



Understanding Public Perceptions of Lancashire Constabulary in 2020

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EXECUTIVE SUMMARY:

Key Findings

This report examined the most recent surveys involving public perceptions of Lancashire Constabulary since the submission of the previous report by Birdsall (2019). Three surveys were identified and were interpreted to provide metrics on three key perceptions of policing: 1) feelings of safety; 2) confidence in the police; and, 3) police effectiveness.

1. Feelings of Safety

The SMSR Research report (commissioned by Lancashire PCC) and the Living in Lancashire (LiL) Wave 52 report both provided metrics on feelings of safety. SMSR Research illustrated how 65% of respondents reported feeling safe, with the LiL Wave 52 survey reporting feelings of safety at 81%. The disparity in the metrics could be attributed to the SMSR Research report combining their quota sample (which concerned a representative sample of Lancashire which was comparable to LiL Wave 52) with a seemingly uncontrolled online sample. Due to the proportion of the samples and combining of data, it is likely that the overall metrics relating to feelings of safety could be skewed due to the combination of samples.

In providing some insight into feelings of safety, both the SMSR Research and LiL Wave 52 report highlighted some insights that attempted to explain the dynamics of the overall metric. Both sets of analyses have limitations and are likely to contain results that emerge due to a Type I error (i.e., have occurred due to random chance). The more stringent analysis within the LiL Wave 52 report found that:

- 'Other' ethnicities (*M* = 2.27) were significantly less likely to feel safe in comparison to
 'White' respondents (*M* = 2.02).
- 'Disabled' respondents (*M* = 2.08) were significantly less likely to feel safe in comparison to 'non-disabled' respondents (*M* = 2.00).
- Those 'not in employment' (*M* = 2.14) were significantly less likely to feel safe than those who were 'working' (*M* = 2.03) and who were 'retired' (*M* = 1.99).
- Those who 'rented from council/housing association' were significantly less likely to feel safe in comparison to those who 'owned outright/being bought on mortgage' (*M*

= 2.01). Those with the tenure of 'other' or 'rented from a private landlord' did not significantly differ from the other groups.

- Those in the areas of 'Hyndburn' (*M* = 2.27) were significantly less likely to feel safe in comparison to most other areas, and those in 'Rossendale' (*M* = 2.18) were significantly less likely to feel safe in comparison to Chorley (*M* = 1.94), Ribble Valley (*M* = 1.91) and Wyre (*M* = 1.93).
- Those in 'East Lancs' (*M* = 2.08) were significantly less likely to feel safe in comparison to 'West Lancs' (*M* = 1.99).

It is recommended that the insights from the SMSR Research report are not considered as 'findings' or actionable results, since they were extracted using descriptive analysis only. However, there were some consistent trends in their data that aligned with some of the findings from the LiL Wave 52 analysis. These were:

- Respondents with a disability were those least likely to say they felt safe in their local area in comparison to those without a disability;
- Respondents living in Ribble Valley felt safest and those in Blackpool felt the most unsafe.

2. Confidence in the Police

Both the SMSR Research report and the Crime Survey of England and Wales (CSEW) by the Office for National Statistics (ONS) reported metrics on confidence. The SMSR Research report highlighted a 59% level of confidence in the police, whereas the ONS reported a rate of 74% (95% CI: 70-78%). Again, there is a possibility that the lower metric is a result of the skew from combining the SMSR samples; however, the disparity could have also been reflective of the different measurement scales used by the two surveys.

The ONS does not provide any further analysis of the insights involved in force level data. In addition, whilst the SMSR Research report does highlight trends in their data, it is recommended that they not be considered as formal 'findings', as no controlled insight analysis has been conducted on the data. Instead the below results are highlighted for information purposes only:

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- Females had more confidence in the police than males;
- Those without a disability were more confident than those with a disability;
- Younger respondents felt higher levels of confidence in comparison to other age groups (those aged 55-64 had lowest levels of confidence);
- Respondents of the online survey had lower confidence than respondents of the phone survey;
- Rossendale had the lowest level of confidence, whereas Lancaster, Ribble Valley and South Ribble had the highest levels of confidence.

3. Police effectiveness

Both the LiL Wave 52 report and the ONS CSEW both reported metrics on police effectiveness, using similar methods and controls. These figures illustrate how 47% of respondents thought the police were effective within the LiL Wave 52 report, with the CSEW showing an effectiveness rate of 52% (95% CI: 48-57%). These metrics appeared relatively complimentary, with the LiL Wave 52 figures falling one percent below the confidence interval of the ONS estimates.

An overview of the surveys, methodology and reported metrics is illustrated in Table 1 below. (Please see Appendix A for a comparison of metrics from the previous public perceptions report (Birdsall, 2019) and this report).

Survey	Year	Wording	Headline Figures	Scale	Lancashire <i>n</i>	Transparent Method	Representative Sampling/Case Weighting	Mixed Methods	Inferential Statistics
Living in Lancashire Wave 52 - Unpublished	2018	Feel Safe	81%	4-point	1,608	V		V	V
		Police Effectiveness	47%	5-point					
SMSR Research	2020	Feel Safe	65%	5-point	4,611			V	X
		Confidence	59%	4-point					
ONS CSEW	2020	Confidence	74% (70-78%)	5-point	727 707			X	X
		Police Effectiveness	52% (48-57%	5-point					

Table 1: Figures related to public perceptions of Lancashire Constabulary across three most recent surveys.

Key Recommendations

Based upon the examination of methods and metrics within each survey, this report makes three key recommendations.

First, due to the skewing of metrics in the SMSR report, it is strongly recommended that efforts are focused on understanding the headline metrics ('feelings of safety' and 'confidence in the police') across the appropriate sub-samples. In doing so, the controlled quota sample could be compared to other surveys, with the online sample being used for greater context. In addition, the ONS CSEW could also be targeted for an FOI request to gain force level data relating to feelings of safety. This could provide a third metric which may help in triangulating and understanding feelings of safety across the Lancashire area.

Second, either the ONS CSEW or the LiL Wave 52 figures could be used to report perceptions on 'police effectiveness'. Both surveys used a similar method to collect and control data, although with their own individual limitations. The results from both surveys appear complimentary, with the LiL Wave 52 results on police effectiveness (47%) falling just outside of the confidence interval reported by the ONS (48-57%).

Third, caution is advised on drawing insights or comparisons relating to feelings of safety and confidence within the SMSR Research report. This is because the analysis of data appears to be descriptive only, without statistical control for random chance. In addition, there did not seem to be any consideration of how the 2020 rates could have increased from the 2019 rates due to the difference in administration and sampling. For example, if the 2019 OPCC survey data concerned an online sample, then the increase in 2020 may be heavily explained by the inclusion of a quota sample mixed in with the online sample. It is strongly recommended, if possible, that formal insight analysis is conducted on the raw data collected and examined by SMSR Research. A controlled statistical analysis of this data using multivariate regression techniques may allow for more controlled insight into the data, with an aim of identifying which variables were providing a statistically significant affect on the target metrics of feelings of safety and confidence in police. Furthermore, this analysis should be focused on the quota sampling only, as inferences from this sample could be generalised to the target population.

If this is not possible, focus should be placed on the insights drawn from the analysis of the LiL Wave 52 data (even though this analysis is not published). This is because the analysis

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involved inferential statistics which went some way towards controlling for random chance, especially when comparisons involve more than two groups (applied Bonferroni correction). There are likely still to be Type I errors within this data due to the exploratory nature of the analysis, however it presents much more controlled insights than that presented within the SMSR Research report.

INTRODUCTION

A previous report by Birdsall (2019) examined large-scale public perceptions surveys of the Lancashire Constabulary between 2015-2019. The 2019 report provided an oversight of which surveys could be used as an evidence-base in relation to perceptions on confidence and satisfaction, based upon what they were measuring and the methodology used. This report provides an updated review of more recent surveys that have been conducted, to ensure that the oversight of metrics remains relevant and up to date.

The rationale for examining the various surveys is that measuring and understanding the public's views of the police is critical to ensure that forces are policing by consent within their local areas (Jackson *et al.*, 2012). Yet, practically capturing these perceptions is often fraught with both conceptual and methodological difficulty. These difficulties are common among many studies that aim to understand wider views or actions of a population, such as political polling, whereby error can occur in several ways, such as: improper sampling; no/improper weighting; non-response bias (and the 'Bradley effect' – where respondents misrepresent information); and improper question framing (Forsberg, 2020).

The main conceptual limitation to understanding public perceptions of the police relates to the inconsistency of the main metric and how this should be interpreted. Consequently, previous studies have highlighted how there is often confusion over two key metrics that appear interchangeable, but could have very different interpretations for the public. These terms are 'confidence' and 'satisfaction'. Cao (2015) argues that confidence is an external influence on the public perceptions, whereas satisfaction occurs internally due to the individual's experience with officers and procedures (Zhao *et al.*, 2014). Further complexity is added when various surveys also use metrics outside of these terms, with other key variables often relating to feelings of safety, legitimacy, trust and effectiveness of police forces.

In addition to the conceptual difficulties, there are also several methodological limitations that relate to sampling, measurements and statistical control. The preferred method for capturing participant responses is on a Likert-scale (Luhmann, 1979), since this measurement provides a more nuanced method of capturing behavioural attitudes. However, inconsistency still exists in the language and number of points across the scales, with scoring potentially

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including four, five and seven-point scales, as well as scores out of ten. In understanding responses, comparisons across tools that use different scales can become cumbersome due to the difficulties involved with issues such as leniency and central tendency (Albaum, 1997).

Just as important is the use of appropriate sampling or statistical weighting to ensure that the reporting of views is representative of the target population. In this context, to capture the diverse populations that the police serve, a stratified or quota sampling technique should be employed (Dawson, 2016). Where this is not possible, statistical weighting could be retrospectively applied to the respondents to account for non-response rates or to ensure representation of demographics (Fontini *et al.*, 2013).

Chronological limitations may also be present across various surveys, given that the most common design used to survey the public's perceptions is a cross sectional design. Subsequently, this causes some difficulty in understanding whether views have changed if annual measurements are taken. This is because it is often unclear what proportion of the sample consists of the same participants who are re-measured, versus the inclusion of new views. In response, some authors state that a more sensitive approach to understanding public views would be longitudinal designs (Sindall *et al.*, 2012).

With the above limitations in mind, this report aims to triangulate the findings of the most recent public perception surveys of Lancashire Constabulary, since the submission of the previous report in August 2019. The study will aim to provide an overview of the findings from each survey within the context of their methodology. The result of report will be to provide guidance on which surveys could be reliably used as an evidence-base regarding particular measures of public perceptions.

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METHOD

Design

The study design used in Birdsall (2019) was replicated to identify and understand large-scale public surveys of Lancashire Constabulary. As such, the same criteria were used to evaluate each of the newly identified surveys. This criteria involved an examination of the:

- Wording/interpretation of questions (Bradford and Myhill, 2015; Cao, 2015; Luhmann, 1988);
- Measurements of response Presence of Likert-type scales with neutrality (Bradford & Myhill, 2015; Luhmann, 1979);
- Transparent methodology;
- Mixed methods (use of both quantitative and qualitative methods);
- Sampling, weighting and administration of survey (Fotini *et al.*, 2013; Kautt, 2011; Perkins, 2006); and
- Use of inferential analysis.

By understanding the findings of recent surveys within the context of their methods, the report aimed to provide clear and concise recommendations into which surveys should be prioritised as evidence for particular measurements of public perceptions. The study also examined individual key findings within the reports that may have been useful in explaining the overall rates of confidence (or other key metrics relating to public perceptions).

Sample

As the previous report focused on research between 2015 to 2019, this report aimed to identify the surveys that were due to be written up and published post August 2019. However, care was taken in interpreting the potential impact on perceptions due to the policing of Covid-19 measures from March 2020.

From a fresh search of literature and repositories of local universities, there did not appear to be any new large-scale public surveys relating to Lancashire Constabulary within the search dates. However, when examining the five strands of survey identified in the previous report, three had updated surveys regarding public perceptions. These included:

- Lancashire County Council (n.d.) 'Living in Lancashire: Community safety (Wave 52)'. Lancashire County Council. Unpublished.
- 2) SMSR Research (2020) Crime & Confidence Survey 2020: On behalf of Lancashire Police and Crime Commissioner's Office. Kingston-Upon-Hull: SMSR Research.
- 3) Office of National Statistics (2019) Crime survey for England and Wales (CSEW) estimate of personal and household crime, anti-social behaviour, and public perceptions, by police force area, year ending March 2019. (Reference No. 010237) London: Office of National Statistics.

RESULTS

 Lancashire County Council (n.d.) 'Living in Lancashire: Community safety (Wave 52)'. Lancashire County Council. Unpublished.

Study context

The Wave 52 survey conducted by Lancashire County Council was expected to be compiled into a written report in early 2020. However, due to issues with capacity, the results of the survey were not written up, meaning the data and findings remain in their raw form. As the report was expected in 2020, the figures were considered to apply to this study and the researcher contacted the Business Intelligence Team within the council to request a copy of the method, questionnaire and data. This information was provided by the Senior Business Intelligence Manager via email (Walker, 2020) and allowed for the results to be examined alongside other recent surveys. Further information was also provided by Lancashire Constabulary's Partnership Intelligence Analyst, Lee Sculpher, who assisted the researcher in understanding the method and analysis of data.

The Wave 52 survey involved both a postal (n = 2,129) and online (n = 787) administration of the same data collection tool, between the dates of January 2018 and February 2019. The survey was sent to all 2,916 members of the prearranged panel, who were pre-selected as a representative sample of Lancashire. There were 1,991 responses returned, which equated to a 68% response rate.

With regards to statistical control, the collected data were subsequently weighted by age, ethnicity and district, in order to best represent the overall Lancashire population. The information also reported the percentage differences required for a difference between two samples to be considered statistically significant at a confidence interval of 95% certainty (*p* < .05). This meant the analysis into the data illustrated the use of inferential analysis using the mean averages derived from coding the Likert scales. This analysis mainly focused on drawing comparisons between different sub-groups of respondents based on various demographic measures (for example, comparisons across the sub-groups of age, gender, ethnicity and locations of the participants).

Main findings

The survey examined safety under question nine: "how safe or unsafe do you consider your local area to be?" (p.6), on a four-point Likert scale with an additional option for 'don't know'. Using the weighted counts, the results for this question illustrated how 81% (n = 964) of respondents stated they felt very or fairly safe, with only 14% (n = 168) of respondents stating they felt very of fairly unsafe. There were n = 49 (4%) respondents who stated they did not know.

This question was followed by an open text option under question ten: "briefly, what is the one main reason why you consider your local area to be safe or unsafe?" (p.6). In this text box, respondents were able to provide additional information to apply context to their previous rating on safety. The text response appeared to be subjected to a content analysis, whereby the reasons reported by respondents were coded and ordered by frequency. There was a total of 61 items coded, with the most common relating to 'other' (n = 213). The following five themes in terms of frequency were:

- Community spirit/neighbours look out for one another/friendly locals (22%, *n* = 198);
- Area feels safe/good area (20%, *n* = 181);
- Quiet area (17%, *n* = 153);
- Lack of police presence (14%, *n* = 128); and
- Experienced/aware of crime in area (13%, *n* = 115).

The survey also examined effectiveness under question fifteen: "to what extent do you agree or disagree that the police and other public services are successfully dealing with the following issues in your local area? Crime" (p.8). This question was also measured on a four-point Likert scale with an additional option for 'don't know'. This found that 47% (n = 559) of respondents stated they tend to or strongly agree, with 36% (n = 428) stating they tend to or strongly disagree. There were 16% (n = 194) of respondents who did not know.

Explanatory variables or comparison to previous surveys

The main findings were also subjected to an inferential comparison based upon the demographic information of the respondents. The analysis used means (without any further information on standard deviation) derived from coding the responses to the Likert scale questions, whereby 1 = very satisfied (or other positive) and 5 = very dissatisfied (or other negative). This meant that higher mean scores reflected less agreement or more negative attitudes towards the questions. The statistical testing was based on a two-tailed test assuming equal variances. Statistical control was applied across pairwise comparisons using Bonferroni correction to adjust the *p* value. However, no statistical control appears to have been applied to the overall data even though it appears to use an exploratory approach, therefore some Type I errors may be present across the whole dataset. With regards to feelings of safety, the analysis found that:

- 'Other' ethnicities (*M* = 2.27) were significantly less likely to feel safe in comparison to
 'White' respondents (*M* = 2.02).
- 'Disabled' respondents (M = 2.08) were significantly less likely to feel safe in comparison to 'non-disabled' respondents (M = 2.00).
- Those 'not in employment' (*M* = 2.14) were significantly less likely to feel safe than those who were 'working' (*M* = 2.03) and who were 'retired' (*M* = 1.99).
- Those who 'rented from council/housing association' were significantly less likely to feel safe in comparison to those who 'owned outright/being bought on mortgage' (*M* = 2.01). Those with the tenure of 'other' or 'rented from a private landlord' did not significantly differ from the other groups.
- Those in the areas of 'Hyndburn' (*M* = 2.27) were significantly less likely to feel safe in comparison to most other areas, and those in 'Rossendale' (*M* = 2.18) were significantly less likely to feel safe in comparison to Chorley (*M* = 1.94), Ribble Valley (*M* = 1.91) and Wyre (*M* = 1.93).
- Those in 'East Lancs' (*M* = 2.08) were significantly less likely to feel safe in comparison to 'West Lancs' (*M* = 1.99).

The same analysis was also conducted on the data from question fifteen relating to police effectiveness in tackling crime. This analysis found that:

- Males (M = 2.54) were significantly less likely to report the police as effective in comparison to females (M = 2.45).
- Those 'working' (*M* = 2.58) were significantly less likely to report the police as effective in comparison those who were 'retired' (*M* = 2.45). Those 'not in employment' did not significantly differ from the other groups.
- Those in 'Hyndburn' (M = 2.76) were significantly less likely to report the police as effective in comparison to several other areas, and those in 'Rossendale' (M = 2.73) were significantly less likely to report the police as effective in comparison to Lancaster (M = 2.37), Ribble Valley (M = 2.42), and South Ribble (M = 2.35).

In addition to the comparison of sub-samples across the key variables of safety and confidence, the findings within the Wave 52 survey were organised alongside corresponding data from the Wave 48 survey. Yet, from the organisation of data it is unclear whether there have been comparisons using inferential analysis, or whether the comparison of data was descriptive only.

The wave 52 data illustrated that 81% (n = 964) felt very or fairly safe. This seemed to provide a descriptive decrease compared to the Wave 48 data (circa 2015), which illustrated that 87% (n = 1,214) of respondents felt very or fairly safe.

Examining the trends for confidence in the police to tackle crime, the Wave 52 data illustrated how 47% (n = 559) tended to or strongly agreed with the statement. This appeared as a descriptive decrease from the 63% (n = 870) who tended to or strongly agreed with this statement in the Wave 48 survey.

Overall, the descriptive comparisons of the Wave 52 (circa 2018) data to the Wave 48 (circa 2015) data illustrated a negative trend towards feelings of safety and police effectiveness.

 2) SMSR Research (2020) Crime & Confidence Survey 2020: On behalf of Lancashire Police and Crime Commissioner's Office. Kingston-Upon-Hull: SMSR Research.

Study context

Social and Market Strategic Research Ltd (SMSR) were commissioned by the Lancashire Police and Crime Commissioner to conduct a survey into views of local residents. The aim of the survey was to understand the public's views on policing priorities and how safe they felt within their local area. The report written report by SMSR Research illustrated a clear reporting of the results with a methodology that was transparent regarding the collection of data. However, the report did not provide information regarding the analysis of data.

The survey was administered in two phases from July through to September 2020. The first phase involved a telephone interview with residents, which used quota sampling to ensure a representative sample. This focused on age, gender and ethnicity of the local residents using census data. The second phase used an online survey method; however, it was unclear where the survey was promoted and how responses were controlled. The survey collected a total of 4,611 responses from residents of Lancashire, with n = 1,400 (30%) collected through quota telephone sampling and n = 3,211 (70%) collected via the online survey.

A mixed methods approach was used to analyse the data. In addition to the descriptive statistics provided throughout the report in relation to the Likert scale/closed answer questions, the study also illustrated the use of thematic analysis (and potentially sentiment analysis) of the open questions. Both sets of analyses appeared to be well presented, with clear data visualisation and examples of text comments. However, there appeared to be a lack of raw counts within the quantitative reporting and no frequencies attached to the coding of each qualitative theme. This created some difficulty in understanding whether each quantitative question contained 100% of the respondents, as well as the overall the proportionality involved in the qualitative responses (e.g., "the most frequently mentioned theme..." (p.15) gives no indication of how many respondents were included within the theme).

Main findings

The findings relating to public perceptions were covered under section 3.2 of the report. The headline metrics related to feelings of safety: "how safe do you feel where you live?" (p.7); and, confidence: "how confident are you that Lancashire Police will be there when you need them?" (p.10).

With regards to safety, this was measured on a five-point Likert scale with the option for neutrality. The results found that 65% of residents stated that they felt safe or very safe. Conversely, 9% stated they were very unsafe or unsafe, with the remaining 26% providing a neutral response.

The confidence scoring used a four-point Likert scale with no option for neutrality. Instead, there was an option for 'don't know'. It is likely that this scale was used so that the results from the current report could be compared to the results from the LPCC survey in 2019. From the four-point scale, 59% reported feeling fairly and very confident in Lancashire Constabulary being there when they needed them. There were 38% that stated they were not very and not at all confident in the police, with only 3% stating they did not know.

Explanatory variables or comparison to previous surveys

The SMSR Research report provided more insight into the overall findings by examining the data via respondent demographics, data collection method (phone vs online), and geographical area. There was also a comparison of the findings with data from 2019.

With regards to the insight into the data, SMSR highlight how:

- Those with a disability were those least likely to say they felt safe in their local area in comparison to those without a disability;
- Responses collected via the phone were more likely to indicate feelings of safety in their area in comparison to the sample collected online;
- Those aged 45 to 54 were less likely to feel safe in comparison to other age groups;

- Respondents living in Ribble Valley felt safest and those in Blackpool felt the most unsafe.

When comparing the 2020 data to 2019, the report indicated that there was a rise in the feelings of safety.

Regarding confidence in the police, SMSR Research highlighted how:

- Females had more confidence in the police than males;
- Those without a disability were more confident than those with a disability;
- Younger respondents felt higher levels of confidence in comparison to other age groups (those aged 55-64 had lowest levels of confidence);
- Respondents of the online survey had lower confidence than respondents of the phone survey;
- Rossendale had the lowest level of confidence, whereas Lancaster, Ribble Valley and South Ribble had the highest levels of confidence.

When comparing this data to the previous report in 2019, SMSR Research highlighted how confidence in the police had almost doubled.

However, it is unclear how this analysis was conducted and whether inferential testing or data modelling was used to identify statistically significant differences and relationships across the target variables. As such, it appears that the deeper examination of the data involved descriptive analysis only.

More critical, the descriptive comparison of annual data may also be highlighting higher rates of confidence and safety due to the different sampling. It is unclear whether the previous versions of the LPCC surveys were online only, or whether they also employed a mixed sampling method. As the SMSR Research report illustrates lower levels of safety and confidence within the online only sample, this may be representative of the lower levels found with the previous reports with similar respondents. It would be important, therefore, to statistically analyse the quota telephone sample against the online sample, to determine how much explanatory power this sample had when analysed against the overall increases in rates of safety and confidence reported by the SMSR Research report. Office of National Statistics (2019) Crime survey for England and Wales (CSEW) estimate of personal and household crime, anti-social behaviour, and public perceptions, by police force area, year ending March 2019. (Reference No. 010237) London: Office of National Statistics.

Study context

The Office for National Statistics (ONS) conducts and hosts data from the Crime Survey of England and Wales (CSEW). This survey concerns an examination of individuals, over the age of 16, and their experience of crime over the past 12 months. The responses are considered to be national statistics, which must follow strict protocols and practices in the organisation and analysis of data.

The data used within this report was the most recent 'user request' released on 17th July 2020. It concerns data from the CSEW up until March 2020, with a section on perceptions of the local police. As stated in the dataset itself, the force level data provided in this context is not as robust as the national level estimates, due to the lowering of sample sizes. Therefore, extreme caution should be used when interpreting and using force level ratings and confidence intervals.

The CSEW estimates are derived from face-to-face interviews with 33,735 individuals, aged 16 or over, across England and Wales (Children between aged 10-15 now appear within a separate children's survey). A preliminary analysis indicated that there was a 64% response rate. Within the data, there were n = 727 (unweighted) respondents from Lancashire.

It is important to note that the data collection method used in the CSEW, relating to face-toface interviews, was suspended mid-March due to restrictions imposed in response to Covid-19. The ONS have stated clearly, however, that it has not affected the results for any dataset released 'year ending March 2020', which includes the dataset analysed within this report. However, the response rate for the survey was slightly lower than previous years due to the restrictions, but this has been accounted for in the weighting of responses. The weighting applied to the statistics, by Kantar, involved both weighting for non-response bias, as well as to ensure the overall sample reflected the profile of the general population.

Main findings

The questions that related to overall public perceptions of the police in the 2019/20 survey was POLATT7: "Taking everything into account I have confidence in the police in this area". This provided a five-point Likert scale for respondents to rate their level of agreement with the statement. Within the reported data, the ONS provide an overall metric on the estimated confidence levels for each local police force alongside a 95% confidence interval. With regards to Lancashire Constabulary, the overall rating of confidence in the police was an estimated 74% (95% CI: 70-78%). This appeared consistent with the national average of 74% confidence across all forces (95% CI: 74-75%).

In addition, there was also data relating to police effectiveness. This involved n = 707 unweighted respondents, whereby 52% agreed (95% CI: 48-57%) that "the police are doing an excellent or a good job in their local area".

Explanatory variables or comparison to previous surveys

Whilst the ONS does not make direct comparisons to previous data within the user request 2019/20, the method used to collect and weight data remains consistent with previous datasets. Using a descriptive comparison only, the previous report by Birdsall (2019) highlighted how the ONS rated confidence in the Lancashire Constabulary at 73% (95% CI: 69-77). Therefore, the current rating of 74% confidence (95% CI: 70-78%) in Lancashire Constabulary illustrated a consistent trend in confidence.

DISCUSSION

Survey Methods

Overall, there appeared to be a clear separation of concepts in the wording of each survey, whereby the metrics could be clearly distinguished. This addressed previous concerns in literature which illustrated how concepts were often confused and compounded within surveys (Cao, 2015; Luhmann, 1988). Overall, the three surveys included within the report were interpreted to measure: 'confidence in the police' (SMSR Research and ONS CSEW); 'feelings of safety' (SMSR Research and LiL Wave 52); and, 'police effectiveness' (LiL Wave 52 and ONS CSEW).

However, there were variations in the measurements of the concepts, causing some difficulties in comparison across the survey due to form related errors (Luhmann, 1979). The Feelings of safety were measured using a four-point Likert within the LiL Wave 52 data and on a five-point scale in the SMSR Research report. Conversely, the SMSR report used a four-point Likert for the question regarding confidence, which differed from the CSEW which used a five-point scale. The only scales that were consisted across metrics, were the five-point scales used to assess police effectiveness by the LiL Wave 52 and ONS CSEW data.

All three surveys contained a relatively transparent methodology, with the ONS CSEW being the most comprehensive due to the data being considered national statistics. The LiL Wave 52 report contained a clear method; however, this was not formed within a written report regarding attitudes towards the police. The SMSR Research provided a transparent methodology with regards to administration and sampling, but lacked clarity on the methods used to analyse the data. It was apparent however, that the SMSR Research report and the LiL Wave 52 survey both used a mixed methods analysis. The ONS CSEW, used only a quantitative method to report force level estimates.

With regards to controlling the sample, all surveys employed some form of control (Fotini *et al.*, 2013; Kautt, 2011; Perkins, 2006). The LiL Wave 52 survey and ONS CSEW both used retrospective weighting to control for non-response bias and population demographics. The SMSR report used quota sampling to control part of the sample for demographics; however, it did not seem to apply any control to the online sample. This meant that this report

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contained a partially controlled sample (30% quota), with the remaining 70% appearing to be an uncontrolled online sample. Furthermore, the SMSR report did not provide any statistical control or confidence intervals when reporting findings. This differed from the analysis of data in the LiL Wave 52 survey and the ONS CSEW which either conducted inferential statistical analysis or provided estimates with confidence intervals at 95%.

Survey Results

Examining the headline figures systematically, police confidence was reportedly at 59% in the SMSR Research report, but at 74% (95% CI: 70-78%) in the estimates from the ONS CSEW. These metrics give different impressions of confidence in the Lancashire Constabulary and may have been affected by the online sample within the SMSR Research report. In this instance, and as mentioned within the SMSR Research report itself, the quota sample provided much higher levels of confidence (82%) in comparison to the online sample (49%). Considering the online sample was over twice the proportion of the quota sample, this meant that an averaging of scores resulted in the lower confidence level of 59%. However, given the size and applicability of the sampling within the SMSR Research report this metrics could be prioritised over the lesser robust estimates derived from the ONS CSEW. However, a key recommendation of this report would be to split the entire sample of the SMSR Research report into its requisite sub-samples. By reporting the results separately, the quota sampling could be used to provide an understanding of the Lancashire population that could be compared to the ONS CSEW and LiL Wave 52. This would allow the online sample to provide insight and views relating to an online presence of respondents, which have not been subject to the same control/weighting. Furthermore, inferential analysis could determine the overall impact of the split within the sample and how this impacted upon the metrics throughout the report.

The SMSR Research report also examined feelings of safety alongside the LiL Wave 52 survey. The SMSR Research report found lower levels in the feelings of safety (65%) in comparison to LiL Wave 52 (81%). Again, this figure may be due to the averaging of the sub-samples within the SMSR Research report. However, it could also be a product of the SMSR Research report using a five-point scale with neutrality, whereby respondents may have been more likely to

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provide a neutral response in comparison to the LiL Wave 52 survey which forced respondents to answer on a four-point Likert. Similar to the previous metrics, it is advised that the SMSR Research report figure be used due to the sample size and measurement. Yet, if split into the appropriate sub-samples, then more effective comparisons may be drawn between the quota sample and the LiL Wave 52 data.

The third metric, police effectiveness, was considered by both the ONS CSEW and the LiL Wave 52 survey. Both metrics used a five-point Likert and weighted the data for non-response bias and population demographics. Both reports provided relatively consistent findings into police effectiveness, with the ONS CSEW illustrating agreement at 52% (95% CI: 48-57%) and LiL Wave 52 showing agreement at 47%. It is advised that either metric be used as an evidence-base. This is because the LiL Wave 52 data may be more robust but represents a 2018 sample, whereas the CSEW estimates may illustrate less robust estimates but that are representative of a 2020 sample.

With regards to the insights within the data itself, precedent should be placed on the analysis of data by the LiL Wave 52. This is because this analysis concerned an inferential statistical analysis of means derived from the coded Likert scales. Furthermore, Bonferroni correction is also applied to tests that contain more than 2 groups, providing more stringent statistical control. However, it must be noted that the design of analysis in this survey is exploratory with no overall statistical control (as doing so may also be too restrictive), therefore some Type I errors may be present in the findings. This is more stringent than the SMSR Research report which appears to concern descriptive comparisons across the data only. This method would likely result in numerous Type I errors, as findings in the data could have occurred due to random chance and there is no control for this within the analysis. A recommendation would be, therefore, to determine whether the SMSR Research report did in fact concern inferential analysis. If so, then results from this report should be prioritised over the insights derived from LiL Wave 52. However, if not, then inferential analysis *could* be conducted on this data (perhaps after the splitting of data into the appropriate sub-samples), in order to identify statistically significant explanatory variables when modelled against feelings of safety and/or confidence in the police.

That being said, there were some complimentary findings between the LiL Wave 52 analysis and the descriptive insights of the SMSR Research report. Both analyses found that:

- 1) Respondents with disabilities felt less safe than those without disabilities; and
- 2) Respondents living in Rossendale and Hyndburn reported lower feelings of safety than those in Ribble Valley, South Ribble and Lancaster.

In addition to these insights, the CSEW also contained a question relating to feelings of safety that did not appear within the results of the data examined within this report. Therefore, a final recommendation would be to use an FOI request to collect data on feelings of safety broken down by force area from the ONS. Taking account of the CSEW estimates would provide a third metric into feelings of safety to compare against LiL Wave 52 and the SMSR Research results, and provide further insight into the disparity between the levels within these reports.

Conclusion

Based upon the overall findings alongside their respective methodologies, a number of clear conclusions and recommendations are made.

First, the headline figures relating to feelings of safety and confidence in the police may have been skewed by combining both the quota and online sample. Therefore, a key recommendation of the report would be to prioritise efforts into understanding the data once it is split into its appropriate sub-samples. In doing so, the controlled quota sample could be compared to other surveys and the online sample used for greater context and insight analysis.

Second, either the ONS CSEW or the LiL Wave 52 figures could be used to report perceptions on police effectiveness. Both surveys used a similar method to collect and control data, and both had their individual limitations. That said, both metrics appear complimentary, with the LiL Wave 52 results on police effectiveness (47%) falling just outside of the confidence interval reported by the ONS (48-57%).

Third, the SMSR Research report should not be used to draw insights into which variables impacted upon the overall scores of feelings of safety and confidence, or used in comparison to previous survey data to illustrate trends. These comparisons appear to be descriptive only, without statistical control for random chance. In addition, there did not seem to be any consideration of how the 2020 rates could have increased from the 2019 rates due to the difference in administration and sampling. For example, if the 2019 OPCC survey data concerned an online sample, then the increase in 2020 may be heavily explained by the inclusion of a quota sample mixed in with the online sample. More information would be needed on the how this data was analysed before any reliable conclusions could be drawn about the insights presented, or about the differences in annual figures.

Instead, and whilst it is not published, focus should be placed on the insights drawn from the analysis of the LiL Wave 52 data. This is because the analysis involved inferential statistics which control for random chance. In addition, further statistical control is applied when comparisons involve more than two groups (Bonferroni correction). There are likely still to be Type I errors within this data due to the exploratory nature of the analysis, however it presents much more controlled insights than that presented within the SMSR Research report.

A second key recommendation of this report, therefore, would be for the Constabulary to determine whether the SMSR Research report did in fact involved the use of data modelling or inferential analysis to identify the findings within the report. If this was not the case, then efforts should be placed into providing this analysis on the existing data collected by SMSR Research to provide a holistic understanding of the data. This analysis could focus on determining the statistically significant explanatory variables when modelled against the target metrics of safety and confidence. Furthermore, the data within the SMSR Research report may be more effectively compared if broken down into its respective sub-samples of 'controlled quota sample' and 'uncontrolled online sample'.

A third and final recommendation of this report would be to gain insight into the ONS CSEW metrics on feelings of safety via an FOI request. This request could focus on the questions within the CSEW that relate to feelings of safety, broken down by force area. The output provided by the ONS could then provide a further metric to compare against the reported 81% (LiL Wave 52%) and 65% (SMSR Research) agreement to police effectiveness, to determine which metric may be more representative. Until that time, the SMSR Research report figures should be prioritised with regards to this headline figure.

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<u>APPENDIX A – Comparison of Survey and Metrics 2015-2020.</u>

Survey	Year	Wording	Headline Figures	Scale	Lancashire n	Transparent Method	Representative Sampling/Case Weighting	Mixed Methods	Inferential Statistics
Living in Lancashire Wave 52 - Unpublished	2018	Feel Safe	81%	4-point	1,608		M	M	V
		Police Effectiveness	47%	5-point					
SMSR Research	2020	Feel Safe	65%	5-point	4,611			V	X
		Confidence	59%	4-point					
ONS CSEW	2020	Confidence	74% (70-78%)	5-point	727 707	V		X	×
		Police Effectiveness	52% (48-57%	5-point					

Table 2: Figures related to public perceptions of Lancashire Constabulary across three most recent surveys.

Survey	Year	Wording	Headline Figures	Scale	Lancashire N	Transparent Method	Representative Sampling/Case Weighting	Mixed Methods	Inferential Statistics
BMG	2019	Satisfaction	62%	5-point	400				
ONS	2018	Confidence	73% (69-77%)	5-point	796			×	×
OPCC	2018	'Do a good job around here' [i.e., Effectiveness]	47.8%	5-point	_	×	×	×	X
UCLan	2015	Satisfaction & Confidence	57% & 62%	7-point & 7-point	1,184 & 1,190		X		
Living in Lancashire Wave 48	2015	'Dealing with crime Successfully' [i.e., Effectiveness]	63%	5-point	2,170	V		V	
¹ Living in Lancashire Wave 52 — Raw Data	2018/ 19	'Dealing with crime Successfully' [i.e., Effectiveness]	47%	5-point	1,608	V		V	

Table 3: Figures related to public perceptions of Lancashire Constabulary – Table directly extracted from Birdsall (2019).

¹ Living in Lancashire Wave 52 raw data figures included for completeness. Please note this data is not yet written into a full report, which is expected early 2020.