



Washington State  
Transportation Commission



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

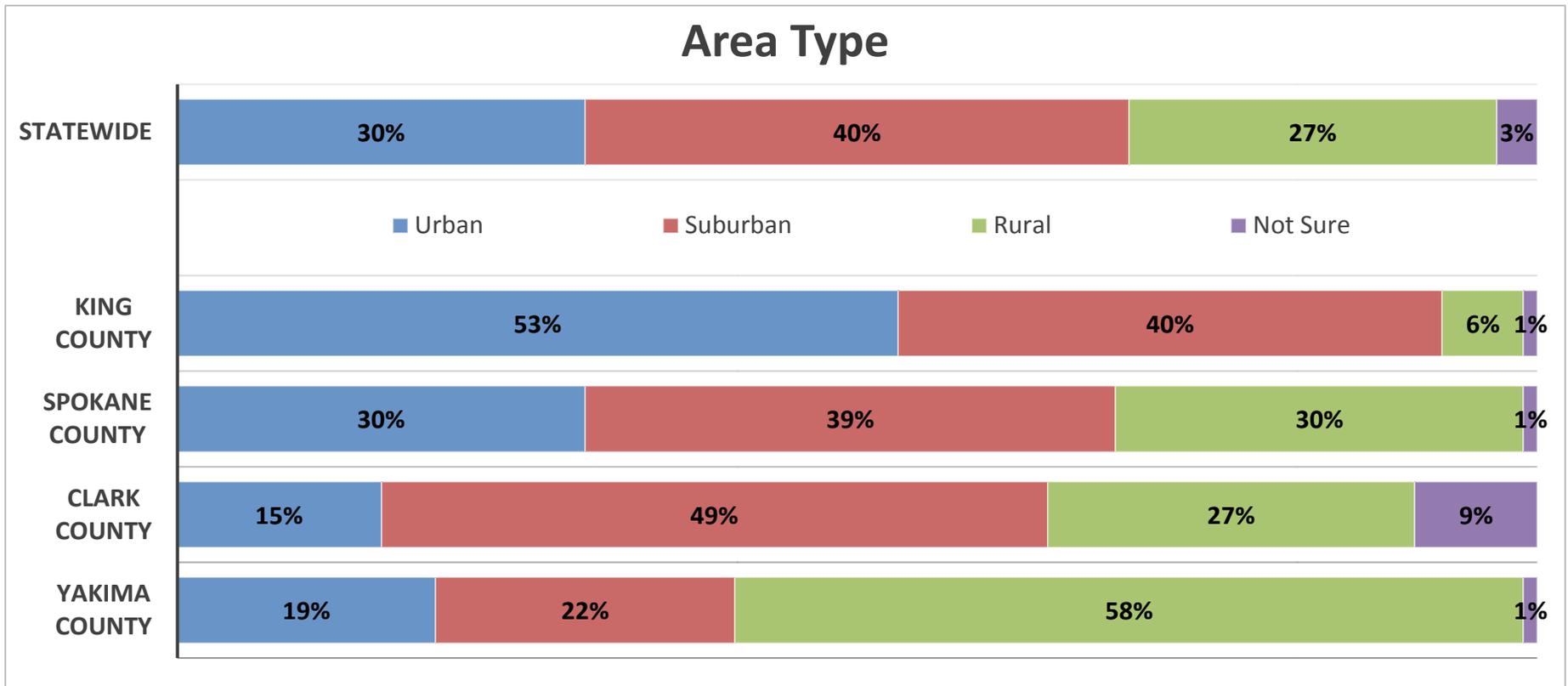
*Household Inventory of Vehicles  
In Washington State*

June 2014  
Executive Summary Presentation

- 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

# Self Classification into Urban to Rural

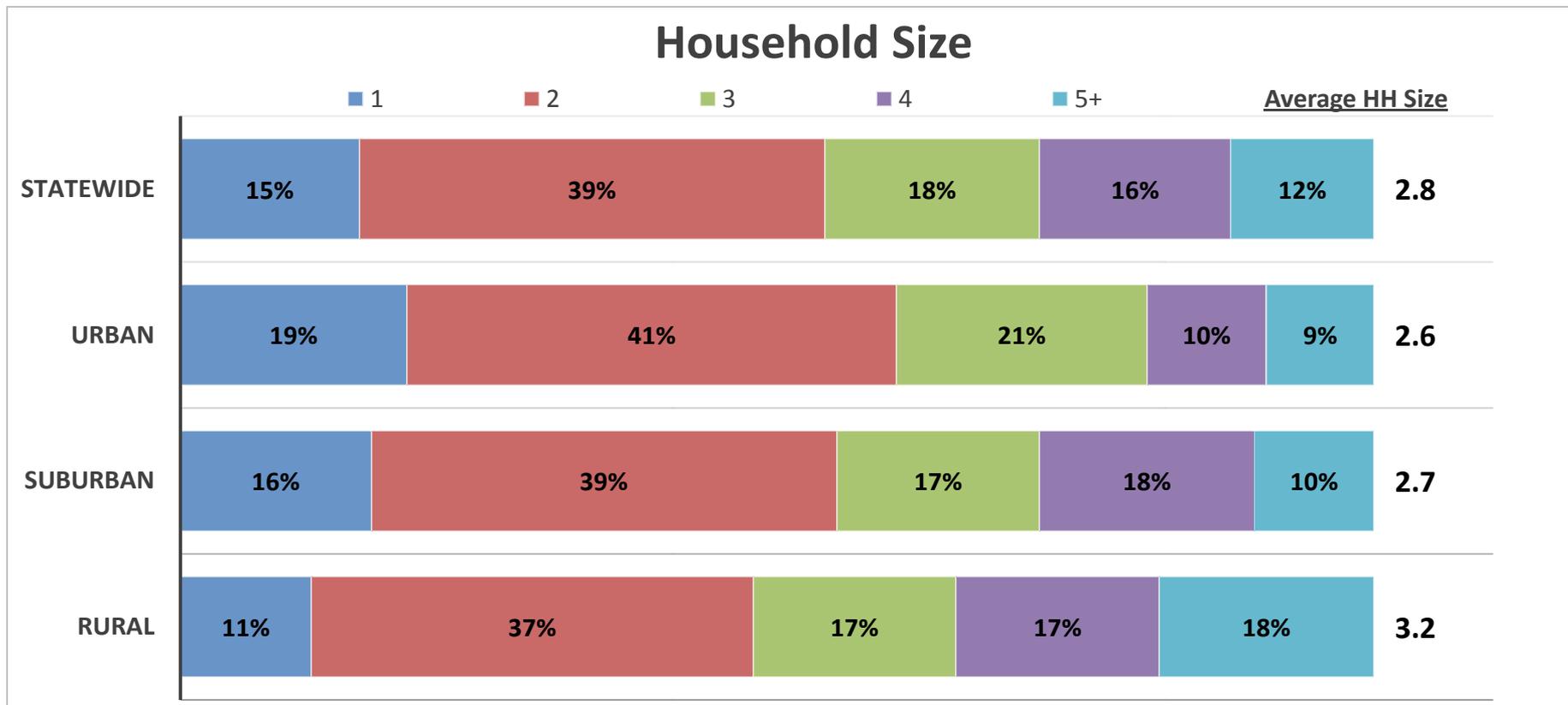
- Respondents were asked to classify their household as being in an Urban, Suburban, or Rural area.
- King County has the highest percentage of self-identified Urban households
- A majority of respondents in Yakima classify their area as Rural



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

# Household Size

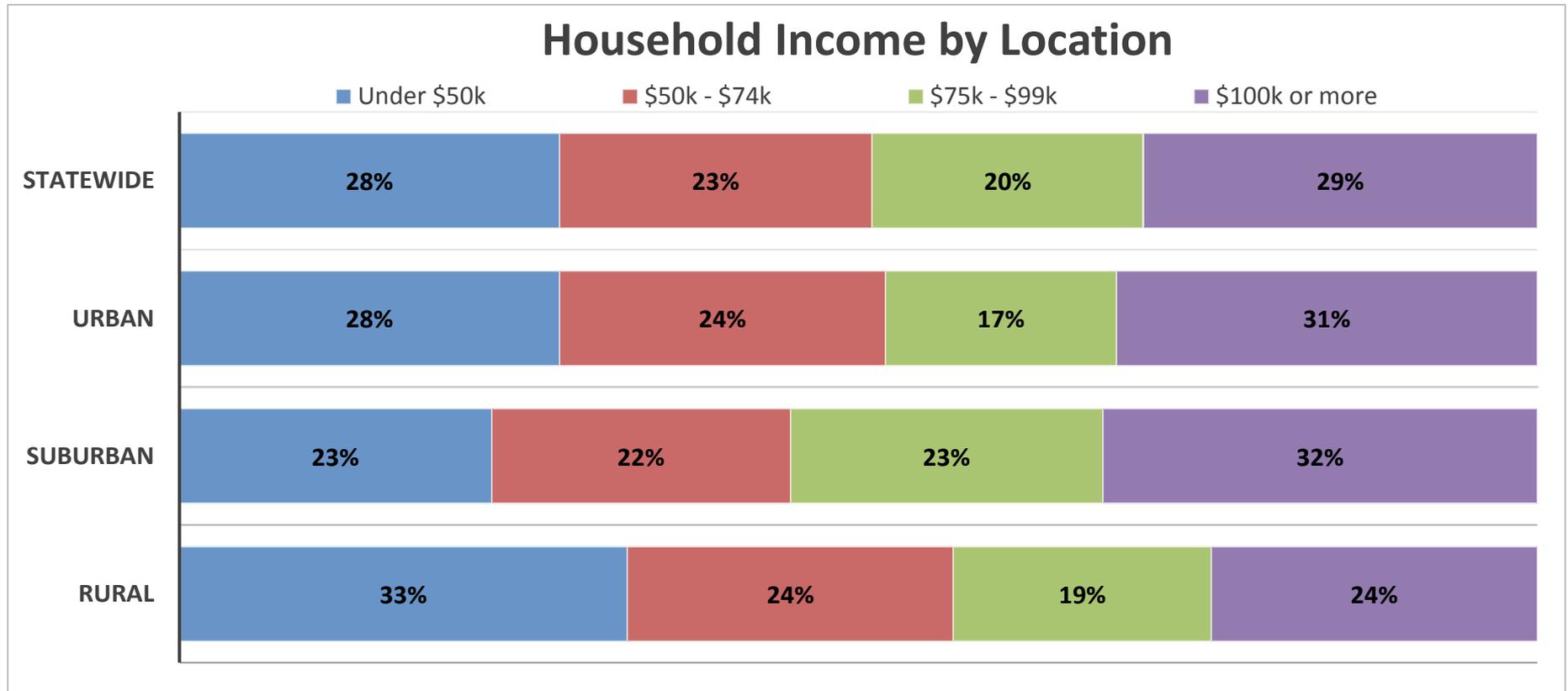
- Rural households (3.2 people) tend to be larger than either Suburban (2.7) or Urban (2.6) households



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

# Household Income

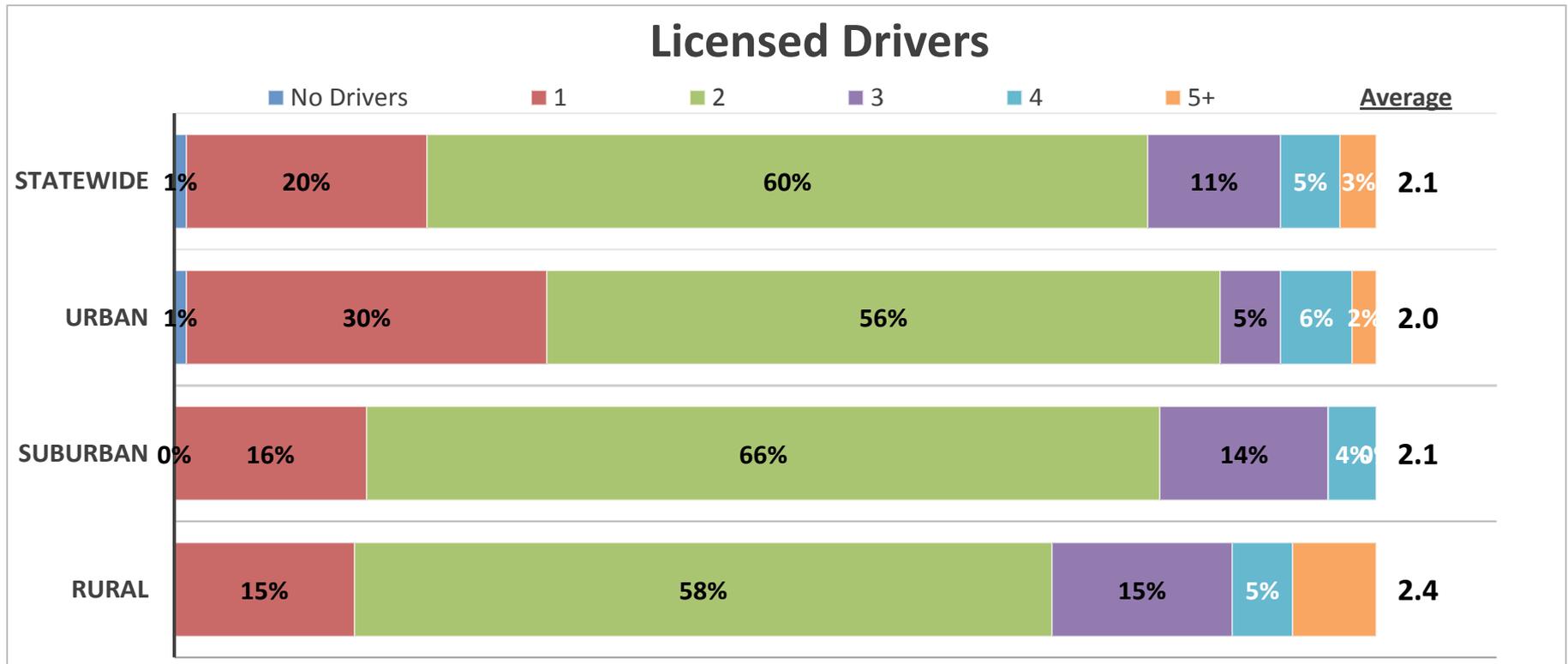
- Of those willing to respond (80%), roughly half of households report a total income before taxes of under \$75K, and half report total income before taxes of \$75K or more
- Rural households tend to report lower incomes than their Urban or Suburban counterparts



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

# Licensed Drivers

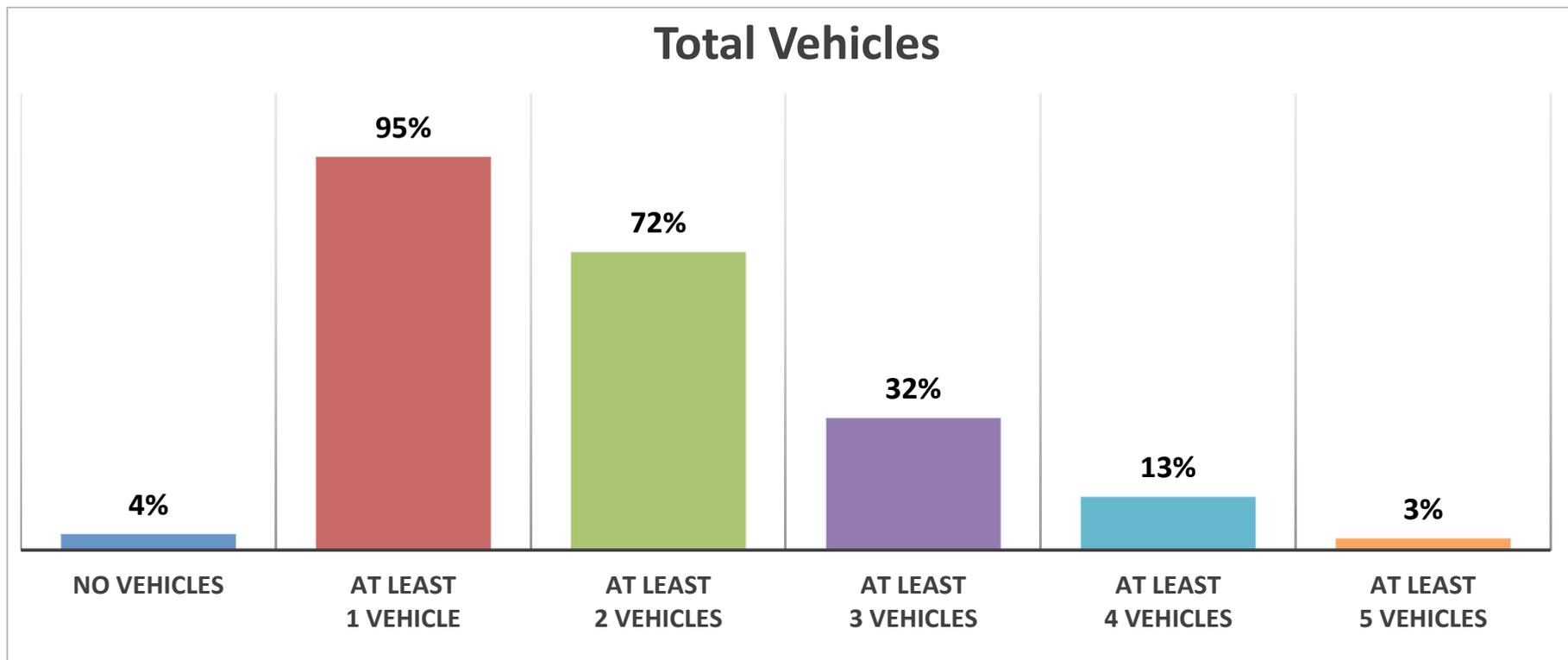
- Eight in ten (80%) households statewide have at least 2 licensed drivers
- Only 1% of respondents reported no licensed drivers in the household
- Rural households average the most licensed drivers (2.4) -- 27% of Rural households have 3 or more licensed drivers



Q73 How many licensed drivers are there in the household?

# Total Vehicles

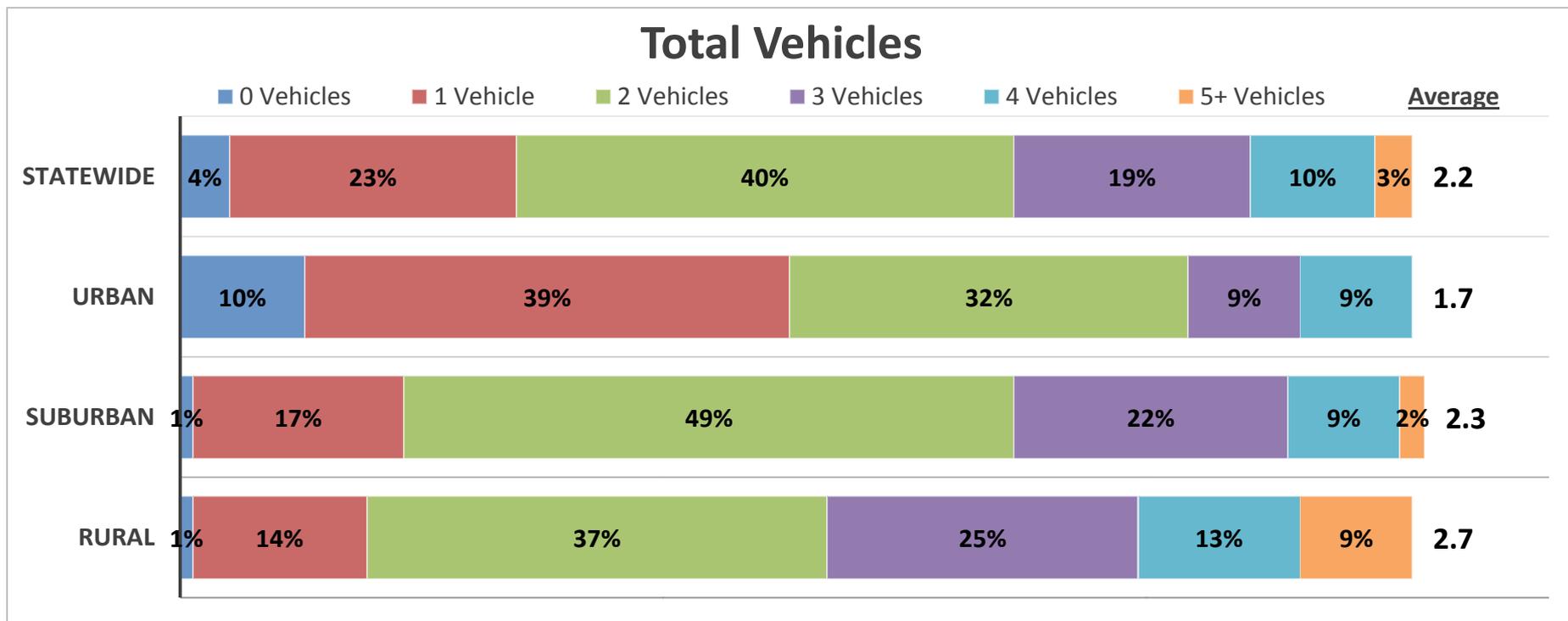
- Statewide, 95% of households have at least one vehicle (excluding motorcycles/motorhomes)
- Nearly three quarters (72%) have two or more vehicles and a third (32%) have three or more vehicles



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

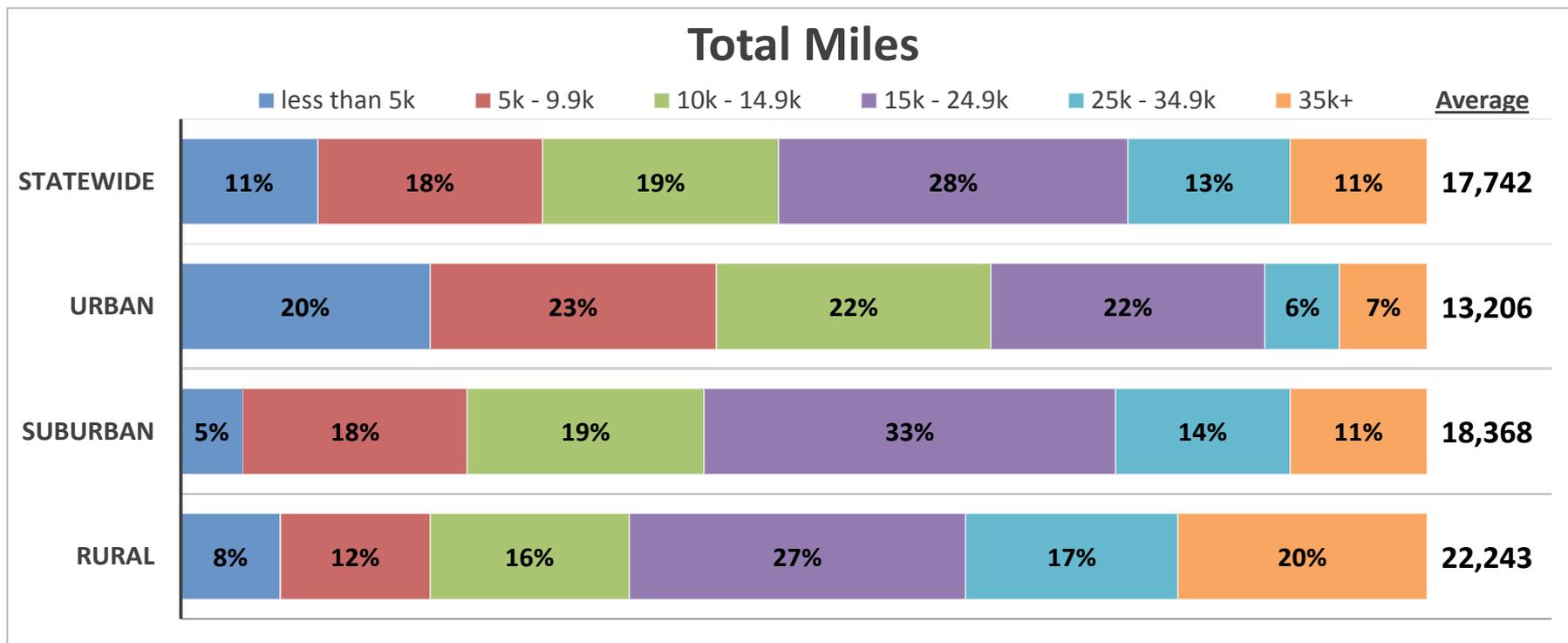
- Statewide, the average number of vehicles per household is 2.2 (excluding motorcycles/motorhomes)
- Rural areas have the highest average with 2.7 vehicles per household, followed by Suburban areas at 2.3 vehicles, and Urban areas at 1.7 vehicles
- 10% of Urban households report that they do not have any vehicles and 39% 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 Miles Driven

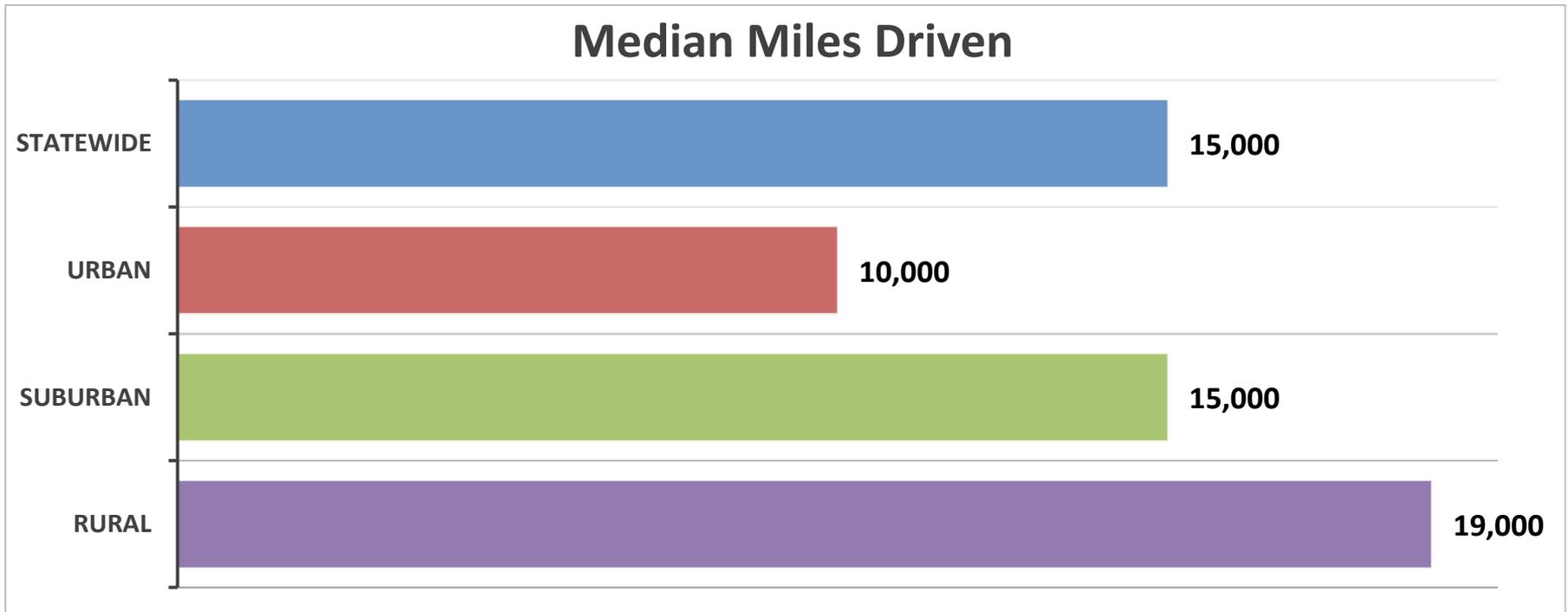
- The average household drives 17,742 miles per year
- Residents in Rural areas drive the most: 22,243 miles per year for the average household, followed by residents in Suburban areas (18,368 miles)
- Residents in Urban areas drive the least: 13,206 miles for the average household



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

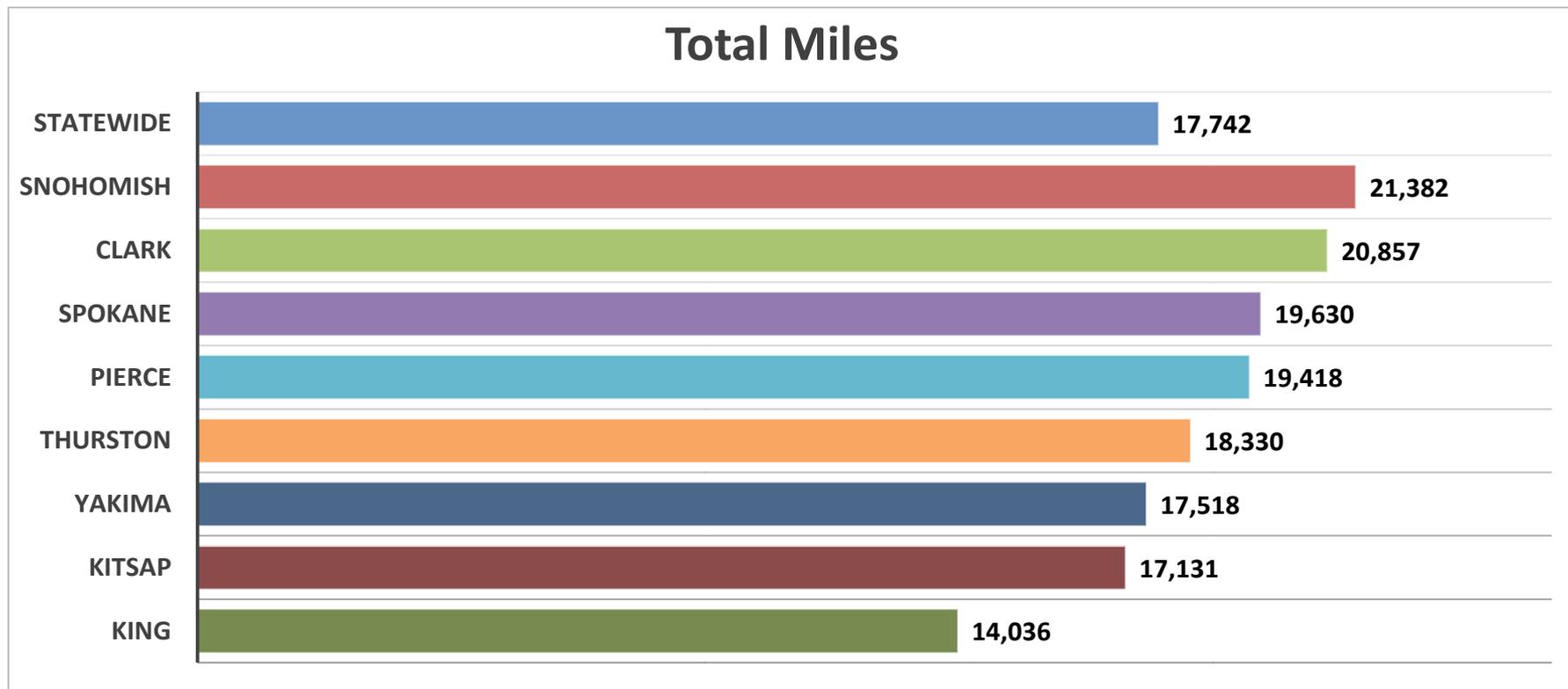
- The median measures the “midpoint” of the data - half of the values are less and half are greater – and helps reduce the impact of outliers
- Statewide the median household drives 15,000 miles a year
- Rural households still have the highest median (19,000 miles), followed by Suburban households (15,000), 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.)

# Total Miles Driven - Select Counties

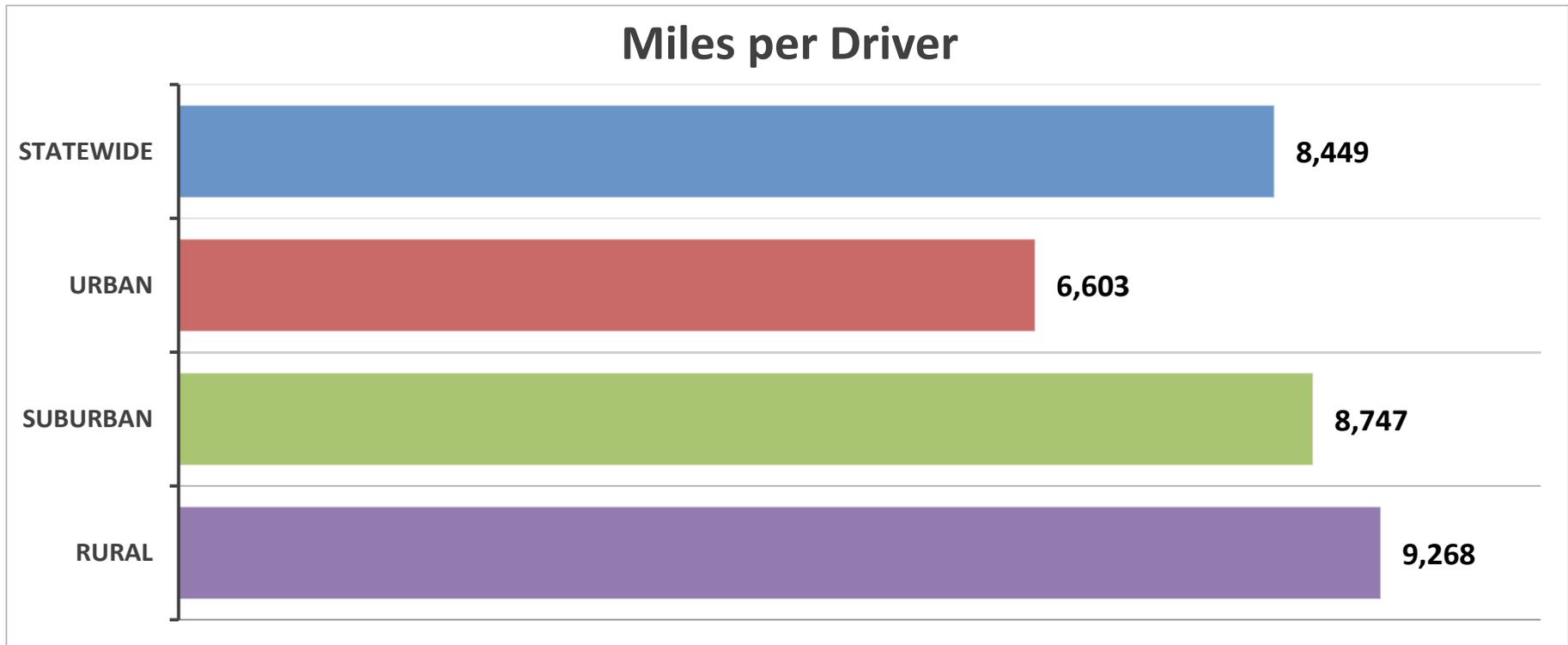
- King County households report driving less per year than the state average and less than households in other major counties
- Snohomish and Clark County households report driving the most



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 8,449 miles per year (17,742 miles / 2.1 drivers)
- Rural households average 9,268 miles per driver, compared to 8,747 miles per driver in Suburban areas, and 6,603 miles per driver in Urban areas

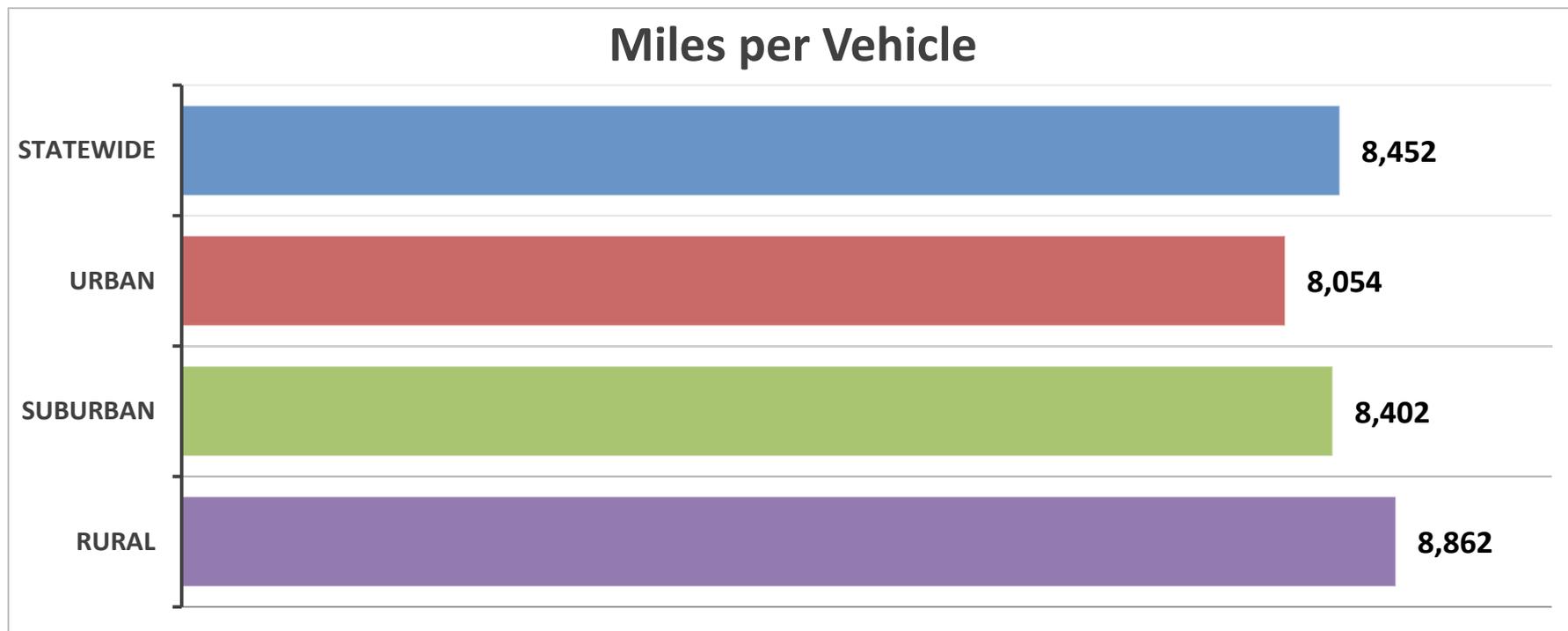


Q23 Approximately how many total miles would you say the people in your household drive your (insert #) vehicles (insert "Motorhome" if mentioned) (insert "Motorcycle if mentioned) in an average year?

Q73 How many licensed drivers are there in the household?

# Average Miles Driven per Vehicle

- Based on a statewide average of 2.2 vehicles per household, each vehicle is driven an average of 8,452 miles per year (17,742 miles / 2.2 vehicles)
- Residents in Rural (8,862 miles) and Suburban (8,402) areas drive their vehicles more miles on average; Urban residents average fewer miles (8,054)



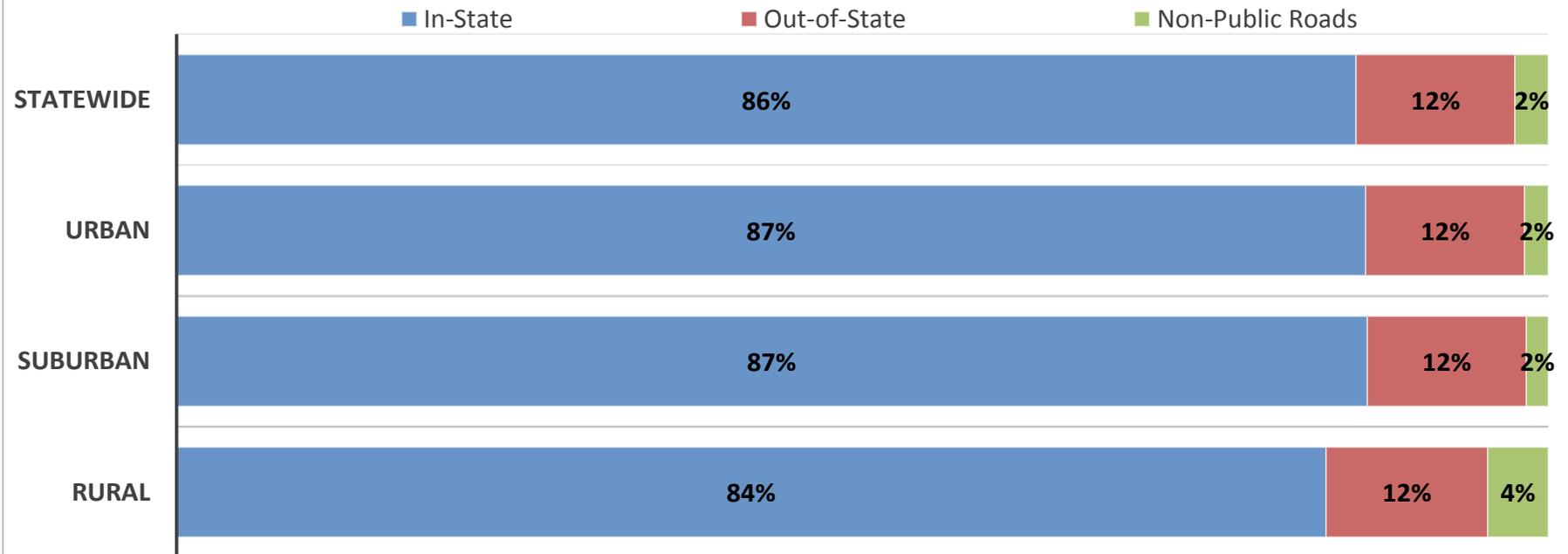
Q22 How many different vehicles (Auto, Sedan, SUV, Trucks, etc.) does your household have at your current residence? (Please do NOT include Motorhomes or Motorcycles in your vehicle count - we will ask you separately about them.)

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?

# 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%

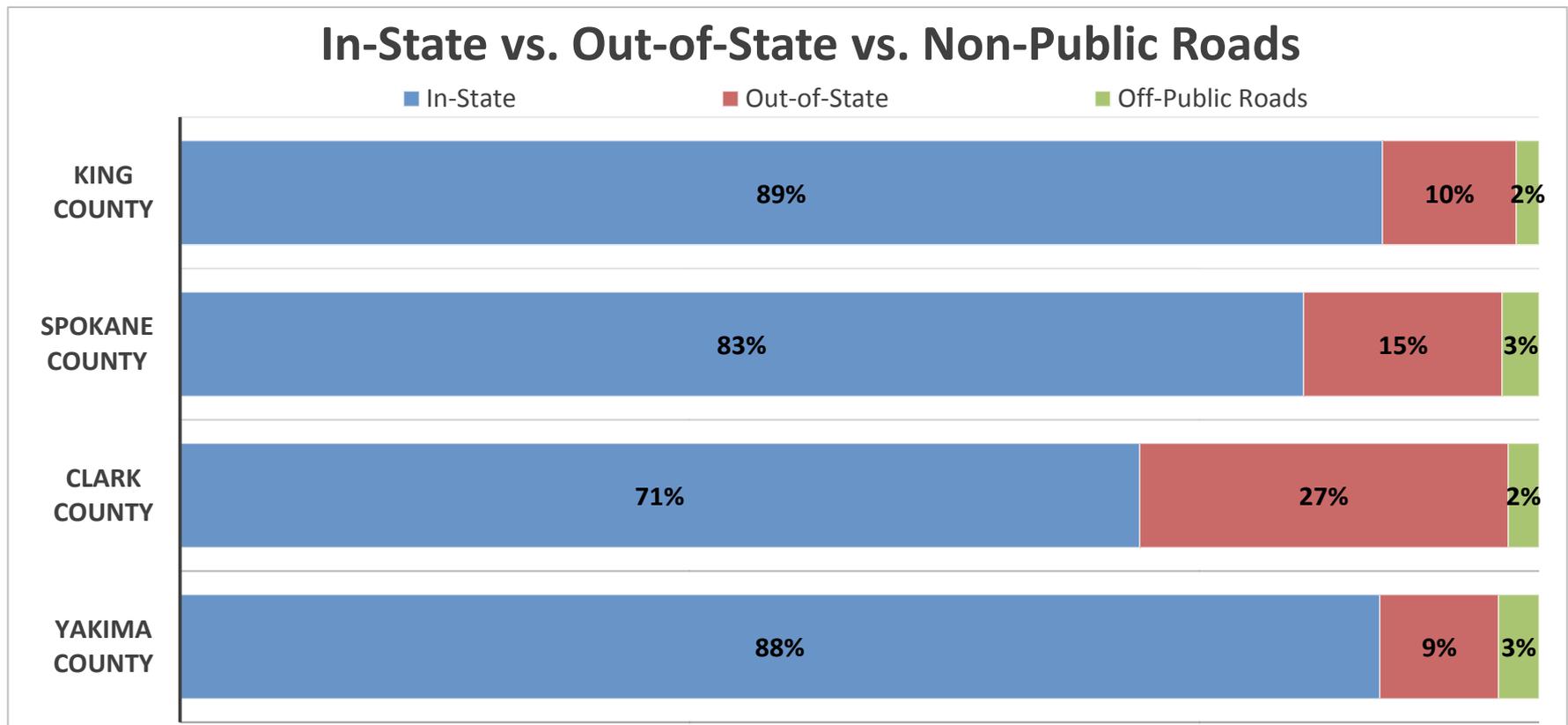
## In-State vs. Out-of-State vs. Non-Public Roads



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

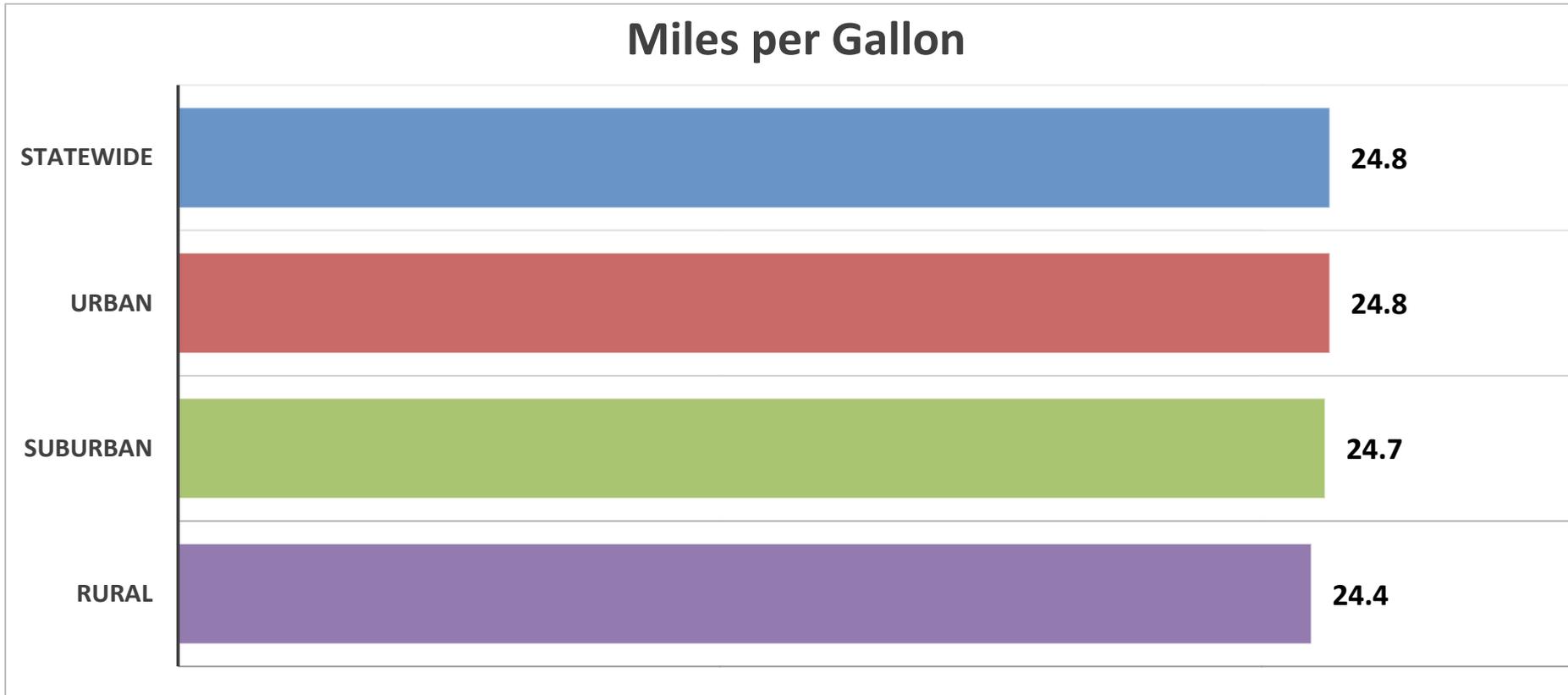
- Not surprisingly, households in counties near the state border are more likely to drive out of state



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)

# Miles per Gallon

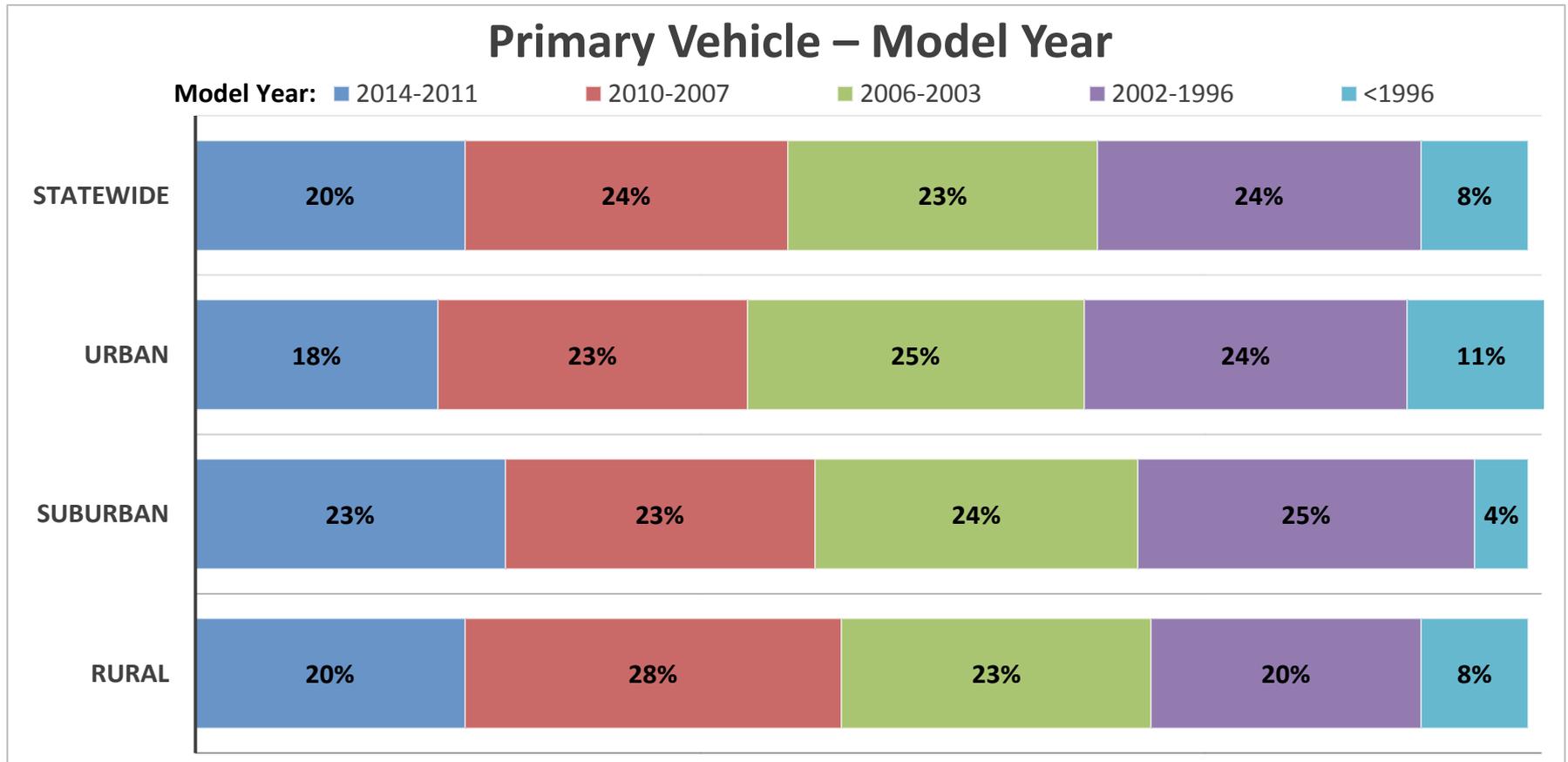
- Statewide, the combined average miles per gallon for all vehicles a household owns is 24.8 MPG
- There is little difference in the combined average MPG across different area types



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 – Model Year

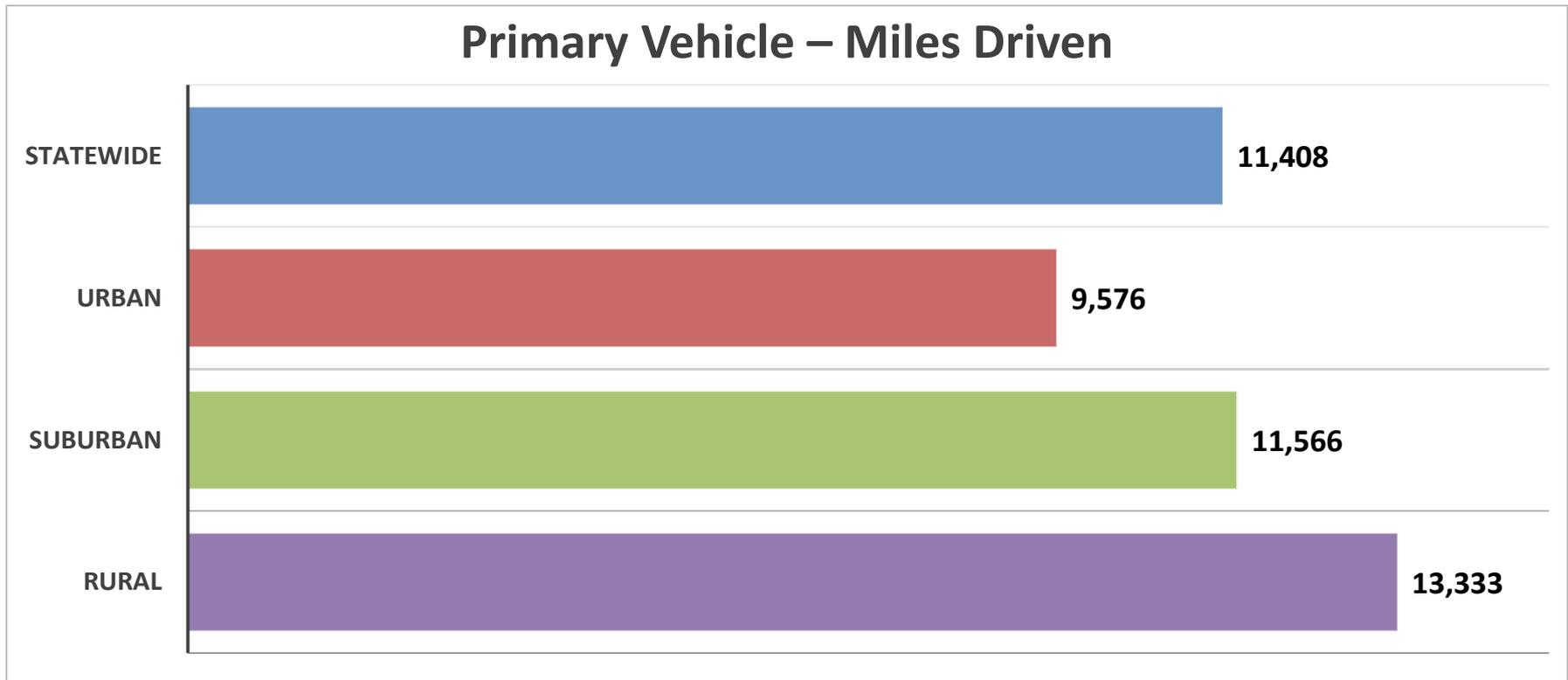
- The model year for respondents' Primary Vehicle is fairly evenly spread out
- Suburban and Rural households are slightly more likely to have newer Primary Vehicles than Urban households



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

# Primary Vehicle – Miles Driven

- On average a household's Primary Vehicle is driven 11,408 miles a year, compared to an average of 6,118 miles a year for all household vehicles
- Rural households tend to drive their Primary Vehicle the most (13,333 miles/year), followed by Suburban households (11,566) and Urban households (9,576)



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)?

# Summary of Vehicle Info

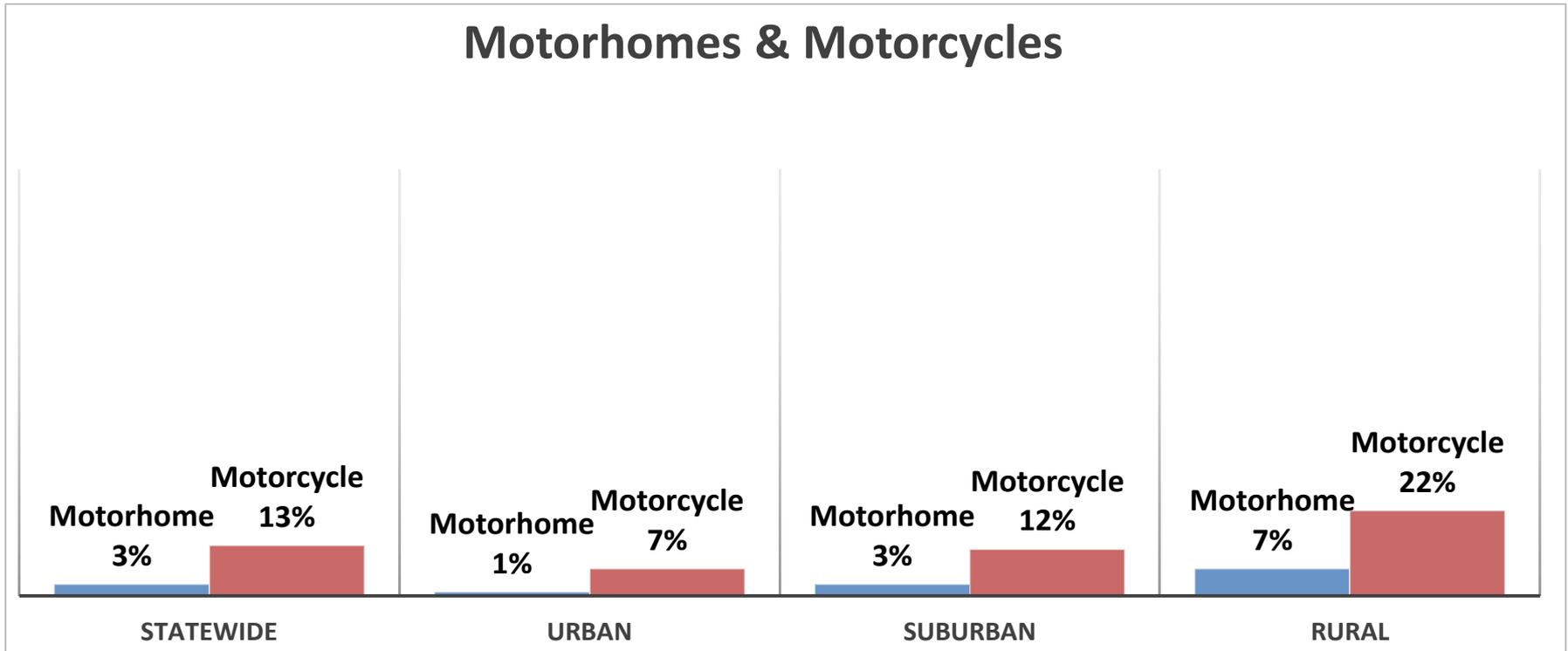
- The table below shows the profile for vehicles 1 thru 6 along with the data for the Primary Vehicle (the vehicle that is driven the most miles in an average year).

## 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>11,408</b>	<b>25.5</b>	<b>56%</b>	<b>90%</b>	<b>5%</b>	<b>1%</b>	<b>4%</b>	<b>85%</b>
1	23%	96%	10,173	24.5	54%	91%	5%	1%	4%	84%
2	40%	73%	7,468	23.1	47%	92%	2%	1%	5%	81%
3	19%	33%	5,049	22.0	31%	93%	1%	0%	5%	74%
4	10%	14%	4,817	21.7	22%	94%	1%	0%	5%	77%
5	2%	4%	5,099	21.9	18%	91%	0%	1%	6%	58%
6	2%	2%	1,605	21.9	19%	86%	0%	0%	12%	43%

# Motorhomes & Motorcycles

- Overall, 13% of households have a motorcycle and 3% have a motorhome
- The incidence of motorcycles (22%) and motorhomes (7%) 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 733 miles per year within Washington State
- Respondents with Motorcycles get an average of 43 miles per gallon and drive an average of 991 miles per year within Washington State

## Estimated MPG

Motorcycle  
43.2

Motorhome  
10.0

STATEWIDE

## Estimated Miles Driven

Motorcycle  
991

Motorhome  
733

STATEWIDE

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?

***Statewide, the average number of vehicles per household is 2.2 (excluding motorcycles/motorhomes)***

- Rural areas have the highest average with 2.7 vehicles per household, followed by Suburban areas (2.3 vehicles), and Urban areas (1.7)

***The average household drives 17,742 miles per year***

- Residents in Rural areas drive the most: 22,243 miles per year for the average household, followed by Suburban households (18,368). Residents in Urban areas drive the least: 13,206 miles for the average household
- Residents in Rural (8,863 miles) and Suburban (8,402 miles) areas drive their vehicles more miles on average than Urban residents (8,054 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 24.8 MPG***

***Most (98%) households with a vehicle have a Gas only vehicle, 6% have a Hybrid, 1% have an Electric vehicle, and 9% have a Diesel vehicle***

**THANK YOU!**

**For More Information Contact:**

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Bill Young, Survey Program Project Manager

360.705.7070

- **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?”*