

1-2-2014

The Four Townships Area Economic, Housing, and Development Survey

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Recommended Citation

Sungur, Engin PhD; Asche, Kelly; Fluegel, David; Ronnander, Reid; Bibeau, Jacob; and Hove, Meara, "The Four Townships Area Economic, Housing, and Development Survey" (2014). *Center for Small Towns*. Book 63.

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UNIVERSITY OF MINNESOTA MORRIS



*"Believing in a bright,
prosperous future
for small communities."*

Data Services Center

The Four Townships Area Economic, Housing and Development Survey

January 2, 2014

Prepared for Morse, Fall Lake, Stony River, and Eagles Nest Townships

Prepared by the Center for Small Towns & Data Services Center
University of Minnesota, Morris

Reid Ronnader, Jordan Wentz, Jacob Bibeau & Meara Hove – Survey Development, Report & Analysis
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Eagles Nest, Fall Lake, Morse, and Stony River Townships Survey

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Introduction

The Four Townships Economic Committee, chaired by Anne Stewart Uehling, contracted with the University of Minnesota, Morris, Center for Small Towns and the Data Services Center to develop, implement and analyze a survey measuring economic, housing, and development opinions in the four townships surrounding Ely, MN; Morse, Eagle's Nest, Fall Lake, and Stony River.

The survey and analysis is a cooperative effort between the Center for Small Towns (CST) and Data Services Center at the University of Minnesota, Morris and a committee of citizens with representatives from each of the four townships surrounding Ely, Minnesota; Morse, Eagle's Nest, Fall Lake, and Stony River.

The Center for Small Towns and Data Services Center are focused on providing hands on learning opportunities for students attending the University of Minnesota, Morris. As with all of the projects where these units are involved, students were leaders in all components of this project.

- Reid Ronnander - Statistics '14
- Jordan Wente - Statistics, Spanish and Economics '15
- Meara Hove – Statistics, '15
- Jacob Bibeau – Economics, '15

Three staff members were involved in supervising the project.

- Dr. Engin Sungur, Ph.D, Statistics – Data Services Center
- David Fluegel, Program Coordinator - Center for Small Towns
- Kelly Asche, Program Coordinator - Center for Small Towns

Methodology

Throughout the summer and fall of 2012, the committee contacted and met with town boards to get their input and insight into the survey. Citizen focus groups were completed by University of Minnesota, Morris (UMM) statistics professor Engin Sungur and student researcher Reid Ronnander in order to get further input into the survey. Morse Township resident Anne Stewart Uehling chaired the four township project committee and assisted in coordinating the survey efforts, promoting the survey, and receiving feedback from each of the township boards.

Surveys were sent out to all property owners within the four townships on March 4th, 2013. Completed surveys were accepted until April 31, 2013. The survey was sent to 3,609 property owners. The survey was available in paper copy and online. There were a total of 832 responses; a response rate of 23%.

This report is broken into two main parts. The first part provides deeper analysis of various economic pieces between permanent and seasonal residents. The second part of the survey provides descriptive statistics for each question of the survey. Further breakdowns of a question may be provided, depending on perceived importance of the question to the region. Reported are the percentages based on whether the respondent checked one of the possible responses. Each question provides “n” which is the total number of responses for that particular question. If no response was given, they were not included in that question's total responses unless, where applicable, we report “N/A” (No Answer).

Part 1 – Homestead vs. Seasonal Properties and Resident

First we will look at the population demographics and examine how many months per year each type of resident is in the area. We will then investigate how each resident population contributes to the local economy by comparing permanent and seasonal property tax contributions. Finally, we will look into the local spending contribution for each type of resident. For this analysis, it is assumed that permanent residents primarily reside in homestead properties, whereas seasonal residents reside in seasonal properties.

Section 1.1: Homestead and Seasonal Properties

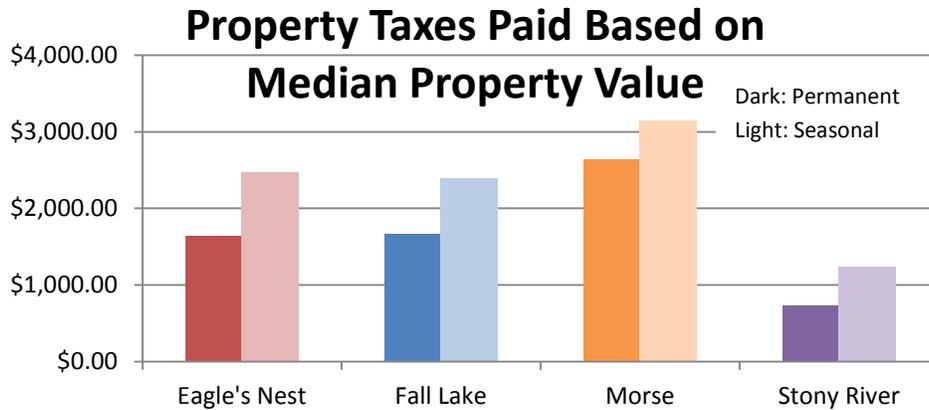
Township	Homestead			Seasonal		
	Number of Properties	Percent of Total properties	Median time living in area (months)	Number of Properties	Percent of Total properties	Median time living in area (months)
Eagle's Nest	179	28.69%	12 months	445	71.31%	4 months
Fall Lake	293	33.41%	12 months	584	66.59%	4 months
Morse	812	49.72%	12 months	821	50.28%	3 months
Stony River	88	24.51%	12 months	271	75.49%	4 months
Total	1372	39.28%	12 months	2121	60.72%	3.75 months

The seasonal properties outnumber the homestead properties in each township except Morse, where it is essentially equal. However, seasonal residents are only in the area for 3.75 months of the year on average. The median time living in the area was taken from the survey data.

Section 1.2: Property Tax Contributions

Here we examine the contributions to the local economy via property taxes. Before looking at total property tax contributions for homesteaders compared to seasonal residents, it is important to see how much each would potentially pay for a property of the same value. To do this, the median property value for each township was calculated using the survey responses (Eagle's Nest: \$225,000; Fall Lake: \$300,000; Morse: \$250,000; Stony River: \$150,000). These values were sent to the Lake County Assessor's Office and the St. Louis County Assessor's Office, who then calculated the tax contributions.

Comparing Seasonal Property Tax to Homestead Property Tax				
Township	Median Property Value	Homestead	Seasonal	Difference
Eagle's Nest	\$201,000.00	\$1,634.43	\$2,476.32	-\$841.89
Fall Lake	\$265,000.00	\$1,670.00	\$2,400.00	-\$730.00
Morse	\$277,500.00	\$2,635.08	\$3,145.20	-\$510.12
Stony River	\$150,000.00	\$739.00	\$1,235.00	-\$496.00
Average Property Tax Difference				-\$644.50



In the graph above, we can see that seasonal residents would pay more in property taxes for property of the same value. We calculated the average of the differences across all four towns; on average, seasonal residents would pay more than \$680 more than homestead residents for the same property.

Next, the actual property tax contributions were calculated by the Lake County and St. Louis County assessor’s office and provided for our analysis. An individual’s total property tax contribution is comprised of a number of taxes, including State, County, Township and School District taxes. In this analysis, State and County Taxes were excluded in our calculations, and instead, only consider the Township Tax and the School District Taxes. The School District tax consists of the voter approved levies, all other levies and the referendum market value taxes.

To calculate total tax contribution, local governments create a budget to determine their overall costs of operation. After all other sources of revenue are totaled, taxable properties are levied to provide additional revenue to cover the remaining deficit, with an individual’s share of the levy being based on the value of their property and the property uses. For example, commercial properties are generally taxed at a higher rate than residential properties.

Property Taxes							
Township	Type of Property	Township Tax	School District			Total Property Tax	Difference (Homestead-Seasonal)
			Voter Approved Levy	All Other Levies	RMV Tax		
Eagle's Nest	Homestead	\$43,669.71	\$64,500.83	\$20,945.52	\$6,481.56	\$135,597.62	-\$86,076.19
	Seasonal	\$74,972.13	\$110,735.41	\$35,958.72	\$7.55	\$221,673.81	
Fall Lake	Homestead	\$53,828.20	\$103,444.12	\$39,623.53	\$17,952.45	\$214,848.30	-\$103,826.70
	Seasonal	\$87,120.00	\$167,424.00	\$64,131.00	\$0.00	\$318,675.00	
Morse	Homestead	\$129,197.46	\$58,801.93	\$226,556.23	\$289,785.81	\$704,341.43	\$252,511.19
	Seasonal	\$140,814.80	\$64,089.29	\$246,926.15	\$0.00	\$451,830.24	
Stony River	Homestead	\$884.51	\$12,388.41	\$4,745.25	\$2,580.88	\$20,599.05	-\$39,222.95
	Seasonal	\$2,936.00	\$41,131.00	\$15,755.00	\$0.00	\$59,822.00	
Total	Homestead	\$227,579.88	\$239,135.29	\$291,870.53	\$316,800.70	\$1,075,386.40	\$23,385.35
	Seasonal	\$305,842.93	\$383,379.70	\$362,770.87	\$7.55	\$1,052,001.05	

Since the Total Property Tax Difference is positive, Homesteaders pay \$23,385.35 more than seasonal residents in township property taxes. This is relatively small since over \$2 million dollars are collected in taxes in total. Morse

Township is the only township where homestead residents pay more than seasonal residents. However they pay more than the difference of the other 3 townships combined.

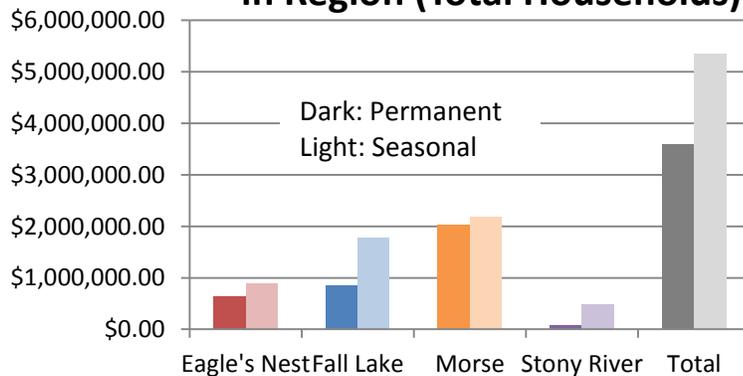
Section 1.3: Local Spending Contributions

This section focuses on the local spending contributions of seasonal residents and homestead residents. The information in the table below is based on responses received in the survey. Median values were computed from the responses, and all values are estimates.

Annual Local Spending								
Township	Type of Property	Yearly Household Expenditures	Expenditures as a Percent of Income	Total Income/ Household	Percent of Income Spent Locally	Local Spending/ Household	Local Spending Impact	Homestead minus Seasonal
Eagle's Nest	Homestead	\$40,000	65.00%	\$61,538	70%	\$43,077	\$7,710,769	\$4,373,269
	Seasonal	\$30,000	40.00%	\$75,000	10%	\$7,500	\$3,337,500	
Fall Lake	Homestead	\$39,000	73.50%	\$53,061	65%	\$34,490	\$10,105,510	\$3,431,224
	Seasonal	\$40,000	35.00%	\$114,286	10%	\$11,429	\$6,674,286	
Morse	Homestead	\$30,000	70.00%	\$42,857	70%	\$30,000	\$24,360,000	\$16,150,000
	Seasonal	\$50,000	50.00%	\$100,000	10%	\$10,000	\$8,210,000	
Stony River	Homestead	\$15,000	75.00%	\$20,000	55%	\$11,000	\$968,000	-\$847,700
	Seasonal	\$33,500	50.00%	\$67,000	10%	\$6,700	\$1,815,700	
4 Towns	Homestead	\$30,000	70.00%	\$42,857	70%	\$30,000	\$43,144,279	\$23,106,794
	Seasonal	\$40,000	50.00%	\$80,000	10%	\$8,000	\$20,037,486	

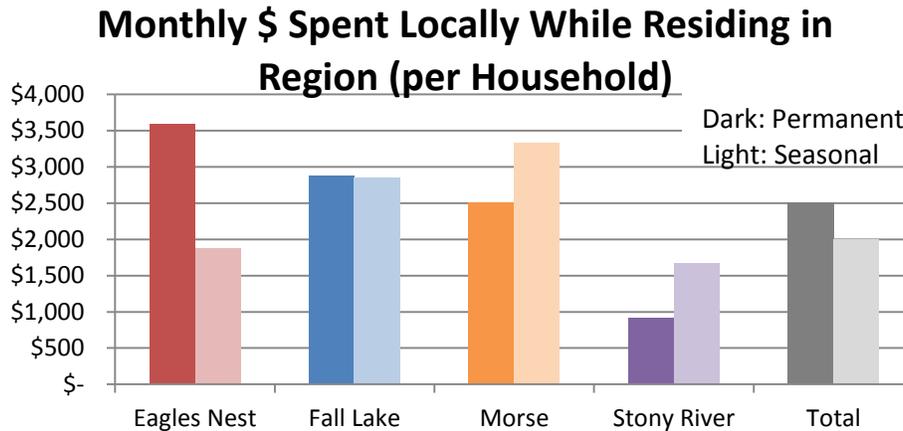
Homestead residents contribute an estimated \$23,106,793.72 more annually to the local economy than seasonal residents, largely due to the fact that permanent residents are in the four townships region year-round. However, it is worth noting that seasonal residents spent close to 50% of the permanent residents' total, while only staying in the area, on average, 4 months per year.

Monthly Local Spending While Residing in Region (Total Households)



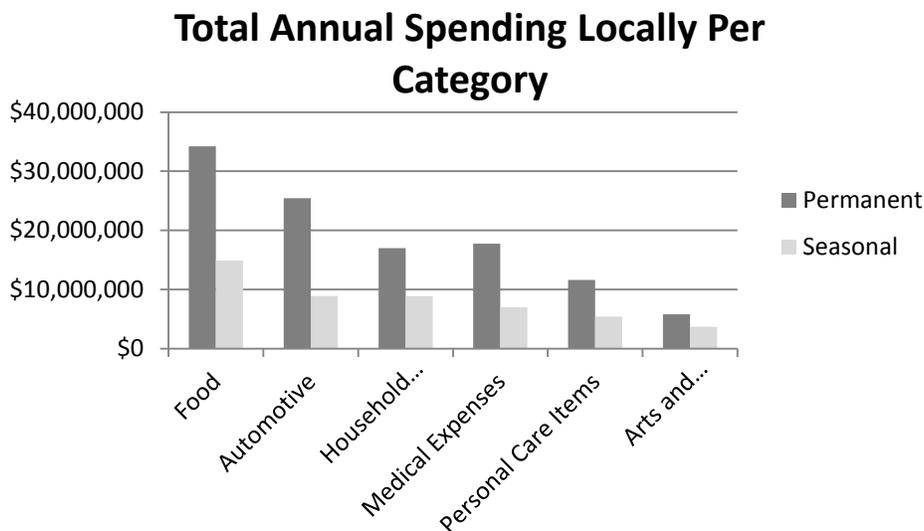
The chart above is the local spending for the total number of households within each type of household (permanent vs. seasonal) while dividing for the average time spent in the region (permanent – 12 months; seasonal – 4 months). Due to

the higher number of seasonal households in each township, their total impact on local spending is greater than permanent households.



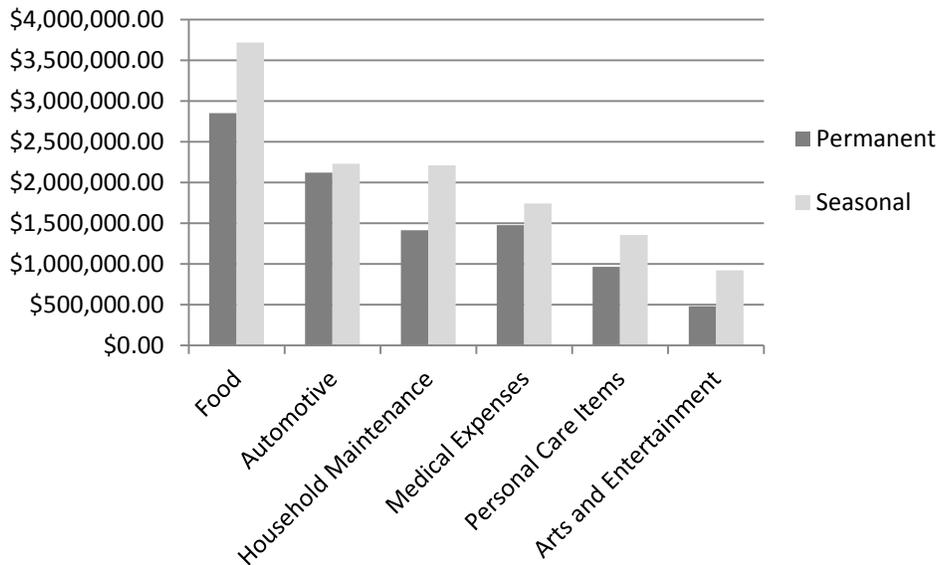
The chart above further breaks down the figures to show the local spending per household divided by the average time spent in the area (permanent - 12 months, seasonal - 4 months). These estimates show that seasonal and permanent residents spend money locally in similar amounts, except for Eagles Nest, where permanent residents spend approximately \$1,500 more locally per household.

The following analysis compares how money is spent by category. We used the results of the survey to put together graphs comparing seasonal and homestead residents' spending by category. In the survey, respondents gave their answers as a percentage. From the percentages, we used the Local Spending/Household values in Table #4 to determine a median estimate of the actual spending. The categories are shortened in the following graph, but the following was used in the actual survey; Food (Groceries and Eating Out); Automotive and Transportation; Household Maintenance, Lumber, and Hardware; Medical Expenses; Clothing, Childcare, and Personal Care Items and; Arts and Entertainment (Including Cultural Festivals).



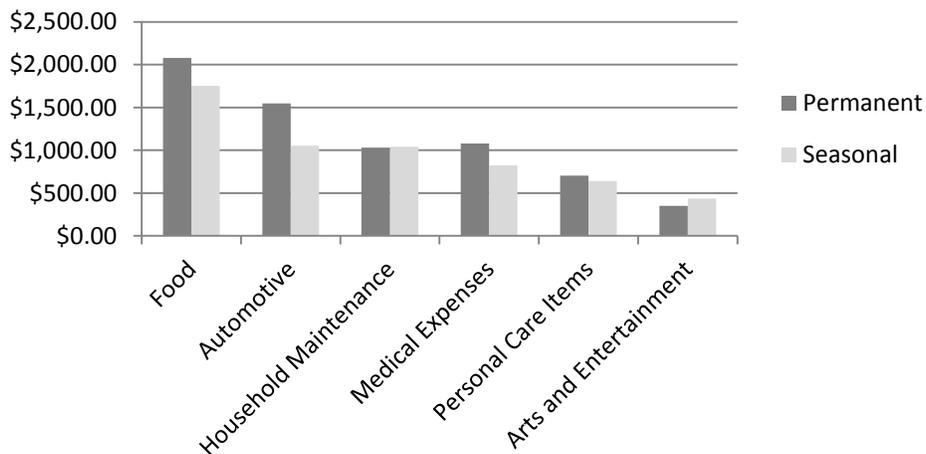
The total annual local spending per category is shown in the above graph. Due to permanent residents living in the region year-round, their total spending is much higher than seasonal residents.

Monthly \$ Spent Locally per Category While Residing in Region (Total Households)



The monthly \$ spent locally per category while residing in the region is shown in the chart above. This data combines total households within each type of resident (permanent – 1,372; seasonal – 2,121). Due to the larger number of seasonal households, they spend more locally while residing in the region.

Monthly \$ Spent Locally per Category While Residing in Region (per Household)



Lastly, instead of total households, the chart above breaks down the monthly dollar amount spent locally per category while residing in the region by a “per household” amount. This shows that permanent and seasonal residents spend money locally at a similar rate, with permanent households slightly higher across the categories.

Part 2 – Survey Summary Responses

The following section presents the results of each question in the survey. Each question is presented exactly as it was written on the survey followed by the results to the question. In addition, a total number of responses to each question are presented (“n”). If no response was given, they were not included in that questions total responses unless, where applicable, we report “N/A” (No Answer).

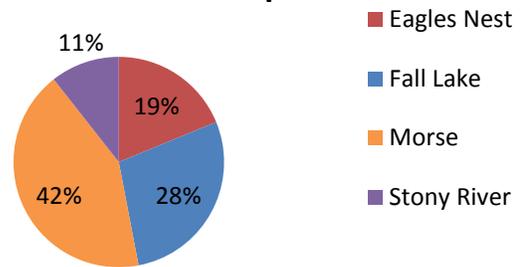
Section 2.1: Housing Information

The following section of the report summarizes the responses to questions in the “Housing information” section of the survey. The goal of this section is to find out what people in the region own in terms of housing and the type of residents that participated in the survey. In many questions, the mean and median values are given. Many questions received responses that were either much higher or lower than the other responses, driving up or down the mean (average). Therefore, the median value (middle value) is given in order for the reader to understand where these outliers may be playing a role in the average.

1. In which township(s) do you reside or own property? (n=830)

The majority of respondents come from Morse Township, at 42%, while 11% of respondents come from the Stony River Township. This is representative of the population in the region. According to the 2010 census, 56% of the total population in the Four Townships region lives in Morse, while 25% live in Fall Lake, 11% in Eagle’s Nest, and 8% in Stony River.

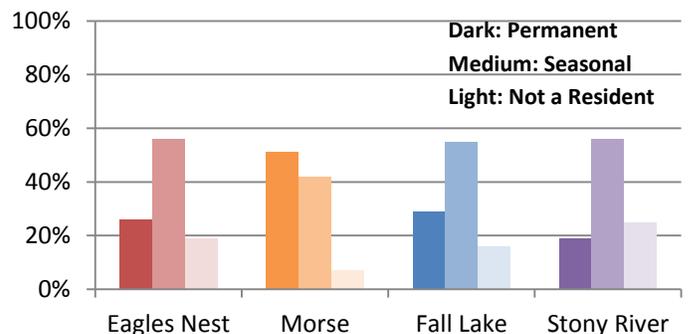
Percent Response from Each Township



2. What type of resident of the Four Township Region are you?

37% Permanent (year-round) resident 49% Seasonal resident 17% Not a resident

49% of respondents reported being a “seasonal” resident. 37% self-identified as a permanent resident, and 17% self-identified as non-residents. Within every township except for Morse, seasonal residents make up a slight majority of respondents. In Morse Township, responses from permanent residents are the majority.



If **permanent**, how many years have you been a permanent resident of the Four Township Region? (n=285)

22 years (mean); 18 years (median)

If **permanent**, how many years, if any, were you a seasonal resident of the Four Township Region? (n=173)

6 years (mean); 0 years (median)

If **seasonal**, how many months of the year do you reside in the Four Township Region? (n=338)

4 months (mean), 4 months (median)

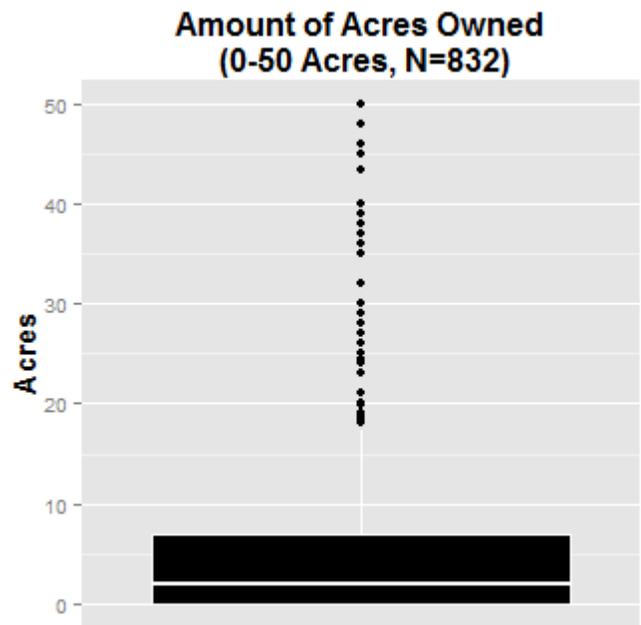
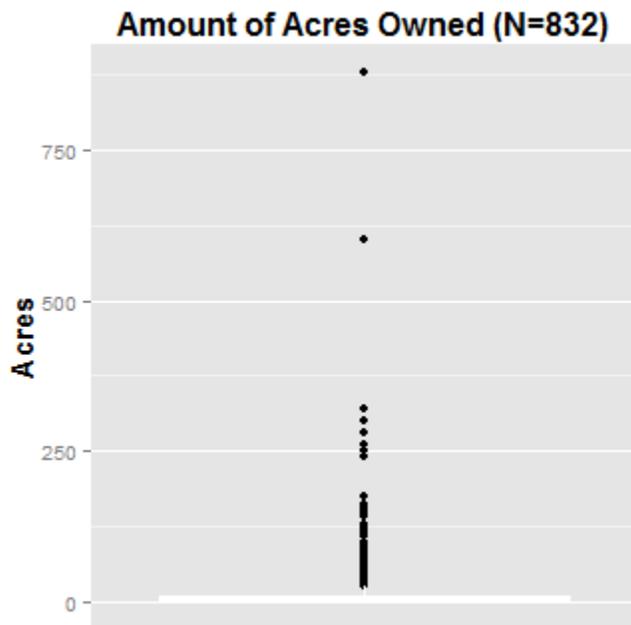
If **seasonal**, which months are you typically in the four townships (check all that apply)? (n=411)

21% Jan - Apr 98% May - Sep 30% Oct - Dec

If **seasonal**, what is the average number of people in the residence during your stay in the Four Townships? (n=317)

3 residents (mean); 2 residents (median)

3. What type of property do you own within the Four Townships (check all that apply)? (n=832)	Type of Property	Percent Responses
		Land
	Year-round residence	45%
	Seasonal residence	41%
	Non-Residential	6%
	Rental property	2%
If own land, how many acres?	Range	Acres
	Minimum	0
	1 st Quartile	0
	Median	2.5
	Mean	15
	3 rd Quartile	10
	Maximum	880



The above boxplots display distribution of values. The darkened box highlights the range of values covered by the middle 50% of the data points, while the white lines extending up and down from the box highlight the upper and lower 25%, respectively. The white line through the box represents the median value. The black points represent outliers, points that are unusually higher or lower than the rest of the points.

The distribution of the amount of acres owned by each respondent is shown in the above boxplots. The graph at left displays the full distribution, while the graph at right is cropped to show a clearer picture of the lower amount of acres owned. In each graph, there are a higher-than-expected amount of acres owned, several which are larger than 100 acres. These higher amounts of acres owned skew the mean (15 acres) to appear higher than the median (2.5 acres, horizontal white line). A large majority (75%) of respondents own land between 0 and 10 acres.

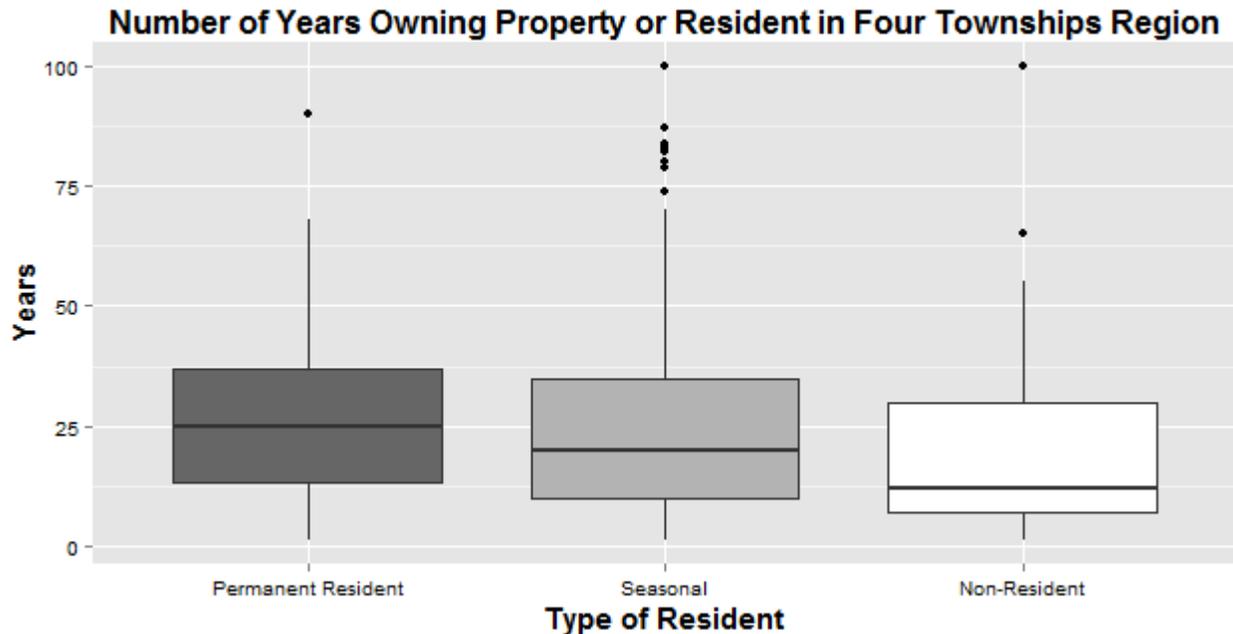
4. How many years have you been a resident or owned property within the Four Townships? (n=795)

27 years (mean); 20 years (median)

Years of Residency: Permanent	
1 st Quartile	13.0
Median	25.0
Mean	26.6
3 rd Quartile	37.0
Maximum	90.0
Count	293

Years of Residency: Seasonal	
1 st Quartile	10.0
Median	20.0
Mean	24.6
3 rd Quartile	35.0
Maximum	100.0
Count	401

Years of Land Ownership: Non-Residents	
1 st Quartile	7.0
Median	12.0
Mean	18.5
3 rd Quartile	30.0
Maximum	100
Count	101



The above boxplots display distribution of values. The darkened boxes highlight the range of values covered by the middle 50% of the data points, while the black lines extending up and down from the boxes highlight the upper and lower 25%, respectively. The black lines through the boxes represent the median values. The black points represent outliers, points that are unusually higher or lower than the rest of the points.

The distribution of the number of years of residency or owning property is displayed in the above boxplots. The boxplot breaks down responses according to type of resident. Seasonal residents have a similar number of years of residency and land ownership with the middle 50% of the values between 10 and 35 years compared to permanent residents, where the middle 50% of the values are between 13 and 37 years. However, seasonal residents have a larger number of outliers with several values above 75 years. These high residency and ownership years skew the mean value (24.6 years) to appear higher than the median (20 years). Non-residents have lower values overall compared to permanent and seasonal residents. The middle 50% of the values are between 7 and 30 acres. The median also indicates that many of the values are in the lower quartile since the median (12 years) is close to the 1st quartile (7 years). Additionally, non-residents have a couple of outliers skewing the mean (18.5 years) to appear higher than the median (12 years).

5. For Current Seasonal Residents Only. If not currently a seasonal resident please skip down to question 6.

If seasonal, when you are not in residence, do you pay someone to care for your home or cabin? (n=411 Seasonal resident respondents)

79 Yes 299 No 33 No Answer

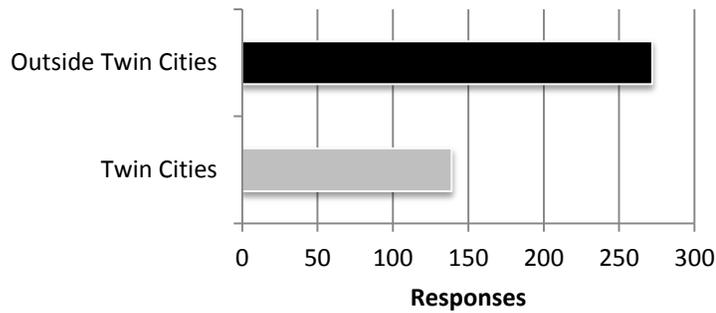
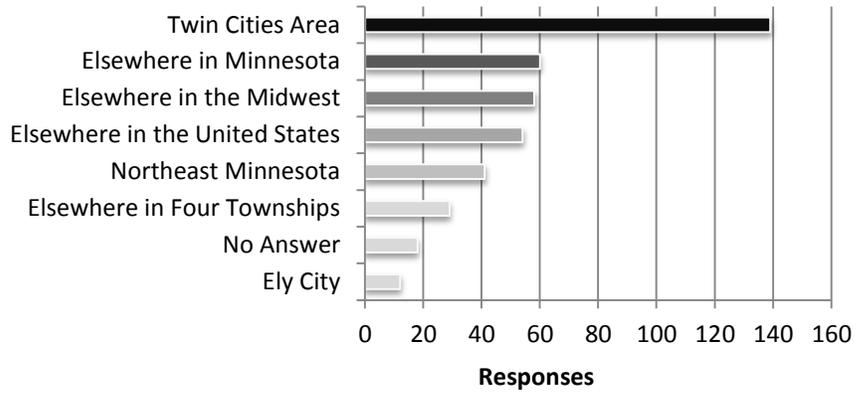
If seasonal, how many months of the year, if any, do you rent out your property when not there? (n=9)

4.5 months (mean); 3 months (median)

If seasonal do you allow someone to live in your residence for free when you are not there? (n=411)

33 Yes 346 No 32 No Answer

If seasonal, where is your permanent home located? (n=411)



272 seasonal residents (66%) responded that their permanent homes were located outside of the Twin Cities Area.

6. Whom is your property occupied by? (n=832) 85% Yourself 3% Renter 1% Vacant 2% Other 9% No Housing on Property

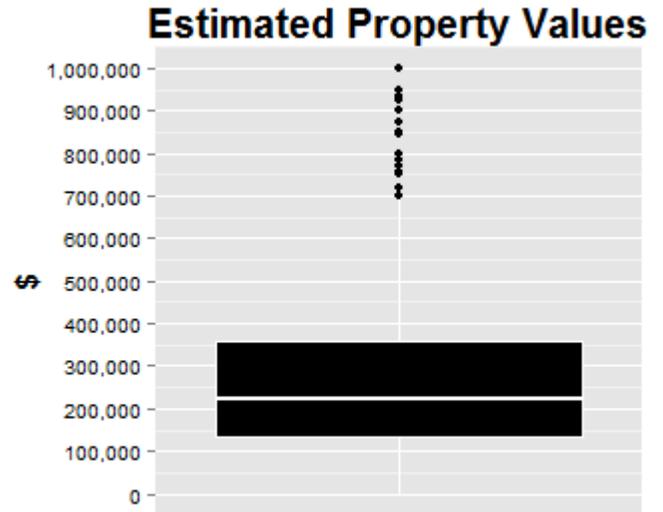
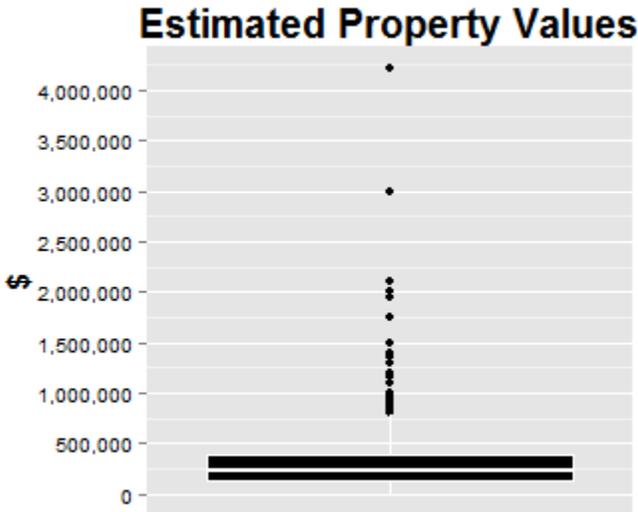
7. In what type of housing do you reside within the four townships? (n=832) 0% Apartment 0% Duplex 85% House or Cabin (single family dwelling)
9% No Housing on Property 6% Other (please specify)

8. What types of roads do you use on a daily basis? (Check all that apply) (n=832)	Type of Road	% of Response
	County Road/Highway	69%
State Road/Highway	66%	
Township	48%	
Private	44%	
Forest Service	13%	

9. Do you belong to a lake or road association? (n=832) 44% Yes 53% No 3% N/A

10. What is the estimated value of your property (based on tax assessments)? (n=713)

1 st Quartile	\$135,000
Median	\$230,000
Mean	\$303,600
3 rd Quartile	\$395,000
Maximum	\$4,220,000



The above boxplots display distribution of values. The darkened box highlights the range of values covered by the middle 50% of the data points, while the white lines extending up and down from the box highlight the upper and lower 25%, respectively.

The white line through the box represents the median value. The black points represent outliers, points that are unusually higher or lower than the rest of the points.

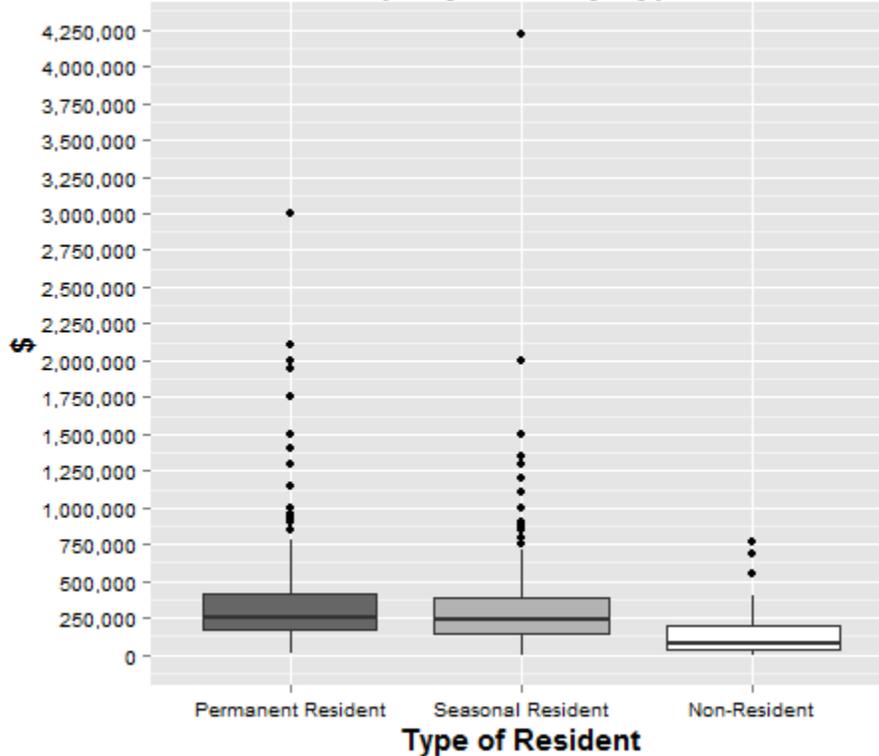
The distribution of estimated property values is shown in the above boxplots. The graph at left displays the full distribution, while the graph at right is cropped to show a clearer picture of the lower property values. In each graph, there are a number of higher-than-expected property values, one of which is greater than \$4,000,000. These unusually high property values skew the mean value (\$303,600) to appear higher than the median (\$230,000; the horizontal white line). 75% of the properties are valued above \$135,000 and 75% are valued below \$395,000.

Estimated Property Values: Permanent	
1 st Quartile	\$170,000
Median	\$250,000
Mean	\$355,800
3 rd Quartile	\$421,000
Maximum	\$3,000,000
Count	266

Estimated Property Values: Seasonal	
1 st Quartile	\$150,000
Median	\$238,800
Mean	\$304,800
3 rd Quartile	\$383,200
Maximum	\$4,220,000
Count	356

Estimated Property Values: Non-Residents	
1 st Quartile	\$38,000
Median	\$82,500
Mean	\$140,200
3 rd Quartile	\$200,000
Maximum	\$770,000
Count	90

Estimated Property Value by Type of Resident

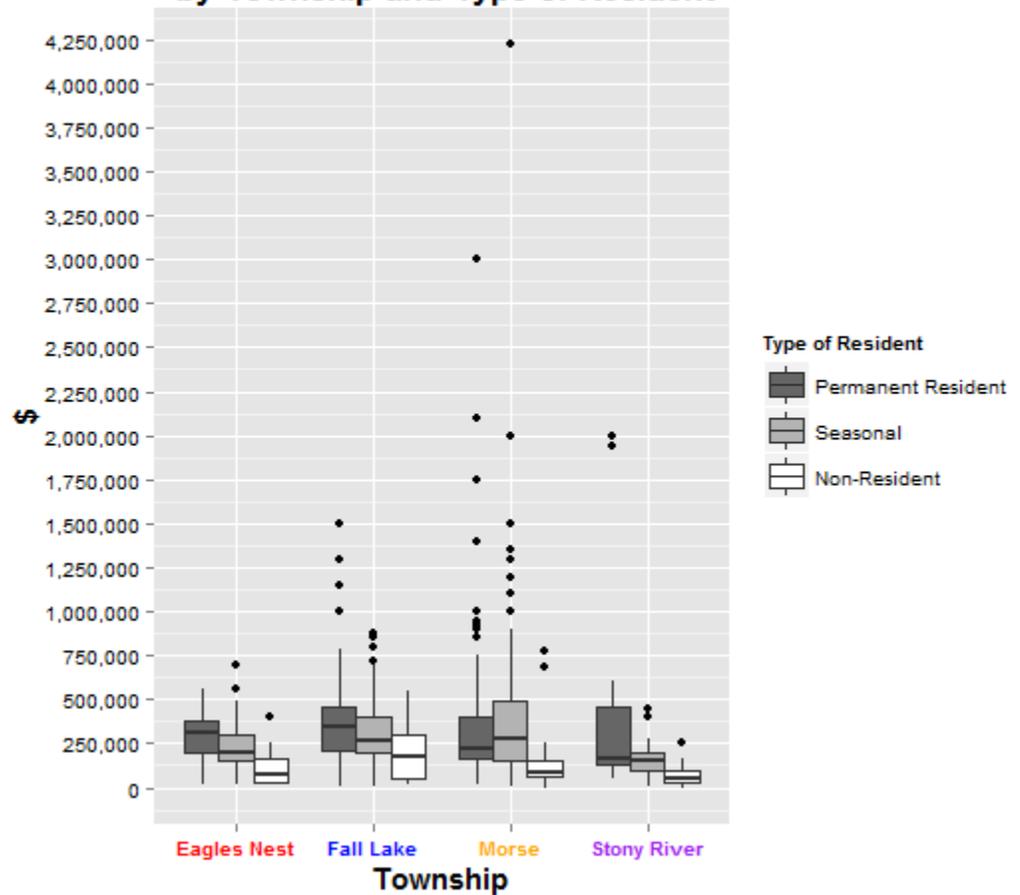


This boxplot displays the distribution of property values. The darkened boxes highlight the range of values covered by the middle 50% of the data points, while the black lines extending up and down from the boxes highlight the upper and lower 25%, respectively. The black lines through the boxes represent the median values. The black points represent outliers, points that are unusually higher or lower than the rest of the points.

Here, we compare estimated property values for the three residences types. Permanent and seasonal residents have similar distributions of property values, each with a median value around \$250,000 (\$250,000 and \$238,800 respectively), distinctly higher than the non-residential median of \$82,500. This makes sense when considering that non-residents tend to own undeveloped property, often without housing units. Again, outliers are seen in each of the resident categories which skew the mean higher than the median. A large majority of the values for each of the resident types is below \$400,000.

Eagle's Nest				Fall Lake			
	Permanent Resident	Seasonal	Non-Resident		Permanent Resident	Seasonal	Non-Resident
Minimum	\$ 20,000	\$ 21,000	\$ 15,000	Minimum	\$ 5,000	\$ 10,000	\$ 12,700
1 st Quartile	\$ 201,800	\$ 150,000	\$ 33,250	1 st Quartile	\$ 209,500	\$ 200,000	\$ 55,000
Median	\$ 308,000	\$ 201,000	\$ 75,000	Median	\$ 342,500	\$ 265,000	\$181,000
Mean	\$ 295,600	\$ 226,900	\$117,800	Mean	\$ 392,500	\$ 301,500	\$186,200
3 rd Quartile	\$ 380,000	\$ 298,100	\$167,000	3 rd Quartile	\$ 459,900	\$ 400,000	\$300,000
Maximum	\$ 400,000	\$ 700,000	\$400,000	Maximum	\$1,500,000	\$ 875,000	\$550,000
Morse				Stony River			
	Permanent Resident	Seasonal	Non-Resident		Permanent Resident	Seasonal	Non-Resident
Minimum	\$ 13,000	\$ 1,000	\$ 0	Minimum	\$ 49,000	\$ 4,000	\$ 216
1 st Quartile	\$ 160,000	\$ 152,800	\$ 60,000	1 st Quartile	\$ 130,000	\$ 100,000	\$ 26,000
Median	\$ 225,000	\$ 277,500	\$ 85,000	Median	\$ 168,200	\$ 150,000	\$ 50,000
Mean	\$ 345,500	\$ 404,500	\$157,100	Mean	\$ 462,400	\$ 153,900	\$ 71,150
3 rd Quartile	\$ 400,000	\$ 490,000	\$150,000	3 rd Quartile	\$ 453,200	\$ 200,000	\$100,000
Maximum	\$3,000,000	\$4,220,000	\$770,000	Maximum	\$2,000,000	\$ 450,000	\$250,000

**Estimated Property Values
by Township and Type of Resident**



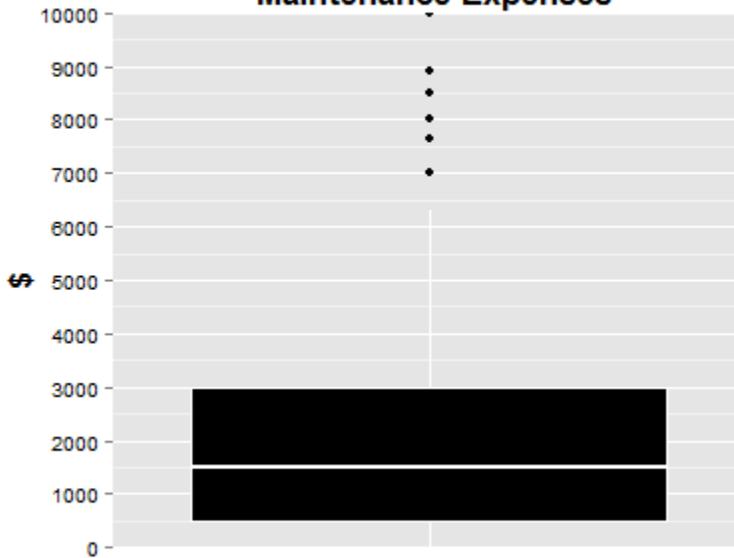
This boxplot displays the distribution of values. The darkened boxes highlight the range of values covered by the middle 50% of the data points, while the black lines extending up and down from the boxes highlight the upper and lower 25%, respectively. The black lines through the boxes represent the median values. The black points represent outliers, points that are unusually higher or lower than the rest of the points.

Here, we compare the estimated property values across residence types and townships. There is a much more defined trend between resident types in this graph; permanent residents have the highest median and mean property values and higher range of property values in each township except for Morse). Both permanent and seasonal residents still have distinctly higher property values than non-residents.

11. Approximately how much do you spend on household or property maintenance annually? (n=674)

	All Residents
Minimum	\$0
1 st Quartile	\$500
Median	\$1,500
Mean	\$5,870
3 rd Quartile	\$3,000
Maximum	\$400,000

Annual Property Maintenance Expenses

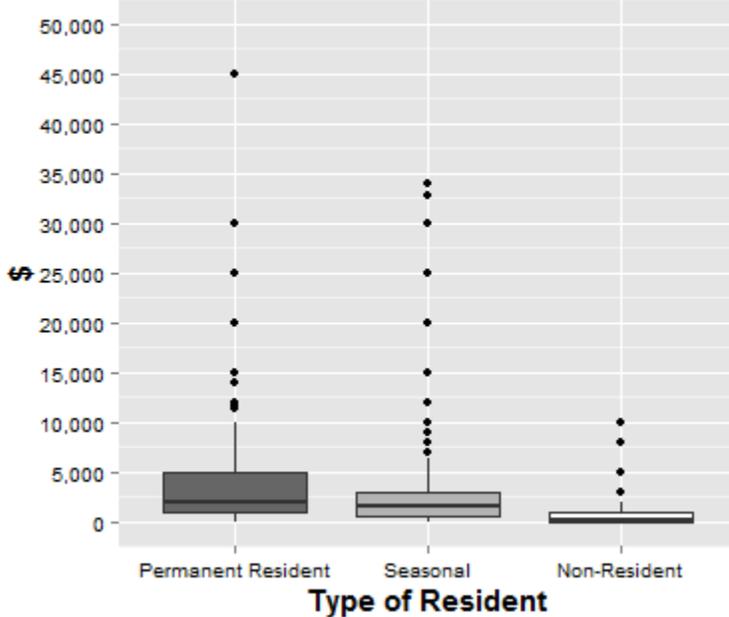


This boxplot displays the distribution of values. The darkened box highlights the range of values covered by the middle 50% of the data points, while the white lines extending up and down from the box highlight the upper and lower 25%, respectively. The white line through the box represents the median value. The black points represent outliers, points that are unusually higher or lower than the rest of the points.

The distribution of annual property maintenance expenses is shown in the above boxplot, which is cropped to show a clearer picture of the lower maintenance expense values. There are a number of higher than expected values, with the maximum value being \$400,000 (not shown). These values skew the mean value (\$5,870) to appear higher than the median (\$1,500; the horizontal white line).

	Permanent Residents	Seasonal Residents	Non-Residents
Minimum	\$0	\$0	\$0
1 st Quartile	\$1,000	\$500	\$0
Median	\$2,000	\$1,500	\$200
Mean	\$5,999	\$6,252	\$3,805
3 rd Quartile	\$5,000	\$3,000	\$1,000
Maximum	\$400,000	\$370,000	\$180,000

Annual Property Maintenance Expenses



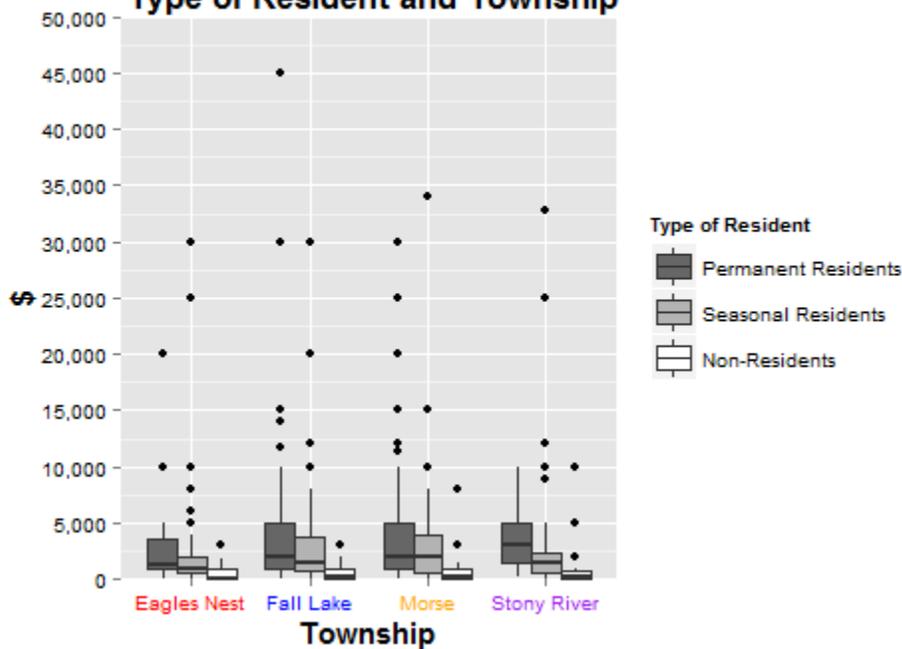
This boxplot displays the distribution of values. The darkened boxes highlight the range of values covered by the middle 50% of the data points, while the black lines extending up and down from the boxes highlight the upper and lower 25%, respectively. The black lines through the boxes represent the median values. The black points represent outliers, points that are unusually higher or lower than the rest of the points.

Here, we compare the annual property maintenance expenses for the three resident types. Not surprisingly, permanent residents have a higher expense distribution with 75% of their data being below \$5,000 compared to seasonal and non-residents (\$3,000 and \$1,000 respectively). All three resident types have several higher-than-expected values which skew the means up to 19 times higher (in the case of non-residents) than the median.

Eagle's Nest				Fall Lake			
	Permanent Resident	Seasonal	Non-Resident		Permanent Resident	Seasonal	Non-Resident
Minimum	\$100	\$0	\$0	Minimum	\$100	\$100	\$0
1 st Quartile	\$1,000	\$500	\$0	1 st Quartile	\$1,000	\$800	\$0
Median	\$1,200	\$1,000	\$100	Median	\$2,000	\$1,500	\$200
Mean	\$2,900	\$2,264	\$478	Mean	\$4,819	\$6,912	\$8,025
3 rd Quartile	\$3,500	\$2,000	\$875	3 rd Quartile	\$5,000	\$3,750	\$1,000
Maximum	\$20,000	\$30,000	\$3,000	Maximum	\$45,000	\$300,000	\$180,000

Morse				Stony River			
	Permanent Resident	Seasonal	Non-Resident		Permanent Resident	Seasonal	Non-Resident
Minimum	\$0	\$0	\$0	Minimum	\$200	\$100	\$0
1 st Quartile	\$1,000	\$500	\$50	1 st Quartile	\$1,500	\$500	\$0
Median	\$2,000	\$2,000	\$200	Median	\$3,000	\$1,500	\$250
Mean	\$6,186	\$8,971	\$4,300	Mean	\$46,520	\$3,468	\$1,305
3 rd Quartile	\$5,000	\$4,000	\$1,000	3 rd Quartile	\$5,000	\$2,375	\$750
Maximum	\$400,000	\$370,000	\$65,200	Maximum	\$120,000	\$32,700	\$10,000

Annual Property Maintenance Expenses by Type of Resident and Township



This boxplot displays the distribution of values. The darkened boxes highlight the range of values covered by the middle 50% of the data points, while the black lines extending up and down from the boxes highlight the upper and lower 25%, respectively. The black lines through the boxes represent the median values. The black points represent outliers, points that are unusually higher or lower than the rest of the points.

Here we compare the estimated property values across resident types and townships. There is a much more defined trend between resident types in this graph; permanent residents have the highest median maintenance expense value and higher range of expenses in each township. Again, the presence of higher-than-expected maintenance expense values skews the means higher than the medians in every township and type of resident.

Section 2.2: Values

The values section aims at better understanding respondents' involvement in the community, their connectedness to the community, and what they believe to be important life characteristics to the region and to their quality of life.

1. Do you own a business within the four townships? (n=832)

7% Yes

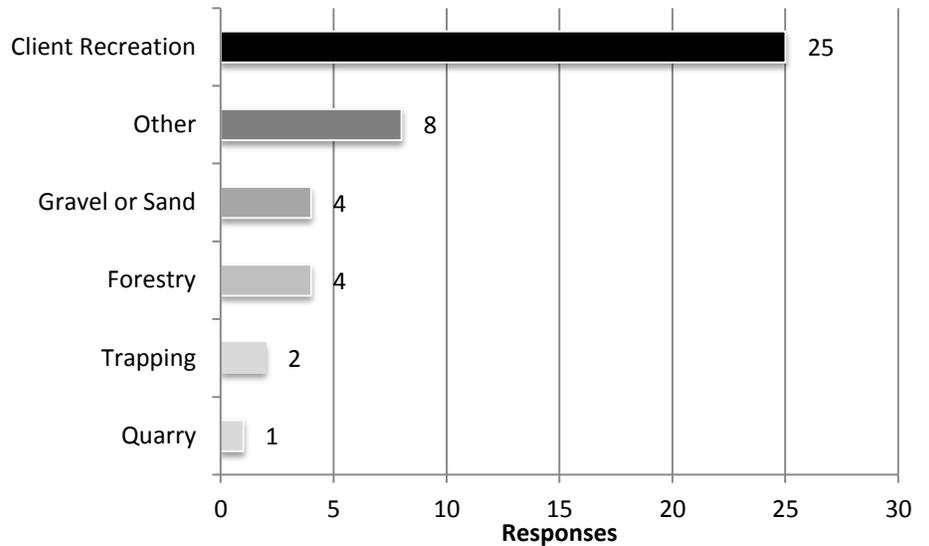
93% No (Skip to Question 2)

If yes, do you use public land (boat accesses, county/state trails, state or national timberland, national forest) for your business? (n=59)

56% Yes

44% No

If you use public land for business, what is the reason for use? (Check all that apply) (n=33)



2. Please list the activities in which you use public land in the region. (N= 694)

The responses to this question were put through a word analyzer software package that calculates words that were given the most frequently. Below is a table that gives the most common responses.

Activity	Count	% of 694
Fishing	285	41%
Hiking	282	41%
Hunting	186	27%
Boating	118	17%
Canoeing	106	15%
Skiing	95	14%
Camping	69	10%
Swimming	56	8%
Snowmobiling	53	8%
Berry Picking	53	8%

3. Do you in any way sustain your family by hunting, fishing, or gathering? (n=832)

26% Yes

72% No

2% N/A

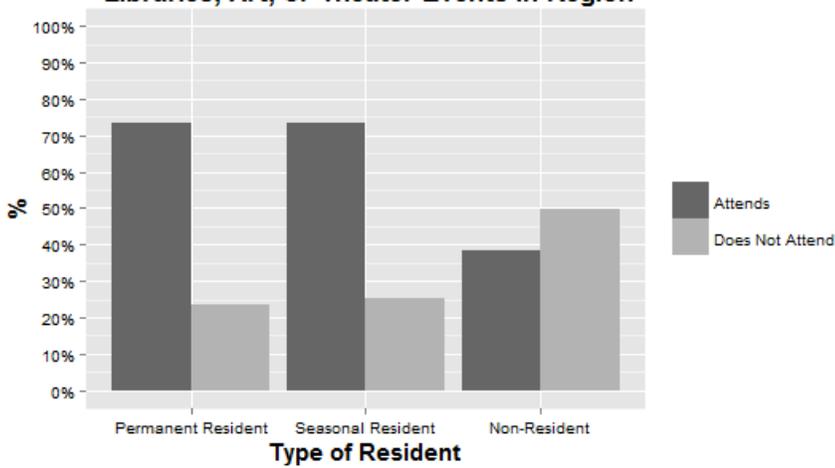
4. Do you attend museums, libraries, art, or theater events in the region? (n=832)

69% Yes

28% No

3% N/A

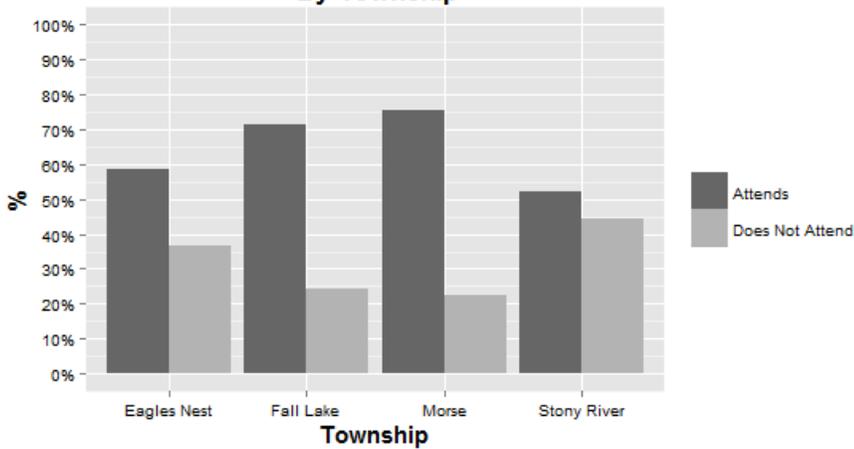
Percent of Respondents Who Attend Museums, Libraries, Art, or Theater Events in Region



	Attends	Not Attend
Permanent	224	72
Seasonal	302	103
Non-Resident	44	57

The above chart shows the percentage of responses who attend and do not attend museums, libraries, art, or theater events in the region broken down by the type of resident. Permanent and seasonal residents responded that they attend these events at a similar rate (73% for both). Note: chart does not equal 100% as “N/A – No Answer” were not included on the chart.

Percent of Respondents Who Attend Museums, Libraries, Art, or Theater Events in Region By Township



	Attends	Not Attend
Eagles Nest	91	57
Fall Lake	167	57
Morse	265	79
Stony River	46	39

The above chart shows the percentage of responses who attend and do not attend museums, libraries, art, or theater events in the region broken down by township. Over a majority of respondents from each township indicated they attend these events, with Morse having the highest percentage with 75%, and Stony River has the lowest with 52%. Note: chart does not equal 100% as “N/A – No Answer” were not included on the chart.

5. Do you have a child that is involved in local programs for children? (n=832)

6% Yes

61% No

34% Not Applicable

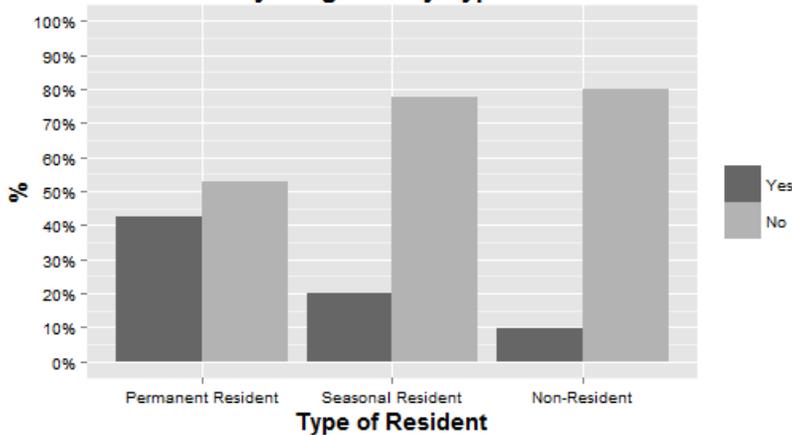
6. Do you take part in community programs such as book club, discussion groups, etc. in the region? (n=832)

27% Yes

69% No

4% N/A

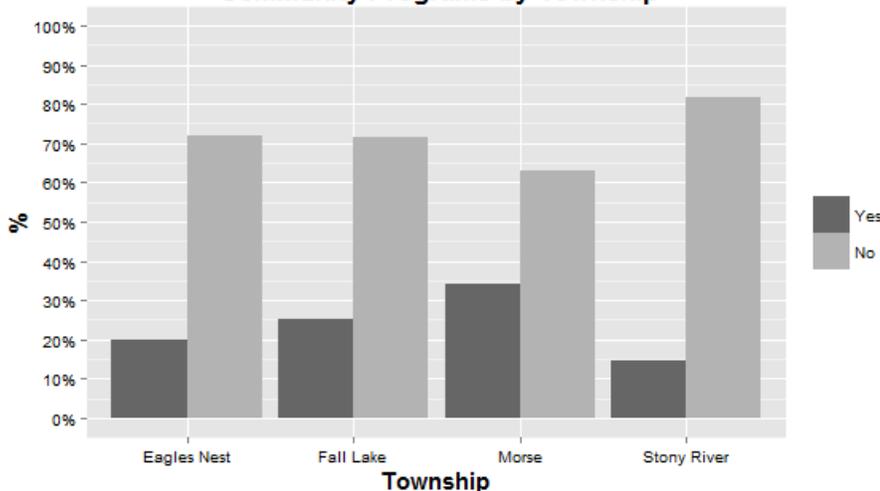
Percent of Respondents Who Take Part In Community Programs by Type of Resident



	Attends	Not Attend
Permanent	130	161
Seasonal	82	320
Non-Resident	11	92

The above chart shows the percentage of responses who take part in community programs such as book clubs, discussion groups, etc., in the region broken down by the type of resident. Not surprisingly, permanent residents responded at a higher rate (43%) compared to seasonal and non-residents (20% and 10% respectively). Note: chart does not equal 100% as “N/A – No Answer” were not included on the chart.

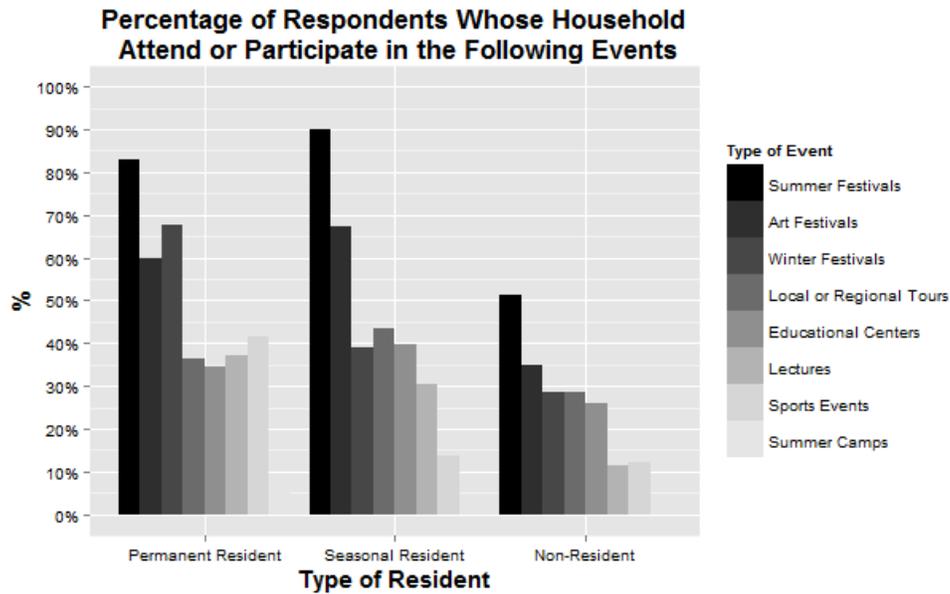
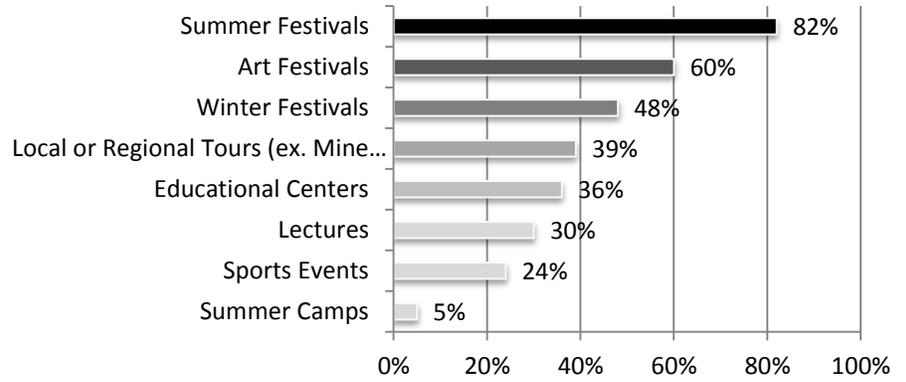
Percent of Respondents Who Take Part In Community Programs by Township



	Attends	Not Attend
Eagles Nest	31	112
Fall Lake	59	167
Morse	120	221
Stony River	13	72

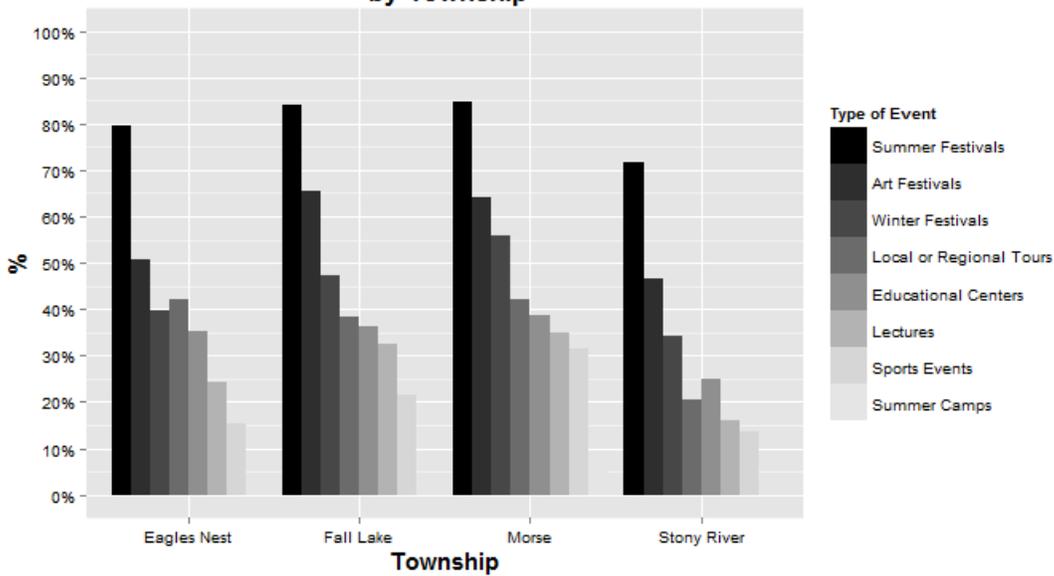
The above chart shows the percentage of responses who take part in community programs such as book clubs, discussion groups, etc., in the region broken down by township. Morse Township has the highest percentage (34%) of residents/property owners attending these programs compared to Eagles Nest, Fall Lake, and Stony River (20%, 25%, and 15%, respectively). Note: chart does not equal 100% as “N/A – No Answer” were not included on the chart.

7. In which of the following do you or your household attend or participate in the region? (Check all that apply) (n=832)



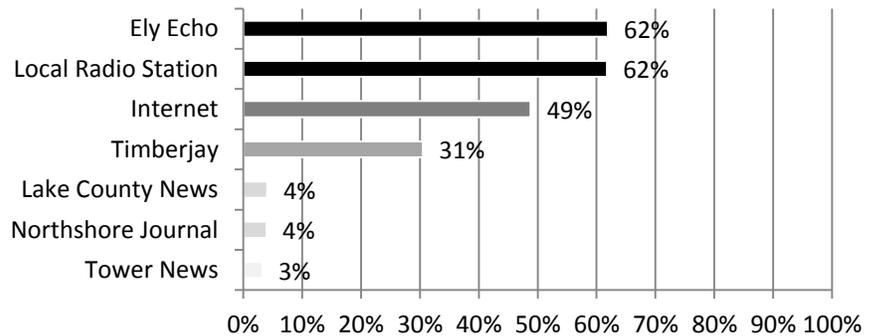
The above chart shows the percentage of respondents whose household attends or participates in any of the listed events. Permanent and seasonal residents attend or participate in the summer (83% and 90%, respectively) and art festivals (60% and 67%, respectively) at roughly the same rate. Not surprising is the difference between permanent and seasonal resident involvement for winter festivals and summer camps, as many of the seasonal residents may not be in the area during winter months, and many seasonal residents may be older and not have children in summer camps.

Percentage of Respondents Whose Household Attend or Participate in the Following Events by Township

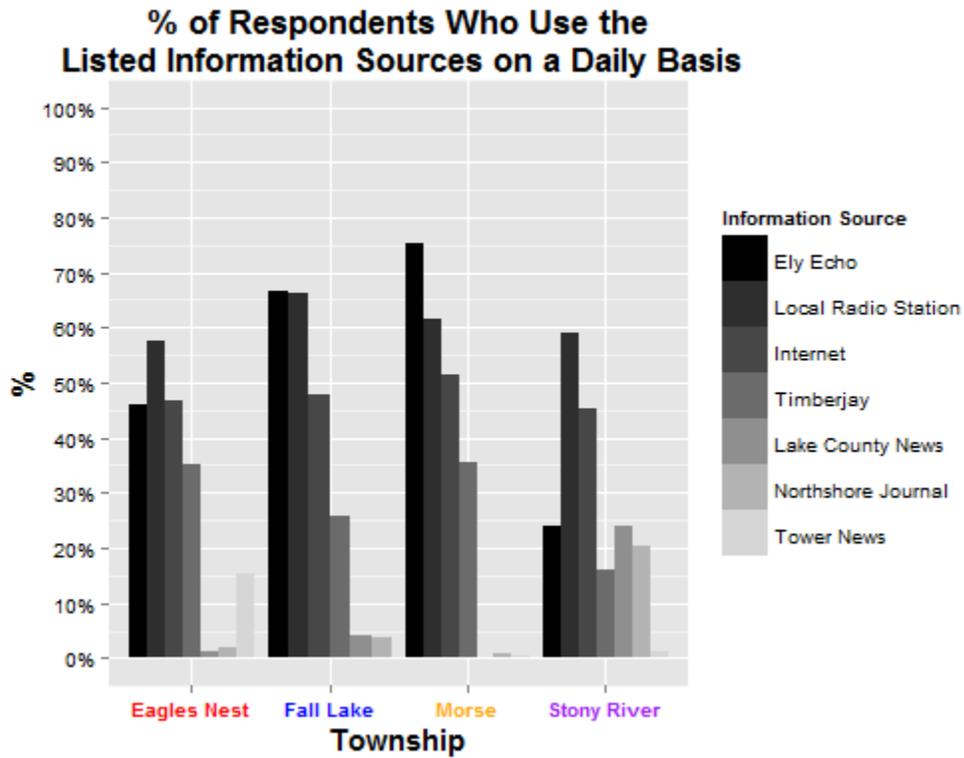


The chart above breaks down the question by township. All of the townships are similar in the rate of participate and attendance, with Stony River being slightly less than the other townships for all events.

8. Where do you obtain your news and information on a daily basis? (Check all that apply) (n=832)

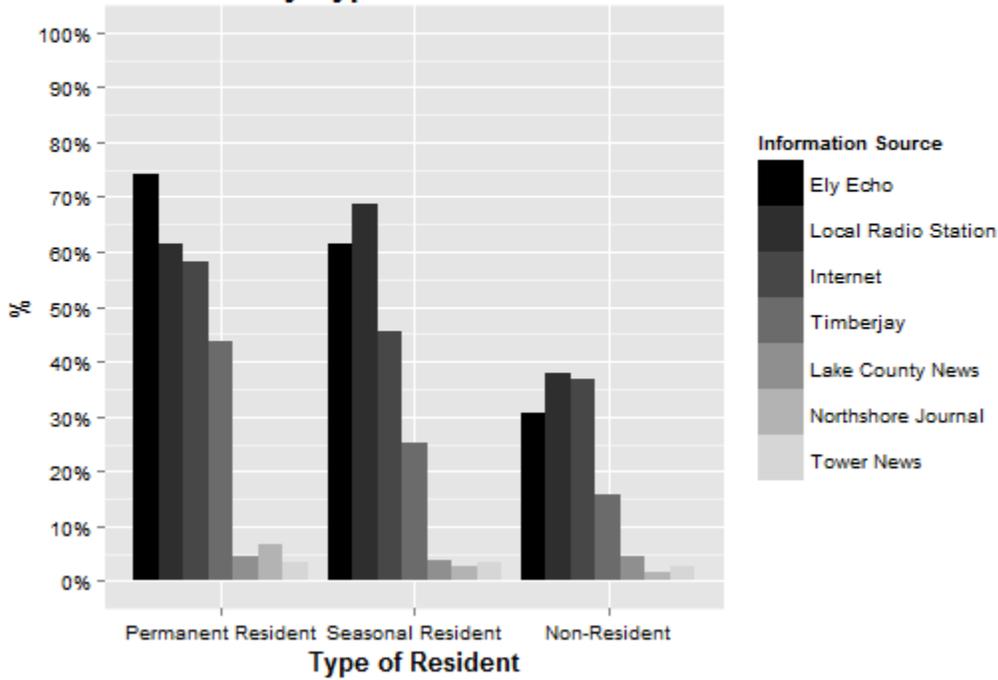


Of the respondents of the survey the Ely Echo and the local radio station are used the most for daily information services. It should be noted that the Ely Echo's headquarters is in Ely, MN surrounded by Morse Township while the other papers have headquarters in other places around the region.



Above, we have included the various news sources broken down by township. The Ely Echo and local radio station are the highest in each of the townships, except for Stony River Township, where local radio station and the internet are the two highest utilized information sources.

% of Respondents Who Use the Listed Information Sources Daily By Type of Resident



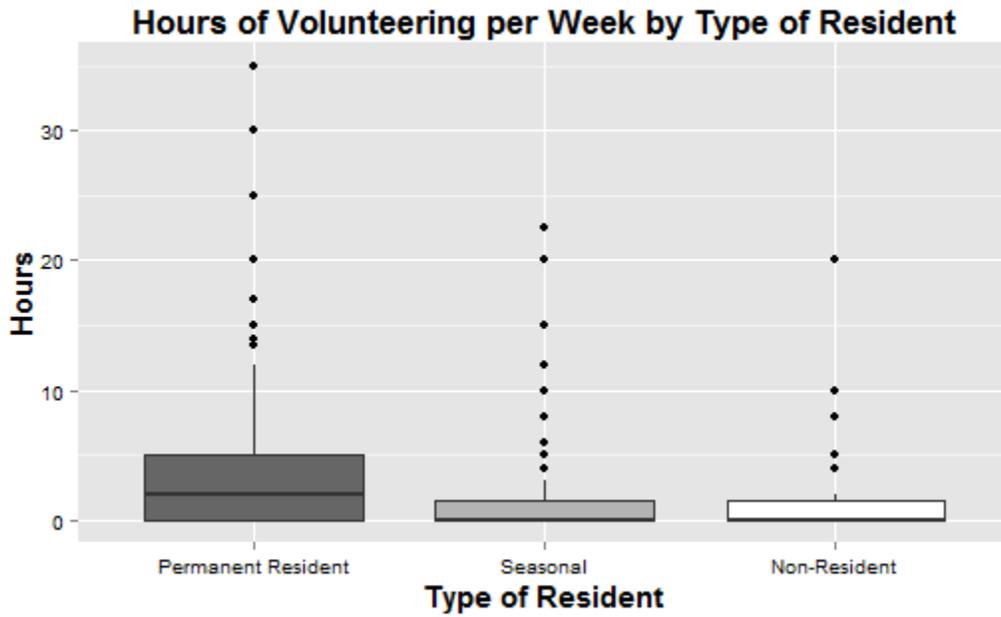
Shown above are the various information sources broken down by type of residents. Permanent residents use the Ely Echo and Timberjay more than seasonal residents, whereas seasonal residents use the internet as its main information source.

9. How many hours a week do you volunteer? (n= 627)

2.3 hours/week (mean); 0 hours/week (median)

689 people (75% of respondents) reported the hours they volunteered (including values of 0). Collectively, 627 respondents estimated a total sum of 1,437 hours of volunteer work, *per week*.

	Permanent Residents	Seasonal Residents	Non-Residents
Minimum	0.0	0.0	0.0
1 st Quartile	0.0	0.0	0.0
Median	2.0	0.0	0.0
Mean	3.7	1.4	1.5
3 rd Quartile	5.0	1.5	1.5
Maximum	35.0	22.5	20

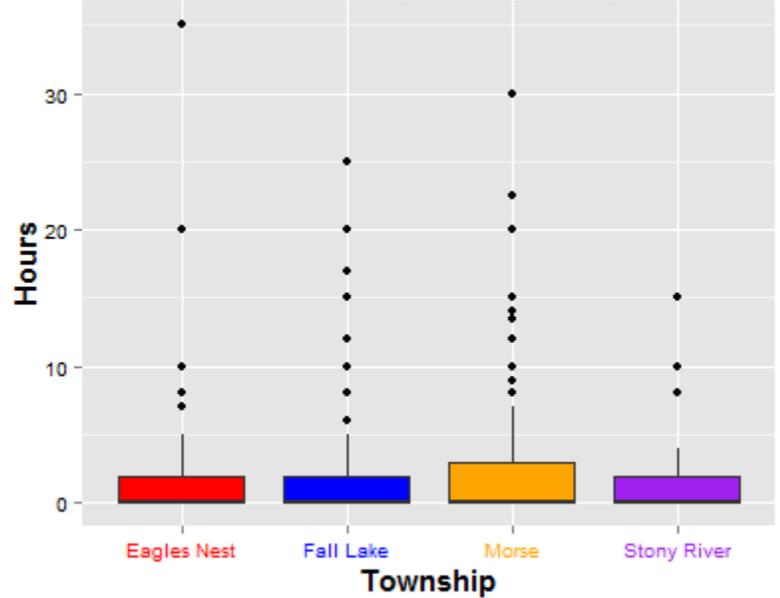


This boxplot displays the distribution of values. The darkened boxes highlight the range of values covered by the middle 50% of the data points, while the black lines extending up and down from the box highlight the upper and lower 25%, respectively. The black lines through the boxes represent the median values. The black points represent outliers, points that are unusually higher or lower than the rest of the points.

Shown is a boxplot for the number of hours volunteered per week by resident type. Understandably, permanent residents reported more volunteer hours, with 75% of the hours reported being 5 hours or less compared to seasonal residents and non-residents (1.5 hours or less for each). For non-residents we can see the median is 0; however, for permanent residents the median is between 4 and 5 hours. There are outliers for each type of resident, causing the mean to appear higher than the median.

	Eagles Nest	Fall Lake	Morse	Stony River
Minimum	0.0	0.0	0.0	0.0
1 st Quartile	0.0	0.0	0.0	0.0
Median	0.0	0.0	0.0	0.0
Mean	2.2	2.1	2.6	1.7
3 rd Quartile	2.0	2.0	3.0	2.0
Maximum	35.0	25.0	30.0	15.0

Hours of Volunteering per Week by Township



This boxplot displays the distribution of values. The darkened boxes highlight the range of values covered by the middle 50% of the data points, while the black lines extending up and down from the box highlight the upper and lower 25%, respectively. The black lines through the boxes represent the median values. The black points represent outliers, points that are unusually higher or lower than the rest of the points.

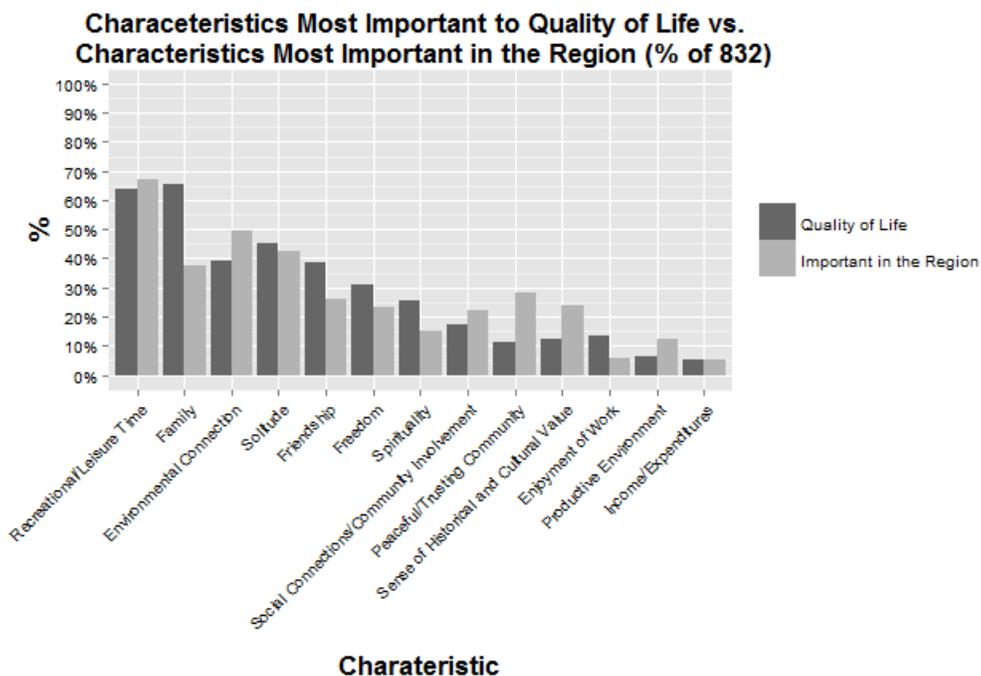
Here, we compare the amount of hours of volunteering per week by township. All townships have a median of zero with several higher reports of volunteering which increases the mean. Morse Township has the highest values reported with 75% of the data being 3 hours or less, compared to Eagles Nest, Fall Lake and Stony River (2 hours or less reported for each).

10. How important is supporting local businesses? (n=831)		
	#	%
Important	777	94%
Not Important	27	3%
No Answer	27	3%

11. How important is curb-side appeal when characterizing a business? (n=831)		
	#	%
Important	715	86%
Not Important	83	10%
No Answer	33	4%

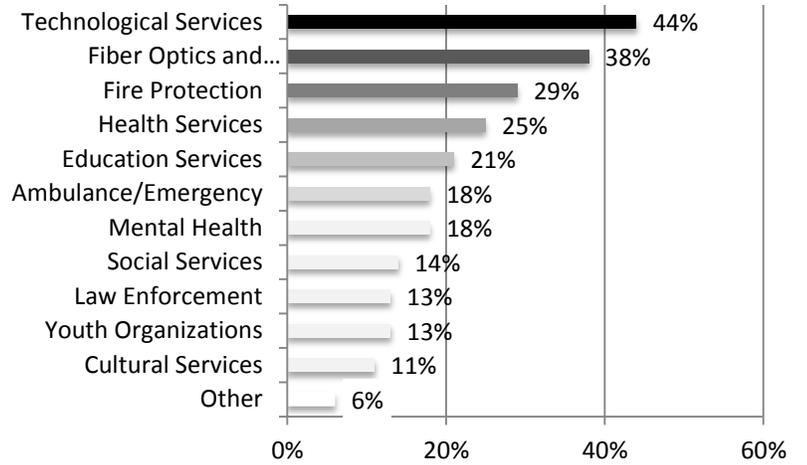
12. Which of the following characteristics are most important to quality of life? (check up to four) (n=832)

13. Which of the following characteristics are most important in the region? (check up to four) (n=832)



Recreational/leisure time is the characteristic most important (65%) to quality of life and also believed to be the most important in the region (69%). There were a few differences between what characteristics were most important to quality of life and what was believed to be the most important in the region. Family received a high percentage of responses as important to quality of life, however wasn't believed to be important in the region. The opposite is true for peaceful/trusting community and sense of historical and cultural value as importance to quality of life received higher percentage of responses than their importance in the region.

14. What services do you believe should be improved in the area (check all that apply)?
(n=832)

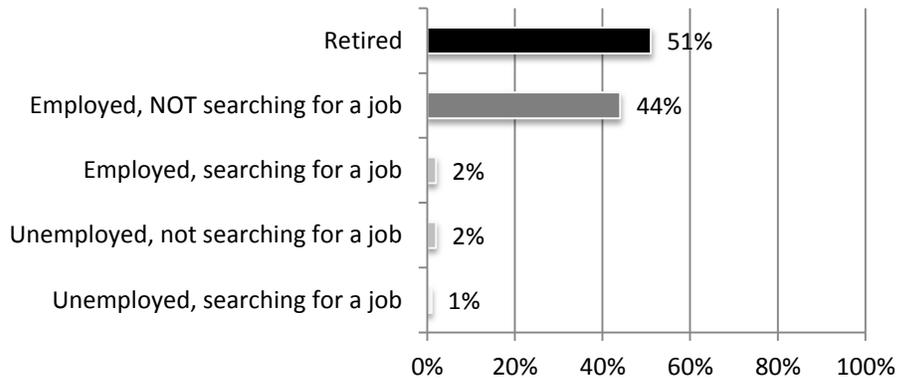


Respondents are voicing the lack of technological services and fiber optics. 44% of respondents reported a need for improved technological services and 38% for fiber optics. 29% reported the need for improved fire services and notably 25% reported the need for improved health services.

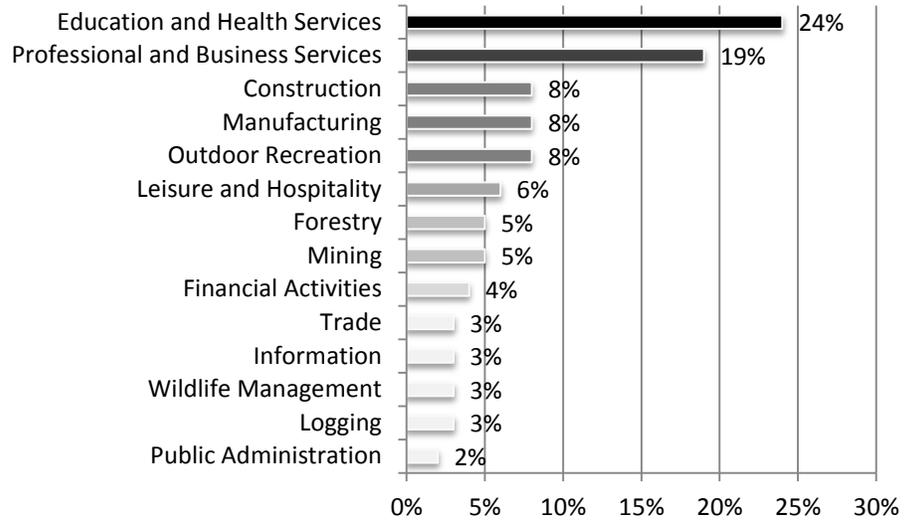
Section 2.3: Economic

This section is dedicated to better understanding the economic aspects of the four townships, including employment, percentage of income spent in local region, shopping availability and opinions on job availability.

1. What is your current employment status?
(n=832)



If employed, in what industry do you currently work? Please check all that apply. (n=374)



If employed, how many jobs do you currently hold? (n=382)

# of Jobs	Count
Half	1
One	298
Two	44
Three	5
Four	2
No Answer	32

If employed, are you currently looking for a better paying job? (n=384)

8% Yes 87% No 5% N/A

If Yes, what would you consider as acceptable pay (per year)? (n=21)

\$43,044 (mean); \$42,500 (median)

If retired, what was your previous job title and industry in which you worked? (n=376)

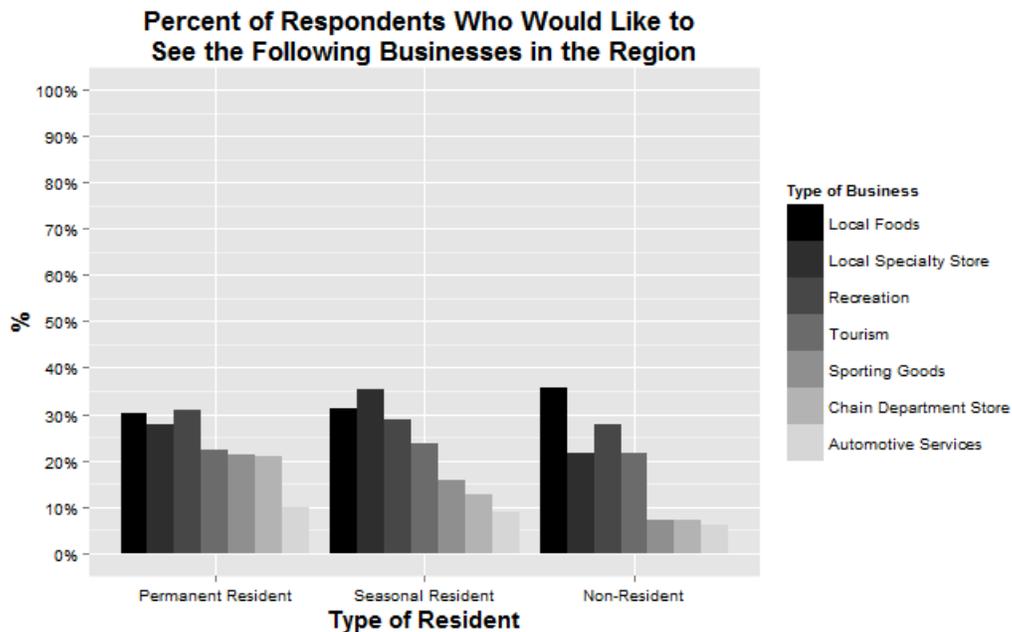
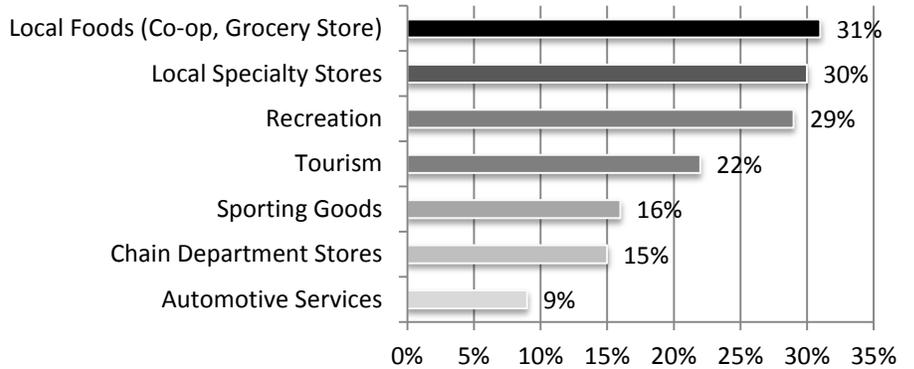
The responses to this question were put through a word analyzer software package that calculates words that were given the most frequently. Below is a table that gives the most common responses.

Title/Industry	Count	%
Teacher	40	11%
Education	34	9%
Manager	15	4%
Mining	27	7%
Engineer	12	3%

2. What would you consider an acceptable minimum wage for the region (per hour)?
(n=603)

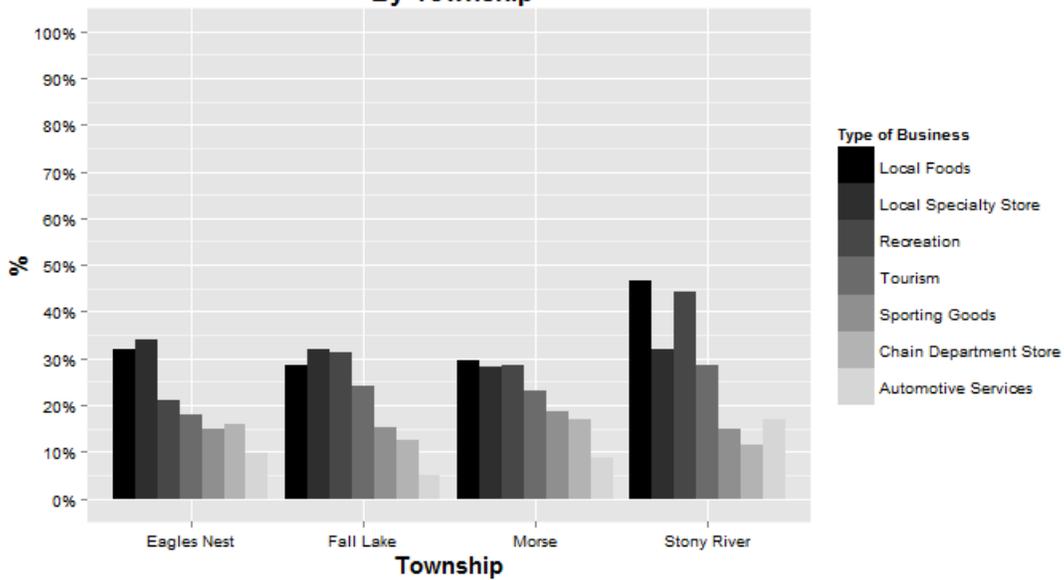
\$ 10.31 /hour (Mean); 10.00 (Median)

3. What types of businesses would you like to see or have expanded in the region? Check all that apply. (n=832)



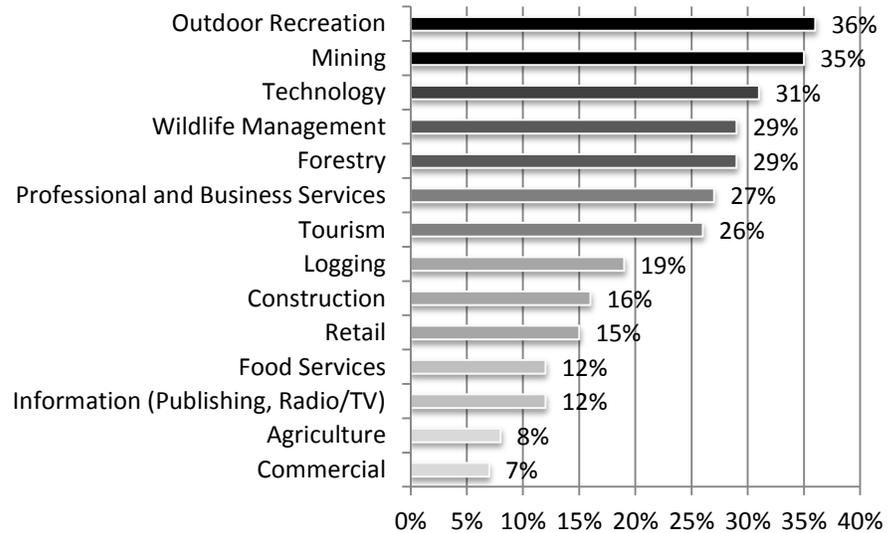
The above chart shows the percentage of respondents who would like to see or have expanded the following businesses in the region, broken down by type of resident. There is no significant difference between the type of resident and the response, although the highest response rate for the type of business was different for each type of resident. Permanent residents chose “recreation” (31%) as the type of business they would like to see or have expanded in the area, whereas seasonal residents chose “local specialty store” (35%), and non-residents chose “local foods” (36%).

Percent of Respondents Who Would Like to See the Following Businesses in the Region By Township



The above chart breaks down the same data by township. Eagles Nest, Fall Lake and Morse had very similar response rates across all the types of business. However, Stony River had significantly higher response rate compared to the other townships for local foods, recreation and tourism businesses.

4. What types of jobs would you like to see or have expanded in the region? (Check all that apply) (n=832)



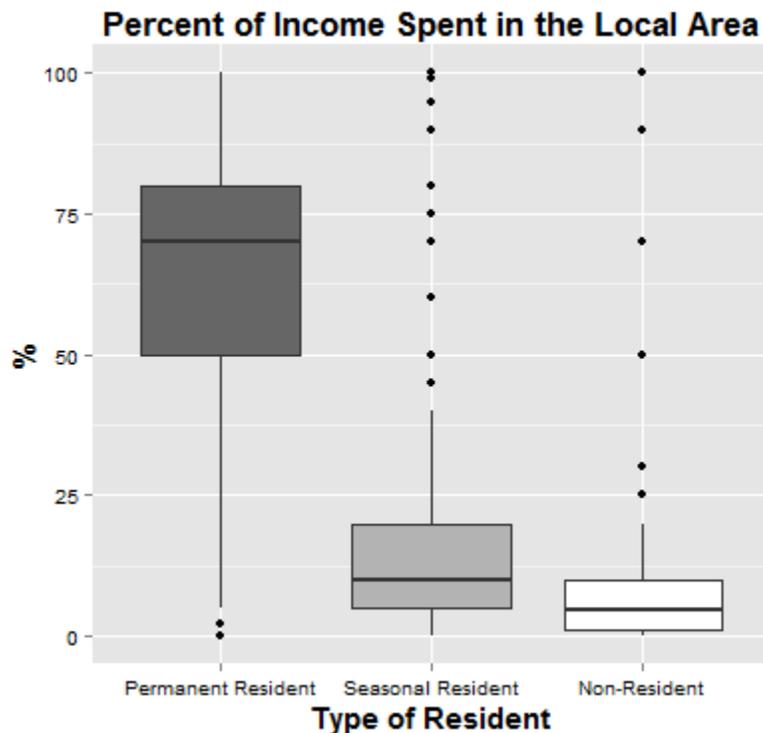
5. Approximately how much are your household yearly expenditures as a percentage of your household income? (n=586)

55.5% (Mean), 60.0% (Median)

6. Approximately what percentage of your income is spent in the local area? (n=668)

35.6% (Mean), 20.0% (Median)

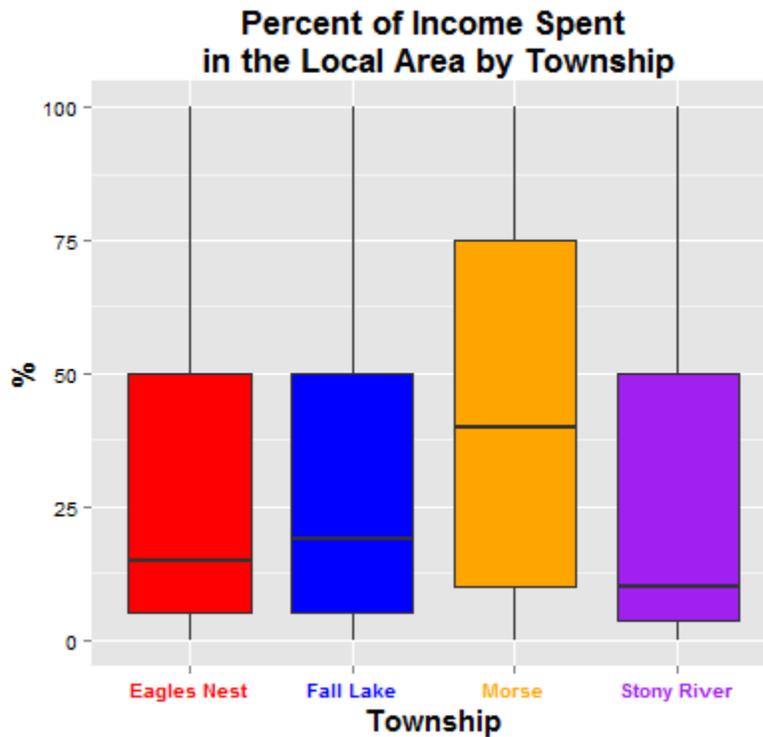
	Permanent Residents	Seasonal Residents	Non-Residents
Minimum	0%	0%	0%
1 st Quartile	50%	5%	1%
Median	70%	10%	5%
Mean	62%	18%	12%
3 rd Quartile	80%	20%	10%
Maximum	100%	100%	100%



This boxplot displays the distribution of the percent of income spent in the local area responses. The darkened boxes highlight the range of values covered by the middle 50% of the data points, while the black lines extending up and down from the box highlight the upper and lower 25%, respectively. The black lines through the boxes represent the median values. The black points represent outliers, points that are unusually higher or lower than the rest of the points.

Not surprising, permanent residents reported much higher percentages of their income spent in the local area with a median of 70%, and the quartile range between 50% and 80%. Seasonal and non-residents were much lower, with mean values of 18% and 12% respectively.

	Eagles Nest	Fall Lake	Morse	Stony River
Minimum	0%	0%	0%	0%
1 st Quartile	5%	5%	10%	4%
Median	15%	19%	40%	10%
Mean	29%	31%	43%	26%
3 rd Quartile	50%	50%	75%	50%
Maximum	100%	100%	100%	100%

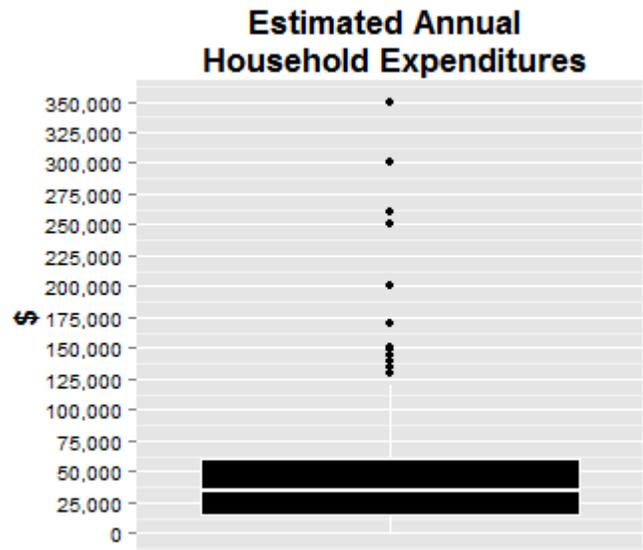


This boxplot displays the distribution of the percent of income spent in the local area responses. The darkened boxes highlight the range of values covered by the middle 50% of the data points, while the black lines extending up and down from the box highlight the upper and lower 25%, respectively. The black lines through the boxes represent the median values. The black points represent outliers, points that are unusually higher or lower than the rest of the points.

Here is the same data broken down by township. Morse Township has a higher range of percentage values reported, with 75% of the data at 75% value or lower and a median of 40%. Eagles Nest, Fall Lake and Stony River Townships have very similar distributions of values, all with 75% of the data at a 50% value or lower; the medians reported were 15%, 19%, and 10% respectively.

7. Approximately how much are your household yearly expenditures? (n=479)

	All Residents
Minimum	\$0
1 st Quartile	\$1,500
Median	\$34,000
Mean	\$45,480
3 rd Quartile	\$60,000
Maximum	\$350,000

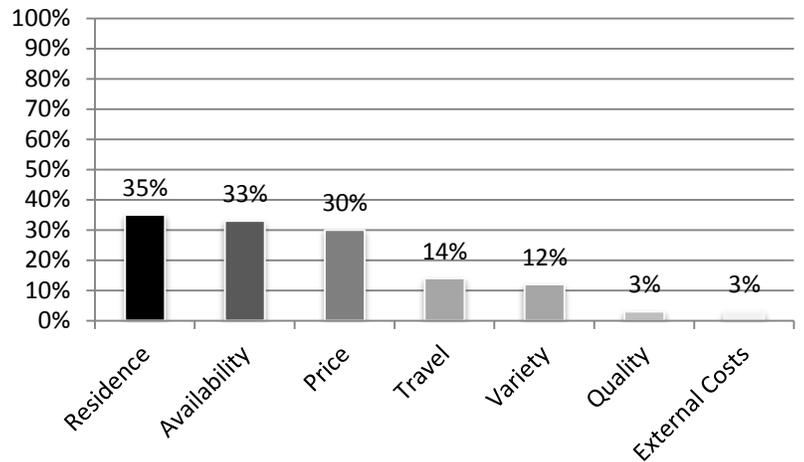


The above boxplot displays distribution of values. The darkened box highlights the range of values covered by the middle 50% of the data points, while the white lines extending up and down from the box highlight the upper and lower 25%, respectively.

The white line through the box represents the median value. The black points represent outliers, points that are unusually higher or lower than the rest of the points.

The distribution of annual household expenditures is shown in the above boxplot. It is important to note, that the chart eliminates four data points that were higher than \$400,000 in annual household expenditures due to the severe skew of the mean with those values in the analysis. However, there are still numerous values much higher than 75% of the data (\$60,000 or less).

8. Please list a few reasons why you spend money outside of the Four Township Region? (N=586)



All the comments were read and categorized according to their topic. The main reasons why residents and land owners spend money out of the four township region were issues relating to residency, availability, and price. Definitions of these categories are explained below.

Residence – This category includes “do not reside in the area,” “seasonal residence” etc., and are specifically related to responses which mentioned place of residence outside of the area or seasonal reasons.

Availability – this category includes those statements which noted words involving: “available,” “availability,” “cannot find in the region,” and other responses which indicate the resident is unable to purchase an item or items in the region.

Price – This section indicates those responses that mentioned anything about the price of an item being too high or finding better “deals” or “savings” outside of the four townships region.

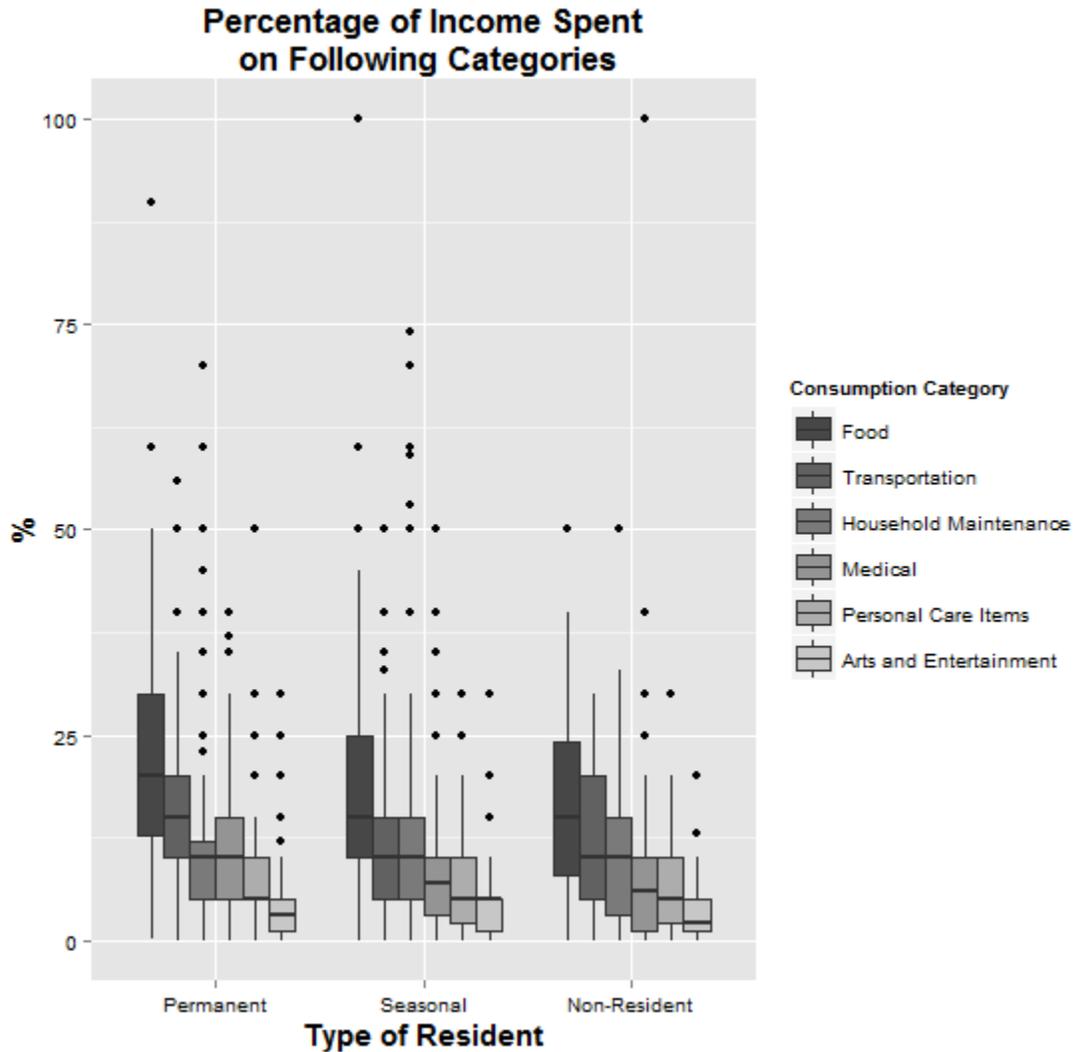
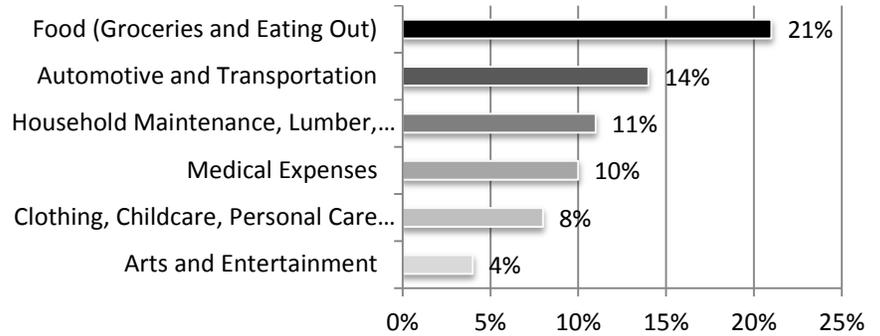
Travel – This includes all statements referring to travel. Several locations were mentioned for shopping; Duluth, Virginia, Two Harbors, Ely and elsewhere to stock up on food and/supplies.

Variety – This category includes responses of “choices,” “variety”, etc., and responses which indicate there is a lack of choice in the region.

Quality – This was chosen with regard to the quality of service or product.

External Costs – This includes payments mentioned which leave the area, such as mortgages owned by institutions outside of the region, or utilities companies.

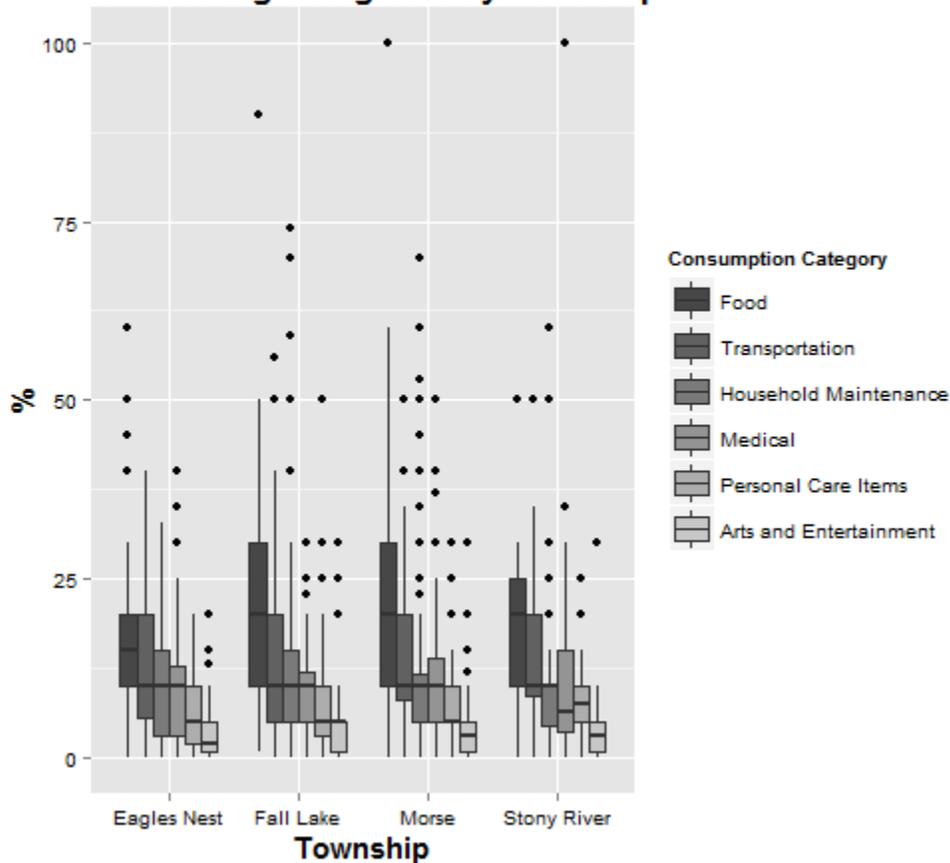
9. Approximately what percentage of your income goes to the following categories: (n=468)



The above boxplots display distribution of responses. The darkened boxes highlight the range of values covered by the middle 50% of the data points, while the black lines extending up and down from the box highlight the upper and lower 25%, respectively. The black lines through the boxes represent the median values. The black points represent outliers, points that are unusually higher or lower than the rest of the points.

Here, we compare the estimated percentage of income spent on food, transportation, household maintenance, medical, personal care items, and arts and entertainment across the different resident types. Distributions among all three types of residents are similar, with food expenses being the highest, followed by transportation and household maintenance.

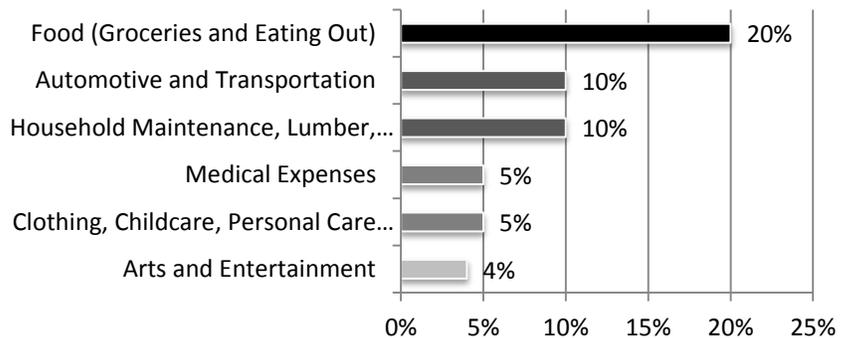
Percentage of Income Spent on Following Categories by Township



The above boxplots display distribution of responses. The darkened box highlights the range of values covered by the middle 50% of the data points, while the black lines extending up and down from the boxes highlight the upper and lower 25%, respectively. The black lines through the boxes represent the median values. The black points represent outliers, points that are unusually higher or lower than the rest of the points.

Here, we compare the same data, except it is now broken down by township. Distributions are similar across all townships, with food having the highest percentage distribution, followed by transportation and household maintenance. Eagle’s Nest is slightly different as the distribution for food is lower than the other townships and similar to the distribution of transportation.

10. For each of the following categories, of the purchases you make, approximately what percentage of these purchases or dollar amounts spent are in the local four townships area? (n=473)



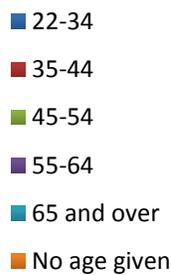
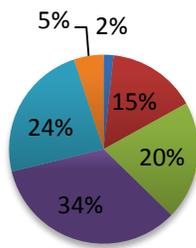
Section 2.4: Businesses Owners in the Four Townships Area

The following section focuses on business owners in the Four Townships Area. Given the respondent answered yes to owning a business in the Four Townships Region, in section II, question 1, this section continues to further analyze the data. The first part of this section will summarize the demographics of the survey participants that responded yes to owning a business in the four townships region.

DEMOGRAPHICS OF BUSINESS OWNERS

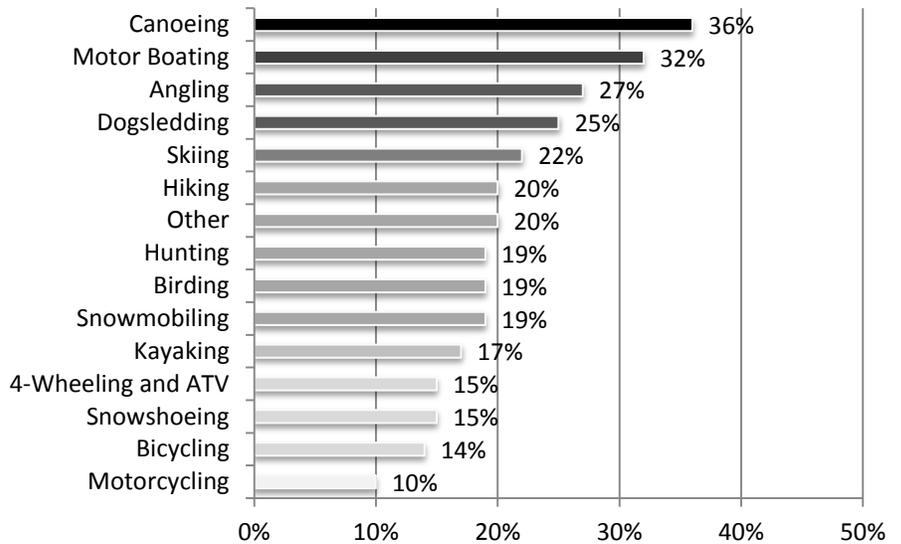
Among the 59 responses that reported being a business owner, 18 were female (31%). 38 business owners were male (64%). 3 business owners did not specify gender.

Age Distribution of Business Owners



Age Group	Count
22 to 34	1
35 to 44	9
45 to 54	12
55 to 64	20
65 and over	14
No age given	3
Total	59

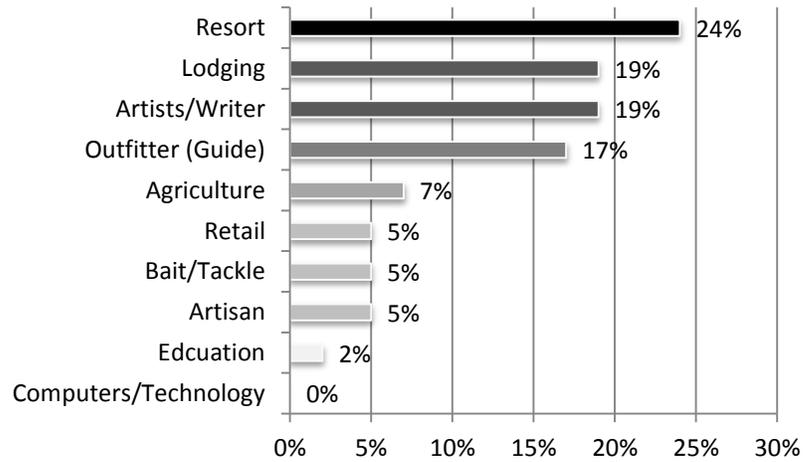
1. If you have your own business in the region, which of the following contribute to your income? (check all that apply) (n=59)



2. Do you operate a business from your home? (n=59)

73% Yes 27% No (Skip to #4)

If yes, what kind? (Check all that apply) (n=43)



3. Do you use internet for business? (n=59)

65% Yes

4. Does your business sell BWCA permits? (n=59)

Yes – 1 Respondent

5. Does your business sell other State or National permits (fishing, hunting, etc.)

Yes – 0 Respondent

Section 2.5: Development

The development section focuses strictly on the opinion of respondents concerning increased development in the Four Townships region. This section examines the total percentages reported for each type of development, based on the entire data set (832 responses).

Overview

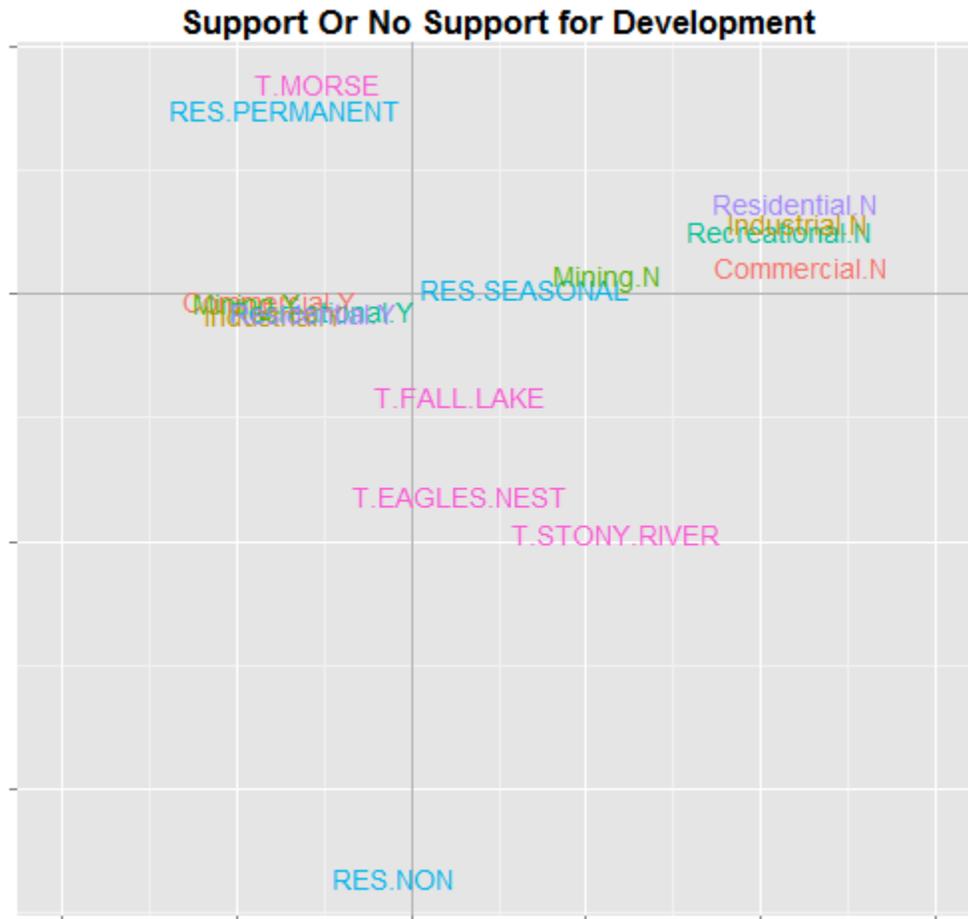
In all aspects, the respondents support development in larger percentages than oppose. All types of development received over 50% support except for mining and extraction development, which received 45%. This support was still larger than the “Do not support”, which received 41%.

In regards to location of development, four of the five types of development had large support in the location of “previously developed areas”. The one exception was mining and extraction. With mining, both previously developed areas and non-lake shore come in at a combined 64%.

Below are the breakdowns for each question. Respondents were allowed to “check all that apply”, so percentages for the questions relating to where they would support development do not add to 100%. One response choice was shortened for formatting reasons. The following is the complete response;

- Developed: Previously developed area/location; near or in town (Tower, Ely, Isabella)

	Support Development				An appropriate area for specified development (% checked)			
	Yes	No	No Opinion	No Answer	Developed	Lake shore	Non-lake Shore	No Opinion
Non-Recreational Commercial Development in the local region. (n=832)	59%	20%	14%	7%	69%	2%	32%	9%
Are you in favor of recreational commercial development in the local region? (n=832)	63%	14%	16%	7%	56%	20%	32%	17%
Are you in favor of industrial (not including mining) development in the local region? (n=832)	61%	21%	11%	7%	67%	1%	32%	11%
Are you in favor of mining and extraction development in the local region? (n=832)	45%	41%	9%	6%	37%	2%	42%	17%
Are you in favor of residential development in the local region? (n=832)	63%	14%	16%	8%	62%	21%	34%	17%



The chart above plots each township, type of resident, and supporting or not supporting the various types of development. The following key relates these variables to the development questions above;

- Type of Development: “development type”.Y (support); “development type”.N (Do Not Support)
- Townships = T.”township name”
- Resident Type = RES.”resident type” (Permanent, Seasonal, Non)

Where variables are plotted indicates similar responses. For example, a group of variables clustered together means that those variables had similar responses depending on certain variables. For this analysis, we are concerned of where the types of residents and townships are plotted along with the development variables. Overall, the chart above shows that permanent and seasonal residents along with all of the townships support all development, as they are both most closely plotted to that cluster of development variables. Seasonal residents fall in between the development variables, except for “does not support” mining and extraction, which indicates less support for that development than others. Non-residents, at the bottom of the chart, indicates very little opinion for development.

When development occurs (whether commercial, industrial, or residential) which of the following environmental impacts should be taken into consideration? (n=832)	Air pollution	Water pollution	Land/Soil pollution	Noise pollution	Light pollution	Animal Habitat
Yes	84%	92%	84%	72%	55%	70%

Section 2.6: Demographic & Other

This final section of the survey attempted to retrieve simple demographic information and provided open ended comments to allow survey participants to write their opinions about the four townships region.

The methodology for the long answer responses was based on a guide to open-ended survey question analysis provided by the Office of Research and Planning at Cerritos College. This process focuses on splitting the subject matter into categories, or codes. The codes are broad, and can be broken down into more specific sub-codes as needed for a more detailed picture of the data.

The open-ended responses were first completely read through to get a more complete idea of what kinds of things people cared about. Next, all the responses to each question were put separately through an online word counter. This provided the basic structure for coding each question. For instance, if “mining” was one of the most common words used (as it was for Question 4), then that would be one of the codes. Similar words were grouped together to find what broader areas people were concerned about, such as “hospital,” “healthcare,” and “ambulance.” Once the codes were identified for each question, a count was taken of how often each code was mentioned in the responses. For each question there was an “Other” category where a key word or phrase was noted. At the end of the first analysis, if one subject was sufficiently prevalent in the “Other” category, it was mentioned in the notes following each graph. The graphs were created from the counts of each code for each question. Codes with very high counts were then analyzed further to determine sub-codes based on the attitudes people held about each subject.

Percentages are the counts of people who used that particular word or intent in their comment divided by the total number of respondents for that particular question. Only categories with 5% or more of the responses are reported. If the percentage was below that threshold, it was added into the “Other” category.

Open-ended questions are by nature subjective, and there runs the risk of the analysis involving some subjectivity. As closely as possible the analysis is based on the actual words present in the responses. There were some, however, that expressed very strong attitudes and emotions but did not include one of the key words. Such responses were coded as carefully as possible, using the “Other” category as needed, to capture the spirit of the response and opinions of the respondent.

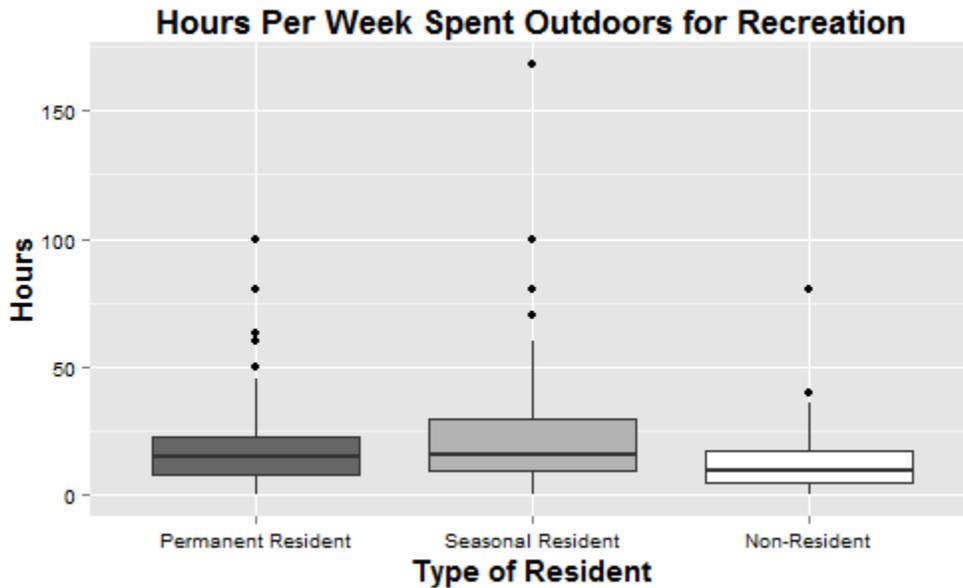
1. How many hours per week do you spend outdoors recreationally? (n=688)

18.56 hours (mean), 15 hours (median)

Years of Residency: Permanent	
1 st Quartile	8.0
Median	15.0
Mean	17.5
3 rd Quartile	23.00
Maximum	100.0
Count	269

Years of Residency: Seasonal	
1 st Quartile	10.0
Median	16.0
Mean	20.68
3 rd Quartile	30.0
Maximum	168.0
Count	343

Years of Land Ownership: Non-Residents	
1 st Quartile	5.0
Median	10.0
Mean	12.7
3 rd Quartile	17.6
Maximum	80
Count	75

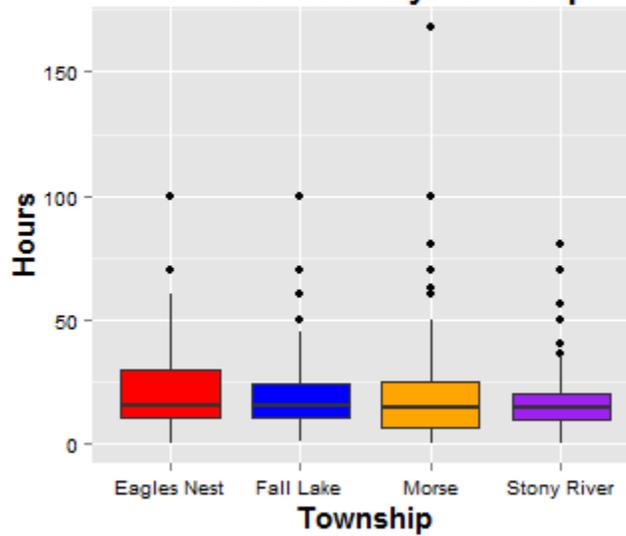


This boxplot displays the distribution of values. The darkened boxes highlight the range of values covered by the middle 50% of the data points, while the black lines extending up and down from the boxes highlight the upper and lower 25%, respectively. The black lines through the boxes represent the median value. The black points represent outliers, points that are unusually higher or lower than the rest of the points.

The distribution of hours spent outdoors for recreation per week for the three types of residences is shown in the boxplot above. Seasonal residents have the highest distribution with 75% of the data at 30 hours per week or less, compared to permanent and non-resident (23 and 17.6 hours, respectively).

	Eagles Nest	Fall Lake	Morse	Stony River
1 st Quartile	10.0	10.0	6.5	9.5
Median	15.0	15.0	14.0	14.5
Mean	20.5	17.9	18.6	17.0
3 rd Quartile	30.0	24.0	25.0	20.0
Maximum	100.0	100.0	168.0	80.0
Count	127	189	395	76

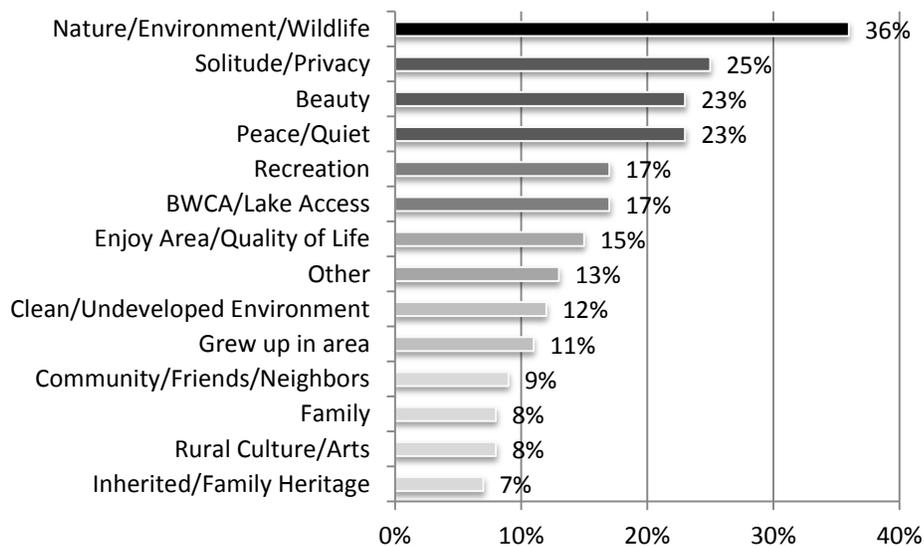
Hours Per Week Spent Outdoors for Recreation By Township



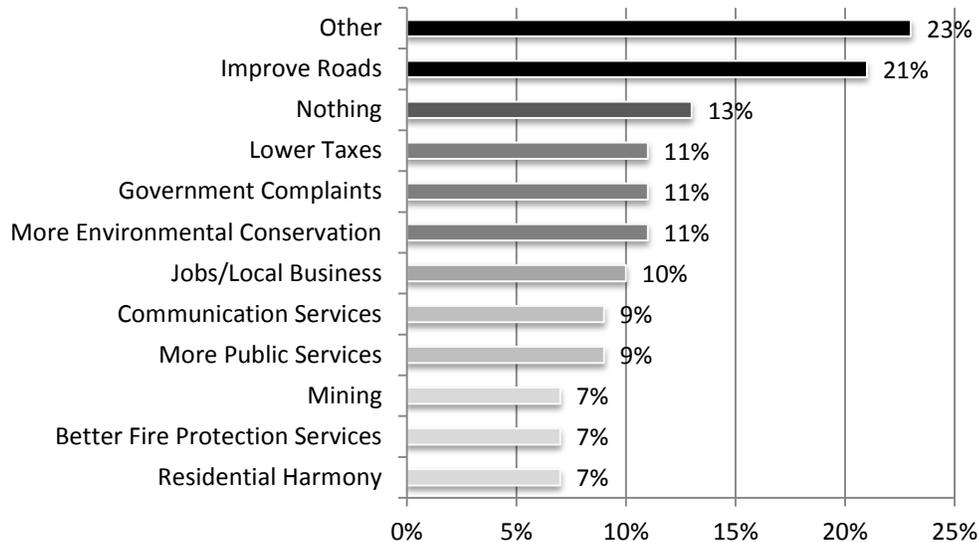
The above boxplots display distribution of values. The darkened boxes highlight the range of values covered by the middle 50% of the data points, while the black lines extending up and down from the boxes highlight the upper and lower 25%, respectively. The black lines through the boxes represent the median value. The black points represent outliers, points that are unusually higher or lower than the rest of the points.

Here we compare the hours per week spent outdoors for recreation by township. The highest distribution of responses came from Eagles Nest Township with 75% of its values falling at or below 30 hours. In spite of this slightly higher distribution, the townships had very similar distributions and medians, with Eagles Nest, Fall Lake, Morse and Stony River having medians of 15, 15, 14 and 14.5 hours, respectively.

2. Why do you choose to live or own land in the four townships area? (n=739)



3. List a few items you would like to change in your township? (n=543)



Road improvement holds a large minority, with 21% of respondents mentioning it in their response. Secondary concerns are many, and include lowering taxes, creating local jobs and businesses, improving communication (mostly internet and cell phone coverage), better governing bodies, more public services, and more environmental conservation efforts. The criteria for the aforementioned categories are as follows:

Other Responses: Respondents expressed a diverse set of needs, as is evidenced by 23% of the respondents mentioning something classified as “other” (unable to classify into any other category), but was not mentioned enough to warrant its own category. They include more recreational trails, better medical services, more young people and families in the area, ending the bear research, and generally cleaning up the area.

Improve Roads: Respondents expressed a variety of improvements including; general upkeep, dust control, replacing gravel with blacktop, less salt used, removing rumble strips on Highway 21, more roads connecting towns, add shoulders and bike lanes, and traffic control.

Nothing: There were a significant number of responses that would like “nothing” changed about their particular township. Many people feel very content with the current state of their township.

Lower Taxes: This included responses “general”, “out-of-state”, and “property” taxes.

Governmental Complaints: General frustration with structure and “competency” of governing bodies, want smaller government with more local control, better leadership, and would like less animosity between Ely and the surrounding townships.

More Environmental Conservation: This includes general concern for preservation of natural environment, pollution prevention, advocating more recycling, enforcing zoning laws for development, wildlife management, and a stronger environmental ethic.

Jobs/Local Businesses: This category includes comments relating to creating more local jobs through small businesses such as; tourism, mining, logging and contracting were common suggestions, though a few were opposed to tourism

because it was not a living wage occupation. These comments were commonly paired with a need to bring in more families to the region.

Communication Services: Comments focused mainly on Internet and cell phone coverage, cable, and better communication between government and residents through newspapers. Increasing website/email access to various governments and news sources were also mentioned.

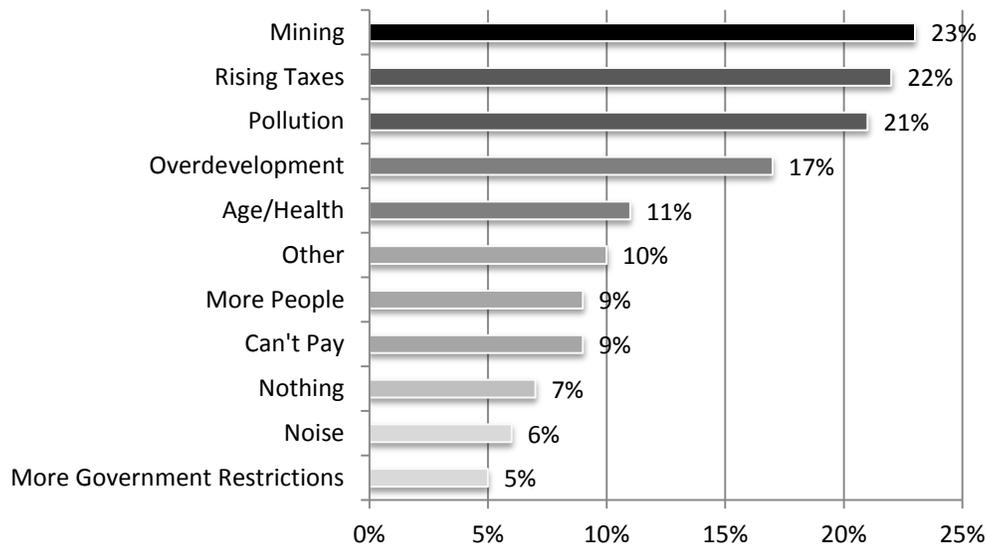
More Public Services: This included comments relating to library accessibility, public transportation, entertainment (movie theatre mentioned frequently), economic support for the needy, sanitary system regulations, community events, dissatisfaction with garbage and recycling services, and more activities provided for adults and youth.

Mining: This category contains two sentiments. One is to increase jobs and wages through continued expansion of mining, while the other sentiment relates to discontinuing mining.

Better Fire Protection Services: This category relates to comments on the need for better relationships between fire stations, more funds for fire departments, desire for consolidated departments, and the general lack of fire protection services for properties.

Residential Harmony: There were many comments about attitudes in the area relating to newcomers, tourists, neighbors and among government officials.

4. What factors would make you leave the four townships area? (n=635)



Mining: This is mostly related to respondents expressing potential negative consequences from mining. There were also a few that expressed the lack of mining jobs and the need for higher wages in the region.

Rising Taxes: All comments in this category related to the current high taxes and the potential for increasing taxes. Many comments expressed that the quality and access to services is low for the cost (taxes).

Pollution: This category contains comments relating to various pollution, including; air, water, land, animal habitat, etc.... Many of these comments were paired with their concerns about mining.

Overdevelopment: Many respondents expressed concern relating to increased residential development, congestion on the roads, and tourism developments.

Age/Health: This category contains responses that specifically identified age and access to good health care as reasons for leaving the area. Many comments expressed their desire to be closer to health service facilities since they currently live many miles from these places.

Other Reasons: 66 respondents cited a variety of miscellaneous reasons they would leave which fall into no particular category. The most frequent reasons mentioned were logging, catastrophe or wildfire, high utility costs, insufficient medical care, and better land/real estate elsewhere.

More People: These comments expressed a decline in their seclusion due to more people coming into the area either as permanent residents, seasonal residents, or tourists.

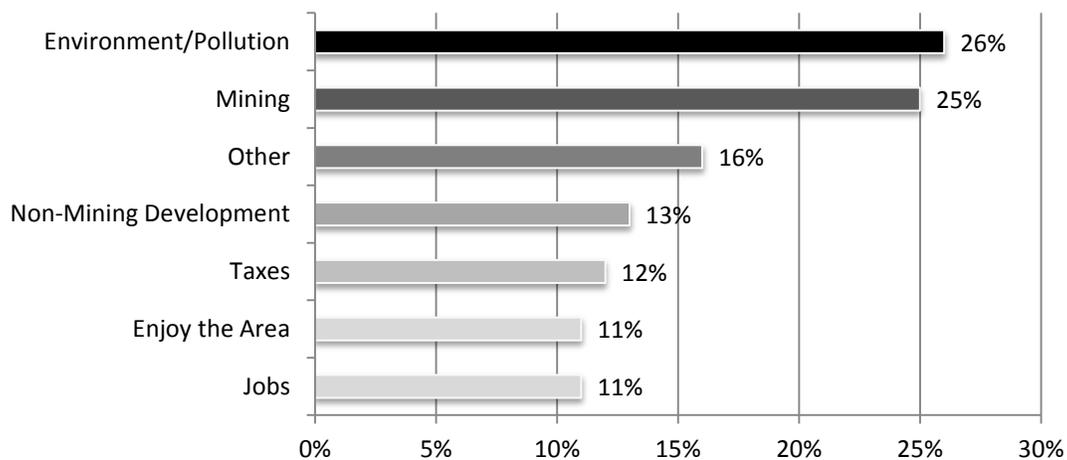
Can't Pay: This category contains comments relating to the increasing costs for materials and “every day” things which are forcing them out of the region.

Nothing: Some respondents believe there is nothing that will have them leave the region.

Noise: These comments were frequently paired with concerns about development, tourism and recreational activities on the lakes or in the forests.

Government Restrictions: This category relates to concerns about increasing regulations on public land use, and restrictions in starting new businesses.

5. Please list any additional comments. (n=257)



Environment/Pollution: The responses were almost exclusively about preserving the natural beauty and quality of the environment.

Mining: Most of the people who mentioned mining in the additional comments were unconditionally opposed to it. However, 12 people had conditional support for it, including “with strict environmental protection”, “only oppose sulfide mining”, and others saying the issue is “complicated”.

Other: Many respondents expressed a desire for better roads, animosity towards environmentalists, and a wish that miners and environmentalists would work together on the mining issue. A number of them wanted better public services such as septic system policies, public transportation, more recreational opportunities and accessibility, a regional fitness center, entertainment and less motorized recreation. Some responses expressed a great amount of animosity and resentment between the locals and seasonal residents and also a “locals” vs. “outsiders” mentality.

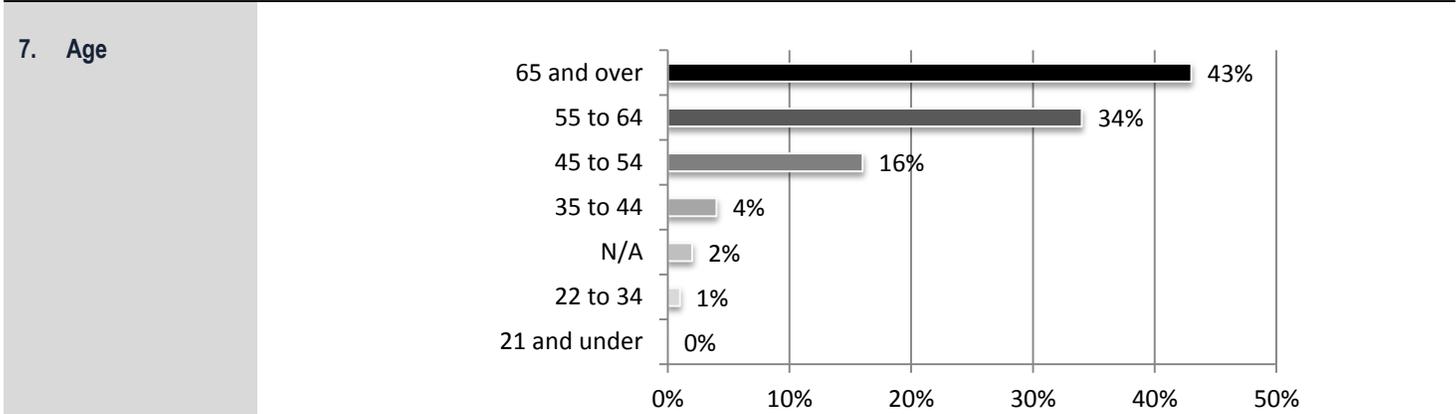
Non-mining Development: 33 responses expressed opposition or conditional support to non-mining development. Conditions included support for development in the cities only and strict environmental protections. There were also a few responses explaining that there were too many restrictions for development to occur.

Taxes: There was almost exclusive dissatisfaction with high tax levels; common complaints were incorrect property valuations, taxation without representation (seasonal residents) and unfair taxation; many expressed a desire for their taxes to be used locally, not in larger, faraway towns (Two Harbors, Ely).

Enjoyment of the Area: many respondents simply expressed their love for the area, and a few expressed sadness about a variety of changes to the area (more or less development, attitudes of other residents, pollution, and the lack of young people).

Jobs: almost every person who mentioned jobs wanted more of them in the area, and the number of those who wanted mining and industrial jobs outnumbered those wanting tourism positions.

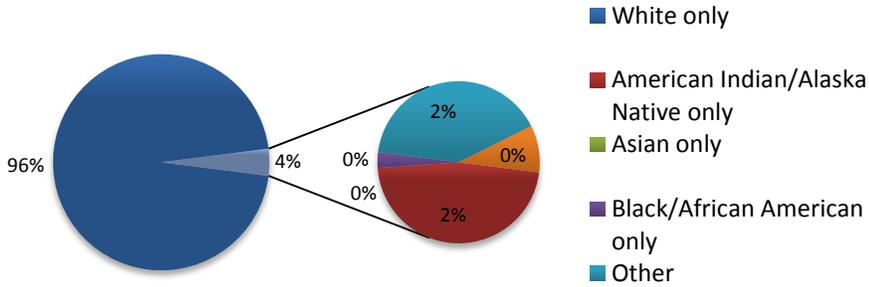
6. Gender (n=832)	64% Male	32% Female	5% No Response
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The high percentage of respondents aged 55+ can be attributed to two factors. The first being the age distribution of the townships; according to the 2010 Census, at least 50% of the population in each township is over 50 years old. The second factor is the survey was sent to land owners, not residents; so it follows that younger individuals are less likely to own land in the region.

8. Race (n=795)	Below is a race breakdown of the respondents. A very large majority of the respondents were white.
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Distribution of Races in 4 Townships



Race	Count
American Indian/Alaska Native	15
Asian only	0
Black/African American	1
White only	763
Other	13
Multiracial	3