A. <u>Collections of Information Employing Statistical Methods.</u>

1. Describe (including a numerical estimate) the potential respondent universe and any sampling or other respondent selection methods to be used.

According to the Census Bureau, there were over 118,682,000 households in the United States in 2011, with an average of 2.1 vehicles per household. A non-random sample of 54 households in four states will complete the research (please see item A.2 above). Households will be screened according to several criteria, so a random sample will not be taken; rather, a stratified sample will be constructed. The sample will be selected from a variety of households in California, Georgia, Michigan, and Texas. The sample will include households that have recently purchased a new or used vehicle; both younger and older drivers, and both men and women.

UCD researchers will recruit the sample households by mailing an invitation to a subset of households in the four cities of interest. The invitation will direct volunteers to an on-line screening questionnaire hosted on a UCD server. Based on the respondents' answers to the screening questionnaire, UCD will begin to construct the respondent sample.

The sampling frame designed by UCD is a non-probability sample designed to insure that the sample contains desired distributions of household vehicle ownership, i.e., number of vehicles per household, types of vehicles, and driving patterns. The screening questionnaire includes the necessary questions to conduct this screening and, should the prospective participant wish to participate, collect their contact information.

2. Describe the procedures for the collection of information including:

UCD researchers will develop and refine the interview design and conduct 54 in-home interviews in Sacramento, California (18 interviews); Atlanta, Georgia (12 interviews); Detroit, Michigan (12 interviews); and, Houston, Texas (12 interviews). A team of four UCD researchers (two researchers per interview) will conduct the in-home interviews. Interviews will be conducted at the participants' homes and include at least the primary driver of the recently purchased vehicle that qualifies the household for participation. Interviews are expected to last between one and two hours. The discussion will be guided by a list of specific topic areas: history of car purchases, stories of specific car purchases, design of a next new car, and questions specifically about whether and how fuel economy is valued by the household. The majority of questions will be open-ended. Interviews will be audio recorded and the interviewers will make written notes during the interview.

Each UCD researcher will review the audio recordings and compile a review of the households in which they have been an interviewer. These reviews will include themes that arise during the interviews regarding whether and how consumers value fuel economy. These reviews will be compared across households to locate themes representing common experiences, ideas, and valuations.

3. Describe methods to maximize response rates and to deal with issues of non-response.

UCD plans to pay each interviewee \$100 (maximum \$200 per household).

The households may self-terminate their participation at any time as a fundamental right afforded to all research participants, and there is no intention to attempt to retain such participants. Subject to time and budget conditions, new households will be recruited to replace any that terminate their participation.

4. Describe any tests of procedures or methods to be undertaken.

All forms of data collection and analysis have been or will be pre-tested. UCD researchers have a long history of successfully engaging households in multi-method data collection, e.g., questionnaires, interviews, and vehicle data loggers. In addition, the UCD researchers will conduct nine (9) trial in-home interviews (distinct from the "real" 54 interviews) in California to help develop and refine the interview protocol.

5. Provide the name and telephone number of individuals consulted on statistical aspects of the design and the name of the agency unit, contractor(s), grantee(s) or other person(s) who will actually collect and/or analyze the information for the agency.

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