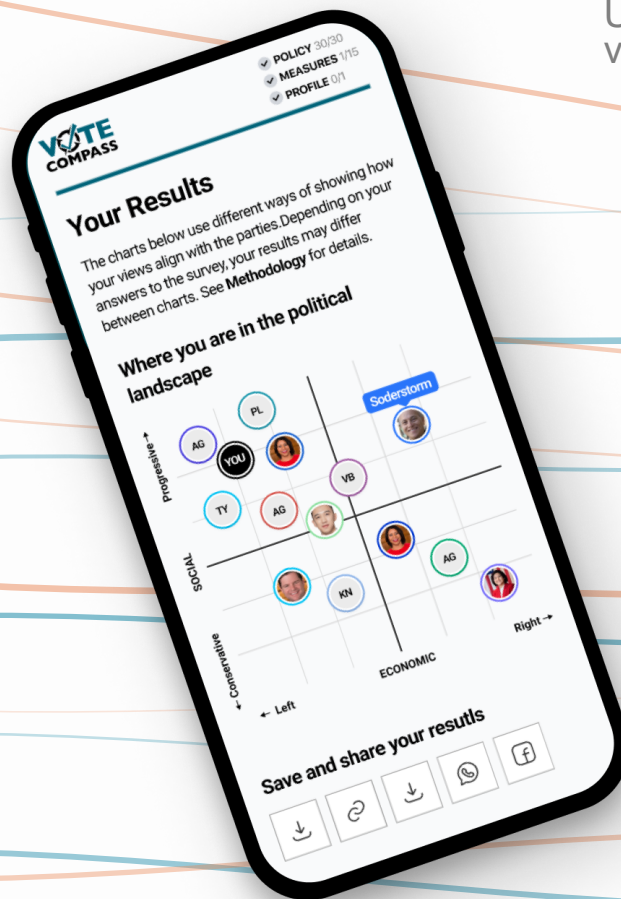


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Vote Compass Methodology

Version 2025.1

Last update: October 2025



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Summary

This document presents the purpose, design, and methodology of Vote Compass, an online tool designed to foster voter engagement. Its central aim is to promote electoral literacy and encourage public participation by helping users explore how their political views align with those of parties or candidates during election campaigns. The document details the process of question selection, the methods used to determine party and candidate positions, and the rigorous calibration and consultation procedures that ensure accuracy and impartiality. It also outlines the statistical techniques employed to distill complex political beliefs into a coherent set of ideological dimensions, enabling meaningful comparisons between users and political actors.

1 Understanding Vote Compass

1.1 What is Vote Compass?

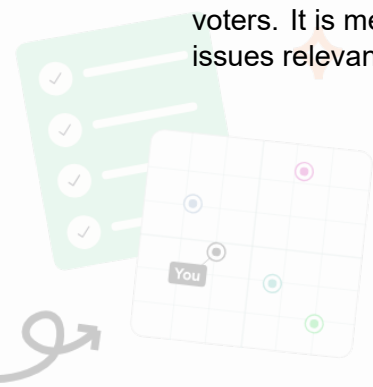
Vote Compass[®] is a voter engagement application. Its objective is to promote electoral literacy and public participation during election campaigns. Based on a user's survey responses on a series of propositions reflecting salient aspects of the campaign discourse, Vote Compass calculates the alignment between the user's personal views and the positions of the political parties/candidates. It has been deployed in numerous countries around the world for a wide range of elections at various levels of government (see Table 1). Party positions are determined by way of a comprehensive review of public statements made by party officials on the topics included in Vote Compass. Each of the parties included in Vote Compass is directly consulted throughout this process and invited on multiple occasions to review the findings and provide feedback.

1.2 Who is responsible for Vote Compass?

Vote Compass is developed by the team of social scientists and data scientists at [Vox Pop Labs](#), an independent, non-partisan social enterprise founded and operated by academics. Neither Vote Compass nor Vox Pop Labs are affiliated with any political organization or interest group.

1.3 Does Vote Compass tell me how to vote?

No. Vote Compass results are not intended and should not be interpreted as voting advice, nor as a prediction as to which candidate a given user intends to vote for. Every eligible voter decides for themselves which party is most appropriate to represent them based on variant criteria, not all of which are included in Vote Compass. The focus of Vote Compass is on public policy issues and how the candidates differ on these issues, both among themselves and in relation to individual voters. It is meant to serve as an entry point into an examination of parties differ across a suite of issues relevant to a given election campaign.



1.4 What is Vote Compass *not* designed to do?

Vote Compass attempts to capture the complex information environment of an election campaign in a relatively brief survey with a finite set of questions. This simplification is necessary to allow the tool to be offered online to the general public. The aim of Vote Compass is to give users a sense of their position within the electoral landscape in a relatively short time; it is not to assess users' alignment with parties and candidates on every possible policy issue. In an ideal scenario, a more comprehensive tool would include a greater number of statements and finer-grained distinctions. However, such complexity would compromise accessibility and usability for a general audience, undermining the tool's core purpose. By design, Vote Compass simplifies political content to ensure broad engagement, yet it remains effective in reliably assessing users' policy preferences and aligning them with party or candidate positions.

Furthermore, to facilitate meaningful comparison, Vote Compass has established standard approaches to survey-based measurement by which to evaluate and contrast the policies of political parties. We acknowledge that most political issues are more complex than can be fully captured on a five-category survey response scale. However, by reducing this complexity, the tool makes policy positions more accessible and enables a more accurate proximity estimate between users and parties. The five-point scale also allows users to qualify their responses beyond a simple "Yes" or "No." For instance, selecting "somewhat agree" expresses a sentiment akin to "Yes, but...", while "somewhat disagree" suggests "No, but...". Users can similarly indicate ambivalence (or indifference) on a policy issue by providing a midpoint "Neutral" response. This added nuance helps preserve the richness of user opinion while preserving the usability necessary for Vote Compass to reach a broad audience.

1.5 Who does Vote Compass partner with?

Vote Compass works in partnership with organizations around the world to make the tool available to the voting public. Past editions of Vote Compass have been developed in partnership with the CBC and Radio-Canada in Canada, the ABC in Australia, the New Zealand Electoral Commission – *Te Kaitiaki Take Kōwhiri*, and GoodPower and the San Francisco Chronicle in the United States.









1.6 How do my responses to Vote Compass get used?

During an election campaign, researchers at Vox Pop Labs use the thousands of responses from Vote Compass to understand where the voting public stands on important issues and how voters respond to events during the campaign. These analyses are made available to the public through our media partners.

Following an election, Vox Pop Labs engages in research collaborations with academics around the world to produce research that aims to understand election campaign dynamics, voting behaviour, and public opinion on important policy issues. To date, Vote Compass data have been used in more than 20 peer-reviewed articles and book chapters that have been more than 600 times.

As a voter engagement tool, Vote Compass is *not* a traditional election poll. Its primary objective is *not* to make an estimate or forecast of the electorate's voting intentions or the results of an election.

Table 1. Previous Vote Compass editions

Country	Type	Years
 Canada	Federal Election	2011, 2015, 2019, 2021, 2025
	Alberta Provincial Election	2012, 2015, 2019, 2023
	British Columbia Provincial Election	2013, 2017, 2020
	Manitoba Provincial Election	2016, 2023
	New Brunswick Provincial Election	2018
	Newfoundland Provincial Election	2021
	Nova Scotia Provincial Election	2021
	Ontario Provincial Election	2011, 2014, 2018, 2022
	Quebec Provincial Election	2012, 2014, 2018, 2022
	Saskatchewan Provincial Election	2016, 2020
	Hamilton Municipal Election	2022
	Toronto Mayoral Election	2014, 2018
	Toronto Mayoral By-Election	2023
	Toronto Municipal Election	2022
Quebec Youth Edition	2018	
 Australia	Federal Election	2013, 2016, 2019, 2022, 2025
	New South Wales State Election	2015
	Queensland State Election	2015
	Victoria State Election	2014
 United States	Presidential Election	2012, 2016, 2024
	San Francisco Mayoral Election	2024
 Brazil	Federal Election	2018
 France	Presidential Election	2017
 Germany	Federal Election	2017
 New Zealand	General Election	2014, 2017, 2020, 2023
 United Kingdom	General Election	2024

It is important to note that all analyses of Vote Compass data are at the aggregate level only, and individuals' responses are never disclosed. Full details of the Vox Pop Labs [Privacy Policy](#) are available online.

2 Development and design

2.1 How are questions selected?

Development of the Vote Compass questionnaire starts with a content analysis of the policy issues that figure most prominently in the platforms and public statements of the major political parties or candidates, and in the general media discourse.

While the final Vote Compass questionnaire typically includes approximately 30 questions, many more candidate questions are tested in pilot studies. These pilot studies collect data from a demographically representative online sample of approximately 1,000 (or more) voting-eligible adults in the jurisdiction of the election, and can include as many as 100 candidate questions.

The selection of questions for the final Vote Compass questionnaire is determined by multiple factors. A key factor is the ability of a survey question (as shown in the pilot study) to differentiate between parties or candidates and among voters. Questions that produce (near-) consensus responses or that deal with "valence issues" about which all parties agree might be politically salient but are not ideal for inclusion in Vote Compass as they do not distinguish between parties or their supporters.

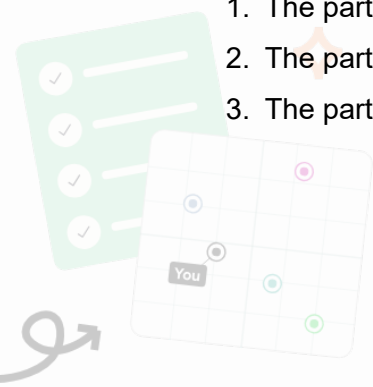
Another key factor is the accessibility and comprehensibility of the question itself: it must be readily understood by the voting public. As a general rule, good survey questions (whether in a voter engagement tool or elsewhere) are *clear*, *specific*, and *brief*. Questions that deal with highly technical policy issues, that require lengthy explanations before soliciting a response from users, or that generate high levels of non-response (as determined in the pilot study) are not well-suited to Vote Compass.

The final questionnaire must also reflect the breadth of policy issues that are at play in the upcoming election.

2.2 Which parties or candidates are included in Vote Compass?

As a general principle, all political parties or coalitions of political parties with at least 5 per cent national support in recent, recognised and published independent polls are included in Vote Compass if they meet the following criteria:

1. The party is registered under the relevant electoral authority.
2. The party is likely to field candidates in a majority of constituencies.
3. The party has a fully developed policy platform.



Sitting office-holders who are not endorsed by a political party that is included in Vote Compass (i.e., independent candidates) and who are recontesting their seat are invited to participate. Where they have declined to participate, this is reflected in Vote Compass.

2.3 How are party and candidate positions determined?

Party or candidate positions in the Vote Compass questionnaire are derived from the parties' or candidates' publicly-available statements. The Vote Compass research team undertakes a comprehensive review of party or candidate documents, including manifestos, election platforms, websites, speeches, press releases, legislative debates, and statements to media, in order to impute an accurate representation of parties' or candidates' stances on the policy issues explored in Vote Compass.

Preference is accorded to public statements that are recent; come from either the parties or candidates; and are directly relevant to the policy issue in question. Specifically, public statements are prioritized by date in the following order:

1. Election platforms
2. Official policy documents
3. Statements from the candidates or press releases from the party or candidate
4. Statements from Cabinet Ministers or party critics for the policy domain in question (Parliament transcripts, speeches, media, etc.)
5. Statements from other elected party or candidate representatives
6. Party constitution; member-passed resolutions

Within these guidelines, allowances may be made for statements that most closely represent a party's or candidate's position on the exact phrasing of a particular Vote Compass proposition. This calibration process is followed by a consultation with the parties and/or candidates themselves. These two steps are described in more detail below.

2.3 Calibration process

Based on the collected public statements, researchers from the Vote Compass team are assigned to code or calibrate a given party's or candidate's positions on each of the final questions included. To ensure inter-coder reliability, the researchers initially undertake this task separately and subsequently compare results for consistency. All response categories are presented as Likert-type (or rating) scales. Each level of policy position is based on explicit guidelines:

- **Strongly dis-/agree, much less/more, many fewer/more, much harder/easier:**
The party clearly emphasizes the issue in question and does not place any conditions, qualifications, or restrictions on its position.
- **Somewhat dis-/agree, somewhat less/more, somewhat fewer/more, somewhat harder/easier:**

The party does place conditions, qualifications, or restrictions on its position; or emphasizes only part of the proposition.

– **Neutral, about the same as now:**

The party addresses the issue without consistent argumentation in favour or opposition; defers taking a position; and/or mentions the issue indirectly.

Calibrations on questions pertaining to taxes and spending are based on support for nominal change. In the event that a party or candidate supports an increase or decrease in taxes or spending that was passed in a prior sitting of the legislature but has yet to come into effect, this is still considered support for a nominal change.

To ensure that the results of this process are transparent for users, all party and candidate positions and supporting public statements (with URLs) are made available in the Vote Compass tool under “*You vs. Party*” and “*Party vs. Party*” on the results page. This information enables users to compare their own responses to those of the parties or candidates, and to delve deeply into party or candidate platforms and public documents.

2.3 Consultation with the parties and candidates

In a next step, Vote Compass consults with the political parties or candidates themselves. Parties or candidates are first sent a copy of the Vote Compass questionnaire, and invited to position themselves on the initial list of questions. Upon receipt of a completed questionnaire, Vote Compass reconciles the party’s or candidate’s self-placements with the calibrations determined by the research team coders.

In the majority of cases, the calibrations from the party or candidate and the Vote Compass research team are in agreement. If discrepancies exist, Vote Compass sends the party or candidate a reconciliation report outlining the confirmed calibrations and the disputed ones across the final Vote Compass questionnaire. All discrepancies are flagged and justified with the party’s or candidate’s public statement collected by the research team which supports the calibration proposed by Vote Compass.

The party or candidate is able to respond to each disputed calibration by clarifying its position and providing alternate public statements which support its self-placement on the issue in question. In cases where the party or candidate provides relevant policy statements which conclusively accord with its self-placement, Vote Compass will reposition the party or candidate on this issue.

Where discrepancies are not resolved by this process, the disputed placements are sent for deliberation and final ruling to the Vote Compass Advisory Board, comprised of well-established scholars in electoral politics. Parties or candidates are then sent final calibrations for review. They are able to dispute these calibrations and supporting public statements throughout the entire run of Vote Compass.

If a party’s or candidate’s stance on an issue changes or if a party or candidate wishes to provide

additional official documentation not considered during the reconciliation process, we will revisit the appropriate calibration to determine if a change is warranted. Whatever the reason, we encourage parties and candidates to consult with us over the course of the election campaign if necessary. Every effort is made throughout the electoral campaign to ensure the accuracy of party and candidate calibrations based on their publicly available statements.

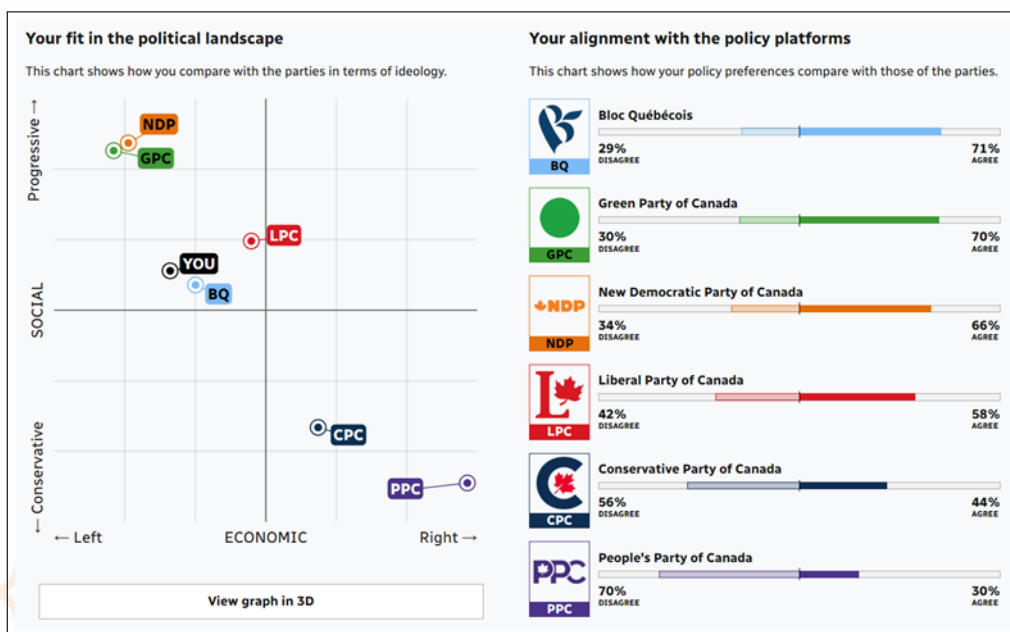
3 Vote Compass results and user reports

3.1 What do results look like?

The Vote Compass results interface is designed to provide users with a clear, multidimensional understanding of their political alignment. It features two primary visualizations, each offering a distinct lens through which users can interpret their responses and compare them with those of political parties or candidates.

The first of these is a multidimensional graph that situates the user and various parties or candidates within an abstract, multi-axis political space. It captures ideological proximity by plotting positions based on users' and political actors' aggregated responses. Each axis typically reflects core political dimensions, such as attitudes toward economic regulation or social values, enabling users to see where they stand in relation to others across the broader political landscape. The second is a bar graph that displays a user's level of agreement with each party or candidate across multiple issues. See Figure 1 below for an example.

Figure 1. Positioning in the political landscape



Note. Example taken from the 2025 Canadian Federal Election Vote Compass.

3.2 Why do the charts show different results?

The consequence of using multiple measures is that there will occasionally be disagreement between the party or candidate that appears “closest” in the political landscape and that which appears “closest” on the bar graph. One reason for this is that these graphs are representations of different concepts. It is also because there is no perfect measure of political distance, either ideologically or on individual issues.

In a public tool of this nature, it is necessary to recognize the compromise between increased methodological sophistication and the ease with which a method can be understood by the public. The use of multiple measures admits as much. It is an acceptance of the reality that the political world—both among politicians and the public—is complex. But it is this complexity that makes politics so lively and contentious, and why successful policies and politics often require great imagination from the public and their political representatives.

The purpose of Vote Compass is therefore to encourage users to think through this complexity; to learn where parties and candidates stand on the issues and the reasons why they do so; and to raise the level and quality of political information among the public more generally.

For these reasons we encourage all users to read through the accompanying documentation on the Results page that shows how and why the parties and candidates were “coded” as they were on issues.

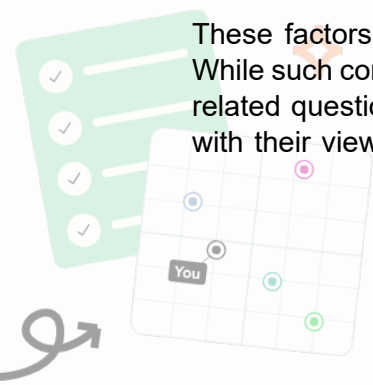
4 Representations of the political landscape

Vote Compass positions users and political parties within a conceptual political space based on their responses to the Vote Compass questionnaire. Each Vote Compass survey question is an indicator of one or more underlying ideological dimensions. These underlying dimensions are derived through empirical analysis of survey data that are also informed by social scientific theoretical frameworks. The aim is to identify where individuals and parties stand in a simplified but meaningful representation of the political landscape.

4.1 Data reduction through factor analysis

The questions included in Vote Compass are designed to reflect the complexity of political belief systems as well as the range of issues that exhibit differentiation between political parties. To represent this complexity in a more manageable and interpretable form, statistical methods are employed to reduce the number of dimensions. Factor analysis is used to achieve this goal. Factor analysis is a technique that identifies a finite number of underlying dimensions — or factors — that account for patterns in the way people respond to survey questions.

These factors represent abstract concepts such as economic ideology or social conservatism. While such concepts cannot be observed directly, they manifest in consistent ways across multiple related questions. For example, someone’s stance on environmental regulation might correlate with their views on climate change, energy policy, and international environmental agreements.



Factor analysis leverages these correlations to estimate individuals' scores on these underlying dimensions.

Each question's contribution to the overall score on a given dimension (or factor) differs. Questions that are strongly associated with a particular dimension carry more weight in positioning individuals along that dimension, while those with weaker associations have a smaller influence — i.e., *factor loadings* vary across survey questions. This weighting (estimation of factor loadings) is determined by analyzing the pilot survey data. The result is a simplified, interpretable space that can be used to locate political attitudes clearly and consistently.

Additional information on factor analysis

See section 6.1 in the technical appendix.

4.2 Statistical modeling of latent positions

Once the relevant ideological dimensions have been identified through factor analysis, another model is used to estimate individual positions on each dimension. This is done through a statistical framework that treats responses to survey questions as ordered choices, such as levels of agreement or disagreement. The model assumes that each individual holds an internal position on each latent dimension, and this shapes the probability of selecting certain response options.

This statistical approach falls under the category of ordered response models, specifically within a Bayesian framework. The model incorporates individual variation as well as the differing influence of each question. Some questions are better at distinguishing between ideological positions than others, and this is reflected in the model by assigning greater importance—or discriminatory power—to such questions.

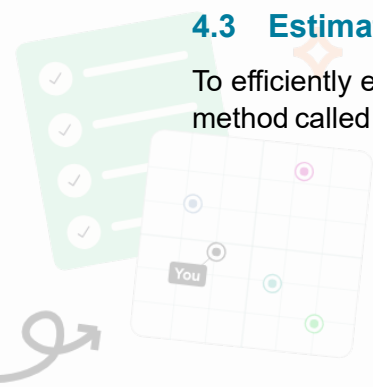
The structure of this model allows for the estimation of latent positions by analyzing how different response patterns correspond to different ideological stances. It also takes into account the thresholds that separate each answer category, acknowledging that people interpret response options in varied but systematic ways. These thresholds are estimated from the data and play a critical role in translating internal preferences into observed choices.

Additional information on ordinal response latent variable models

See section 6.2 in the technical appendix.

4.3 Estimation with maximum a posteriori (MAP) methods

To efficiently estimate where users fall on different ideological dimensions, Vote Compass uses a method called maximum a posteriori (MAP) estimation. This approach provides a single best guess



of a user’s position, rather than calculating full probability distributions for every individual—which would be too slow and resource-intensive to do in real time.

MAP estimation is part of a Bayesian framework, which means it combines prior knowledge — drawn from the pilot survey — with each user’s responses to produce informed estimates. Behind the scenes, advanced statistical software fits a model to previously-collected survey data, generating a posterior distribution that reflects how likely different ideological positions are. MAP then selects the most probable position for each user based on that distribution.

In other words, to quickly estimate where users fall on the political spectrum, Vote Compass uses a method that avoids doing complex calculations for each person in real time. Instead, it makes an informed guess based on patterns it has already learned from earlier survey data.

This approach ensures that user placements are both statistically sound and computationally efficient, allowing for rapid processing without compromising accuracy. By grounding the estimations in rigorous statistical methods, Vote Compass offers a nuanced and data-driven representation of political preferences, distilled into a format that is both accessible and analytically robust.

Additional information on MAP methods 

See section 6.3 in the technical appendix.

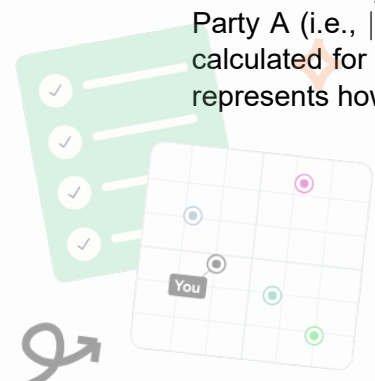
5 Representations of the issues

5.1 Calculating users’ alignment with parties and candidates

In a user’s Vote Compass report, the bar graph displays the user’s proximity to (or distance from) each party’s or candidate’s policy positions. This is calculated using the absolute distance of the user’s positions on the issues from those of each party or candidate (also known as the *Manhattan distance*). For example, let us say that for a given question, there are 5 possible answers as follows, each of which are assigned a number (in parentheses below):

Answer choice	Strongly Agree	Somewhat Agree	Neutral	Somewhat Disagree	Strongly Disagree
Answers	...	User (2)	...	Party A (4)	Party B (5)

Given these hypothetical user and party positions, we calculate the user to be 2 units away from Party A (i.e., $|2-4|$) and 3 units away from Party B (i.e., $|2-5|$). The sum of these distances, as calculated for each question in the Vote Compass survey, and for each party or candidate, thus represents how far a user is from a given party or candidate overall.



Because proximity to a party or candidate is more intuitive than distance, we subtract a user's distance from a party from the maximum possible distance, and then divide by this maximum distance. If a user takes positions that are as far from a given party as possible, then the bar will read 0; if a user takes positions that exactly mirror those of a party, then the bar will read 100.

Additional information on user-party alignment

See section [6.4](#) in the technical appendix.

5.2 Weighting issue importance

We also account for the fact that users frequently place greater importance on some policy issues than others. We do this by allowing users of Vote Compass to adjust issue importance in the tool (if desired) to reflect their policy priorities, increasing or decreasing the importance "weight" assigned to individual questions. When a user has provides these weights, the distances on the bar graph are reweighted accordingly: increasing issue importance causes the distances from a user to a party or candidate to be magnified while decreasing issue importance causes the distances to lessen.

Additional information on weighting issue importance

See section [6.5](#) in the technical appendix.

6 Technical appendix

6.1 Dimensionality reduction through factor analysis

As mentioned earlier, summarizing and distilling a large number of attitudinal and policy-related survey questions involves using a statistical technique called factor analysis. Factor analysis allows us to capture users' and parties' underlying positions on a small number of underlying dimensions (called "factors").

One can think of this as a position on a scale (for example, on social issues) which we cannot observe directly using a single survey question but which we can measure by asking a number of questions that are connected to it. This works because individuals' attitudes on one policy issue are often associated with their attitudes on other issues. Latent variable techniques like factor analysis allow analysts to uncover these positions by using several questions together and capitalizing on the relationships between them. Survey responses that are highly associated with the latent dimension therefore receive greater weight in determining a user's position on that dimension than those that are only weakly associated with it. To determine these dimensions, we analyze data collected in the pilot studies conducted prior to the launch of the Vote Compass application.

Here, we lay out the model assumptions and main steps followed to derive these abstract political dimensions (factors). Denote p as the number of propositions. Let X be a vector of a user's responses to p propositions where $X \in \mathbb{R}^p$. Assume that we can find Z is a vector of k latent variables (factors) that influence users' responses, such that $Z \in \mathbb{R}^k$. Then the relationship between X and Z can be expressed as follows:

$$X = \mu + \Lambda Z + \epsilon,$$

where $Z \sim \mathcal{N}(0, 1)$, $\epsilon \sim \mathcal{N}(0, \Psi)$ and $\Lambda \in \mathbb{R}^{p \times k}$ is a matrix of the factor loadings. Moreover, we also assume that $\text{cov}(X_i, Z_j) = 0$ for $i = 1, \dots, p$ and $j = 1, \dots, k$. From this follows for the distribution of $X|Z$:

$$X|Z \sim \mathcal{N}(\mu + \Lambda Z, \Psi)$$

with the parameter Ψ as the matrix $\Psi \in \mathbb{R}^{p \times p}$. The loadings are estimated from this model using the maximum likelihood method, to which we apply the varimax rotation. We define each theoretical dimension on the basis of how well it loads on every proposition.

Once the pool of propositions for a specific dimension has been determined, we inductively project this subset of propositions into a single dimension. Each dimension can be obtained using a Bayesian ideal point model.

6.2 Statistical modeling of latent positions

The assumptions under the Bayesian approach focus on an individual's position θ_j on the latent dimension in question. Implicitly, it represents respondent j 's propensity to pick one specific answer

from the ordinal choices. In the case of obtaining ideological estimates from a set of questions, θ_j can be expressed as follows:

$$\theta_j = \beta + \epsilon_i, \quad \text{where } j = 1, \dots, J$$

with the respondent-specific error term $\epsilon_i \sim \mathcal{N}(0, 1)$.

β represents a vector of parameters, containing separate coefficients, or discrimination parameters, for each item i as β_1, \dots, i . θ_j remains unobservable. The relationship between θ_j and a respondent's observed answer y_{ji} can be determined with the help of $\kappa = 1, \dots, 5$, which index the ordered response options to each proposition. The probability that a respondent selects a specific category on a specific item can be represented by an ordered probit model as:

$$\begin{aligned} P(y_{ji} = 1) &= \Phi(\tau_{i,1} - \theta_{ji}) \\ &\vdots \\ P(y_{ji} = k) &= \Phi(\tau_{i,k} - \theta_{ji}) - \Phi(\tau_{i,k-1} - \theta_{ji}) \\ &\vdots \\ P(y_{ji} = 5) &= 1 - \Phi(\tau_{i,5-1} - \theta_{ji}) \end{aligned}$$

where $\Phi(\cdot)$ is the standard normal probability density function. τ_i is a vector of unobserved threshold values or "cut points" for i . The number of threshold values for each item is one less of the number of answer categories on the ordered scale. Propositions in Vote Compass with their five-category Likert-type scales thus have four cut points ($\tau_{i,5-1} = \tau_{i,4}$).

6.3 Estimation with maximum a posteriori methods

For efficiency when calculating a user's placement on the scale in the application, Vote Compass uses point estimates for the parameters in the Bayesian ordered probit model to calculate maximum a posteriori (MAP) estimates for the respondents' values of θ . These are effectively numerically equivalent to estimates obtained from a fully Bayesian model. The necessary posterior distributions to produce MAP estimates for new users are derived from the pilot sample. We use `Stan` and the R program for statistical computing to fit an ordered probit model and identify its posteriors.

MAP estimations requires a log-likelihood function to estimate user positions θ_j . This log-likelihood function is:

$$\text{LogLik} = \sum_j \ln[P(y_{ij})] = \sum_j \ln[\Phi(\tau_{i,k} - \theta_{ji}) - \Phi(\tau_{i,k-1} - \theta_{ji})]$$



6.4 Calculating user scores

Here, we formalize the steps used to calculate the bar graph. Let n be the number of propositions, and x_{ij} and x_{ip} be a user's and a party's or a candidate's position to the i -th issue respectively. Hence, the absolute distance δ_{jp} of the user to the party or the candidate p can be expressed as follows:

$$\delta_{jp} = \sum_{i=1}^n |x_{ij} - x_{ip}|$$

Next, we calculate the maximum possible distance the party or the candidate can be from the user $\max(\delta_{jp})$, given the user's responses (which are coded on a scale from 1 through 5):

$$\max(\delta_{jp}) = \sum_{i=1}^n (|x_{ij} - 3| + 2)$$

This equation centres the scale and takes the absolute value of a user's response to determine its distance from the centre (=3). It adds 2, which is the maximum distance the party or the candidate can be from the centre. For example, if a user answers '1', a party position of '5' is the maximum distance $|5-1| = 4$ from the user. If a user answers '2', a party position of '5' is the maximum distance $|5-2| = 3$ from the user. If a user answers '3', a party position of '1' or '5' is the maximum distance $|1-3| = |5-3| = 2$ from the user, etc. This equation finds the sum of the maximum distances a party can be from the user on each of the questions.

The final agreement score between the party or the candidate p and the user j is

$$\text{agreement}_{jp} = \left(1 - \frac{\delta_{jp}}{\max(\delta_{jp})}\right) \times 100$$

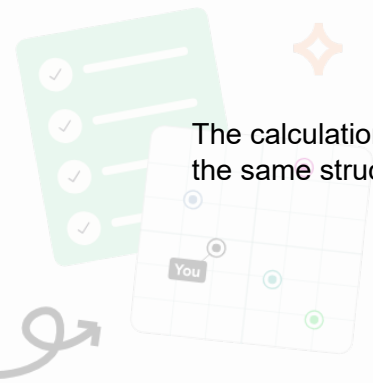
6.5 Weighting issue importance

When select issues are weighted by the user, with issue weight ω_{ij} as $0 \leq \omega_{ij} \leq 10$, the disagreement δ_{jp} and the maximum possible distance to the user's position are determined via these adjusted formulas:

$$\delta_{jp}^{\text{wtd}} = \sum_{i=1}^n |\omega_{ij}x_{ij} - \omega_{ij}x_{ip}|$$

$$\max(\delta_{jp}^{\text{wtd}}) = \sum_{i=1}^n (|\omega_{ij}x_{ij} - 3 \cdot \omega_{ij}| + 2 \cdot \omega_{ij})$$

The calculation of the weighted agreement score between party or candidate p and user j follows the same structure as the unweighted agreement score:



$$\text{agreement}_{jp}^{\text{wtd}} = \left(1 - \frac{\delta_{jp}^{\text{wtd}}}{\max(\delta_{jp}^{\text{wtd}})} \right) \times 100$$



