Delavan Lake Report

Town of Delavan

January 2020

University of Wisconsin Whitewater

Fiscal & Economic Research Center

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Introduction

Delavan Lake is a Hydrologic Drainage lake located in Walworth County, Wisconsin. According to the Department of Natural Resources, the lake area encompasses 1,906 acres, with a maximum depth of 52 feet and an average depth of 21 feet. The lake supports various recreational activities including boating, swimming, Bass and Walleye fishing, as well as Ice Fishing, and Snowmobiling during the winter months. With a location of an hour drive west from the Milwaukee area and a two-hour drive from the Chicago area, Delavan Lake is a popular location for both full-time residents, as well as part-time residents who come to partake in these various activities throughout the year.

Over the past several decades, Delavan Lake has experienced several environmental challenges. In the 1980s, these problems reached peak levels throughout the lake. These problems included algal blooms resulting from nonpoint nutrient pollution deteriorating the water and living quality of the lakefront residents. From 1989-1994, a large experimental environmental rehabilitation project was undertaken on the Delavan Lake by government agencies such as the U.S. Environmental Protection Agency (EPA), U.S. Army Corps of Engineers and the Wisconsin DNR. This project was one of the most drastic and comprehensive rehabilitation efforts of its time and yielded successful results for the quality of the lake in the following years. Based on a previous Fiscal and Economic Research Center (FERC) report (Eiswerth et al., 2005), the water quality was beginning to show signs of deterioration yet again. Likewise, recent annual reports on water quality of Delavan Lake from the Wisconsin DNR show that there has been deterioration and an increase in algae buildup, which leads to murky water and gives off an unpleasant odor.

With the water quality of the lake in recent years deteriorating once again, it is clear more monitorization, maintenance, and possible rehabilitation efforts may be necessary for the lake's environmental status. The purpose of this report is to analyze how improving the water quality may incentivize existing visitors to spend more time in Delavan and benefit the local economy of the area. In order to help analyze this task, we administered a number of surveys to Delavan Lake residents with the intent of getting an insight into their recreational tendencies and spending patterns. The results show that out of many factors, environmental quality is an important one, and may lead to economic growth with quality improvement.

Economic Profile of Delavan Lake

Easy Analytic Software Inc. (EASI) software, gives us an economic outline for residents living near the Delavan Lake. Using this software, we obtain socioeconomic information of residents of the Delavan lake such as their average incomes, households demographics, and education levels attained. This EASI software includes a service called "*The Right Site"*, which tracks the census data for states, counties, cities and even individual census tracts to help ascertain what economic profile of an area looks like. Following the census tracts directly around the lake and comparing this data to Walworth County and the city of Delavan as a whole provides an idea of what impact Lake Residents can play in the local economy. A table (Table 1) of this comparison data can be found below. The profile shows that households on Delavan Lake earn significantly more income than the rest of Delavan, with families earning on average 7.8% more annually.

Table 1: Economic Profile Comparison

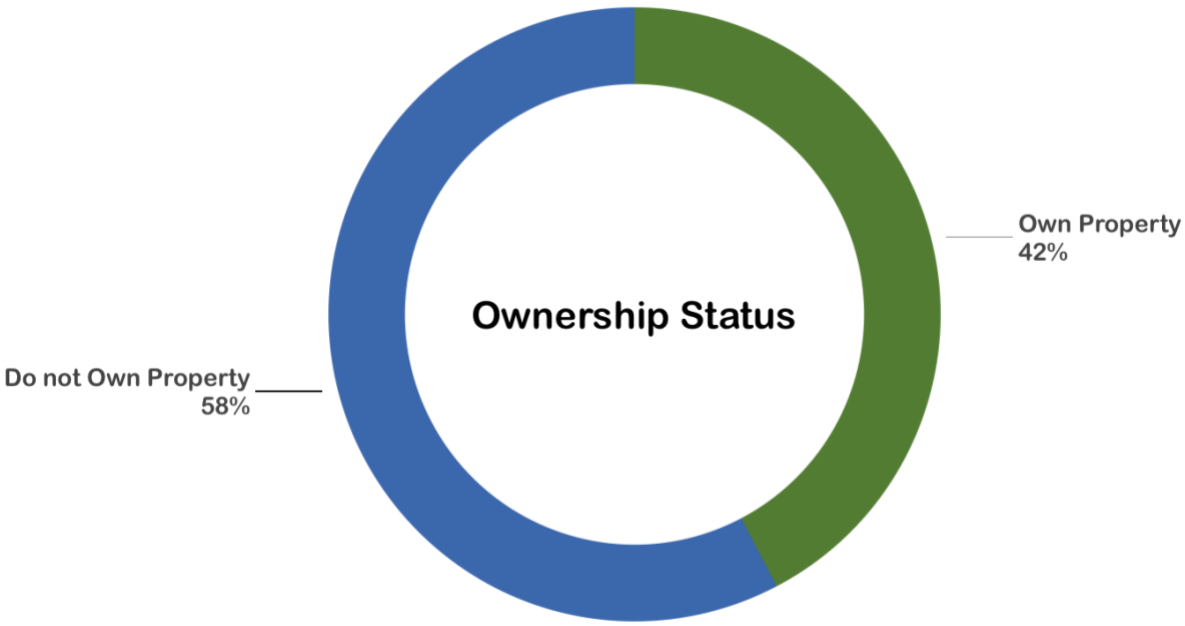
	Population Density	Average Household Size	Median Age	Average Household Income	Median Household Income	Average Family Income	Median Family Income
Walworth County	187.8	2.49	39.2	$93,303	$74,194	$112,228	$93,554
Delavan City	1,278.5	2.58	35	$79,390	$59,736	$88,087	$72,016
Delavan Lake Residents	219.7	2.44	44.7	$84,210	$69,522	$95,014	$80,333

The Surveys

Throughout 2019, FERC sent surveys by mail to residents who lived either directly or within close proximity to the Delavan Lake. These surveys were sent to residents who live on the lake year-round, as well as residents who live throughout Wisconsin and Illinois that reside near the lake temporarily throughout the year.

The Survey included various questions about both the individual taking the survey and their household. Questions one and two inquired about the ownership status of the property and its location. In Graph 1, we observe a donut chart of the percentage of the total responders based on their ownership of the property, about 60 percent of the responders do not own property near or at the lake.

Graph 1: Ownership Status of the Respondents



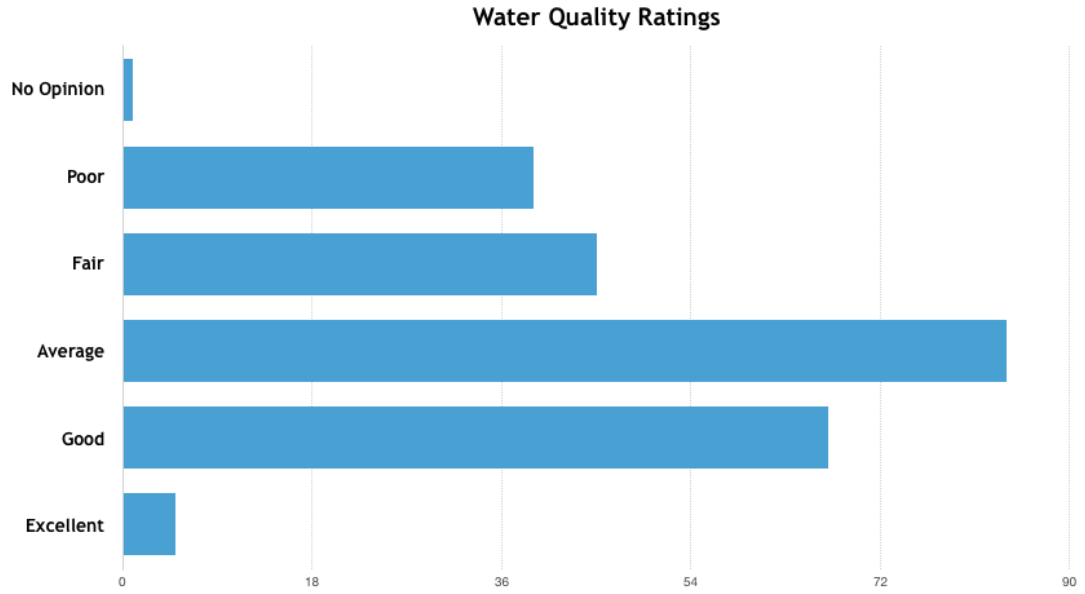
Question 3 inquired about the number of days the property is utilized throughout the year during different seasons. Table 2 shows the summary statistics for the responses of the number of days spent at the lake by each season.

Table 2: Summary for the number of days spent at the lake

Season	Min	25th Percentile	Median	Mean	75th Percentile	Max
Spring	0	8	12	16	21	50
Summer	0	20	30	39	50	92
Fall	0	10	15	18	25	90
Winter	0	3	9	10	13	80

Questions four through six asked the respondent to rate the current quality of the water along with any open-ended suggestions that would help improve it. First the survey asked what the respondents would rate the current water quality of Delavan Lake from 1 through 5, with 5 being excellent, 4 being good, 3 being average, 2 being fair and 1 being poor quality. The average response was 3 exactly. We followed up with a written response in which we requested the respondents write how they would define water quality in their own words. The graph (Graph 2) below portrays the count for each rating (1 through 5).

Graph 2: Number of Responders Based Upon Their Ratings for the Current Water Quality of the Lake

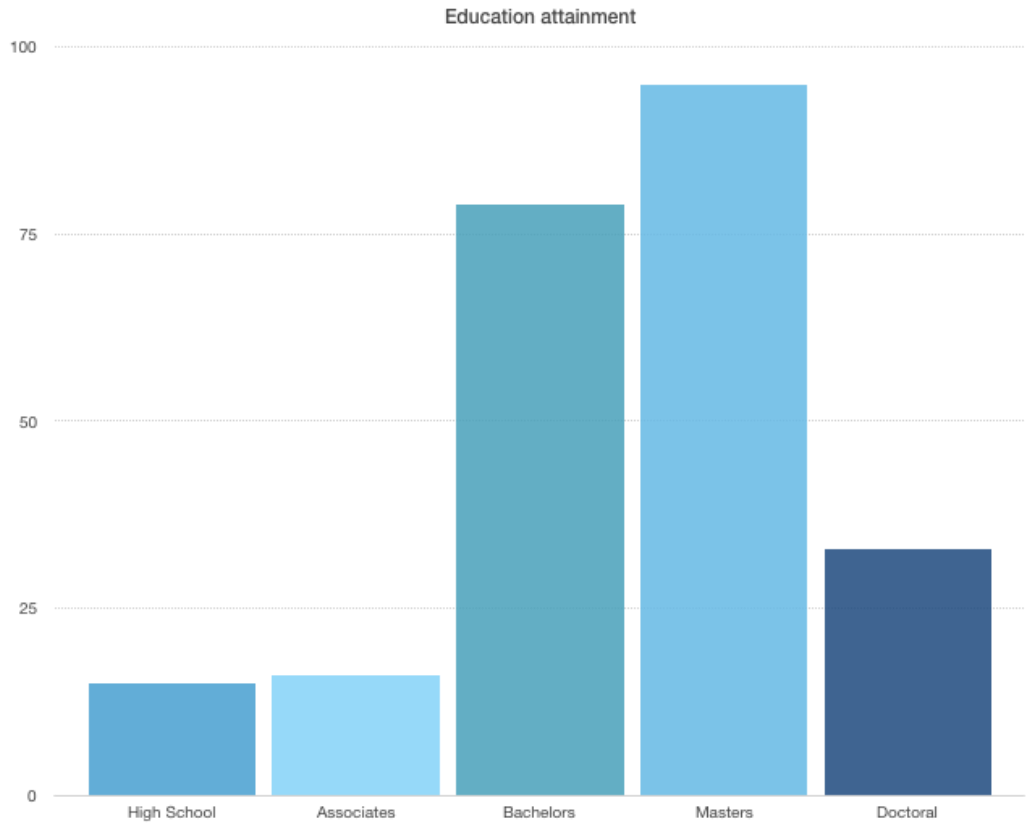


The next question asked the respondents if they would spend more time in Delavan if the current water quality improved and if yes, how many additional days. Over 45% of the temporary residential survey respondents said they would spend more time at their Delavan Lake property if water quality improved, and the average amount of days they would spend is just over 32 additional days. With this knowledge, combined with other information provided through the

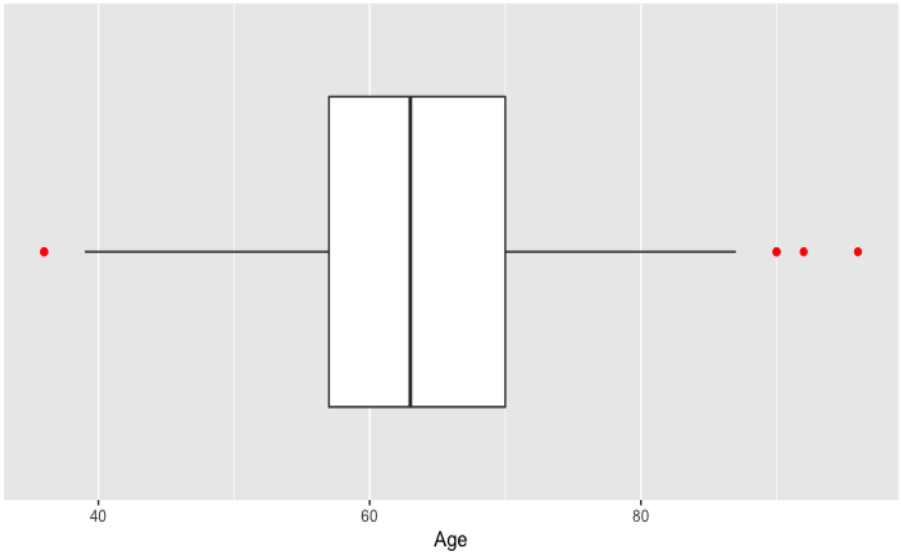
survey, we are able to compute the economic impact on Delavan Lake's local economy though improving the current water quality.

Questions eight through ten tried to capture the socioeconomic status of the household such as the household income, size, education level attained and age of the individual. Graph 3 through 5 visualize these three socioeconomic variables according to the responses.

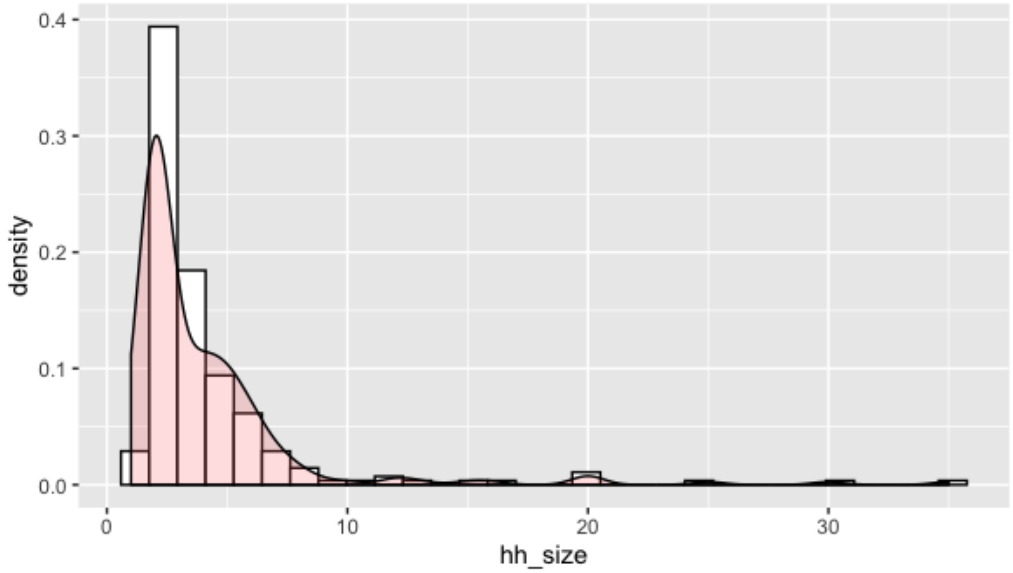
Graph 3: Respondents Educational Attainment



Graph 4: Age of the Respondents



Graph 5: Respondents Household Size

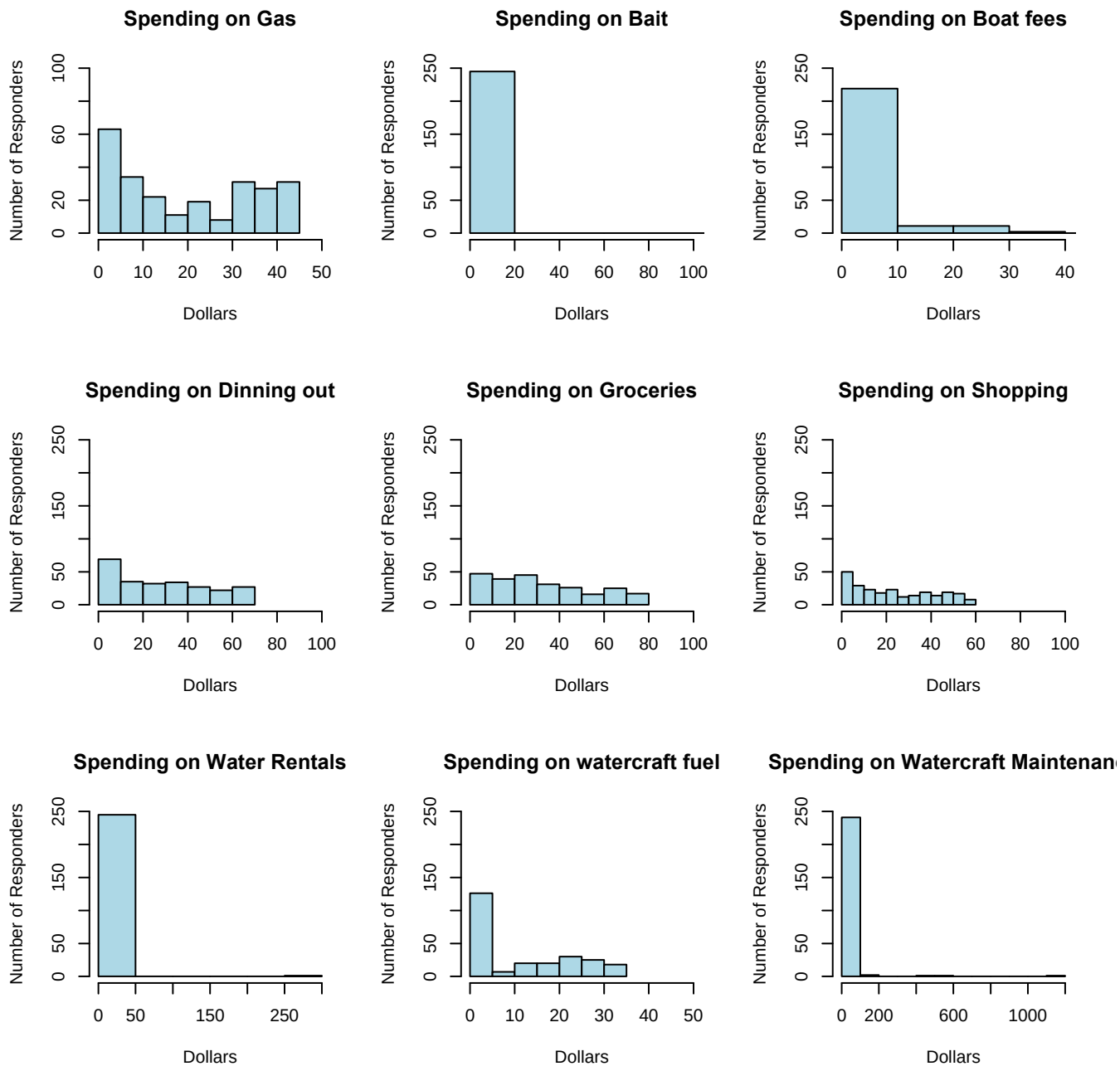


Next, the responders were asked to rate (based on the level of importance) the deciding factors used when purchasing their respective property by the lake. The survey asked the participants to rate these factors from 1 to 5, with 5 being extremely important during their

decision-making process, 1 being not important at all. Out of the eleven factors listed, Boating had the highest average importance for homeowners, with an average response of 4.27 from respondents. The scenery of the Lake around their property was the second most important listed factor with an average response of 4.18 from respondents. The Water Quality was the third most imported listed factor with an average response of 4.15. Fourth place showed swimming as the most important factor for homeowners, with an average response of 4.1. These answers are much higher than other factors such as biking or proximity, indicating that environmental and recreational factors seem to be the most important factors to residents of Delavan Lake.

Finally, the last question asked the responders about the amount of money the household spends on different items such as shopping, dining out, and others. In order to get an idea of how much each respondent spends on different items each day, we take the total expenditure of the respondent and divide it by the total number of days spent at the lake. Below, Graph 6 portrays a matrix of the spending levels for each day on different items.

Graph 6: Respondents per-day spending on various items



A copy of this survey can be found in the Appendix, at the end of this report.

The purpose of this survey was to ascertain key pieces of information such as the amount of time they spend at their lakefront properties, and if it is affected by the water quality of the lake. The results show that an improvement in the environmental status of the lake may also have a significant positive impact on the local economy, through increased resident spending.

Statistical Analysis

The data collected through the survey was used to conduct statistical analysis to predict which variables affect the likeliness of an individual that is willing to visit Delavan Lake more often. We use advanced machine learning predictive models such as Classification and Regression Trees (CART) along with different Regression models in our analysis. In this section, we interpret the significant findings from these models. We will briefly discuss how these models are able to predict the results since a detailed understanding of these models and techniques requires a broad knowledge in data analytics and much longer explanation, which is not the purpose of this report.

We use a maximum likelihood estimation model since our response variable was a binary variable which was weather a responder stated that he/she would spend more time in Delavan {0: No, 1: Yes}. The equation (1) below shows our logistic regression model, which was implemented using different sets of explanatory variables, as mentioned earlier the response variable (Is the individual willing to spend more time in Delavan if the water quality improved? {0:No, 1:Yes}) was the same for all of these models. Then, taking the natural logarithm of both sides of (1), we obtain our linear model which is shown in equation (2), where the vector $(\ldots + \beta_p x_p)$ represent our control variables such as the household size, income, education level, ownership status, individual's age, and the number of days spent in Delavan each year, followed

by a set of explanatory variables such as the amount of money spent by the responders on different items spending time in Delavan, importance the responders gave to certain aspects like appreciation and retirement when they purchased the property.

$$\frac{\pi}{1-(\pi)} = e^{\beta_0 + \beta_1 x_1 + \ldots + \beta_p x_p}. \qquad (1)$$

$$g(x_1 + \cdots + x_p) = ln\frac{\pi}{1-(\pi)} = \beta_0 + \beta_1 x_1 + \ldots + \beta_p x_p \qquad (2)$$

A number of these models were constructed to predict how each explanatory variable affects an individual's willingness to visit the lake more often, but only a few of these models were statistically significant and or relevant. As mentioned earlier, the same controls were used for all of these models, and these include the household's income, education levels, age, size, and the status of ownership (property). Including these variables as controls in our model lets us compare households that are almost identical and lets us hash out the causal relationship between their opinions and or habits and the likeliness of them visiting the lake more often. We now briefly discuss the four relevant models and their findings.

The first relevant studied how an individual's rating of the water quality (in the lake) affected our response variable which asked the responders weather they would spend more days in Delavan if the water quality improved. Not surprisingly, the model concluded that the individuals that rated the water quality as good/excellent, were less likely to say that they would

visit Delevan more often. Also, the model suggests that if an individual rated the water quality as poor, then it increases the chances of them stating that they would spend more time in Delavan if the water quality improved. We can clearly conclude that individuals who prospective on the quality of water dictates weather they would spend more time in Delevan or not. This would suggest that as the quality of the water improves, more individuals will be wailing to spend more time in Delavan.

The responders were asked to list how important certain deciding factors such as affordability, appreciation, work, and family were while purchasing their respective property. Our second significant model studies the effect between one of these factors which was appreciation and the individual's response to whether they would spend more time in Delavan if the water quality improved. Our third model suggests that if an individual stated that retirement was an unimportant factor in deciding to purchase their respective property by the lake, then they are less likely to spend more time in Delavan if the water quality improved. This would suggest that the individuals who purchased a property for retirement purposes are willing to spend more time if water quality improved. Using this model, we can make an inference that by improving the quality of water, we would incentivize future and current retirees to settle in Delavan, near Delavan Lake.

Our last significant model compared the average amount of money the responders spend on different items such as groceries, dining out, gasoline for automobiles, watercraft maintenance and others. A complete list of these items can be found on the sample survey attached in the Appendix. The model in question concludes that as the amount of money an individual spends on watercraft maintenance increases, the more likely that individual is to spend more days in Delavan if the water quality improved. This makes sense intuitively as the quality

of water and the amount of money an individual spends on repairing his/her watercraft such as a boat has a relationship. Hence, individuals who experience problems with their watercrafts would appreciate if the quality of water in the lake improved. Partial output from these four significant models is presented in the Appendix labeled as Table 1 to 4.

We further analyze the data and examine our findings using Classification and Regression Trees (CART), which identify distinct subgroups of respondents who would spend more time at their lake property if the water quality improved, based on subsets with different responses to certain questions held constant. Using the same sets of questions for independent variables as the regression models, we can visualize which questions are most predictive of the respondent's interest in spending more time at the lake.

In terms of increasing the share of respondents willing to spend more time at the lake, for the first model the respondent's assessment of the existing water quality was most important, with those saying no 10pp more likely than the full respondent set to say yes, then income, with the highest income bracket 9pp again more likely to say yes, for a subset of 113 of 234 of whom 65% say they will spend more time at the lake if the water quality improved. For the other three models the most important factor is age, with those aged 70 or less 5pp more likely to say yes, then for models 2 and 3 the next most important is if the respondent is marked as an insider, a positive value for which increases their likelihood again by 20pp to 71% of respondents with those conditions being willing to spend more time at the lake.

Using the results from these statistical models, we can make an educated inference which suggests that the individuals who would spend more time in Delavan if the water quality improved:

- believe that the current quality of water is poor

- bought their respective property because appreciation (value) is important to them
- bought their respective property with retirement as one of the most important reasons
- spend more on watercraft maintenance and or repair on average

Economic Impact Analysis

Knowing who would be willing to spend more time in Delavan, it is worth analyzing the additional economic impact which they would provide to the local area. With survey response data, we were able to calculate two things: the economic impact of part time residents currently on the local economy around Delavan Lake, and the additional revenue which would be generated to the local economy as a result of the extra days these part time residents would spend if the water quality of the lake improved. The largest component of expenditures in Delavan Lake is household spending, so the additional revenue may contribute to a significant increase in the tax base and the economic production. We use IMPLAN, an input output software to estimate the amount of additional revenue that may be generated as a result of an increase in the household spending. IMPLAN is designed to use the linkages within an economy and helps researchers in forecasting how a regional economy will grow or shrink by a change in some variable. Input/Output analysis is a demand driven analysis, meaning an increase in spending, in this case by part-time households on Delavan Lake, will lead to an increase in demand for local industries, which will cause an increase in production that will stimulate the economy.

Three effects are measured with input/output analysis with IMPLAN: Direct effect, indirect effect, and the induced effect. Direct effect is what results from the initial change in the economy. For a simple example, if group of families spends an extra weekend every month of the year at their lakefront property, most likely they are going to spend additional money on

food, at grocery stores, or certain restaurants in the area. This increase in revenue is beneficial to the owner of the restaurant and would increase their revenue, which is a direct effect.

The Indirect effects are what result from increased demand from households. Considering the previous example, the families who spend an extra weekend every month on Delavan Lake are going to spend additional money and increase the demand for the restaurant, leading to the restaurant owner hiring more cooks and waitresses to match the increasing demand. The hiring of these new employees and purchases of any additional supplies as a result of an increase in demand are classified as indirect effects.

Finally, the Induced effects are the effects of the increased purchases from local employees. In our example, the money that the newly hired chefs and waiters at the restaurant will spend in the Delavan Lake area, will further stimulates the local economy, this further stimulus to the local economy is referred to an Induced effect.

Before calculating the revenue due to any additional time that the temporary residents would spend with improved water quality, their initial economic impact was calculated as a basis of understanding their current impact on the Delavan Lake economy, and Wisconsin as a whole. Based on estimated spending patterns of average Americans, as well as the average income of the Delavan Lake area, the Direct, Indirect and Induced financial effects of temporary lake residents can be seen below (Table 3). We are able to calculate the economic benefit of the residents using IMPLAN which helps project benefits such as: the number of jobs created, the increased labor income, as well as the increase in total economic output, primarily through the local economy of Delavan Lake, but also Wisconsin as a whole.

Table 3: Current Economic Impact of Part-Time Residents on Wisconsin Economy

Impact Type	Employment	Labor Income	Output
Direct Effect	111	$2,337,211	$6,995,776
Indirect Effect	17	$781,003	$2,690,547
Induced Effect	20	$835,414	$2,638,910
Total Effect	147	$3,953,628	$12,325,233

What impact would these extra days have on the local economy? With extra days spent in their lake houses, this means an increase in spending in the Delavan economy would also increase, which would lead to job creation, higher economic output and product demand, as displayed below in table 3. A majority of jobs created through this extra resident spending primarily comes from the Retail Industry, Restaurants, Real Estate, Health Care, as well as many others. This economic impact would also lead to an increase in state and local taxes: $733,222 in total. This tax figure includes employee compensation taxes, household and property taxes as well as corporate profit taxes.

Table 3: Projected Economic Impact of Extra Days Part-Time Delavan Lake Residents Would Spend on Their Property

Impact Type	Employment	Labor Income	Output
Direct Effect	37	$769,721	$2,244,867
Indirect Effect	6	$257,210	$863,367
Induced Effect	7	$275,130	$846,797
Total Effect	50	$1,302,061	$3,955,030

The Lakelawn expansion would increase resident in the Delavan area enhancing economic conditions. Our estimates suggest the Lakelawn expansion would generate 16 additional full-time employees, $454,667 in labor income, and $1,417,402 in output. This would lead to additional state and local taxes of $84,321. These estimates are based on the assumption the Lakelawn expansion adds an additional 135 single-family homes, which resembles closely to the current population demographics.

Conclusion

Delavan Lake plays an important role in the economy of Delavan itself, as well as Walworth County. Further, part-time residents play an important role in the Economy of the Delavan Lake. The environmental status of the lake has been a growing concern for the lake in decades past, yet survey results show part-time residents of Delavan Lake would spend more time on average. As the results of this report explains, water quality is a primary concern for residents of Delavan Lake, as well as other factors that are directly affected by environmental quality. An improvement to the current water quality would lead to significant economic stimulus in the local area through an increase in spending by the temporary Delavan Lake residents.

Sources

Heine, M. (2007, November 2). Delavan Lake could deteriorate without intervention, expert says. Retrieved from https://www.gazettextra.com/archives/delavan-lake-could-deteriorate-without-intervention-expert-says/article_6ddf28ca-86d7-56d2-b404-c2797a0d5111.html.

Husar, J. (1989, April 19). DELAVAN LAKE CLEANUP WILL BEGIN WITH THE FISH. Retrieved from https://www.chicagotribune.com/news/ct-xpm-1989-04-19-8904050676-story.html.

Eiswerth, Mark, Kashian, Russ, & Skidmore, Mark (2005). What Is the Value of a Clean and Healthy Lake to a Local Community? Fiscal and Economic Research Center at the University of Wisconsin-Whitewater

Wisconsin Department of Natural Resources. (n.d.). Retrieved from https://dnr.wi.gov/lakes/lakepages/LakeDetail.aspx?wbic=793600. And https://dnr.wi.gov/lakes/lakepages/LakeDetail.aspx?wbic=793600&page=waterquality

APPENDIX

GRAPH/TABLE **PAGE NUMBER**

Table 1

Observations: 192

Dependent Variable: spend_more_days

Type: Generalized linear model

Family: binomial

Link function: logit

MODEL FIT:

$\chi^2(10) = 54.25$, $p = 0.00$

Pseudo-R^2 (Cragg-Uhler) = 0.33

Pseudo-R^2 (McFadden) = 0.21

AIC = 230.91, BIC = 266.74

Standard errors: MLE

	exp(Est.)	2.5%	97.5%	z val.	p	
(Intercept)	0	0.00%	Inf	-0.02	0.99	
own_property	1.97	0.91	4.24	1.72	0.08	
age	0.97	0.94	1.01	-1.58	0.11	
hh_size	1.04	0.96	1.13	0.96	0.34	
ln_hh_income	1.13	0.29	4.38	0.18	0.85	
hh_edu_Associates	324	0	Inf	0.02	0.99	
hh_edu_Bachelors	356	0	Inf	0.02	0.99	
hh_edu_Masters	331	0	Inf	0.02	0.99	
hh_edu_Doctoral	264	0	Inf	0.02	0.99	
rate_water_quality_good	0.24	0.11	0.55	-3.43	0	*
rate_water_quality_poor	2.53	1.1	5.81	2.19	0.03	*

* statistically significant at 0.05

Table 2

Observations: 195

Dependent Variable: spend_more_days

Type: Generalized linear model

Family: binomial

Link function: logit

MODEL FIT:

$\chi^2(12) = 26.03$, $p = 0.01$

Pseudo-R^2 (Cragg-Uhler) = 0.17

Pseudo-R^2 (McFadden) = 0.10

AIC = 268.03, BIC = 310.58

Standard errors: MLE

	exp(Est.)	2.50%		97.50%	z val.	p	
(Intercept)	0	0	Inf		-0.02	0.98	
own_property	1.49	0.72		3.11	1.07	0.29	
age	0.98	0.95		1.01	-1.08	0.28	
hh_size	1.04	0.97		1.13	1.07	0.28	
ln_hh_income	1.68	0.46		6.11	0.79	0.43	
Insider	0.94	0.44		2.01	-0.16	0.87	
hh_edu_Associates	238	0	Inf		0.02	0.99	
hh_edu_Bachelors	271	0	Inf		0.02	0.99	
hh_edu_Masters	230	0	Inf		0.02	0.99	
hh_edu_Doctoral	173	0	Inf		0.02	0.99	
importance_apreciation_No.opinion	2.02	0.11		36.96	0.47	0.64	
importance_apreciation_uninportant	0.4	0.14		1.12	-1.74	0.08	*
importance_apreciation_important	1.23	0.62		2.44	0.6	0.55	

* statistically significant at .10

Table 3

Observations: 195

Dependent Variable: spend_more_days

Type: Generalized linear model

Family: binomial

Link function: logit

MODEL FIT:

$\chi^2(12) = 29.95$, $p = 0.00$

Pseudo-R^2 (Cragg-Uhler) = 0.19

Pseudo-R^2 (McFadden) = 0.11

AIC = 264.52, BIC = 307.07

Standard errors: MLE

	exp(Est.)	2.50%	97.50%	z-val.	p	
(Intercept)	0	0	Inf	-0.02	0.98	
own_property	1.59	0.77	3.26	1.26	0.21	
age	0.99	0.96	1.03	-0.44	0.66	
hh_size	1.02	0.95	1.11	0.61	0.54	
ln_hh_income	1.82	0.5	6.53	0.91	0.36	
Insider	0.9	0.41	1.95	-0.28	0.78	
hh_edu_Associates	28770332.56	0	Inf	0.02	0.99	
hh_edu_Bachelors	36528472.99	0	Inf	0.02	0.99	
hh_edu_Masters	31025582.81	0	Inf	0.02	0.99	
hh_edu_Doctoral	23029056.55	0	Inf	0.02	0.99	
importance_retire_No.opinion	0.23	0.05	1.08	-1.86	0.06	*
importance_retire_uninportant	0.3	0.13	0.68	-2.87	0	*
importance_retire_important	0.57	0.25	1.31	-1.33	0.18	

* statistically significant at 0.10

Table 4

Observations: 205

Dependent Variable: spend_more_days

Type: Generalized linear model

MODEL FIT:

$\chi^2(18) = 32.25$, $p = 0.02$

Pseudo-R^2 (Cragg-Uhler) = 0.19

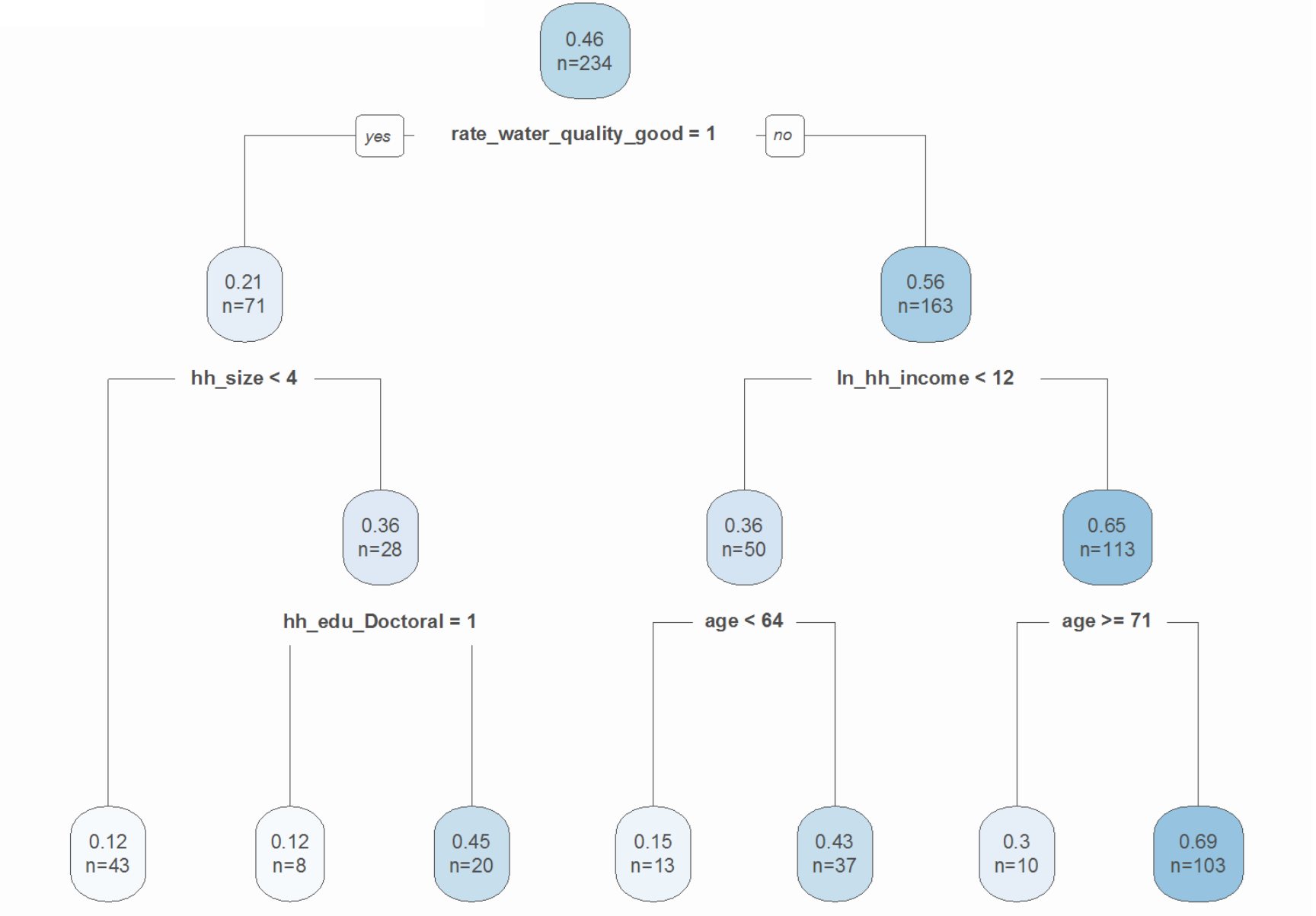
Pseudo-R^2 (McFadden) = 0.11

AIC = 287.35, BIC = 350.49

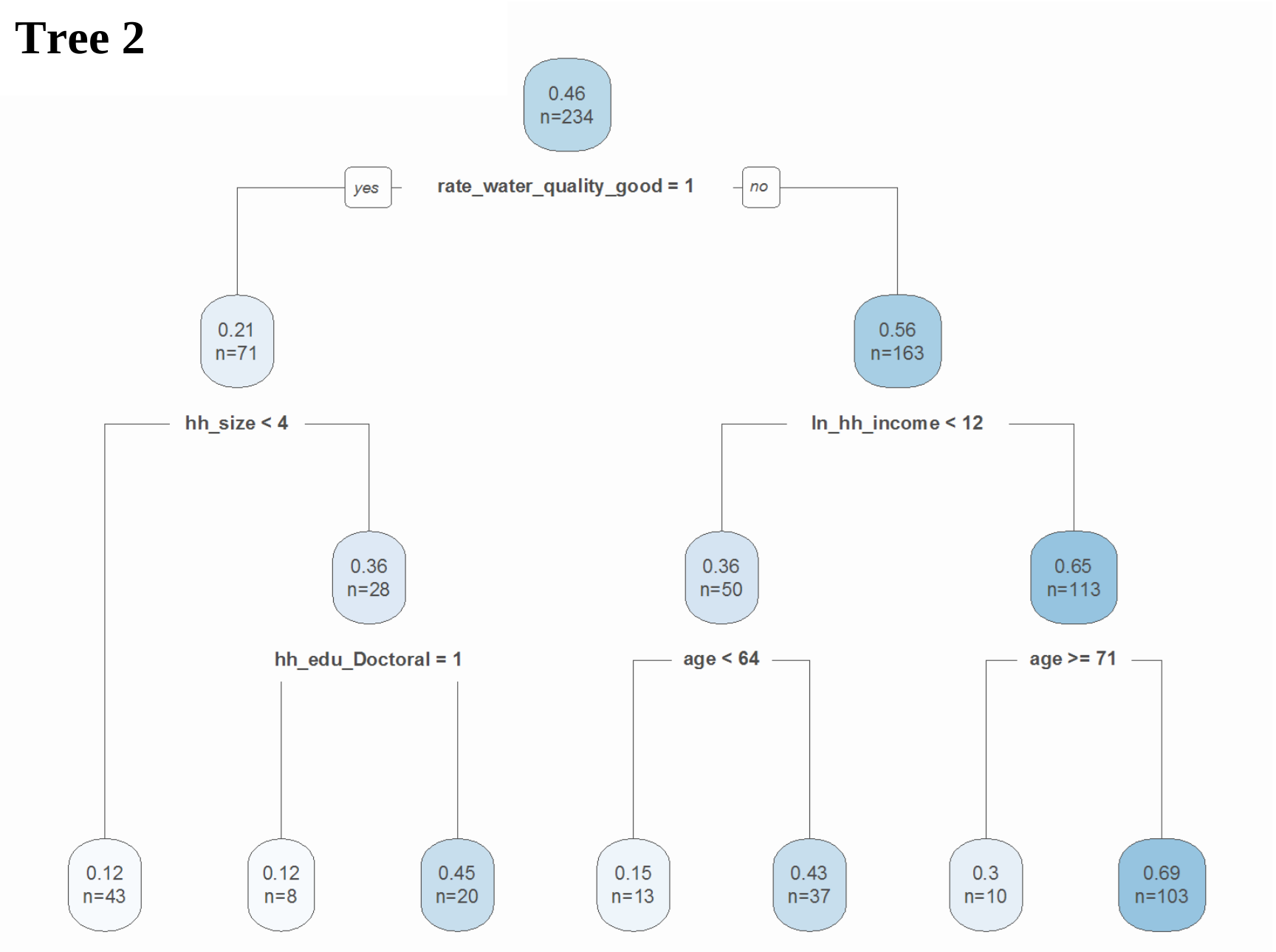
	exp(Est.)	2.50%	97.50%	z val.	p	
(Intercept)	0	0	Inf	-0.02	0.99	
own_property	1.24	0.6	2.57	0.59	0.56	
age	0.99	0.96	1.02	-0.64	0.52	
hh_size	1.03	0.95	1.11	0.63	0.53	
ln_hh_income	0.89	0.25	3.2	-0.18	0.86	
Insider	1.07	0.35	3.3	0.11	0.91	
hh_edu_Associates	381	0	Inf	0.02	0.99	
hh_edu_Bachelors	492	0	Inf	0.02	0.99	
hh_edu_Masters	382	0	Inf	0.02	0.99	
hh_edu_Doctoral	349	0	Inf	0.02	0.99	
ln_bait	1.33	0.83	2.13	1.17	0.24	
ln_boatfees	0.74	0.51	1.07	-1.6	0.11	
ln_dinningout	0.99	0.71	1.37	-0.06	0.95	
ln_gas	1.19	0.86	1.63	1.06	0.29	
ln_groceries	0.75	0.52	1.09	-1.49	0.14	
ln_shopping	0.93	0.69	1.27	-0.44	0.66	
ln_water_rental	1.35	0.68	2.66	0.86	0.39	
ln_watercraft_fuel	1.27	0.88	1.83	1.26	0.21	
ln_watercraft_maintenance	1.34	1.02	1.76	2.1	0.04	*

* statistically significant at 0.05

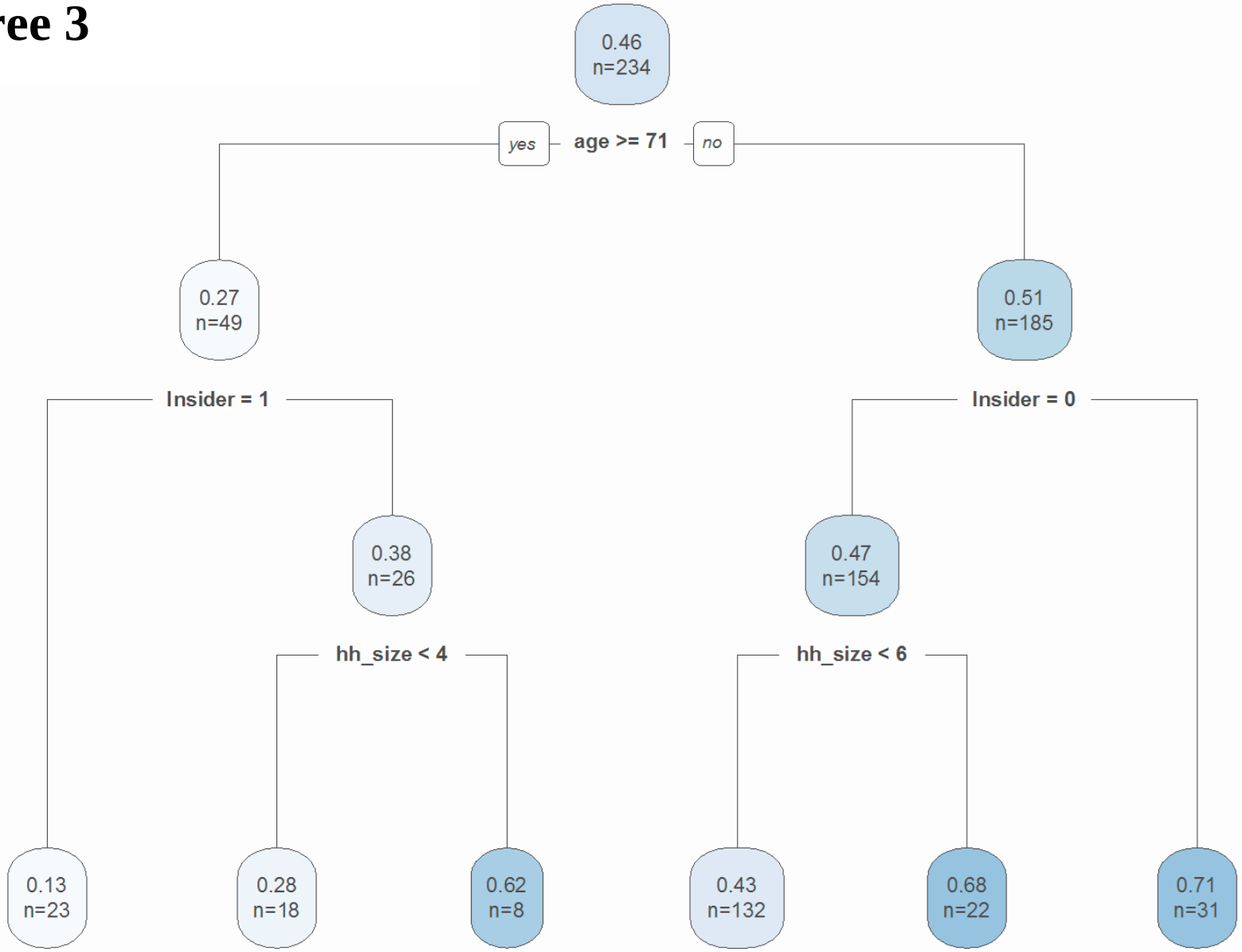
Tree 1


0.46
n=234
yes
rate_water_quality_good = 1
no
0.21
n=71
0.56
n=163
hh_size < 4
ln_hh_income < 12
0.36
n=28
0.36
n=50
0.65
n=113
hh_edu_Doctoral = 1
age < 64
age >= 71
0.12
n=43
0.12
n=8
0.45
n=20
0.15
n=13
0.43
n=37
0.3
n=10
0.69
n=103

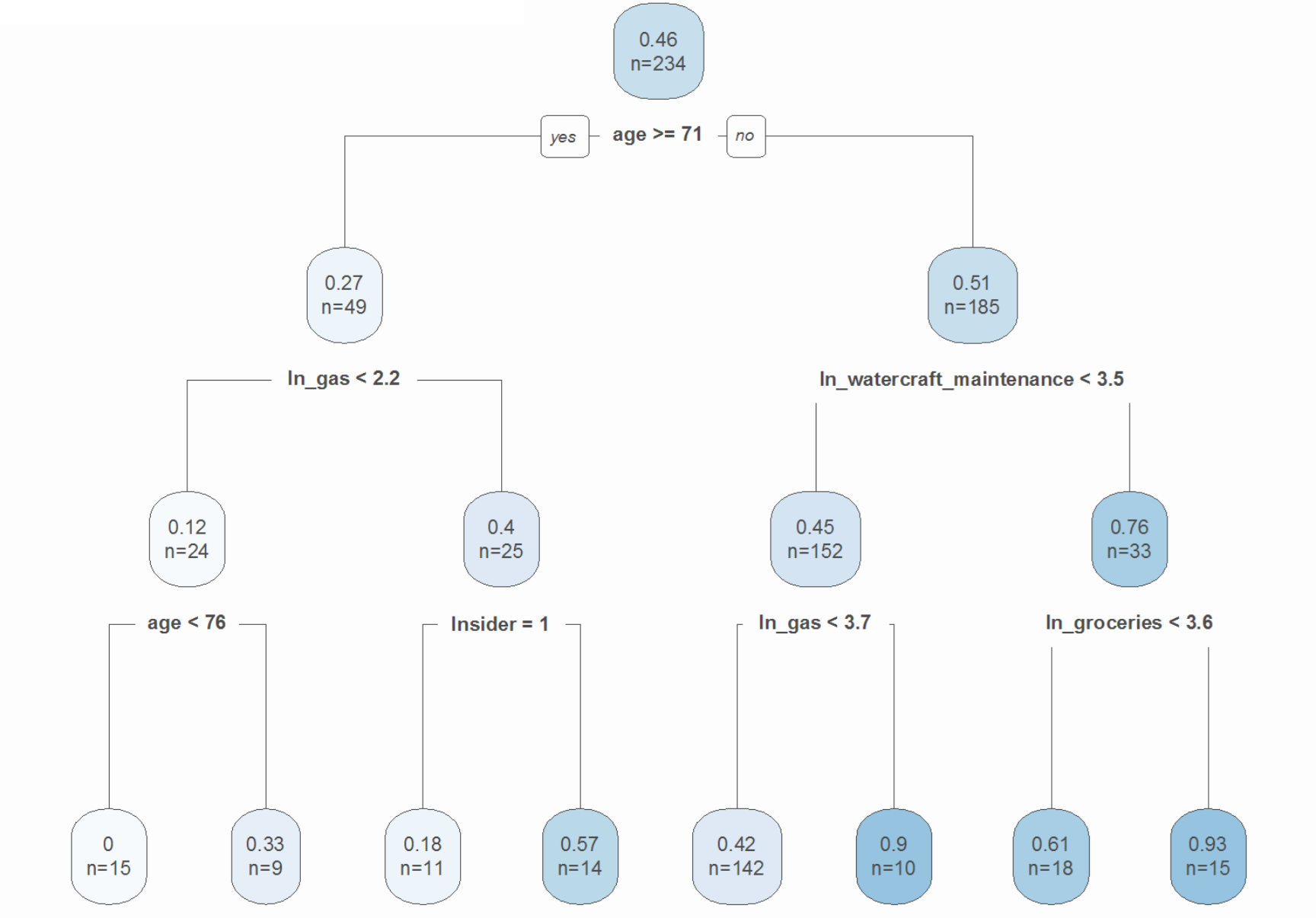
Tree 2


0.46
n=234
yes
rate_water_quality_good = 1
no
0.21
n=71
0.56
n=163
hh_size < 4
ln_hh_income < 12
0.36
n=28
0.36
n=50
0.65
n=113
hh_edu_Doctoral = 1
age < 64
age >= 71
0.12
n=43
0.12
n=8
0.45
n=20
0.15
n=13
0.43
n=37
0.3
n=10
0.69
n=103

Tree 3


0.46
n=234
yes
age >= 71
no
0.27
n=49
0.51
n=185
Insider = 1
Insider = 0
0.38
n=26
0.47
n=154
hh_size < 4
hh_size < 6
0.13
n=23
0.28
n=18
0.62
n=8
0.43
n=132
0.68
n=22
0.71
n=31

Tree 4


0.46
n=234
yes
age >= 71
no
0.27
n=49
0.51
n=185
ln_gas < 2.2
ln_watercraft_maintenance < 3.5
0.12
n=24
0.4
n=25
0.45
n=152
0.76
n=33
age < 76
Insider = 1
ln_gas < 3.7
ln_groceries < 3.6
0
n=15
0.33
n=9
0.18
n=11
0.57
n=14
0.42
n=142
0.9
n=10
0.61
n=18
0.93
n=15