

OMB Control No. # 0693-0033 – NIST Generic Clearance for Program Evaluation Data Collections

**Economic Impact of the Nation's Precision Timing Infrastructure:
The Global Positioning System**

FOUR STANDARD SURVEY QUESTIONS

1. Explain who will be surveyed and why the group is appropriate to survey.

The purpose of this information collection is to acquire information from a nationally representative survey sample that will allow the RTI International to answer the following questions:

- How do consumers value location-based services?
- What is the average consumer's willingness to pay for location-based services?

The survey instrument will be distributed to a nationally representative panel of survey respondents using the panel provider SurveyGizmo. The instrument will collect information about what kinds of location-based services consumers use and how much money they would be willing to accept in exchange for giving up access to location-based services.

RTI has reviewed the published literature identifying some willingness-to-pay data that may be useful but has not found nationally representative data on consumer willingness to pay for location-based services. While we expect that private corporations research this kind of information, we have concluded that such research has never been made publicly available, thus necessitating the survey.

2. Explain how the survey was developed including consultation with interested parties, pretesting, and responses to suggestions for improvement.

The survey instrument was developed after consulting the available literature on eliciting willingness to pay while minimizing potential bias. Additionally, experts experienced in survey design reviewed the instrument. The survey was then pre-tested internally at RTI to solicit feedback on clarity, flow, and burden. Initial feedback from pre-tests resulted in some wording changes, the addition of new categories of location-based services, and a shortening of the survey to make it a maximum of four questions long.

3. Explain how the survey will be conducted, how customers will be sampled if fewer than

all customers will be surveyed, expected response rate, and actions your agency plans to take to improve the response rate.

The survey instrument will be distributed to a nationally representative panel through a panel provider, SurveyGizmo. Panel providers typically compensate individuals who respond to surveys and balance the responses included in the panel to ensure representativeness.

Additionally, as a professional provider of survey participants, SurveyGizmo has processes and algorithms in place to detect abuse of the survey in order to ensure that the results are high-quality, defensible, and nationally representative. We plan to request 1,000 responses to the survey.

4. Describe how the results of the survey will be analyzed and used to generalize the results to the entire customer population.

For the purposes of this evaluation, NIST does not require statistically significant results. Rather, it requires an overall evaluation of historical trends, benefits, and economic impacts under hypothetical scenarios.

The information collected will be analyzed using NVivo, Stata, and Excel software tools. These tools permit efficient thematic analysis that will allow NIST to evaluate overall trends and benefits. The tools will also allow us to export data to an economic model that will help NIST understand how GPS and its potential failure would affect the U.S. economy. The average results from responses to the survey instrument will be nationally representative by design and will be scaled to the entire population of consumers using data on the number of individuals who use smartphones equipped with a GPS chip.