

The Supporting Statement

New England Transportation Institute

Introduction: The New England Transportation Institute (NETI) is carrying out a program mandated in SAFETEA-LU, Section 5513 F to increase understanding of rural transportation conditions and issues. Towards this end, the Institute is proposing to undertake two surveys of rural transportation users; the first concerns rural safety and community health, while the second concerns rural issue definition and refinement. This is a new clearance request.

Part A. Justification.

1. Circumstances that make collection of information necessary:

Certain characteristics of rural travel are well known, including both the high death rate for rural young men and the long distances associated with essential trip making to centers of employment, retail activity and medical services. However, there is a need to understand more of the attitudes and behaviors associated with these travel patterns. In order to make statistically valid observations about these rural travel patterns, it will be necessary to undertake a carefully designed program of survey research.

In order to carry out the mandate of the legislation to undertake research in rural transportation, there will be two elements of the total data collection program. The first will concern driving behavior, with a specific emphasis on the driving patterns of young rural men. The second will concern attitudes about rural mobility and the issues associated with longer trip making in rural areas.

In order to better understand the reasons for the high death rate experienced by rural youth, it will be necessary to compare the attitudes and beliefs towards risky driving behavior of this group compared with comparably aged persons in less rural areas. The impact of transportation behavior (such as walking or biking) on community health has not been documented in rural areas to the extent it has been documented in urbanized areas.

Similarly, in order to better understand how rural persons perceive their own mobility it will be necessary to examine attitudes and beliefs towards physical isolation associated with greater distances to key destinations, such as retail centers, employment centers, and major medical facilities. It is also important to document reported willingness to change transportation behavior in order to decrease Vehicle Miles of Travel and problems of isolation.

These two research areas reflect the DOT's policy concerns in the areas of Safety, Mobility, and Human/ Natural Environment and will be of value to the DOT in carrying out its Strategic Plan.

2. How, by whom, and for what purpose is the information used:

The information will be used by the New England Transportation Institute in undertaking a program of analysis to better understand the unique characteristics of rural travel. The results of that program will be used by research professionals in the area of transportation planning, transportation management, safety, and public health. All results of the information collection will be published in some form, and made available to the research community through publications, conferences, seminars and other information dissemination methods. The information will be useful to those setting policies towards rural transportation, and creating programs to deal with mobility issues for aging populations whose demands on the transportation system evolve over time. The purpose of utilizing the information is to better deal with issues of rural death rates,

issues of rural isolation, rural non-motorized travel patterns, and higher VMT generation in rural areas.

The program has been designed to be useful to support the needs of democratically elected leaders, and advocates of improved transportation services and programs. The New England Transportation Institute has been involved in an on-going series of "Summer Institutes" in which academic researchers share their results with decision makers of all kinds. The purpose of the data collection is to improve the understanding of the unique character of travel by citizens of the rural Northeastern states.

There will be two elements to the research program, with a proposed sample size of up to 1,000 surveys concerning rural safety, and 1,200 surveys for rural mobility issues. In the first element, the sampling procedure will oversample males between the ages of 18 and 28 to better understand their attitudes and beliefs towards risky driving behavior. In the second element, the sampling procedure will ensure the inclusion of a cross section of rural travelers whose location can be characterized as "isolated." The sample will allow the comparison of attitudes and beliefs towards the success of their travel patterns in bringing about an adequate state of both mobility and accessibility to key activities. The sample will also allow for the documentation of variation in attitudes and beliefs by age group.

3. Extent of automated information collection:

All respondents will be offered the option of completing the surveys online. Our study of rural mobility will be based on a mail-out format, which will offer the option of online response. We anticipate that at least 40% of these respondents will complete the survey online. Our study of rural safety and driving behavior (focusing on young males) will be entirely Internet based.

4. Efforts to identify duplication:

The proposed information collection will make maximum use of traditional transportation data resources such as the National Household Travel Survey (NHTS), and a wide variety of sources of information concerning the pattern of accident locations in the United States. This project will build on those traditional sources by matching individual travel behavior with individual attitudes with individual location information. This data base will support the analysis of the importance of geographic location on attitudes, and of attitudes on travel behavior. In particular, our studies of rural driving safety have been closely coordinated with our colleagues and partners at the University of Minnesota, and our studies of rural mobility have been closely coordinated with our colleagues and partners at the University of Vermont. We have benefited from close coordination with international colleagues, as part of a wider process to minimize duplication, and build on successful research efforts.

It is important to note that vital sources such as the NHTS provide an excellent description of actual transportation behavior. The NHTS was not designed, however, to merge descriptions of transportation behavior with attitudes and beliefs which affects one's choices about that transportation behavior. Thus, there is no duplication between this data collection process, and the ongoing programs of the US DOT.

5. Efforts to minimize the burden on small businesses:

The survey will not be applied to any small business.

6. Impact of less frequent collection of information:

In this project, we are only proposing to collect the information once.

7. Special circumstances:

We do not foresee any special circumstances being applicable.

8. Compliance with 5 CFR 1320.8:

The FHWA published a 60-day Federal Register notice on February 12, 2007, Page 6656. Volume 72 number 28. Docket number FHWA 2007-27203.

9. Payments or gifts to respondents:

Some of the expected respondents are part of an online panel and will receive the modest compensation associated with the terms of that panel. These take the form of Vermont maple syrup, or Ben and Jerry's Ice Cream. The other half will be recruited using an address-based sample and they will receive a \$1 cash pre-incentive with the mailed survey invitation.

10. Assurance of confidentiality:

The New England Transportation Institute will observe all rules of confidentiality which apply to university based research, particularly those regulations observed by our partner research organizations at the University of Vermont and the University of Minnesota, with whom we will be closely collaborating in these two areas.

11. Justification for collection of sensitive information:

The questions to be used concerning attitudes towards unsafe driving, and towards rural isolation are based in the standard literature on transportation, driving safety, public health and literature on the needs of citizens for mobility.

12. Estimate of burden hours for information requested:

Both surveys are one-time data collection efforts, seeking up to 1,000 responses concerning roadway safety and up to 1,200 concerning rural mobility. Each survey questionnaire will take approximately 20 minutes to complete, for a total (2200 * 20 minutes) of 733 respondent hours. Our sampling procedures will seek to communicate with a cross section over all wage rate categories, thus an average is appropriate for these calculations. Using recent BLS statistics data for the rural New England area, the average wage is somewhat under \$20 per hour. Thus, if all the respondents were seen as contributing their work, the total burden would be \$14,660.

13. Estimate of total annual costs to respondents:

There are no respondent costs other than those listed in Item 12.

14. Estimate of cost to the Federal government:

The total amount of federal share dollars to be expended on these two surveys is about \$130,000, consistent with the requirements of Section 5513 F of SAFETEA-LU, which mandates a program of research in rural transportation by the New England Transportation Institute.

15. Explanation of program changes or adjustments:

This is a new IC.

16. Publication of results of data collection:

It is our intention to conclude all survey research in the calendar year 2008. A process of analysis drafting, reviewing and editing would have project reports completed in mid 2009, with academic or scholarly papers submitted for publication in the year 2008 and 2009.

17. Approval for not displaying the expiration date of OMB approval:

The display of OMB's expiration date would be appropriate.

18. Exceptions to certification statement:

None

Part B. Collections of Information Employing Statistical Methods

1. Describe potential respondent universe and any sampling selection method to be used.

The respondent universe for both surveys is the general population of residents of the northeast U.S. The first survey (rural safety) will use a commercial online panel. It will oversample young males (between 18 and 28) living in the rural areas. The second survey (rural mobility) will use an address-based sample and will also oversample northeast residents living in non-metropolitan, rural areas.

2. Describe procedures for collecting information, including statistical methodology for stratification and sample selection, estimation procedures, degree of accuracy needed, and less than annual periodic data cycles.

The surveying process to be employed in this project has been used by members of the research team in many other studies of transportation behavior that incorporate both attitudes and beliefs together with more traditional transportation planning data. Each of the 2200 participants in the project will provide descriptions of their recent travel behavior, and answer questions on a seven point Rickert scale concerning their attitudes and beliefs that may or may not impact their travel behavior. The results reflect the respondent universe – i.e. travelers in the rural northeast--- and are not intended to represent and kind of random sample of the population in general.

3. Describe methods to maximize response rate.

NETI will employ the Dillman* method to maximize response rate. Dillman has developed a comprehensive approach to designing surveys that results in high response rates and highly-engaged respondents. RSG has successfully used this method (and its predecessor method that focused on mail-only surveys) for 20 years. The general approach draws on elements of social psychology that deal with “social exchanges” and uses all aspects of the survey’s design – from the wording on invitations to fonts used in questionnaires – to encourage participation. Modest tangible incentives will be used to reinforce the value that the researchers place on respondents’ participation.

For the address-based sample, the Dillman method will be applied as follows:

1. Week 1: A pre-notice letter, containing a one dollar incentive, will be mailed first class to all potential participants to alert them that they will be receiving the survey in a few days.
2. Week 1: Professionally designed paper-based survey with business reply mail will be mailed first class to all potential participants. The paper-based survey will contain instructions for completing the survey online if the respondent prefers that method.
3. Week 2: A reminder postcard will be sent one week after the paper-based survey to encourage participation by those who have not yet completed the survey.
4. Week 3: If quotas have not been reached, a second paper-based survey will be mailed to all who have not yet completed the survey.

* Don Dillman: *Mail and Internet Surveys: The Tailored Design Method*, Wiley, 2000.

4. Describe tests of procedures or methods.

Small survey pilots will be used to test the instruments and the response rates. Survey instruments are subjected to a survey pretest to ensure that respondents are able to understand and complete the survey questionnaire. Web-based responses are validated in real-time to ensure complete responses; data entry of paper-based surveys is checked by RSG staff. Web-based survey instruments are subjected to a battery of both automated and manual tests.

5. Provide name and telephone number of individuals who were consulted on statistical aspects of the IC and who will actually collect and/or analyze the information.

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Attachments:

An electronic PDF file has been included in this transmission containing the FHWA’s 60-day Federal Register notice, February 12, 2007, Page 6656. Volume 72 number 28. Docket number FHWA 2007-27203.