# Appendix B: Consumer Survey Draft Tire Fuel Efficiency Consumer Information Program

#### Objectives:

- 1. Understand the tire purchase process from the consumer perspective
- 2. Evaluate comprehension of various ratings, exploring the clarity, meaningfulness and the likely resulting behaviors
- 3. Evaluate the channels for communication
- 4. Understand consumers' knowledge of tire maintenance and performance

## [ON-SCREEN WELCOME AND CONFIDENTIALITY]

Thank you for agreeing to participate in this online study. The survey will take about 15 minutes to complete. All responses are anonymous and will only be viewed in aggregate.

This study is being conducted on behalf of the National Highway Traffic Safety Administration (NHTSA). Please note that an agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a current valid OMB control number. The OMB control number for this study is TBD. This survey is voluntary. We will not collect any personal information that would allow anyone to identify you. Any information you do provide will be kept private to the fullest extent of the law.

## **Screening**

1. In which of the following categories is your age?

		0	0	,
1	Under 18	[TE	RMIN	ATE]

- 2 18 to 24
- 3 25 to 34
- 4 35 to 44
- 5 45 to 54
- 6 55 to 64
- 7 65 or older
- 2. Are you...?
  - 1 Male
  - 2 Female
- 3. Do you or a family member currently, or have you or a family member previously worked in any of the following industries?
  - a. Automobile manufacturer or retail
  - b. Tire manufacturing or retail
  - c. Market research or the market research department of a company

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01 Yes [TERMINATE]
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- 1 No
- 4. Do you currently possess a valid driver's license?
  - 1 Yes
  - 2 No [TERMINATE]

- 5. Do you currently own or lease a passenger vehicle?
  - 1 Yes OWN
  - 2 Yes LEASE
  - 3 No [TERMINATE]
- 6. What are the year, make and model of the vehicle that you primarily drive?
  - YEAR: [OPEN END]
     MAKE: [OPEN END]
     MODEL: [OPEN END]
- 7. Which of the following statements best represents your plans for purchasing replacement tires for your vehicle? This means purchasing one to four tires to replace worn or damaged tires on your current vehicle.
  - 1 I purchased replacement tires longer than 6 months ago [TERMINATE ONLY DURING OVERSAMPLE]
  - 2 I purchased replacement tires in the past 6 months
  - 3 I plan to purchase replacement tires in the next 6 months
  - 4 I plan to purchase replacement tires longer than 6 months from now DURING OVERSAMPLE] [TERMINATE ONLY
  - 5 I have no plans to purchase replacement tires [TERMINATE ONLY DURING OVERSAMPLE]
- 8. Thinking about purchasing replacement tires for your vehicle, would you say you are the primary decision maker, have shared responsibility in the decision, or does someone else make the decision on purchasing replacement tires?
  - 1 I am the primary decision maker
  - 2 I share equal responsibility with someone else
  - 3 Someone else is the primary decision maker [TERMINATE]

## **Tire Knowledge & Purchase Process**

- 9. How much do you agree or disagree with the following statements? [RANDOMIZE]
  - a. When purchasing replacement tires, I do not know what makes one tire better than another tire
  - b. The type of replacement tire I purchase can affect the fuel efficiency of my vehicle
  - c. The type of replacement tire I purchase can affect the safety of my vehicle
  - d. If the air pressure in my tires is low, my car's gas mileage will be worse
  - e. How long a tire lasts is important to me when deciding which replacement tire to purchase
  - f. When purchasing replacement tires, I specifically look for tires that provide good traction in wet conditions
  - g. When purchasing replacement tires, I do my own research to decide which tire is best for me

Strongly disagree
Strongly agree

7 Strongly agree

10. Thinking about the last time you purchased replacement tires for a vehicle, which of the following motivated you to make that purchase?

## [RANDOMIZE, ANCHOR 09]

- 1 My tires had high mileage
- 2 My tires were too old
- 3 I noticed my tires looked worn
- 4 I felt a difference in how my vehicle was driving
- 5 I had a blow out or flat tire
- 6 A mechanic or vehicle service person recommended I get new tires
- 7 I needed new tires to pass inspection
- 8 I needed season-specific tires (i.e., snow tires for winter)
- 9 Something else [SPECIFY]
- 11. When purchasing new replacement tires for your vehicle, what factors do you base your decision on? [OPEN END]
- 12. Which of the following factors are most important to your final decision about which replacement tires to purchase?

# [SELECT UP TO THREE, RANDOMIZE, ANCHOR 17]

- 1 Price
- 2 Professional recommendation
- 3 Recommendation from family/friends
- 4 Personal experience
- 5 Brand name
- 6 Warranty
- 7 Speed rating
- 8 Fuel efficiency
- 9 Mileage rating
- 10 Tread depth
- 11 Tread type
- 12 Specialty type (i.e. all-weather, snow tires, etc.)
- 13 Availability
- 14 Load index
- 15 UTQG Rating
- My own research
- 17 Tire performance information molded on the tire
- 18 Something else [SPECIFY]

#### **Sources of Information**

13. Thinking about purchasing replacement tires, what sources have you used, or would you use in the future to get information? [OPEN END]

14. If you were looking for information on replacement tires, would you be likely to use the following sources?

# [RANDOMIZE]

- a. CNN.com
- b. Consumer Reports / Consumer Reports.com
- c. Cars.com
- d. Edmunds.com
- e. KelleyBlueBook.com (KBB.com)
- f. Vehicle manufacturer websites
- g. Tire manufacturer websites
- h. Tire performance information molded on the tire
- i. My mechanic
- j. Tire retailers
- k. Friends and family
- 1. Academic or scientific research studies
- m. SaferCar.gov
- n. TireRack.com
- o. Auto insurance company website or materials
- p. Brochures available at auto repair and maintenance facilities
- q. Information in my vehicle's owner's manual
- r. New car dealer
- s. Blogs
- t. Tire performance information included on a label attached to a tire at the store
- 1 Yes
- 2 No
- 3 I have never heard of this
- 15. If you were looking for information about tires, how reliable are the following sources? [RANDOMIZE]
  - a. Friend or family members recommendation
    - b. Mechanic recommendation
    - c. Tire retailer recommendation
    - d. Consumer reviews of tires
    - e. Consumer Reports review
    - f. Government ratings
    - g. Tire manufacturer reports
    - h. Vehicle manufacturer recommendations
    - i. Information provided on automotive websites
    - 1 Very unreliable

2

3

4

5

6

7 Very reliable

# **Tire Ratings**

16. How important are each of the following tire characteristics to you personally when deciding on which replacement tires to purchase

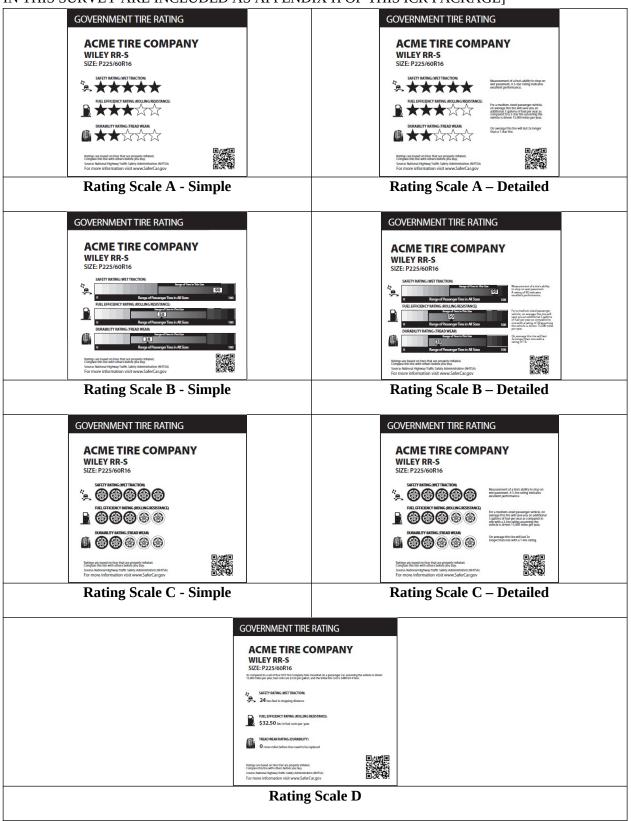
# [RANDOMIZE]

- a. Tread wear, that is, the measure of how quickly a tire's tread wears or how long the tire will last
- b. Wet traction, that is, the measure of the tire's ability to deliver traction, or prevent sliding, under wet conditions
- c. Rolling resistance, that is, a measure of a tire's contribution to a vehicle's fuel efficiency

1	Not at all important
2	
3	
4	
5	
6	
7	Very important

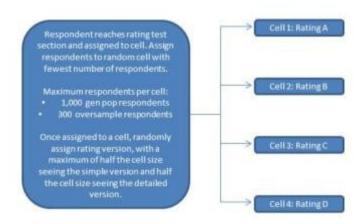
# **Rating Evaluations:**

[NOTE THE BELOW IMAGES ARE SAMPLES. THE FULL COLLECTION OF LABELS BEING TESTED IN THIS SURVEY ARE INCLUDED AS APPENDIX H OF THIS ICR PACKAGE]



#### MONADIC DESIGN:

RESPONDENTS WILL BE RANDOMLY ASSIGNED TO A 'CELL'. 1000 RESPONDENTS EACH WILL EVALUATE ONE RATING SYSTEM IN DETAIL, ANSWERING THE FOLLOWING QUESTIONS. ALL RESPONDENTS WILL SEE THE SIMPLE LABEL FIRST SO THAT RESPONDENTS WITHIN EACH CELL ARE EXPOSED TO IDENTICAL STIMULI.



National Highway Traffic Safety Administration (NHTSA) is a Federal agency that is part of the U.S. Department of Transportation. NHTSA is exploring different ways to provide tire ratings to help consumers as they purchase tires. For the remainder of this study, you will be asked to evaluate potential rating systems for tires. You will be presented with one rating system design at a time, with three tires rated on each rating system. After reviewing the graphic, you will be asked follow up questions.

# [DISPLAY TIRE RATING IMAGES BASED ON CELL ASSIGNMENT. ONE EXAMPLE OF THE RATING SYSTEM ON SCREEN FOR EVALUTION]

17. On the next screen, you will be presented with a potential rating system for replacement tires. When this image appears, you will have 30 seconds to click on the areas of the image that draw your attention. Please click directly on the image and select up to 5 areas that draw you attention.

# [INSTRUCTIONS REMAIN, IMAGE IS PRESENTED, RESPONDENT SELECTS AREAS OF IMAGE THAT DRAW ATTENTION]

- 18. Looking again at this rating, by clicking directly on the rating scale, please click those areas, if any, that are easy for you to understand when evaluating a tire to purchase.
  - 1 Nothing in the image is easy to understand
- 19. Now, please click those areas, if any, that cause confusion or are difficult to understand.
  - 1 Nothing in the image is difficult to understand

# [IF RESPONDENT ASSIGNED TO RATING A, B OR C, ASK Q20; IF RESPONDENT ASSIGNED TO RATING D, SKIP Q20 AND ASK Q21]

20. Next you will be presented with three different tires rated on this system. Using only the information provided to you, please select which tire you would choose to purchase.

[RESPONDENT CLICK NEXT, LABELS DISPLAYED IN RANDOM ORDER]

- 1 Tire 1
- 2 Tire 2
- 3 Tire 3
- 4 None of these

# [ONLY ASK Q21 IF RESPONDENT ASSIGNED TO RATING D]

21. Next you will be presented with two different tires rated on this system. Using only the information provided to you, please select which tire you would choose to purchase.

[RESPONDENT CLICK NEXT, LABELS DISPLAYED IN RANDOM ORDER]

- 1 Tire 1
- 2 Tire 2
- 3 None of these
- 22. For what reasons did you select the tire you chose? Please be as specific as possible. [OPEN END]
- 23. How much do you agree or disagree with the following statements about this rating system? [RANDOMIZE]
  - a. If these ratings were available, I would use them when researching replacement tires
  - b. Even if these ratings were available, I would rely on the tire retailer to recommend the best tire for me
  - c. This rating system gives me the information I need to make my tire purchase decision
  - d. This rating system gives me the information I need to compare tires
  - e. The symbols used on this rating system are easy to understand
  - f. The language used in this rating system is easy to understand
  - g. I need more clarification on what these ratings mean
  - h. I need more information about these ratings before using them in my purchase decision
  - i. I don't understand what these ratings mean for me personally
  - j. If these ratings were included on a label attached to a tire at the store, I would read that label before deciding which tire to purchase
  - Strongly agree
    Strongly agree
    Strongly disagree

# [RANDOMIZE QUESTION BLOCKS Q24-27; Q28-30; Q31-34]

# [RANDOMLY DISPLAY TWO LABELS]

24. Imagine you are in a store, ready to buy replacement tires for your vehicle and you see these ratings. Looking only at the **FUEL EFFICIENCY** rating, what, if anything, does the difference between [INSERT RATINGS COMPARISON] indicate in terms of tire performance to you personally? [OPEN END]

Logic	Rating
IF RATING A	a. A 4-star rating and a 5-star rating
	a. A rating of 80 and a rating of 50
IF RATING B RANDOMLY SELECT	b. A rating of 80 rating and a rating of 58
	c. A rating of 58 and a rating of 50
IF RATING C RANDOMLY SELECT	A 4-tire rating and a 5-tire rating
IF DATING D	a. \$32.50 less in fuel costs per year, \$25.00 less in fuel
IF RATING D	costs per year

[ASK Q25 IF CELL A, B, OR C]

25. Still looking at the **FUEL EFFICIENCY** rating, how many gallons of fuel do you believe a [INSERT RATING COMPARISON]?

[ENTER NUMBER 0-1000] gallons per year saved

Logic	Rating	
IF RATING A	a.	5-star tire would save you per year as compared to a 4-star
IF KATING A		tire
	a.	tire with a rating of 80 would save you per year as
		compared to a tire with a rating of 50
IF RATING B RANDOMLY SELECT	b.	tire with a rating of 80 would save you per year as
IF RATING B RANDOMLT SELECT		compared to a tire with a rating of 58
	c.	tire with a rating of 58 would save you per year as
		compared to a tire with a rating of 50
IF RATING C RANDOMLY SELECT	a.	a tire with a 5-tire rating would save you per year as
		compared to a tire with a 4-tire rating
	a.	tire that costs \$32.50 less in fuel costs per year as compared
IF RATING D		to a control tire versus a tire that costs \$25.00 less in fuel
		costs per year as compare to a control tire

26. Still looking at the **FUEL EFFICIENCY** rating, if you were to compare two tires rated using this system, what do you believe is the smallest rating difference that indicates a *meaningful impact on tire performance*.

[IF RATING A]

- 1 A 1-star difference indicates a meaningful impact on tire performance
- 2 A 2-star difference indicates a meaningful impact on tire performance
- 3 A 3-star difference indicates a meaningful impact on tire performance
- 4 A 4-star difference indicates a meaningful impact on tire performance

[IF RATING B]

1 A/An[OPEN END, RANGE 1-99] point difference would indicate a meaningful impact on tire performance

# [IF RATING C]

- 1 A 1-tire difference indicates a meaningful impact on tire performance
- 2 A 2-tire difference indicates a meaningful impact on tire performance
- 3 A 3-tire difference indicates a meaningful impact on tire performance
- 4 A 4-tire difference indicates a meaningful impact on tire performance

#### [IF RATING D]

- 1 [OPEN END, RANGE \$1-\$1000] dollar difference would indicate a meaningful impact on tire performance
- 27. How important was the **fuel efficiency** rating in deciding which of the three tires presented you would be most likely to purchase?
  - 1 Not at all important

2

3

4

5 6

- 7 Very important
- 28. Imagine you are in a store, ready to buy replacement tires for your vehicle and you see these ratings. Now, looking only at the **SAFETY** rating, what, if anything, does the difference between [INSERT RATINGS COMPARISON] indicate in terms of tire performance to you personally? [OPEN END]

Logic	Rating
IF RATING A	a. A 4-star rating and a 5-star rating
	a. A rating of 73 and a rating of 90
IF RATING B RANDOMLY SELECT	b. A rating of 73 rating and a rating of 72
	c. A rating of 72 and a rating of 90
IF RATING C	a. A 4-tire rating and a 5-tire rating
IF RATING D	a. A rating of 24 less feet in stopping distance and a rating of
IF RATING D	25 more feet in stopping distance

29. Still looking at the **SAFETY** rating, if you were to compare two tires rated using this system, what do you believe is the smallest rating difference that indicates a *meaningful impact on tire performance*.

#### [IF RATING A]

- 1 A 1-star difference indicates a meaningful impact on tire performance
- 2 A 2-star difference indicates a meaningful impact on tire performance
- 3 A 3-star difference indicates a meaningful impact on tire performance
- 4 A 4-star difference indicates a meaningful impact on tire performance

## [IF RATING B]

1 A/An[OPEN END, RANGE 1-99] point difference would indicate a meaningful impact on tire performance

## [IF RATING C]

- 1 A 1-tire difference indicates a meaningful impact on tire performance
- 2 A 2-tire difference indicates a meaningful impact on tire performance

- 3 A 3-tire difference indicates a meaningful impact on tire performance
- 4 A 4-tire difference indicates a meaningful impact on tire performance

# [IF RATING D]

- 1 A/An[OPEN END, RANGE 1-100] foot difference would indicate a meaningful impact on tire performance
- 30. How important was the **safety** rating in deciding which of the three tires presented you would be most likely to purchase?
  - 1 Not at all important

2

3

4

5

6

- 7 Very important
- 31. Imagine you are in a store, ready to buy replacement tires for your vehicle and you see these ratings. Looking only at the **DURABILITY** rating for the tires rated using this system, what, if anything does the difference between [INSERT RATINGS COMPARISON] indicate in terms of tire performance to you personally? [OPEN END]

Logic	Rating
IF RATING A	a. A 2-star and a 4-star rating
	a. A rating of 64 and a rating of 39
IF RATING B RANDOMLY SELECT	b. A rating of 64 and a rating of 61
	c. A rating of 61 and a rating of 39
IF RATING C RANDOMLY SELECT	a. A 2-tire rating and a 4-tire rating
IF RATING D	a. A rating of '0 more miles' and a rating of '30,000
	more miles'

## [ASK Q32 IF CELL A, B, OR C]

32. Still looking at the **DURABILITY** rating, how much longer do you believe a [INSERT RATING COMPARISON]?

The tire will last [ENTER NUMBER 0-100] times longer

Logic	Rating
IF RATING A	a. 4-star tire would last as compared to a 2-star tire
	<ul> <li>a. tire with a rating of 64 would last as compared to a tire with a rating of 39</li> </ul>
IF RATING B RANDOMLY SELECT	<ul> <li>tire with a rating of 64 would last as compared to a tire with a rating of 61</li> </ul>
	c. tire with a rating of 61 would last as compared to a tire with a rating of 39
IF RATING C RANDOMLY SELECT	a. tire rated with a 4-tire rating would last as compared to a tire with a 2-tire rating
	a. tire with a rating of '0 more miles as compared to a control
IF RATING D	tire' would last versus a tire with a rating of '30,000 more
	miles as compared to a control tire'

- 33. Still looking at the **DURABILITY** rating, if you were to compare two tires rated using this system, what do you believe is the smallest rating difference that indicates a *meaningful impact on tire performance*. [IF RATING A]
  - 1 A 1-star difference indicates a meaningful impact on tire performance
  - 2 A 2-star difference indicates a meaningful impact on tire performance
  - 3 A 3-star difference indicates a meaningful impact on tire performance
  - 4 A 4-star difference indicates a meaningful impact on tire performance

## [IF RATING B]

1 A/An[OPEN END, RANGE 1-99] point difference would indicate a meaningful impact on tire performance

#### [IF RATING C]

- 1 A 1-tire difference indicates a meaningful impact on tire performance
- 2 A 2-tire difference indicates a meaningful impact on tire performance
- 3 A 3-tire difference indicates a meaningful impact on tire performance
- 4 A 4-tire difference indicates a meaningful impact on tire performance

## [IF RATING D]

1 [OPEN END, RANGE 1-50,000] mile difference would indicate a meaningful impact on tire performance

34.		nportant was the <b>durability</b> rating in deciding which of the three tires presented you would be
		kely to purchase?
	1	Not at all important
	2	
	3	
	4	
	5	
	6 7	Voweimportant
	/	Very important
	[IF EV	ALUATING RATINGS A, B OR C, ASK Q35, Q36 & Q37]
	[DISPI	LAY DETAILED VERSION OF LABEL]
35.	Now lo	ok at this same rating scale presented with more detailed information about the ratings. How much
		agree or disagree with the following statements about this rating system?
	[RAND	OOMIZE]
		a. If these ratings were available, I would use them when researching replacement tires
		b. Even if these ratings were available, I would rely on the tire retailer to recommend the best
		tire for me
		c. This rating system gives me the information I need to make my tire purchase decision
		d. This rating system gives me the information I need to compare tires
		<ul><li>e. The symbols used on this rating system are easy to understand</li><li>f. The language used in this rating system is easy to understand</li></ul>
		<ul><li>f. The language used in this rating system is easy to understand</li><li>g. I need more clarification on what these ratings mean</li></ul>
		h. I need more information about these ratings before using them in my purchase decision
		i. I don't understand what these ratings mean for me personally
		j. If these ratings were included on a label attached to a tire at the store, I would read that label
		before deciding which tire to purchase
	1	Strongly agree
	2	
	3 4	
	<del>4</del> 5	
	6	
	•	

36. [DISPLAY BOTH VERSIONS OF RATING SYSTEM (SIMPLE AND DETAILED)] How much impact, if any, does the amount of information presented on the rating scale have on your ability to understand the ratings?

- 1 The simple version is much easier to understand
- 2 The simple version is somewhat easier to understand
- 3 There is no difference in how easy it is to understand
- 4 The detailed version is somewhat easier to understand
- 5 The detailed version is much easier to understand

Strongly disagree

## [CONTINUE TO DISPLAY BOTH VERSIONS OF THE LABEL]

- 37. Assuming the ratings are presented as a paper label that is attached to a tire in the store, which of the following statements most closely represents how you feel about these labels?
  - 1 I would use either of these labels to help me make my purchase decision
  - 2 I am more likely to use the detailed label to help me make my purchase decision
  - 3 I am more likely to use the simple label to help me make my purchase decision
  - 4 I would NOT use either of these labels to help me make my purchase decision
- 38. If you were looking to compare tires based on the ratings presented in this study, would you be likely to consult the following sources to find this information?

  [RANDOMIZE]
  - a. Paper label on the tire that will be mounted on my vehicle
  - b. Consumer Reports / Consumer Reports.com
  - c. TireRack.com
  - d. Vehicle manufacturer websites
  - e. Tire manufacturer websites
  - f. My mechanic
  - g. A tire retailer
  - h. Friends and family
  - i. SaferCar.gov
  - j. Auto insurance company website or materials
  - k. Brochures available at auto repair and maintenance facilities
  - l. Online database or other online tool
  - m. Information in my vehicle's owner's manual
  - n. Blogs
  - 1 Yes
  - 2 No
  - 3 I have never heard of this

## **Demographics**

- 39. What is the last grade you completed in school?
  - 1 Some grade school (1-8)
  - 2 Some high school (9-11)
  - 3 High school graduate (12)
  - 4 Technical or vocational school
  - 5 Some College
  - 6 College Graduate
  - 7 Graduate or Professional School
  - 8 Other
- 40. Are you of Hispanic or Latino descent?
  - 1 Yes
  - 2 No

- 41. Select one or more of the following that best describes your race? [ACCEPT MULTIPLE RESPONSES]
  - 1 American Indian or Alaska Native
  - 2 Asian
  - 3 Black or African American
  - 4 White
  - 5 Native Hawaiian or other Pacific Islander
- 42. What is your marital status?
  - 1 Single
  - 2 Married or living together
  - 3 Separated, divorced, or widowed
  - 4 Other
  - 5 Refused
- 43. What is your current employment status?
  - 1 Employed full-time
  - 2 Employed part-time
  - 3 Not employed
  - 4 Retired
  - 5 Student
  - 6 Homemaker / Caregiver / Stay-at-home parent
  - 7 Other
- 44. Which ONE of the following best describes your total household income?
  - 1 Under \$25,000
  - 2 \$25,000 to less than \$50,000
  - 3 \$50,000 to less than \$75,000
  - 4 \$75,000 to less than \$100,000
  - 5 \$100,000 to less than \$150,000
  - 6 \$150,000 to less than \$200,000
  - 7 \$200,000 or more
  - 8 Refused