# EcoA Research Nutshell
## Market research made easy

*Quick-and-dirty background info and a glossary of terms to help you find your way in the not-uncomplicated world of public opinion research.*

## What is public opinion research?

Public opinion research helps us understand the opinions, behaviours, or preferences of different groups (and their influences) at a given moment. It can also help us to track trends over time using quantitative methods, qualitative methods, or a combination of the two. With it, we can identify trends and narratives, and which frames best resonate with the public on specific issues. On a practical level, this information can be used to:

- Inform communications and engagement strategy by highlighting the issues relevant to its existing supporters or new target audiences.

- Inform the public conversation around support for specific policies.

- Meet audiences where they are by understanding their concerns and preferences.

- Identify the barriers to engaging specific demographic groups or audiences, and figure out strategies to clear them.

- Pinpoint narrative frames and messaging that resonate best with specific audiences.

> *A customer journey can reveal how people make connections between ideas.*

## What are the main types of public opinion research?

**Quantitative research methods** analyze data collected through polls or surveys in order to identify general patterns of opinion across groups or populations. They are especially useful for large-scale analyses. For example, EcoAnalytics Climate of Change Surveys, Panoramic Surveys.

In contrast, **qualitative research methods** collect information through in-depth conversations (interviews, focus groups, and customer journeys, etc.) with a select group to understand individuals' ways of thinking about an issue or product (views, attitudes, and motivations).

**Mixed-method research** employs a combination of qualitative and quantitative approaches. In EcoA research, we have used mixed methods with qualitative tools like focus groups as exploratory research, followed by quantitative surveys to test the findings on larger samples and identify trends over time. An example is Environics COVID research in 2020–2021, which combined focus groups and omnibus surveys.

## Glossary (some terms used in EcoA's analytical briefs and webinars)

**Customer journey:** A qualitative method used in market research to explore the customer's full experience using a product, or concept. Instead of focusing on a single activity (like their opinion of a single policy), customer journey follows a respondent's throughout their experience by prompting them to envision the goal of a journey and the steps for how to get there. Because it's an in-depth individual exercise, it is possible to gauge how participants react to both "positive" and "negative/critical" information or framing provided to them. Moreover, a customer journey allows researchers to identify how people think about policies or make connections between ideas, especially to understand preferences or barriers. For example, Environics research on the just transition.

**Focus groups:** A qualitative research method for collecting qualitative data through controlled interviews and interactive discussions where participants are selected based on a set of demographic indicators (such as age, location, gender). Focus groups are used to assess participants' reactions, opinions, or preferences in an open-ended way (in contrast to a survey with a set of answers and no opportunity to gauge the respondents' reactions, the way they word their opinion, etc.). Focus groups allow researchers to ask follow-up questions, and conduct either guided or open-ended discussions. For example, Environics COVID research, 2020–2021.

**Latent Class Analysis:** A statistical modelling technique that identifies latent (otherwise hidden) clusters of shared belief or opinion within a population. For example, using LCA in our 2018–2019 values and behaviour research, we identified three clusters of opinions about solutions to the climate crisis among a group of roughly 2,700 supporters of Canadian non-profit environmental groups: Radicals, Reformers, and Lifestylers.

**Conditional probabilities:** These represent the probability (from 0–1) of a particular response based on the cluster to which one is assigned via latent class analysis. For example, in the EcoAnalytics research on who Canadians blame for climate change, Lachapelle found that the probability of a person blaming fossil fuel companies for causing climate change, conditional upon being classified as Radical, is 82%, while the comparable figure for a Rejector is 10%. Or, put differently, if you were to randomly meet 100 Radicals, about 82 of them would hold this position; whereas among 100 Rejectors, 10 would have this point of view.

Figure 1. Effect of vote choice on recovery preferences, conditional on gender



**Multivariate regression analysis:** A statistical tool used to examine a series of variables to determine which best predicts a particular outcome (e.g. support for a green recovery). For example, in EcoA research on a Green Recovery, MRA allowed us to measure the probability of support for a green economic recovery based on predictors such as vote choice and gender. That is, how do gender and vote choice affect support for a green recovery? We learned that women Conservatives were more likely to support a green and just recovery than their male counterparts (see figure 1).

**Margin of error:** This indicates how close the results of a survey are to something known as the "real population value". A poll only surveys a sample of the population, so the results won't be exactly the same as what we would get if the whole population were interviewed: i.e. the real population value. You might see the phrase "Based on a sample of this size, the results can be considered accurate to within ±3%, 19 times out of 20". That means that if the study were repeated again 100 times using the same methods, the results would fall within 3% of the real population value 95 times out of 100. For example, a survey might show that 33% of the population supports the NDP. With a margin of error of 3%, we can expect the "true" number of people in the general population who support the NDP to fall between 30–36%.

**Non-response bias:** This means that a subset of the population is underrepresented in the sample due to an unwillingness or inability to participate in the survey. For example, this might be the result of how respondents are reached (if youth don't use land lines, they can't answer the survey), the questions asked (people may not answer questions on sensitive issues honestly), or ideological bias.

**Psychographic measures:** Personal psychological characteristics such as goals, choices, values, beliefs, or opinions. (Demographic measures, by contrast, capture physical or socio-economic characteristics, such as age, income and education-level.) For example, in EcoAnalytics research on a green and just recovery, we looked to see whether particular psychographic variables were predictive of attitudes towards pandemic-relief spending. We found that attitudes about government redistribution programs and the perception of government efficacy were the two most important predictors of whether an individual would support a green recovery (see figure 2, next page).
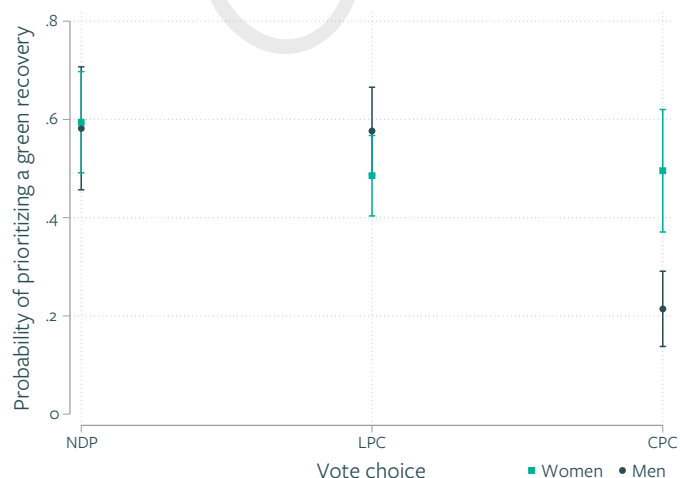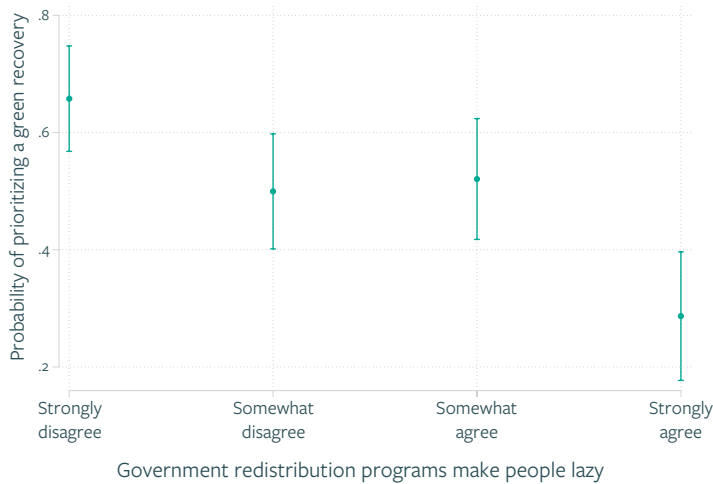
**Figure 2. Effect of attitudes toward government redistribution on recovery preferences**



**Quotas:** Targets for collection methods or demographic representation. For example, a survey of 1,000 Canadians might have a quota of 500 to be reached by mobile phone and 500 by land-line.

**Random-digit dialing (RDD):** A technique used for generating random telephone numbers and thus creating the sample for a survey. As the numbers are generated randomly, the sample includes anyone with a phone number, does not rely on publicly available listed numbers or third-party lists, and doesn't require that the researcher gain access to existing telephone lists.

**Random sample:** Most simply, a subset of a statistical population in which each member of the subset has an equal probability of being chosen (so no one group is systematically excluded). As a result it constitutes an unbiased representation of that population.

**Representative sample:** This represents or reflects the population that is being studied. Having a representative sample is important because it ensures that the results of the study can be generalized to the rest of the population. For example, if we're looking to understand what workers in the Alberta oil patch think about a just transition, but we recruit ENGO supporters exclusively, the sample will likely not be representative of the targeted population. Similarly, groups may be under-represented if they're less willing to answer surveys, which leads to sampling bias and inaccurate results.

**Response rate:** The number of eligible people who respond to a poll divided by the number of people in the sample.

Historically, there's been an assumption that the higher the response rate, the more accurate the survey results. According to the American Association of Public Opinion Research (AAPOR), though response rate calculations have been standardized, "the relationship between response rates and survey quality has become much less clear." Response rates will vary depending on interest, the length of the survey, or how the survey is conducted: e.g., by mobile phone, land-line, or web.

**Sampling frame:** A complete list of individuals in the target population. For example, it could be adult Canadian citizens living in Toronto. This list must include the individuals targeted (only adult citizens in the city), exclude anyone outside that population (children, and any adults in Toronto who are not citizens, or any adults living outside of Toronto), and include information about how these individuals are to be contacted. For example, a voter registration list might not be adequate as would some new voters, and other adult citizens who may not be registered. On the other hand, a telephone land-line would likely reach a broader proportion of the population. However, the frame might still not reach certain groups, leading to **undercoverage** (certain groups being underrepresented in the sample). This is the case with land-lines, as researchers have found that younger respondents are less likely to have one. **Dual-frame (or multi-frame) sampling** is used in that case: i.e., land-lines and mobile phones.

**Segmentation:** Categorizing people in relatively homogenous groups based on demographic characteristics (e.g. age, gender) and psychographic characteristics (attitudes, values, media use, lifestyles, etc.). This analytical tool allows communicators to tailor and target messages based on unique characteristics of subgroups.

**Stratification:** Dividing a population into subgroups, or strata, from which a new sample can be drawn and analyzed. A population can be stratified by region, gender, or income, and so on, then further analyzed by subgroup. For example, researchers might want to examine attitudes towards pipelines among Quebecers and analyze the preferences and values of women within that group.

**Weighting data:** This technique allows researchers to improve the accuracy of polling results by correcting for sampling errors (over- or under-representation of certain groups), or compensating for low response rates.