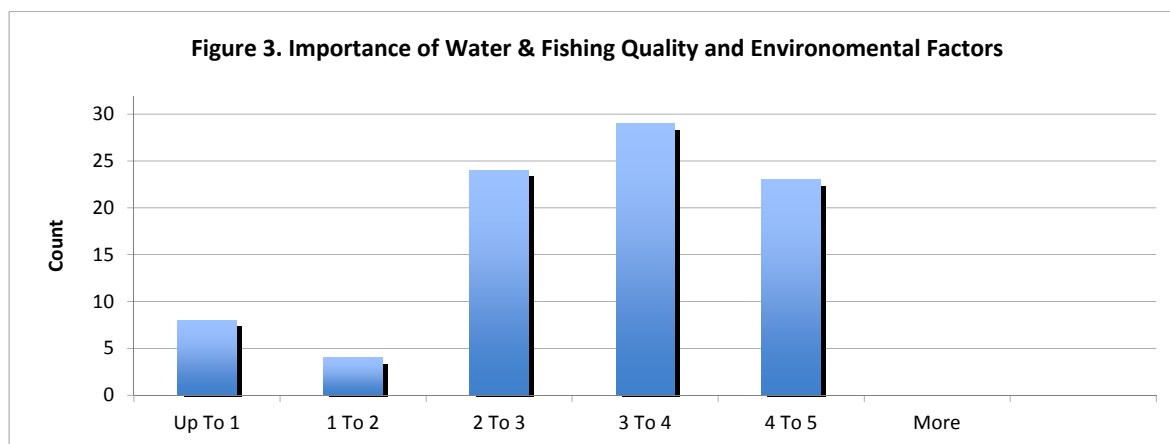
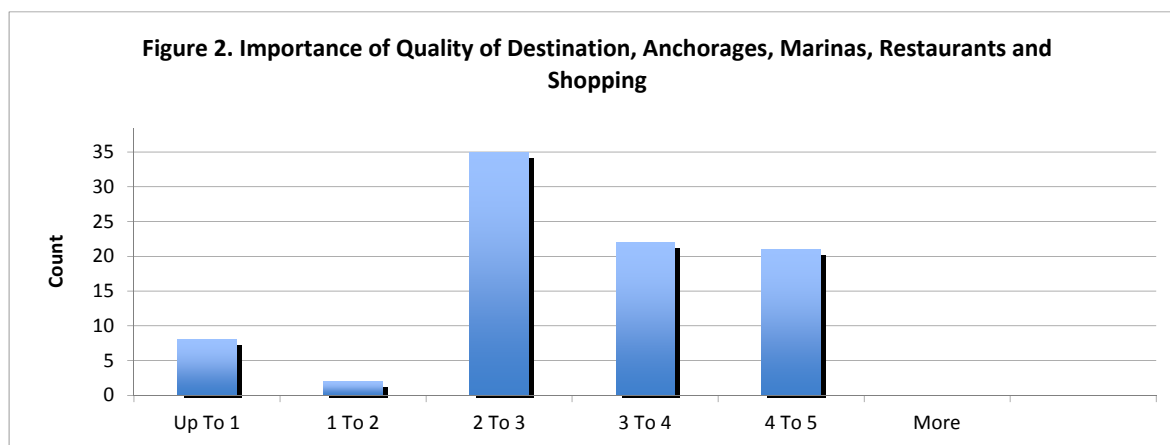
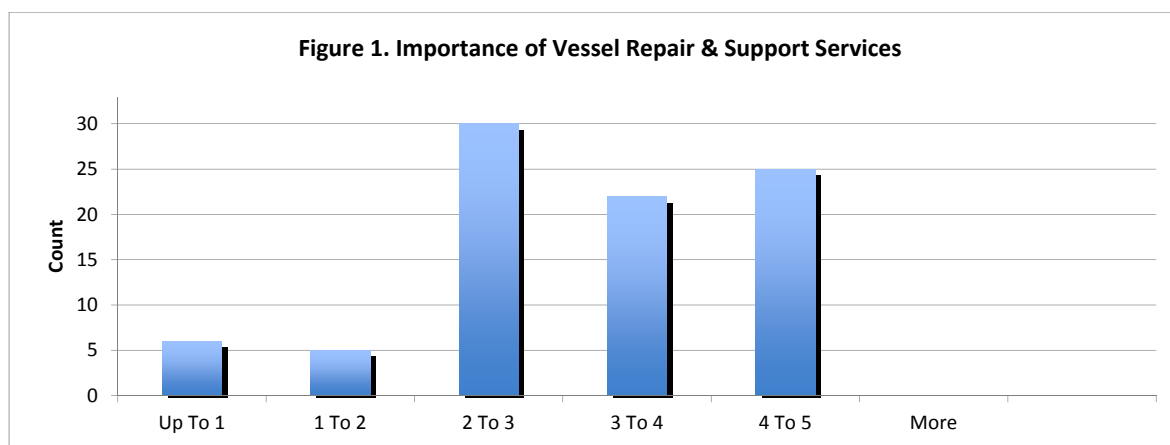
The following tabulation represents a summary of rankings of the importance of an item to the boat owner's decision as to where to keep their vessel and how they rank Lancaster County to other areas. For example, overall the most important trait determining vessel location is accessibility to the owner's home; as 75% of respondents rank that as the most important locational factor. As well in the accessibility category Lancaster County ranked the highest at 70%. While relatively important, local taxes and fees were less important than location overall (36% ranked it the most important among factor). With regard to that factor however 51% of the respondents gave Lancaster County the lowest overall ranking.

Table 1.

	Importance to My Decision (% of Respondents)					Where Lancaster County Ranks (% of Respondents)				
	Not -2	-1	Moderate 0	+1	Highest +2	Worse -2	-1	Average 0	+1	Best +2
Vessel Repair, Supplies and Support Services Available	8 %	7%	24%	29%	33%	4%	30%	29%	19%	19%
Quality of Boating Destinations, Good Anchorages, Wide Selection of Marinas, Restaurants and Shopping	10%	3%	32%	28%	27%	10%	7%	28%	38%	16%
Water Quality, Fishing Quality, and Other Environmental Factors	10%	5%	18%	37%	29%	3%	3%	37%	43%	15%
Low Local Taxes and Fees	16%	8%	21%	19%	36%	51%	10%	20%	8%	11%
Accessibility From My Home	4%	1%	12%	8%	75%	6%	1%	12%	12%	70%

¹ The federal documented vessel data base ("Merchant Vessels of the U.S." U.S. C.G. Office of Information services. 1/21/14) was sorted to provide a mailing list for 339 recreational vessels reported as either located in Lancaster County or with owner addresses within Lancaster County. The survey yielded 118 useable responses, or 34.8%.

Those response summaries are represented sequentially in the following graphs.² The horizontal scale is: from “Up to 1” which represents “Not important at All” or “Worst”; to 4-5 representing “Most Important of All” or “Best”.



² The scaling on the survey document ranged from -2 to +2. Those measures were translated by the statistical graphing software. Those ranges are respectively from “up to 1” to “4 to 5”.

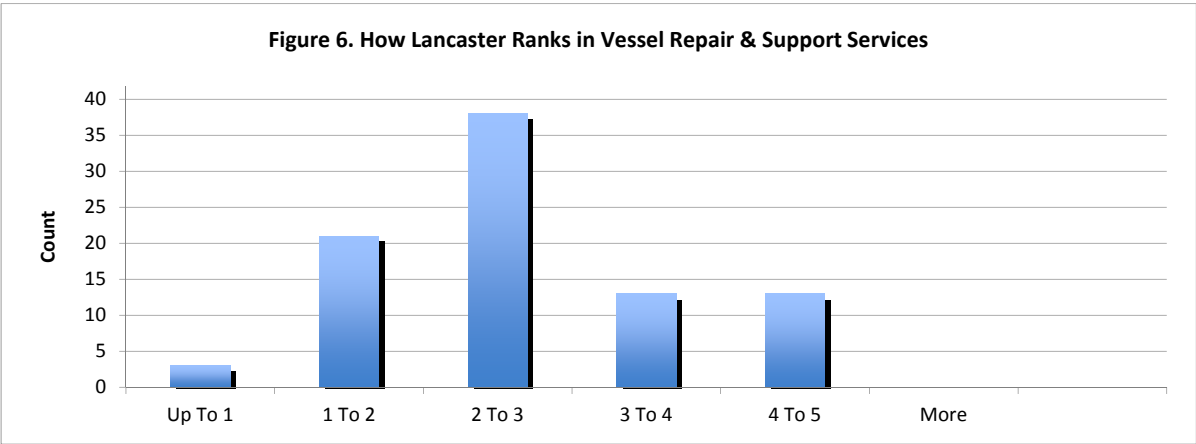
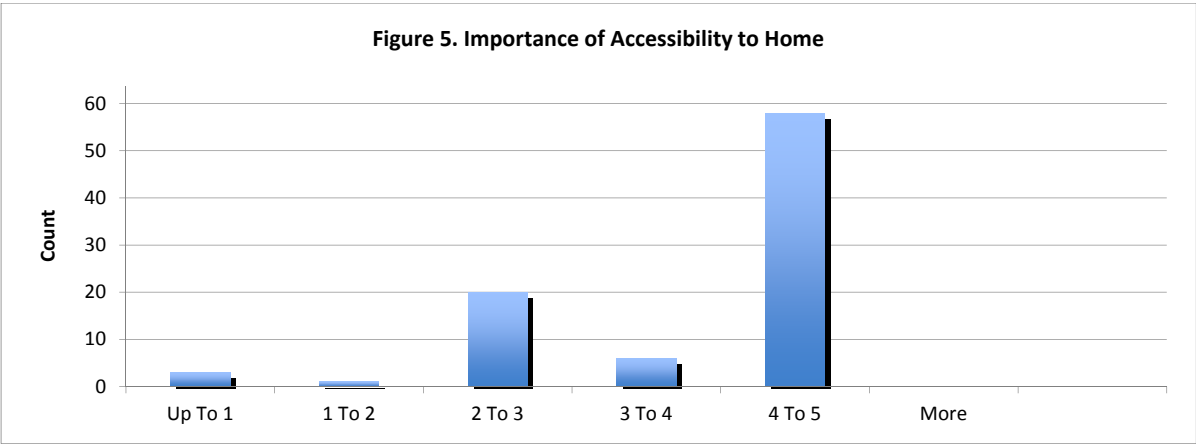
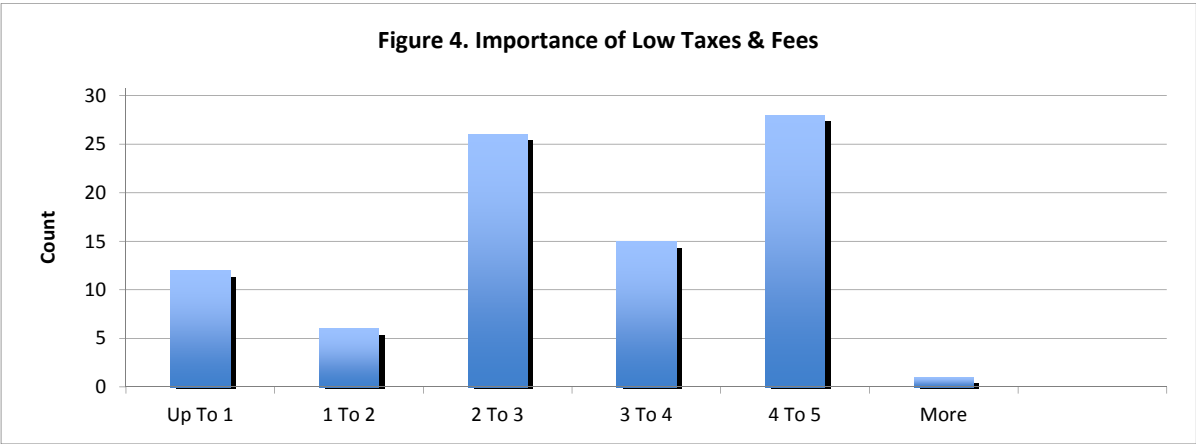


Figure 7. How Lancaster Ranks in Quality of Destination, Anchorages, Marinas, Restaurants and Shopping

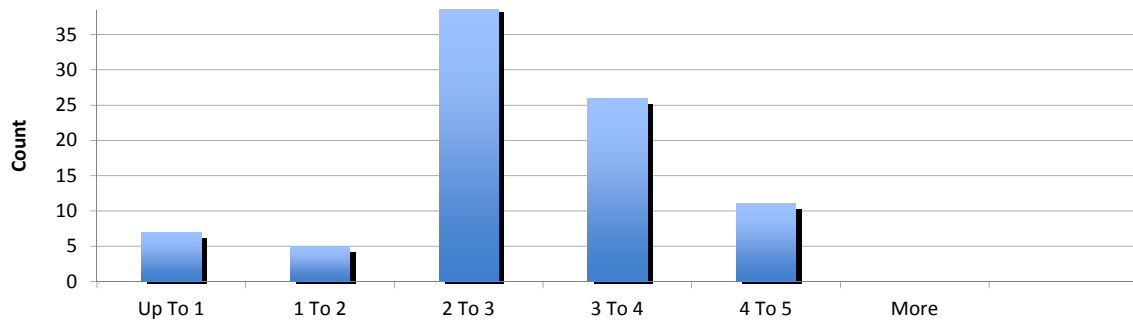


Figure 8. How Lancaster Ranks in Terms of Water & Fishing Quality and Environmental Factors

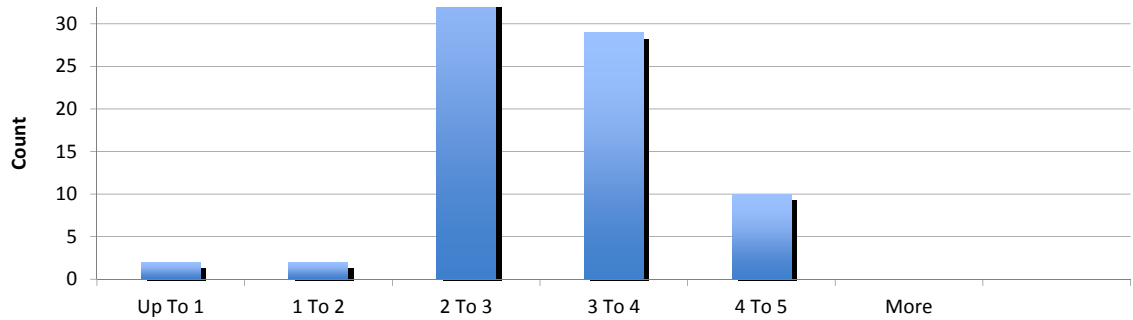
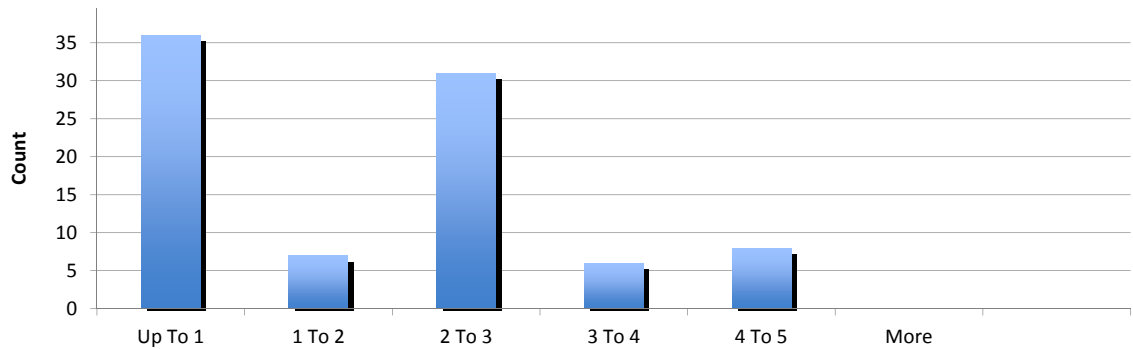
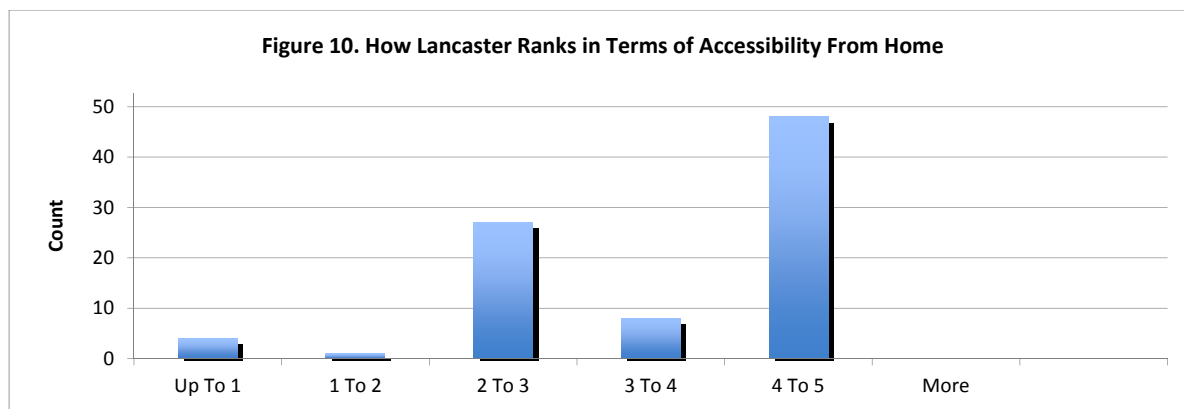


Figure 9. How Lancaster Ranks in Terms of Taxes & Fees





Overall 85% of respondents answered that they are “completely familiar” with the requirement referenced in the survey question, that if their boat is in Virginia on January 1st they may be required to pay local personal property tax based upon the value of the boat. Only 3% indicated that they were not familiar with the requirement.

Overall, in terms of the importance of the relative tax, the survey results showed no overall statistically significant difference in responses between the 70% of respondents who keep their boat in Lancaster all year and the 15% who do not keep their boat in Lancaster.

The survey data was further separated into three insured valuation classes of vessels: less than \$66,268 (Table 2), between \$66,268 and \$741,526 (Table 3), and greater than \$741,526 (Table 4).³

The first category of less than \$66,268 in insured value consisted of recreational boats with a mean of 31.7 feet. The non-Lancaster principle location decision tax rate mean value of 0.125 and the Lancaster county decision tax rate mean value of -0.364 are both well within one standard deviation of each other suggesting no statistically significant difference between the mean values. That is the tax rate is probably not compelling their behavior, as a group.

Variable	Mean	Std. Dev
Length	31.7	6.2
VesRepair	0.78	1.3
QualityDest	0.65	1.2
WaterQual	0.775	1.3
TaxRate	0.49	1.5
AccessHome	1.42	1.2

³ These would represent the bottom 25%, middle 50%, and upper 25% of the sample assuming a normal distribution of the data.

Where <i>Lancaster</i> Ranks Vessel Value Class 1 (Under \$66,628)		
Variable	Mean	Std. Dev
LanVesRepair	0.36	1.18
LanQualityDest	0.51	1.16
LanWaterQual	0.66	0.86
LanTaxRate	-0.36	1.43
LanAccessHome	1.30	1.12

The second category of between \$66,268 and \$741,526 insured vessel value, consisted of 33 vessels ranging in size from 28 to 50 feet in length with a mean size of 40 feet. As seen in Table 3, the mean and associated standard deviation values reflect a statistically significant difference could exist in this group between Lancaster County and other locations in terms of the importance of tax rates as a deciding factor in principle location decisions.

Table 3. <i>Importance</i> of Factor Vessel Value Class 2 (\$66,628- \$741,526)		
Variable	Mean	Std. Dev
Length	38.9	5.98
VesRepair	0.72	1.22
QualityDest	0.52	1.18
WaterQual	0.66	1.26
TaxRate	0.60	1.33
AccessHome	1.62	0.73

Where <i>Lancaster</i> Ranks Vessel Value Class 2		
Variable	Mean	Std. Dev
LanVesRepair	-0.12	1.17
LanQualityDest	0.04	1.21
LanWaterQual	0.61	0.94
LanTaxRate	-1.58	0.95
LanAccessHome	1.44	1.19

A similar result is found for the category 3 vessels whose insured value was in excess of \$741,526. However, this category consisted of only three vessels that averaged 61 feet and ranged from 55 to 68 feet in length. This largest category of vessels also contains the rating of 3 (“High”) for importance of county tax rates in the decision as to where to locate their vessel.

Table 4. <i>Importance of Factor Vessel Value Class 3 (> \$741,526)</i>		
Variable	Mean	Std. Dev
Length	60.7	6.66
VesRepair	0.67	0.58
QualityDest	0.66	1.15
WaterQual	1	1
TaxRate	2.33	0.58
AccessHome	1	1

Where <i>Lancaster</i> Ranks Vessel Value Class 3		
Variable	Mean	Std. Dev
LanVesRepair	-0.33	0.58
LanQualityDest	1	0
LanWaterQual	0.33	0.58
LanTaxRate	-0.66	2.31
LanAccessHome	1.67	0.58

The data suggest that tax rates impact the location decision making of some vessel owners particularly those in the higher vessel value ranges, but probably not a majority. This diversity in findings is reflected best perhaps in the following written comments provided by nearly 50% of those responding.

Documented Recreational Vessel Owner Comments –August 2014

Boating in Lancaster County

The survey also requested any comments on the impact of specific factors on an owner's decision to locate or not locate the vessel in Lancaster County. The following table contains all comments provided by respondents. The content analysis shows that the tax issue was the most frequently reported subject among respondents.

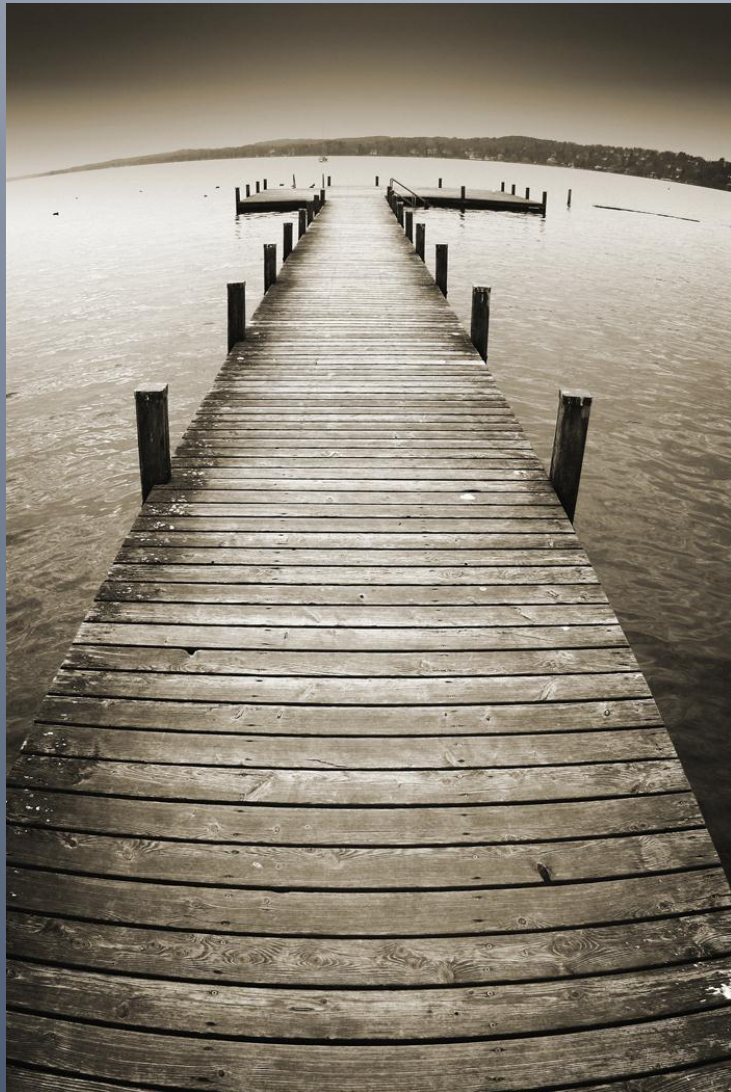
No.	Comments
1	I moved here because my boat was here at a marina. Move sail boat to home pier in 2003. I do a lot of my own work. Acquired power boat in 2003-is on lift at my pier. Feel free to call me.
2	Lack of quality, higher end marinas. Few water access restaurants/bars. Limited public access beaches/facilities
3	Boat is at my home's dock. Would consider moving my boat to avoid taxes if county gets greedy.
4	Full time residence and boat go together in Lancaster County
5	I have a home in Norfolk and Weems. I brought my boat to Weems 2 years & got a huge tax bill. I paid "0" in Norfolk as I'm U.S. Coast Guard registered. I took my boat back to Norfolk this past May and tend to leave it there because of the Lancaster tax. I have spent \$4000+ since arriving Norfolk. I was going to have the work done in Weems. I didn't because of my anger over the property tax. Norfolk mariners are more reliable, & get the work done faster & cheaper.
6	My marina is unlike any in Lancaster – close to home, quiet, park-like. I previously had my boat at Yankee Point (too far) and Windmill Point (too run down)
7	We sold our boat on July 18
8	I keep Ariel on my dock & will pay the resulting taxes. Lancaster would benefit from lower taxes because the more expensive boats would stay & use local services.
9	I live here!! My boat is at my dock in front of my home. Everything else is irrelevant.
10	This survey may not be applicable to me. I live in Northumberland County.
11	I live here and so does my boat. I think people affluent & lucky enough to own a pleasure boat should not bitch about a few taxes when they have neighbors living in poverty! Lancaster boat tax is not too high & I'm glad to pay it.
12	We live in Northumberland and occasionally overnight on our boat in Lancaster.
13	We live in Lancaster Co.
14	Taxes are too high, boats leave in the winter.
15	The tax structure & repair/support facilities drive many upscale boaters to other location for most of the year. This causes a subsequent loss to the county infrastructure hotels/restaurants/_____ I usually go north or south for work on my boat _ I can't rely on local facilities.
16	If this boat were in personal prop tax I would move it out of state.

No.	Comments
17	I keep my boat at my own dock on Hills Creek. My personal property tax on the boat in Lancaster County is about what it was when I kept it at Regent Point Marina in Middlesex Co. I still get my repair work done at Regent Point Boatyard.
18	My boat is older ~30 yrs. old. So even at \$1.52, taxes are bearable. If I had a new(er) boat, I would never pay tax here.
19	I do not and will not keep my boat in Lancaster County because of the high property tax
20	New taxes will not encourage people to relocate to Lancaster County
21	I have considered taking the vessel to Hampton for the winter to avoid taxes
22	I live on Carter Creek, so other consider _____ almost none _ all
23	My boat is docked at my house.
24	My reply is not responsive to your survey. I have kept my sailboat at my pier for 35 years; just like I keep my automobiles in my garage. I have not weighed your factors.
25	If all boat owners in Lancaster Co. paid their tax on boats, we could lower the current rate!
26	Thank you for your interest but I live in area #98604 & geographically disadvantaged
27	My mailing address is Kilmarnock, but my property is located in Northumberland
28	8-6-14 Tom-very much enjoyed our phone time today. Wish all "public servants" could handle themselves as well as you. Please get Lancaster County on a par w/the others. Looking forward to your email.
29	Moved boat from covered slip in Urbanna, VA due to high taxes and slip rent & low water in creek. Had to settle for open slip in Lancaster Co. & lower rate. Rate has not decreased in past 3 yrs. Value & ins. based on 8 yrs. ago per survey. No new boat ramps installed for smaller boat. Per game & inland money goes where? Tax money
30	Live here, so does my boat. If I lived elsewhere, whole different question.
31	My boat is only here because I live here.
32	Only because I live there. Boat is undergoing repair work. After completion boat will be moved to the beach area.
33	I do believe that low boat taxes will bring more revenue and business to our community. Be more competitive for better business.
34	Docked at my house on Carter Creek. Superior service at Rappahannock Yachts: 0.5 mi from my dock. Please see attachment. Please email me a copy of the survey report bruce_julian@hotmail.com
35	Main yards in county cannot handle my size boat at this time
36	We use Interlude all over the Bay. We live in Lancaster County and love it!
37	I will not pay the tax to Lancaster, it is simply too high. If it was reasonable I would keep the boat in Lancaster. Until then I drive to Hampton. There is also the question of the chicken and the egg. The marina's repair facilities will not get better in Lancaster if there are no boats to work on.
38	When formulating the tax code, consideration should be given to features & industries that generate <u>both</u> high quality of life <u>and</u> supports/provides economic strength. One cannot exist without the other.

No.	Comments
39	This boat hasn't been in the water in years! I have nothing against Lancaster County, but the boat is stored at my house in Northumberland County! Your survey based on cities is flawed.
40	I keep my boat at my home in Northumberland. If taxes were lower, more boaters would come to Lancaster & North.
41	Live in Northumberland County in summer FLA resident and return to FLA after hurricane season
42	I "have to" keep my boat out of VA due to the very high taxes imposed on it! (I send her to the Caribbean for seven months a year to avoid the high personal property tax!!
43	Will receive new 41 in 2015 but due to tax boat will only stay in Lancaster Co. a short time in 2015 & will winter in a boat yard in Hampton Rds. w/out tax.
44	I live in Lancaster and have boated here for 50 years! Boat on my dock!
45	Lancaster County would increase revenue by lowering boat tax
46	Boat kept in Lancaster Co. year round because old boat & valued at low level. Would not locate higher valued boat here due to high taxes
47	If I had a new boat I would not have moved to Lancaster County because the personal property tax would have been higher than my house real estate tax.
48	Easy access to good sailing and to the bay. Good yacht clubs and organized racing.
49	Easy access to good sailing and to the bay. Good yacht clubs and organized racing.
50	I own a waterfront home with a dock. That is the main reason I keep a boat in Lancaster Co. If I did not live here, I would be renting a covered slip at the Corinthian Yacht Club (I am a Life Member) in St. Mary's County, MD. I did not realize when I moved here that new boat houses are banned in Lancaster County.
51	Having our retirement home in Lancaster County dictates location of our boat on a permanent basis.
52	Very little public access to the water. No public ramps on public beaches.
53	I would rather my taxes go to Lancaster County than elsewhere so we have been paying here but we are seriously considering moving our boat to Hampton or Chesapeake to avoid what we consider to be unfair taxes.

APPENDIX 1

The Northern Neck Comprehensive Economic Development Strategy



The Northern Neck Comprehensive Economic Development Strategy

Update: February 2013

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Background

Overview: CEDS

The Comprehensive Economic Development Strategy (CEDS) is a tool to assist regions in development and implementation of goals and objectives which help to precipitate robust and diversified regional economies. To guide creation of this tool, regional stakeholders must possess a deep understanding of the factors which drive their economy. This includes analysis of workforce, education, industry, transportation, and social conditions.

Completion of a CEDS not only helps to inform and guide regional planning efforts, but also serves as an important document which allows the Northern Neck PDC (Economic Development District-EDD) to apply for assistance from the U.S. Department of Commerce's Economic Development Administration (EDA). Economic development planning is a key element in achieving EDA's long-term goals since creation of the Public Works and Economic Development Act of 1965. The current CEDS builds upon previous CEDS and subsequent updates:

History of the NNPDC CEDS Process:

First CEDS adopted: July 17, 2000

Revised CEDS adopted: April 29, 2002

Revised CEDS adopted: September 2, 2003

Revised CEDS adopted: October 18, 2010

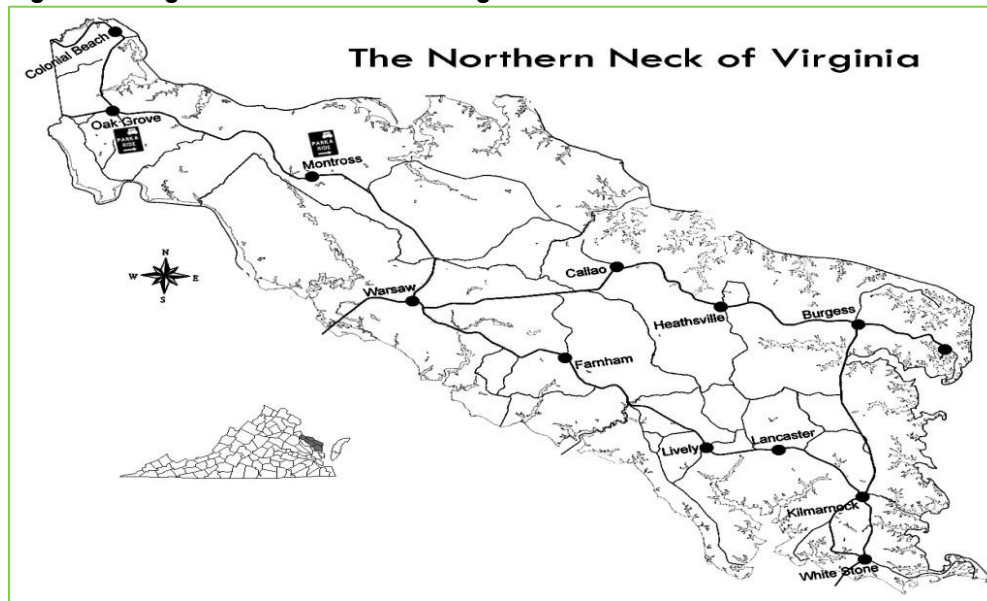
The Northern Neck PDC Service Region

The Northern Neck Planning District Commission (NNPDC) includes four counties located on Virginia's northernmost peninsula: **Lancaster**, **Northumberland**, **Richmond**, and **Westmoreland**. Six towns are located in the NNPDC service area: Colonial Beach, Irvington, Kilmarnock, Montross, Warsaw, and White Stone. This region is bordered to the west by the Chesapeake Bay, and situated between the Potomac River to the north, and the Rappahannock River to the south.

The Northern Neck is predominately rural, despite its close proximity to the National Capital and Tidewater regions of Virginia. Historic agrarian and water-based industries continue to remain important economic drivers for the region. In recent years, the Northern Neck has emerged as a popular vacation and retirement destination, in part because of its natural beauty and accessibility to larger metropolitan regions.

The current population of the NNPDC region is 50,429 (U.S. Census, 2010), an increase of 2.1% since 2000. Regional per capita personal income for the region is estimated at \$38,510 (Bureau of Economic Analysis, 2011). Although regional per capita personal income totals appear relatively stable, there exist many differences across the multiple jurisdictions. For example per capita personal income levels for residents of Richmond County are only 64.8% of the national average, and well below the EDA economic distress threshold. The regional poverty rate is 10.6% (U.S. Census, ACS: 2007-2011). Unemployment rates for the region are similar to national rates, but remain higher than the Virginia rate; annual unemployment rates averaged 6.7% (Bureau of Labor Statistics, 2011). Nearly 21% of the region's population, ages 25 and older, does not have a high school diploma.

Figure A: Virginia's Northern Neck Regionⁱ



CEDS Development Process

Strengths, Weaknesses, Opportunities, Threats (SWOT) Analysis

Between June and October 2012, the NNPDC contracted with the Virginia Tech Office of Economic Development (VT OED) to perform a Strengths, Weaknesses, Opportunities, and Threats (SWOT) Analysis for the region. OED is an EDA-funded University Center with experience in providing technical assistance to Virginia communities to advance regionally-based initiatives. As part of the SWOT analysis, faculty from VT OED conducted 25 interviews with a diverse sampling of community leaders representing industry, education, workforce, and government organizations.

Strengths and weaknesses reflect those conditions which are internal to the region, while opportunities and threats are more externally driven. While interviewees discussed several distinct regional issues, the SWOT findings tended to group into three themes: infrastructure/transportation, workforce/education, and quality of life.

Public Participation

The findings from the SWOT, along with quantitative research on the region, were presented at a public meeting comprised of over 30 community leaders in December. Participants were encouraged to comment on the research findings, as well as the observations on the strengths, weaknesses, opportunities and threats confronting the community. Based on feedback from this meeting, additional interviews were conducted with students at Rappahannock Community College as a way to reach the perspectives of younger adults. Given the critical importance of keeping young people in the region, securing input from this group was a highly valuable outcome. Interestingly, their observations validated the findings from the SWOT process.

Participants at the December meeting were asked to return for a follow up meeting in January to identify strategies to further address the thematic issues identified from the SWOT: workforce and educational attainment, infrastructure and transportation and quality of life.

Participants at the January meeting were divided into subgroups and asked to identify strategies that would address challenges and opportunities identified through this process. During these strategy meetings, a fourth focus area emerged and has been incorporated into the report's thematic areas: innovation led economic development.

The complete findings of the report and strategy recommendations were then presented to the Board of the Northern Neck Planning District Commission for their approval before being published for public comment.

Goals and Objectives

The region's goals reflect a long-term economic development vision for the NNPDC service area, while objectives address current conditions in the near term (within a period of one to five years).

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Executive Summary

The economy of the Northern Neck has been grounded in the land and water for over 200 years. Situated within easy driving distance from major urban centers of Richmond, Norfolk and Northern Virginia, the region has become a mecca for urbanites who seek a quiet retirement community or weekend get-away's situated along the region's rivers and inlets.

The data collected from the CEDS process reveal many positive as well as challenging data points for the region. These data points offer an excellent summary of the key challenges confronting the region.

- Population in NNPDC is 50,429. A 2.1% increase since 2000 Census, and a 12.5% increase in the 1990 Census.
- The senior population is segmented more in Lancaster and Northumberland whose percent of population over the age of 65 is 31.2 and 30.1% respectively. While in Richmond and Westmoreland the percentage of seniors was 18.2 and 20.9%. In Virginia the rate is 12.5% and in the U.S. it is 13.0%.
- A statement that was repeated more than once during SWOT interviews was that there was no middle class. The area was either high or low income. Per capita income data for the four communities validates that attitude. In Lancaster per capita income was highest at \$48,607 and Richmond was lowest at \$26,941.
- All jurisdictions fall considerably below national and state averages for job wages. Average wage per job in Richmond County was \$35,332 and the lowest was in Westmoreland at \$28,209. The state average was \$52,072 which is higher than the nation at \$48,301.
- Among the top 20 occupation in the region, 38.4% work in occupations that earn less than \$11 an hour.
- Staffing patterns show that 58.3% of the workforce is employed in five industry sectors: real estate and rental leasing, health care and social assistance, accommodations and food service, and agriculture, forestry and fishing. With the top occupations in the service sector, the region is more subject to global economic fluctuations.
- Fully 20.7% of residents age 25 and above do not have a high school diploma and is significantly higher than both national (14.6%) and state (13.4%) rates.
- The number of people in the district with "some college" does exceed the state average at 19.9%. Percentage of the population with bachelor's degrees is half for residents in Richmond and Westmoreland than Lancaster and Northumberland. However, all regions are below the state average of 20.2%.

The SWOT showed that love for the region's natural beauty to be the most valued asset. There is pride in the region and its history. The Northern Neck is a region with assets.

The challenges are the lack of infrastructure and deep concern about the quality of the workforce. These challenges were summed up well with the observation that the region is not bouncing back as quickly as before.

The goals and objectives were focused on four thematic areas: infrastructure and transportation; workforce and educational attainment; innovation led economic development; and quality of life.

Data

The following section provides an overview of current indicators of regional economic characteristics, including regional demographic, income, housing, education, industry, and employment data.

Sources cited in this section include:

- U.S. Census Bureau (Decennial Census and American Community Survey)
- U.S. Bureau of Economic Analysis
- U.S. Bureau of Labor Statistics
- emsiAnalyst , version 2012.4
- U.S. Department of Housing and Urban Development
- National Center for Education Statistics – IPEDS
- Virginia Workforce Connection/ Virginia Employment Commission

Population

The population of the Northern Neck PDC service region is 50,429.ⁱⁱ The current population represents a 2.1% increase since 2000 Census, and is 12.5% greater than the 1990 Census.ⁱⁱⁱ Each jurisdiction experienced moderate growth, adding about 2,000 individuals each during the period. Of the counties, Richmond experienced the highest percentage of population increase (21.5%), followed by Northumberland County (14.6%).

Table 1: Population in NNPDC, by County (1990-2010)^{iv}

	Lancaster	Northumberland	Richmond	Westmoreland
1990 Census	10,896	10,524	7,273	15,480
2000 Census	11,567	12,259	8,809	16,718
2010 Census	11,391	12,330	9,254	17,454
% of Change 1990-2010	4.3%	14.6%	21.5%	11.3%
Regional % of Change 1990-2010	12.5%			
VA % of Change 1990-2010	11.5%			
US % of Change 1990-2010	8.9%			

The Northern Neck has a higher proportion of residents age 65+ than comparable national (13.0%) and state (12.2%). Across the region, the proportion of the population age 65 and above has increased since 2000. Northumberland and Lancaster counties experienced the highest percentage of increase in the 65 and above population.

Table 2: Population, by Age (2010)^v

	Lancaster		Northumberland		Richmond		Westmoreland	
	%	Count	%	Count	%	Count	%	Count
Under Age 5	4.0%	451	4.3%	525	4.3%	395	5.3%	922
5 to 9 Years	4.6%	522	4.5%	561	4.9%	452	5.4%	938
10 to 14 Years	4.7%	532	4.8%	589	4.9%	453	5.5%	956
15 to 19 Years	4.9%	561	4.8%	591	5.3%	491	6.0%	1,051
20 to 24 Years	3.7%	420	4.0%	492	5.3%	491	5.2%	915
25 to 29 Years	3.5%	401	3.8%	467	6.4%	596	5.1%	893
30 to 34 Years	3.4%	388	3.5%	432	7.0%	652	4.7%	817
35 to 39 Years	3.8%	436	3.5%	431	6.7%	624	5.1%	892
40 to 44 Years	4.7%	532	4.8%	589	7.6%	705	5.5%	968
45 to 49 Years	6.5%	736	6.6%	815	9.1%	842	7.2%	1,251
50 to 54 Years	7.7%	875	7.6%	941	7.8%	726	8.2%	1,428
55 to 59 Years	8.3%	947	7.8%	963	6.8%	627	8.2%	1,432
60 to 64 Years	9.1%	1,036	9.9%	1,221	5.6%	518	7.7%	1,346
65 to 69 Years	8.8%	997	10.0%	1,233	4.8%	446	7.1%	1,233
70 to 74 Years	7.0%	802	7.6%	942	4.2%	390	5.3%	925
75 to 79 Years	5.7%	653	5.6%	687	3.6%	333	3.9%	679
80 to 84 Years	4.5%	517	4.0%	497	2.5%	235	2.6%	449
85 Years +	5.1%	585	2.9%	354	3.0%	278	2.1%	359
Total Population	11,391		12,330		9,254		17,454	
% of Population Age 25-64	47.0%		47.5%		57.2%		51.7%	
% of Population Age 65+	31.2%		30.1%		18.2%		20.9%	
% of Population Age 65+ (2000 Census)	Virginia: 12.5%				U.S. Total: 13.0%			
	28.5%		26.2%		17.7%		19.0%	
	Virginia: 11.2%				U.S. Total: 12.4%			

Age demographics by sex reveal a slightly higher percentage of females, especially among the residents age 65+. The exception is in Richmond County, which has a notably higher percentage of males as the result of the institutionalized population in the jurisdiction. With the exception of Richmond County, all other localities have a slightly higher percentage of females. Household demographics provide further information highlighting differences between age and gender groups. Interesting to note is the fact that for the age 65 and above group of householders living alone, a very high percentage of these are women.

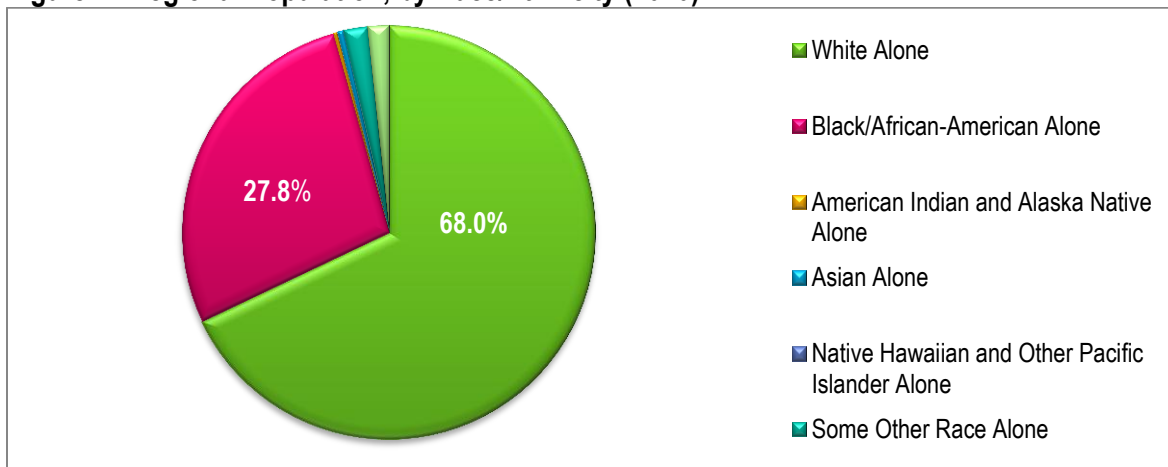
Table 3: Population, by Age and Sex (2010)^{vi}

	Lancaster		Northumberland		Richmond		Westmoreland	
	<i>Male</i>	<i>Female</i>	<i>Male</i>	<i>Female</i>	<i>Male</i>	<i>Female</i>	<i>Male</i>	<i>Female</i>
Under 5	252	199	276	249	188	207	515	407
5 to 9 Years	252	270	301	260	231	221	482	456
10 to 14 Years	279	253	319	270	227	226	475	481
15 to 19 Years	304	257	321	270	263	228	536	515
20 to 24 Years	219	201	254	238	323	168	463	452
25 to 29 Years	203	198	219	248	415	181	465	428
30 to 34 Years	175	213	217	215	470	182	413	404
35 to 39 Years	200	236	209	222	437	187	429	463
40 to 44 Years	243	289	269	320	450	255	485	483
45 to 49 Years	335	401	379	436	541	301	592	659
50 to 54 Years	401	474	472	469	431	295	692	736
55 to 59 Years	446	501	433	530	314	313	669	763
60 to 64 Years	452	584	552	669	266	252	634	712
65 to 69 Years	484	513	593	640	212	234	607	626
70 to 74 Years	382	420	487	455	173	217	419	506
75 to 79 Years	307	346	346	341	137	196	329	350
80 to 84 Years	232	285	220	277	80	155	202	247
85 Years and Over	186	399	142	212	73	205	104	255
Total	5,352	6,039	6,009	6,321	5,231	4,023	8,511	8,943
	47.0%	53.0%	48.7%	51.3%	56.5%	43.5%	48.8%	51.2%

Table 4: Households, by Type (2010)^{vii}

	Lancaster	Northumberland	Richmond	Westmoreland
Husband-Wife Family	2,584	3,009	1,480	3,509
<i>With Own Children Under 18</i>	498	584	488	949
Male Householder, No Wife Present	200	197	144	355
<i>With Own Children Under 18</i>	90	77	71	136
Female Householder, No Husband Present	580	550	407	981
<i>With Own Children Under 18</i>	278	254	178	450
Householder Living Alone	1,663	1,516	987	2,086
<i>Male/Female</i>	<i>609/1,054</i>	<i>670/846</i>	<i>411/576</i>	<i>909/1,177</i>
<i>Age 65 and Over</i>	<i>280/675</i>	<i>267/541</i>	<i>141/362</i>	<i>339/684</i>
Total Households	5,265	5,540	3,159	7,310
Total Households with Individuals Under 18	1,021	1,120	879	1,902
Total Households with Individuals 65 Years and Older	2,433	2,595	1,176	2,695

Figure B: Regional Population, by Race/Ethnicity (2010)^{viii}

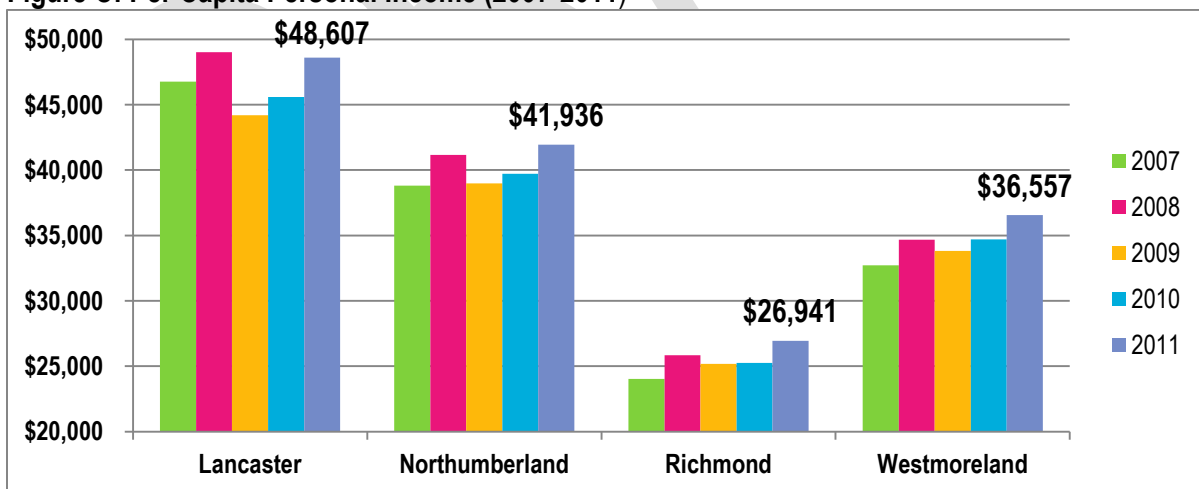


Whites (including Hispanics/Latinos) represent the largest race/ethnic group. Blacks/African-Americans are the second largest group, accounting for over one-quarter of all individuals. Disaggregation of data to capture the Hispanic or Latino population estimates such to be 4.8%.

Income

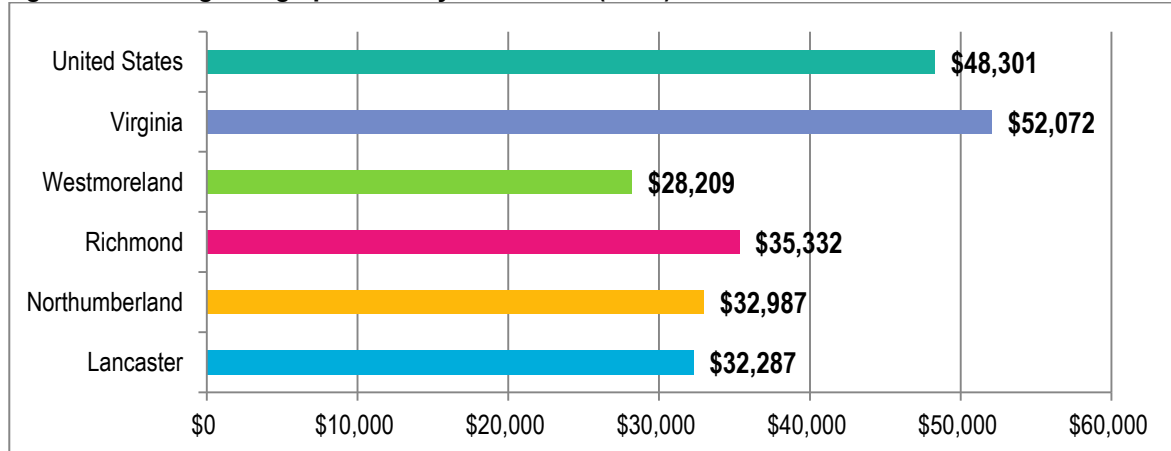
Per capita personal income levels for the Northern Neck region vary considerably by jurisdiction. While the 2011 income levels for Lancaster and Northumberland counties mirror or exceed comparable national (\$41,560) and state (\$46,107) rates, the story is much different for Richmond and Westmoreland counties. In Westmoreland, the per capita personal income level is less than 80% of the Virginia level, and income totals for Richmond County are less than 60%. From 2007-2011, income levels declined slightly during the global economic downturn.

Figure C: Per Capita Personal Income (2007-2011)^{ix}



All jurisdictions fall considerably below comparable national and state averages for average wages for jobs in NNPDC jurisdiction, indicating that per capita income levels may be skewed by higher incomes among the retired population. Westmoreland County exhibits the greatest disparity, where the average wage is almost half the state rate.

Figure D: Average Wage per Job, by Job Count (2011)*



Poverty

Overall, poverty rates for the NNPDC region are comparable to the statewide average and below the national rate. Although poverty rates are similar or below national and state rates for the population age 65 and older in Lancaster and Northumberland counties, both have elevated rates of poverty for the population under 18 years old. Conversely, Richmond and Westmoreland counties have lower poverty rates for individuals under age 18, and higher rates for the population age 65 and older.

Table 5: Poverty Status in the Past 12 Months, % Below Poverty Level^{xi}

	Percent of Population Below Poverty Level	Under 18 Years	65 Years and Older
Lancaster	10.8%	20.7%	9.4%
Northumberland	10.8%	16.3%	6.8%
Richmond	10.6%	8.6%	19.8%
Westmoreland	10.1%	9.2%	12.3%
Virginia	10.7%	14.1%	8.1%
United States	14.3%	20.0%	9.4%

Educational Attainment

According to the U.S. Census' American Community Survey estimates, 20.7% of the Northern Neck residents age 25 and over do not have a high school diploma. This figure is well above both the national (14.6%) and state (13.4%) rates. When these totals are disaggregated by county, the situation reflects marked differences from east to west.

In Lancaster and Northumberland counties, the percentage of individuals with less than a high school diploma is 16.5-16.9%. This number jumps significant in Westmoreland (23.4%) and Richmond (26.2%) counties. Northern Neck residents' baccalaureate and above attainment rates are much lower than comparable national and state rates. Only 9.6% of individuals in Richmond County and 14.9% of those in Westmoreland County have educational attainment levels of baccalaureate degree and above. All counties

of the Northern Neck region have above average percentages of individuals with educational attainment levels at the high school graduate level.

Table 6: Educational Attainment for Population Age 25+ (2011)^{xii}

	Less 9 th Grade	9 th -12 th Grade, No Diploma	High School Graduate	Some College, No Degree	Associate's Degree	Bachelor's Degree	Graduate or Professional Degree
Lancaster	5.7%	10.8%	30.9%	20.1%	7.0%	16.4%	9.2%
Northumberland	7.0%	9.9%	31.3%	24.4%	5.2%	14.4%	7.8%
Richmond	9.3%	16.9%	39.2%	21.0%	4.0%	7.3%	2.3%
Westmoreland	7.7%	15.7%	36.7%	19.0%	5.9%	7.6%	7.3%
Virginia	5.4%	8.0%	25.6%	19.9%	6.7%	20.2%	14.2%
United States	6.1%	8.5%	28.6%	21.0%	7.6%	17.7%	10.5%

Employment

Average unemployment rates in the Northern Neck are comparable to national trends, but are significantly higher than the Virginia average. Rates for communities of the region are similar, with slightly higher rates in Lancaster and Northumberland counties.

Figure E: Average Annual Unemployment Rates, Not Seasonally Adjusted (2007-2011)^{xiii}

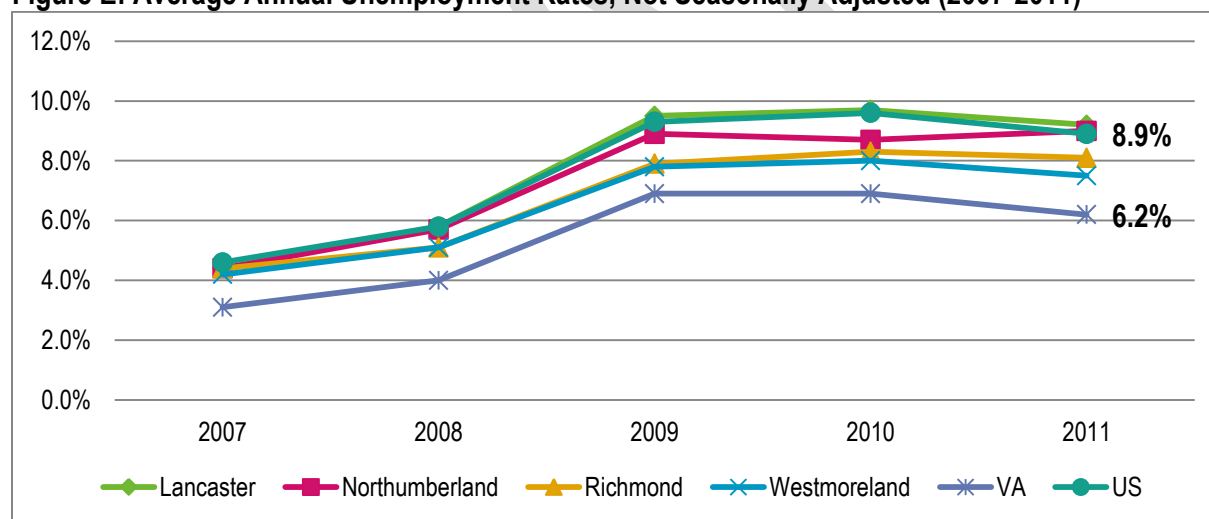


Table 7: Average Annual Unemployment Rates, Not Seasonally Adjusted (2011)^{xiv}

	Lancaster	Northumberland	Richmond	Westmoreland	VA	US
Rate	9.2%	9.0%	8.1%	7.5%	6.2%	8.9%

In the most recently available data, November 2012, the labor force in the Northern Neck region was estimated as 24,161. Of those, 1,621 were classified as unemployed. The region's unemployment rate is 6.7%. The national and state rates for the same period were 7.4% and 5.3%, respectively. For the 12-month period of November 2011-November 2012, overall unemployment rates declined across the Northern Neck region. As referenced in the Appendix, Northumberland County had the greatest decline, down 1.6 percent.

Industry

The following table shows the changes in demand for employment, by industry, for the period of 2007 to 2012. Overall, the region experienced the greatest job losses in service-sector jobs; construction, retail trade, and accommodation and food service were among the most severely impacted. Traditional resource-based industries such as agriculture and fishing also experienced decline during the period. In contrast, the region experienced moderate growth in the health care and social assistance, and finance and insurance industries.

Table 8: Employment, by Industry Sector (NAICS 2-Digit Level) 2007 and 2012^{xv}

NAICS	Description	2007 Jobs	2012 Jobs	Change
90	Government	3,021	3,003	-18
62	Health Care and Social Assistance	1,899	2,510	611
44-45	Retail Trade	2,455	2,268	-187
23	Construction	2,420	1,748	-672
81	Other Services (Except Public Administration)	1,824	1,617	-207
31-33	Manufacturing	1,478	1,455	-23
53	Real Estate and Rental and Leasing	1,294	1,323	29
72	Accommodation and Food Services	1,317	1,197	-120
11	Agriculture, Forestry, Fishing, and Hunting	1,267	1,184	-83
54	Professional, Scientific, and Technical Services	1,131	1,112	-19
56	Administrative and Support and Waste Management and Remediation Services	925	1,026	101
52	Finance and Insurance	804	983	179
71	Arts, Entertainment, and Recreation	491	479	-12
48-49	Transportation and Warehousing	425	421	-4
42	Wholesale Trade	375	386	11
51	Information	303	232	-71
61	Educational Services (Private)	195	154	-41
21	Mining, Quarrying, and Oil and Gas Extraction	40	141	101
55	Management of Companies and Enterprises	112	127	15
22	Utilities	124	98	-26
99	Unclassified Industry	0	0	0

Location quotients provide an indicator of the concentration of industry sectors in a region, relative to the United States. Location quotients (LQ) with a score of 1 indicate that the region's share of employment in that industry sector as a proportion of total employment are the same as the share of employment that sector comprises in the US as a whole. A score above 1 indicates a greater concentration of employment in that sector as compared to the United States as a whole, while a score less than 1 indicates a smaller share.

As indicated in Table 9, Agriculture, Forestry, Fishing and Hunting exhibits LQs significantly greater than the national base across all jurisdictions of the Northern Neck PDC. Manufacturing and Arts, Entertainment, and Recreation also emerge with elevated scores in both Westmoreland and Northumberland counties. Northumberland County also exhibited higher LQs for the Construction sector.

Table 9: Location Quotients, by County ^{xvi}

NAICS	Description	Lancaster	Northumberland	Richmond	Westmoreland
11	Agriculture, Forestry, Fishing and Hunting	ND	ND	3.97	9.48
21	Mining, Quarrying, and Oil and Gas Extraction	ND	ND	NC	NC
22	Utilities	ND	NC	ND	ND
23	Construction	1.38	2.34	.97	1.09
31-33	Manufacturing	.31	2.49	.51	2.20
42	Wholesale Trade	d	.92	.76	.40
44-45	Retail Trade	1.40	1.22	.81	1.03
54	Professional and Technical Services	.79	ND	.45	ND
55	Management of Companies and Enterprises	1.13	ND	NC	ND
56	Administrative and Waste Services	.38	.72	.41	.83
61	Educational Services	.47	ND	ND	.20
62	Health Care and Social Assistance	1.73	ND	ND	.45
48-49	Transportation and Warehousing	.60	.56	ND	ND
51	Information	.67	.22	1.28	.10
52	Finance and Insurance	1.20	.71	.55	.80
53	Real Estate and Rental and Leasing	.79	.41	.38	.38
71	Arts, Entertainment, and Recreation	.37	2.49	.55	2.27
72	Accommodation and Food Services	1.08	.76	.54	1.18
81	Other Services, Except Public Administration	1.61	1.38	1.22	.97
99	Unclassified	NC	NC	NC	NC
ND: Not Disclosed NC: Not Calculable					

Housing

Housing data provides indicators of the impact of residency patterns on social and tax-base structures within the region. With close proximity to urban areas in northern and eastern Virginia, the Northern Neck region possesses a significant number of secondary or vacation residences as highlighted in Table 10. In recent years, the area has emerged as a retirement destination as well. Table 11 provides information on age of housing structures to help understand the extent to which in-migration of retirees may impact the regional construction industry.

Table 10: Housing Tenure (ACS, 2007-2011)^{xvii}

	Lancaster	Northumberland	Richmond	Westmoreland
Total Housing Units	7,353	8,973	3,828	10,553
Occupied Housing Units	5,570	5,569	2,909	7,077
Vacant Housing Units	1,783	3,404	919	3,476
Homeowner Vacancy Rate	2.0	0.6	2.8	2.8
Rental Vacancy Rate	2.1	7.2	7.9	3.8

Table 11: Year Structure Built (ACS, 2007-2011)^{xviii}

	Lancaster	Northumberland	Richmond	Westmoreland
Total Housing Units	7,353	8,973	3,828	10,553
Built 2005 or later	3.2%	5.3%	1.1%	5.9%
Built 2000 to 2004	4.8%	12.8%	3.0%	8.6%
Built 1990 to 1999	17.6%	19.1%	27.5%	15.2%
Built 1980 to 1989	15.9%	12.1%	11.2%	12.0%
Built 1970 to 1979	17.0%	19.1%	16.1%	17.7%
Built 1960 to 1969	9.3%	6.7%	8.9%	10.5%
Built 1950 to 1959	9.4%	6.5%	10.0%	11.7%
Built 1940 to 1949	6.5%	6.0%	8.0%	6.0%
Built 1939 or Earlier	16.2%	12.3%	14.3%	12.4%

Transportation

Accessibility to the NNPDC region is primarily dependent upon roads. State Routes 3, 202, and U.S. Highway 360 are the region's major, connecting all towns and major centers of population. U.S. 360 runs east-west through Northumberland and Richmond counties, crossing the Rappahannock River toward the City of Richmond. State Route 3 provides north-south access to the Hampton Roads and National Capital regions. Bay Transit, a non-profit regional transportation authority of Bay Aging, is the only public transportation provider in the NNPDC. Aside from roads, the NNPDC region lacks other major forms of infrastructure including railroads, regular ferry services, and airports.

Analysis of Challenges and Opportunities

The following section examines challenges and opportunities based on the regional trends examined in the previous section, as well as trends that regional stakeholders identified during the SWOT analysis process. This section helps provide a framework to assist regional stakeholders' consideration of options for the region's economic future. Regional stakeholders helped to validate these findings, and have started to prioritize regional strategies and goals.

Background and Overview of SWOT Analysis

The Virginia Tech Office of Economic Development conducted a Strengths, Weakness, Opportunity and Threat (SWOT) analysis for the Northern Neck Planning District Commission. In consultation with the Northern Neck Planning District Commission, the VT team conducted 25 one-on-one interviews with a cross section of government, industry and community leaders. These interviews occurred over five-month period of June to October 2012. Each interviewee was asked an identical set of ten questions to ascertain their views on the viability and competitiveness of their industry and the community.

The interviews were clustered in the following categories: Agriculture – three interviews; Fishing– three interviews; Banking – one interview; Other Industry – six interviews; Health Care – three interviews; and Government – eight interviews. A detailed list of interviews is included in the Appendix.

Key Findings: Strengths and Opportunities

The following offers a brief summary of commonly-cited internally and externally influenced factors (positive):

- The region's beauty and natural resources are considered overwhelmingly as both the greatest strength and its greatest opportunity. This includes water-based resources and agricultural-based assets, such as viable crop-land and forest products.
- As the birthplace region of George Washington, James Monroe, and Robert E. Lee, regional residents felt there to be value and opportunity in the role these assets played in the founding and shaping of national history.
- Given the natural beauty of the region as well as the historical significance of many of its best known locations, tourism surfaced as a natural driver for the regional economy.
- For many business people the geographic location of the region – between Fredericksburg/D.C. and Norfolk – was considered a positive attribute. Admittedly these responses are from people who self-selected the region, but they offer valuable insights that can, and should be, explored.
- Road infrastructure was rated positively on several occasions.
- The influx of the newer, more educated 'come heres' was recognized as a valuable talent pool that adds value to the community, particularly as part of an entrepreneurial initiative. The term 'come heres' is a regional colloquialism most often utilized to refer to individuals who have migrated to the region during their retirement years.
- The growth and vitality of locally banking sector was recognized as both a strength and significant opportunity.
- Rappahannock Community College is exploring new ways to better connect education to economic opportunities.

Key Findings: Weaknesses and Threats

The following offers a brief summary of commonly-cited internally and externally influenced factors (negative):

- The two most commonly expressed concerns were the lack of broadband, and the capacity of the regional workforce.
 - Underlying the concerns raised about the workforce reflected a deep pessimism about the lack of work ethic among the workforce and their willingness to participate in the economy.
- Many people across all interview sectors expressed concern about the segmentation of the region's employment base and their current earnings potential. As more than one person observed, there are only two classes of people here: rich and poor.
- The idea that the region has grown resistant to any type of change surfaced across the interviewee spectrum. While many stated great appreciation for the positive qualities that the region's new arrivals had brought to the area, there also existed a wide concern that in an effort to protect the region's best qualities, the new attitude was in fact 'choking the region's potential.'
- There also appeared concern about a lack of leadership across the region, particularly in the business community.
- There was considerable concern expressed about the region's infrastructure. Broadband being the most obvious, but other concerns expressed include lack of natural gas, lack of three-phase power and spotty cell phone coverage.
- Another aspect of a workforce threat included a rampant concern about the state of the public schools. This included both facility and performance threats.
- As mentioned in the first section, tourism was mentioned as strength and an opportunity; however, the lack of hotel rooms and the inability to handle bus tours was seen as a threat to this industry sector.
- The loss of HUB zone status also surfaced as an immediate concern by certain business sectors. Additionally the loss of this designation could undermine opportunities to leverage the geographic advantages of the region.
- Concern was expressed about the possible degradation of water quality and oyster beds.
- One telling observation about the community was summed up by the statement that the community "was not refreshing itself as fast in the past." This statement reflects concern for declining youth populations, and the threat of a slow-down for in-migration of senior citizens.

Complete Findings of the SWOT Analysis may be referenced in Figure F.

Figure F: Strengths, Weaknesses, Opportunities, and Threats- Northern Neck PDC Region

Helpful		Harmful	
Internal	Strengths <ul style="list-style-type: none"> ▪ Natural beauty ▪ Lifestyle ▪ History ▪ Geographic proximity to NOVA and Tidewater ▪ Water ▪ Good roads ▪ Tourism/ Ecotourism/ Wine Trail ▪ Growth of regional banking sector ▪ HUB Zone ▪ Rural with assets ▪ Rappahannock Community College 		Weaknesses <ul style="list-style-type: none"> ▪ Lack of broadband ▪ No access to natural gas ▪ Decline of natural resources ▪ Lack of three-phase power across region ▪ No rail or airport ▪ Analog telephone service ▪ Sketchy cell phone coverage ▪ Low % of workforce with a postsecondary credential ▪ Workforce has low work ethic/easier not to work mentality ▪ Workforce does not possess adequate skills set ▪ Public school systems challenged ▪ Lack of machinist training ▪ Anti-business environment ▪ Lack of low-moderate priced housing ▪ Lack of leadership in business community ▪ High teen pregnancy rates ▪ Not all race/ethnic groups actively engaged ▪ Aversion to change/ NIMBY culture
	Opportunities <ul style="list-style-type: none"> ▪ Entrepreneurial capacity ▪ Sport fishing ▪ Growth of export markets (oysters) ▪ Boat hub ▪ Proximity to Port of Virginia ▪ In-migration of retirees and part-time residents ▪ Precision machining capacity ▪ Lodging ▪ Banks ▪ Farming 		Threats <ul style="list-style-type: none"> ▪ Region not refreshing as fast ▪ Environmental regulation ▪ Loss of HUB zone status ▪ Regional reputation as an impediment ▪ Segmentation of the seafood industry ▪ Not enough seafood industry to support current number of watermen ▪ Closing of traditional regional industries ▪ National/global economic environment
External			

Additional Data Collection and Analysis

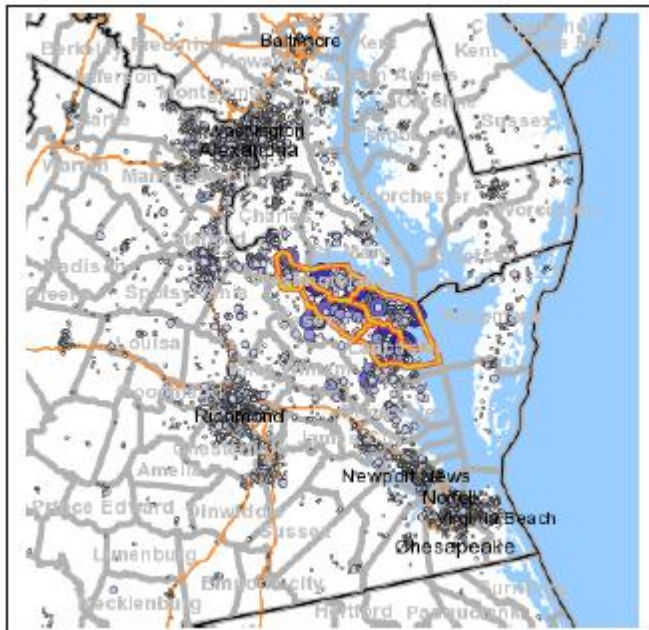
The findings of the SWOT analysis identified several thematic areas that merit more detailed exploration of data and trends to analyze both positive and negative trends. The six thematic areas include:

1. Geography
2. Migration
3. Aptitude and Availability of Workforce
4. Broadband
5. Livable Wages

Geography

Commuting patterns are an important indicator of regional employment patterns, given the proximity of the NNPDC region to larger metropolitan regions. Distance/Direction Analysis, provided through the U.S. Census Bureau's *OnTheMap* program provides a baseline understanding for where residents of the NNPDC communities work, as well as the home location of workers employed at jobs in the NNPDC region.

Figure G: Where People Who Live in the NNPDC Work^{xix}



As depicted in Figure G, the majority of individuals living in the NNPDC region travel outside the region for work, with large concentrations going to the Middle Peninsula, Hampton Roads, Richmond, and the Washington area. Of the 22,198 covered employed residents of the Northern Neck region, over half (13,252) travel outside the region for work, while 8,946 both live and work within the region. In addition to those who both live and work in the region, 4,573 workers live outside the Northern Neck and commute to jobs in the Northern Neck. These commuting patterns highlight limited employment opportunities in the Northern Neck, with a majority of residents leaving the region for their job, and fewer commuting into the region.

Table 12: Where People Who Live in the NNPDC Work, 2010^{xx}

	Count	Share
Total All Jobs	22,198	100.0%
Less than 10 miles	5,995	27.0%
10 to 24 miles	4,148	18.7%
25 to 50 miles	3,623	16.3%
Greater than 50 miles	8,432	38.0%

Table 13: Where People Who Work in the NNPDC Live, 2010^{xxi}

	Count	Share
Total All Jobs	13,519	100.0%
Less than 10 miles	5,906	43.7%
10 to 24 miles	3,678	27.2%
25 to 50 miles	1,525	11.3%
Greater than 50 miles	2,410	17.8%

Migration

Overall population levels have experienced moderate growth during the past two decades, with a larger concentration of older residents. In-migration is a contributing factor to this growth, with Richmond and Westmoreland counties experiencing the greatest percentage of in-migration. For instance, 6.8% of residents in Richmond County had moved to the county within the past year, as had 5.2% of Westmoreland County residents.^{xxii}

In-migration of senior citizens and retirees to the region is an important factor contributing to growth of the regional population of individuals age 55 and above. For example, 71.6% of all persons moving to Lancaster County are age 55 and above, while 27.8% of those moving to Westmoreland County also fall into this age group.^{xxiii} Only 23.4% of people moving to Richmond and 18.1% of individuals moving to Northumberland County are age 55 and above.^{xxiv}

Table 14: Population Estimates for Mobility and In-Migration of Persons to the NNPDC, Within the Past Year (2011) ^{xxv}

	Lancaster	Northumberland	Richmond	Westmoreland
Total Population, Age 1+	11,368	12,270	9,195	17,193
Moved; Within Same County	477 (4.2%)	147 (1.2%)	460 (5.0%)	653 (3.8%)
Moved; From a Different County of the Same State	148 (1.3%)	245 (2.0%)	395 (4.3%)	619 (3.6%)
Moved; From Different State	7 (.6%)	184 (1.5%)	211 (2.3%)	241 (1.4%)
Moved; From Abroad	7 (.6%)	25 (.2%)	18 (.2%)	34 (.2%)
Total: All Moved from Outside of County	162	454	624	894

Table 15: Population Estimates for In-Migration of Persons Age 55 and Above to the NNPDC, Within the Past Year (2011)^{xxvi}

	Lancaster	Northumberland	Richmond	Westmoreland
Moved; From Different County (Same State)	75	50	106	157
Moved; From Different State	34	18	40	72
Moved; From Abroad	7	14	0	19
Total: In-Migration from Outside of County, Persons Age 55+	116	82	146	248
% of All In-Migration from Outside of County	71.6%	18.1%	23.4%	27.8%

Aptitude and Availability of Workforce

Post-secondary educational attainment plays an important factor for helping to assess regional capacity to grow, retain, and attract higher wage industries and occupations. As noted in the table below, the educational attainment levels of the 'working age' population (ages 25-64) are significantly lower than comparable state and national averages, especially at the level of bachelor's degree and above.

Table 16: Educational Attainment for Working-Age Adults, Age 25-64 (2011)^{xxvii}

	Lancaster	Northumberland	Richmond	Westmoreland	VA	US
High School or Less	44.2%	44.4%	64.1%	58.3%	35.5%	39.8%
Some College	22.0%	29.0%	18.3%	19.7%	20.6%	21.8%
Associate's Degree	8.7%	5.3%	7.0%	6.1%	7.4%	8.4%
Bachelor's Degree or Above	25.1%	21.3%	10.6%	15.9%	36.5%	30.0%

Workforce availability can often be assessed through examining the percentage of the adult population classified in the labor force. As noted, for the adult population age 16 and over, the percentage of the population in the labor force across the NNPDC region falls considerable below national and state rates. This observation is likely influenced by the regional presence of a large retiree population, as disaggregation of data for the working age adult population (age 25-64) shows rates largely comparable to national and state levels. One exception across the board is Richmond County.

Table 17: % of Population in the Labor Force, (2011)^{xxviii}

	Lancaster	Northumberland	Richmond	Westmoreland	VA	US
Age 25 to 44	89.2%	84.3%	55.3%	82.5%	84.3%	82.7%
Age 45 to 54	90.3%	78.7%	75.0%	79.9%	82.6%	81.0%
Age 55 to 64	70.5%	66.5%	56.5%	57.5%	66.0%	64.1%
Total Population Age 16 and Above	57.6%	53.3%	49.4%	59.9%	67.2%	64.8%

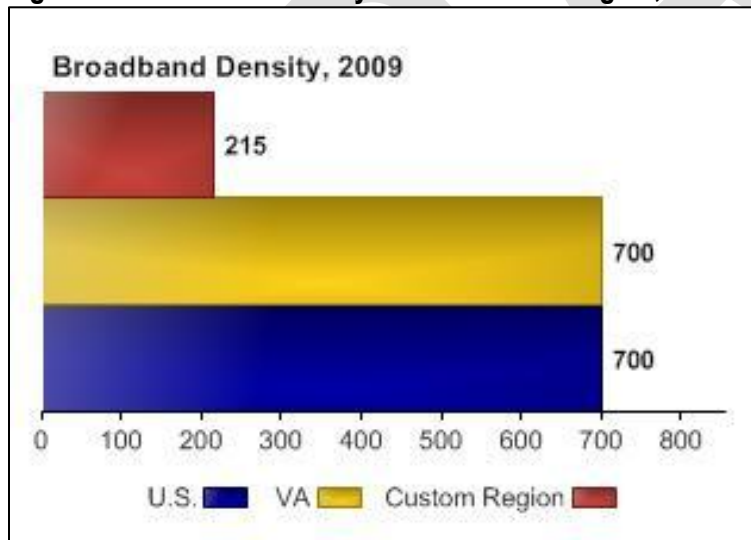
Broadband

The lack of broadband infrastructure was the most commonly cited weakness and threat to the regional economy throughout the SWOT analysis process. While the lack of broadband access has been commonly cited weakness, the NNPDC is working to correct this issue since completion of the 2010 CEDS update. The NNPDC is working with a provider and has conducted both technical and market analysis studies to bring wireless service to the region. As this report is being prepared, a funding proposal to facilitate build-out is pending. Should the low interest loan be denied, the region will have to identify other strategies to facilitate the timely build-out of the proposed wireless system.

To help assess the density and penetration of broadband in the NNPDC region, data was examined using the Innovation Index. The Innovation Index is a tool developed by Purdue University and the University of Illinois with a capacity to generate composite index scores for a wide variety of variables. Two variables of the Innovation Index specifically address broadband. The first variable assesses internet penetration, or broadband density. The second variable measures the rate of internet adoption. This indicator is further defined as the change in the number of broadband providers available to residents in a given county from 2000-2009.

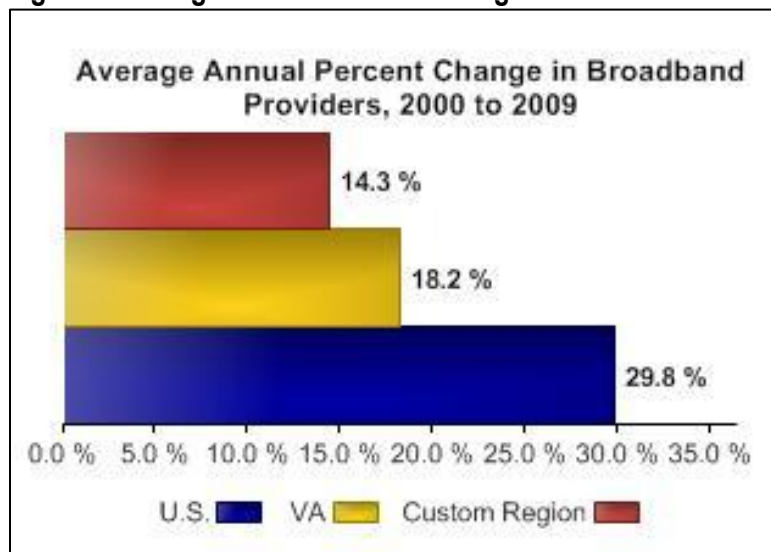
According to the Innovation Index, the broadband density indent provides information about residential broadband fixed connections per 1,000 households. This information is based on Federal Communication Commission (FCC) reports this data in ranges, not as a specific number of connections per 1,000 households in a particular county. For this dataset, the information depicted represents the midpoint in the range for the region.

Figure H: Broadband Density for the NNPDC Region, 2009^{xxix}



Average annual percent of change in broadband providers offers a proxy for the rate of Internet adoption in a particular geography. The Innovation Index defines this indicator as “the change in the number of broadband providers available to residents in a given area in a given county from 2000 to 2009.”

Figure I: Average Annual Percent Change in Broadband Providers, 2000 to 2009



Livable Wages

The Northern Neck's sizeable aging and retiree population and tourist destinations substantially affect regional industry and occupational employment. As indicated above, in-migration patterns to the region likely created industry growth in construction, health care, real estate, retail, and food services. While these types of industries often flourish during times of national economic prosperity, they are negatively impacted by shifting consumer demand. In particular, the 'housing bubble bust' of the late 2000's is also anticipated to have a continuing impact on the regional economy as many individuals seeking to relocate to the region may have difficulties selling their current residences, or lack sufficient discretionary incomes to purchase secondary residences in the Northern Neck region.

Table 18: Top 20 Occupations, by Complete Employment (2012) – SOC 4-Digit Taxonomy^{xxx}

Description	2007 Jobs	2012 Jobs	Change		Median Hourly Earnings
			#	%	
Real Estate Brokers and Sales Agents	796	819	23	3%	\$11.62
Nursing, Psychiatric, and Home Health Aides	539	657	118	22%	\$9.33
Building Cleaning Workers	723	638	(85)	(12%)	\$8.96
Cashiers	578	537	(41)	(7%)	\$8.92
Retail Salespersons	512	507	(5)	(1%)	\$9.08
First-Line Supervisors of Sales Workers	474	457	(17)	(4%)	\$12.79
Office Clerks, General	428	447	19	4%	\$10.85
Driver/Sales Workers and Truck Drivers	443	435	(8)	(2%)	\$14.52
Grounds Maintenance Workers	407	392	(15)	(4%)	\$9.67
Farmers, Ranchers, and Other Agricultural Managers	470	384	(86)	(18%)	\$9.42

Description	2007 Jobs	2012 Jobs	Change		Median Hourly Earnings
			#	%	
Laborers and Material Movers, Hand	343	371	28	8%	\$9.78
Secretaries and Administrative Assistants	362	349	(13)	(4%)	\$14.35
Carpenters	432	327	(105)	(24%)	\$13.40
Bookkeeping, Accounting, and Auditing Clerks	322	326	4	1%	\$12.96
Miscellaneous Agricultural Workers	286	297	11	4%	\$9.22
Construction Laborers	348	296	(52)	(15%)	\$11.89
Cooks	279	262	(17)	(6%)	\$10.22
Elementary and Middle School Teachers	266	247	(19)	(7%)	\$19.09
Waiters and Waitresses	278	247	(31)	(11%)	\$8.83
Fast Food and Counter Workers	263	244	(19)	(7%)	\$8.25
Total: Top 20 Occupations of the NNPDC	8,549	8,239	(310)	(3.6%)	\$10.96

Table 18 provides a listing of the region's top twenty occupations, in terms of employment. In context of the broader economy, the region's top twenty occupations represent about 38.4% of all regional employment. Median hourly earnings for all occupations across the region average \$15.26.

Median hourly earnings for the region's top twenty occupations average 14.9% lower than the national rate for the same occupation group. Proportionally, the -3.6% employment decline for this occupation group in region during the recession far exceeds the comparable state (-.8%) and national rates (-.7%). Inverse staffing patterns for the region's top twenty occupations indicate that over 58.3% of individuals in these jobs are employed by only five industry sectors: Retail Trade (NAICS 4-45), Real Estate and Rental and Leasing (NAICS 53), Health Care and Social Assistance (NAICS 62), Accommodation and Food Services (NAICS 72), and Agriculture, Forestry, Fishing, and Hunting (NAICS 11). As the top employers of these occupations are largely service providers, employment decline is an indicator to explain how the region's service economy is impacted by broader domestic and global economic conditions.

Economic diversification is an important consideration for the NNPDC region. This will entail a drive not just to stimulate the regional economy, but to begin to transform it. With close proximity to the Chesapeake Bay, water-based assets offer several opportunities to promote greater economic competitiveness of existing employers, as well as precipitate new industry growth.

While service sectors supporting tourism, real estate, and fishing are easily identified as existing industries currently leveraging benefits due to their proximity to the shoreline, these industries are reactive to external market and regulatory conditions. As such, these industries are at risk to take on 'boom or bust' characteristics. The traditional industry sectors also do not provide broad-based employment opportunities which offer livable wages to the majority of workers.

Continuing to support tourism, real estate, fishing, and their respective supporting sectors should and must be an important consideration of the region due to their prominence as regional employment drivers. However, these industries alone cannot lead to a sustainable and robust economy. Exploration of new, value-added opportunities in professional, scientific, and technical services, manufacturing, and agriculture which leverage the region's water-based assets may provide a promising approach to helping to advance economic diversification.

Goals and Objectives

Using the results of the data review and the Strengths, Weakness, Opportunities and Threats exercise (S.W.O.T.) and community roundtable processes, goals and objectives are organized into four areas. These four areas include:

- Infrastructure/Transportation
- Workforce Development / Educational Attainment
- Innovation Led Economic Development
- Quality of Life

Goals

The first goal recognizes that the region has to provide the infrastructure necessary for existing industry to stay competitive in a global economy and to provide a platform to develop new industry sectors in support of the region's strategic goals.

GOAL 1: *Ensure the region has well-planned, state of the art infrastructure to facilitate the expansion of existing industry sectors, and to attract new, higher wage industry sectors.*

Objectives

- 1.1 Pursue deployment of broad-band infrastructure across the four counties that comprise the planning district.
- 1.2 Complete widening Rt. 3 to four lanes.
- 1.3 Complete connectivity and safety improvements as identified in the NNPDC's 2035 *Regional Long Range Transportation Plan*.
- 1.4 Develop more affordable housing options.
- 1.5 Develop regional bus links to connect the local Area Agency on Aging bus network.

The second goal addresses the concerns of regional stakeholders for the need to improve and expand the skill sets of the workforce, and prepare citizens for a more technologically-advanced world. Additionally, the centrality of the region's maritime tradition to the region's economy and self-identity suggests the development of a Marine Technology STEM Academy that would connect career readiness certificates, associate degree programs and create pathways for marine science baccalaureate degree programs as a regionally appropriate strategy.

Goal 2: *Develop and maintain a workforce equipped with the knowledge and skills needed to succeed in a 21st century technology-based economy.*

Objectives

- 2.1 Develop a Marine Technology Strengthen Science, Technology, Engineering and Math (STEM) Academy. The Academy's STEM based programs build on the region historic connection to water based industry sectors. The model would connect K-12 and CTE programs on marine ecology and marine technologies to dual enrollment programs at Rappahannock Community College. The Academy provides pathways for students to pursue career certificate programs, associate degree programs, and transfer options to bachelor degree level marine science programs.

- 2.2 Connect career training programs to more closely match industry identified needs.
- 2.3 Improve literacy and graduation rates.
- 2.4 Revitalize welding program offered through technical center with dual enrollment program at Rappahannock Community College.
- 2.5 Increase the number of students mastering the state Workplace Readiness Certificate program.

The third goal aims to support existing industries while building opportunities to bring new industry to the region.

Goal 3: *Develop and implement innovation led economic development programs across the NNPDC.*

Objectives

- 3.1 Region is well situated between Norfolk and Washington, D.C. Recruit businesses and industries where geographic proximity between these two centers will be part of the strategic advantage.
- 3.2 Promote development of the region as a marine-hub for the Mid-Atlantic that combines strategies on tax policy, workforce development and entrepreneurial development.
- 3.3 Retain and expand existing technology-based businesses in the region.
- 3.4 Promote entrepreneurial and small business culture.
- 3.5 Streamline business licensing process across the PDC region to improve efficiency and ensure faster turn-around.

The four goal aims to promote and protect the defining asset of the region: the water and its natural beauty. The region's economy has been anchored to the water and the land for over 200 years. Its future is still tied to these assets as part of the traditional economy as well as gateways to the new economy.

Goal 4: *Promote and maintain the region's natural beauty, cultural amenities and tourism opportunities.*

Objectives

- 4.1 Promote efforts to expand and/or enhance outdoor and quality of life infrastructure and amenities while preserving the natural environment and beauty; expand recreational opportunities for residents and tourists.
- 4.2 Promote and support health care opportunities to meet the needs of the region's diverse populations.
- 4.3 Develop kayak / canoe water trails
- 4.4 Develop public water access points to encourage tourism to the region.
- 4.5 Develop a regional bicycle path network across the four county region.
- 4.6 Expand access to publicly available exercise facilities.
- 4.7 Support development of regional arts organization to promote arts based programs and activities.

Appendix

Insert supplemental data and documents here.

References

- ⁱ Northern Neck Planning District Commission. Maps. Image retrieved online December 18, 2012 at <http://www.northernneck.us/NNCBRP-PAGES/Commerce.htm#maps>
- ⁱⁱ Source: U.S. Census Bureau. Profile of General Population and Housing Characteristics: 2010. Table DP-1.
- ⁱⁱⁱ Source: U.S. Census Bureau. Profile of General Population and Housing Characteristics: 2000. Table DP-1. U.S. Census Bureau-Census of Population and Housing Public Law 94-171 Data. 1990.
- ^{iv} Source: U.S. Census Bureau. Profile of General Population and Housing Characteristics: 2010. Table DP-1.
- ^v Source: U.S. Census Bureau. Age and Sex. Profile of General Population and Housing Characteristics: 2010. Table DP-1.
- ^{vi} Source: U.S. Census Bureau. Profile of General Population and Housing Characteristics: 2010. Table DP-1.
- ^{vii} Source: U.S. Census Bureau. Profile of General Population and Housing Characteristics: 2010. Table DP-1.
- ^{viii} Source: U.S. Census Bureau. Sex by Age (Race/Ethnicity). 2010. Table P12 A-G. Note that census category for white alone also includes individuals identifying as Hispanic or Latino.
- ^{ix} Source: U.S. Bureau of Economic Analysis. Per Capita Personal Income, Annual. 2007-2011. Personal income is the income that is received by persons from all sources. It is calculated as the sum of wage and salary disbursements, supplements to wages and salaries, proprietors' income with inventory valuation and capital consumption adjustments, rental income of persons with capital consumption adjustment, personal dividend income, personal interest income, and personal current transfer receipts, less contributions for government social insurance. This measure of income is calculated as the personal income of the residents of a given area divided by the resident population of the area. In computing per capita personal income, BEA uses the Census Bureau's annual midyear population estimates.
- ^x U.S. Bureau of Economic Analysis. Average Wage Per Job, 2011. Average wage per job is based on job, not person count.
- ^{xi} Source: U.S. Census Bureau. Poverty Status in the Past 12 Months. American Community Survey 2007-2011 5-Year Estimates. Table S1701.
- ^{xii} Source: U.S. Census Bureau. Educational Attainment for the Population Age 25 Years and Over. American Community Survey 2007-2011 5-Year Estimates. Table S1501.
- ^{xiii} Source: U.S. Bureau of Labor Statistics. Local Area Unemployment Statistics. Average Annual Unemployment Rates, Not Seasonally Adjusted. Not Seasonally Adjust is selected for this report due to the fact that the region has a large percentage of individuals employed seasonally.
- ^{xiv} Source: U.S. Bureau of Labor Statistics. Local Area Unemployment Statistics. Average Annual Unemployment Rates, Not Seasonally Adjusted. Not Seasonally Adjust is selected for this report due to the fact that the region has a large percentage of individuals employed seasonally.
- ^{xv} Source: emsiAnalyst. Complete Employment for the Northern Neck PDC Region. 2012.4. Data provided for industry information at the NAICS 2-digit level.
- ^{xvi} Source: Bureau of Labor Statistics. Location Quotient Calculator. Numbers based on 2011 Annual Average Employment. ND means not disclosable. NC means not calculable (data does not exist or it is zero).
- ^{xvii} Source: U.S. Census Bureau. Selected Housing Characteristics American Community Survey 2007-2011 5-Year Estimates. Table DP04
- ^{xviii} Source: U.S. Census Bureau. Selected Housing Characteristics American Community Survey 2007-2011 5-Year Estimates. Table DP04
- ^{xix} Source: U.S. Census Bureau. OnTheMap Tool. Work Area-Distance/Direction Analysis. 2010. All Workers by All Jobs.
- ^{xx} Source: U.S. Census Bureau. OnTheMap Tool. Work Area-Distance/Direction Analysis. 2010. All Workers by All Jobs.
- ^{xxi} Source: U.S. Census Bureau. OnTheMap Tool. Work Area-Distance/Direction Analysis. 2010. All Workers by All Jobs.

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- ^{xxii} Source: U.S. Census Bureau. Geographic Mobility by Selected Characteristics in the United States. ACS, 2006-2010. Table S0701. Population Age 1 and Above.
- ^{xxiii} Source: U.S. Census Bureau. Geographic Mobility by Selected Characteristics in the United States. ACS, 2006-2010. Table S0701. Population Age 1 and Above.
- ^{xxiv} Source: U.S. Census Bureau. Geographic Mobility by Selected Characteristics in the United States. ACS, 2006-2010. Table S0701. Population Age 1 and Above.
- ^{xxv} Source: U.S. Census Bureau. Geographic Mobility by Selected Characteristics in the United States. ACS, 2007-2011. Table S0701. Population Age 1 and Above.
- ^{xxvi} Source: U.S. Census Bureau. Geographic Mobility by Selected Characteristics in the United States. ACS, 2007-2011. Table S0701. Population Age 1 and Above.
- ^{xxvii} Source: U.S. Census Bureau. Sex by Age by Educational Attainment for the Population 18 Years and Over. American Community Survey 2007-2011 5-Year Estimates. Table B15001
- ^{xxviii} Source: U.S. Census Bureau. Employment Status. American Community Survey 2007-2011 5-Year Estimates. Table S2301.
- ^{xxix} Source: Innovation Index. Economic Dynamics. StatsAmerica. Accessible online at http://www.statsamerica.org/innovation/innovation_index/index_display.asp
- ^{xxx} Source: emsiAnalyst. Economy of the Northern Neck (Industries). 2012 Data. Accessed 2 October 2012.

APPENDIX 2

The Economic Significance of Recreational Boating In Virginia Summary of Findings

The Economic Significance of Recreational Boating in Virginia Summary of Findings

*Presentation to **Visions**,
Kilmarnock, Va.
February 21, 2013*

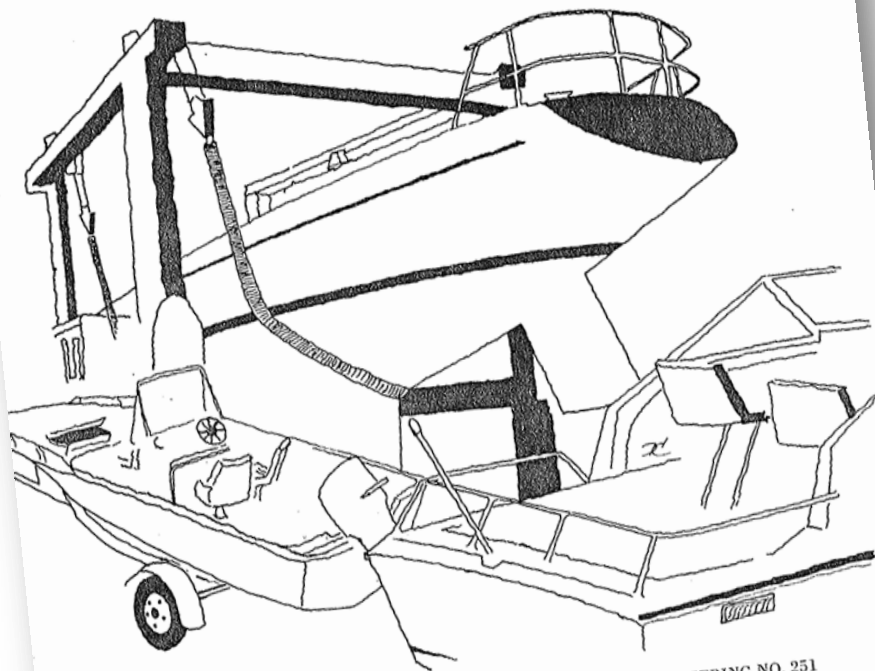
Tom Murray



Actually not the first such study!

Recreational Boating in Virginia: a preliminary analysis

by TOM MURRAY
and JON LUCY

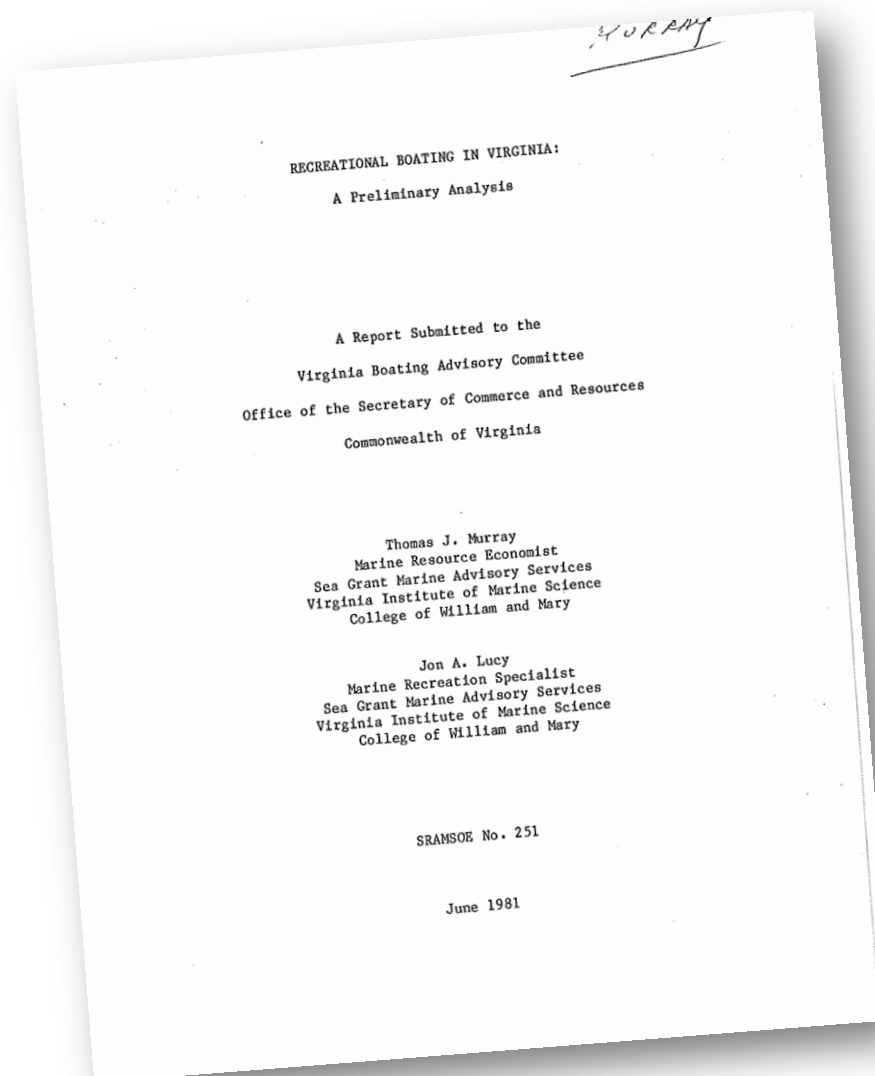


SPECIAL REPORT IN APPLIED MARINE SCIENCE AND OCEAN ENGINEERING NO. 251
VIRGINIA SEA GRANT PROGRAM, VIRGINIA INSTITUTE OF MARINE SCIENCE
College of William and Mary, Gloucester Point, VA 23062
REPORT TO THE VIRGINIA BOATING ADVISORY COMMITTEE

WILLIAM & MARY
VIMS
VIRGINIA INSTITUTE OF MARINE SCIENCE
MARINE ADVISORY SERVICES


Sea Grant
Virginia

We completed a more limited
“preliminary” report – in 1981!



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MARINE ADVISORY SERVICES

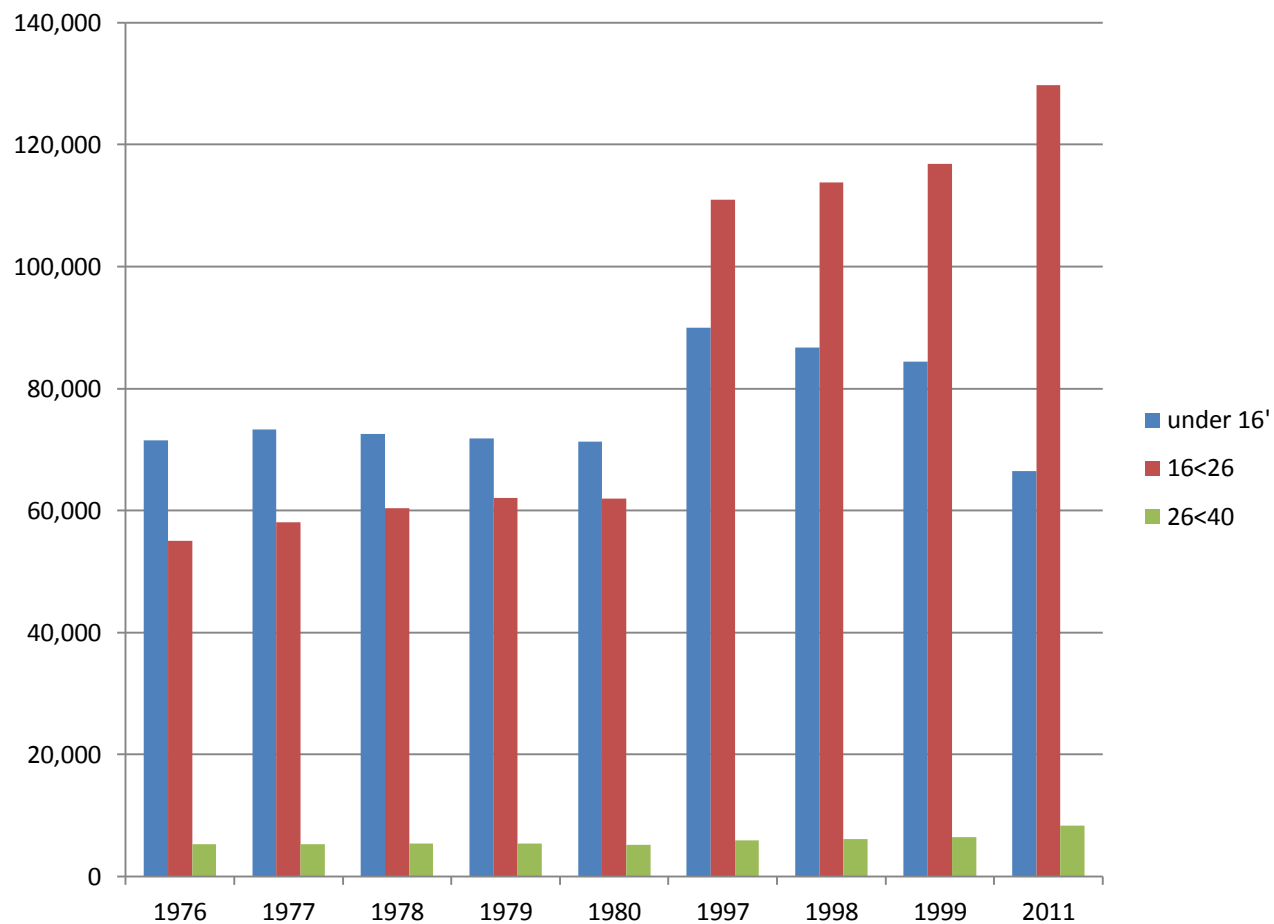

Sea Grant
Virginia

A couple of comments

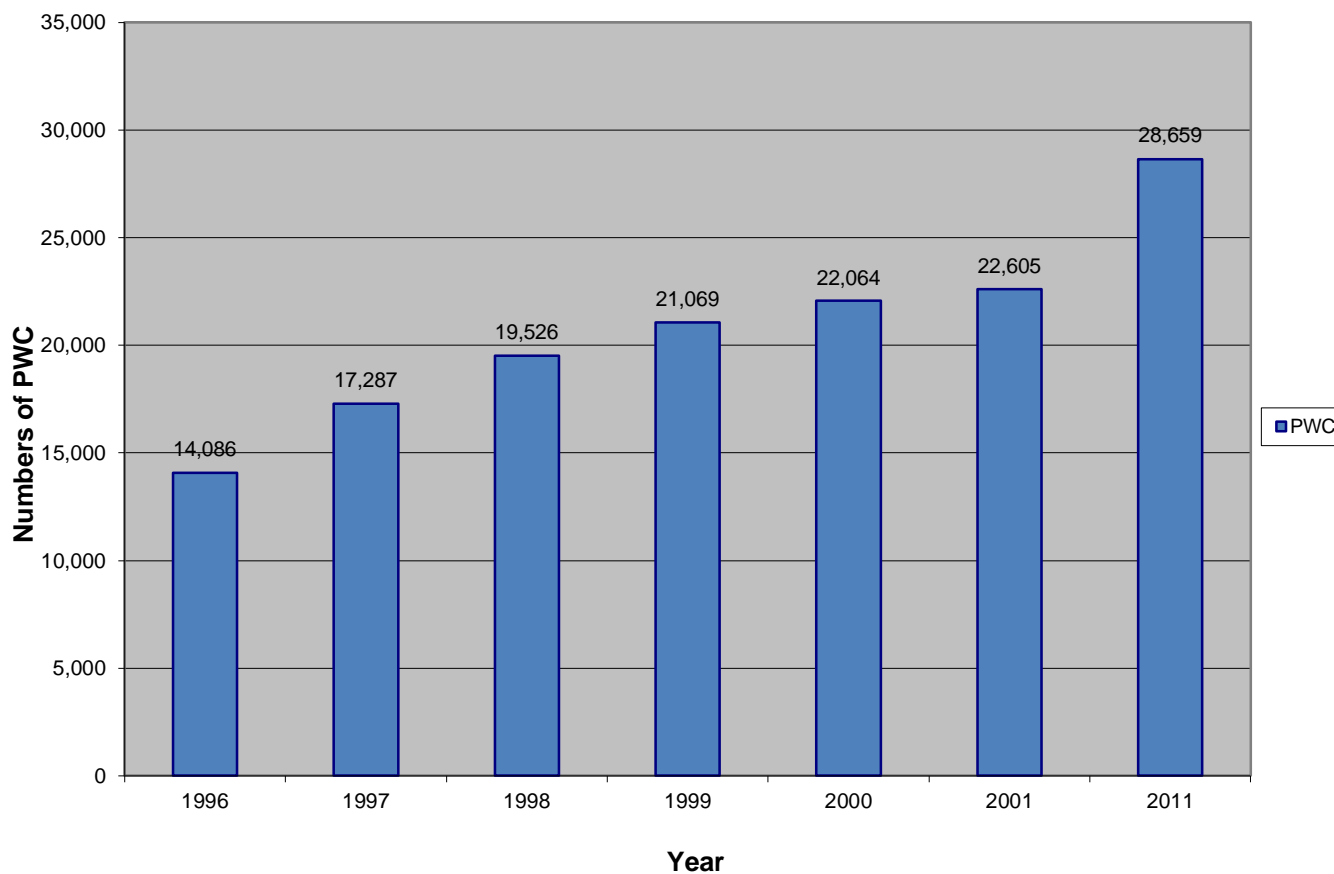
Snapshot for 2011: The data used comes from the following primary sources:

- Boat Registration Data (Where Docked) VDGIF
- Documented Vessel Data (Hailing Port) USCG
- Expenditure Estimates: Virginia Boater Surveys, comparisons made with other State studies- Maryland, New York, Great Lakes, Florida, Michigan Boating Impact Center.

VA registration trends

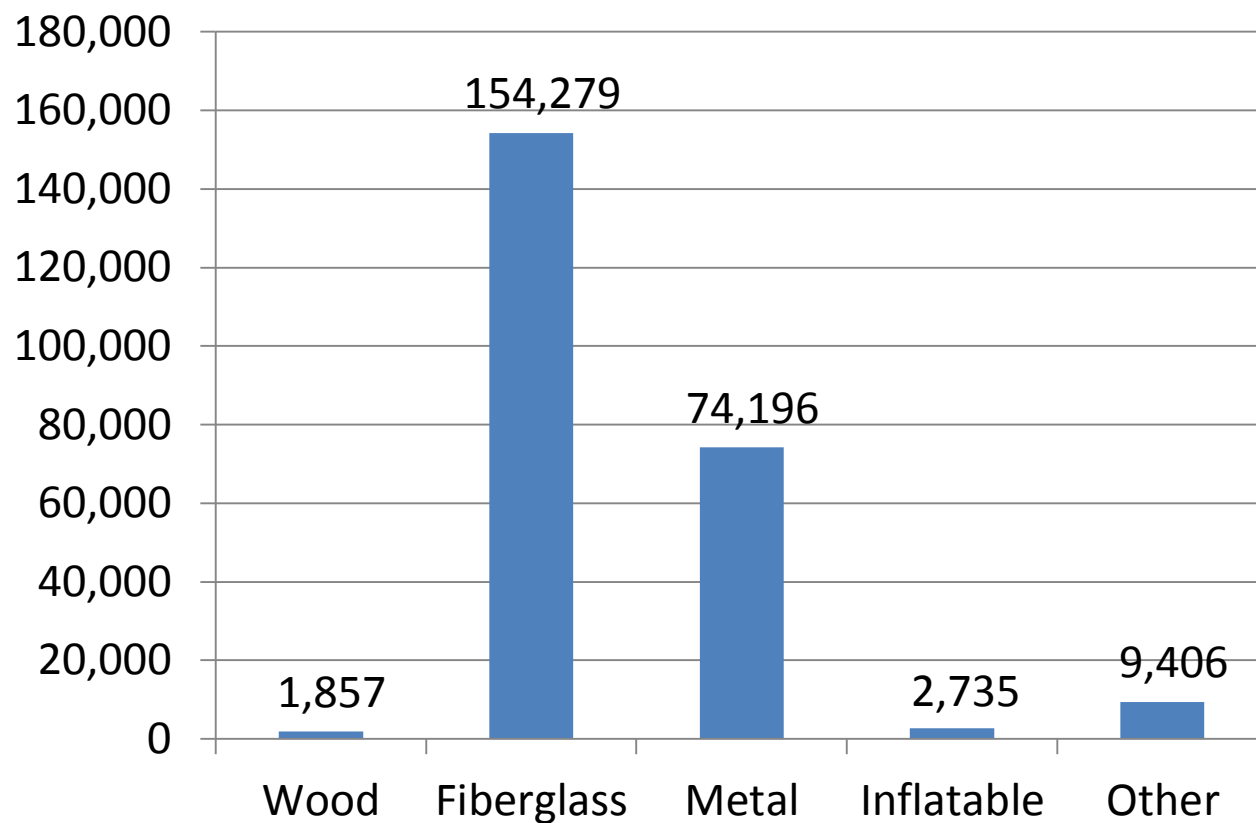


Recent growth in PWC registrations, VA 1996-2011

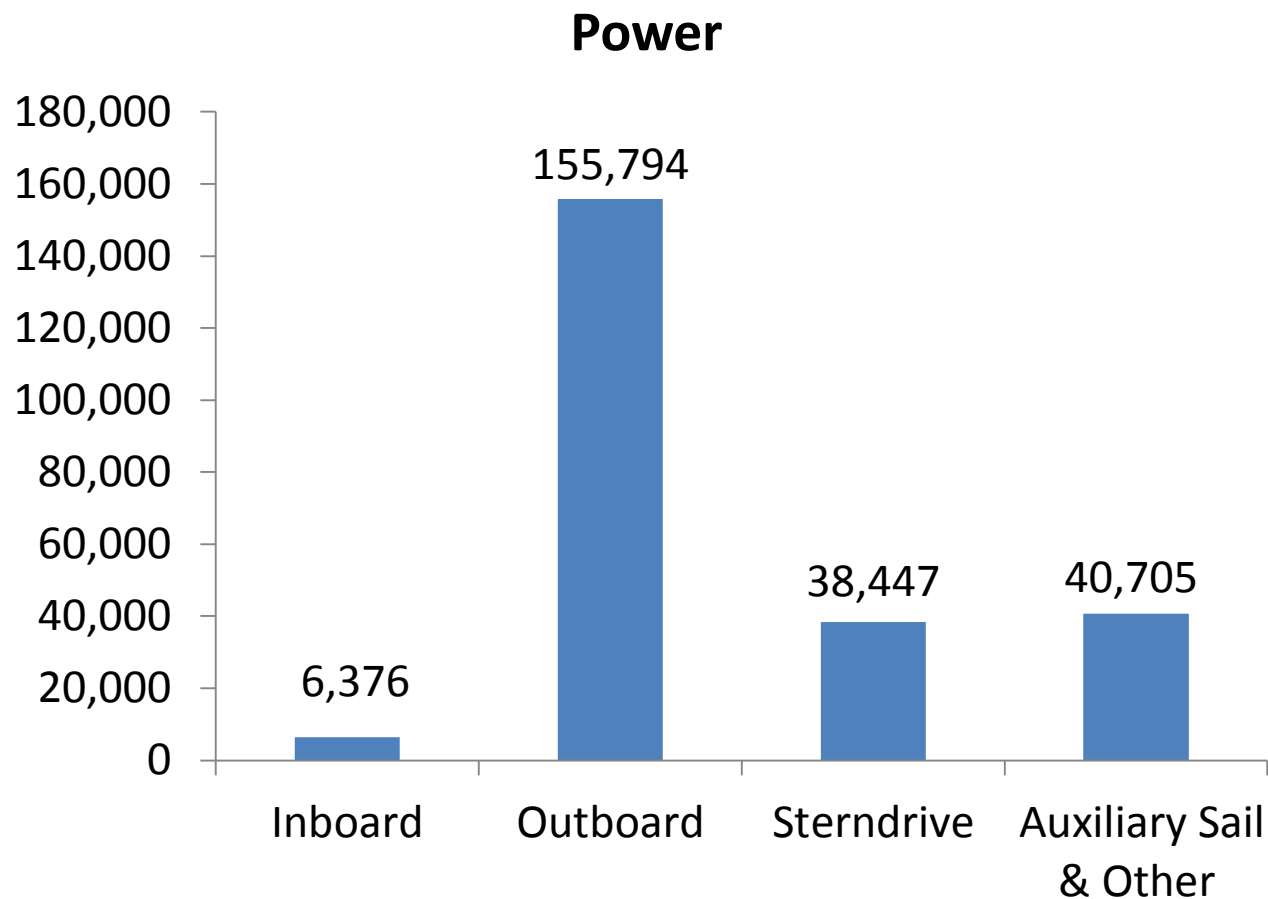


VA registered boats - 2011

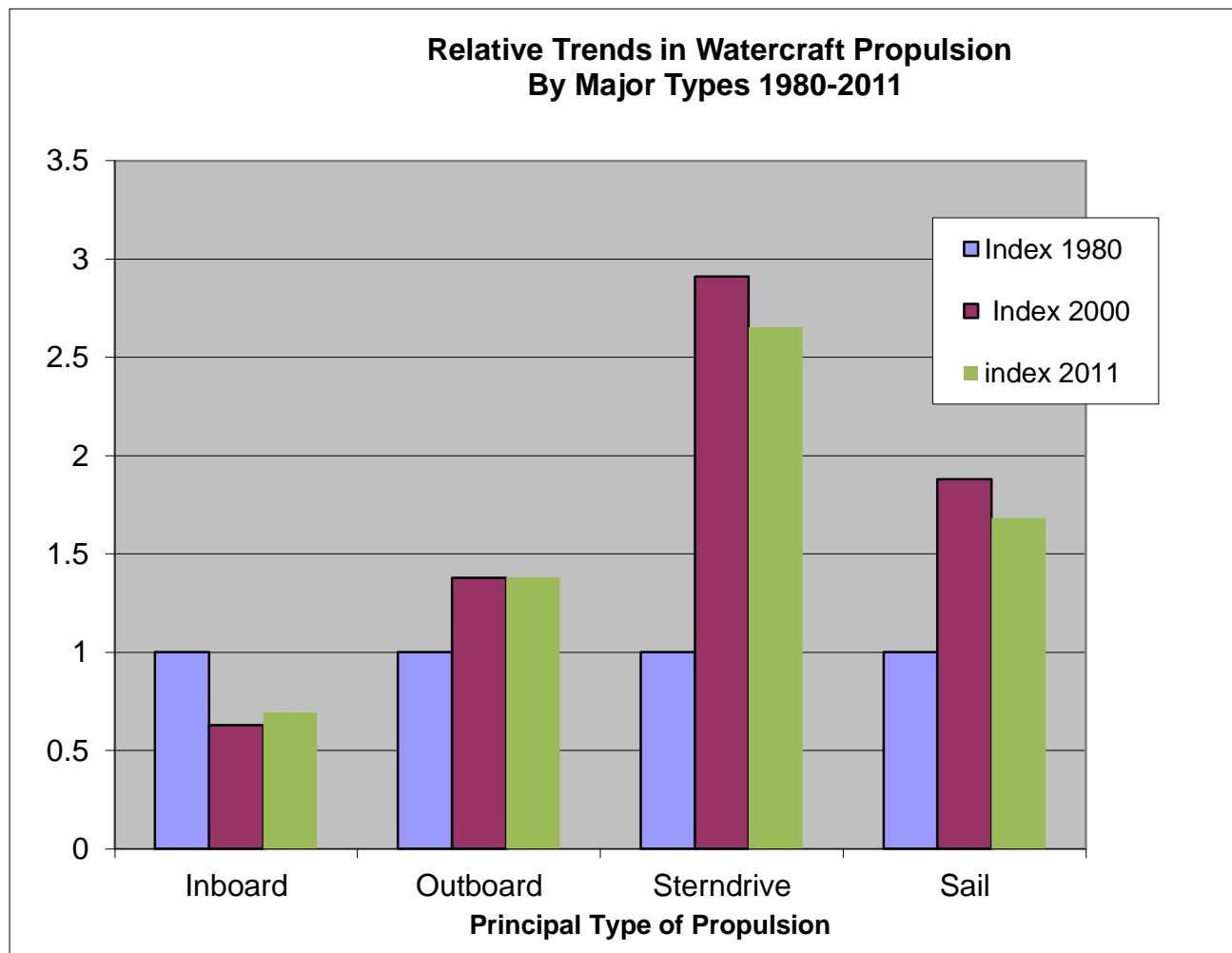
Hull Material



VA registered boats - 2011 propulsion type



Trends in watercraft propulsion



Example of trip spending breakdown – > 26' power & sail

Trip Spending	All Power	Sail
Lodging (hotel, camping fees, etc.)	2.39%	4.62%
Restaurant meals	3.71%	5.31%
Groceries and misc. purchases	4.08%	6.72%
Fishing supplies (bait, tackle, etc.)	2.79%	0.31%
Boat launch fees	1.21%	1.02%
Equipment rental	0.14%	0.11%
Other boat supplies	5.10%	18.20%
Boat fuel costs	15.81%	2.51%
Other	2.53%	1.76%
Total Trip Expenses	37.76%	40.56%

Example of major annual expenditures breakdown, > 26' power & sail

Annual Expense	All Power	All Sail
Marina/slip/yacht club fees and dues	7.55%	8.51%
Bottom paint/haul out	6.22%	6.24%
Engine repair & maintenance	7.37%	6.46%
New/used replacement engine	1.94%	2.94%
Electronics/electric repair	1.12%	1.18%
New/used electronics	14.78%	12.79%
Sails/rigging repair & maintenance	0.00%	0.29%
Sails/rigging replacement	0.00%	1.19%
Other boating equipment & supplies	3.51%	3.70%
Misc. boatyard services	3.08%	2.91%
Insurance (boat, towing, etc.)	5.91%	5.73%
Winterizing Boat	1.06%	0.93%
Total Annual Expenditures	62.24%	59.44%

Boating expenditures by size - power

Boat Size	Number	Average Expenditure	Total Expenditure
<16	99,571	\$1,378	\$91,555,698
16-26	129,752	\$3,792	\$491,954,708
26-40	8,331	\$12,543	\$104,491,568
>40	328	\$46,126	\$15,129,164

Boating expenditures by size – sail

Boat Size	Number	Average Expenditure	Total Expenditure
<16	439	\$1,377	\$604,503
16-26	2,523	\$3,552	\$8,960,435
26-40	1,239	\$10,379	\$12,858,962
>40	45	\$25,748	\$1,158,660

Boating expenditures - documented vessels

Number	Average Expenditure	Total Expenditure
8,800	\$24,792	\$487,757,600

Total estimated expenditures

Boat Size	Number	Total Expenditure
Power		
<16'	99,571	\$137,208,838
16-26'	129,752	\$491,954,708
26-40'	8,331	\$104,491,568
> 40'	328	\$15,129,164
Sail		
<16'	439	\$604,503
16-26'	2,523	\$8,960,435
26-40'	1,239	\$12,858,962
> 40'	45	\$1,158,660
Documented	8,800	\$338,291,187
Total	251,028	\$1,110,658,023



First some definitions:

How does spending really Impact the economy? How much actually “sticks”?

- **Direct Impact:** represent the revenues, value-added, income, or jobs that result directly from an economic activity within the study area or a regional economy and that accrue to the study area. (Sales – leakages).
- **Value-added:** Includes wages and salaries, interest, rent, profits, and indirect taxes paid by businesses. In the IMPLAN results tables, Value-added equals the sum of Labor Income, Other Property Type Income, and Indirect Business Taxes.

Indirect effects/impacts:

- Indirect effects occur when businesses purchase inputs (goods and services) from local suppliers. This secondary, or indirect business, generates additional revenues, income, jobs and taxes for the area economy.

Induced impacts:

- Induced economic impacts occur as the households of business owners and employees spend their earnings from these enterprises to purchase consumer goods and services from other businesses within the region. This induced effect generates additional revenues, income, jobs and taxes for the area economy.

Output Impacts of Trip & Non-Trip Spending (\$ Millions)

	Direct Effects	Indirect Effects	Induced Effects	Total Impact
Power Trip	\$130	\$49	\$46	\$225
Power Non-trip	\$273	\$109	\$96	\$478
Sail Trip	\$4	\$2	\$1	\$7
Sail Non-trip	\$13	\$6	\$4	\$23
Documented Trip	\$120	\$52	\$39	\$211
Documented Non-trip	\$57	\$21	\$20	\$98
Total	\$597	\$239	\$206	\$1,042

Value added impacts -2011 (millions)

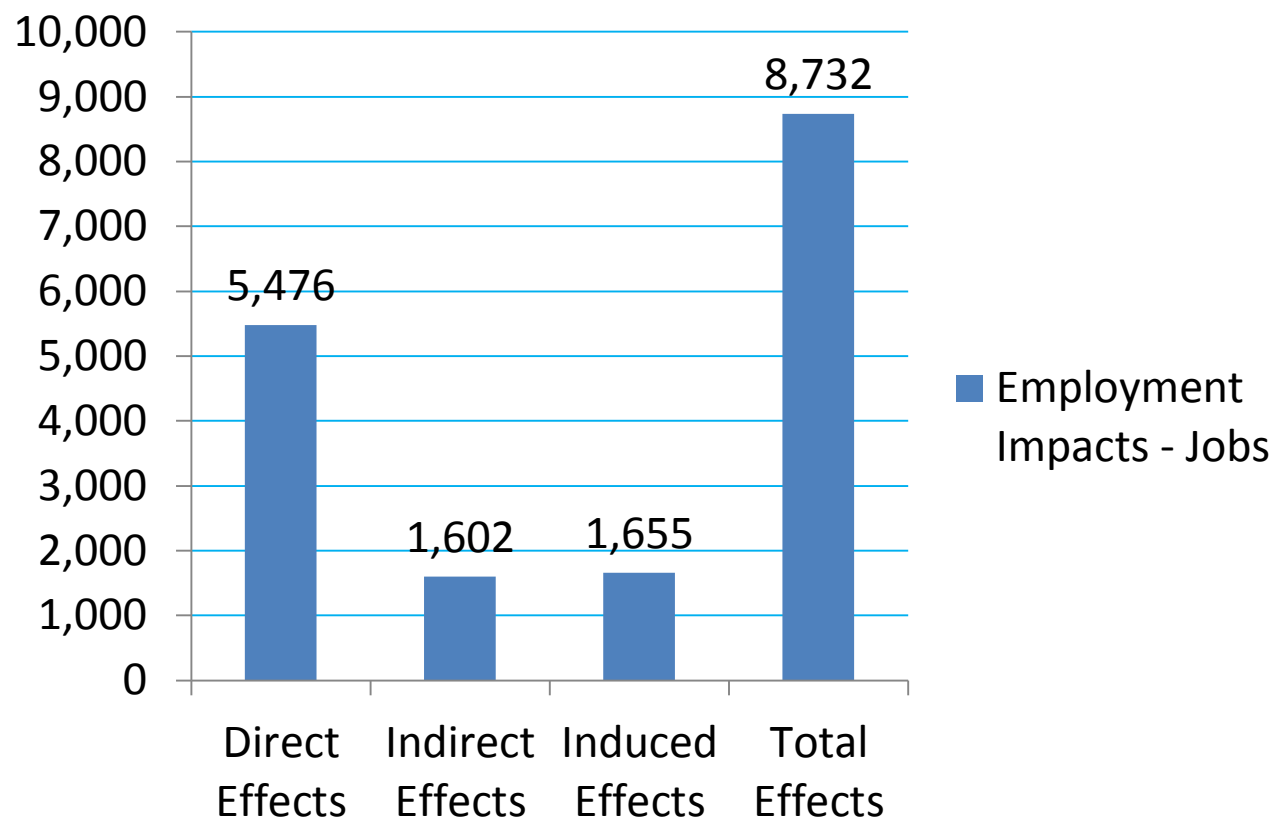
	Direct Effects	Indirect Effects	Induced Effects	Total
Power Trip	\$70	\$28	\$27	\$125
Power Non-trip	\$128	\$63	\$57	\$248
Sail Trip	\$2	\$1	\$1	\$4
Sail Non-trip	\$5	\$4	\$2	\$11
Documented Trip	\$49	\$30	\$23	\$102
Documented Non-trip	\$31	\$12	\$12	\$55
Total	\$285	\$138	\$122	\$545

Employment Impacts of Trip & Non-Trip Spending (Jobs)

	Direct Effects	Indirect Effects	Induced Effects	Total
Power Trip	1,566	306	365	2,237
Power Non-trip	2,186	755	769	3,711
Sail Trip	45	11	11	67
Sail Non-trip	98	41	32	172
Documented Trip	913	354	315	1,582
Documented Non-trip	667	134	163	964
Total	5,476	1,602	1,655	8,732

Total Employment Impacts Virginia - 2011

Employment Impacts - Jobs



Finally another Traditional Impact Measure: Taxes!

Indirect Business Taxes	Trip	Non-trip	Total
Direct Effects	\$21.2	\$21.7	\$42.9
Indirect Effects	\$5.1	\$6.4	\$11.5
Induced Effects	\$6.3	\$8.2	\$14.5
Total	\$32.7	\$36.2	\$68.9


Indirect Business Taxes are primarily sales, excise, and property taxes.

Summary of Total Economic Impact of Boating In Virginia Using 5 Measures (\$ Millions & Jobs)

Impacts	Output \$Millions	Value Added	Income	Employ ment	Taxes
Direct	\$596.8	\$284.7	\$183.4	5,476	\$42.9
Indirect	\$239.1	\$137.3	\$81.1	1,602	\$11.5
Induced	\$206.9	\$122.9	\$64.9	1,655	\$14.5
Total	\$1,042.9	\$544.9	\$329.4	8,732	\$68.9

Statewide Economic Impact Compared to Other Virginia Industries

	Output (\$ Billions)	Income (\$ Billions)	Employment (# Jobs)
Recreational Boating (2011)	\$1.04	\$.48	8,732
VPA Operations (2006)	\$4.5	\$1.6	35,665
Equine Industry (2010)	\$1.20	\$.50	16,091
Commercial & Recreational Fishing	\$1.23	\$.72	9,092



That's a snapshot of the recent past
Where are we now?
Where are Heading?

WILLIAM & MARY
VIMS
VIRGINIA INSTITUTE OF MARINE SCIENCE
MARINE ADVISORY SERVICES


Sea Grant
Virginia

Lancaster & Northumberland - Briefly

- Preliminary look at larger boats located (VDGIF) or Owner address (C.G. Documented) each County:

Lancaster County:

- Registered > 20' = 1,484
- Documented = 192

Northumberland County:

- Registered > 20' = 2,409
- Documented = 144



Thomas Murray

Associate Director for Advisory Services
Virginia Institute of Marine Science

Email: tjm@vims.edu

Phone: (804) 684-7190

Fax: (804) 684-7161

Address: P.O. Box 1083, Gloucester Point, VA 23062

Web: www.vims.edu/mas/

Thanks for your Attention and
interest in our Programs.
Questions?

APPENDIX 3

Virginia Recreational Boating: Regional Trends, Economic Outlook and Impediments



WILLIAM&MARY

VIMS

VIRGINIA INSTITUTE OF MARINE SCIENCE
MARINE ADVISORY SERVICES

Virginia Recreational Boating: Regional Trends, Economic Outlook and Impediments

Tom Murray, VIMS Advisory Services

A report to VISIONS

March 20, 2014 Kilmarnock, Va.

VIMS – VISIONS Scope of Work

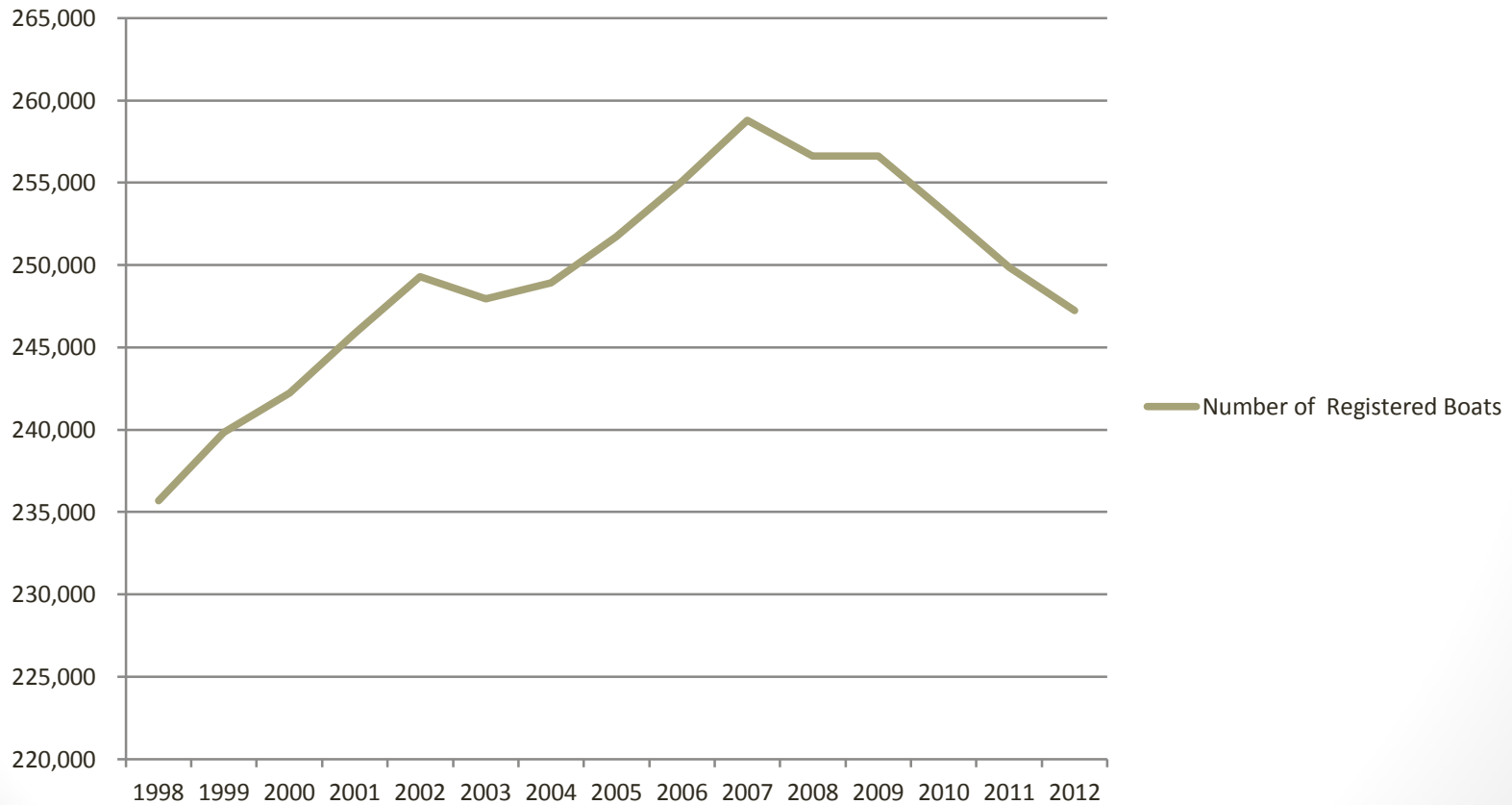
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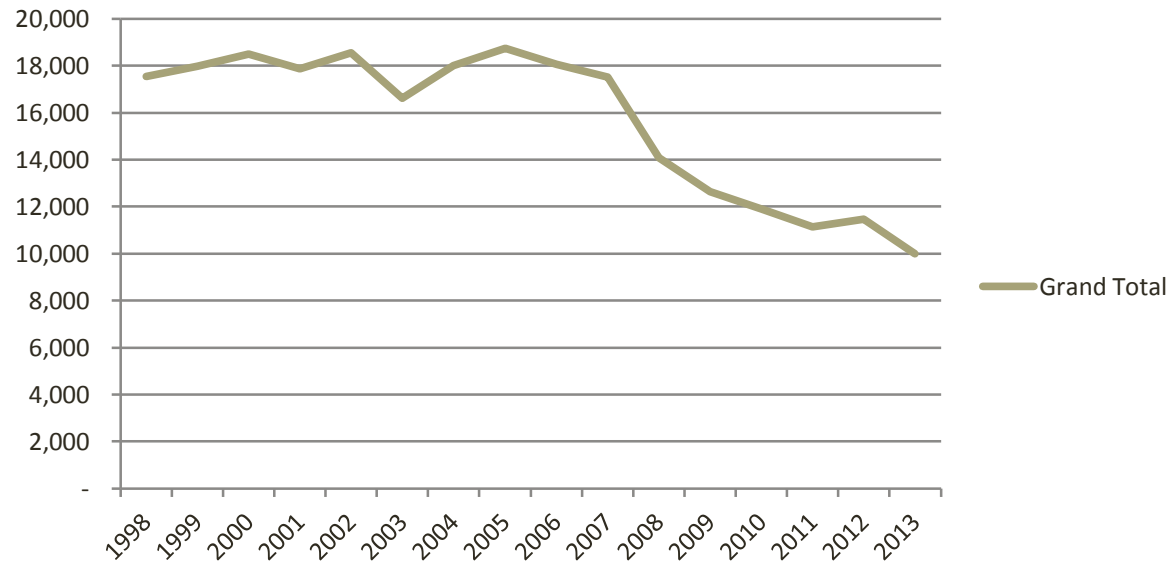
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Trends

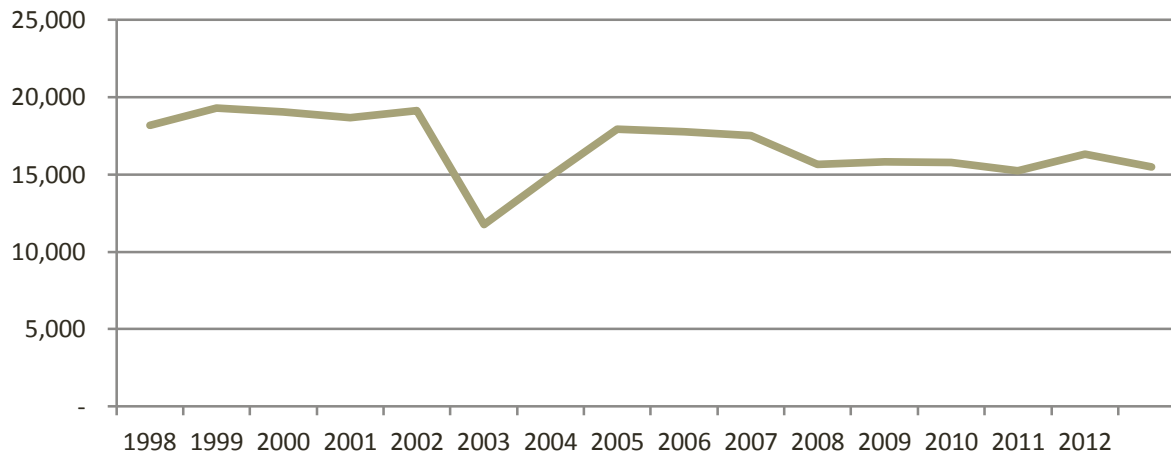
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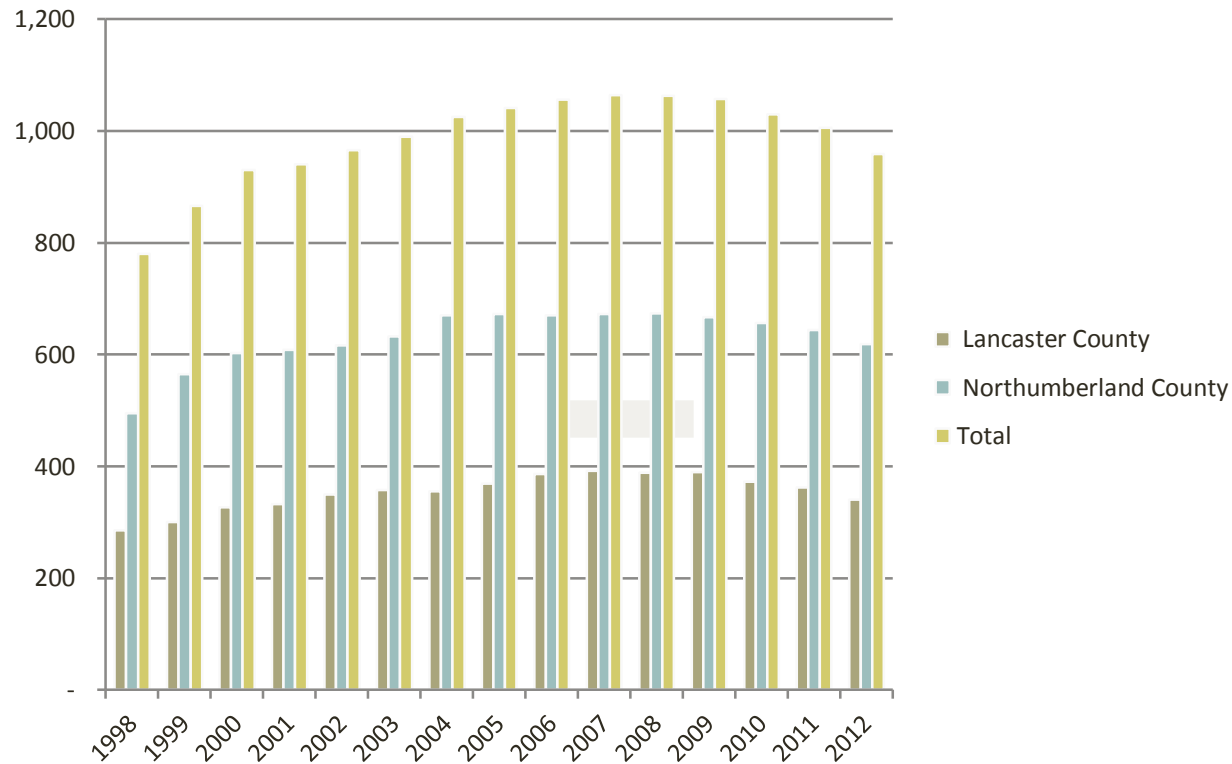
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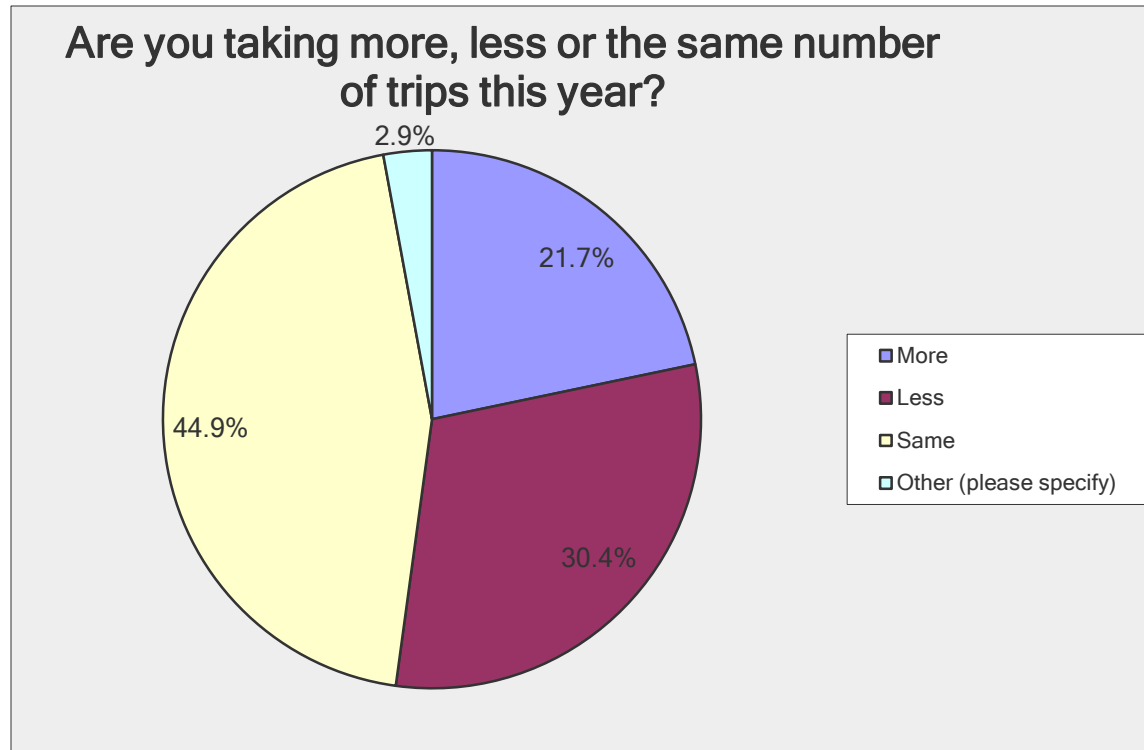


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Documented	146	144	290

Boaters boated less in 2013 compared to 2012



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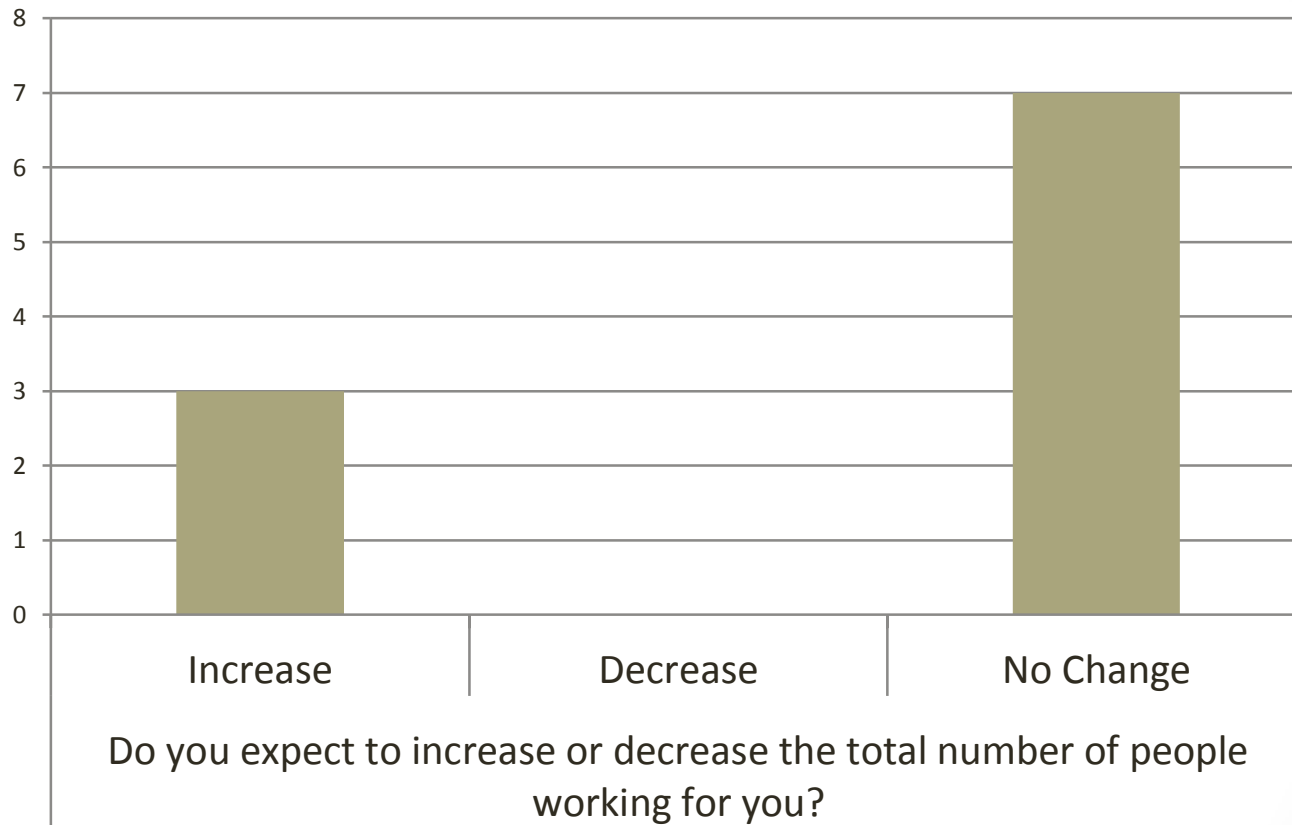
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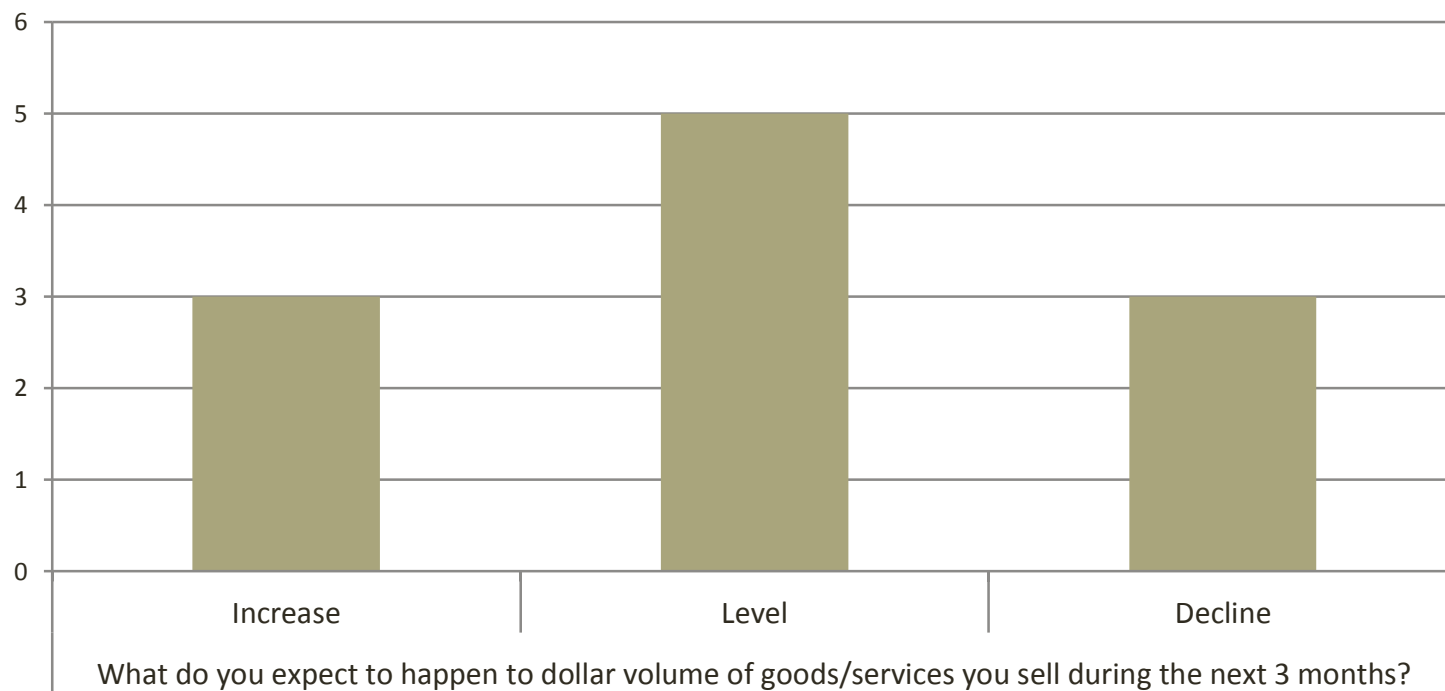
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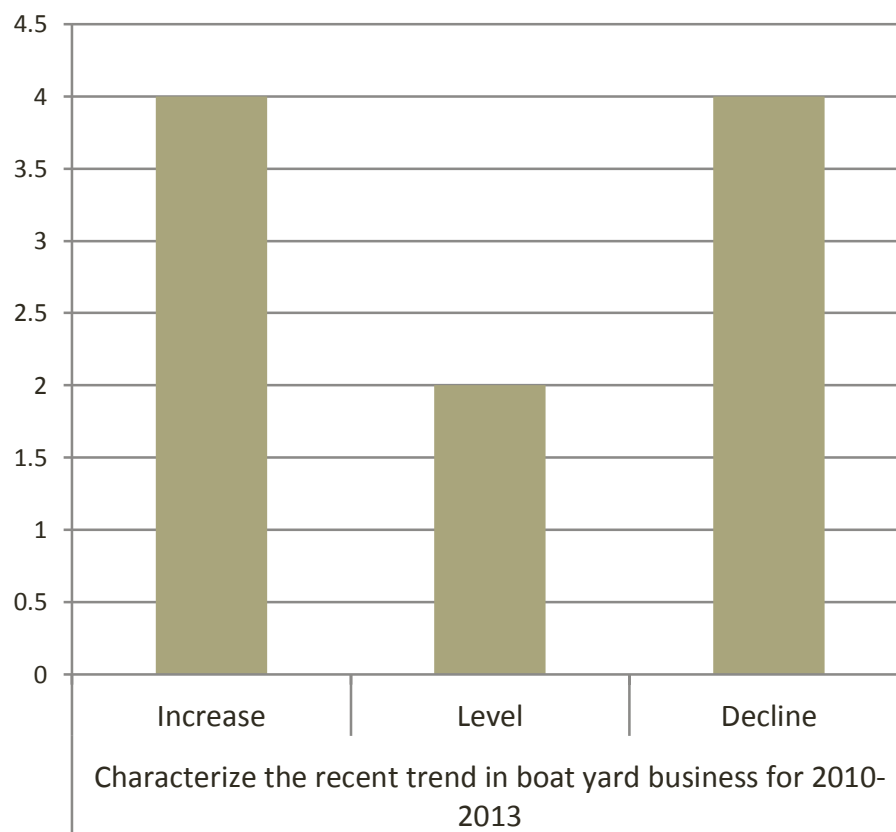
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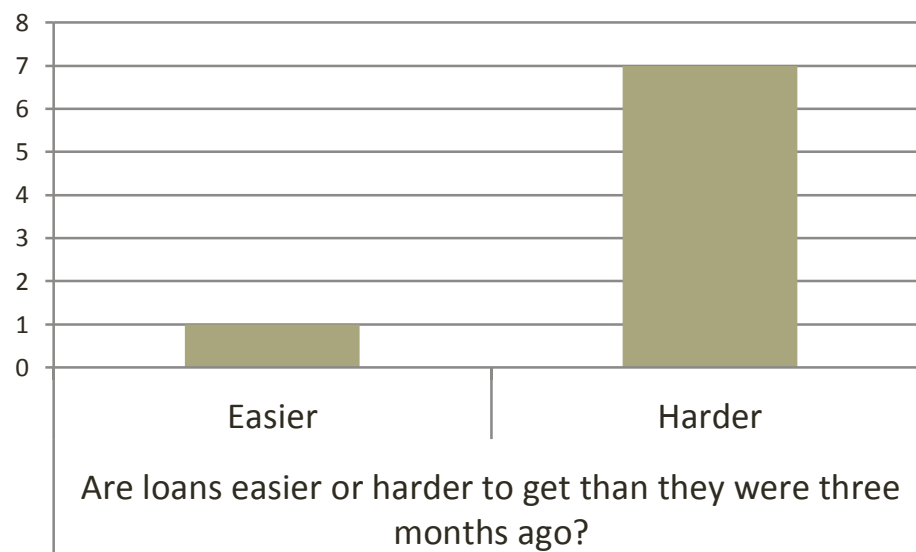
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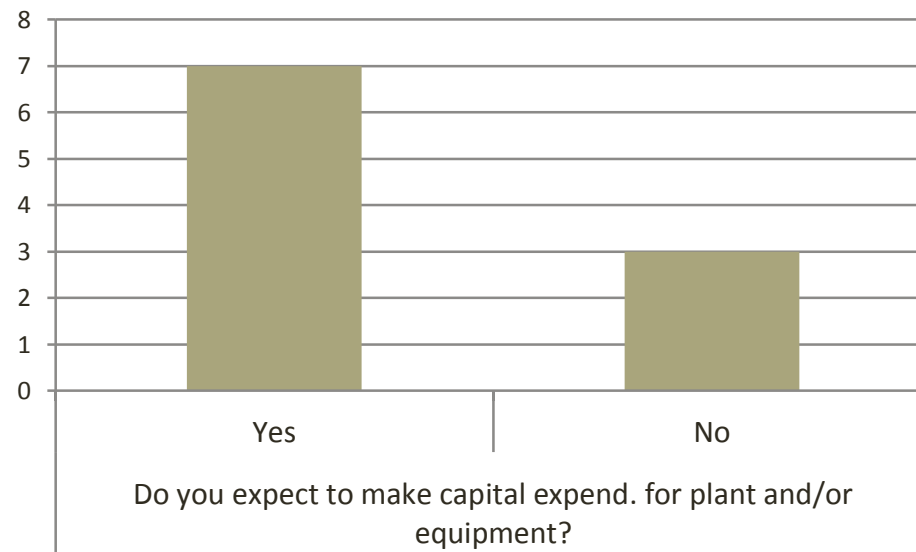
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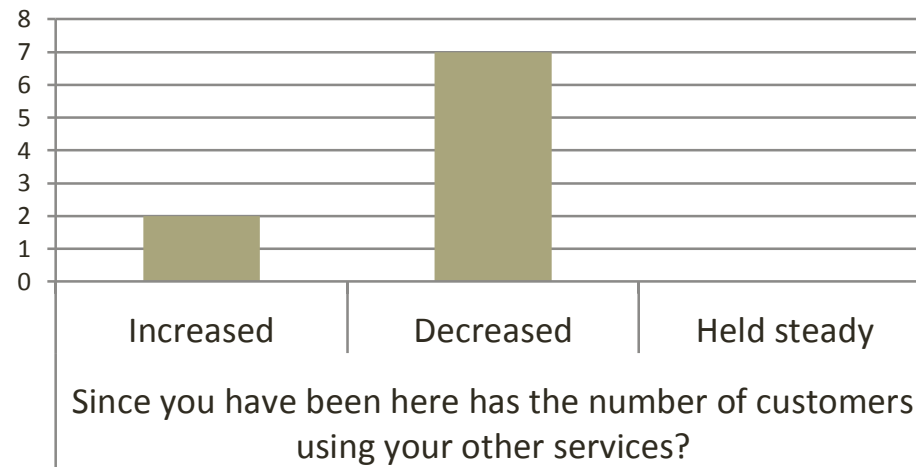
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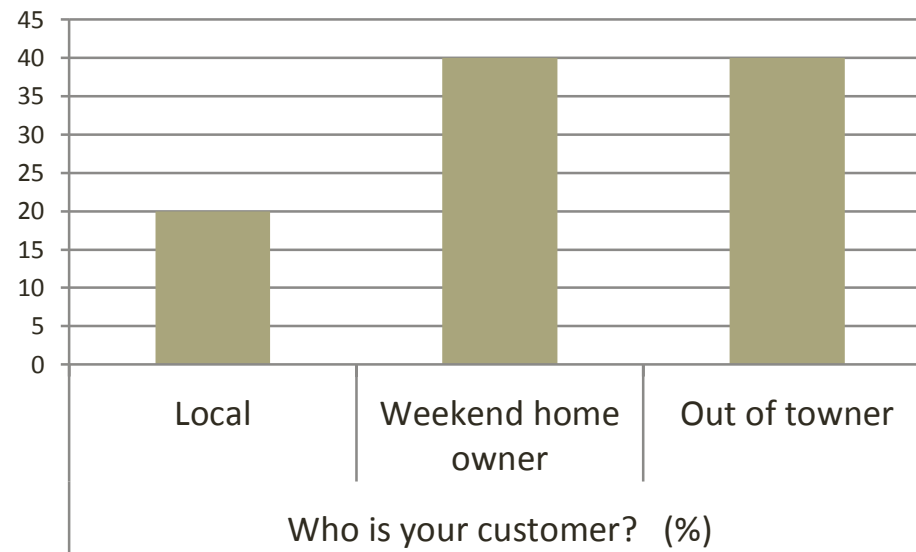
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Marinas Surveyed Summer 2013



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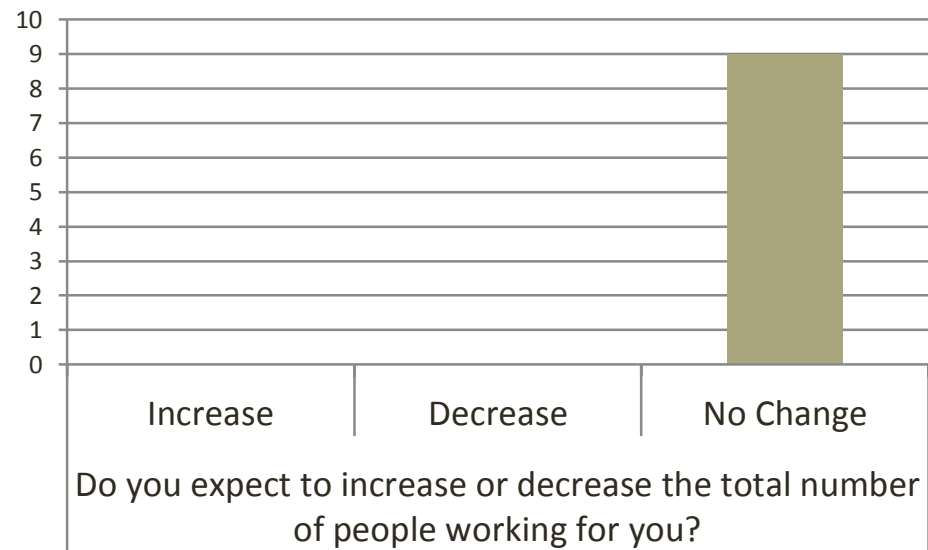


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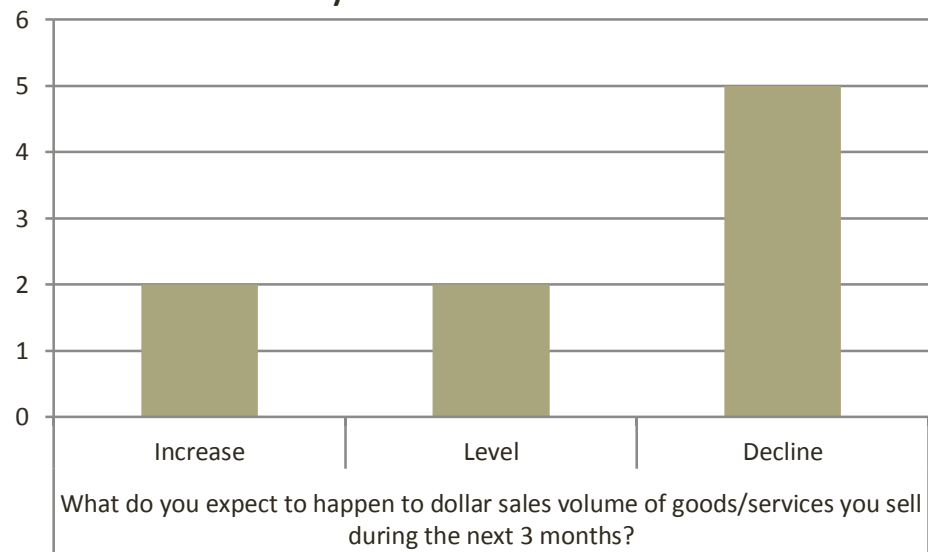
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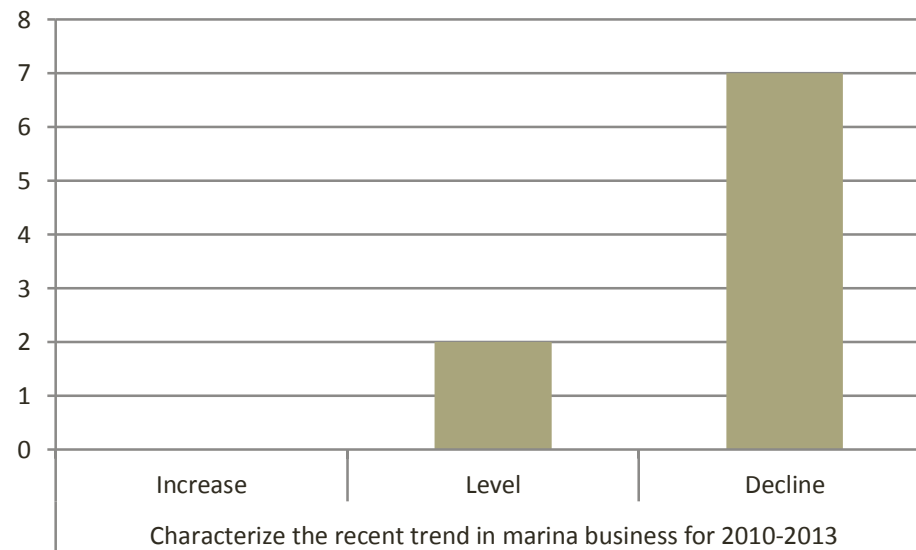
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What is a marine hub?

- Concentration of marine businesses
- Customer convenience
- Means to keep money in the community
- Means to attract outside money-tourism
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What are impediments to marine hub?

- Lack of skilled labor pool likely resulting from lack of demand for boating
- The Northern Neck is essentially an unknown area
- Lack of community infrastructure; great water access but nothing on land to keep tourists/transients
- The current population is disappearing—no reason to live here; area has not grown with the times
- Private docks are taking customers because they are permitted to have several boats in one location so friends and family all dock privately
- Less people in boating and less boating by those still in.

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- Support businesses that are already here
- Find or define the niche market of the area (eg. only marina to be able to lift catamarans)
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Ok, what about Taxes?

- If Deltaville reduces taxes all boaters here will leave if we don't do the same
- Local commissioners will not look at tax reductions because it is seen as helping the rich
- Boats that aren't registered here are not captured in economic profile
- Other taxes like sales tax might affect boating habits
- Facilities taxed on property not best use of the land-current use valuation.

The Effect of Personal Property Tax Rate Changes on the Probability of Registering Recreational Boats in Virginia Counties. Preliminary Analysis

- Logit Regression Models developed
- Determine any change in the probability of a boat being kept in a locale with a change in tax rates.
- Data was provided on all pleasure craft registered and used in the 134 counties and cities in Virginia from 1994 to 2012.
- Two models : all boats and those > 25'

Lots of Data

- The entire data set consisting of 359,210 observations of were used to determine the effect of recreational craft personal property tax rates on the choice of location for docking and use of the individual craft.
- In addition, the effect of recreational boat personal property tax rates on the choice of location for docking and use of the individual craft *greater than 25 feet* in length were analyzed using 31,854 observations.

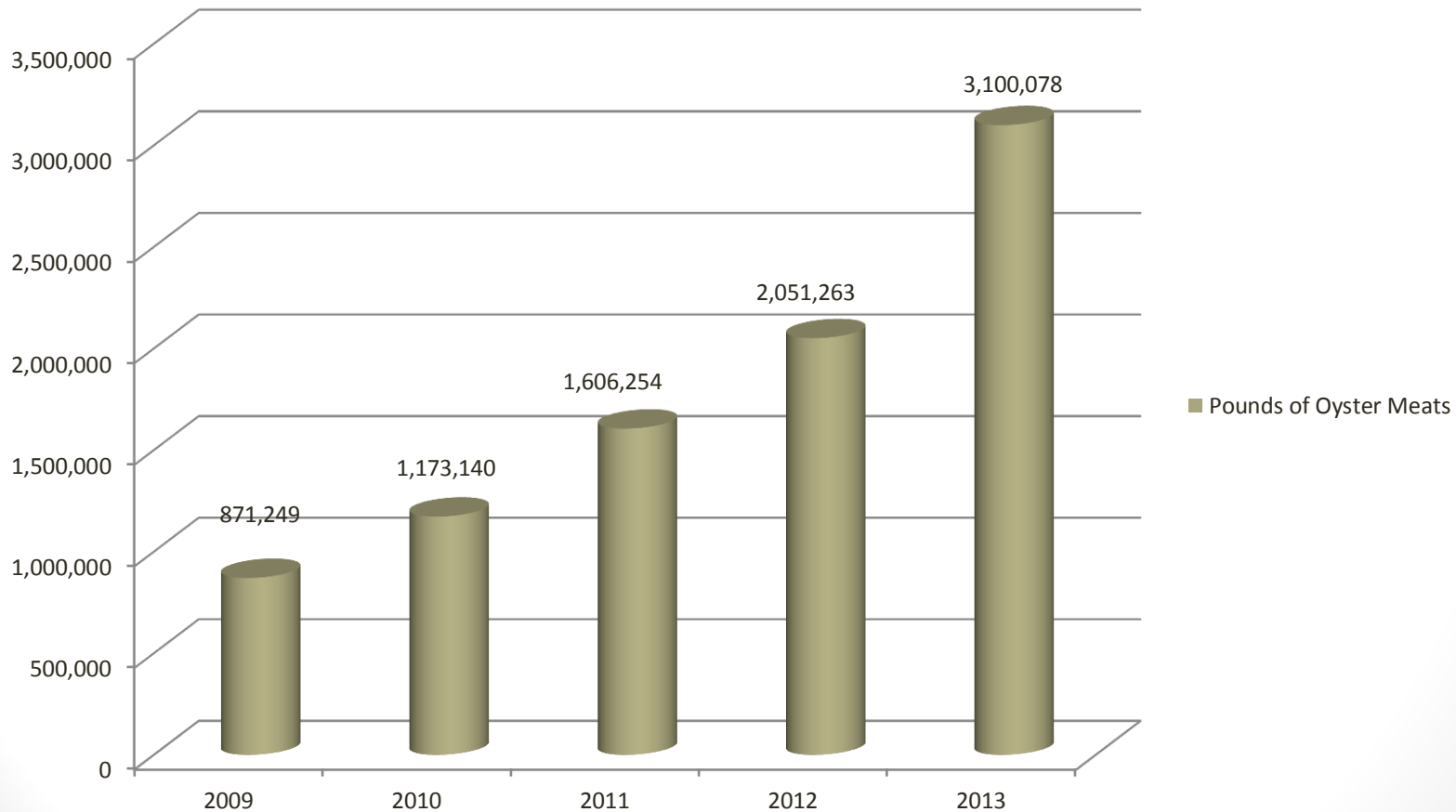
Findings

- for each 1.0 % increase in the personal property tax rate, the odds of registering a recreational craft greater than 25 feet in length declines by 0.11 %.
- for all recreational craft this ratio of the odds of registering declines by 0.09 for each 1% increase in the rate.
- These changes relate to the probability of a boat being located in the subject area. For example if the odds ratio was 5 out of 10, it would change to 4.89 out of 10 given a 1% increase in the tax rate.

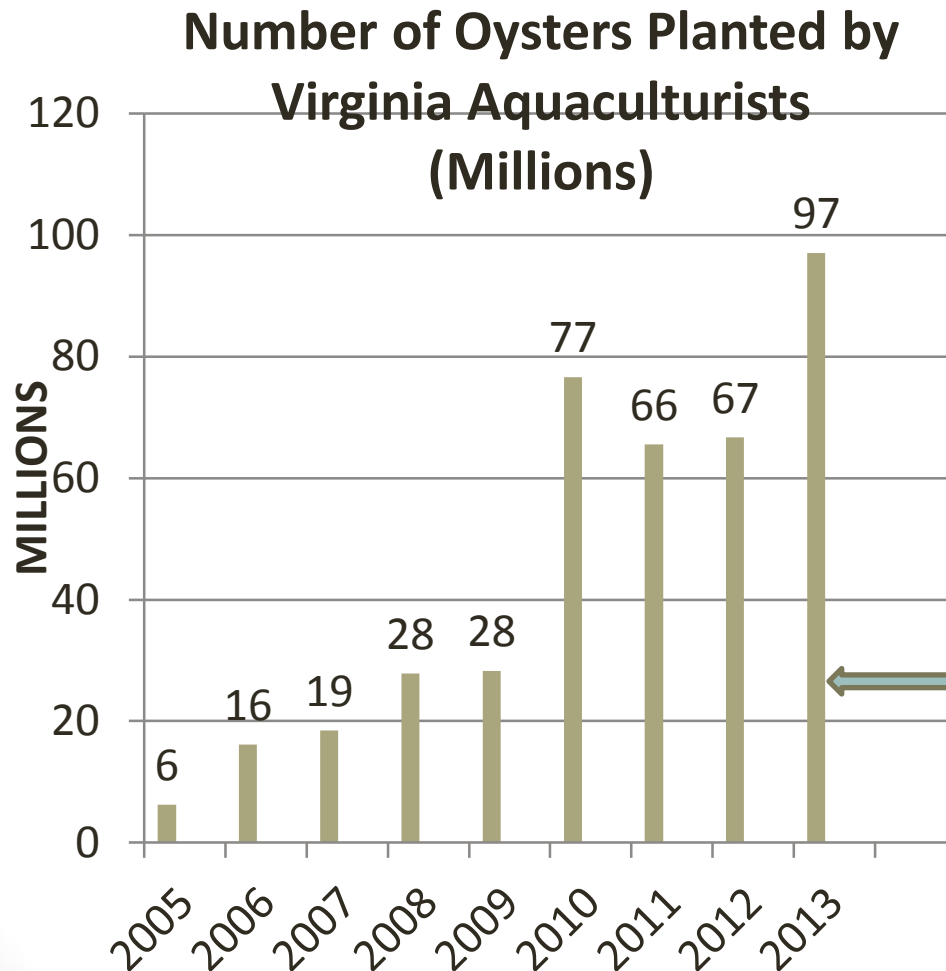


Oyster Industry Turn Around?

Recent Growth in Virginia's Wild Oyster Harvest



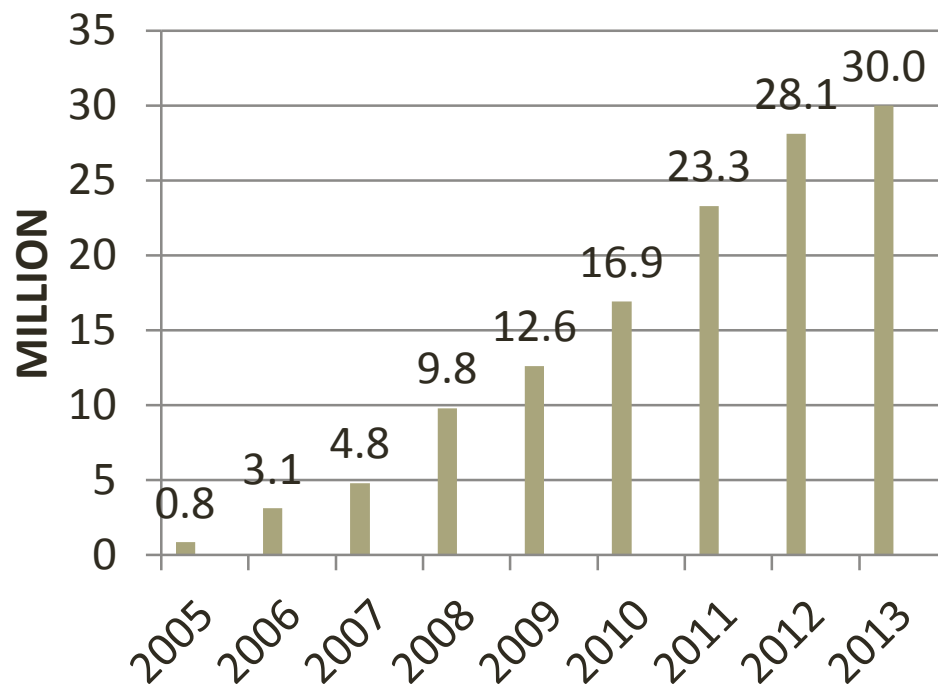
Plantings Cultchless Singles



← Northern Neck ~25 M (26% of total)

Sales

Number of Aquacultured Market Oysters Sold by Virginia Growers (millions)



- Over 10 M (~35%) from Northern Neck
- 2013 Farm Gate Over \$10 Million.

Thanks! Questions or
Comments?

APPENDIX 4

**October 16, 2014
Presentation to VISIONS**



WILLIAM&MARY

VIMS

VIRGINIA INSTITUTE OF MARINE SCIENCE
MARINE ADVISORY SERVICES

Virginia Recreational Boating: Regional Trends, Economic Outlook and Impediments

Tom Murray, VIMS Advisory Services

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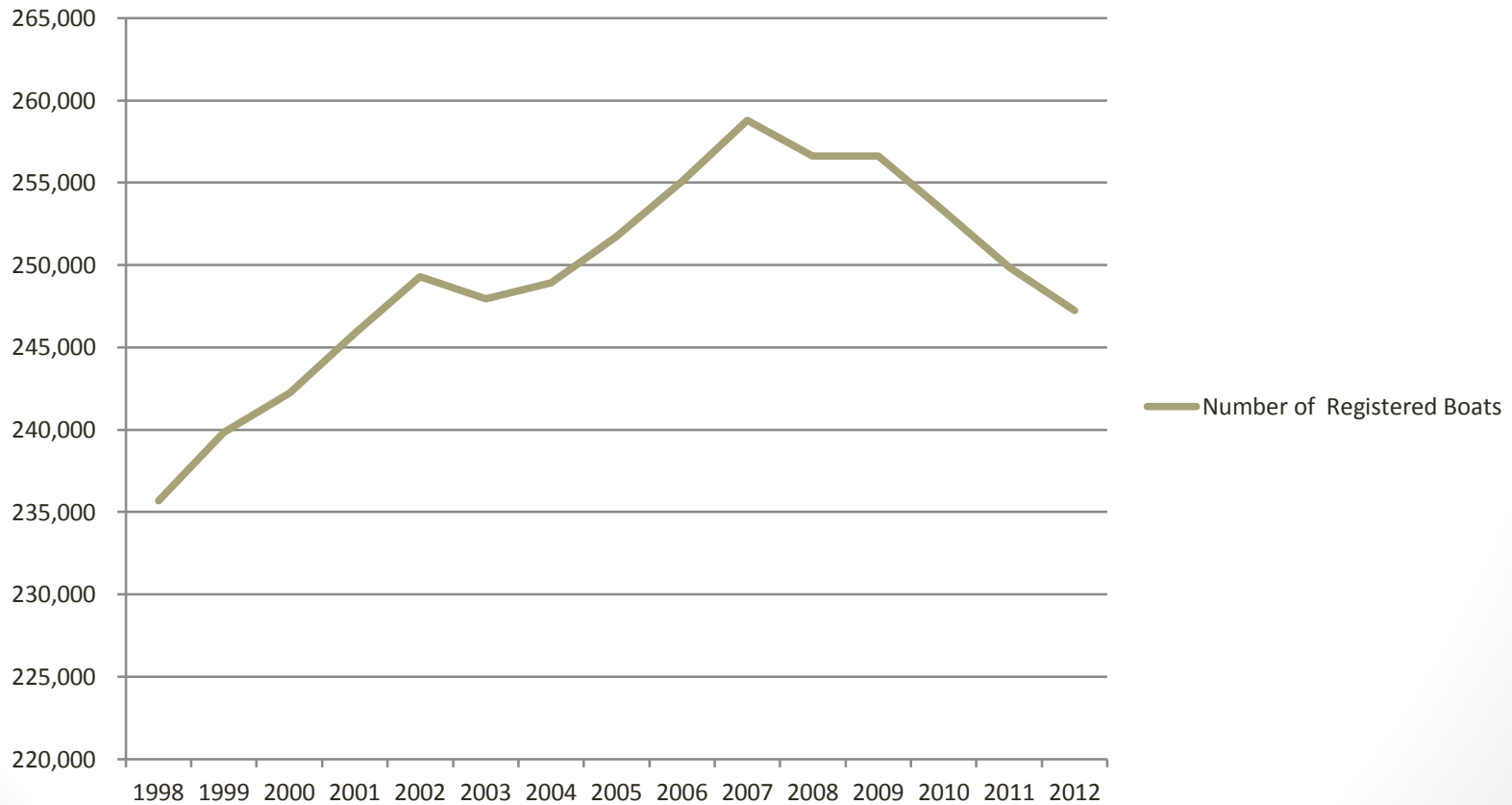
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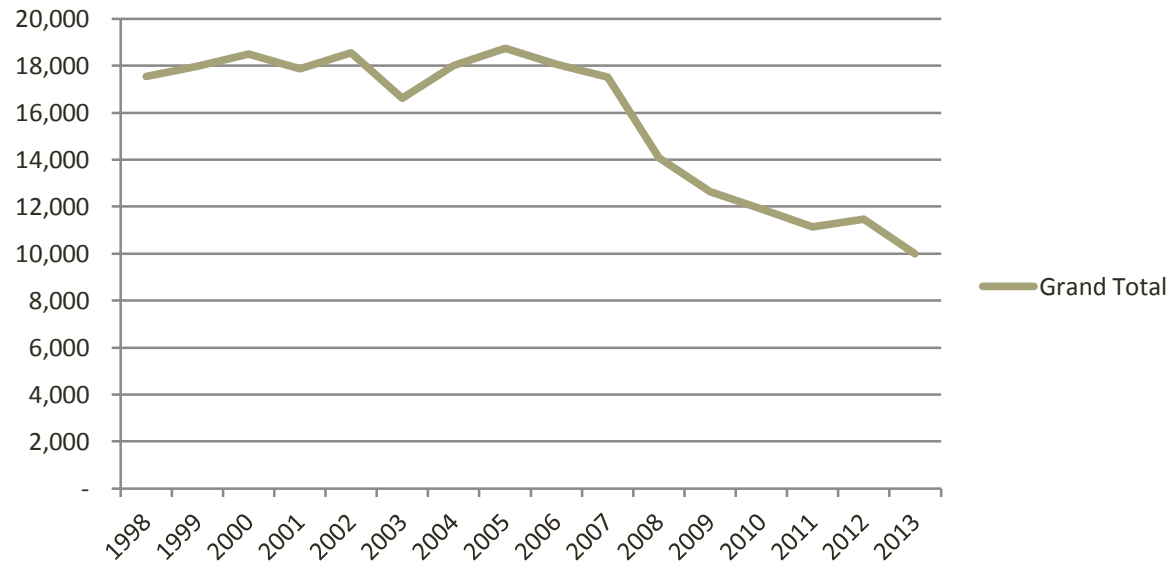
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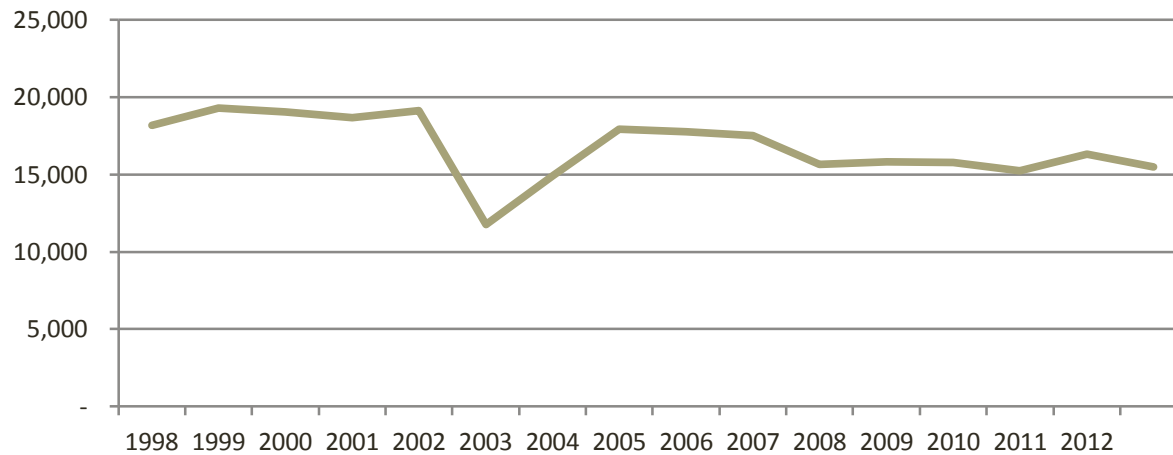
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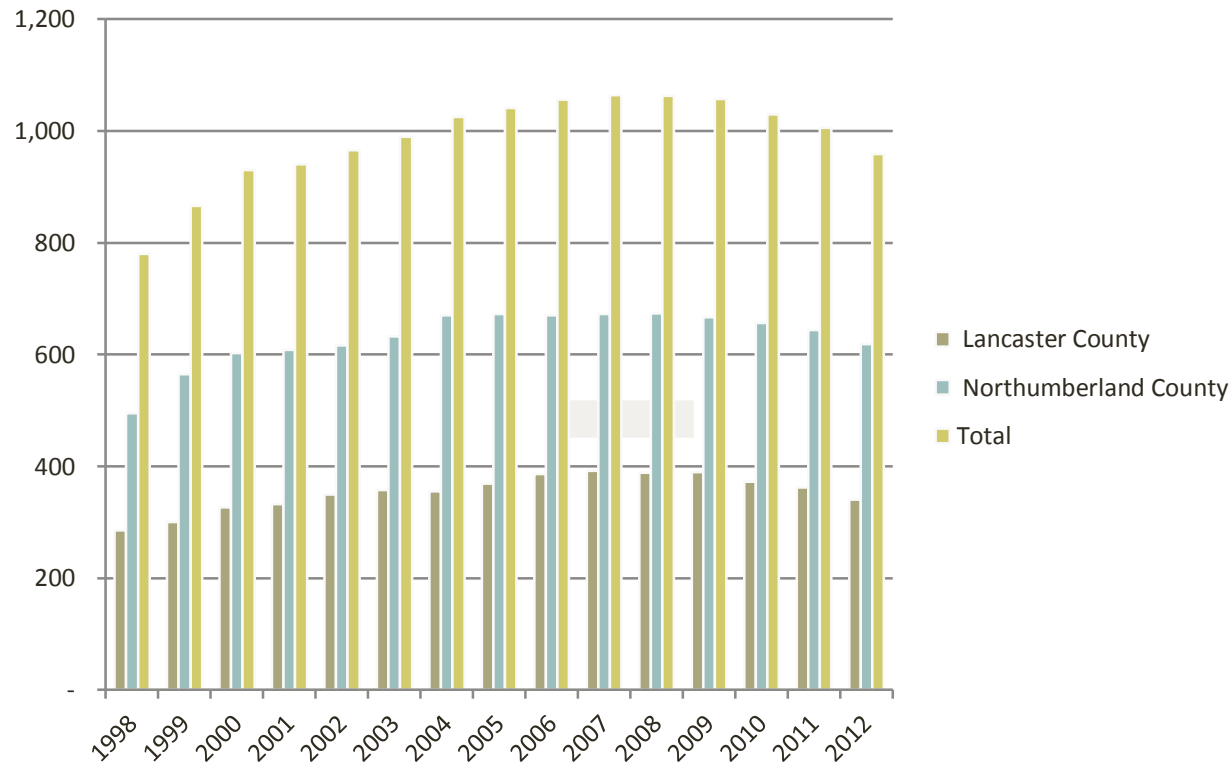
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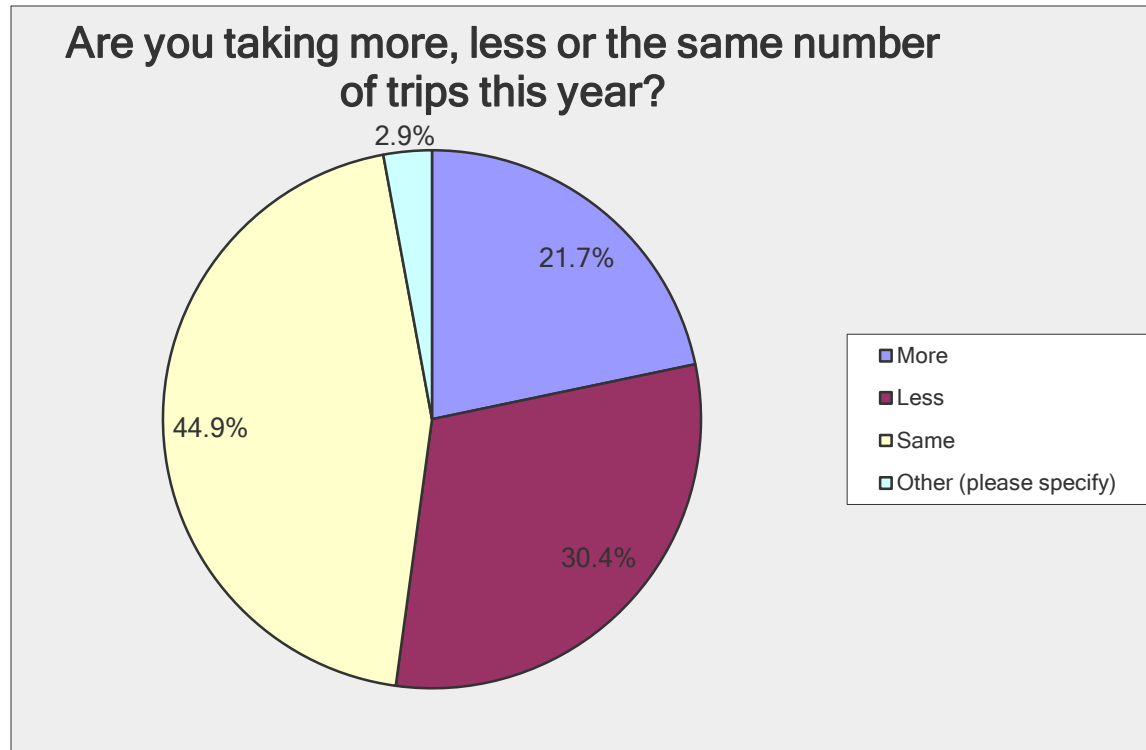


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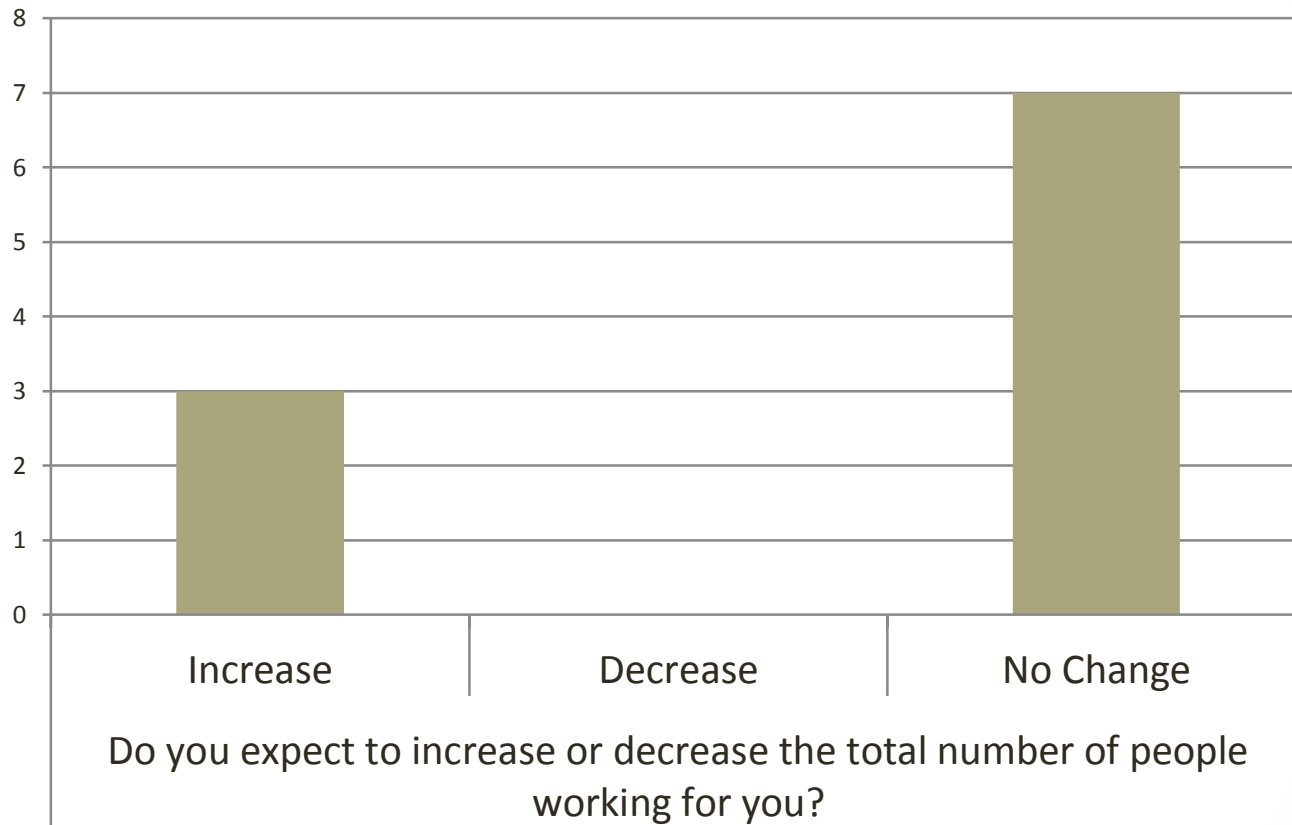
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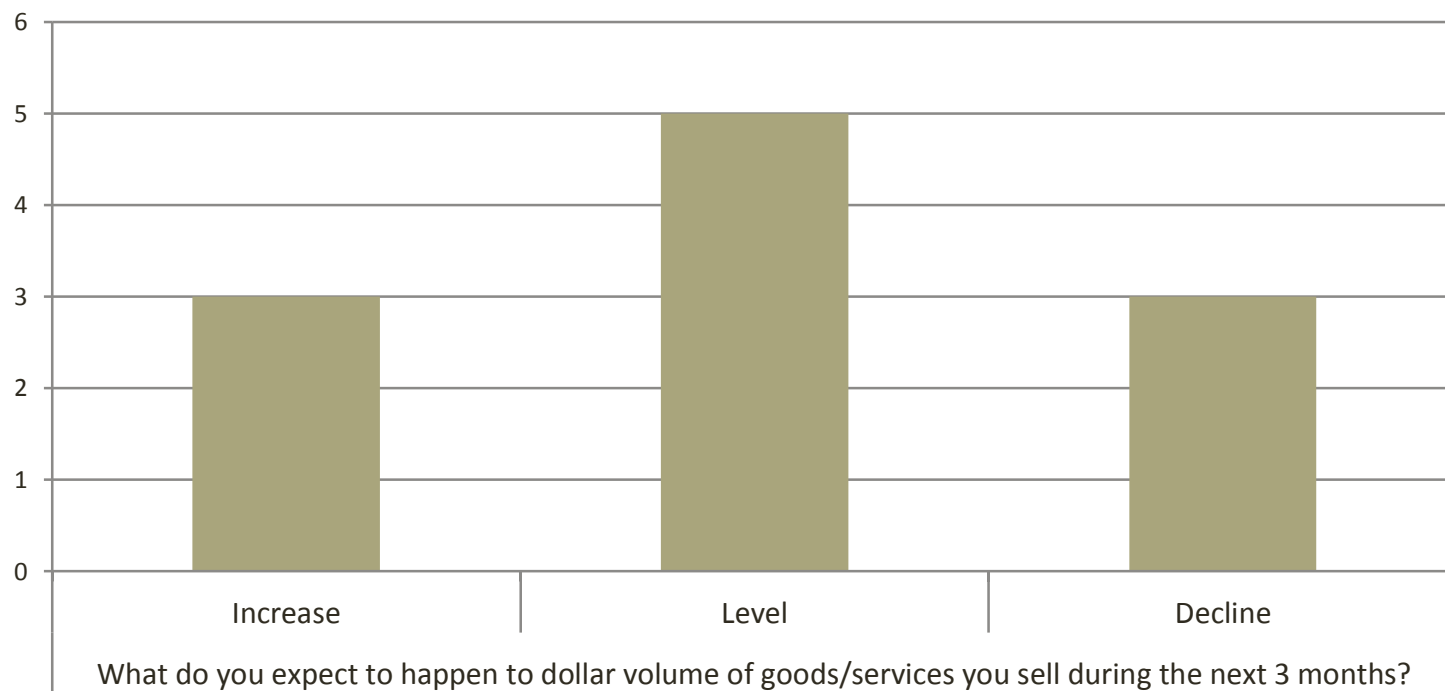
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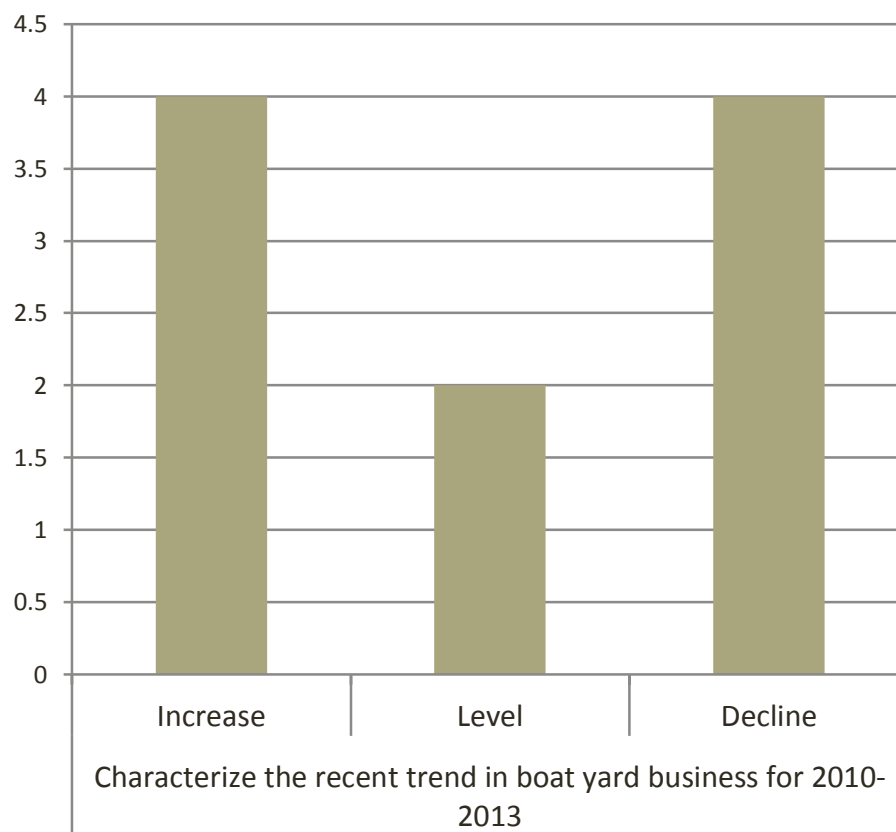
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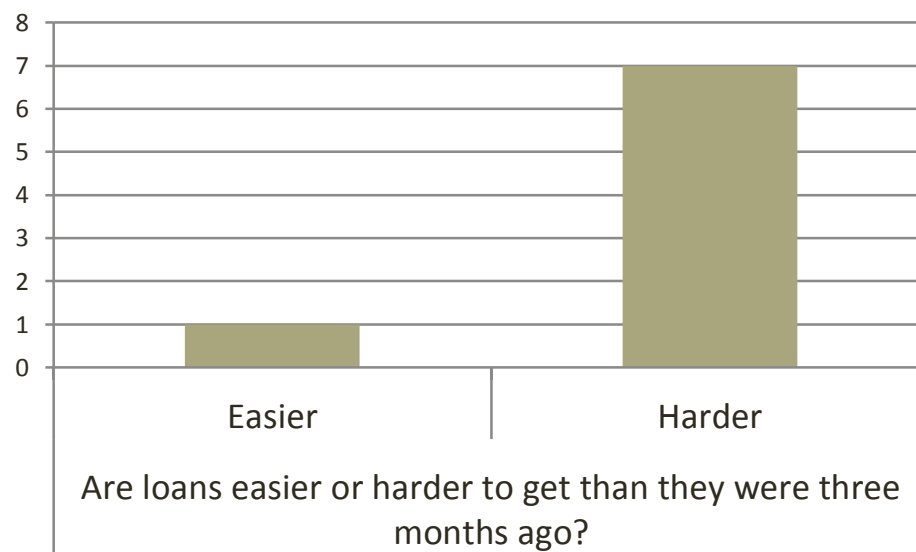
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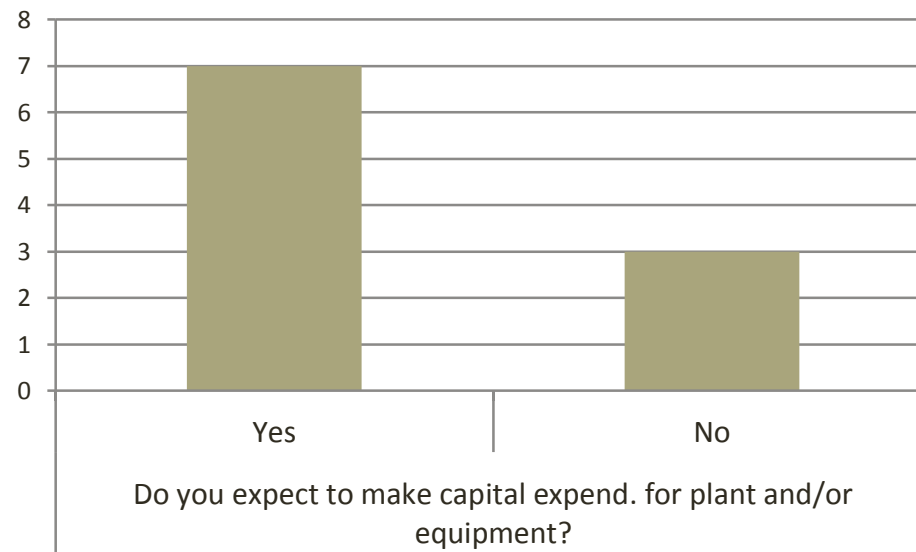
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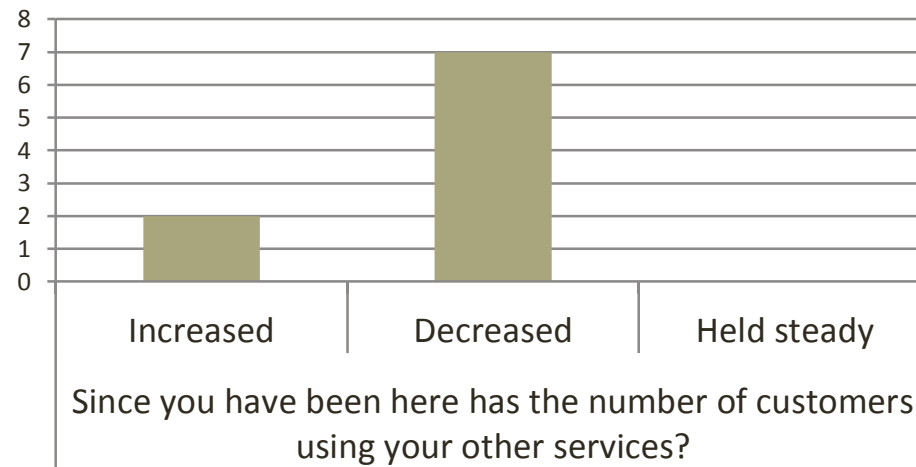
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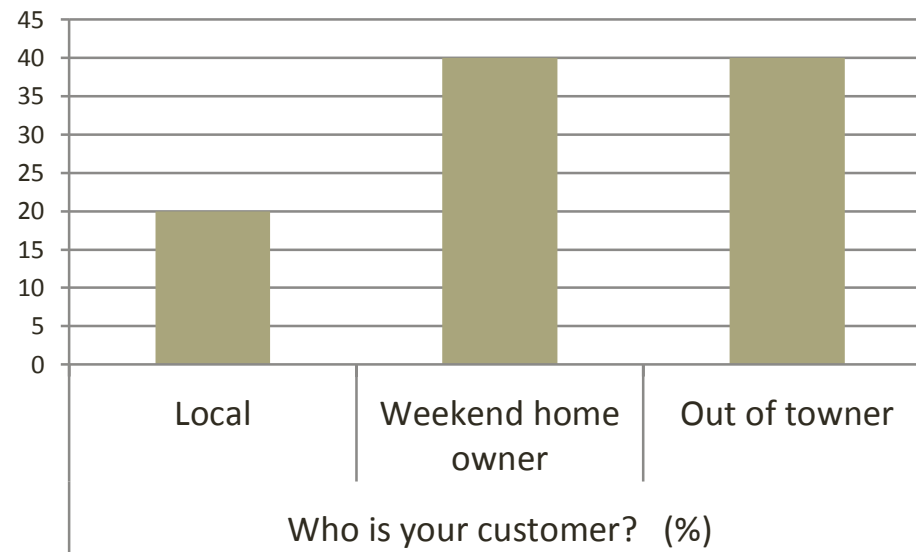
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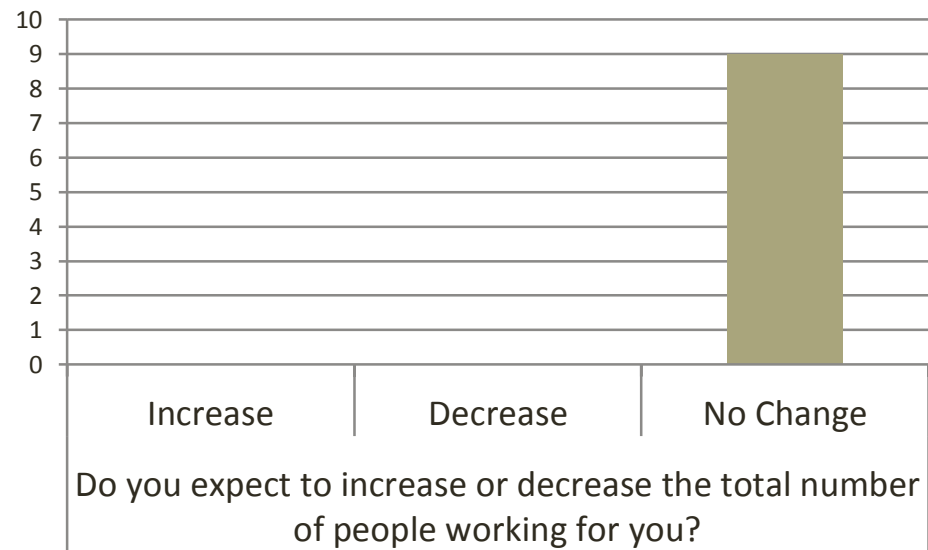
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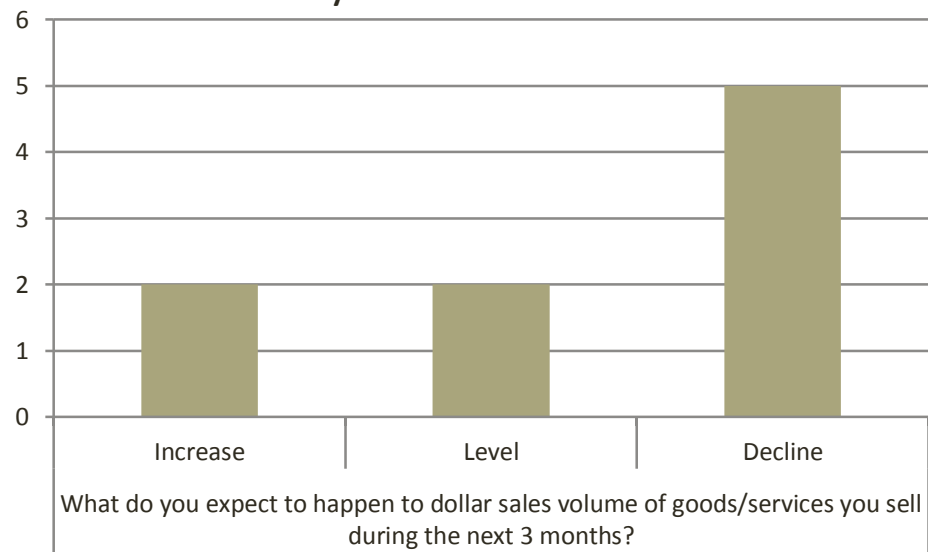
Estimated % occupancy at your facility so far in 2013 and what you expect for the rest of the year?

[illegible]

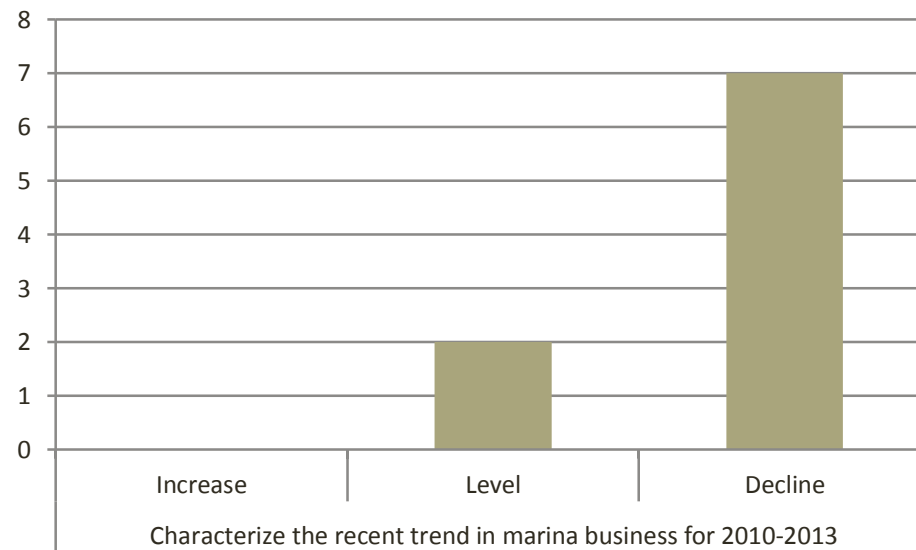
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Documented Recreational Vessel Survey _ August 2014

BOATING IN LANCASTER COUNTY

Background

Recreational boating is important to the economy of Lancaster County and it is important to understand the needs of boaters to evaluate public policies that influence boating activity and decisions to visit or keep boats in Lancaster County.

We are asking for your participation in this brief survey which attempts to gather information to better understand the factors that attract or deter boaters from locating their vessels in Lancaster County.

Input from vessel owners like you is the best direct source of information for documenting issues of importance to boaters. **All responses will be kept confidential.** Once information has been compiled, **your survey form will be destroyed**, and there will be no way to identify you. We hope to receive as much input as possible to increase the validity of the survey. **Please return the survey by September 1, 2014** in the attached postage paid envelope to Tom Murray, Virginia Institute of Marine Science, P.O. Box 1346, Gloucester Point, VA 23062. If you prefer you may fax the survey form to Tom Murray at (804) 684-7161. If you have any questions or comments, please contact Tom Murray at (804) 684-7190. Thank you for taking the time to complete the survey. We hope to begin compiling results in September, 2014

Documented Recreational Vessel Survey _ August 2014

- **1. About Your Vessel**

-

- Model & Year: _____ Length: _____36_____ft.

- Propulsion Type: Sail __ Gas _____ Diesel _____

- Insured Value: \$ _____

- Principal location of vessel, if not Lancaster County, Virginia. (Town)

- _____ (State/Country) _____

-

- **2. About Your Vessel's Location**

-

- **Indicate when your vessel will be in Lancaster County during the year:**

- A. All year _____ B. Not at all _____ C. or select months below by check marking:

- 1. Jan _____ 2. Feb _____ 3. Mar _____ 4. Apr _____ 5. May _____ 6. June _____

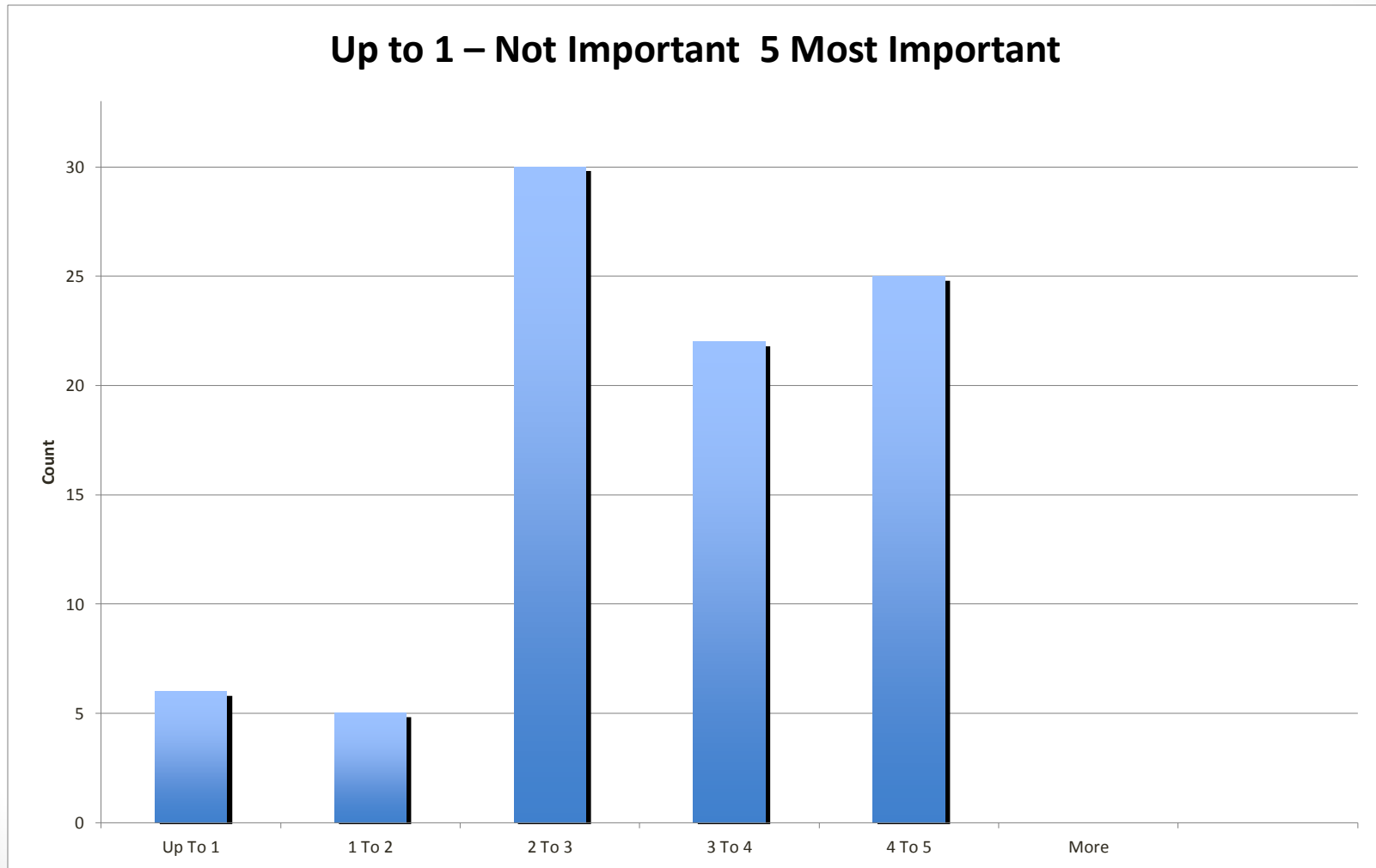
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- 7. July _____ 8. Aug _____ 9. Sept _____ 10. Oct _____ 11. Nov _____ 12. Dec _____

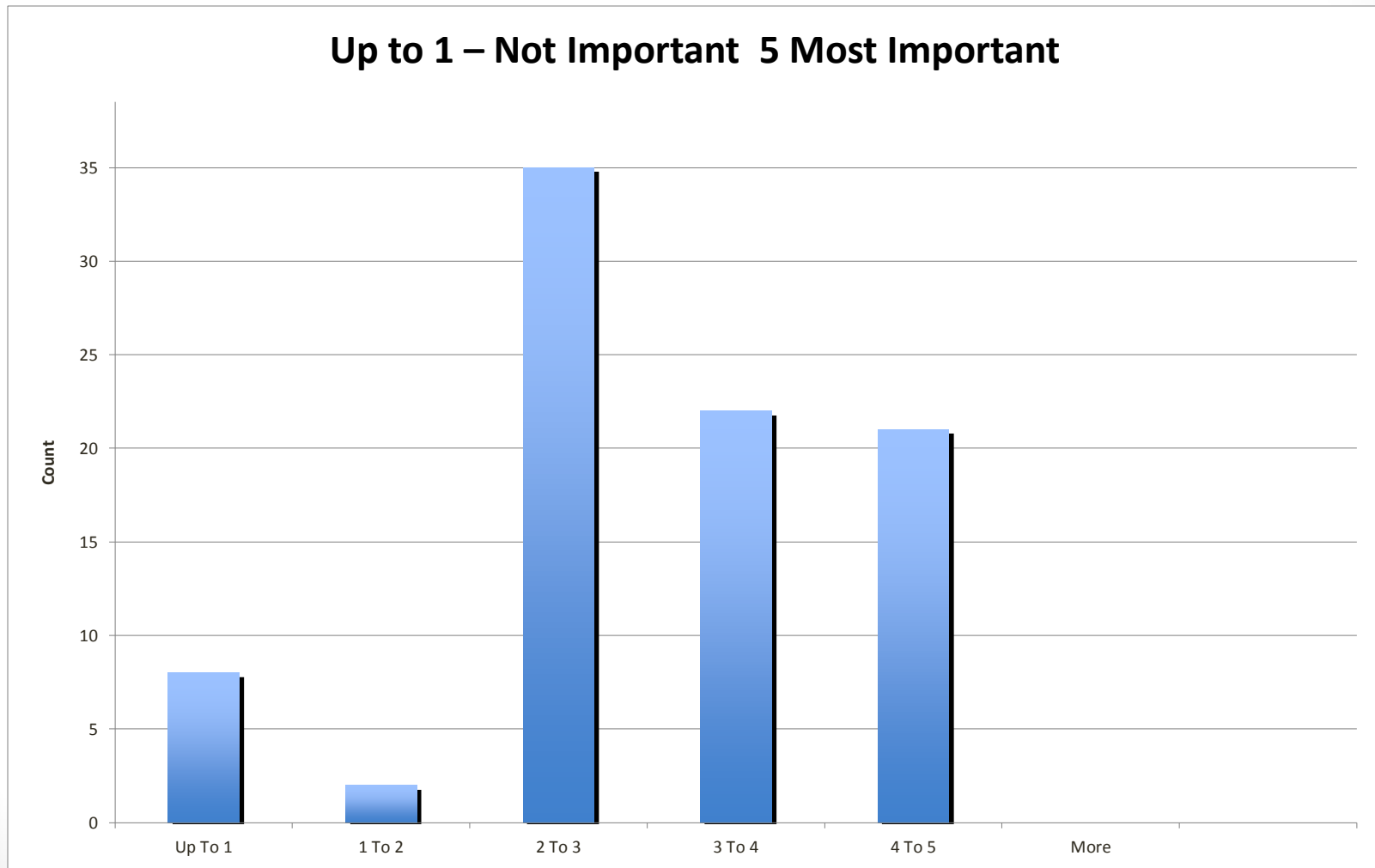
Rank the importance of the item to your decision as to where to keep your vessel and how do you rank Lancaster County to other locations?

	Importance to My Decision					Where Lancaster County Ranks				
	Not -2	-1	Moderate 0	+1	Highest +2	Worse -2	-1	Average 0	+1	Best +2
Vessel Repair, Supplies and Support Services Available	-2	-1	0	+1	+2	-2	-1	0	+1	+2
Quality of Boating Destinations, Good Anchorages, Wide Selection of Marinas, Restaurants and Shopping	-2	-1	0	+1	+2	-2	-1	0	+1	+2
Water Quality, Fishing Quality, and Other Environmental Factors	-2	-1	0	+1	+2	-2	-1	0	+1	+2
Low Local Taxes and Fees	-2	-1	0	+1	+2	-2	-1	0	+1	+2
Accessibility From My Home	-2	-1	0	+1	+2	-2	-1	0	+1	+2

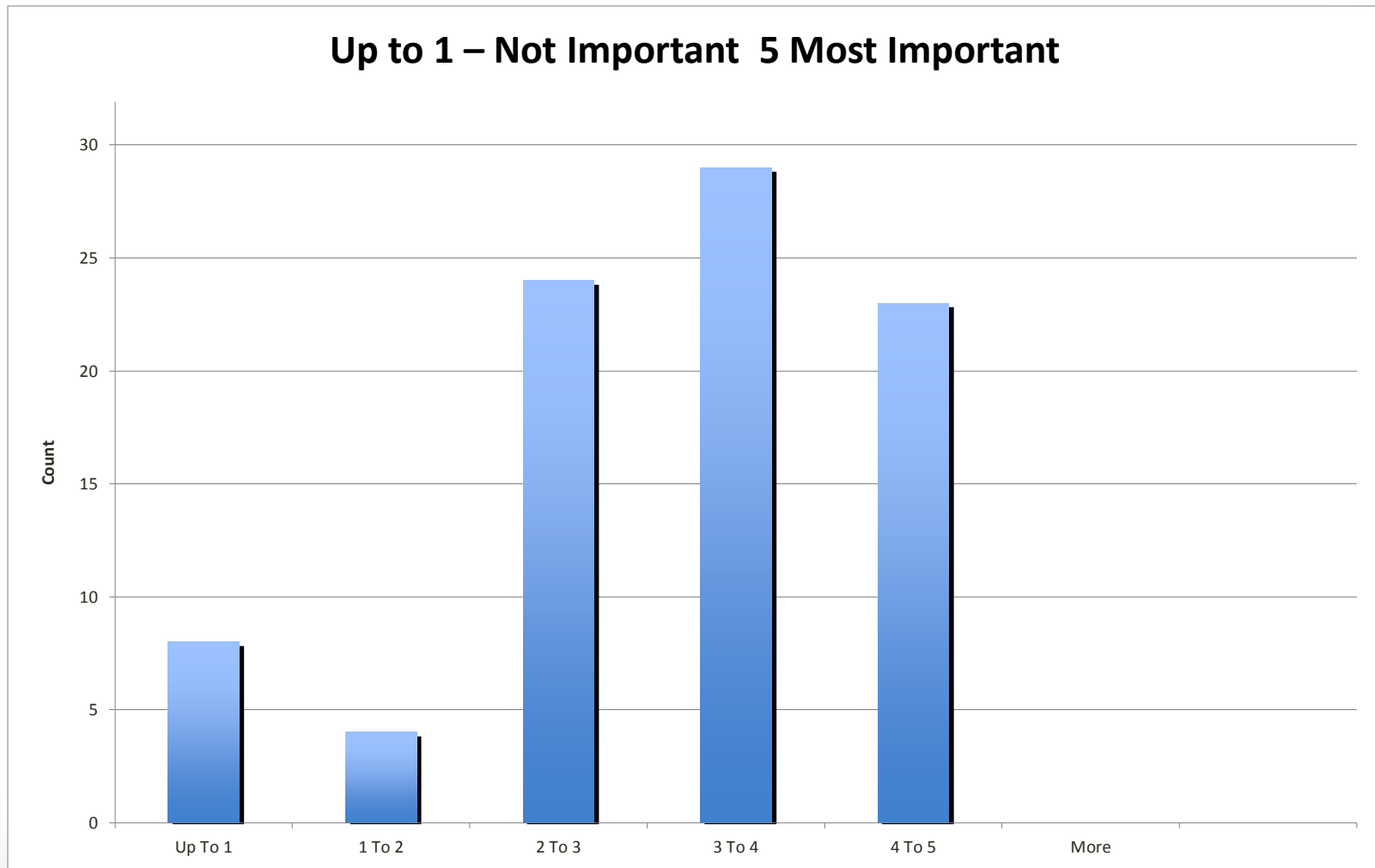
Importance of Vessel Repair, Supply, Support Services Availability



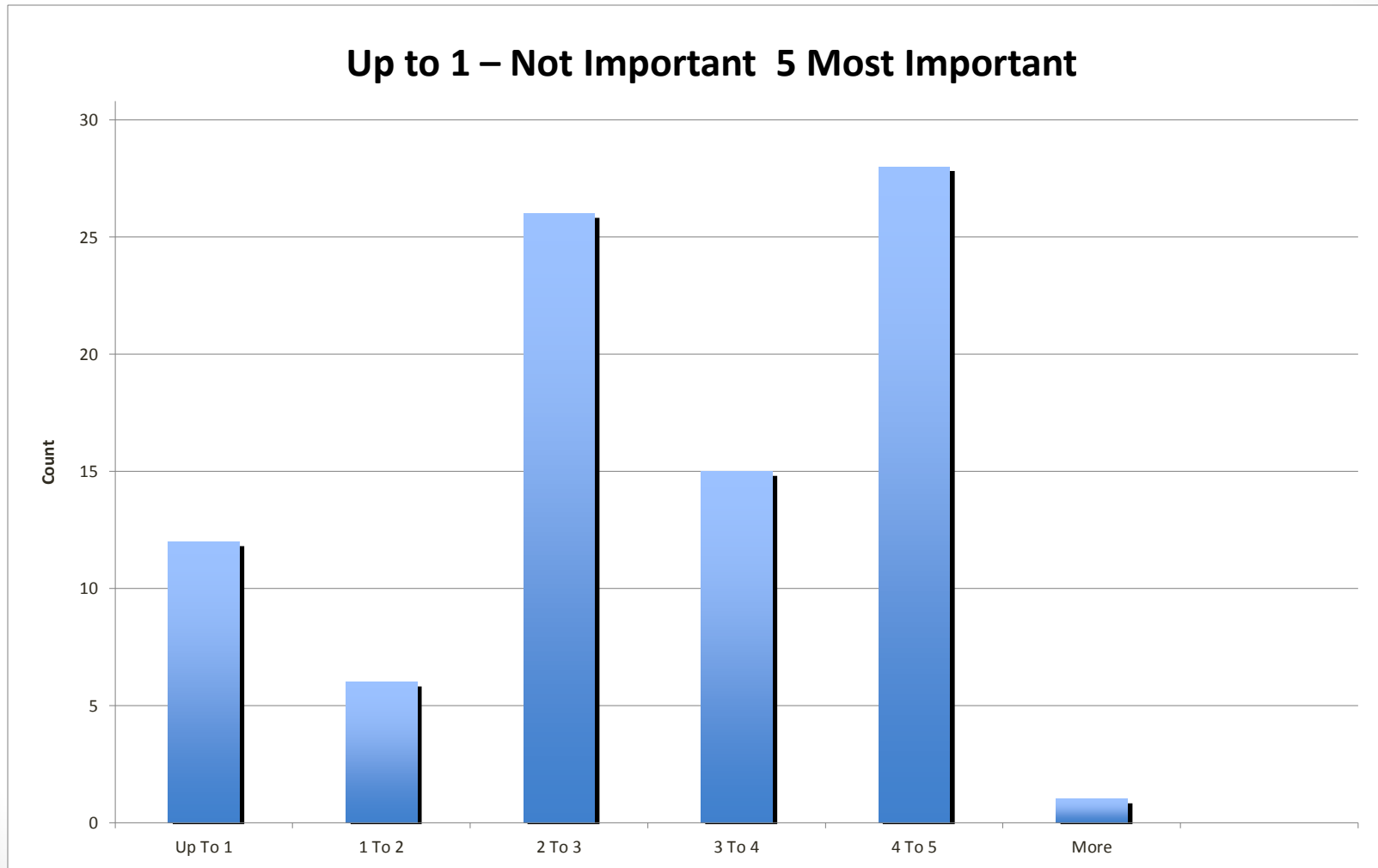
Quality of Boating Destinations, Good Anchorages, Wide Selection of Marinas, Restaurants and Shopping



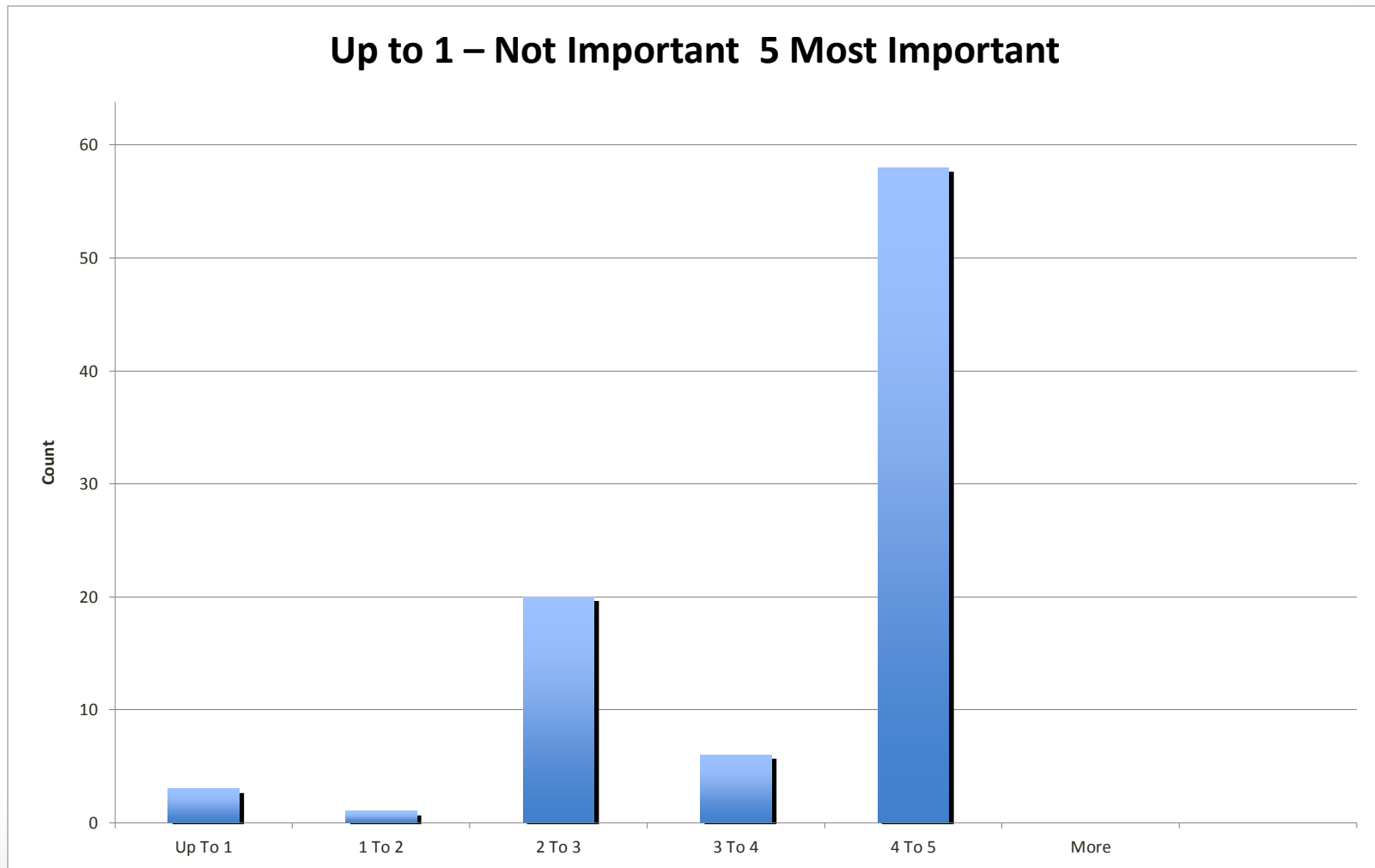
Water Quality, Fishing Quality, and other Environmental Factors



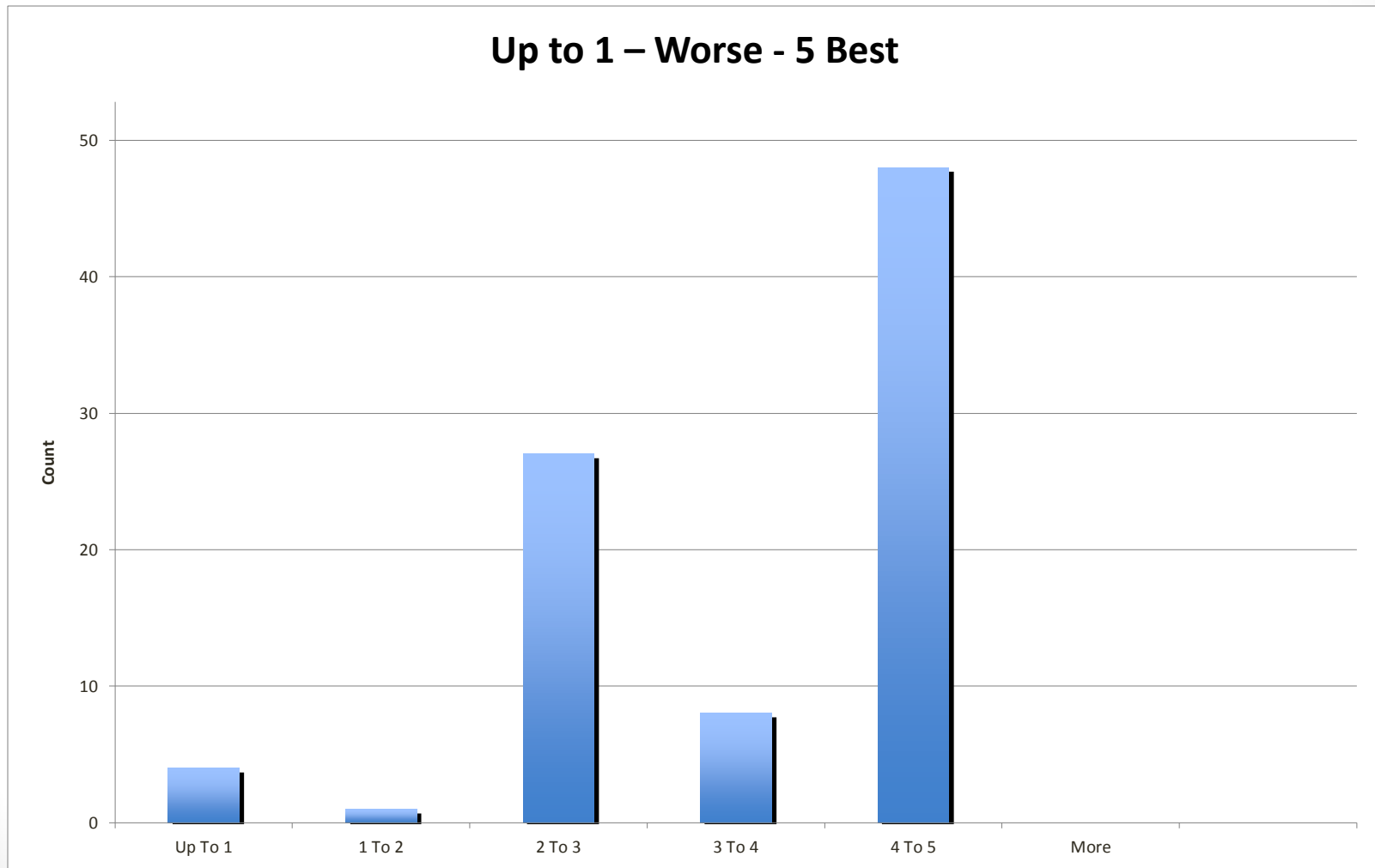
Taxes



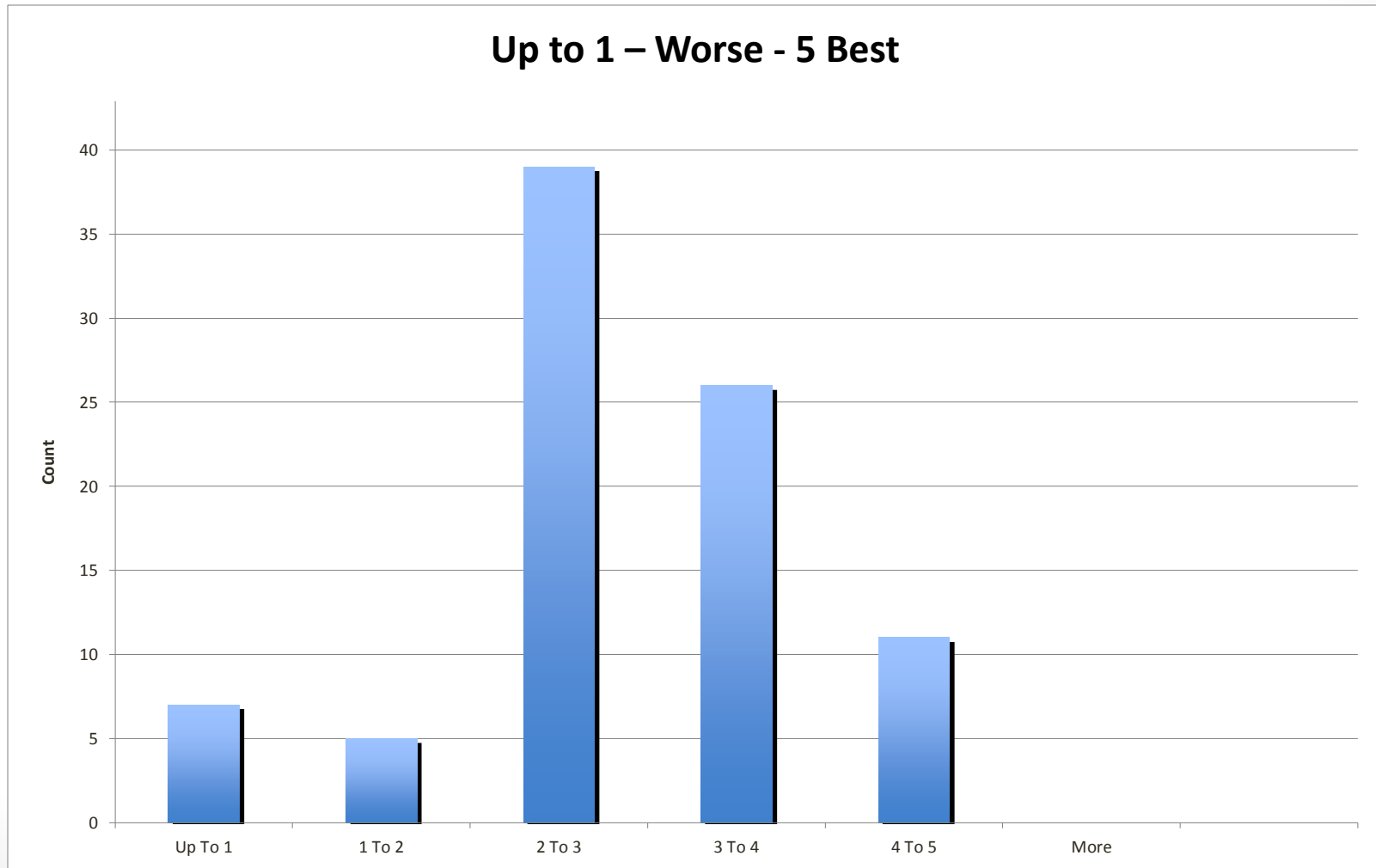
Accessibility From My Home



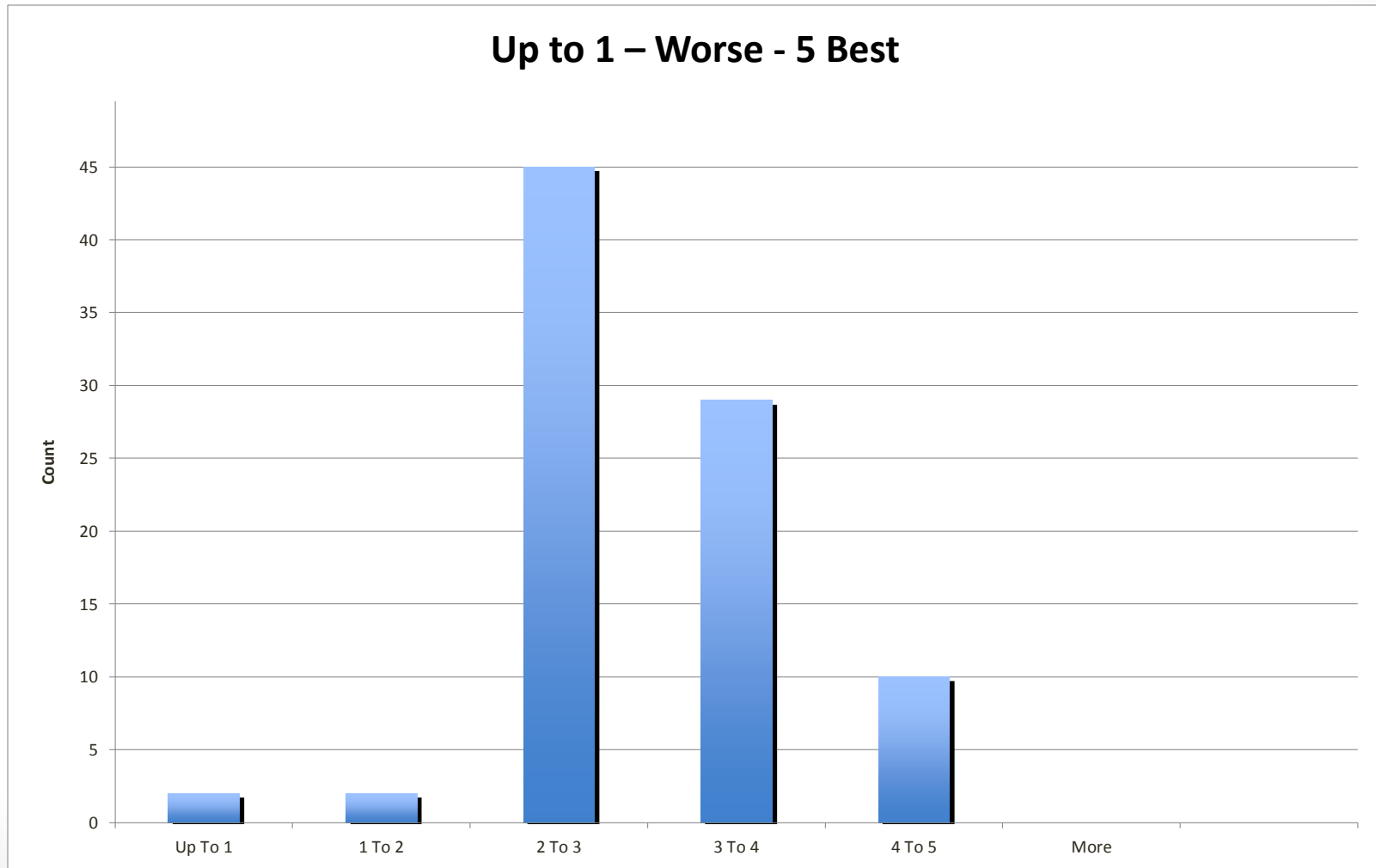
Lancaster Repair and Service Ranking compared to other locations



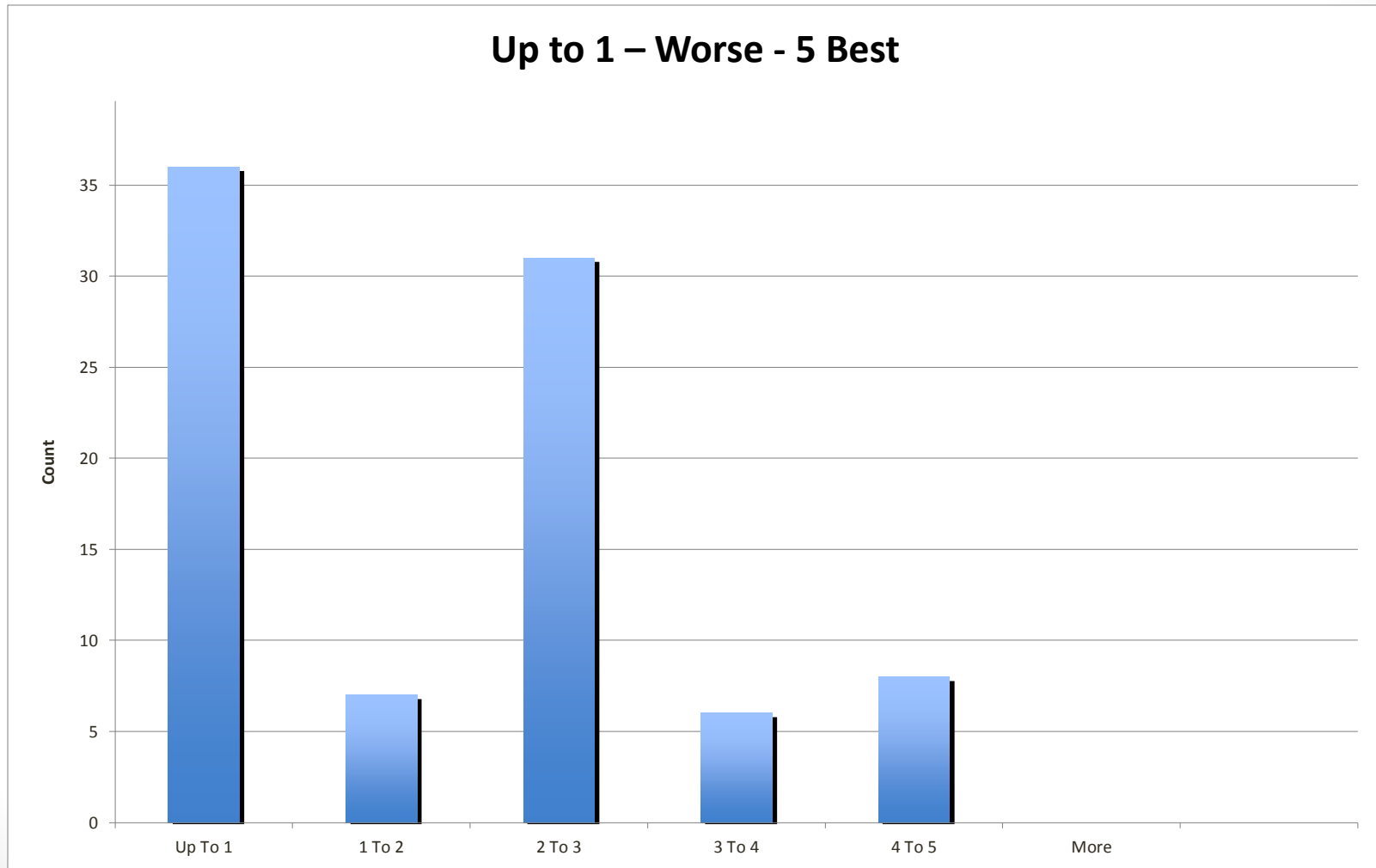
Lancaster Ranking as to Quality of Boating Destination, Anchorages, Selection of Marinas, Restaurants, Shopping.



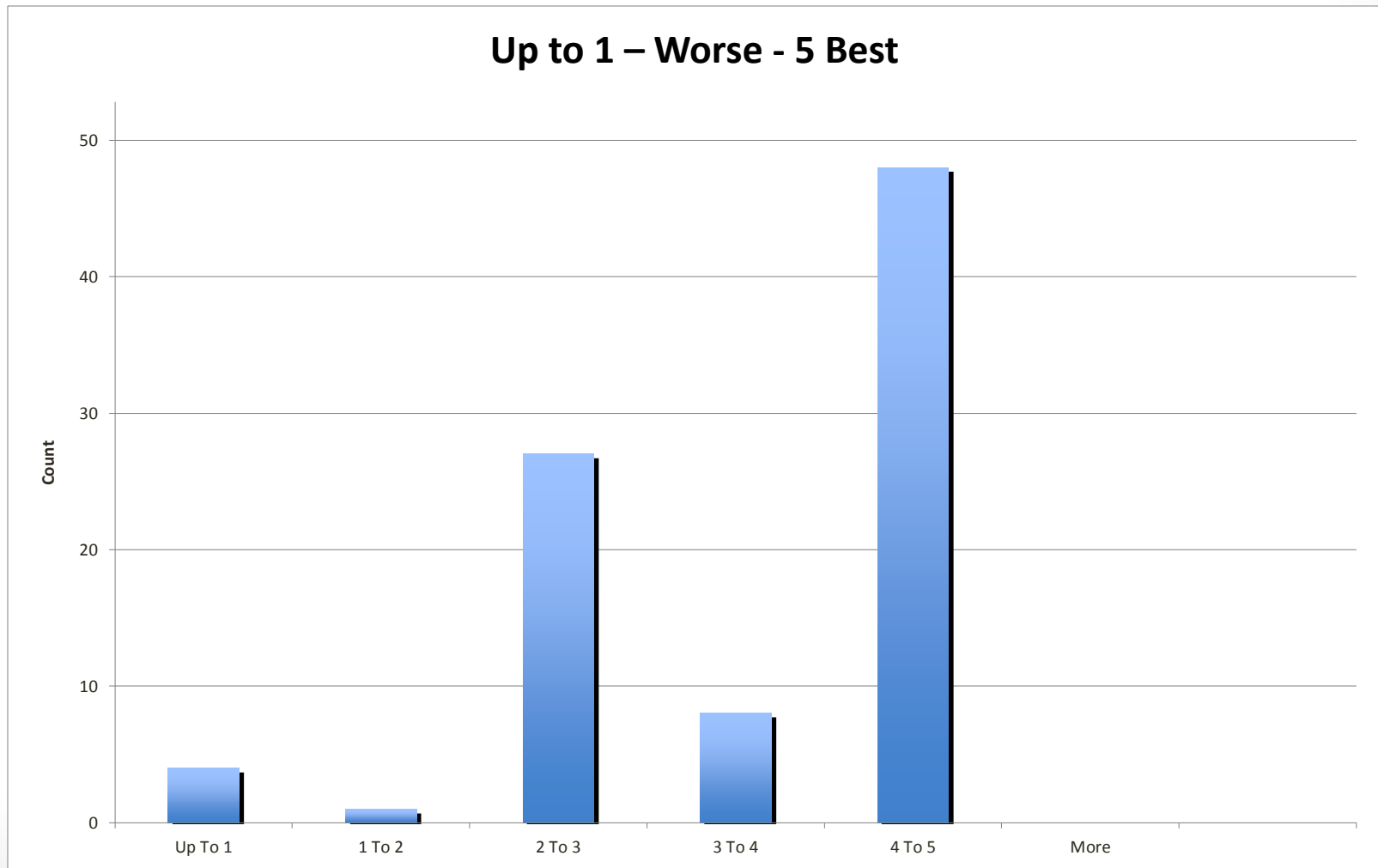
Lancaster Ranking Water Quality, Fishing and Environmental Factors



Lancaster Taxes Compared to Other Locations.



Lancaster Accessibility to Home



Questions or Comments?

Table 1
NNPDC Counties Watercraft Personal Property Tax Assessment Methods

County	Assessment Ratio	Method Of Determining Assessed Value
Lancaster	\$1.52/\$100	100% of Low Value (ABOS)
Northumberland	\$3.60/\$100	40% of NADA Average Retail (NADA) but documented assessed at 20% of cost/original price paid.
Richmond	\$3.50/\$100	Lowest NADA Value
Westmoreland	\$2.50/\$100	50% of Lowest (NADA) Retail Value

Current Taxing Methodologies in the Middle Peninsula

Table 1
MPPD Counties Watercraft Personal Property Tax Assessment Methods

County	Assessment Ratio	Method Of Determining Assessed Value
Gloucester	\$3.50/\$100	40% of High Wholesale Value (NADA ^[1])
Mathews	\$2.14/\$100	Lowest Value of Average Trade-In
Middlesex	\$3.50/\$100	Low Retail Value – 20% x .35 (BUC) ^[2]
King & Queen	\$3.94/\$100	Lowest Value (NADA)
King William	\$3.55/\$100	Lowest Value (ABOS ^[3])
Essex	\$3.50/\$100	Lowest Value x .50 (BUC)

^[1] N.A.D.A. Marine Appraisal Guide-The Marine Guide for the National Automobile Dealers Association.

^[2] BUC List “Bucboat-Used Boat Price Guides”

^[3] ABOS Marine Blue Book. Reference on watercraft original list prices and used evaluation prices.