

ZenCity: A Methodological Review

Research report from the MPS Strategic Insight Unit – April 2024

Prepared for the ZenCity Oversight Board

Authors: [REDACTED]

Executive Summary

For the past 18 months, the Metropolitan Police Service have run a rapid community polling offering provided by ZenCity. It collects the views of Londoners via short online surveys as an alternative, faster method of data collection than the traditional means of collecting attitudinal information via MOPAC's Public Attitudes Survey (PAS), a large-scale, face-to-face, household based survey.

This report examines the ZenCity methodology by exploring the data it collects and its ability to provide insight tracking trust and confidence in London over time, London-wide and locally. To do this, the SIU examined responses to the same questions asked by both PAS and ZenCity between October 2022 and June 2023.

We find that the data obtained via ZenCity differs from the PAS in a number of important ways, including:

- ZenCity collects approximately 100,000 responses per year compared to 19,200 who respond to PAS. PAS respondents are chosen at random using London postcodes and visited in person. ZenCity respondents must be online and chose to participate by clicking through an ad banner.
- Of those who could answer PAS, around half do not (40% non-response, and an extra 8% refuse), this does not greatly impact the demographic composition compared to the census. Approximately 98% of those exposed to the ZenCity survey do not complete it and those that do have a different demographic profile compared with the Census.
- ZenCity's attempt to target residents in specific wards and three-ward clusters was not successful. Only 31% of responses from target ward clusters and 14% from individual wards were actually resident in the target areas. PAS is also unable to collect trust and confidence metrics with such specificity.
- London wide trust and confidence estimates from ZenCity are very different (mostly lower) than PAS when asking identical questions over the same time period e.g. trust in MPS is 69% using PAS versus 45% through ZenCity. These differences are also present when comparing subgroups such as age groups or individual ethnicities.
- Borough level trust and confidence rankings differ substantially between ZenCity and PAS. There is no correlation between PAS and ZenCity's borough rankings ($r=0.07$) when asking if police are doing a good job locally. There is a moderate correlation ($r=0.48$) for trust in the MPS.
- ZenCity shows substantially more variability in borough rankings over time than PAS, e.g. Southwark moves from rank 14th down to 29th and then to 4th across three quarters when asking if residents think police are doing a good job locally.

There are a number of reasons for these differences:

- ZenCity respondents are not representative of the general London population, unlike PAS. This is because the ZenCity survey is a voluntary response sample and is done by only those who see it online and chose to complete it.
- Voluntary response sampling can mean unbalanced samples are collected when compared to the Census.
- ZenCity heavily weight some of the responses they receive in an attempt to mimic representativeness, the most heavily weighted respondent was 88 times higher than the lowest (i.e. 1 person's responses were given the weight of 88 other respondents).

The implications of these findings are:

- **PAS and ZenCity are ultimately collecting the views of different groups of Londoners.** This is likely due to differences in methodology.
- As not all Londoners have an equal opportunity to contribute to ZenCity and the results are not consistent with PAS, **ZenCity is not an appropriate way of collecting and tracking general views of Londoners over time.**
- Vastly different, and fluctuating, borough rankings of ZenCity suggest **it is not an appropriate performance tool to measure change in trust and confidence over time.**
- ZenCity is able to collect a large number of voluntary responses from Londoners who are online so **MPS use cases that seek volume engagement (rather than representativeness) may benefit from having a ZenCity offering.**

Introduction

Background

In September 2022, the MPS commissioned ZenCity to collect the views of Londoners via an online rapid community polling offering. This offering displayed ads on websites and social media platforms asking people to take a short survey. The SIU has supported this by evaluating the methodology, designing the survey questions and managing fieldwork. ZenCity has now continuously surveyed Londoners on behalf of the MPS since September 2022. Over this time half a dozen topics have been explored and a few methodologies tested (Table 1).

Table 1: ZenCity survey content between September 2022 and March 2023

Theme	Fieldwork period	Methodology	Responses
Trust and Confidence PAS questions	September 2022 to May 2023	Continuous and London wide	57,692
Perceptions of Safety	June 2023 to October 2023	Continuous and London wide	32,696
Precision Stop and Search	June 2023 to July, 2023	Pulse local (9 wards)	881
SENP Engagement	November 2023 to January 2024	Continuous and London wide	23,863
London Race Action Plan	February 2024 to March 2024	Continuous and London wide	14,290
Stop and Search Charter	January 2024 to February, 2024	Panel of prior recruited respondents	233

This paper explores the methodologies ZenCity employs and its ability to provide comparable data to PAS and how this impacts on its use as a performance tool. A separate paper outlines other ways ZenCity has been used by the MPS, including; creating and engaging with a panel, officer views and experiences, and ZenCity's dashboard that provides daily updates on responses to free text questions.

The SIU have also created a separate briefing note that summarises alternative engagement offerings which serves as a menu from which MPS can identify the most appropriate engagement method for different situations. It includes information on survey design and sampling approaches, representativeness compared to the general London population, provides associated costs, offers options to survey particular communities, it explores questionnaire content and design, and the length of time to receive results of various providers.

Overview

This report is structured as follows:

- ZenCity's methodological approaches with comparisons to PAS, focused on:
 - a) Sampling methodologies
 - b) Response rates
- Comparing PAS and ZenCity data and findings including:
 - a) A comparison of unweighted data to understand sample characteristics
 - b) Assessing the use of the 'rake weighting' approach by ZenCity
 - c) Testing ZenCity's ability to target small geographical locations
 - d) A comparison of trust/confidence measures between ZenCity and PAS
 - e) A comparison of borough-level data for PAS and ZenCity

Comparing sampling approaches and response rates

Sampling methodologies

One key area of difference between ZenCity and the PAS is their sampling design: who they recruit has important implications regarding their representativeness, and as a result, the quality of the data they produce. Below, the main features of each are outlined in turn:

PAS:

- MOPAC's Public Attitudes Survey (PAS) is the key survey for measuring public opinion of the police in London. It is a large scale, representative household survey of 19,200 London residents per year which captures a wide range of perception data, including key trust and confidence measures.
- The PAS uses a traditional probability-based sample design whereby participants are selected using a random sample of households from the UK Postcode Address File, a near complete list of all UK residential addresses in the UK. Individuals in sampled households are contacted via post and are visited and invited to participate in an in-person survey. This ensures representativeness of its findings. This means the sampling frame, the target audience, are London residents and their views can be considered that of the wider population.
- In-person interviews are conducted with participants, with interviews taking place throughout the year and distributed evenly across all London boroughs. The survey is administered by a field interviewer who knocks at the participant's door at different times of the day to help reach people.
- The longevity, quality of data collected, and quality controls put in place for fieldwork and data analysis mean that the PAS and other similar surveys (e.g. the ONS Crime in England and Wales survey) are widely considered the 'gold standard' in terms of their methodological approach. They have been shown to be more accurate in terms of sampling approach, compared with alternatives such as opt-in sample designs.¹

¹ David Dutwin and Trend. D. Buskirk 'Apples to Oranges or Gala versus Golden Delicious? Comparing Data Quality of Nonprobability Internet Samples to Low Response Rate Probability Samples, (April 2017), vol.81,

- PAS data are closer to representative at the point of collection; small adjustments (using weightings) are made when data are split – e.g. to borough or BCU level – to ensure that the data remain representative, i.e. aligned to Census demographic characteristics.
- One drawback of the rigour of the design is that it can take a long time to receive results. From the beginning of the fieldwork period to the end of data collection and results can take up to four months. This delay makes operationalising findings more difficult and provides some of the impetus for exploring the ZenCity offering.

ZenCity:

- ZenCity uses an opt-in voluntary response design. Participants are not selected randomly from the population, instead they are recruited from a variety of online sources such as ads on social media (Facebook and Instagram), within mobile apps and through advertising on traditional websites. Most often there is no incentive to take part and the vast majority (98%) of those who see a ZenCity advert do not click on it. Sometimes non-financial rewards are offered in exchange for survey participation, especially on mobile apps (this may include getting an extra life or turn in a game, as an example). This means that the sampling frame is self-selected online Londoners who decide to answer the ZenCity online surveys.
- In an attempt to mimic representativeness (i.e. alignment to Census demographic characteristics), ZenCity use a post-hoc 'rake weightings' approach which involves making adjustments to the data (e.g. weighting under-represented respondents more heavily) so that the final data can be described as representative. We discuss this further in Section 3. Given the sampling design, the mismatched sampling frame, and the scale of adjustment used (e.g. weighting some respondents so that they are 'worth' 80 times more than others) means this approach could produce misleading (and unrepresentative) results.
- The ZenCity approach does collect a comparatively large number of responses from Londoners, five times more per year than PAS.

Response rates

Response rates refer to the proportion of people who were contacted to complete the survey. Response rates for PAS are around 40%. The majority of non-response is a result of non-contact at the selected addresses (51-52%). The remaining 8-9% of the non-response are because of refusals to take part. ZenCity, by comparison, have a substantially larger distribution and much lower response rate, many more people are contacted. Ads are displayed across a large number of online platforms, and only around 1-2% of these displayed ads are clicked on by the eventual participants. Having clicked on the ad, a participant is directed to the survey and at this point may or may not complete it.

The non-response rate is far higher for ZenCity than for PAS, we also do not have any information about the demographic characteristics of (or any other information about) non-respondents. This is a particular limitation for the ZenCity offering, given the very high non-response rates (~98%). If a particular 'type' of individual is more likely to click-through, this has important implications for the meaningfulness and representativeness of their responses and the resulting data.

Conclusions

ZenCity and PAS use very different approaches to hearing the views of Londoners which impacts on their representativeness. There are benefits to ZenCity's approach such as the number of respondents they engage, and the speed of obtaining data and supplying the MPS with data. However, this comes with noteworthy drawbacks including the high rate of non-response from the available (online) population (~98%), the lack of random sampling and the large scale of weighting adjustments which could produce unrepresentative and results, biased towards certain demographics of participants. Even when hearing from 44,145 Londoners between October 2022 and March 2023 ZenCity (compared to 9,488 in PAS) this volume does not overcome the challenge of representativeness and response rates. When a sample is representative we can use their views as an appropriate estimate of the general views of Londoners, even those that did not complete the survey. This is not the case with ZenCity's approach where all we can say is that the answers we have are those of the particular group of respondents who replied at that particular time.

Comparing PAS and ZenCity data and findings

When ZenCity was first launched the survey questions were taken from PAS allowing direct comparison. From this data we used four approaches to compare PAS and ZenCity:

- a. A comparison of unweighted and 'rake weighted' data to understand sample characteristics.
- b. Testing ZenCity's ability to target small geographical locations.
- c. A comparison of trust/confidence measures.
- d. A comparison of borough-level data.

A comparison of unweighted and 'rake weighted' data to understand sample characteristics

Unweighting data

Tables 2, 3 and 4 summarise the demographic makeup of both survey samples. Figures given for ZenCity are only for participants who chose to answer demographic questions as these can be skipped over by participants.

Age

Both PAS and ZenCity target adults. PAS respondents much more closely match the Census age distribution although do have a higher proportion of older respondents, 20% of the sample, compared to 13% in the population. ZenCity's in comparison is younger than PAS, 23% are aged between 18 to 24 compared to 11% of adult Londoners, this is likely because a higher proportion of this age group use social media and would therefore be exposed to ZenCity's online approach. Conversely fewer respondents within the ZenCity sample are made up of older age groups 37% over the age of 45, compared to 45% in the population, and 11% above 65 compared to 15% in the population (Table 2). Overall the demographic spread of respondents is more uneven in ZenCity, as would be expected, given participants are not targeted based on Census data.

Table 2: Unweighted age information for ZenCity and PAS (October 2022 to March 2023)

Age	Unweighted base		Percentage (excl. under 18 and prefer not to say)		London Census 2021 ²
	PAS	ZenCity	PAS n=9,488	ZenCity n=44,144	
Under 18	NA	753	NA	NA	NA (1,189,413)
18-24	841	9,531	9%	23%	11% (775,320)
25-34	1,772	9,850	19%	23%	23% (1,592,693)
35-44	2,052	7,173	22%	17%	20% (1,401,720)
45-54	1,520	5,348	16%	13%	17% (1,166,581)
55-64	1,387	5,423	15%	13%	13% (915,236)
65+	1,916	4,860	20%	11%	15% (1,042,214)
Prefer not to say (ZenCity)	NA	1,206	NA	NA	NA

Base: All respondents for ZenCity and PAS for October 2022- March 2023.

Note: Estimate figures are provided. The full period until the end of June is not included here as we do not yet have unweighted demographic data for PAS for this period.

Sex

More females answer both the ZenCity and the PAS surveys, with PAS matching the census population. ZenCity only has 42% male participants. The full comparisons are shown in Table 3.

²Census 2021 data, Office for National Statistics.

(<https://www.ons.gov.uk/peoplepopulationandcommunity/culturalidentity/ethnicity/datasets/ethnicgroupbyageandsexinenglandandwales>)

Table 3: Unweighted sex information for ZenCity and PAS (October 2022 to March 2023)

Sex	Unweighted base		Percentage (excl. prefer not to say and other)		London
	PAS	ZenCity	PAS n=9,491	ZenCity n =44,144	Census 2021 ³
Male	4,520	17,757	48%	42%	48% (3,294,485)
Female	4,971	24,334	52%	58%	52% (3,599,186)
Prefer not to say or other (ZenCity only)	NA	2,053	NA	NA	NA

Table 4: Unweighted ethnicity information for ZenCity and PAS (October 2022 to March 2023)

Ethnicity	Unweighted base		Percentage (excl. prefer not to say)		London
	PAS	ZenCity	PAS n=9,342	ZenCity n =44,144	Census 2021 ⁴
White	5,817	25,953	62%	63%	57% (3,940,080)
Asian/Asian British	1,798	6,354	19%	15%	20% (1,381,180)
Black/African/Caribbean/Black British	1,081	4,572	12%	11%	13% (868,315)
Mixed/multiple ethnic group	289	3,010	3%	7%	4% (283,385)
Other ethnic group	357	1,621	4%	4%	6% (428,505)
Prefer not to say (ZenCity only)	NA	2,634	NA	NA	NA

³ Census 2021 data, Office for National Statistics. (See footnote 2 for link)

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Ethnicity

With the London population 57% white, both PAS and ZenCity get more responses from white residents than their share of the London population at 62% and 63% respectively (Table 4). PAS then has 1% or 2% underrepresentation for each of the other groups. ZenCity is more uneven Asian/Asian British Londoners are 5% underrepresented, this would require over 30% more responses from this group to get to 20%, and ZenCity is also slightly over represented for Mixed/multiple ethnicities.

This exploration of the demographics shows the areas that ZenCity and PAS differ versus the London Census population which both seek to represent, as a general rule ZenCity is less accurate than PAS. To calibrate uneven samples both PAS and ZenCity use weightings.

Weighting data

Both surveys are weighted in an attempt to achieve representative samples and overcome uneven response levels across demographics. PAS make corrections to their data to ensure it retains representativeness when split by BCU and borough. They use design weights to account for: unequal selection probabilities and differential response rates and time of survey interviews as well as calibration weights which compensate for response bias identified for gender, age, ethnicity economic activity and household tenure.

ZenCity also weight their data according to London Census demographics, using a 'rake weighting' approach, where each complete respondent is given a weighting in line with demographic data from the Census. What this means in practice for both surveys is that if there are fewer responses from one group than their share of the population (as defined by the Census), responses are given a larger weight. The opposite is true for responses from over represented cohorts. Methodological experts caveat that weighting for non-probability samples (i.e. ZenCity's approach) is not likely to be as effective as for probability samples.⁵

We explored the ZenCity weighting approach by looking at the frequency of weighting for the month of February (a latter month of the trial when ZenCity had bedded in and the month which received the most responses). This was broken down by two demographics: age (Figure 1) and ethnicity (Figure 2). The charts show the large range in weighting across age and ethnic groups. We find, in one extreme case, that a single response from one under-represented group had the same contribution as 88 individuals who have all been assigned a recalibrated weighting of 1. PAS also weights its responses but to a lesser extent given the closer similarity to the overall population (designed in based on sampling).

It is worth outlining that weighting approaches are not perfect, since even 'gold standard' survey approaches suffer from non-response bias, which is a not insignificant 40% for PAS. These non-respondents may not be well represented by those who do answer the survey. However beyond this general observation, there is a concern that the level of weighting used by ZenCity could have a

⁵ Matthew Salganik, 'Bit By Bit - Asking questions', 3.4.2 – 'Non-probability samples: weighting'; Simon Lenau et al. September 2021, 'Methods for Sampling and Inference with Non-probability Samples'.

considerable impact on the size of the voice given to some respondents. If these respondents do not provide representative answers (answers that match the views of the overall cohort) then it risks giving an inaccurate picture.

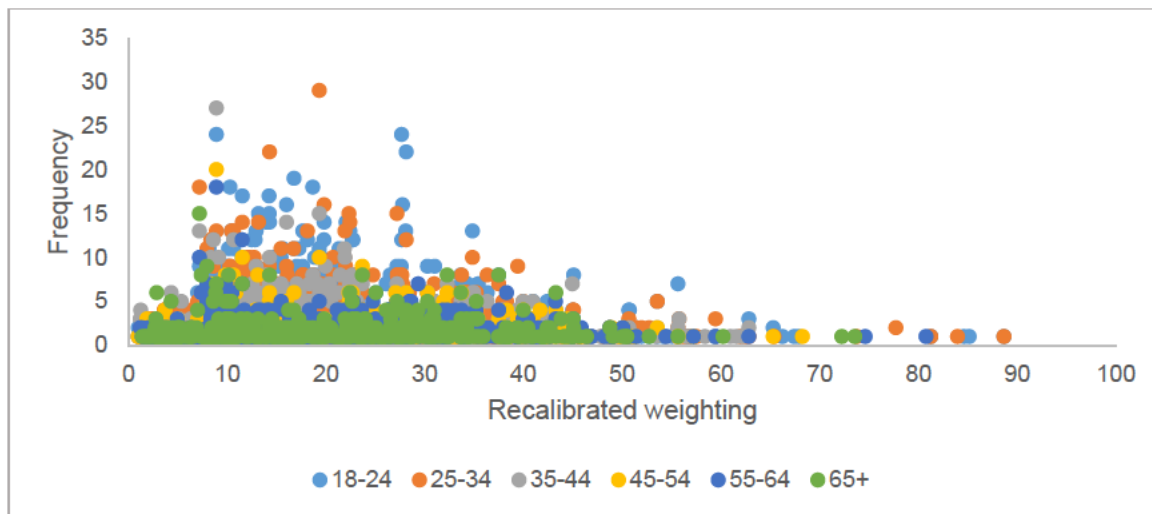


Figure 1: Distribution of the weightings applied to February 2023 responses (n = 7,959), by age groups *Note: Excludes 'Prefer not to say' and 'under 18' responses*

To explore the impact of weighting further, it is worth considering the 17 Black/African/Caribbean/Black British respondents in Figure 2. 14 of these (top left) have an individual weighting of 14.24, combined this gives a weighting of 199. The three respondents (bottom right) have individual weightings over 80, combined these equal 250. So, the views of these 3 substantially outweigh the 14 (250 vs 199). Therefore, if these three responses to trust and confidence are not in line with the wider community they are deemed to represent by ZenCity, this threatens to bias the overall results.

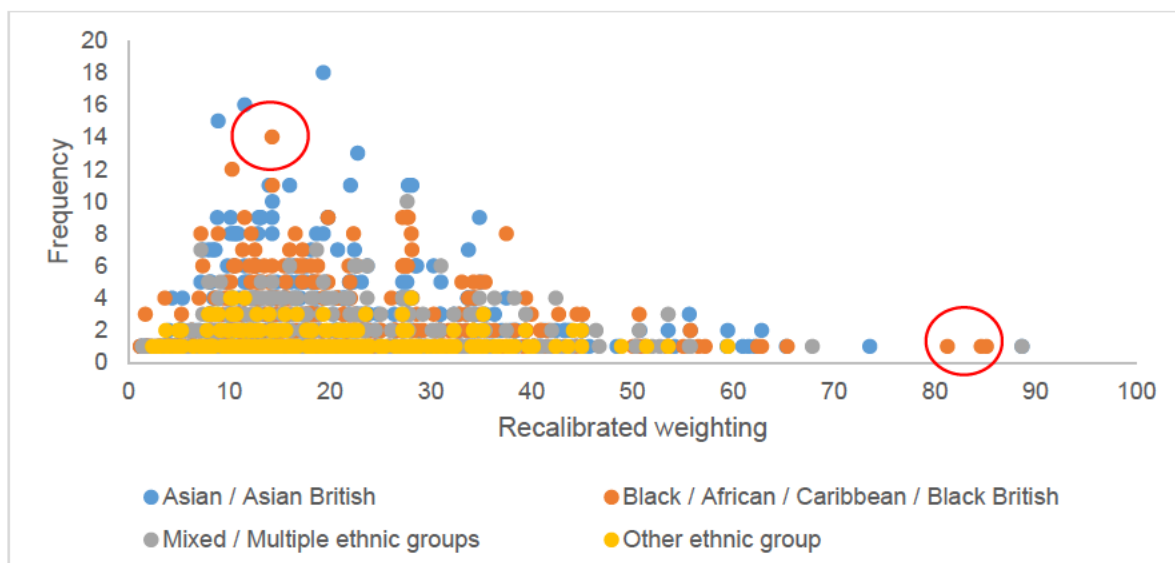


Figure 2: Distribution of the weightings applied to February 2023 responses (n = 3,747) by ethnicity. *Note: Excludes 'White' and 'Prefer not to say' responses*

Testing ZenCity's ability to target specific geographical locations

For PAS, postcodes are leveraged to identify the sample, this provides uniform coverage across London and can be used to build a representative dataset. Unfortunately this approach results in very few responses from any specific location. At a ward level, numbers of responses can be in single figures across one quarter. One potential benefit of ZenCity is that it could target a large number of ads at a localised area to allow the MPS to obtain sentiment data at ward-level.

The MPS recently delivered a pilot of a new initiative called Precision Stop and Search which targeted patrol at ward areas in London with higher levels of weapon-enabled crime (WEC) harm. The SIU leveraged this opportunity to test if a ZenCity survey could be used to measure the impact of the intervention at a community level. The survey included PAS questions on attitudes to Stop and Search, and attempted to target participants in 15 wards comprising of three ward clusters containing three wards in each, and 6 individual wards.

The SIU examined ZenCity's ability to collect responses in the 3 clusters with total populations between 29,500 and 37,250 and individual wards with populations between 5,500 and 22,000 over one month. Most respondents who answered the survey were ultimately not part of the targeted wards or ward clusters based on postcodes provided in the response (Figure 3).

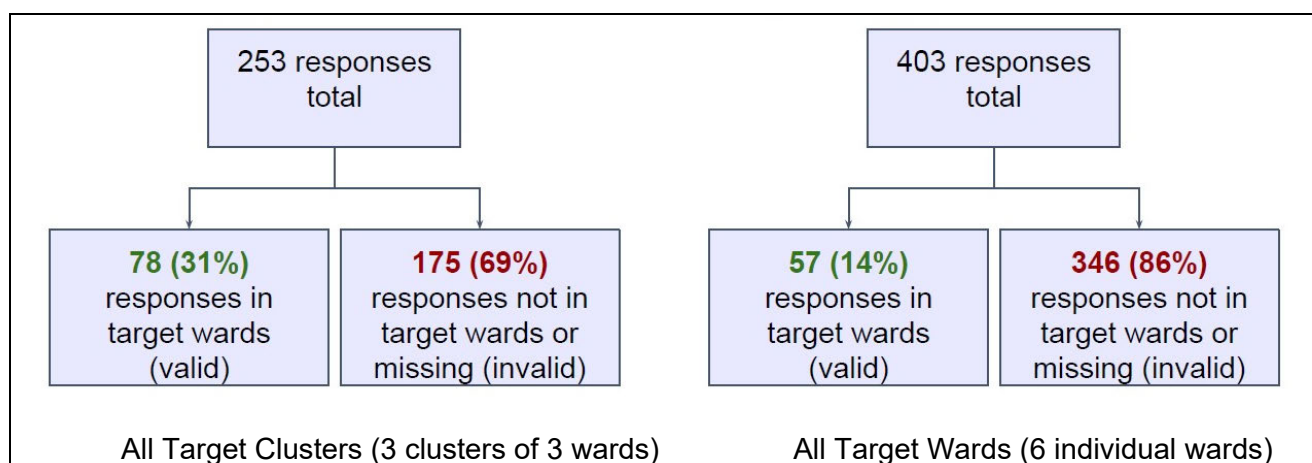


Figure 3: Responses received within and outside of targeted wards and ward clusters (n=656)

Ward cluster targeting appears to be modestly better than targeting individual wards. To explore this further the response rates compared to the resident population of the target areas were calculated (Table 5). This is the number of valid responses received divided by the population from each ward or cluster of wards. The response rates for both is very low but wards clusters are higher with an average rate of 0.13% compared to single wards with an average of 0.04%.

Table 5: Responses by underlying population in single ward and 3-ward clusters

Areas	Target Type	Successful Surveys	Population	Residents Reached (%)
Shepherds Bush Green	Single	2	5,634	0.04%
South Tottenham	Single	5	17,138	0.03%
Hither Green	Single	10	20,239	0.05%
Blackwell and Cubitt	Single	4	21,802	0.02%
Shadwell	Single	8	12,964	0.06%
Plaistow South	Single	6	13,469	0.04%
Brixton North, Brixton Windrush, Myatt's Field	Cluster	53	37,201	0.14%
Stockwell, Waterloo & Vauxhall	Cluster	48	35,067	0.14%
Longbridge, Northbury & Thames View	Cluster	31	29,516	0.11%

Notably, PAS is also unable to target at this level of granularity, robust sample sizes would take years to collect. Even borough level figures have +/- 6% confidence intervals around their estimates, meaning certainty as to the true value sits across a wide range. We are therefore left in a position that neither ZenCity nor PAS are able to provide a hyperlocal understanding of trust and confidence.

A comparison of trust and confidence measures

Given the 'gold standard' methodological approach of PAS, we have used this as a benchmark against which to assess the ZenCity survey estimates. All ZenCity surveys include 4 benchmarking questions (identical to those used in PAS) as follows:

1. To what extent do you agree or disagree with the following statement: the MPS is an organisation I can trust.
2. Taking everything into account, how good a job do you think the police in your local area are doing?
3. To what extent do you agree with the following statement: the police are dealing with the issues that matter to people in my local area?
4. How willing would you be to contact the police if you were a victim of crime or were worried about something?

Comparing ZenCity and PAS for all adults

Weighted percentage difference across each of the four key trust and confidence benchmark questions in ZenCity were computed and compared to corresponding benchmarks derived from PAS. To do this we calculated the mean percentage across the three available quarters. For ZenCity to be a reliable measure relative to the PAS, we would expect to see ZenCity and PAS estimates in broad agreement.

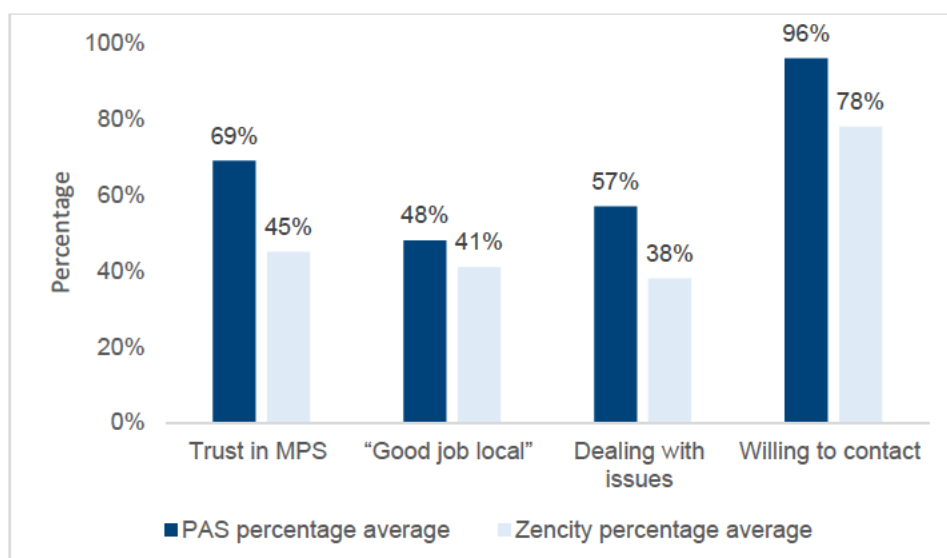


Figure 4: Responses for equivalent question via PAS and ZenCity between October 2022 and June 2023

For three of the four questions, PAS responses are considerably higher than for ZenCity with the smallest difference being 7 percentage points for 'good job'. The majority of the differences in values were in the negative rather than the positive direction, meaning ZenCity's scores are generally always lower than PAS. Looking at this data over time, the scale of difference across the three quarters for PAS and Zencity were broadly similar, with "Good Job local" fluctuating by a subjectively large margin of 10 percentage points. One of the disadvantages of ZenCity's non-probability sampling is its inability to calculate traditional confidence intervals which give a range of where the population likely sits with 95% confidence.

Broadly, these scores show that ZenCity does not provide reliable comparative opinion measures when compared to PAS. This suggests that ZenCity's sampling approach is reaching a different group of respondents and given that PAS is using a 'gold standard' sampling approach – there are therefore concerns about the representativeness of ZenCity respondents.

Comparing PAS and ZenCity across ethnic and age groups

To further evaluate the relative accuracy of benchmark ZenCity estimates across the four trust and confidence measures, average differences were calculated for the ZenCity sample among ethnic minority subgroups including Asian, Black and Mixed, as well as the highest and lowest age ranges (18-24 and 65+).

As seen in Figure 5 and Figure 6 below, we see greater differences between the PAS and ZenCity when looking at data for ethnic minorities or the highest/lowest age groupings across three out of four key questions. This further suggests that ZenCity is less reliable (in terms of producing representative results) for these groups.

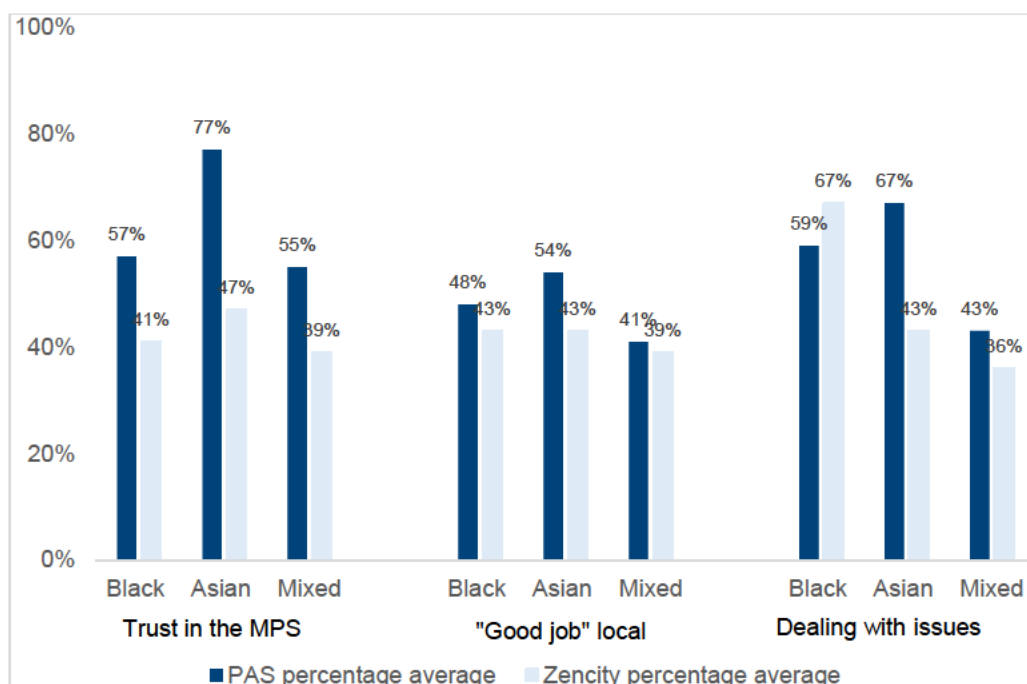


Figure 5: Differences for ZenCity across all four trust and confidence question measures, by ethnic minority demographic group

Note: All respondents for ZenCity and PAS October 2022-June 2023

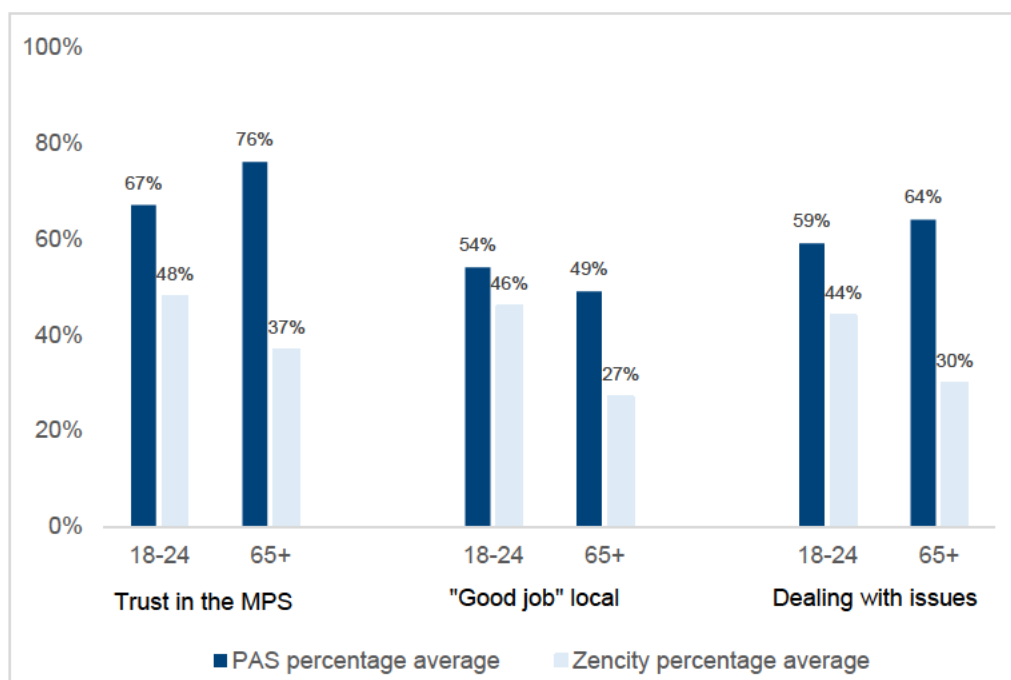


Figure 6: Differences for ZenCity across all four trust and confidence question measures, by youngest and oldest age group (18-24 and 65+)

Note: All respondents for ZenCity and PAS October 2022-June 2023

A comparison of borough-level data for PAS and ZenCity.

Measuring borough ranking using Spearman's Rank

Another way of exploring the difference between PAS and ZenCity is to see how differently trust and confidence measures are ranked across the boroughs and how this changes over time. This will establish if the top performing PAS boroughs are also top performing for ZenCity. This is particularly important if we were to consider using ZenCity as a performance measure or to understand where we should put resources. If the ranks are unstable or unreliable, then this would reduce the usefulness of ZenCity in this space.

In order to measure the differences between borough rankings a standard measure is to compute the Spearman's Rank correlation coefficient, which is used to measure the relationship between two variables. The closer the measure is to +1 (or -1 in the case of negative correlations), the stronger the association, a value of 0 indicates no correlation. Table 6 shows the results comparing three questions asked by ZenCity and PAS. The ranking of each borough was compared between the two surveys. Spearman's rank correlation was computed to determine whether the findings from ZenCity were similar to those from PAS, these varied from a modest 0.48 to a weak 0.07. The generally weak correlation for all three questions indicates that the ZenCity is providing different measures of trust and confidence to PAS showing different boroughs as performing well compared to others.

Table 6: Spearman's Rank Correlation

Question	Correlation
1. <i>Taking everything into account, how good a job do you think the police in your local area are doing?</i>	There was a non-statistically significant weak positive correlation between the two variables, $r = .07$, $p = .68$.
2. <i>To what extent do you agree with the following statement: the police are dealing with the issues that matter to people in my local area?</i>	There was a non-statistically significant weak positive correlation between the two variables, $r = .29$, $p = .10$
3. <i>To what extent do you agree or disagree with the following statement: the MPS is an organisation I can trust.</i>	There was a statistically significant weak positive correlation between the two variables, $r = .48$, $p = .005$.

Note: The time period analysed was January to March 2023.

In order to show these findings in more granular detail, Figure 7 shows the rankings for the 'good job local' question in quarter one as a ladder plot. For PAS, Harrow had the largest proportion of people responding positively to the question on whether the police did a good or excellent job locally (59%), whereas for ZenCity, Harrow was rank number 8th with 37%. Conversely Tower Hamlets is the top performing borough for ZenCity with a rank of 23 in PAS.

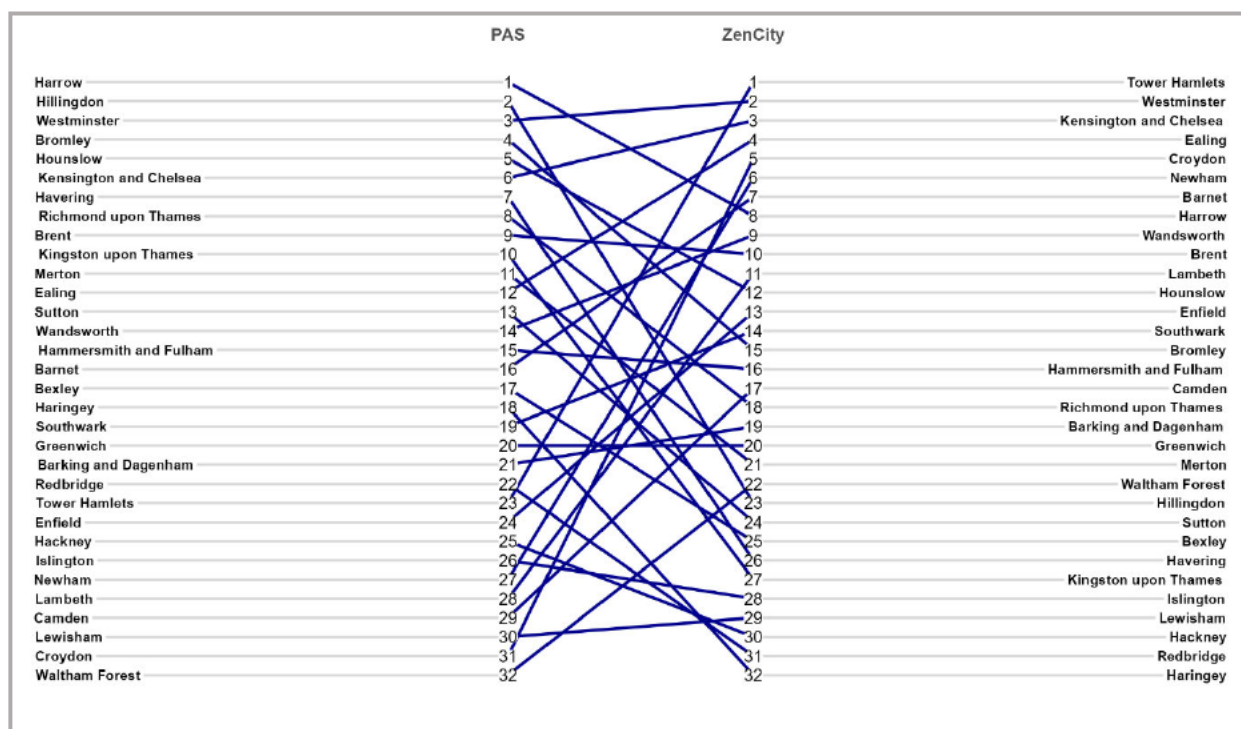


Figure 7: Rank of boroughs for 'Good Job Local', Oct - Dec, 2022

The variability is equally evident in Figure 8 which shows the distribution of borough results for the 'dealing with issues' question. Again there are very clear differences between results for ZenCity and PAS. According to PAS, Hillingdon had the largest proportion of positive responses with 74% agreeing the police are dealing with issues that matter. In contrast, for ZenCity 34% had positive responses, with Hillingdon ranked 19th out of all boroughs. Ealing was the only borough with same rank for PAS and ZenCity. However, the absolute values differed by 27 percentage points with 67% and 40%, respectively.

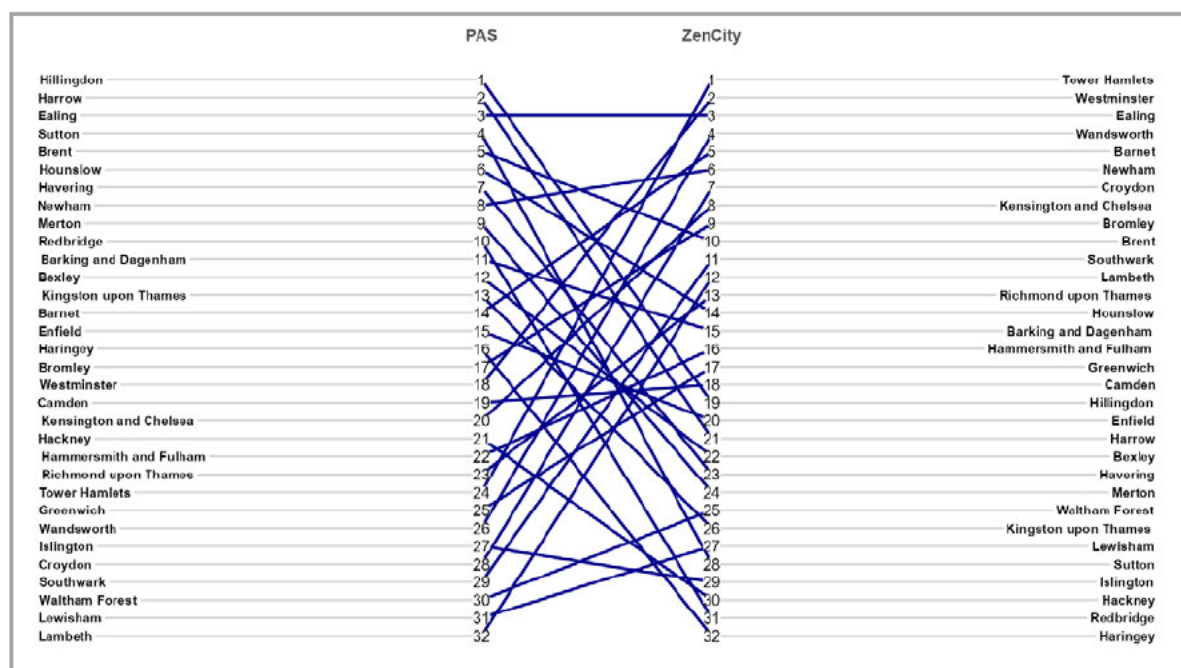


Figure 8: Rank of boroughs for dealing with issues, Sept-Dec, 2022

The changes to borough ranks over time was also explored using the good job local question. Figure 9 shows the borough ranks from PAS for three quarters. The highest and lowest ranked boroughs remained reasonably consistent: Harrow, and Hillingdon have the highest ranks and Croydon, Waltham Forest and Lewisham/Hackney have the lowest ranks. There is some movement from places like Hounslow and Haringey. Figure 10 shows the same rank of each borough in ZenCity. All but two areas (Haringey and Tower Hamlets) changed over time. Some moved a lot such as Southwark, which ranked 14th in Q1, 29th in Q2 and 4th in Q3.

These two charts demonstrate clearly that there is more stability in the data gathered via PAS than via ZenCity. This is important to note since – without stability in the data – it would be hard to use the data to track performance over time.

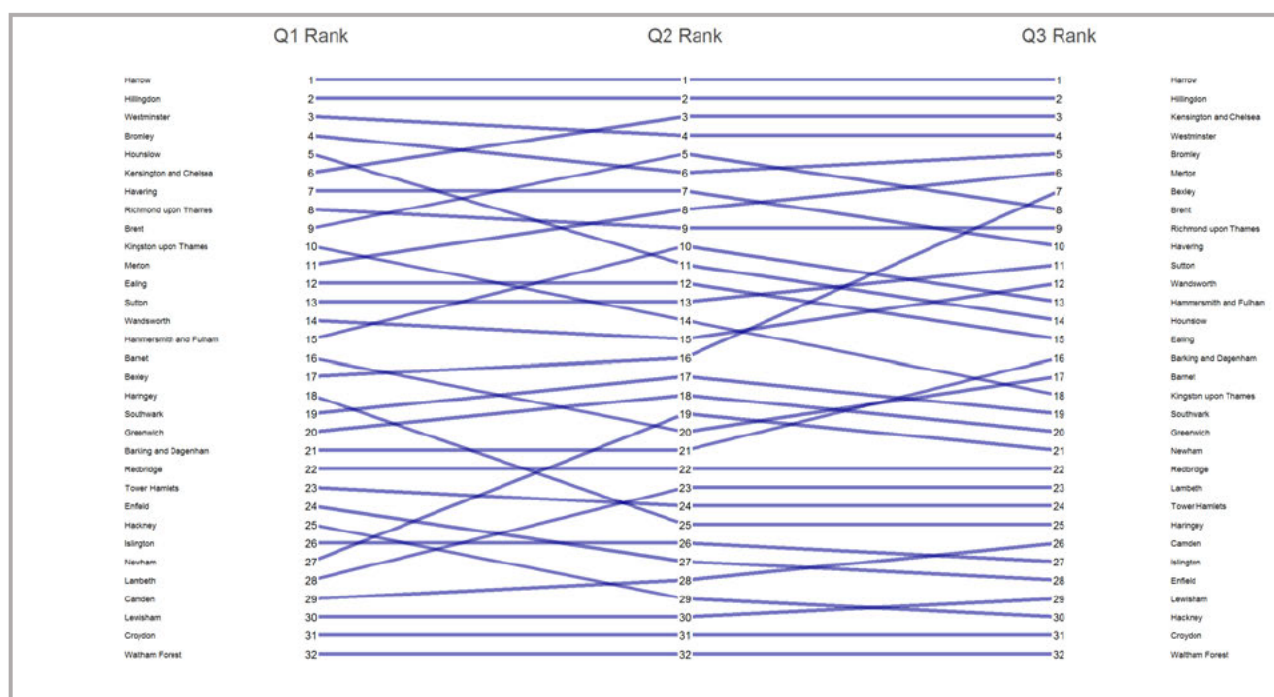


Figure 9: PAS rank of each borough for “Good job local” over three quarters

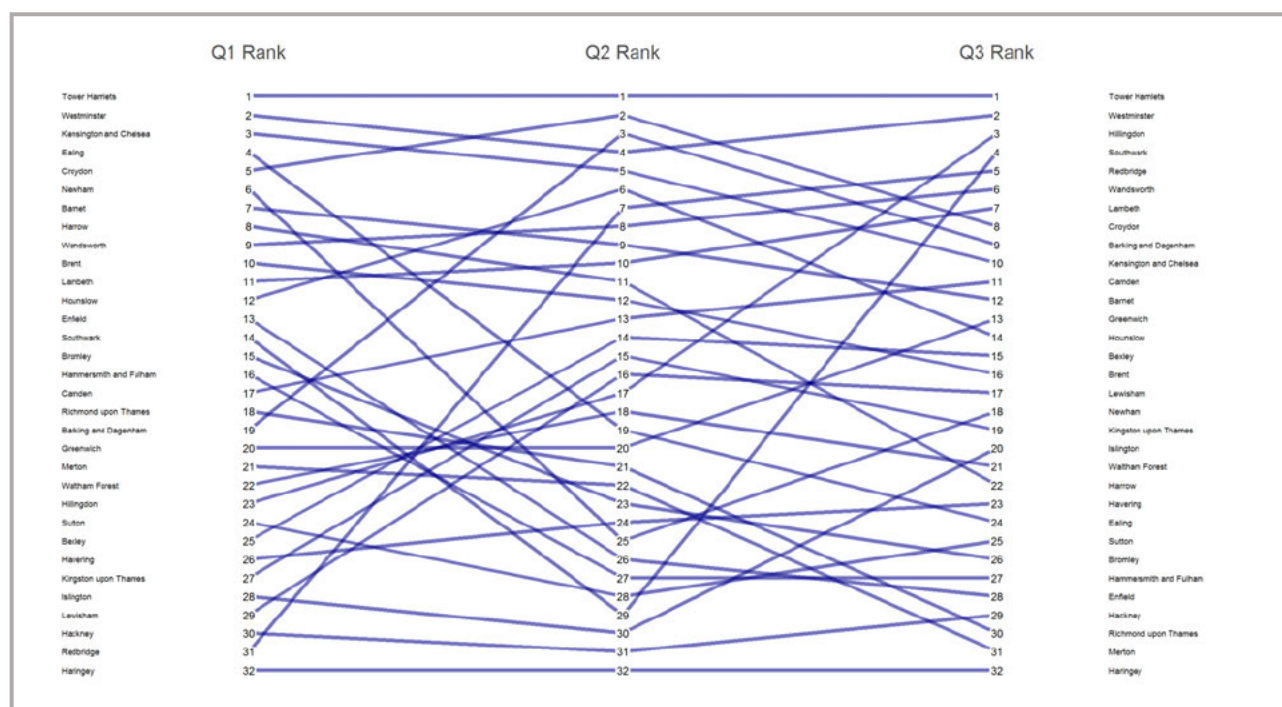


Figure 10: ZenCity rank of each borough for “Good job local” over three quarters

Conclusion

Overall what this comparative analysis has found is that there are substantial differences in the measured levels of trust and confidence between PAS and ZenCity, with ZenCity being a lot lower. These differences also extend to the borough rankings between ZenCity and PAS which show large discrepancies between the boroughs each survey considers are doing relatively well. PAS also has more consistency in its borough rankings over time. Each of these points raise questions about the reliability of using ZenCity as a performance tool in MPS and should be a consideration when developing future use cases for ZenCity.

References

Andy Myhill and Kristie Beak 'Public Confidence in the Police', *Research, analysis and Information*, (2008).

Andrew Mercer and Arnold Lau, 'Comparing Two Types of Online Survey Samples' (September 2023), Pew Research Centre.

David Dutwin and Trend. D. Buskirk 'Apples to Oranges or Gala versus Golden Delicious? Comparing Data Quality of Nonprobability Internet Samples to Low Response Rate Probability Samples, (April 2017), vol.81, Issue S1, pp.213-239;

Pew Research Centre, (May 2nd 2016), 'Evaluating Online Nonprobability Surveys'. Available at: https://www.pewresearch.org/methods/2016/05/02/evaluating-online-nonprobability-surveys/?sm_aui=VR8QDMWfnTFZsN

Matthew Salganik, 'Bit By Bit - Asking questions', 3.4.2 – 'Non-probability samples: weighting';

Rodger Tourangeau, Frederick G. Conrad, Mick, P. Couper 'The Science of Web Surveys' (2013) Oxford University Press.

Census Data 2021 used in Table 1: <https://www.ons.gov.uk/datasets/create/filter-outputs/e2dee8ec-33b8-4252-9be4-a7fa4f3b5fa1#get-data>

Census Data 2021 used in Tables 2, 3 & 4:
<https://www.ons.gov.uk/peoplepopulationandcommunity/culturalidentity/ethnicity/datasets/ethnicgroupbyageandsexinenglandandwales>