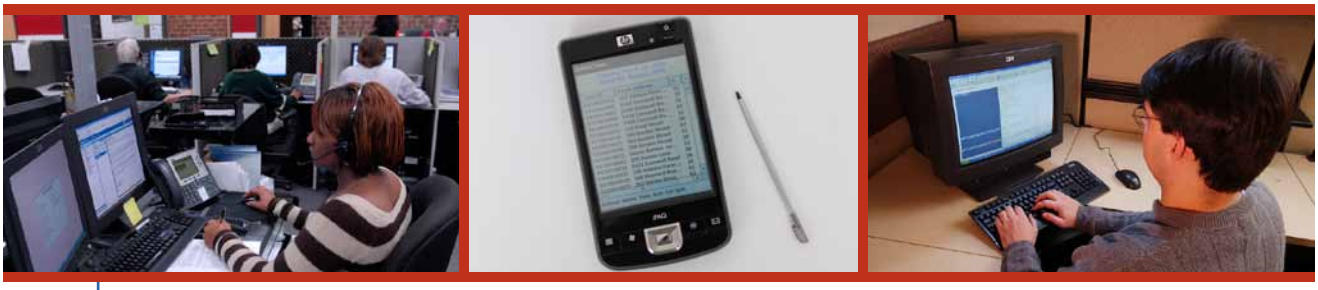
Survey Technologies at RTI



As an industry leader in survey research, RTI International offers clients expertise in a variety of data collection techniques and has experience working with diverse populations. Survey-related capabilities include mail, telephone, in-person, and Web surveys; PDA and smart phone–based data collection; records abstraction; subject tracing; and health registry development. RTI's computing scientists specialize in survey software and systems to provide the highest quality data while still controlling cost. The technologies we employ are offered in a mature development and hosting environment that meets NIST standards for information security.

Depth and Innovation

RTI's survey technologists provide programming support for multiple modes of data collection, including computer-assisted telephone interviews (CATI), in-person interviewing (CAPI), Web surveys, audio computer-assisted self interviewing (ACASI), interactive voice response (or T-ACASI), and data collection with handheld devices. Nationally renowned for its survey expertise, RTI pioneered the development of ACASI and received the 2002 Innovators Award from the American Association for Public Opinion Research. We also developed computer audio-recorded interviewing (CARI) as a means for assessing the authenticity and quality of field interviews.

Areas of Expertise

Hatteras®, a Multimode System for Computer-Assisted Interviews. As a recent innovation, RTI has developed Hatteras, a Web-based computer-assisted interviewing (CAI) system that allows instrument designers and programmers to work concurrently in developing or editing survey instruments. Hatteras supports multi-mode data collection efforts (for example, self-interview/CATI/data entry) and can be leveraged for diverse applications such as medical records abstraction.

Blaise® software from Statistics Netherlands. RTI staff are proficient in developing and supporting CAI instruments in Blaise language for CATI and CAPI studies and have been using this software for over a decade.

Mobile Computing. RTI has developed advanced technologies for pocket PCs, Palm-based systems, pen-based tablets, and Web-enabled smart phones, including Android-based phones, for the collection of personal and sensitive data.

Computer Audio-Recorded Interviewing. RTI pioneered CARI technology, which records the entirety of an exchange between interviewer and respondent. CARI has been confirmed as an economical and practical method to deter and detect falsification by field interviewers; it is an effective way to monitor newly trained interviewers and provide them with performance feedback.

Scannable Surveys. In support of traditional paper surveys, RTI also offers automated data collection and processing, including automatic coding, machine editing, and scanning/optical character recognition. These tools can be used to bring about significant cost efficiencies on large surveys.

DocMan. Developed by RTI, DocMan captures CFR–part 11 compliant digital signatures for administering consent and other forms electronically. It includes the capability of securely maintaining consent forms, case notes, and other scanned documents using FIPS-140 compliant encryption. It replaces the need to maintain and transfer paper files, eliminating the related security vulnerability.

RTI's Case Management Systems (CMSs). RTI's CMSs are capable of monitoring and tracking cases across multiple modes of data collection. The features include a sophisticated CATI call scheduler, a robust Assignment/Transfer system for CAPI studies, a tracing system that can reach into credit bureau databases, an electronic call history that provides details of all contacts, and standardized and custom reports for data collection management.

RoboTools. RTI's RoboTools facilitate automated testing of survey instruments to reduce programming errors.

Data Management and Delivery. We routinely perform data management and delivery functions including file delivery with derived and recoded variables, and sanitized or de-identified deliverable files to protect respondents' privacy.

Data Security. RTI's survey specialists collect data on a wide variety of sensitive topics, and have advanced systems in place to meet federally mandated standards on privacy, confidentiality, and data security. RTI has created a self-contained enhanced security network to address FIPS 199 security requirements for moderate risk data (i.e., PHI and PII).

Field Systems Support. A specialized unit provides personalized assistance for field data collectors and interviewers, including a 24/7 help desk.

Project Highlights

National Survey on Drug Use and Health (SAMHSA, 1999–2013). NSDUH collects data from approximately 250,000 households per year through the efforts of field interviewers, using both handheld and laptop computers. It requires a complex IT infrastructure, including specialized data collection hardware and software, data transmission systems, data processing, analysis and control software, approximately 50 large relational databases, and approximately two terabytes of secure disk storage.

National Survey of Child and Adolescent Well-Being (HHS, 1997–2011). NSCAW collects individual- and family-level data from those in the child welfare system, their caregivers, and caseworkers. The NSCAW team pioneered the use of CARI technology, an RTI innovation, along with extensive ACASI interviewing and innovations such as electronic signature and document management systems.

Pregnancy Risk Assessment Monitoring System (CDC, 2005–2011). For PRAMS, RTI developed a CATI system to be used by 30 state-based data collection sites to ensure technical best practices. On the data reporting side, we also built a Web-based tool (PONDER) to support sophisticated, real-time, online analysis capabilities. This was followed with CPONDER, a publicly accessible version.

Global Adult Tobacco Survey (CDC, 2007–2009). The GATS collects data on tobacco use in countries with the highest smoking rates and tracks these countries' progress in implementing tobacco-free programs over time. Through in-country trainings, RTI has implemented and managed global computing and support operations for these systematic surveys, monitoring tobacco use among adults. RTI programmed a GATS electronic data collection prototype and developed GATS survey manuals and guides for use in paper-and-pencil data collection and handheld computer data collection.

More Information

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