



Washington State  
Transportation Commission



# **Washington State Transportation Commission Road Usage Charge Assessment**

*Household Inventory of Vehicles  
In Washington State*

Combined June & November 2014  
Report

- The Washington State Transportation Commission (WSTC) conducted a statewide survey using the Voice of Washington State (VOWS) web panel to inform the WSTC's Road Usage Charge (RUC) urban/rural impact analysis.
- The survey was designed to help better understand the makeup of our state's residential vehicle fleet and residents' usage of our roads and highways
  - The survey gathered data on each household's total number of vehicles, total miles driven per year, and the proportion in-state, out-of-state, and off-public road driving
  - The survey also asked specific questions about each household vehicle (up to 6 vehicles) including: Make/Model, Year, Engine Type, Transmission, Miles Per Gallon, and Miles Driven

- The June RUC vehicle inventory related questions were appended to a VOWS survey that was designed to gather data on statewide opinions on Washington State Ferries (WSF).
- The November RUC vehicle inventory related questions were appended to a VOWS survey that was designed to gather data on statewide opinions on Road Usage Charges and other Transportation issues.
- The survey was emailed to VOWS panel members on June 12<sup>th</sup> through the June 28<sup>th</sup> and November 7<sup>th</sup> through 21<sup>st</sup>.
- There were a total of 7,917 valid surveys before weighting
- The data was weighted by age within each county and then the counties were weighted to their state proportion

- **Household:** all adults age 18+ in the household including the survey respondent.
- **Total Vehicles:** all working vehicles in a household regardless of how often the vehicle is driven. This count does NOT include motorhomes or motorcycles as they were not a direct focus of the RUC research – data was still gathered to understand the penetration rates for motorhome and motorcycles in the state.
- **Total Miles:** respondent estimate of total miles driven for all vehicles in their household in an average year. This count includes mileage for motorhomes and motorcycles. (NOTE: Respondents were instructed to use an estimate of “9,000 miles [statewide average] times the number of vehicles” if they “absolutely have no idea or guess.”)
- **Primary Vehicle:** the vehicle that is driven the most miles in an average year
- **Area:** respondents were classified as living in an **Urban, Suburban, or Rural** area based on the following question: *“Would you describe the area you live in as Urban, Suburban, Rural, [or are you] Not Sure?”*

***Statewide, the average number of vehicles per household is 2.3 (excluding motorcycles/motorhomes)***

- Rural areas have the highest average with 2.6 vehicles per household, followed by Suburban areas (2.3 vehicles), and Urban areas (1.8)
- Statewide, 96% of households have at least one vehicle, nearly three quarters (74%) have two or more vehicles - a third (35%) have 3 or more
- Most Suburban (82%) and Rural (86%) households have two or more vehicles, but only half (54%) of Urban households have two or more vehicle - 10% of Urban households report that they do not have any vehicles and 36% have only one vehicle
- Statewide, households have an average of 1.1 vehicles per licensed driver, compared to only 0.9 vehicles per licensed driver in Urban areas

## ***The average household drives 17,949 miles per year***

- Residents in Rural areas drive the most: 21,987 miles per year for the average household, followed by Suburban households (18,556). Residents in Urban areas drive the least: 13,084 miles for the average household
- Each vehicle is driven an average of 8,340 miles per year
- Residents in Rural (8,914 miles) and Suburban (8,266 miles) areas drive their vehicles more miles on average than Urban residents (7,708 miles)

## ***The vast majority (86%) of driving is done in state***

- Households in Rural areas are twice as likely as Urban/Suburban households to drive on non-public roads, although the overall percentage is still quite small at 4%

***Statewide, the average MPG for all vehicles a household owns is 24.4 MPG***

- There is little difference in average MPG across different area types
- Primary Vehicles (the vehicle a household drives the most miles) get the best gas mileage on average (25.1 MPG)

***Most (97%) households with a vehicle have a Gas only vehicle, 7% have a Hybrid, 1% have an Electric vehicle, and 9% have a Diesel vehicle***

- There is very little difference in the percentage of households having a Gas, Hybrid and Electric vehicles by area type - Diesel vehicles are much more prevalent in Rural areas (17% of households)

***Statewide, 94% of households with a vehicle have a vehicle with an automatic transmission and a third (33%) have a vehicle with a manual transmission***

- Compared to Suburban (95%) and Rural (96%) households, fewer Urban households (89%) have a vehicle with an automatic transmission

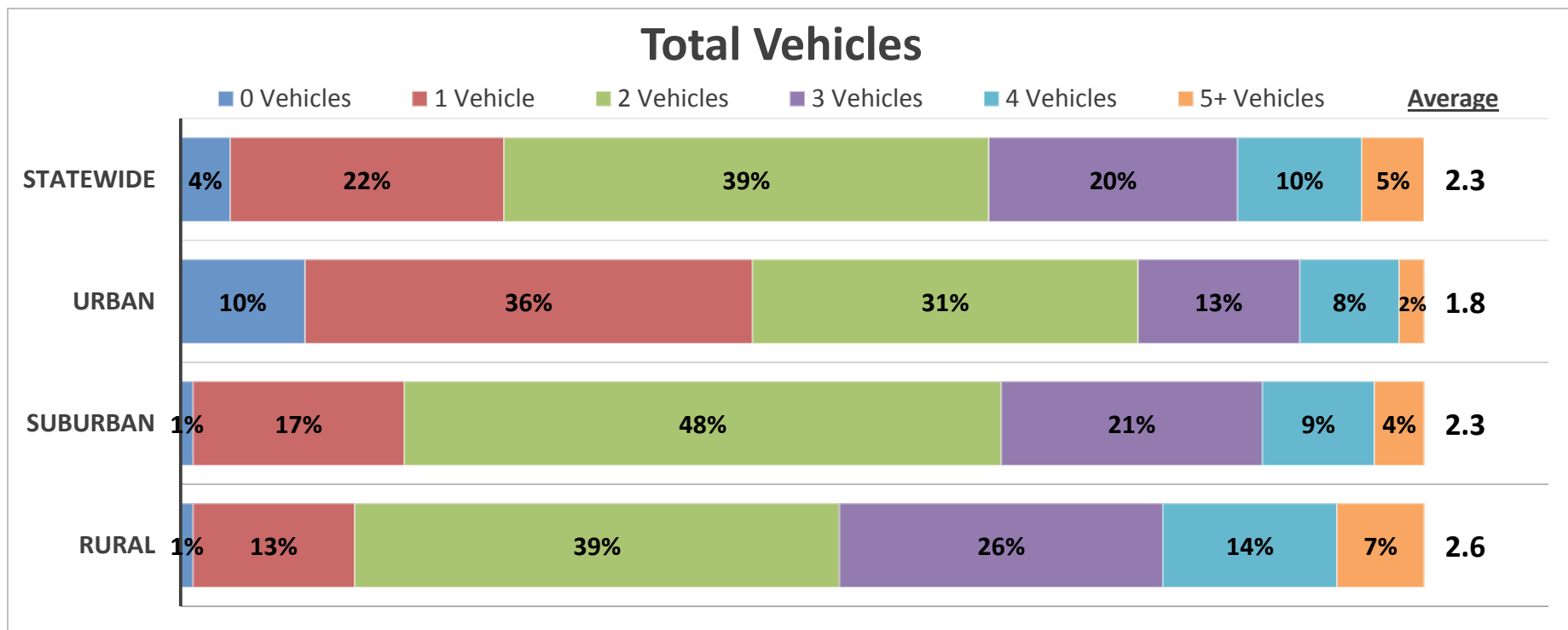
# Household Data



- **Household:** all adults age 18+ in the household including the survey respondent.
- **Total Vehicles:** all working vehicles in a household regardless of how often the vehicle is driven. This count does NOT include motorhomes or motorcycles as they were not a direct focus of the RUC research – data was still gathered to understand the penetration rates for motorhome and motorcycles in the state.
- **Total Miles:** respondent estimate of total miles driven for all vehicles in their household in an average year. This count includes mileage for motorhomes and motorcycles. (NOTE: Respondents were instructed to use an estimate of “9,000 miles [statewide average] times the number of vehicles” if they “absolutely have no idea or guess.”)
- **Area:** respondents were classified as living in an **Urban, Suburban,** or **Rural** area based on the following question: *“Would you describe the area you live in as Urban, Suburban, Rural, [or are you] Not Sure?”*

# Total Vehicles

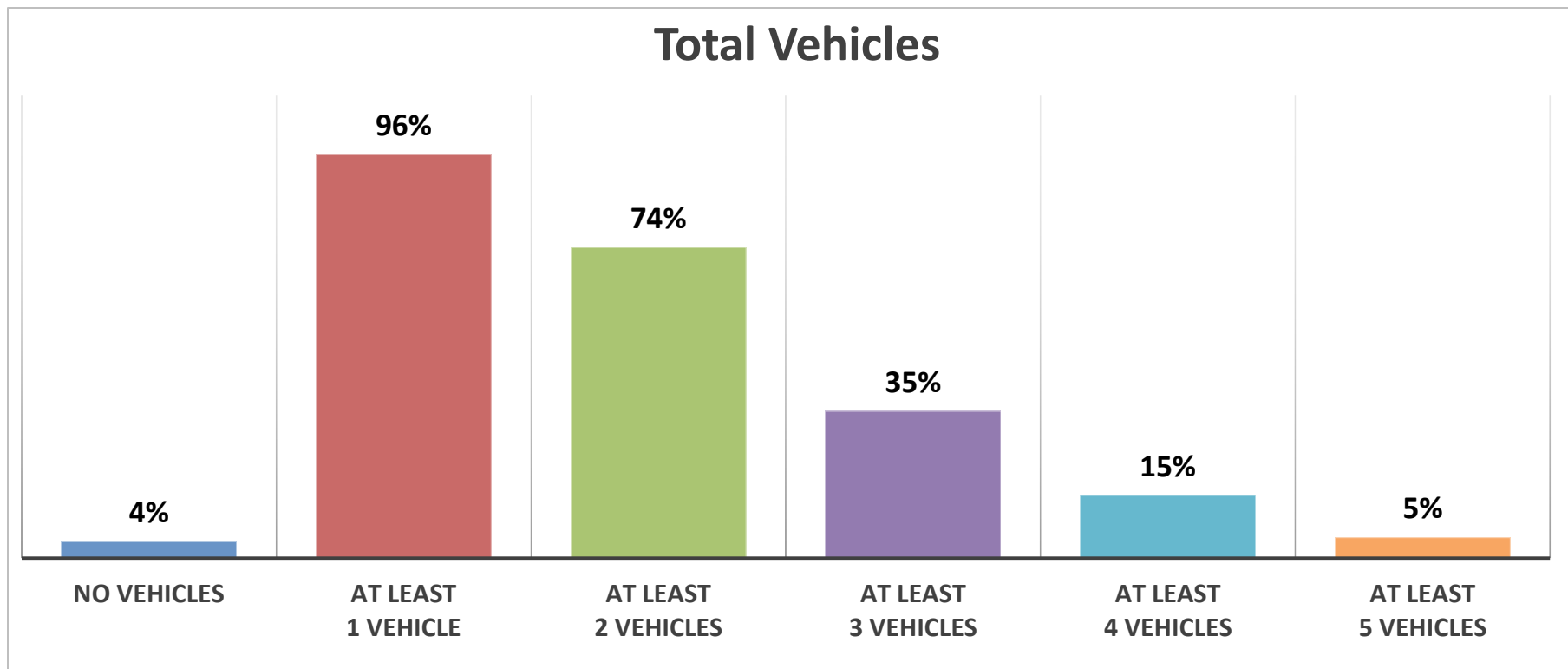
- Statewide, the average number of vehicles per household is 2.3 (excluding motorcycles/motorhomes)
- Rural areas have the highest average with 2.6 vehicles per household, followed by Suburban areas at 2.3 vehicles, and Urban areas at 1.8 vehicles
- 10% of Urban households report that they do not have any vehicles and 36% have only one vehicle



Q22 How many different vehicles (Auto, Sedan, SUV, Trucks, etc.) does your household have at your current residence? (Please do NOT include Motorhomes or Motorcycles in your vehicle count - we will ask you separately about them.)

# Total Vehicles

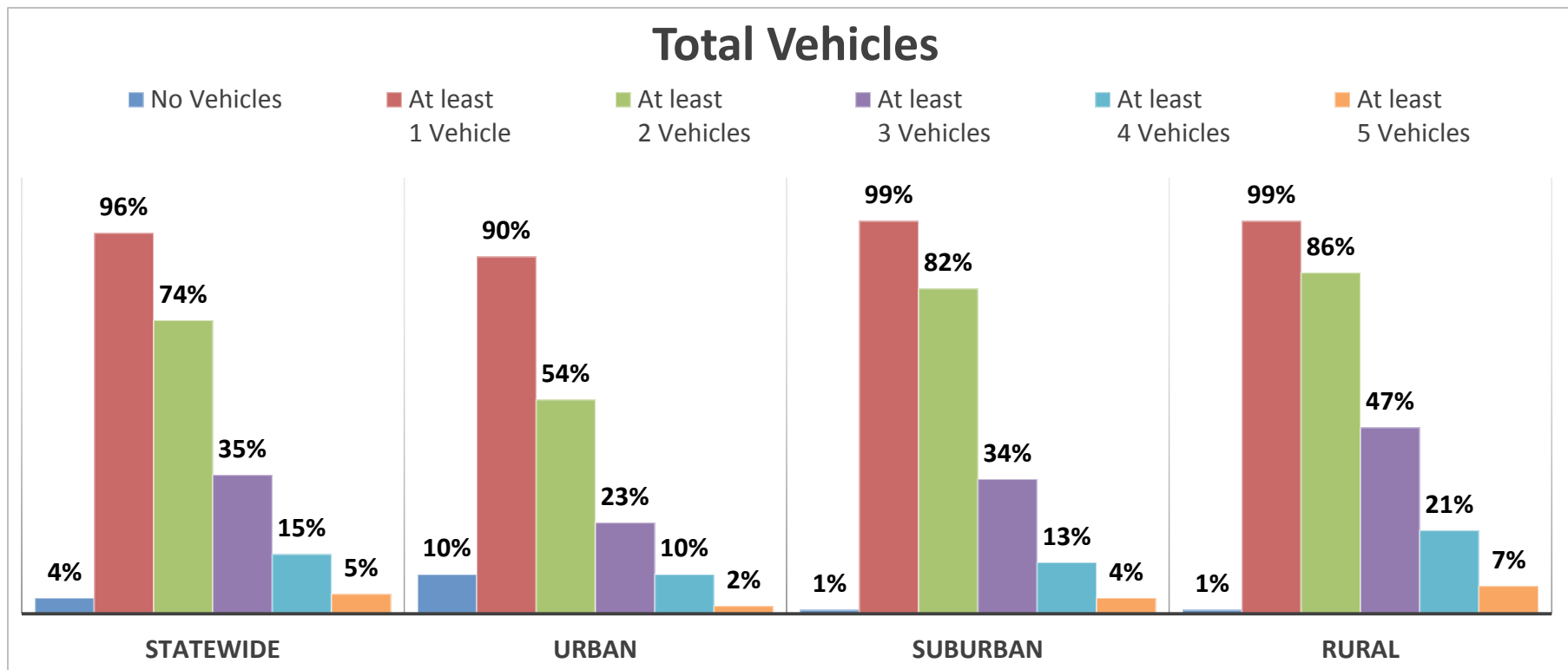
- Statewide, 96% of households have at least one vehicle (excluding motorcycles/motorhomes)
- Nearly three quarters (74%) have two or more vehicles and a third (35%) have three or more vehicles



Q22 How many different vehicles (Auto, Sedan, SUV, Trucks, etc.) does your household have at your current residence? (Please do NOT include Motorhomes or Motorcycles in your vehicle count - we will ask you separately about them.)

# Total Vehicles

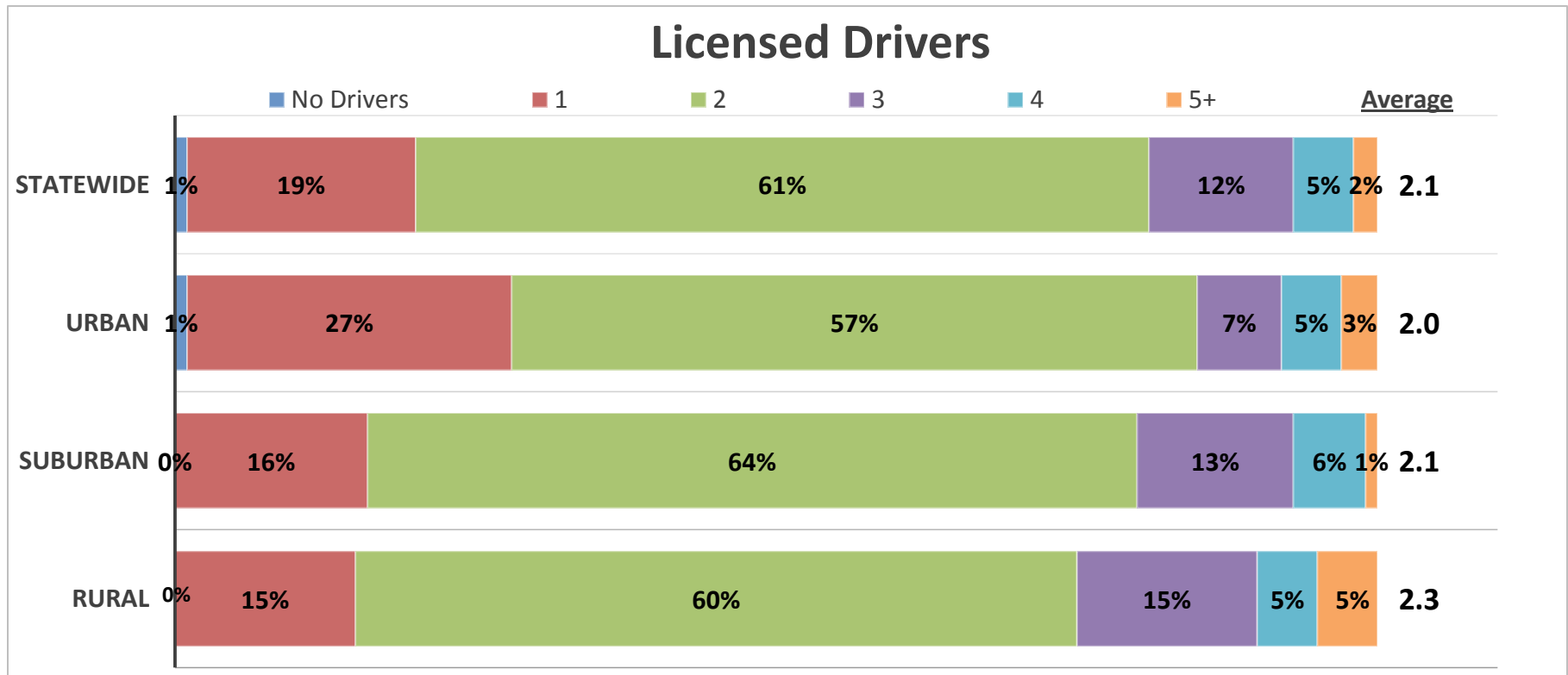
- Most Suburban (82%) and Rural (86%) households have two or more vehicles, but only about half (54%) of Urban households have two or more vehicles
- About half (47%) of Rural households have three or more vehicles, and a quarter (21%) have 4+ vehicles



Q22 How many different vehicles (Auto, Sedan, SUV, Trucks, etc.) does your household have at your current residence? (Please do NOT include Motorhomes or Motorcycles in your vehicle count - we will ask you separately about them.)

# Licensed Drivers

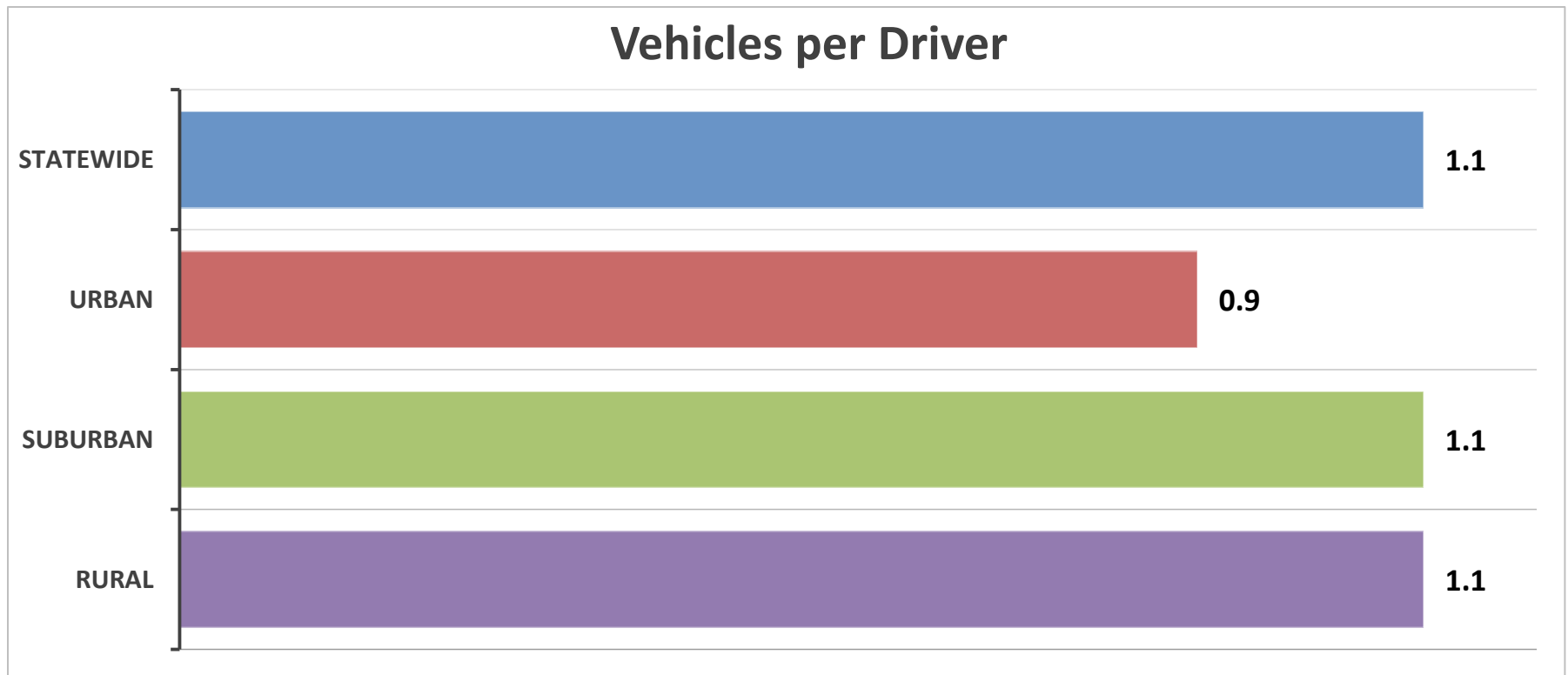
- Eight in ten (80%) households statewide have at least 2 licensed drivers
- Only 1% of respondents reported no licensed drivers in the household 2%
- Rural households average the most licensed drivers (2.3) -- 25% of Rural households have 3 or more licensed drivers



Q73 How many licensed drivers are there in the household?

# Average Vehicles per Licensed Driver

- Statewide, households have an average of 1.1 vehicles per licensed driver (2.3 vehicles / 2.1 licensed drivers)
- Suburban and Rural areas average 1.1 vehicles per licensed driver, compared to only 0.9 vehicles per licensed driver in Urban areas

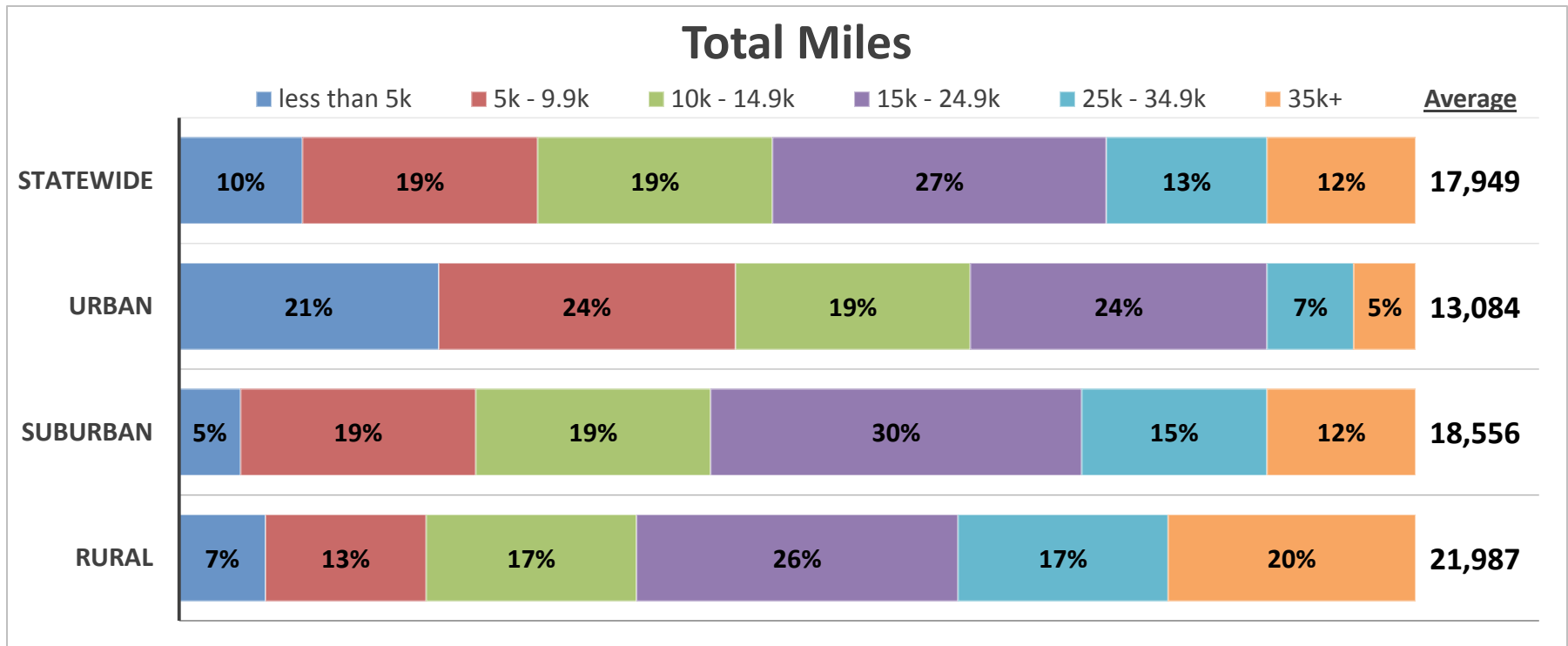


Q22 How many different vehicles (Auto, Sedan, SUV, Trucks, etc.) does your household have at your current residence? (Please do NOT include Motorhomes or Motorcycles in your vehicle count - we will ask you separately about them.)

Q73 How many licensed drivers are there in the household?

# Total Miles Driven Per Household

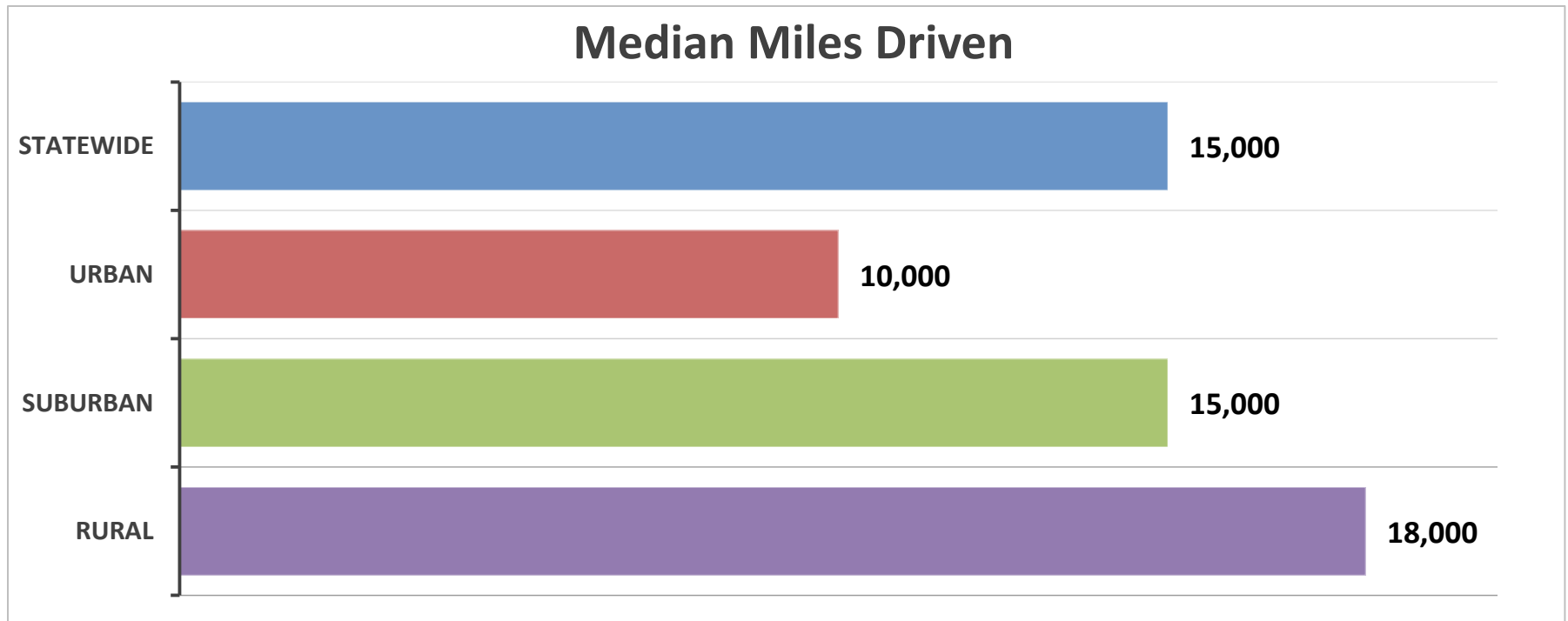
- The average household drives 17,949 miles per year
- Residents in Rural areas drive the most: 21,987 miles per year for the average household, followed by residents in Suburban areas (18,556 miles)
- Residents in Urban areas drive the least: 13,084 miles for the average household



Q23 Approximately how many total miles would you say the people in your household drive your (insert #) vehicles (insert "Motorhome" if mentioned) (insert "Motorcycle if mentioned) in an average year?(If you absolutely have no idea or guess at your households yearly mileage you can use 9,000 miles [statewide average] times the number of vehicles you have as a rough guess since you must have an amount for this question to go on.)

# Median Miles Driven Per Household

- The median measures the “midpoint” of the data - half of the values are less and half are greater – and helps reduce the impact of outliers
- Statewide the median household drives 15,000 miles a year
- Rural households still have the highest median (18,000 miles), followed by Suburban households (15,000), and Urban households (10,000 miles)

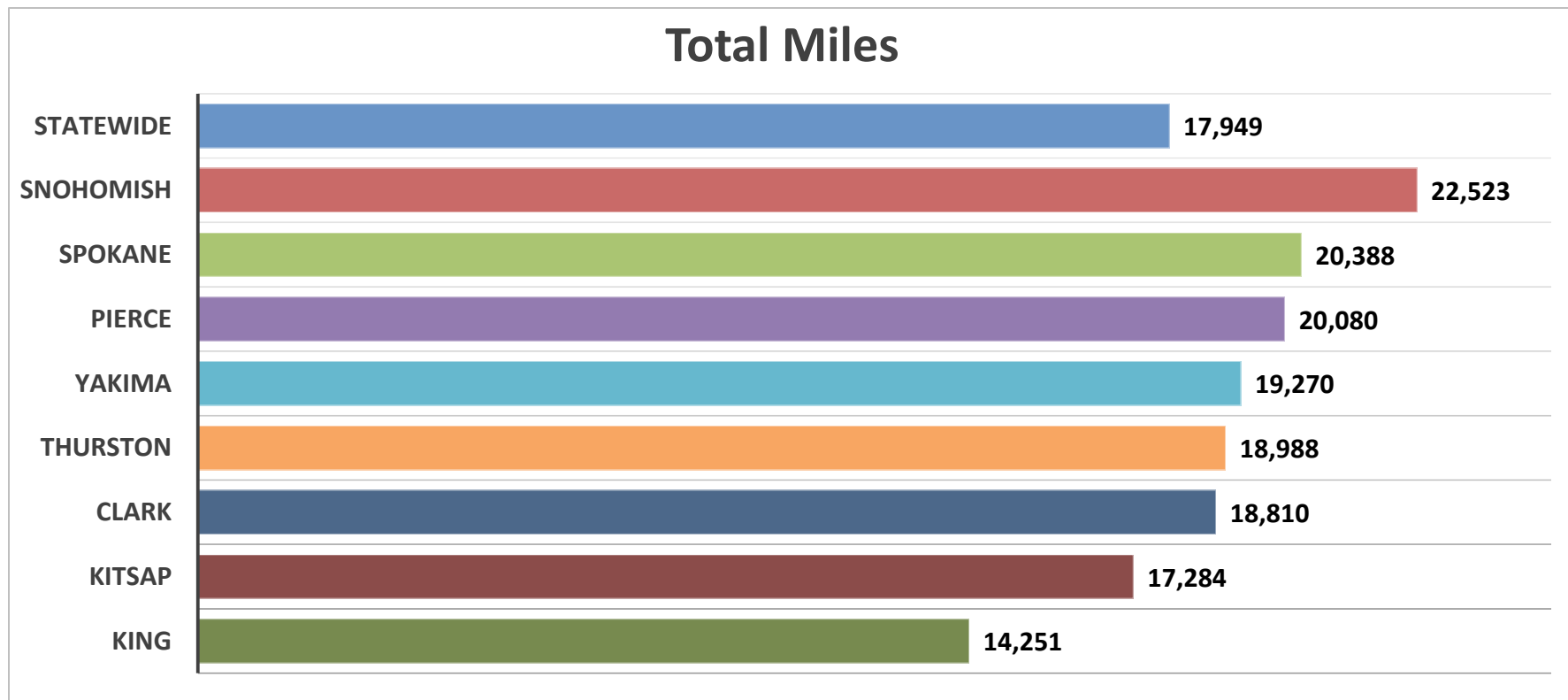


Q23 Approximately how many total miles would you say the people in your household drive your (insert #) vehicles (insert “Motorhome” if mentioned) (insert “Motorcycle if mentioned) in an average year?(If you absolutely have no idea or guess at your households yearly mileage you can use 9,000 miles [statewide average] times the number of vehicles you have as a rough guess since you must have an amount for this question to go on.)



# Average Miles Driven - Select Counties

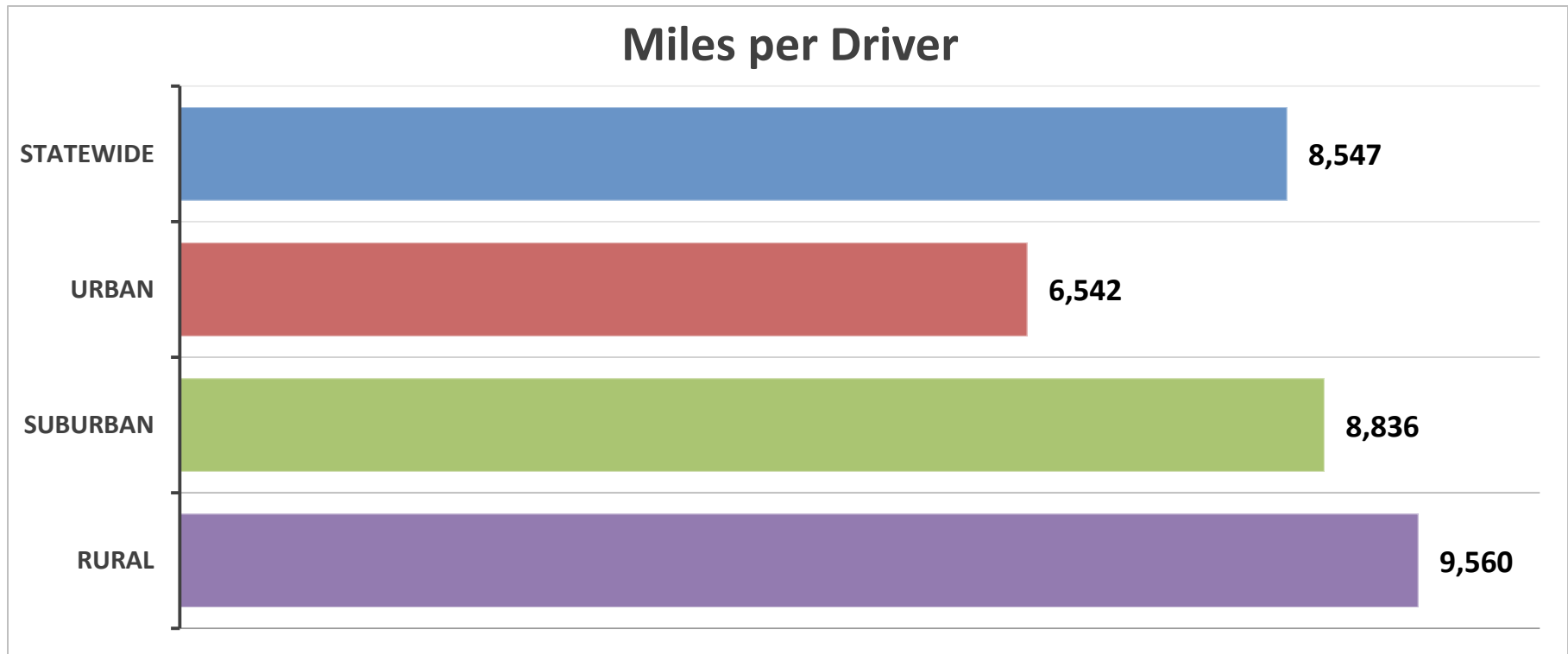
- King County households report driving less per year than the state average and less than households in other major counties
- Snohomish and Spokane County households report driving the most



Q23 Approximately how many total miles would you say the people in your household drive your (insert #) vehicles (insert "Motorhome" if mentioned) (insert "Motorcycle if mentioned) in an average year?

# Average Miles Driven per Driver

- Based on a statewide average of 2.1 licensed drivers per household, each driver averages 8,479 miles per year (17,949 miles / 2.1 drivers)
- Rural households average 9,560 miles per driver, compared to 8,836 miles per driver in Suburban areas, and 6,542 miles per driver in Urban areas



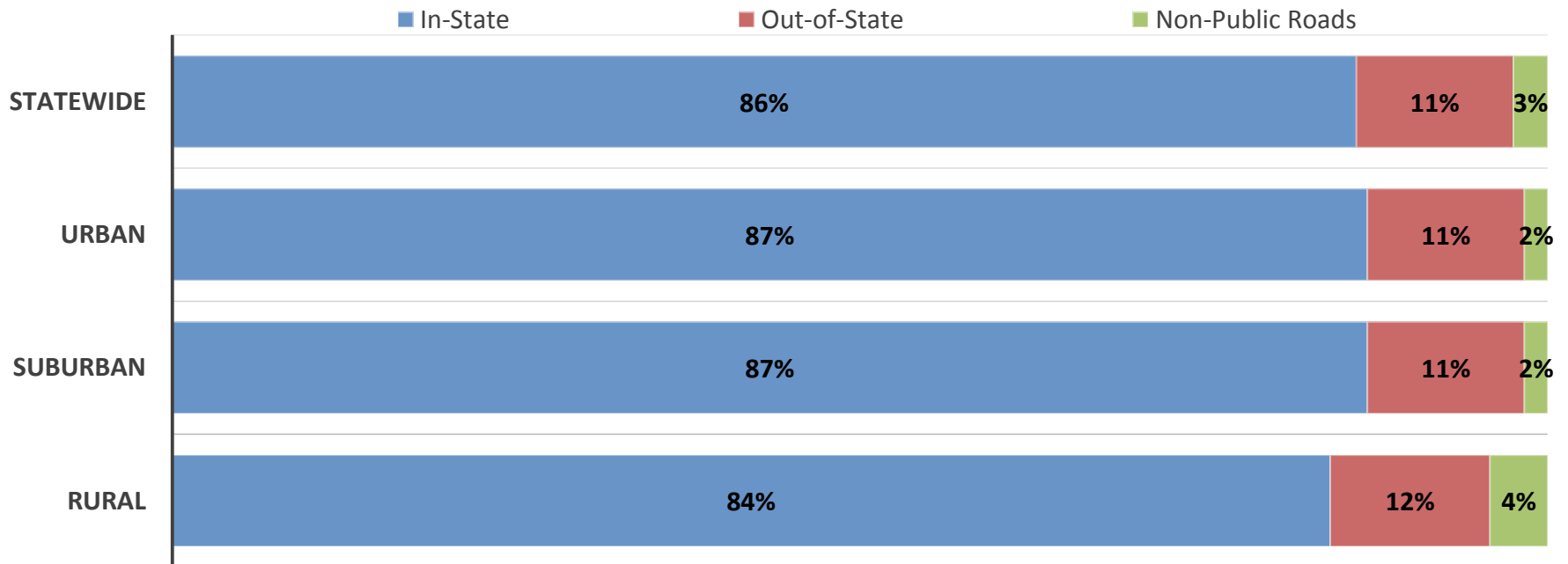
Q23 Approximately how many total miles would you say the people in your household drive your (insert #) vehicles (insert "Motorhome" if mentioned) (insert "Motorcycle if mentioned) in an average year?

Q73 How many licensed drivers are there in the household?

# Where People Drive

- The vast majority (86%) of driving is done in state
- Households in Rural areas are twice as likely as Urban/Suburban households to drive on non-public roads, although the overall percentage is still quite small at 4%

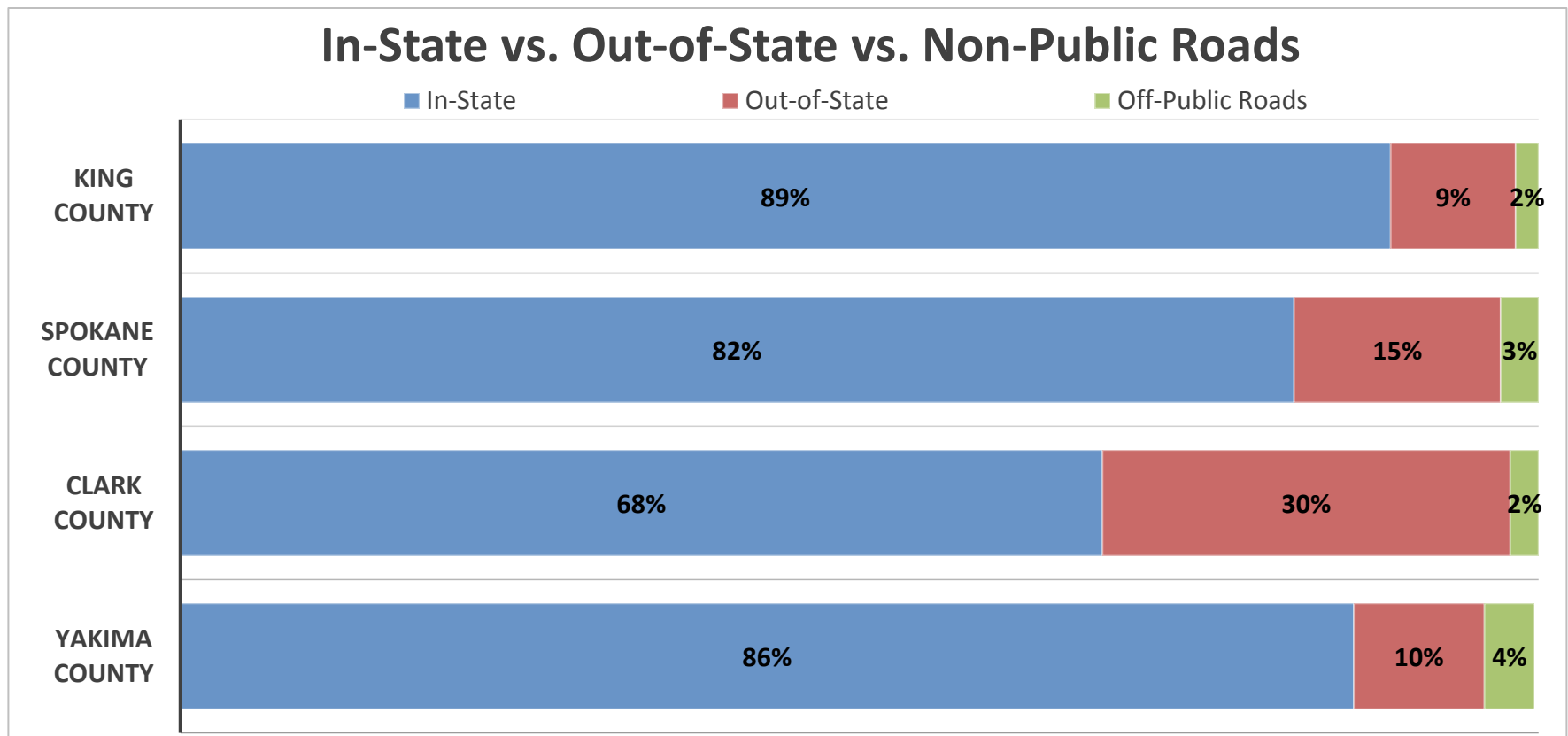
## In-State vs. Out-of-State vs. Non-Public Roads



Q24 Of those (insert total miles reported) miles your household drives in an average year, what percent of the miles would you estimate you drive in-state, out-of-state or on non-public roads? (Please estimate the percentage for each)

# Where People Drive – Select Counties

- Not surprisingly, households in counties near the state border are more likely to drive out of state



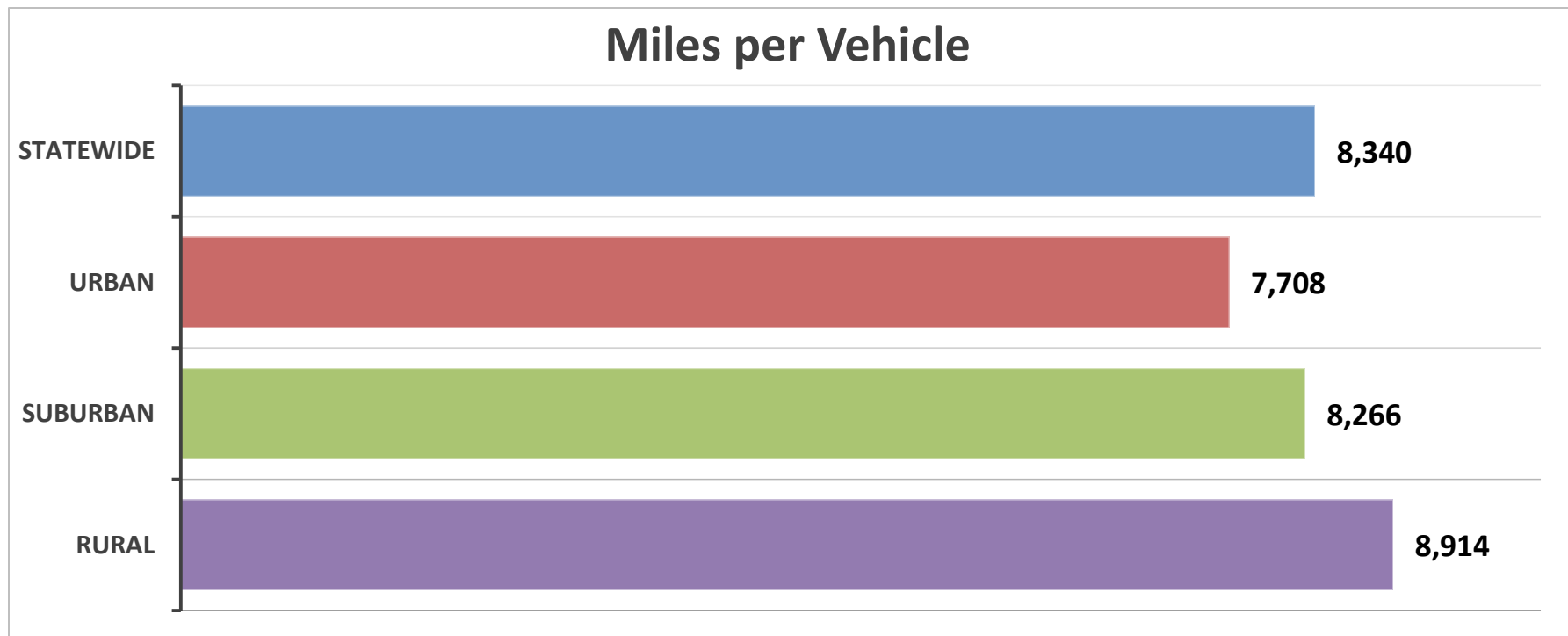
Q24 Of those (insert total miles reported) miles your household drives in an average year, what percent of the miles would you estimate you drive in-state, out-of-state or on non-public roads? (Please estimate the percentage for each)

# Profile of All Household Vehicles

- Introduction to Vehicle Information Section
  - Respondents were administered a series of questions about each vehicle at the residence (up to a maximum of 6 vehicles) including: Make/Model, Year Manufactured, Engine Type, Transmission Type, Estimated MPG, and Yearly Miles Driven

# Average Vehicle Miles

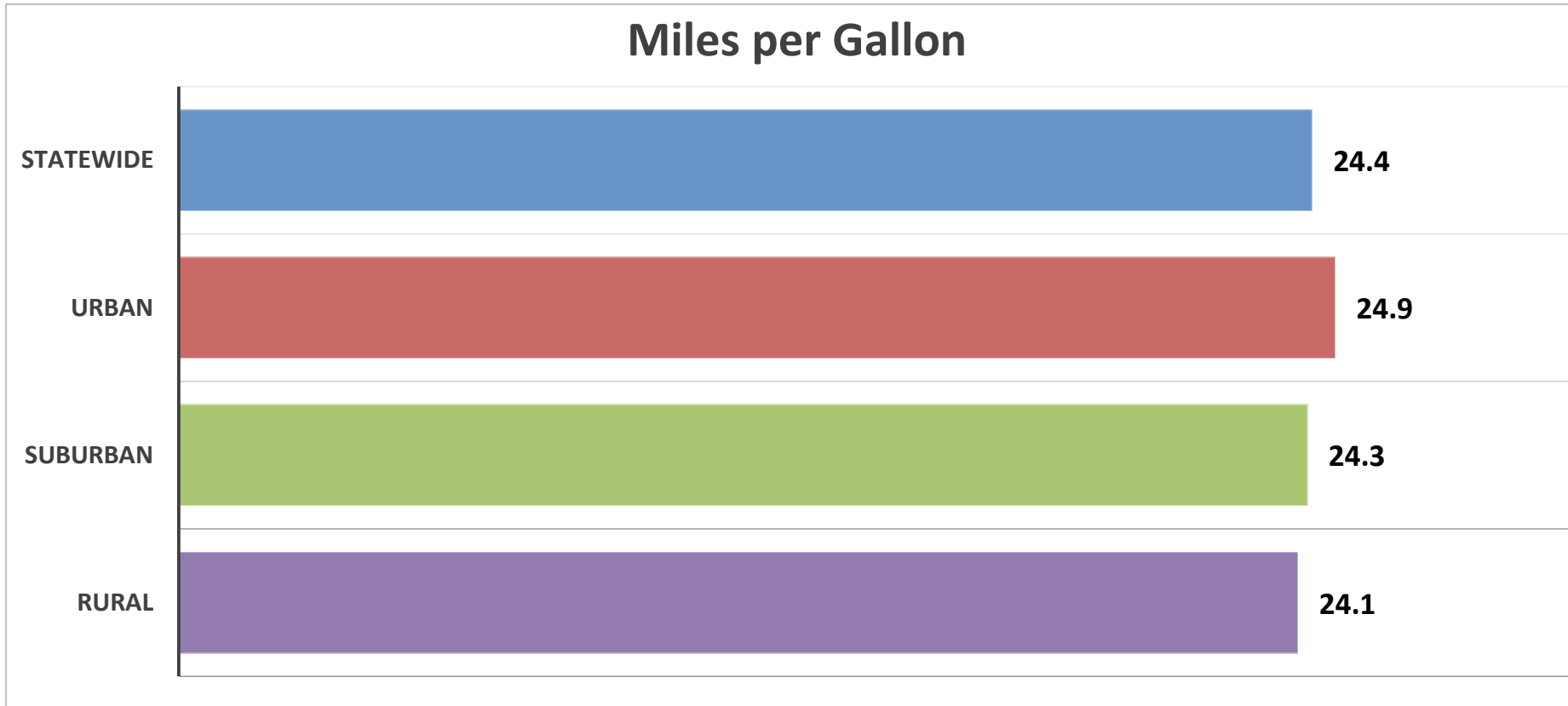
- Based on households with 1 or more vehicles, the a statewide average miles driven per vehicle is 8,340 miles per year
- Residents in Rural (8,914 miles) and Suburban (8,266) areas drive their vehicles more miles on average; Urban residents average fewer miles (7,708)



*Summation of Q30, Q36, Q42, Q48, Q54, AND 60 (Of the miles your household drives per year, approximately how many miles does your household drive your 1<sup>st</sup>, 2<sup>nd</sup>, 3<sup>rd</sup>, 4<sup>th</sup>, 5<sup>th</sup>, and 6<sup>th</sup> vehicle?) divided by Q22 (How many different vehicles excluding motorhomes/motorcycles does your household have at your current residence?) for those with 1 or more vehicles.*

# Miles per Gallon

- Statewide, the combined average miles per gallon for all vehicles a household owns is 24.4 MPG
- There is little difference in the combined average MPG across different area types

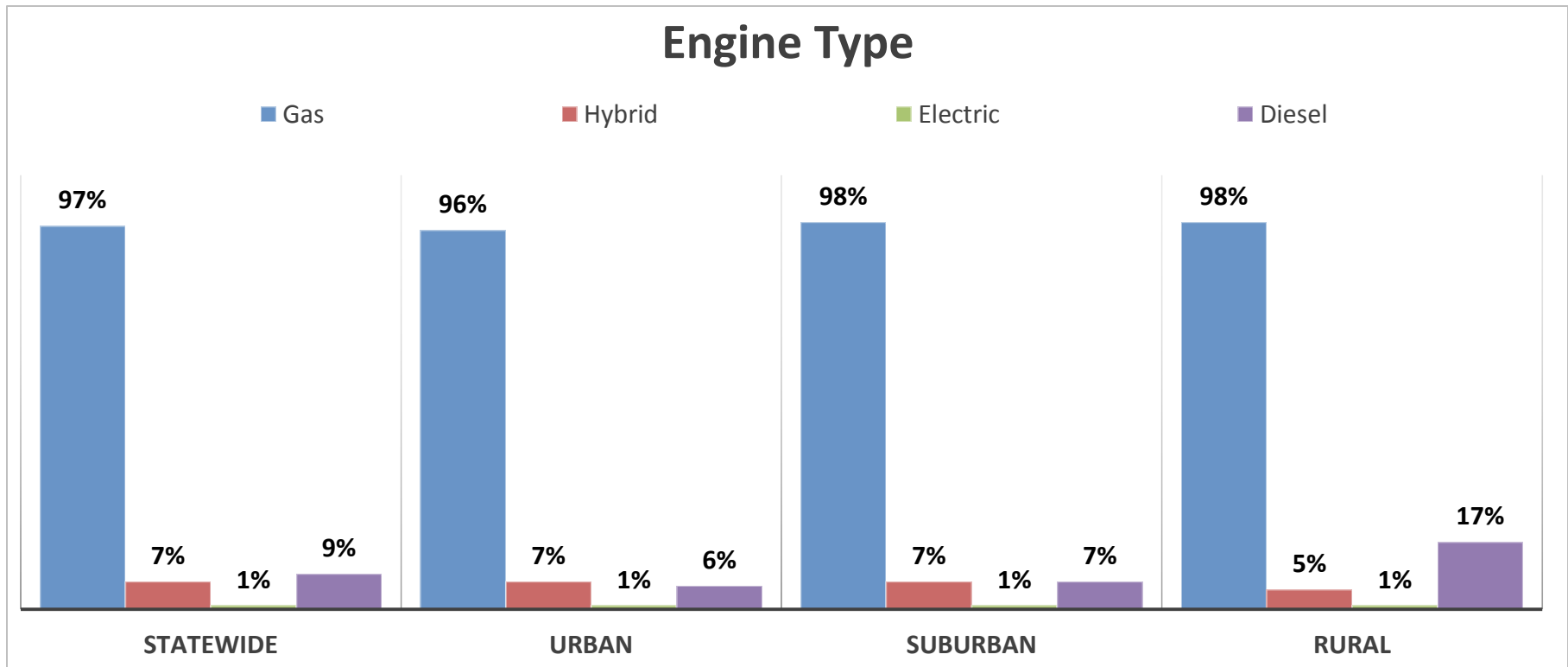


Summation of Q29, Q35, Q41, Q47, Q53, AND 59 ( Considering both city and highway driving, what miles per gallon do you get on average in your 1<sup>st</sup>, 2<sup>nd</sup>, 3<sup>rd</sup>, 4<sup>th</sup>, 5<sup>th</sup>, and 6<sup>th</sup> vehicle? Please round your estimate to nearest whole number)



# Engine Type

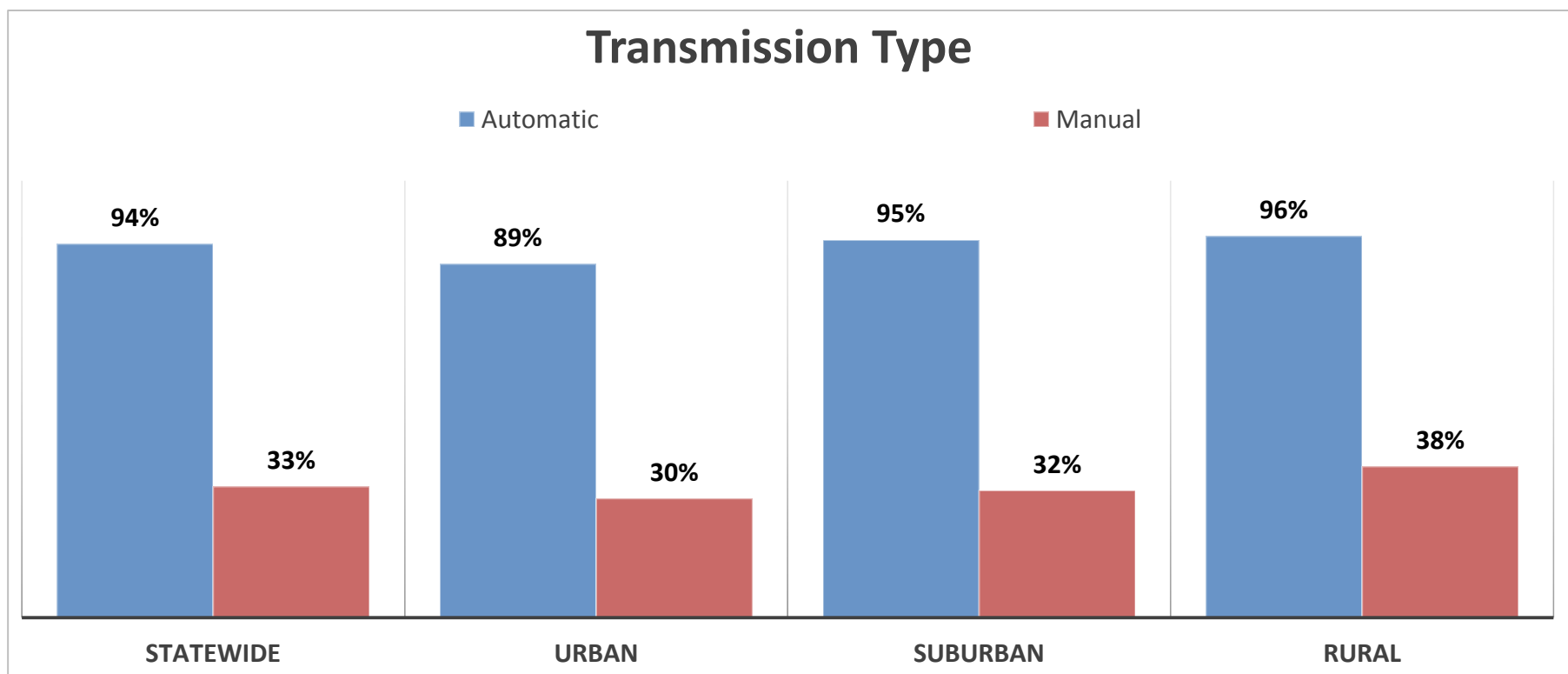
- 97% of households with a vehicle have a Gas only vehicle, 7% have a Hybrid, 1% have an Electric vehicle, and 9% have a Diesel vehicle
- There is very little difference in the percentage of households having a Gas, Hybrid and Electric vehicles by area type - Diesel vehicles are much more prevalent in Rural areas (17% of households)



Summation of Q27, Q33, Q39, Q45, Q51, AND 57 ( What type of engine does your 1<sup>st</sup>, 2<sup>nd</sup>, 3<sup>rd</sup>, 4<sup>th</sup>, 5<sup>th</sup>, and 6<sup>th</sup> vehicle have?)

# Transmission Type

- Statewide, 94% of households with a vehicle, have at least one vehicle with an automatic transmission and a third (33%) have at least one vehicle with a manual transmission
- Compared to Suburban (95%) and Rural (96%) households, fewer Urban households have a vehicle with an automatic transmission



Summation of Q28, Q34, Q40, Q46, Q52, AND 58 (What type of engine does your 1<sup>st</sup>, 2<sup>nd</sup>, 3<sup>rd</sup>, 4<sup>th</sup>, 5<sup>th</sup>, and 6<sup>th</sup> vehicle have?)

# Summary of Vehicle Info

- The table below shows the profile for vehicles 1 thru 6 along with the data for the Primary Vehicle (the vehicle that is driven the most miles in an average year).

## Summary Profile of Household Vehicles

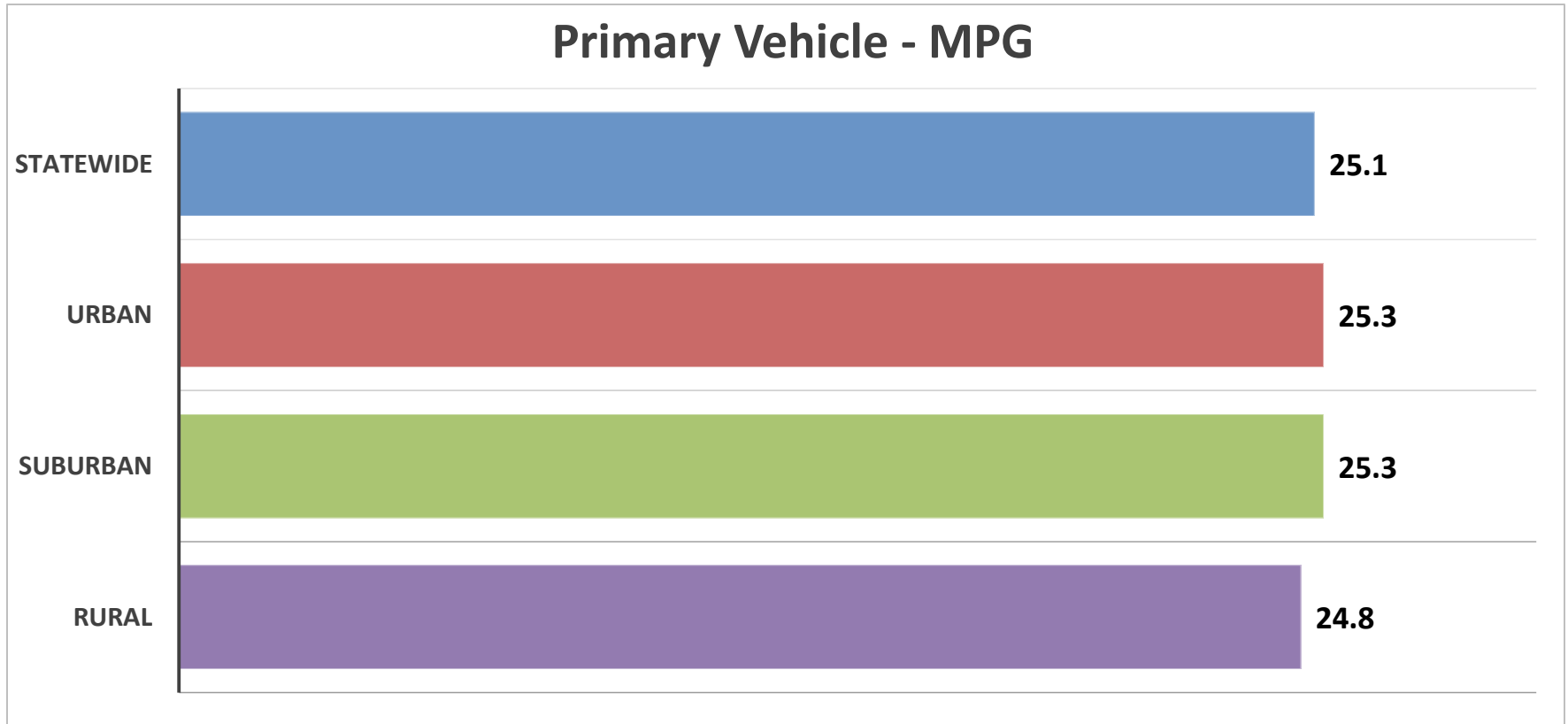
Vehicle #	Exactly n Vehicles	At Least n Vehicles	Miles Driven	MPG	2005 or newer	Gas Only	Hybrid	Electric	Diesel	Automatic
<b>Primary</b>			<b>11,726</b>	<b>25.1</b>	<b>59%</b>	<b>89%</b>	<b>5%</b>	<b>1%</b>	<b>4%</b>	<b>86%</b>
0	4%									
1	22%	96%	10,066	24.2	57%	91%	5%	1%	4%	86%
2	39%	74%	7,426	22.8	46%	91%	3%	1%	5%	81%
3	20%	35%	5,133	21.3	32%	93%	1%	0%	6%	75%
4	10%	15%	4,709	21.6	24%	94%	1%	0%	4%	72%
5	3%	5%	3,494	22.3	19%	91%	2%	1%	5%	49%
6	2%	2%	1,624	21.1	21%	89%	0%	0%	10%	49%

# Profile of Primary Vehicle

- Introduction to Primary Vehicle Information Section
  - A household's Primary Vehicle was defined as the vehicle that is driven the most miles in an average year

# Primary Vehicle – Miles per Gallon

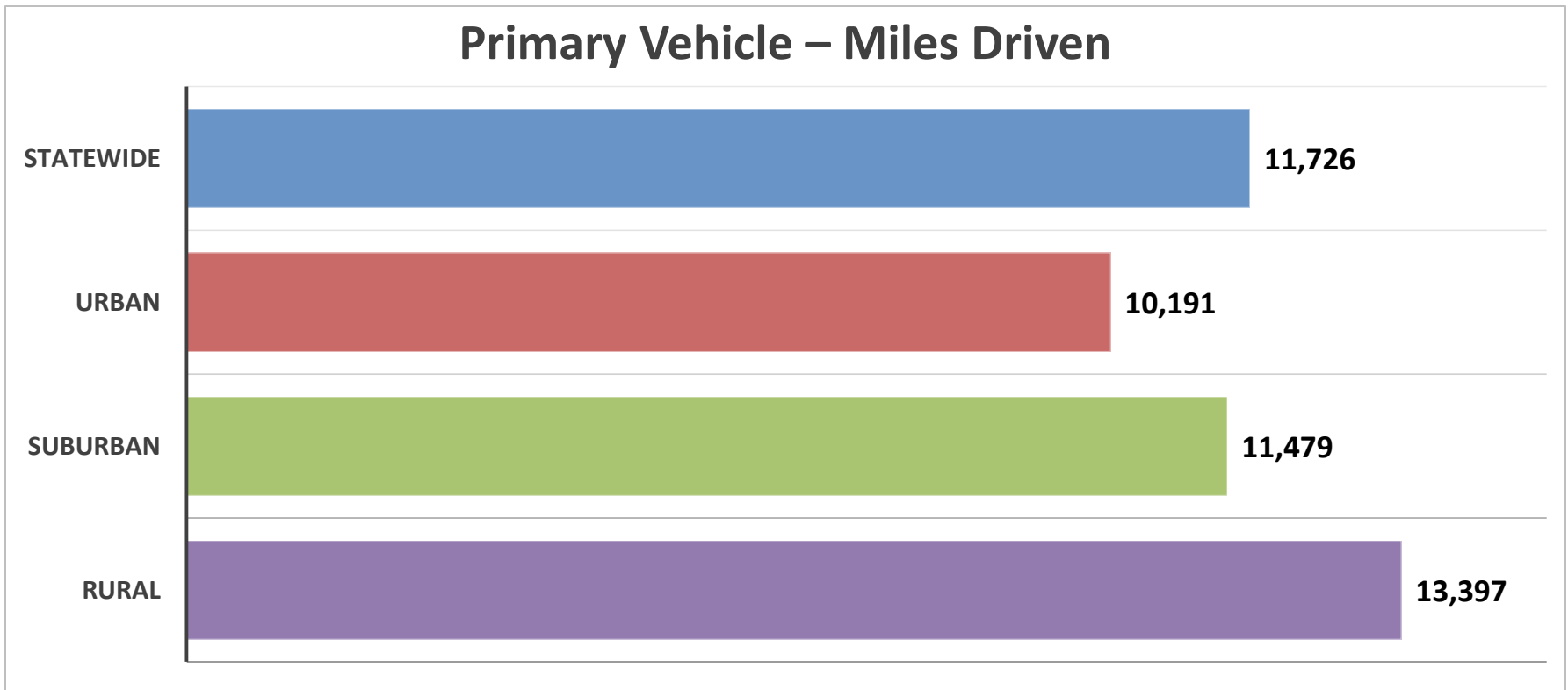
- For a household's Primary Vehicle (the vehicle driven the most miles), the average miles per gallon is 25.1 MPG, compared to a 24.4 MPG average for all household vehicles
- MPG for Primary Vehicles does not vary statistically by area type



Q29 Considering both city and highway driving, what miles per gallon do you get on average in your (Insert Year / Make / Model )? (Please round your estimate to nearest whole number)

# Primary Vehicle – Miles Driven

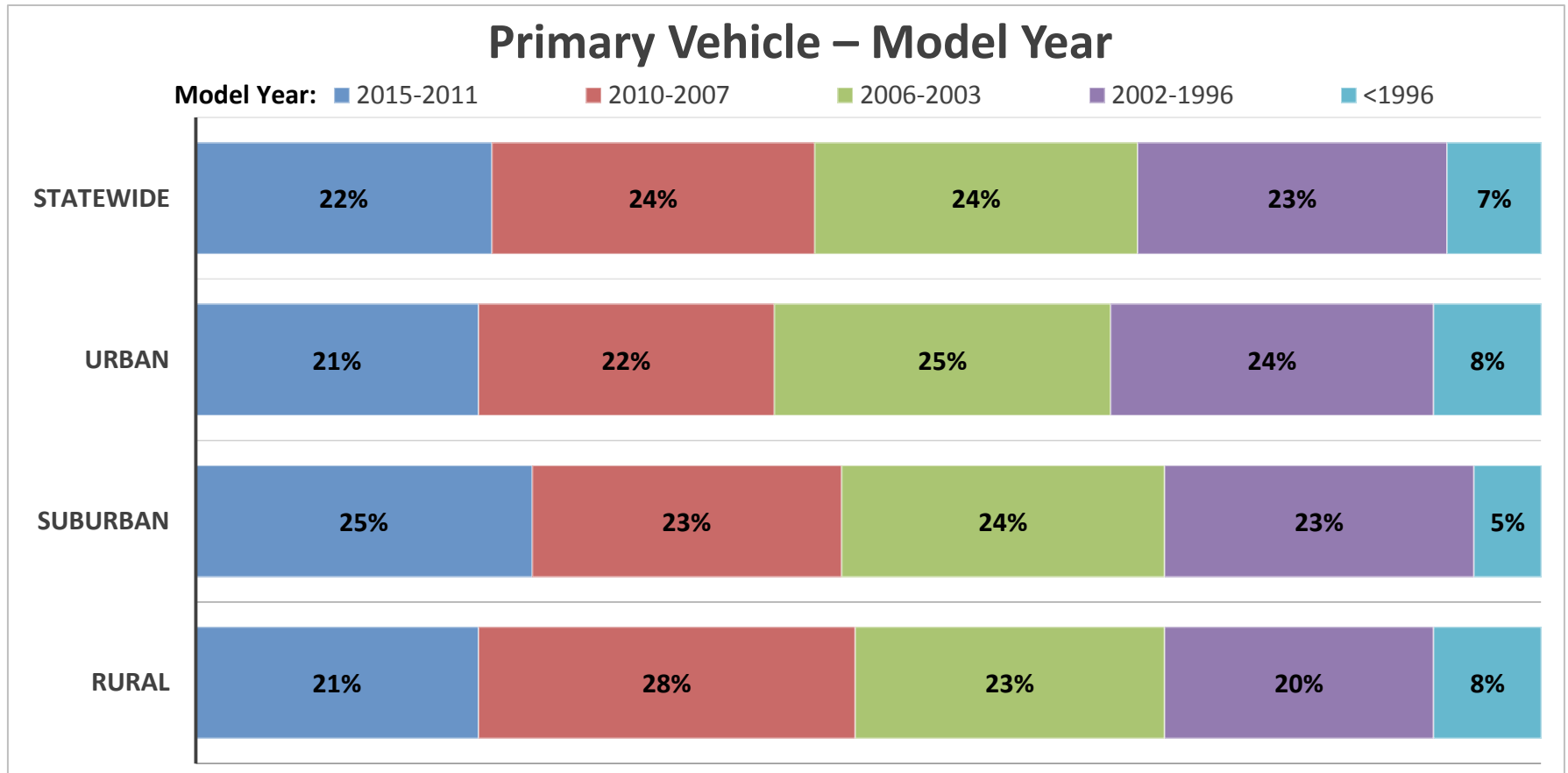
- On average a household's Primary Vehicle is driven 11,726 miles a year, compared to an average of 8,340 miles a year for all household vehicles
- Rural households tend to drive their Primary Vehicle the most (13,397 miles/year), followed by Suburban households (11,479) and Urban households (10,191)



Q30 Of the (Insert Total Miles Driven) miles your household drives per year, approximately how many miles per year does your household drive your (Insert the Year / Make / Model)?

# Primary Vehicle – Model Year

- The model year for respondents' Primary Vehicle is fairly evenly spread out
- Suburban and Rural households are slightly more likely to have newer Primary Vehicles than Urban households

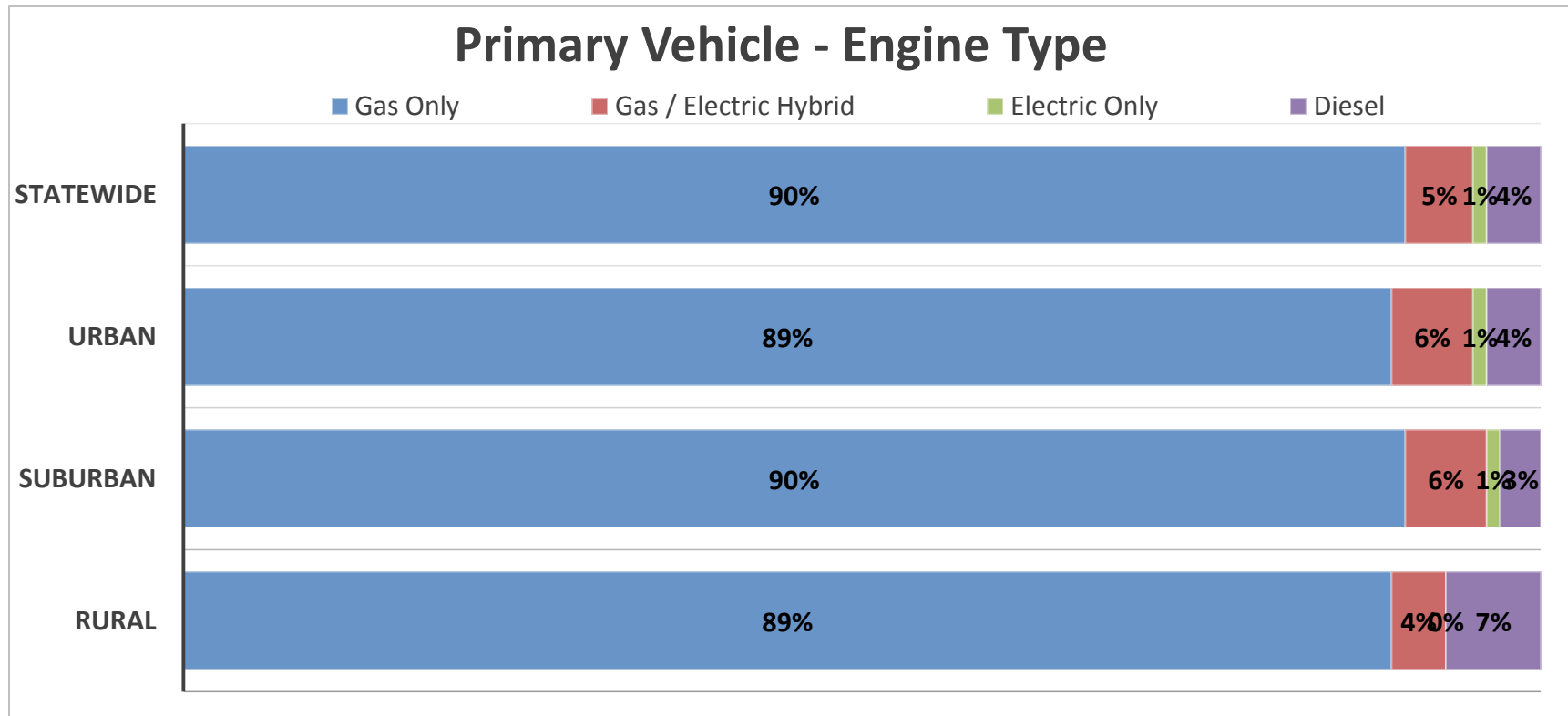


Q26 What year is your (insert MAKE and MODEL)?



# Primary Vehicle – Engine Type

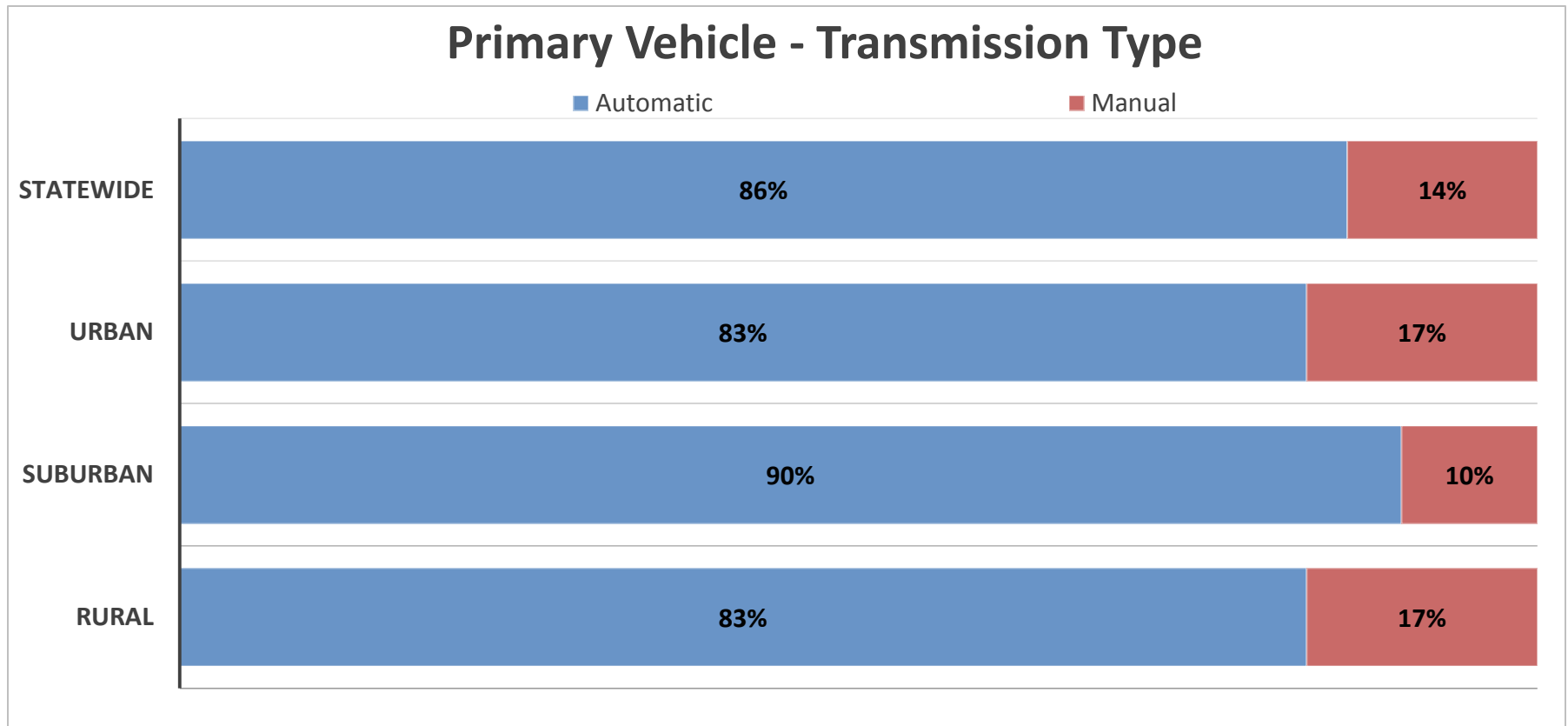
- The vast majority of Primary Vehicles are Gas Only
- 5% of Primary Vehicles are Hybrids, 4% are Diesel, and 1% are Electric
- Primary Vehicles with Diesel engines are most common in Rural areas (7%)



Q27 What type of engine does your (insert MAKE and MODEL) have?

# Primary Vehicle – Transmission Type

- Most Primary Vehicles have an Automatic transmissions
- Suburban areas have the lower incidence of Manual transmissions (10%)

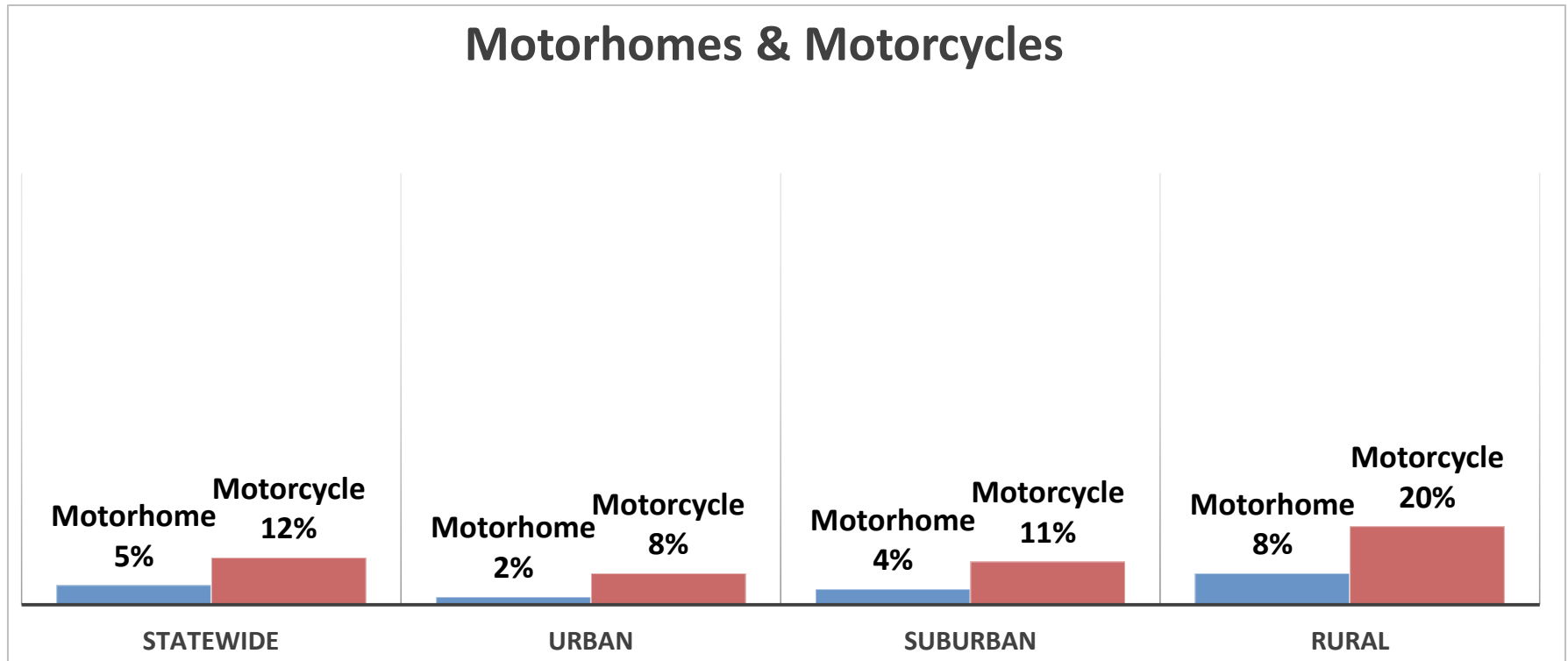


Q28 What type of transmission does your (insert MAKE and MODEL) have?

# Motorcycles & Motorhomes

# Motorhomes & Motorcycles

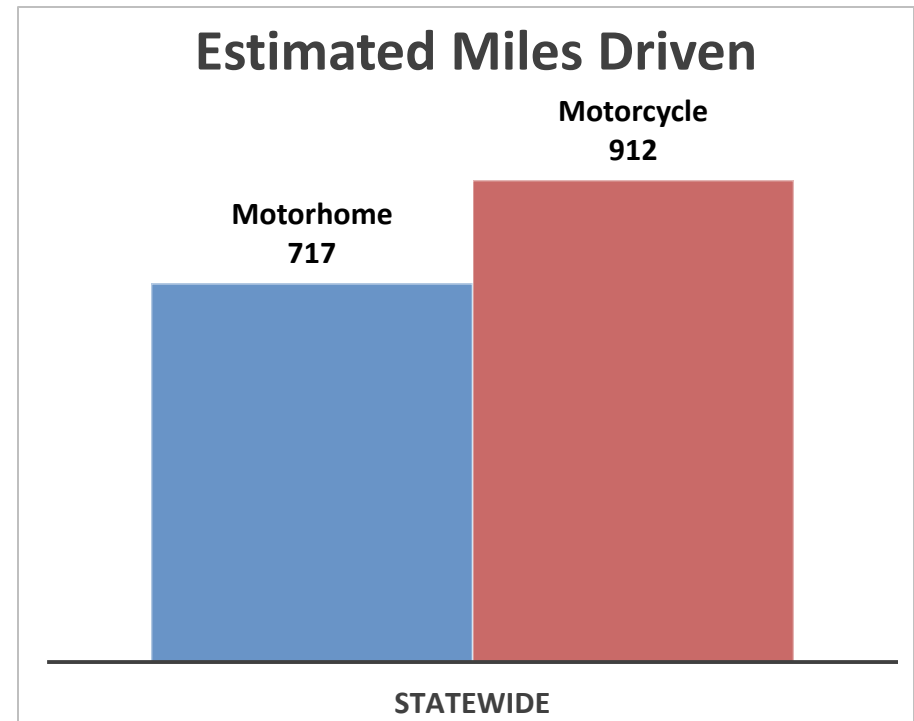
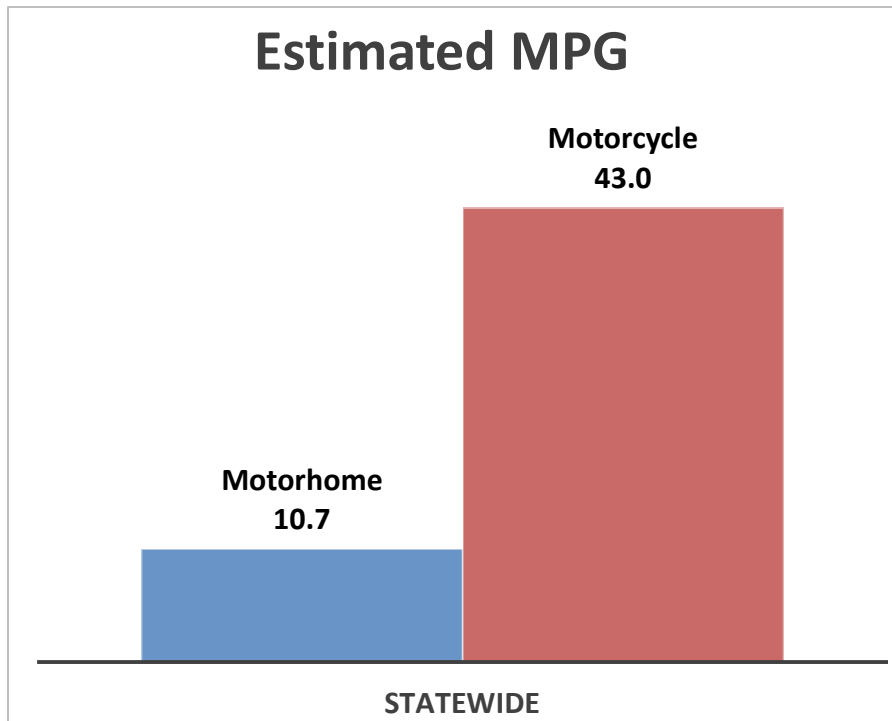
- Overall, 12% of households have a motorcycle and 5% have a motorhome
- The incidence of motorcycles (20%) and motorhomes (8%) is highest in Rural households



Q22b Do you have a motorhome or a motorcycle?

# Motorhomes & Motorcycles

- Respondents with Motorhomes get an average of 10 miles per gallon and drive an average of 717 miles per year within Washington State
- Respondents with Motorcycles get an average of 43 miles per gallon and drive an average of 912 miles per year within Washington State



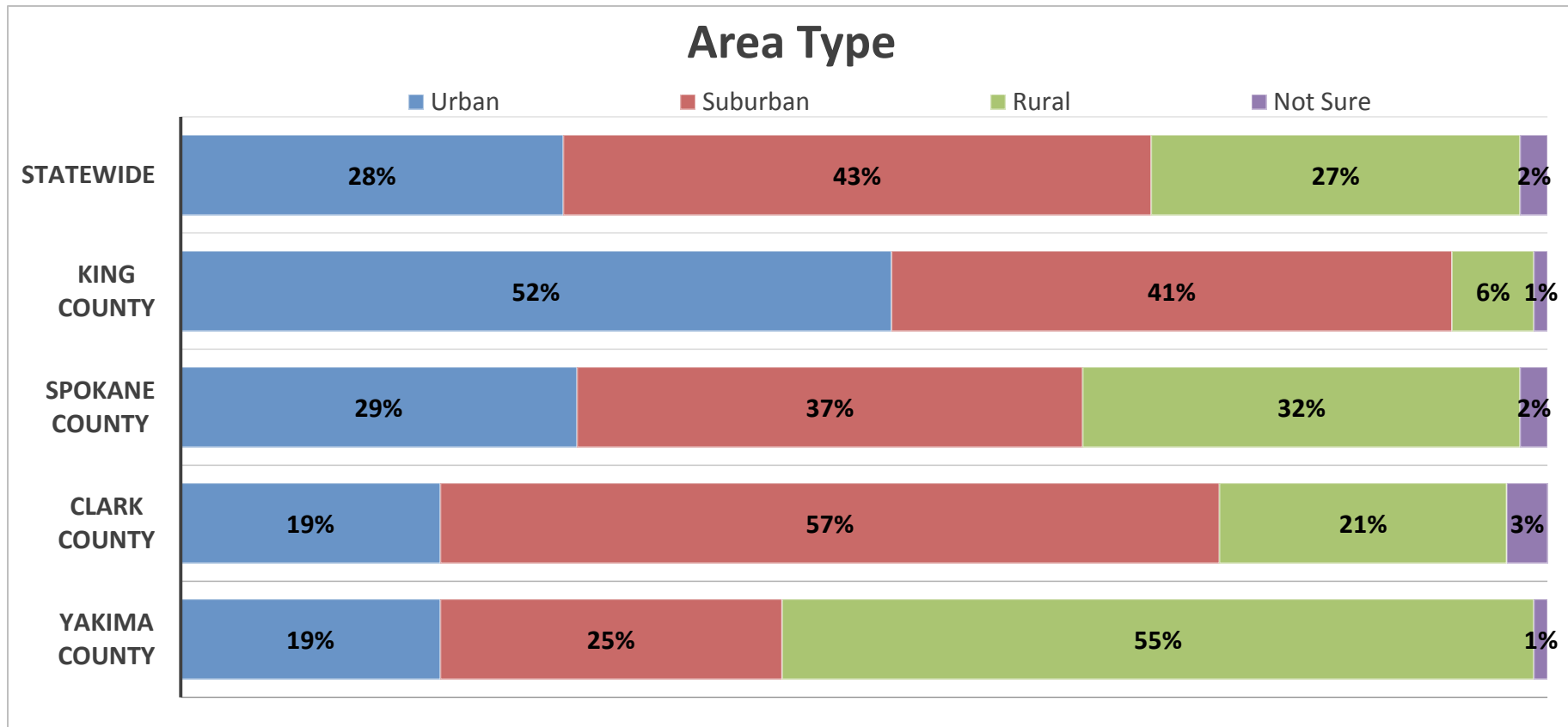
Q71,74 For just your (motorhome / motorcycle), approximately how many miles per gallon do you get?

Q72,75 For just your (motorhome / motorcycle), in an average year approximately how many total miles of the remaining (insert miles) miles would you say your household drives your (motorhome / motorcycle) within Washington State?

# Household Demographics

# Area Type

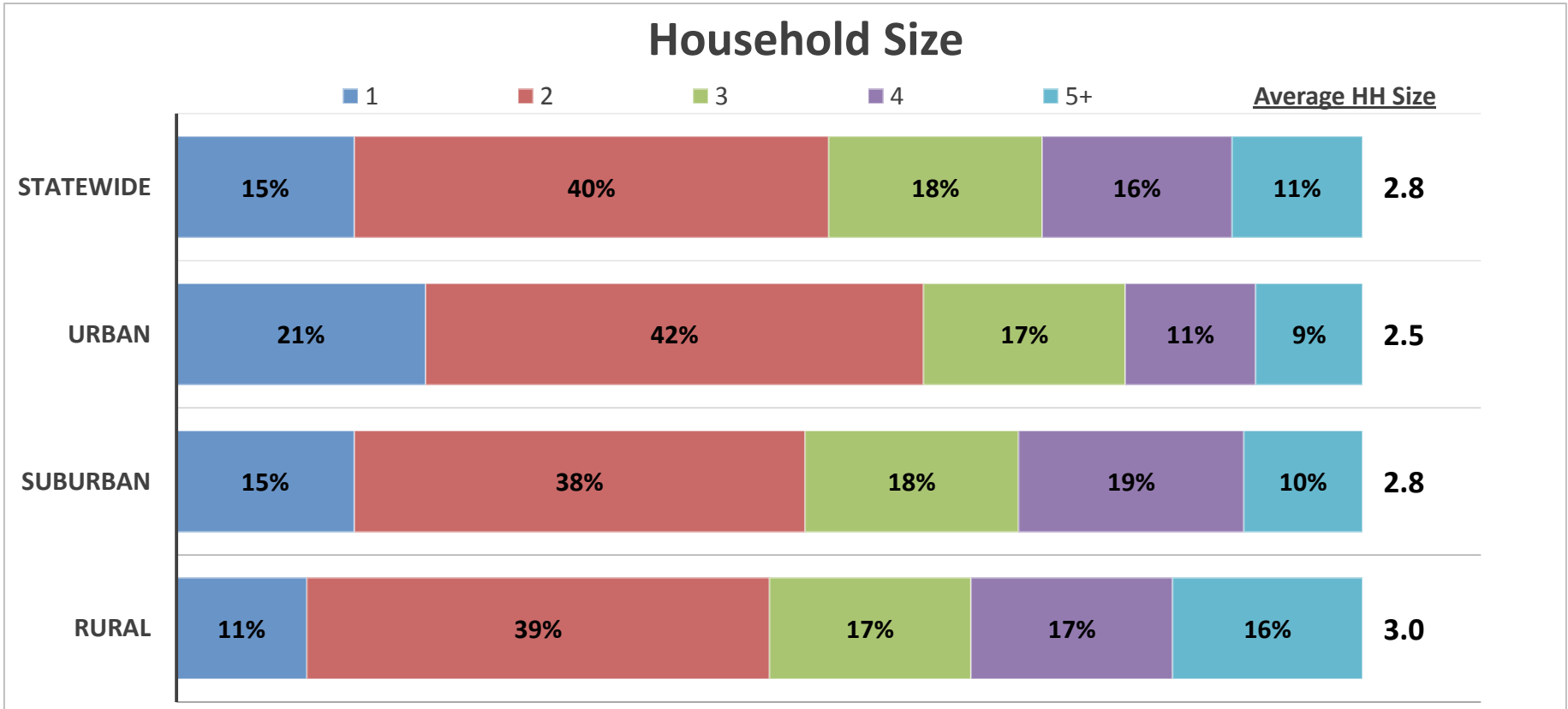
- King County has the highest percentage of self-identified Urban households
- A majority of respondents in Yakima classify their area as Rural



Q70. Would you describe the area you live in as ...Urban, Suburban, Rural, Not Sure?

# Household Size

- Rural households (3.0 people) tend to be larger than either Suburban (2.8) or Urban (2.5) households

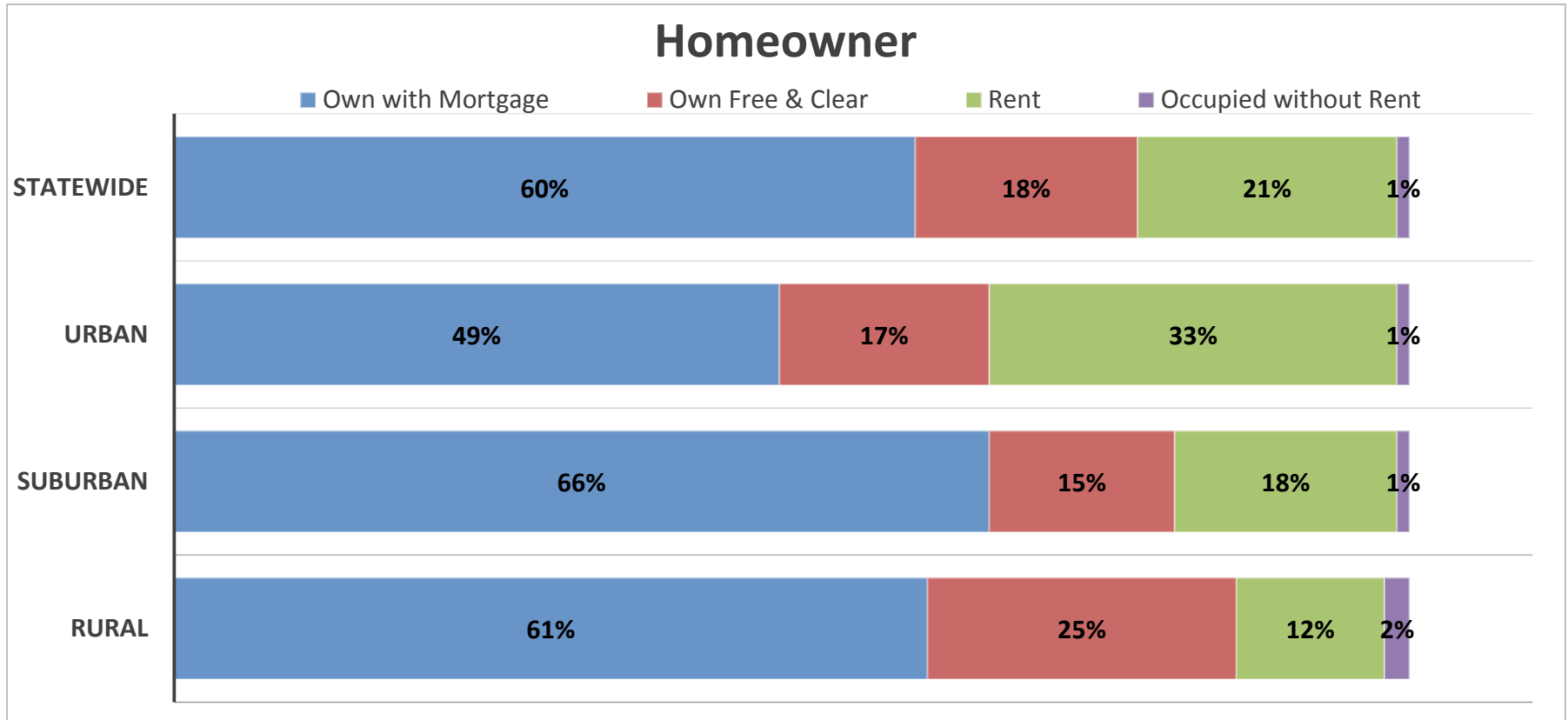


D12. How many people live in your household, including you?



# Homeowner

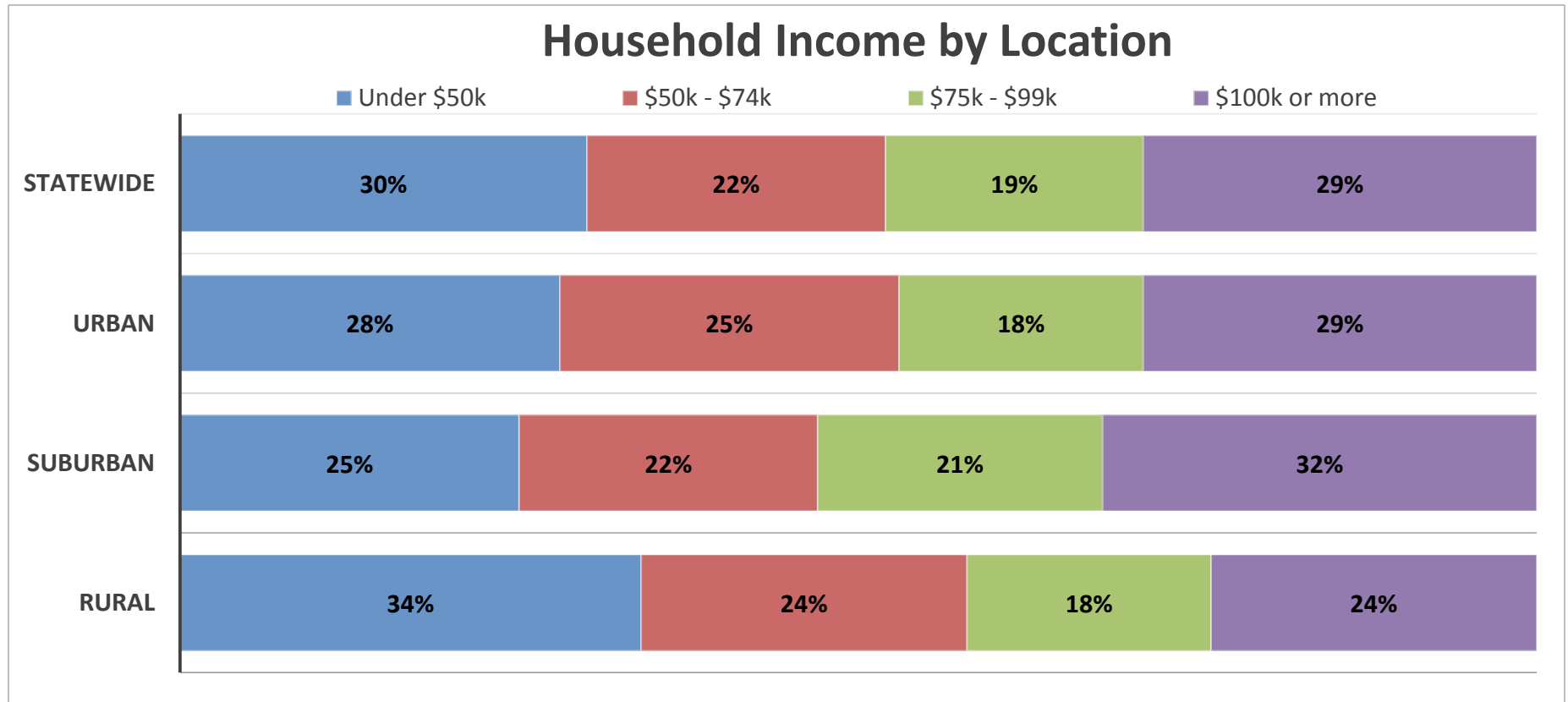
- Urban households are the most likely to rent (33%), although a majority (66%) are homeowners
- Most Rural (87%) and Suburban (81%) residents are homeowners



D14. Do you own or rent your primary residence?

# Household Income

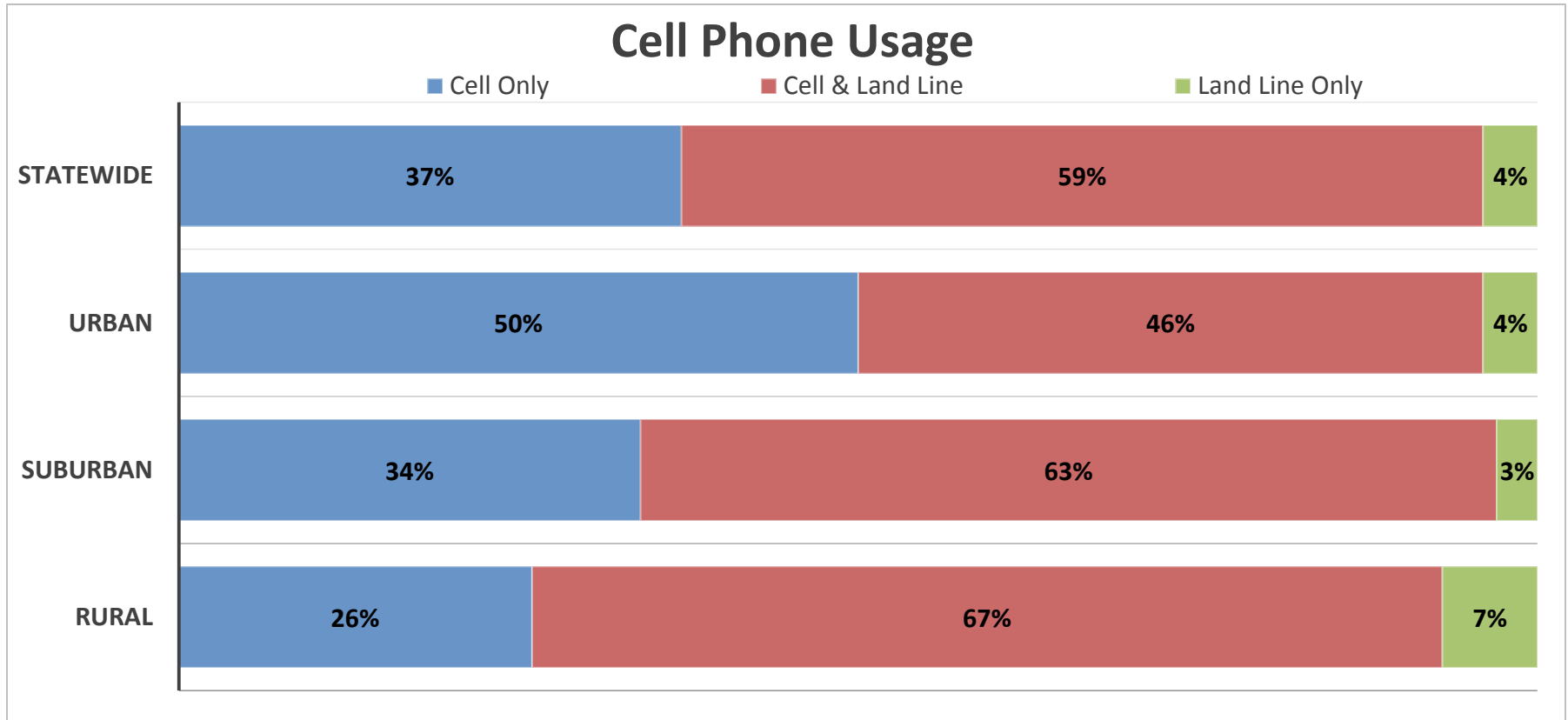
- Of the 78% willing to respond to the household income question, roughly half of households (52%) report a total income before taxes of under \$75K, and half \$75K or more
- Rural households tend to report lower incomes than their Urban or Suburban counterparts



D15. Which of the following ranges best describes your total annual household income before taxes...

# Cell Phone Usage

- Half of Urban households report that they are cell-only and do not have a landline
- A majority of Suburban (63%) and Rural (67%) say they have both cell and landline service



D16. How much do you rely on your cell phone would you say you rely on your cell phone...

# Full Question Text

# Questionnaire

## Q21\_INTRO

### Background Information

As the Governor and the Legislature assess alternative revenue options that may replace the gas tax, we need your help to better understand how Washington State residents currently travel. This will help to determine the impacts of possible changes to how revenue is collected to pay for our roads and bridges across the state. Please press Next.

**Q22**  
To help us understand citizen's transportation needs on our state roads and highways we would like to ask a short series of question about the vehicles your household has. (Household is defined as yourself and those people over 18 years of age who reside with you at your residence and the vehicles they drive - whether those vehicles are driven once a year or on a daily basis.) How many different vehicles (Auto, Sedan, SUV, Trucks, etc.) does your household have at your current residence? (Please do NOT include Motorhomes or Motorcycles in your vehicle count - we will ask you separately about them.)

1. 0
2. 1
3. 2
4. 3
5. 4
6. 5
7. 6

### Q22B

Do you have a motorhome or a motorcycle? (Check all that apply)

1. Motorhome (Does not include travel trailers or 5th wheels here)
2. Motorcycle
3. Neither - Do not have a Motorhome or a Motorcycle

**Q23**  
Approximately how many total miles would you say the people in your household drive your \$(custom10) vehicles \$(custom\$) \$(custom9) in an average year? (If you absolutely have no idea or guess at your households yearly mileage you can use 9,000 miles [statewide average] times the number of vehicles you have as a rough guess since you must have an amount for this question to go on.)

### Q24 (THREE PARTS)

Of those \$(custom11) miles your household drives in an average year, what percent of the miles would you estimate you drive in-state, out-of-state or on non-public roads? (Please estimate the percentage for each by either moving the slider bar or inputting the number directly into the numeric box.)

- IN-STATE miles per year for your household \_\_\_\_\_
- OUT-OF-STATE miles per year for your household \_\_\_\_\_
- NON-PUBLIC ROAD'S (dirt, logging, private land, farm roads, etc) miles per year for your household \_\_\_\_\_

**Q25A**  
We would like to ask you about your \$(custom10) vehicles. For the first vehicle, please select the vehicle MAKE from the drop down box below. After selecting a vehicle MAKE a second drop down box will list the MODELS available. If you don't find your model please select OTHER.

MAKE BOX  
MODEL BOX

**Q26**  
What year is your (MAKE BOX RESULT) (MODEL BOX RESULTS)? (Use 1920 if do not know the year of the vehicle)

## Q27

What type of engine does your (YEAR MANUFACTURED) (MAKE BOX RESULT) (MODEL BOX RESULTS) have?

1. Gas Only
2. Gas / Electric Hybrid
3. Electric Only
4. Diesel
5. Other

## Q28

What type of transmission does your (YEAR MANUFACTURED) (MAKE BOX RESULT) (MODEL BOX RESULTS) have?

1. Automatic
2. Manual

## Q29

Considering both city and highway driving, what miles per gallon do you get on average in your (YEAR MANUFACTURED) (MAKE BOX RESULT) (MODEL BOX RESULTS)? (Please round your estimate to nearest whole number - Insert 0 if you have no guess what-so-ever)

## Q30

Of the (TOTAL MILES DRIVEN RESULTS) miles your household drives per year, approximately how many miles per year does your household drive your (YEAR MANUFACTURED) (MAKE BOX RESULT) (MODEL BOX RESULTS)? (Leave blank if you have no guess what-so-ever)

## Q31A

Vehicle 1: (YEAR MANUFACTURED) (MAKE BOX RESULT) (MODEL BOX RESULTS)  
For your second vehicles. Please select the vehicle MAKE from the drop down box below. After selecting a vehicle MAKE a second drop down box will list the MODELS available. If you don't find your model please select OTHER.

MAKE BOX  
MODEL BOX

## Q32

What year is your (MAKE BOX RESULT) (MODEL BOX RESULTS)? (Use 1920 if do not know the year of the vehicle)

## Q33

What type of engine does your (YEAR MANUFACTURED) (MAKE BOX RESULT) (MODEL BOX RESULTS) have?

1. Gas Only
2. Gas / Electric Hybrid
3. Electric Only
4. Diesel
5. Other

## Q34

What type of transmission does your (YEAR MANUFACTURED) (MAKE BOX RESULT) (MODEL BOX RESULTS) have?

1. Automatic
2. Manual

## Q35

Considering both city and highway driving, what miles per gallon do you get on average in your (YEAR MANUFACTURED) (MAKE BOX RESULT) (MODEL BOX RESULTS)? (Please round your estimate to nearest whole number - Insert 0 if you have no guess what-so-ever)

## Q36

Of the remaining (TOTAL MILES BALANCE RESULTS) miles your household drives per year, approximately how many miles per year does your household drive your (YEAR MANUFACTURED) (MAKE BOX RESULT) (MODEL BOX RESULTS)? (Leave blank if you have no guess what-so-ever)

# Questionnaire

Q37A  
Vehicle 1: (YEAR MANUFACTURED) (MAKE BOX RESULT) (MODEL BOX RESULTS)  
Vehicle 2: (YEAR MANUFACTURED) (MAKE BOX RESULT) (MODEL BOX RESULTS)  
For your third vehicles. Please select the vehicle MAKE from the drop down box below. After selecting a vehicle MAKE a second drop down box will list the MODELS available. If you don't find your model please select OTHER.

MAKE BOX  
MODEL BOX

Q38  
What year is your (MAKE BOX RESULT) (MODEL BOX RESULTS)? (Use 1920 if do not know the year of the vehicle)

Q39  
What type of engine does your (YEAR MANUFACTURED) (MAKE BOX RESULT) (MODEL BOX RESULTS) have?

1. Gas Only
2. Gas / Electric Hybrid
3. Electric Only
4. Diesel
5. Other

Q40  
What type of transmission does your (YEAR MANUFACTURED) (MAKE BOX RESULT) (MODEL BOX RESULTS) have?

1. Automatic
2. Manual

Q41  
Considering both city and highway driving, what miles per gallon do you get on average in your (YEAR MANUFACTURED) (MAKE BOX RESULT) (MODEL BOX RESULTS)? (Please round your estimate to nearest whole number - Insert 0 if you have no guess what-so-ever)

Q42  
Of the remaining (TOTAL REMAINING MILES) miles your household drives per year, approximately how many miles per year does your household drive your (YEAR MANUFACTURED) (MAKE BOX RESULT) (MODEL BOX RESULTS)? (Leave blank if you have no guess what-so-ever)

Q43A  
Vehicle 1: (YEAR MANUFACTURED) (MAKE BOX RESULT) (MODEL BOX RESULTS)  
Vehicle 2: (YEAR MANUFACTURED) (MAKE BOX RESULT) (MODEL BOX RESULTS)  
Vehicle 3: (YEAR MANUFACTURED) (MAKE BOX RESULT) (MODEL BOX RESULTS)  
For your fourth vehicles. Please select the vehicle MAKE from the drop down box below. After selecting a vehicle MAKE a second drop down box will list the MODELS available. If you don't find your model please select OTHER.

MAKE BOX  
MODEL BOX

Q44  
What year is your (MAKE BOX RESULT) (MODEL BOX RESULTS)? (Use 1920 if do not know the year of the vehicle)

Q45  
What type of engine does your (YEAR MANUFACTURED) (MAKE BOX RESULT) (MODEL BOX RESULTS) have?

1. Gas Only
2. Gas / Electric Hybrid
3. Electric Only
4. Diesel
5. Other

Q46  
What type of transmission does your (YEAR MANUFACTURED) (MAKE BOX RESULT) (MODEL BOX RESULTS) have?

1. Automatic
2. Manual

Q47  
Considering both city and highway driving, what miles per gallon do you get on average in your (YEAR MANUFACTURED) (MAKE BOX RESULT) (MODEL BOX RESULTS)? (Please round your estimate to nearest whole number - Insert 0 if you have no guess what-so-ever)

Q48  
Of the remaining (TOTAL REMAINING MILES) miles your household drives per year, approximately how many miles per year does your household drive your (YEAR MANUFACTURED) (MAKE BOX RESULT) (MODEL BOX RESULTS)? (Leave blank if you have no guess what-so-ever)

Q49A  
Vehicle 1: (YEAR MANUFACTURED) (MAKE BOX RESULT) (MODEL BOX RESULTS)  
Vehicle 2: (YEAR MANUFACTURED) (MAKE BOX RESULT) (MODEL BOX RESULTS)  
Vehicle 3: (YEAR MANUFACTURED) (MAKE BOX RESULT) (MODEL BOX RESULTS)  
Vehicle 4: (YEAR MANUFACTURED) (MAKE BOX RESULT) (MODEL BOX RESULTS)  
For your fifth vehicles. Please select the vehicle MAKE from the drop down box below. After selecting a vehicle MAKE a second drop down box will list the MODELS available. If you don't find your model please select OTHER.

MAKE BOX  
MODEL BOX

Q50  
What year is your (MAKE BOX RESULT) (MODEL BOX RESULTS)? (Use 1920 if do not know the year of the vehicle)

Q51  
What type of engine does your (YEAR MANUFACTURED) (MAKE BOX RESULT) (MODEL BOX RESULTS) have?

1. Gas Only
2. Gas / Electric Hybrid
3. Electric Only
4. Diesel
5. Other

Q52  
What type of transmission does your (YEAR MANUFACTURED) (MAKE BOX RESULT) (MODEL BOX RESULTS) have?

1. Automatic
2. Manual

Q53  
Considering both city and highway driving, what miles per gallon do you get on average in your (YEAR MANUFACTURED) (MAKE BOX RESULT) (MODEL BOX RESULTS)? (Please round your estimate to nearest whole number - Insert 0 if you have no guess what-so-ever)

Q54  
Of the remaining (TOTAL REMAINING MILES) miles your household drives per year, approximately how many miles per year does your household drive your (YEAR MANUFACTURED) (MAKE BOX RESULT) (MODEL BOX RESULTS)? (Leave blank if you have no guess what-so-ever)

# Questionnaire

Q55A

Vehicle 1: (YEAR MANUFACTURED) (MAKE BOX RESULT) (MODEL BOX RESULTS)

Vehicle 2: (YEAR MANUFACTURED) (MAKE BOX RESULT) (MODEL BOX RESULTS)

Vehicle 3: (YEAR MANUFACTURED) (MAKE BOX RESULT) (MODEL BOX RESULTS)

Vehicle 4: (YEAR MANUFACTURED) (MAKE BOX RESULT) (MODEL BOX RESULTS)

Vehicle 5: (YEAR MANUFACTURED) (MAKE BOX RESULT) (MODEL BOX RESULTS)

For your sixth vehicle. Please select the vehicle MAKE from the drop down box below. After selecting a vehicle MAKE a second drop down box will list the MODELS available. If you don't find your model please select OTHER.

MAKE BOX

MODEL BOX

Q56

What year is your (MAKE BOX RESULT) (MODEL BOX RESULTS)? (Use 1920 if do not know the year of the vehicle)

Q57

What type of engine does your (YEAR MANUFACTURED) (MAKE BOX RESULT) (MODEL BOX RESULTS) have?

1. Gas Only
2. Gas / Electric Hybrid
3. Electric Only
4. Diesel
5. Other

Q58

What type of transmission does your (YEAR MANUFACTURED) (MAKE BOX RESULT) (MODEL BOX RESULTS) have?

1. Automatic
2. Manual

Q59

Considering both city and highway driving, what miles per gallon do you get on average in your (YEAR MANUFACTURED) (MAKE BOX RESULT) (MODEL BOX RESULTS)? (Please round your estimate to nearest whole number - Insert 0 if you have no guess what-so-ever)

Q60

Of the remaining (TOTAL REMAINING MILES) miles your household drives per year, approximately how many miles per year does your household drive your (YEAR MANUFACTURED) (MAKE BOX RESULT) (MODEL BOX RESULTS)? (Leave blank if you have no guess what-so-ever)

Q70

Would you describe the area you live in as ...

1. Urban
2. Suburban
3. Rural
4. Not Sure

Q71

For just your motorhome, approximately how many miles per gallon do you get?

Q72

For just your motorhome, in an average year approximately how many total miles of the remaining \$(custom40) miles would you say your household drives your motorhome within Washington State?

Q73

How many licensed drivers are there in the household?

Q74

For just your motorcycle, approximately how many miles per gallon do you get?

Q75

For just your motorcycle, in an average year approximately how many total miles of the remaining \$(custom40) miles would you say your household rides your motorcycle within Washington State?

Q99

Do you have any additional thoughts on our ferry or transportation system in general you would like to share?

1. No additional feedback
2. Yes, I have additional feedback

Q100

Now we would like to ask you some demographic questions so we can group your answers. [PRESS NEXT TO DO DEMOGRAPHIC QUESTIONS AND FINISH THE SURVEY]

# Weighting



A total of 7,917 completed surveys from all parts of the state were weighted by age within a county and the counties were weighted to their state proportion as follows:

- The weighing was based on the Census 2000 Summary File 1 Data Population by Age, Sex, and Race/Ethnicity for Washington State and Counties prepared by Washington State Office of Financial Management (<http://www.ofm.wa.gov/census2000/sf1/tables/ctable19.htm>) .
- The actual numbers of men and women over 18 were added together for each age groupings by county and for the state as a whole.
- (County population over 18 / Statewide population over 18) was used to determine each “Counties weight.”
- (County age group / County population over 18) was used to determine each “County Age Groups weight.”
- (County weight \* County Age Group weight) was used to determine the “County to State Age Groups weight.”
- An adjustment to the “County to State Age Groups weight” was made to compensate for age groupings that we did not have any actual surveys in.
- The “Adjusted County to State Age Group weight” was applied to each respondent in that county age group.

The outcome is a weighted data set proportional to age groups at both the state and county levels.