

2017 Research Symposium & STIC Annual Meeting

Designing the “All-in-One” Vermont Transportation Survey

RESEARCH PROJECT TITLE

Designing the All-in-One Vermont Transportation Survey

STUDYTIMELINE

July 2016 – June 2017

PRINCIPAL INVESTIGATOR

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MORE INFORMATION

Final project report forthcoming.

This fact sheet was prepared for the 2017 VTrans Research Symposium & STIC Annual Meeting held on **September 28, 2017** at National Life in Montpelier, VT. 8:00 am– 12:00 pm.

Fact sheets can be found for additional projects featured at the 2017 Symposium at <http://vtrans.vermont.gov/planning/research/2017symposium>

Additional information about the **VTrans Research Program** can be found at <http://vtrans.vermont.gov/planning/research>

Additional information about the **VTrans STIC Program** can be found at <http://vtrans.vermont.gov/boards-councils/stic>

Introduction or What was the Problem?

Data collection on transportation services, travel demand, customer satisfaction, and future system needs is critical for the planning and operation of the transportation system. The objective of the “All-in-One” project was to design a transportation survey program to efficiently meet the on-going transportation and travel data needs of Vermont transportation and planning agencies by providing:

1. a concise and consistent set of transportation survey question modules appropriate for survey data collection and repeated use in Vermont, and
2. an implementation strategy for an on-going statewide survey program.

This survey system is intended to provide an efficient and reliable method to collect the data previously captured by VTrans and CCRPC agency-based surveys and by the National Household Travel Survey (NHTS) add-on data.

Methodology or What was done?

To develop the All-in-One survey program, the research team reviewed seven recent transportation surveys from federal, state and local agencies and conducted interviews with survey professionals about survey content, survey retrieval methods and survey costs. In addition the team compared paper and online respondents to the 2016 VTrans Long Range Transportation Planning Survey (LRTPS) in terms of demographics and travel behaviors and compared the Chittenden County sample of the LRTPS to data collected by CCRPC in 2016 using a smartphone app. The team also conducted sample size analysis and original data collection on smartphone ownership rates and GPS/cellular coverage in Vermont.

Conclusion or What are the next steps?

The “All-in-One” project resulted in a recommend survey program for on-going data collection in Vermont that is consistent with best practice, supports statically rigorous analysis and balances the needs to minimize total cost while collecting statewide customer satisfaction and attitudinal data on an annual basis and collecting travel diary data on a five-year cycle. The survey program includes a five-module Question Bank including 55 questions covering a range of demographic, attitudinal and travel behavior topics as well as recommendations on recruitment methods, sample sizes and survey data retrieval modes. A five-year program review to revisit mobile-device based data collection and sample sized consideration as well as future research into appropriate weighting variables are also recommended.

What are potential impacts? What is the benefit to VTrans?

The “All-in-One” project provided VTrans with a comprehensive survey program for on-going transportation data collection. Benefits of this program include; reduced survey planning costs, improved data quality, greater comparability of data across multiple survey releases, and predictable data collection costs and schedule. Data collection cost are projected to be lower than the cost of a comparable sample with the NHTS add-on. Data provided by the All-in-One would meeting the annual performance data needs of VTrans and the modeling calibration needs of VTrans and CCRPC.