



Surveillance Use Policy

BART Research

Data collection & usage for research and learning

BART Research

OEA-BMRDDCU-SUP-06

21 Day BART Board Notice – Feb. 7, 2019

15 Day Public Notice – Feb. 13, 2019

BART Board Meeting – Mar. 14, 2019



This report covers a range of current and future research methodologies that may fall under the District Surveillance Ordinance. Participation in BART surveys, focus groups, or other research conducted by BART that make use of PII (Personally Identifiable Information) is strictly voluntary, and any locational information collected is used for research purposes only.

A. Purpose

This section should include: The purpose(s) that the surveillance technology is intended to advance.

BART conducts research for a variety of purposes, such as to:

- Provide market information and metrics to help inform District decisions related to strategic planning, budget priorities, station access policy, marketing strategy, and other areas.
- Gather insight into latent demand, usage of TNCs and other emerging travel modes, and understand impact on public transit usage.
- Understand effectiveness of marketing initiatives by analyzing riders' aggregate travel behavior changes over time.
- Identify reasons for change in ridership patterns.

Methodologies using electronic and/or mobile data collection may be used to facilitate the following:

- Faster and less expensive data collection by eliminating the need to manually enter survey results.
- Expanded research capabilities using real time and location-based mobile technologies.
- "In the moment" ratings of BART facilities to improve rating accuracy, and image data that helps explain the reasons for ratings.
- The use of research panels to detect changes in travel patterns over time.
- Analysis of Bay Area residents' travel behavior, e.g., trip purposes, travel modes, travel mode shifts, vehicle occupancies, changes in car ownership habits, as well as demographics (for both riders and non-riders).

B. Authorized Use

This section should include: The uses that are authorized, the rules and processes required prior to such use, and the uses that are prohibited.

All survey data collected through all channels and technologies shall be used for lawful market research purposes only - see Section A above. Section C shows a non-exhaustive list of various information that may be collected from users who voluntarily participate in surveys.

In soliciting respondent consent for BART research projects, BART will disclose the types of data that will be collected, the nature of potential uses of such data by BART and, as applicable, third party partners in research, and describe the mitigations taken to protect respondent privacy. This material will hereinafter be referred to as "consent statements."

C. Data Collection

This section should include: The information that can be collected by the surveillance technology.

Data collected for research purposes may include:

- Names, addresses, emails, phone numbers
- Location information, such as points where trips started and ended, the date and time that such trips started and ended, and travel speed

Surveillance Use Policy – BART Research – Data Collection & Usage for Research & Learning

- Trip purpose, mode of travel, or demographics
- Images, audio recordings, or videos
- Payment data (e.g., for fares, parking, etc. Payment data may include serial numbers, entry/exit stations, timestamps, and/or fare products loaded or used. It will not contain credit card or bank account details.)
- Self-reported survey data
- Incentives awarded or redeemed

Any data collected in the surveys must be used and handled pursuant to this policy. Survey data shall not be used for personal purposes or to follow any individual or group without probable cause or a court order. Data shall not be used to intentionally violate anyone's right to privacy; and shall not be used to harass, intimidate, or discriminate against any individual or group.

Consent statements will delineate the data to be collected, their potential uses and BART/Research Partner mitigations to protect respondent privacy, and will be disclosed in BART's Annual Surveillance Report.

D. Data Access

This section should include: The individuals (as a category) who can access or use the collected information, and the rules and processes required prior to access or use of the information.

- Access to survey data collected through any method described in Section A is limited to BART Research staff and the department manager.
- If BART partners with another agency, e.g., MTC's Travel Survey, access to the data may be limited by the standards and policies of the partner agency.
- Cloud-based research platforms that BART use have access to research data. Security aspects of research software are subject to review by the OCIO to protect data security.

E. Data Protection

This section should include: The safeguards that protect information from unauthorized access, including encryption and access control mechanisms.

- BART's computer systems will be properly secured and maintained, including ensuring that security patches, upgrades, and anti-virus updates are applied as appropriate.
- Any files containing PII will be stored on secure BART computers and will not be stored in an unencrypted format on any portable media.
- Qualtrics, the current online survey software used by BART, deploys their own [security](#) and [privacy policy](#) to protect customer data.

F. Data Retention

This section should include: The time period, if any, for which information collected by the surveillance technology will be routinely retained, the reason such retention is regularly deleted after that period lapses, and the specific conditions that must be met to retain information beyond that period.

- Research data may be retained on District computers for as long as the data are required for research, learning, and ridership development.
 - Going back to previous surveys may help BART understand if travel behavior has changed due to extraneous factors, e.g., housing crisis, employment shifts, gasoline price changes, etc. The ability to recontact past respondents can help track trends over time.
- Online survey platforms may retain data for the duration of their agreements with the District.

- Upon termination of services, survey platforms will retain data for a short amount of time to allow download of data.

G. Public Access

This section should include: How collected information can be requested by members of the public, including criminal defendants.

Requests for information under the California Public Records Act should be filed with the Office of the District Secretary. Email records@bart.gov. Phone (510) 464-6080, Fax (510) 464-6011. Mail Public Records Request c/o District Secretary BART 300 Lakeside Drive 23rd Floor Oakland, CA 94612.

PII will not be disclosed unless such disclosure is required by law or court order.

H. Third Party Data Sharing

This section should include: If and how other BART District or non-BART District entities can access or use the information, including any required justification or legal standard necessary to do so and any obligations imposed on the recipient of the information.

BART research data will not be shared with any third party unless such disclosure is required by law or court order, or if shared under an agreement that ensures that the requirements of this document are met. For example, BART may transfer selected data to consulting firms or governmental organizations to use for travel modeling or environmental impact assessment, providing that data handling and security requirements are met. In cases such as these, where data at the individual record level are required for analysis, the third party will be required to either be under contract with BART, or bound by a Non-Disclosure Agreement (NDA) with BART. Such contracts and NDAs will require adherence to provisions of this Surveillance Use Policy and associated Surveillance Impact Report.

In other cases, BART may help fund or participate in market research projects where other agencies or organizations lead the data collection effort and therefore BART is not able to fully control the wording of the respondent consent statement or other aspects of the project. In such cases, BART will make best efforts to have the third party conform with the provisions of this Policy, and BART will disclose the consent statement wording in its Annual Surveillance Report.

I. Training

This section should include: A summary of the training required for any individual authorized to use the surveillance technology or to access information collected by the surveillance technology.

Access to confidential data is tightly limited, and authorized users are provided with adequate guidance to implement this policy. BART will appoint a staff person to train research staff, including proper use of consent statements, NDAs, and secure storage of data.

J. Auditing and Oversight

This section should include: The mechanisms to ensure that the Surveillance Use Policy is followed, including internal personnel assigned to ensure compliance with the policy, internal recordkeeping of the use of the technology or access to information collected by the technology, technical measures to monitor for misuse, any independent person or entity with oversight authority.

BART Research will assign a staff person to monitor compliance with the provisions covered in this document, as well as reporting via the District's "Surveillance Annual Report."

Surveillance Impact Report

BART Research

Data collection & usage for research and learning

BART Research

OEA-BMRDDCU-SIR-06

21 Day BART Board Notice – Feb. 7, 2019

15 Day Public Notice – Feb. 13, 2019

BART Board Meeting – Mar. 14, 2019



This report covers a range of current and future research methodologies that may fall under the District Surveillance Ordinance. Participation in BART surveys, focus groups, or other research conducted by BART that make use of PII (Personally Identifiable Information) is strictly voluntary, and any locational information collected is used for research purposes only.

A. Information describing the proposed surveillance technology and how it generally works.

1. **Research panels:** BART invites randomly selected customers to opt-in / volunteer to participate in future research and keeps contact information on file (e.g., email addresses or phone numbers) to contact those individuals in the future. After a customer has volunteered to participate in research, they can opt-out at any time.
2. **App-based research:** BART may occasionally recruit people to participate in app-based surveys such as travel diaries that use Location Services to automatically trigger survey invitations and/or to collect respondent trip data. This may be done by BART alone, in partnership with other regional agencies such as the Metropolitan Transportation Commission (MTC), and/or by a research supplier selected by the District. Tracking of respondent location is only done with the respondent's permission prior to any location tracking.

Types of trip data automatically collected in an app can include location, speed, and time. Participants may also be invited to answer standard survey questions such as trip purpose, travel modes used, mode they would have used if usual mode is not available, satisfaction ratings, as well as demographics.

With some surveys, locational data may also be used to trigger survey questions that are specific to the location a respondent is traversing. For example, locational data could be used to invite respondents to provide "in the moment" ratings of the cleanliness of a particular station while they are walking through it. This can enhance the accuracy of their ratings.

3. **Collecting information through payment media:** BART may analyze ridership or payment data, e.g., from BART tickets or Clipper cards, for research purposes. For example, BART may request ticket or Clipper serial numbers from respondents in order to analyze rider travel patterns or to measure the effectiveness of District initiatives (see example on the next page). (Note that payment data may include serial numbers, entry/exit stations, timestamps, and/or fare products loaded or used. It will not contain credit card or bank account details.)

QUESTION 1 (Clipper Example)

BART is studying travel patterns of riders and their usage of Clipper cards*. We are offering a **\$5 Amazon.com** gift card to the **first 200 riders** who agree to participate in the study and provide us with their valid Clipper card number.

Are you willing to participate by providing your Clipper card ID number?

Yes

No

**BART Research will access a limited amount of Clipper data (for up to 18 months of Clipper card use, including entry/exit BART station, entry/exit date and time, and fares paid) for those who answer "Yes". These data will not include any personal financial information (e.g., credit card or bank account details). The data will be used solely for market research purposes and aggregated for reporting. Personal travel data will not be reported publicly and will not be sold or traded for any purpose.*

BART uses security measures to protect against unauthorized access, alteration, disclosure or destruction of customers' personal information.

QUESTION 2 [administered to those who answer "Yes" in Question1]

Please enter the Clipper Card ID number* in the box below to receive a \$5 Amazon.com gift card.**



**Fine print: By entering your Clipper number, you agree to allow BART Research to access a limited amount of Clipper data on your BART trips for up to 18 months (entry/exit station, entry/exit date and time, and fares paid). These data will not include any personal financial information (e.g., credit card or bank account details). The data will be used solely for market research purposes and aggregated for reporting. Personal travel data will not be reported publicly and will not be sold or traded for any purpose.*

4. IP / Location Stamps: Software used by BART to administer surveys may collect respondents' IP (Internet Protocol) address and/or Location Data at the time of taking survey. All surveys taken using Qualtrics (which is the current online survey platform that BART uses) automatically collect these data when a survey is taken. Survey methods include:

- Online surveys
- Embedding survey link in website
- Pop-up intercept surveys
- QR code surveys
- App surveys
- SMS surveys
- Other survey methods that BART may adapt in the future

Currently IP and/or location data are deleted in BART’s files, but these data may be used in the future for data validation or quality control purposes. For example, for “in the moment” ratings of cleanliness inside BART stations, BART could check location data to see if it matches locations reported by survey respondents.

5. **Collecting image data:** In some research, BART may utilize image data. For example, BART could ask survey respondents to take pictures or videos to document the reason behind a low cleanliness rating. Also, BART may use audio and/or video recording to record focus group or in-person interviews as a resource to use when preparing a report afterwards or for quality control purposes. In these cases, participants are always clearly informed at the start of a session and can opt-out if they are not comfortable with being recorded.
6. **Utilizing third party research data:** BART may obtain research data from third parties for research purposes. For example, other organizations may provide BART with data, or BART may purchase data, to study travel markets or predict ridership on future extensions or connections to BART. Such data is subject to the policies of the organization providing the data.

All data collected via the methods described in this section (Section A) are subject to the “Surveillance Use Policy,” submitted with this “Surveillance Impact Report.”

B. Information on the proposed purpose(s) for the surveillance technology.

The research techniques discussed above serve the following purposes:

- Provide market information and metrics to help inform District decisions related to strategic planning, budget priorities, station access policy, marketing strategy, and other areas.
- Facilitate faster and less expensive data collection by eliminating the need to manually enter survey results.
- Expand research capabilities using real time and location-based mobile technologies.
- Facilitate “in the moment” ratings of BART facilities to improve rating accuracy, and image data that help explain the reasons for ratings.
- Facilitate the study of nonrider travel patterns.
- Facilitate use of research panels to detect changes in travel patterns over time.

C. If applicable, the general location(s), it may be deployed.

N/A

D. Crime statistics for any location(s), if the equipment is used to deter or detect crime.

N/A

E. An assessment identifying any potential impact on privacy rights and discussing any plans to safeguard the rights of the public.

BART has received the following statement from a privacy advocacy organization regarding this Impact Report:

“In 2013, Edward Snowden and other data experts introduced to the general public the concept of ‘meta data,’ individual data points such as phone number called and time of day. Using a simple homemade app that captured only these data points (and never the content of the phone calls), Stanford lawyer and computer scientist Jonathan Mayer was able to accurately identify 80% of the volunteers in his study, using only open source databases such as Yelp, Facebook, and Google. Among the many individuals he identified, he successfully identified a woman that had an abortion, another woman that had cancer, and a man collecting guns and growing marijuana in his home.

Today, data scientists can accurately identify over 95% of individuals based solely on 4 geospatial (time, location) data points. Human are creatures of habit, typically driving the same way to work, our house of worship, and our neighborhood grocery store. Current attempts to ‘de-identify’ or anonymize data are insufficient, due to modern day computing power and the sheer collection of data points available from public and private sources.”

In recognition of these concerns, BART has taken the following steps to mitigate any perceived risk inherent in collecting these data from its customers, including but not limited to:

1. Limiting use to market research
2. Restricting third party access
3. Restricting BART employee access to a select few
4. Retaining data only as long as necessary
5. Fully informing potential participants prior to seeking their consent

BART takes precautions to ensure that PII (Personally Identifiable Information) is protected from inadvertent public disclosure. Precautions include:

- Providing BART survey respondents with opt-in and opt-out capabilities to ensure that participation is strictly voluntary;
- Storing survey data in a protected directory only available to the research team and the OCIO; and
- Aggregating and summarizing research information related to names, addresses, emails, Clipper serial numbers, or locational data, or stripping data of PII (including blurring image data to protect privacy), prior to public release.

PII will not be disclosed to the public unless such disclosure is required by law or court order.

BART research is subject to BART’s Surveillance Technology Ordinance and a specific Surveillance Use Policy that has been publicly noticed and presented to the BART Board for approval.

F. The fiscal costs for the surveillance technology, including initial purchase, personnel and other ongoing costs, and any current or potential sources of funding.

Staff and direct costs associated with the types of research discussed in this application vary over time. Current costs include approximately \$90,000 in staff time and approximately \$30,000 in annual fees for online survey software. BART is considering working with MTC on a household travel survey project that will employ locational data. The cost

to BART to increase sample sizes in the BART service area, and to revise the survey as needed, is expected to be under \$100,000.

G. Whether use or maintenance of the technology will require data gathered by the technology to be handled or stored by a third-party vendor on an ongoing basis.

Some BART research data will be handled and stored by a third party, e.g., when using cloud-based survey software for online surveys. See Surveillance Use Policy for specifics.

H. A summary of alternative methods (whether involving the use of a new technology or not) considered before deciding to use the proposed surveillance technology, including the costs and benefits associated with each alternative and an explanation of the reasons why each alternative is inadequate or undesirable.

Adaption of new research technology is expected to increase speed and accuracy of data collection/reporting while reducing cost. BART uses survey technologies to improve survey accuracy, expand reach, and reduce reliance on paper and staff time. There are no known alternative methods that achieve these objectives.

For example, travel diary participants could be asked to manually fill out complex and lengthy forms to record all trips taken by members of their household during a given week. However, the forms would be quite burdensome, and respondents may fail to recall some of the trips they took or may leave out other important information.

Another example: Instead of establishing random on-line research panels, BART could conduct more surveys on-board trains. But the on-board surveys are much more expensive and time consuming. While the on-board surveys provide accurate information about the on-board passenger experience, ratings of stations can be subject to memory lapse, and it doesn't facilitate the study of changes in passenger travel patterns over time.

I. A summary of the experience, if any is known, other law enforcement entities have had with the proposed technology, including information about the effectiveness, any known adverse information about the technology such as unanticipated costs, failures, civil rights or civil liberties issues.

BART is not aware of any such adverse impacts of the research methodologies outlined in this report.