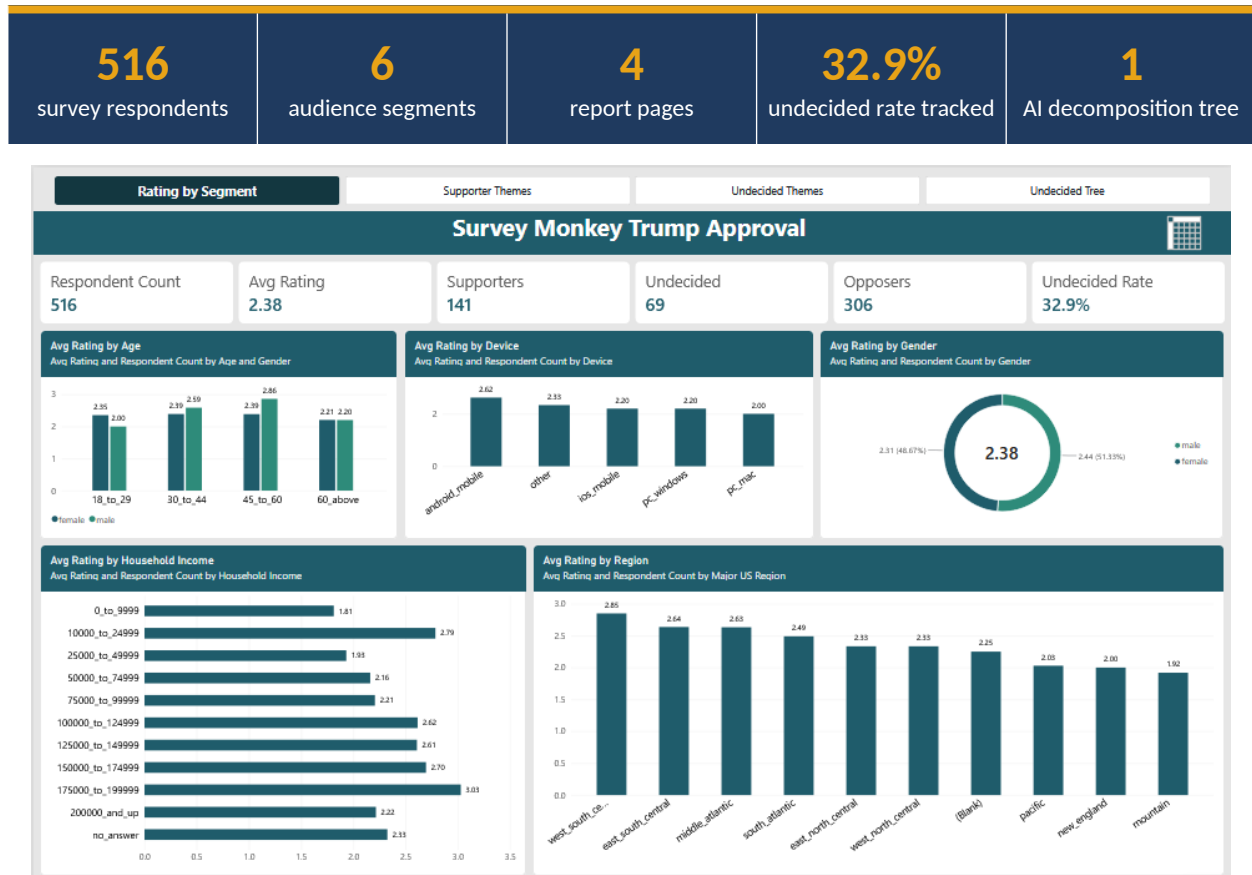


Survey Opinion Analytics Dashboard

How a raw SurveyMonkey export on presidential approval became an interactive Power BI report that shows who supports, who opposes, and who is still undecided, and why.



Rating by Segment page: headline KPIs plus average approval rating by age and gender, device, household income and US region.

Project at a Glance

Client	Private client (name withheld)
Industry	Public opinion and survey research
Data source	SurveyMonkey survey export: approval rating, open-ended responses and respondent demographics
My role	Power BI Developer: data preparation, DAX measures, report design and analysis
Tools & stack	Power BI Desktop, Power Query (M), DAX, decomposition tree (AI visual), matrix visuals, button navigation

Data scale	516 respondents across 4 age groups, 2 genders, 11 income bands, 5 device types and 9+ US regions
Deliverables	4-page interactive report: segment analysis, supporter themes, undecided themes and an undecided drill-down tree, plus a detailed matrix view

1. Executive Summary

Survey data is easy to collect and hard to read. A SurveyMonkey export gives you hundreds of rows of answers, demographic columns and free-text comments, but no clear answer to the questions that matter: which groups approve, which groups oppose, and where are the persuadable undecided voters?

I built a Power BI report that turns the raw export into a clear story. It groups every respondent as a Supporter, Undecided or Opposer, shows the average approval rating across every demographic, analyzes the themes in open-ended answers, and uses an AI decomposition tree so anyone can drill into exactly which audience has the highest share of undecided respondents.

The result: a report where a non-technical user can go from "32.9% undecided" to "which specific age, gender, income, device and region combination drives that number" in a few clicks.

2. The Challenge

- **Raw, flat survey export.** Answers, demographics and comments were all in one wide table, not ready for analysis.
- **No respondent segmentation.** A numeric rating alone does not tell you who is a supporter, an opposer or still undecided.
- **Many demographic cuts.** Age, gender, income, device and region each needed to be compared, and combined, without building dozens of separate charts.
- **Open-ended text.** Free-text answers held the "why" behind each rating but were hard to summarize.
- **Finding the persuadable middle.** The most valuable question, which groups are most undecided, needed a way to explore many factors at once.

3. My Approach

Phase	What I did
1. Data preparation	Cleaned and shaped the SurveyMonkey export in Power Query: consistent demographic categories, ordered age and income bands, and the theme tags from open-ended responses.
2. Segmentation logic	Wrote DAX measures that classify each respondent as Supporter, Undecided

Phase	What I did
	or Opposer and count each group.
3. KPI layer	Built core measures: Respondent Count, Avg Rating, Supporters, Undecided, Opposers and Undecided Rate.
4. Report design	Designed a 4-page report with button navigation, a consistent header and KPI strip on every page.
5. Drill-down analysis	Added a decomposition tree so users can explore the undecided audience across six factors in any order.
6. Detail view	Added matrix tables with gender splits, respondent counts and totals so every chart can be checked against exact numbers.

4. The Solution

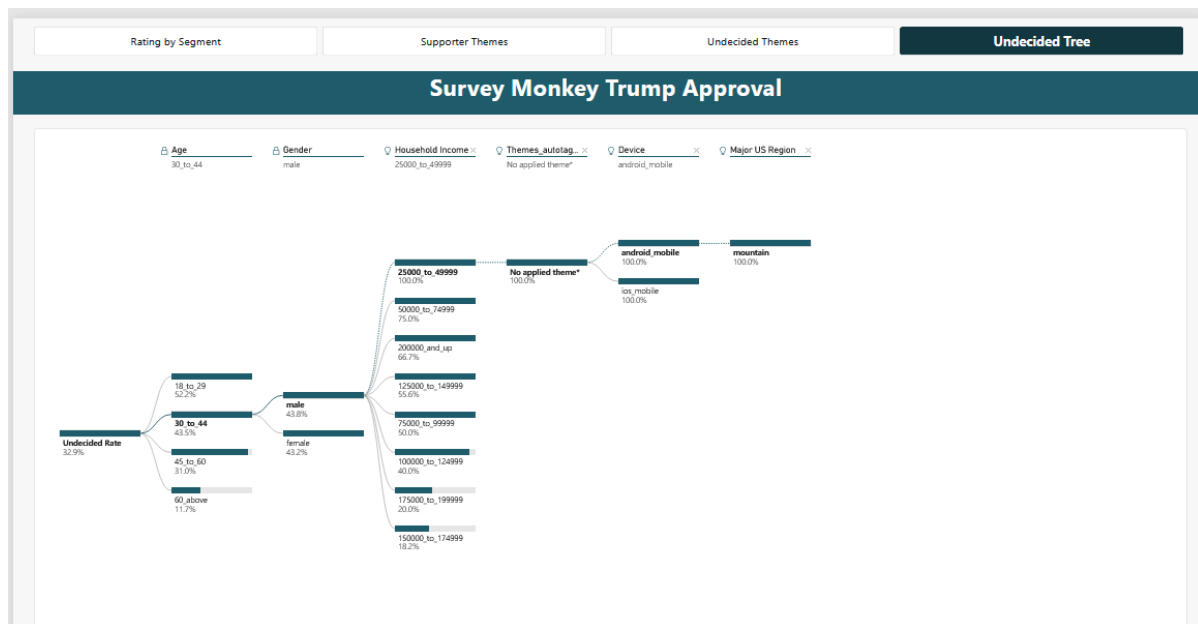
4.1 KPIs That Tell the Story at a Glance

KPI	What it shows
Respondent Count	Total completed responses (516).
Avg Rating	Average approval rating across all respondents (2.38).
Supporters / Undecided / Opposers	How many respondents fall into each group (141 / 69 / 306).
Undecided Rate	Undecided respondents as a share of everyone who is not an opposer (69 of 210 = 32.9%), which shows how much of the potentially reachable audience is still persuadable.

4.2 The 4-Page Interactive Report

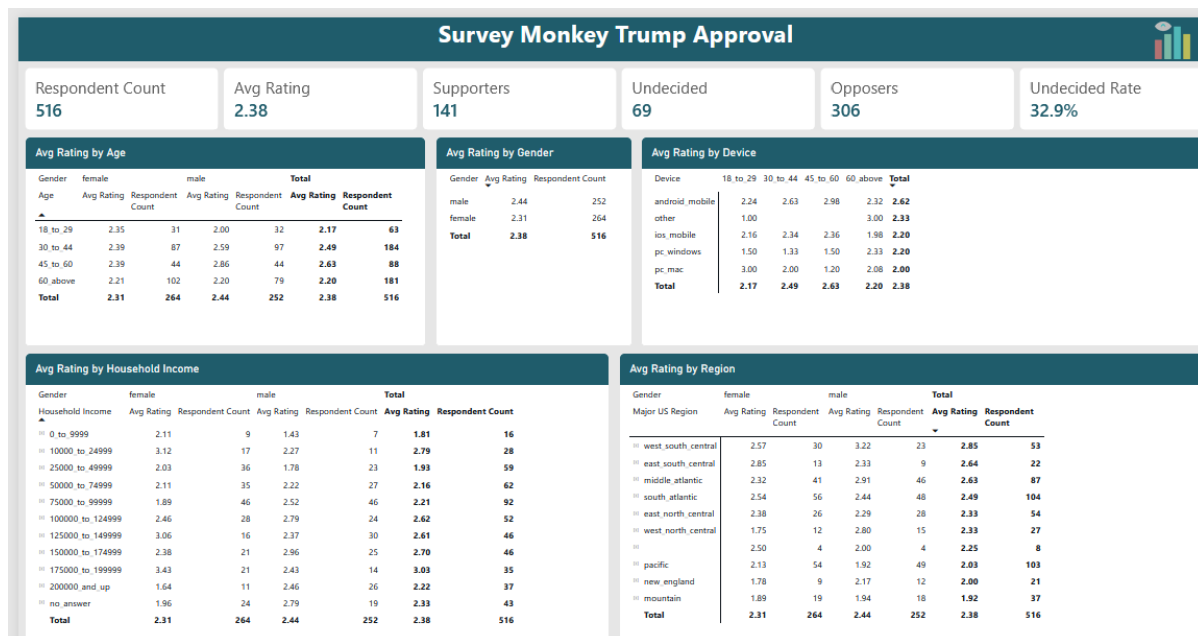
Page	What it answers
Rating by Segment	How does average approval differ by age and gender, device, household income and US region?
Supporter Themes	What reasons do supporters give in their open-ended answers?
Undecided Themes	What is holding undecided respondents back?
Undecided Tree	Which combination of age, gender, income, comment theme, device and region has the highest undecided rate?

4.3 Inside the Dashboards



Undecided Tree: an AI decomposition tree that splits the 32.9% undecided rate by age, gender, household income, comment theme, device and region.

What makes this page work: instead of guessing, users follow the data. Each split shows the undecided rate for every branch, and Power BI's AI splits can automatically point to the highest or lowest value at each level.



Detailed view: matrices with average rating and respondent count split by gender for age, device, household income and region, with totals.

What makes this page work: every chart has an exact-number table behind it, including respondent counts, so readers can see when a result is based on a large group or only a handful of responses.

5. Insights the Dashboard Revealed

The report made patterns visible that were impossible to see in the raw export:

Finding	Detail
Undecided voters skew young	Undecided rate is 52.2% for ages 18–29, falling to 11.7% for ages 60 and above.
Strongest regional rating	West South Central has the highest average rating (2.85); Mountain has the lowest (1.92).
Income is not a straight line	Ratings range from 1.81 (lowest income band) to 3.03 (175K–199K), with no simple rise or fall in between.
Gender gap varies by age	Men aged 45–60 rate highest (2.86), while men aged 18–29 rate lowest (2.00).
Device matters	Android mobile respondents give the highest average rating (2.62) of any device.

Note: some segments are small (for example, only 16 respondents in the lowest income band), so the report always shows respondent counts next to averages. This keeps readers from over-reading results based on very few answers.

6. Business Value

- **Clear segmentation:** every respondent is grouped as supporter, undecided or opposer, so the audience can be understood at a glance.
- **Targeting the persuadable:** the decomposition tree shows exactly which demographic groups hold the most undecided respondents, which is where messaging or outreach has the most room to work.
- **The "why" behind the numbers:** theme pages connect ratings to what people actually said.
- **Self-service exploration:** non-technical users can answer their own follow-up questions without new reports.
- **Reusable framework:** the same model works for any future SurveyMonkey export with the same structure, such as a new survey wave.

7. Full List of Deliverables

Deliverable	Description
Cleaned data model	SurveyMonkey export shaped in Power Query with ordered

Deliverable	Description
	demographic categories.
DAX measure set	Respondent count, average rating, segment counts and undecided rate.
Rating by Segment page	Average approval by age, gender, device, income and region.
Supporter & Undecided Themes pages	Open-ended response themes for each group.
Undecided Tree page	AI decomposition tree across six factors.
Detail matrices	Exact ratings and respondent counts with gender splits and totals.

8. Skills Demonstrated

Survey analytics	Respondent segmentation, rating analysis, demographic comparison, open-ended theme analysis
Power Query	Cleaning and reshaping survey exports, category ordering
DAX	Segment classification, ratio and rate measures, filter-aware KPIs
AI visuals	Decomposition tree for multi-factor drill-down
Report design	Button navigation, consistent layout, charts paired with exact-number tables
Data honesty	Respondent counts shown alongside averages to flag small samples

Have Survey Data That Needs Answers?

If you have SurveyMonkey, Google Forms, Qualtrics or Typeform results sitting in spreadsheets, I can turn them into a clear, interactive Power BI report that shows who your audience is and what they think.

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