Office for Statistics Regulation

Office for Statistics Regulation Research Programme

Trust and official statistics

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1 Introduction

This review was written on behalf of the Office for Statistics Regulation (OSR). As the independent regulator of official statistics produced within the UK, OSR is interested in finding out whether the public trust official statistics, and how further trust in the statistical system can be built.

The work of OSR is underpinned by the conviction that official statistics should serve the public good. This means statistics should be public assets that provide insight, which allows them to be used widely for informing understanding and shaping action. This vision can only be fulfilled if users and potential users of official statistics consider them to be trustworthy. Trustworthiness is one of the three core principles in OSR's Code of Practice for Statistics, alongside Quality and Value. This research focuses on the factors that can influence levels of trust and considers how these could relate to building trust in official statistics.

1.1 Scope of this Report

This report asks: what is trust?; who trusts?; and how do you build trust? These questions help us to understand whether the public trusts those involved in the production, and communication, of official statistics and what accounts for different levels of trust. These questions are answered through synthesising existing literature, and supported by primary analysis (described in Methodology). Thereafter, it concludes with a series of practical recommendations which can be adopted in order to increase levels of trust, improve trustworthiness and contribute to the overall vision of ensuring that official statistics serve the public good.

This report investigates levels of trust and draws together evidence exploring influencing factors. As the literature and existing studies focusing explicitly on the topic of trust in "official statistics" are relatively sparse – with obvious exceptions including the Public Confidence in Official Statistics (PCOS) survey and a small collation of commissioned surveys dedicated to this theme – this review adopts a wider approach which analyses levels of public trust more broadly. It considers studies which explore levels of public trust in actors and objects involved in the production, or communication, of official statistics. This includes the government; the Civil Service; scientists and experts; journalists and the media; research on communication platforms; and evidence more broadly.

From this broader approach to exploring trust, readers are provided with an overall picture of public trust levels. To support this aim, this review adopts a cross-disciplinary outlook drawing on psychological, sociological and political accounts of trust, and considers a range of models developed within these fields. Overall, this report aims to establish: 1) what is trust?; 2) how is trust earned, and maintained?; and finally, 3) how can the statistical system build trust? To clarify, the first objective is definitional, the second is explanatory, and the third is prescriptive.

Throughout the report, links to other sections are included. This navigation tool enables the reader to locate information which is provided elsewhere in the report, and to find further detail and/or evidence. This avoids unnecessary repetition, whilst

ensuring that explanations are provided. Moving between these links is entirely optional and is at the reader's discretion. The report will make sense if read chronologically. In addition to this, readers should take note of their placement in the report before clicking, as the links only function as one-way navigation tools.

1.2 Why is Trust Important?

According to a paper presented in 2011 by the UK Statistics Authority (Aldritt & Wilcock, 2011, p.1), trust in official statistics is important because 'it affects the utility of the statistics; and utility affects the value to government and society.' In other words, 'less trust means less use and less value.'

This centrality, and the likelihood that if the public do not trust the evidence presented to them as official statistics, they are unlikely to use it, means that building and maintaining trust is paramount. In the absence of trust, as the Statistics Commission report (2004) warns, overall decisions will be weakened, because the public may be arriving at conclusions without considering all available evidence.

Focusing on the dual assets of trust and value, the Statistics Commission addresses the question at hand rather succulently: 'Statistics that are not trusted cannot deliver the same value to society as ones that are' (2008, p.36). Unpacking this further, the report continues to explain that:

> *'Users need to have confidence that statistical outputs are sufficiently reliable in terms of measuring the relevant social and economic characteristics – and that any weaknesses in this regard will be fully explained. Users also need to be confident that the statistical products have not been amended (or concealed or delayed) so as to suit a particular policy or argument. These two components – quality and probity – are central to the concept of being trustworthy.' (2008, p.36)*

To flesh out these two components, this review recommends quality and probity. Quality refers to reliability and to producers' commitment to be transparent about the limitations of the best estimates that the statistics are able to make. Cautionary remarks and communicating uncertainty are instrumental in this regard. The second criterion, probity, relates to concerns around possible misuse or distortion – in other words, ensuring that the statistics presented are a true and honest account of the situation.

Studies focusing on political probity have shown that increasing levels, which signify higher confidence in the honesty and integrity of political bodies, are associated with increased trust in governments (Martin et al., 2020). Thus, applying the same causal mechanism to the domain of official statistics, it is possible that if probity (confidence in the honesty of producers) increases, trust will follow suit.

1.3 What is Trust?

Before turning to the empirical research and signposting what factors the literature proposes influence trust levels, this report asks: what is "trust"? This is because in order to understand how the UK statistical system can build trust in official statistics, it is first necessary to define trust and explore what drives it.

The first point to acknowledge in this regard relates to the elusive quality of trust. As Paperzak explains, one of the reasons that trust is not automatically granted is because 'trust cannot be displayed, observed or presented as a thing' (2013, p.9). The array of synonyms one can transplant in the place of "trust" further complicates the task of settling on a definition. For instance, "confidence", "reliance" and "belief" are a few examples of how "trust" might be substituted in everyday language. This exemplifies how, by its very abstract nature, trust is a vague concept. This uncertainty may have implications for measuring levels of trust.

This elusive quality is further compounded by the significance of trust, as a variable of interest, across a variety of disciplines and research agendas. Within each of these disciplines, scholars have made efforts to arrive at a definition, or conceptualisation, of trust in order to aid further investigative enquiry.

Reflecting on the state of the field in their recently published *Handbook on Trust in Public Governance*, Latusek at al. (2025, p.3) postulate that the most commonly applied and thus widely accepted definitions are inspired by Rousseau et al. (1998) and Mayer et al. (1995). To paraphrase the former, trust is based on a willingness to be vulnerable, and an expectation that the other person will perform the requested action. These qualities of vulnerability and expectation are echoed by Mayer et al.; however, an additional feature, 'irrespective of the ability to monitor or control that other party' (1995, p.712), is added to reiterate the importance of relinquishing control in the process of awarding trust to another party.

To provide a fuller picture of these different definitions, and highlight what each respective field offers, contributions are grouped into discipline-inspired research agendas and outlined in the following subsections. In line with this structure, trust is defined as a personality trait; a reciprocal process; a rational, socially desirable objective; and finally, a state of vulnerability. Taking stock of the variety of definitions, it is important to note that they are not siloed, and there is crossover between the thematic trends identified.

1.3.1 A Personality Trait

From the perspective of behavioural psychology, the willingness to trust is viewed as a personality trait, with some scholars characterising trust as a behavioural feature which some people have a disposition towards (Rotter, 1967).

To clarify, this characteristic-based definition is not reductionist in the sense that it presumes that those with a predisposition to trust will display a universal and unwavering level of trust. On the contrary, it refers to a tendency, disposition or inclination towards perceiving others as trustworthy – as opposed to untrustworthy. The distinction between trust and trustworthy is unpacked in the "Trustworthiness"

section of this paper. However, as a brief synopsis, trustworthiness is the process of demonstrating one is “worthy” of being granted trust, where trust is the outcome (O’Neill, 2018).

In short, a trusting disposition applies to those who are “more likely” to trust than others, even with limited information. Weber et al. rationalise this by explaining how, to ‘ameliorate the anxiety associated with dependence’ or vulnerability, the prescribed solution is to perceive others as trustworthy (Weber et al., 2005, p.75). This suggests that granting others trust is a reassuring process undertaken to remedy the discomfort experienced from a position of distrust (or from remaining in a state of mistrust limbo).

Further contributions from the field of behavioural psychology help provide a picture of what behavioural traits trust is associated with. Studies of this nature suggest that agreeableness, which is characterised by low levels of suspicion and competitivity, is associated with higher levels of trust. (Mondak & Halperin, 2008). Meanwhile, neuroticism and extraversion are negatively related to political trust (Freitag & Ackermann, 2016, p.718).

This provides a useful starting point; however, it still leaves us wondering whether having a trusting personality influences one’s behaviour. Mayer at al. (1995) proposes that whilst personality traits and predispositions may contribute to initial perceptions, having access to more information (whether the other person is trustworthy or not) can alter inclinations to trust. This is because – based on the expectation that one’s track record provides a reliable indicator of future behaviour – once we gather more information, this can act as a supplement to behavioural propensities.

The notion that trust is decided based on repeated exposure to experiences is a common thread within the literature (Smirnova & Scanlon, 2017). This is inspired by Luhmann’s proposition that ‘familiarity is a precondition for trust and distrust’ and is based on the ‘assumption that the familiar will remain’ (1979, pp.19–20).

Further evidence that prior experiences help to alleviate against the influence of behavioural predispositions can be gathered from Müller and Schwieren’s paper (2020). This paper tackles the question of whether experience surpasses personality traits in the context of a trust game (similar to that developed by McCabe & Smith, 2000), discovering that whilst personality was helpful in explaining the behaviour of player one (high agreeableness was a predictor of likelihood to trust, and high levels of neuroticism led to a lower likelihood of trusting), for player two, there was no such correlation between personality traits and behaviour. This suggests that the likelihood of trusting was a product of the situation (whether or not player one had trusted them) rather than their own personality traits, or predisposition to trust. This would imply that personality traits are important predictors of trust, but they are not the sole determinant in outcomes of trusting behaviour.

Previous studies in this area have pointed to the importance of observable demonstrations of trust. For instance, Deck (2010) showed that, in cases where the first response is kept hidden from the other player, trust reduces. This supports the

notion that the process of trust is fundamentally one of reciprocity (as McCabe et al., 2003, show), or, to quote Cohen and Isaac, 'trust begets trustworthiness and also trust in others' (2021, p.189). In summation, it seems that personality traits shape initial willingness to trust, but reciprocity can outweigh predisposition.

The studies highlighted in this section would suggest that although personality traits may influence one's willingness to trust despite an absence of information, this can be moderated through exposure and familiarity. This points to the importance of maintaining an active public profile, showing that recognition and exposure support trust building. It is important to remain mindful that both positive and negative reputational legacies can shape future trust decisions. Thus, it is a prerequisite of this recommendation that alongside seeking avenues of exposure, producers also ensure that they have a trustworthy track record to showcase.

1.3.2 A Reciprocal Process

Building on Müller and Schwieren's (2020) finding that reciprocity outweighs predisposition, the second definition brings in a social dimension and considers how trust functions as a relationship between two (or more) actors (Cook & Santana, 2020). Highlighting expectations of reciprocity, these accounts consider trust to be an interpersonal process which 'occurs in a dyadic context, wherein parties voluntarily interact in ways that mutually benefit each other' (Korsgaard, 2018, p.14).

According to this definition, trust is bidirectional and mutually reinforcing. It is a dynamic process which evolves in response to previous interactions. This facilitates the conceptualisation of trusting behaviour as distinct from trustworthiness, whilst explaining how both reinforce each other through "trust spirals". These trust spirals highlight the reciprocal relationship between trust and cooperation, defining trust as a pro-social behaviour based on cooperation between actors (Cook et al., 2005).

To breakdown the mechanics of the process: the cooperative behaviour exemplified by X is interpreted by Y as a sign that X is trustworthy; thus, Y is willing to trust X and cooperates in return. This outcome, much like a spiral, or virtuous cycle, is then interpreted by X to signal that Y is trustworthy, and so X is willing to trust Y. According to this account, this cycle continues, and trust is built. It is also worth highlighting that this same process can underpin the escalation of distrust – when avoidant behaviour and distrust are substituted into the process outlined above (Korsgaard, 2018, p.14).

Studies which investigate reciprocal trust often use dilemma games to test the bidirectionality of trust. Within these games, trust manifests in cooperative behaviour. One such study, recounted in Korsgaard's (2018) chapter dedicated to reciprocal trust, found that experiential knowledge (knowledge gained from previous interactions) significantly predicts mirrored trust outcomes (betrayal, reciprocity or reward) (Delgado-Marquezto, 2015).

Further studies (as cited in Korsgaard, 2018) have also shown that cooperation predicts trust, and vice versa. For instance, Ferrin et al. found that trust and cooperation are reciprocally predicted and showed that 'perceived trustworthiness and cooperation were spiralling upward over time' (2008, p.167). According to Ferrin et al., reciprocal trust begins as a 'conscious decision process' whereby players simultaneously observe cooperative behaviour, draw conclusions and then reciprocate based on that conclusion. However, as time passes, the process becomes more instinctual and automatic, and interdependent, mutually reinforced spirals of trust are established (2008, p.171). This suggests that repeated expressions of trust, exemplified over a sustained period of time, are necessary to ensure that spirals of trust are able to gain traction.

To apply these studies to an actionable recommendation, one could refer back to the mantra 'trust begets trustworthiness and also trust in others' (Cohen & Isaac, 2021, p.189). In other words, according to the reciprocal definition, demonstrating trust is needed to initiate the cycle, to be seen as trustworthy, and to earn the trust of others.

In addition to summarising how trust as a reciprocal process functions, it is also important to reflect upon the shape and direction of the exchange. This is because understanding the trajectory of trust helps identify positive triggers, as opposed to negative ones. The alternative, a "spiral of cynicism" – whereby distrust resulting from one issue can be transposed onto another, and then another, and another – has also been theorised. On this theme, studies have used panel data to show that participants who feel distrust are more likely to believe future claims of misconduct (Dancey, 2012). This suggests that, like reciprocal trust, distrust also holds a perpetuating quality.

Dedicating attention to how these positive and negative triggers have been outlined in the literature, Korsgaard (2018) identifies four main branches: 1) facial features and cues; 2) the mindset of the individual, with fatigue, distraction and low motivation setting a negative course; 3) predisposition to distrust outweighing propensity to trust in group dynamics; and finally, 4) experience and expectation.

At a functional level, the process of reciprocal trust entails expectations: namely, that cooperation will be reciprocated. Focusing on political trust, Brennan (1998) describes how the process of being recognised as trustworthy can exert pressure on rational actors to behave in accordance with these expectations. As a consequence of communicating their intention to behave in a trustworthy manner (in this context, the initial act of cooperation), a rational actor feels compelled to abide. This is because the shame of defecting from the expectation outweighs the cost of compliance.

With this in mind, statistical producers should consider making a public commitment to behave in a trustworthy manner. Communicating this to

the public may increase pressure on statistical producers to stand by the commitment and behave in a trustworthy manner in the future.

The studies reviewed in this section suggest that cooperative exchanges build trust, trust is reciprocated by rational actors, and trustworthiness can become an expectation when communicated.

A further implication of subscribing to this definition of trust as a reciprocal process is that trust is awarded on the basis of rational choice calculations (as opposed to an innate inclination or personality predisposition). This is because the decision of whether to signal trustworthiness via cooperative behaviours is, to some degree at least, a rational choice based on utility maximisation: to earn the other party's trust, and in turn their cooperation. Understanding trust as a rational choice is unpacked in the next subsection.

1.3.3 A Rational Choice as a Socially Desirable Objective

Some scholars have sought to define trust as a rational choice, often using game theory to illustrate their conclusions. These accounts view trust as a cognitive process, whereby the individual calculates the value of trust versus distrust, and makes their choice based on achieving maximum utility. In other words, if the expected outcome of trusting is more beneficial than that achieved by withholding trust, trust will be granted – if not, it will be denied.

Of course, this decision reflects one's own capabilities and objectives. If the objective one desires can be achieved without the need to expose oneself to the vulnerable process of granting trust, then the rational choice may be self-reliance (the denial of trust). However, if the task is beyond one's capabilities (time, scope, skillset and knowledge) and one considers the outcome to be beneficial, the rational choice is to outsource these capabilities and trust someone else to deliver the outcome.

Tying this back to official statistics, rational choice suggests that highlighting the benefits of official statistics may increase the public's willingness to bear the costs of trusting them, and the vulnerability it entails (more details on the risks involved in the process of assigning trust can be found in the section "State of Vulnerability" in this report).

In this respect, the value that official statistics deliver, in terms of understanding the societal context and informing effective policies, should be shared publicly. Making greater efforts to communicate these benefits could help balance the cost–benefit calculation in favour of trusting official statistics.

The notion that trust is a socially desirable attribute should also be factored into these calculations. Conceptualising trust through a rational choice lens showcases the appeal of trust and explains how its status, as a positive attribute, underlies

trustworthy behaviour. In other words, one may come to expect the outcome of trust, because rational actors will strive to behave in accordance with the desirable attribute (being trustworthy) as opposed to the deviant, or undesirable attribute (being untrustworthy or distrustful).

Illustrating the role of rational choice, Hardin (2002) introduces the notion of "encapsulated interest". According to Hardin, trust is driven by two factors: 1) interest in maintaining the relationship into the future; and 2) a desire to secure a reputation as being trustworthy (deserving of trust). In a social community, it is considered advantageous to build relations with others. The possibility of being able to expand one's social network based on a positive reputation (of being reliable and trustworthy) is conducive to this interest; thus, it is considered to be a rational objective. van der Meer (2010) echoes the importance of a positive track record of prior interactions (reputation) and proposes that predictability, and behaving in line with expected actions, can be an important determinant of trust.

Applying this definition implies that the decision to trust can be the outcome of rational calculation. However, it is important to acknowledge that trust is not always the rational decision. This point can be illustrated by conceptualising trust as a four-way matrix, as depicted in the prisoner's dilemma (variants of which are often used to illustrate rational choice outcomes).Trusting an untrustworthy player in the dilemma not only means that there is no successful coalition, but also results in greater punishment. In other words, as Riker (1980, p.11) explains, 'the punishment for not trusting, and for trusting unwisely, is the same.'

This reveals the importance of supporting healthy levels of mistrust, presenting mistrust as a method to avoid trusting unwisely. This possibility that mistakenly granting trust may potentially result in a negative outcome underscores the recommendation of avoiding critical or dismissive statements which paint mistrust as irrational. This can be seen in the sphere of official statistics, where trusting an inaccurate or misleading figure could lead to poor decision making and negative outcomes.

To quote Onora O'Neill's TED talk, 'The aim to have more trust is a stupid aim. We should aim to have more trust in the trustworthy, and less in those who are not trustworthy' (2013).

1.3.4 A State of Vulnerability

The final thematic trend within the literature highlighted here relates to the notion of trust as 'an individual's willingness to accept vulnerability' (Rousseau et al., 1998). This has been alluded to across the different definitions given above, where vulnerability has been presented as an inescapable side-effect of granting trust. Given the centrality of this premise, it is considered helpful to assign a dedicated section to defining trust as a state of vulnerability, and to consider the implications of this definition head-on.

As alluded to above, although rational choice presents trust as a cognitive process, scholars applying this definition do recognise that the act of trusting requires some aspect of vulnerability. For instance, Coleman makes the case that trust is not a mutual, nor social, exchange. This is because it requires the 'voluntary action of one party alone, the trustor'; they are the person taking on all the risk if they do decide to assign their trust (1990, p.99). This one-sided vulnerability is also reiterated by Duetsch (1958), who defines trusting behaviour as the risk one takes when they increase their vulnerability in a situation where, if the person granted trust abuses that vulnerability, the trustor would be worse off.

This idea of vulnerability is important as it shifts the onus onto the person granting their trust, shining a light on the ambiguity and uncertainty involved in trust, and homing in on the level of susceptibility and exposure to risk, which leaves the trustor vulnerable. Furthermore, studies also suggest that this condition of vulnerability is exacerbated under closed conditions (when the game is played non-cooperatively), as the establishment of agreements, promises and guarantees is prevented (Riker, 1980, p.10). Clearly acknowledging this moment of vulnerability helps establish a better understanding of why someone may be hesitant to grant their trust. In addition, it establishes the importance of transparency, with hidden information seen to decrease willingness to expose oneself to the risk of trusting.

As a complement to this, consideration of related concepts further illustrates the fundamental role of vulnerability in defining trust. Teasing out the distinctions between reliance and trust exemplifies how trust may go beyond the functional confidence that a task will be completed (Baier, 1986, as cited in Encyclopaedia of Philosophy). Jones echoes this sentiment, explaining that 'machinery can be relied upon, but only agents, natural or artificial, can be trusted' (Jones, 1996, p.14, as cited in Encyclopaedia of Philosophy). This suggests that trust should be interpreted as confidence in the good will of the agent to not betray us, and thus we can come to depend on them as reliable guarantors of the promises they make. In the domain of statistics, it is for producers to be trusted, but the statistics themselves to only be relied upon.

Faulkner's (2018, p.11, as cited in Encyclopaedia of Philosophy) distinction between affective and predictive trust may be helpful here. He proposes that predictive trust is an estimate that one can fulfil the responsibility entrusted to them, whereas affective trust (the emotional and intimate variant) is a thick concept imbued with normativity. In other words, this suggests that affective trust is inherently value-laden (carries positive connotations) and that one ought to be trustworthy (because doing so holds positive value in and of itself). This variant of trust is sympathetic to the notion that to trust someone is to be confident in the assessment that they will not betray you and abuse the vulnerability you have shown. Consequently, it is likely that when experiencing misplaced trust under these conditions, one may feel a strong sense of betrayal. Interestingly, Faulkner does not expect this betrayal to be mirrored in cases of predictive trust. This points to the idea of there being different types of trust, with the implication that actions done to improve trust may not be universally effective, and a bespoke approach is best.

Moreover, although trust may have a reciprocal quality, the burden of trust, and the vulnerability this entails, should not fall exclusively on the public. This is especially important as, even if trust does function as a "reciprocal spiral", the spiral will never get that initial spark, let alone generate the momentum to sustain the virtuous cycle, if actors do not take the time to acknowledge the true vulnerability involved in the initial moment of trust. This caveat is raised to temper the perception that the recommendations this report proposes are assigned as quick fixes.

That being said, as a recommendation, it may be beneficial for the wider statistical community to display a willingness to take on some of the vulnerability embedded in relationships of trust. This would involve endorsing a mutual approach to trust and producers taking concerted steps to signal their trust in the public. Specific actions include being open and honest about the limitations and confines of statistical outputs and communicating this to the public in an open and transparent manner. Public engagement and outreach projects could be useful spaces to communicate vulnerability.

1.4 Related Concepts: What is Trust Not?

As the above discussion has exemplified, across the disciplines, trust has been defined as an innate personality trait; a reciprocal process; a socially desirable characteristic; and a state of vulnerability. Having outlined these definitions and made positive steps towards understanding what trust is, it important to complete the definitional exercise and explain what trust is not. This is essential to avoid conflating related, but distinct, terms. Furthermore, it provides the structure to ensure that, in talking about increasing trust, recommendations are targeted appropriately.

1.4.1 The Absence of Distrust or Mistrust

The first conflation to disentangle is that trust should not be conceptualised as the absence of distrust or mistrust. These three concepts – trust, mistrust and distrust – are related yet distinct.

As Verhoest et al. (2024) explain, within the literature of trust dynamics there are three core perspectives on how trust and distrust are related:

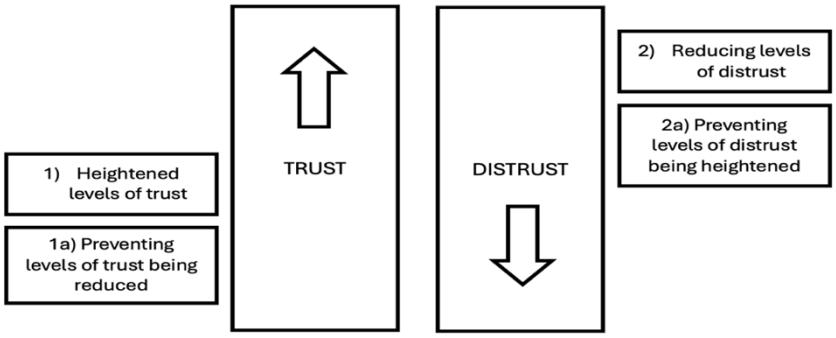
1) Trust and distrust are positioned on opposite ends of a continuum. According to this account, the level of trust afforded to any actor falls somewhere along this spectrum, and at some point on this spectrum, trust switches to distrust. In line with this outlook, levels of trust are responsive and can move between the two extremes, with declining levels of trust eventually contributing to distrust (Citrin & Stoker, 2018).

2) Trust and distrust are polar opposites, with neutral ground in between. This perspective conceptualises trust and distrust as rival counterparts whilst also recognising instances where neither trust nor distrust is at the level to constitute, or qualify, as either.

3) Finally, trust and distrust are related yet distinct concepts. This perspective views trust and distrust as separate entities, providing the conceptual toolkit to detach the two and move away from this fixed view of trust as a spectrum, or trust and distrust as two opposing extremes.

The principal value of the final approach is it that it avoids falling into the trap of conflating low levels of trust with high levels of distrust. Similarly, it does not consider low levels of distrust to be an appropriate proxy for heightened trust. The observation that low trust and distrust are qualitatively distinct is highlighted in Korsgaard's review dedicated to reciprocal trust, wherein low trust is identified as a 'lack of confidence', whereas distrust implicates 'negative expectations'. Continuing this distinction, Korsgaard proposes that the two manifest in different behaviours: 'trust motivates approach behaviour – a willingness to engage and take risks – distrust motivates avoidant behaviour' (2018, p.14).

This conscious untangling of these two distinct concepts allows research, understanding and consequently strategies and recommendations to be tailored to the appropriate measure of either: 1) heightening levels of trust; or 2) reducing levels of distrust. Within these two overarching objectives, the supplementary ambitions, 1a) preventing levels of trust being reduced; and 2a) preventing levels of distrust being heightened, come together like so:



An important point to clarify is that mistrust and distrust are not synonyms. While scholars do speak of a 'family, with trust, mistrust and distrust as members' (Bunting et al., 2021, p.1), mistrust is analytically different. Distrust refers to a state of 'cynicism, political disaffection and alienation' (Citrin & Stoker, 2018, p.50). Meanwhile, linguistically, mistrust is understood to refer to a sense of doubt, suspicion and general unease towards an actor or piece of information. In other words, it describes the use of one's critical faculties to identify situations where trust is not earned and should be withdrawn. Mistrust can be a response to an actor's maleficent behaviour or cases where information is found to be inaccurate, intentionally misleading or deliberately misused. Mistrust, specifically political mistrust, is an important part of representative democracies, supporting accountability and critical engagement (van der Meer & Zmerli, 2017, p.1).

The difference is further reiterated by PytlikZillig and Kimbrough (2016), who argue that mistrust reflects initial doubt about whether presented information or an entity is deserving of trust, whereas distrust refers to a situation where the actor is confident in their assessment. One inference of this distinction is that it implies that mistrust is

not an *outcome*, but an important *process* undertaken in order to help one in their assessment and determine the binary outcome of trust or distrust.

This could be considered to be a positive asset from the perspective of trust building because it is possible that blunders in one's trust record (such as surrendering blind trust, mistakenly granting trust and/or experiencing betrayals of trust in the past) may contribute towards scepticism and eventually culminate in cynicism and distrust. Consequently – because mistrust is the process of checking and safeguarding against these errors – it is important that it is not dismissed or bypassed. Instead, because mistrust encourages a hesitant and cautious approach, it should be supported and encouraged as part of the critical engagement process.

As a result of this process, it is likely that if the trustor is not confident to take on the risk and has not been reassured of the trustworthiness of the information or entity, they will reach the conclusion (outcome) of distrust. However, if they are confident that the checks have been completed to a satisfactory standard, they are likely to arrive at the outcome of trust. The appearance of mistrust, according to this conceptualisation, is just an extended process of indecision, where the trustor takes the time they need to feel confident arriving at an outcome.

This conceptualisation of mistrust as a *process*, rather than a middle ground, or part-way progression towards two extremes, supports the conclusion that mistrust is a healthy part of the evaluative *process*.

Consequently, anyone interested in building trust should not be trying to suppress mistrust. Instead, moments of doubt (which are characteristic of this process) should be viewed as opportunities to exemplify trustworthiness to the audience, and support them in arriving at a confident, and appropriate, assessment.

1.4.2 Trustworthiness

The final concept discussed here, trustworthiness, may seem misplaced in a section titled "What is Trust Not", especially as this review has made frequent references to trustworthiness both as a feature of trust and a recommendation to improve trust levels. To be clear, the deliberate repositioning of trustworthiness into this section does not contradict nor undermine any of the previous statements: it remains the case that exemplifying trustworthiness is conducive to increased trust. The purpose of the separation is to reiterate that trust and trustworthiness are not synonyms; they are companions.

The distinction between trust and trustworthiness is based on the premise that trust is the outcome, and trustworthiness is an assessment one undertakes in order to determine whether or not someone is "worthy" of our trust. To unpack this further, trust is the object, while trustworthiness is the behaviour. In this regard, rather than demanding trust, one should behave in such a way that trust is willingly given.

This description is what Onora O'Neill refers to as "intelligent trust", by which she means that trust should only be assigned to those who are trustworthy. In other words, assessing whether someone/something is worthy of trust requires engagement and critical evaluation – trust should not be gifted as a default. To quote her TED talk (2013) once again, 'The aim to have more trust is a stupid aim. We should aim to have more trust in the trustworthy, and less in those who are not trustworthy.' This short reflection showcases the lexical difference and echoes the importance of supporting healthy levels of mistrust.

The repositioning of trust as adjacent to trustworthiness is also helpful as it defines trust as a positive asset (which is either socially or normatively desirable) that is earned by repeatedly displaying behaviours one would consider to be worthy of trust. This distinction, in line with Onora O'Neill's thinking, takes the onus away from the public (the trustor) and places it on the agent who is hoping to be trusted. This distinction avoids assigning blame to the public for their current levels of trust, and places the onus on the agent, prescribing behavioural changes on their part. This is beneficial, as it assigns agency to producers, placing the solution in their hands and suggesting that constructive recommendations for exemplifying trustworthiness can be fruitful.

This reimagining of trust and trustworthiness raises the question: how does one go about determining what behaviours are trustworthy? (as these are the behaviours which will be needed to build trust). In response, the Code of Practice for Statistics provides some initial indicators of how producers can exemplify trust, with the "Trustworthiness" core principle illustrating the most innate, or explicit, synergy.

In this respect, principles such as transparency, impartiality and integrity align with this theme. In addition, active and direct engagement with users, and the use of plain language in statistical bulletins and accompanying documentation, can also contribute to the perception that the producer has nothing to hide, and the statistic has been produced in an honest and competent manner.

The importance of communication is addressed here, and evidence to support the importance of competency and transparency is provided here.

Although the alignment between trust and the core principle of Trustworthiness is perhaps the most obvious, the other principles covered in the Code also contain helpful standards.

If adhered to, these standards can either have a positive influence on trust or alternatively provide a safeguard to protect against the deterioration of trust. Ensuring that statistical outputs are of a high quality and fit for user purpose are two such examples.

Their respective impact on trust are addressed in the sections Trust in Evidence, and Trust in Official Statistics, respectively. To quote Radermacher, ‘it is about high-quality information that is well worth trusting’ (2020, p.V).

2 Levels of Public Trust

As Citrin and Stoker reflect, a lot is already known about the differences in trust levels across time, place, individual and context, and much work has been dedicated towards explaining these differences (2018, p.56). This review compiles these explanations.

This section considers specific actors and objects which are relevant to official statistics. Taking this holistic approach is advantageous. Firstly, it mitigates against the sparsity of research dedicated to trust in official statistics. Secondly, it provides a broader picture of societal levels of trust, as well as insights into how this varies across the relevant domains.

In terms of structure, this section is organised to enable the actor and the object to be considered in turn. This applies the analytical distinction endorsed by the Fellegi model (2010). This shows that the qualities of trust in statistical institutions (protecting confidentiality, integrity, openness, impartiality and effective stakeholder management) and trust in statistical products (accuracy, timeliness, reliability, credibility, objectivity, relevance and coherence) are different, and how both are needed to build trust in official statistics.

Alongside this, this section also adheres to Achterberg et al.'s (2017) finding that it is important to distinguish between scientific evidence (the object) and the scientist (the agent or actor). This is because the public may trust the evidence the object generates, yet they may not necessarily trust the individual actor carrying out the study or communicating its findings to them. This reflects a shift towards anti-elite/anti-expert sentiments that have become a feature of a globalised, poly-crisis society (Mede & Schäfer, 2020).

With this in mind, it is important to be cautious to avoid conflating low levels of trust in actors with low levels of trust in the evidence, or the information and knowledge it generates.

2.1 Trust in Relevant Actors

The UK public's trust in government ministers reached an all-time low in 2023 (Ipsos, 2023) and has consistently remained lower than trust in experts (Department for Science, Innovation and Technology, 2024). Recent studies show that trust in the media is low (Organisation for Economic Co-operation and Development, OECD, 2024b), and journalists remain one of the least trusted professions (Ipsos, 2024).

This depiction of waning trust is part of a broader pattern referred to as a "crisis of expertise" (Eyal, 2019). This pessimistic picture has shaped the focus of the trust literature, with some scholars (such as Wiesehomeier & Ruth-Lovell, 2024) examining the paradox of trust in "the people" (low moralistic trust in the subject at an individual level and high ascribed trust in the abstract object) alongside others

who, highlighting the performance–trust nexus, have focused on the parallels between low trust and low-quality governments (Keefer, 2021).

However, the most recent round of surveys suggests that there may be a slight increase in reported levels of trust for ministers, politicians, civil servants, journalists and scientists (Ipsos, 2024), signifying a possible improvement in the trust climate in the last 12 months. Of course, the data to be able to understand whether this increase forms the start of an upward trend, or whether these observations are actually a momentary deviation from the downward trajectory witnessed over the last decade or so, are not yet available. Keeping abreast of future trends relating to the actors highlighted in this review will provide helpful answers to this question.

With this broader picture in mind, this review takes a segmented approach to delivering evidence on public trust levels. Taking the relevant actors in turn, it outlines how they are related to official statistics, specifying either the production or communication function they provide. Thereafter, evidence, data and studies, along with key patterns and trends, are highlighted.

The value of this structure is that it recognises that standards of trust, or more accurately how the public expect trustworthiness to be exemplified, differ depending on the person in question. To cite Seyd, Jennings and Hamm (2022), for a politician, 'trust is based on their level of care and concern for ordinary people, and for their honesty and fidelity to promises.' Where scientists are concerned, expertise and experience are treated as suitable metrics, and trust is awarded to those with the 'technical knowledge and capabilities'. This highlights the importance of not conflating standards, or measures, of trust from one profession to another. In accordance with this, the government, civil servants and other public bodies, scientists and experts, and finally journalists and the media are each explored individually in the following subsections.

2.1.1 Trust in Government

Understanding trust in the government is important. This is because government ministers often cite official statistics in their communications with the public, especially when introducing new policies, or evaluating the progress of existing policies. This role of government minsters as communicators of official statistics means that understanding trust in the government that they are a part of is crucial.

Previous OECD studies (2024a) show that levels of trust in the UK Government (27%) are below the average reported levels of trust (39%) within the OECD. Alongside this, Ipsos findings indicate consistently low levels of trust in politicians, with levels of self-reported trust never rising above 23% for politicians and 25% for government ministers since the Veracity Index began in 1983 (Ipsos, 2024).

Studies also point to low levels of popularity. For instance, the National Centre for Social Research (NatCen) points to high levels of vocal critique, with the British Social Attitudes survey reporting that 'the public are as critical now of how Britain is governed as they have ever been' (NatCen, 2024).

This situation of low levels of government popularity, and high levels of critique directed towards the government, reflects what Sztompka (1999) has termed a 'culture of distrust' (as cited in van de Walle & Bouchaert, 2003). Explaining how this 'culture of distrust' is established, van de Walle and Bouchaert propose that it is reminiscent of the spiral of silence hypothesis (initially proposed by Noelle-Neumann in 1974 and reviewed in a meta-analysis by Glynn et al., 1997). This, they explain, is because when considering whether to vocalise trust, there is a 'type of social pressure to comply with this [negative] attitude', and this is driven through fear of isolation (if divergent opinions are exposed) (van de Walle & Bouchaert, 2003, p.905). As a result, they argue that '[a]s long as the people think most people have a negative perception of government, they will express a negative perception themselves, even if this perception does not correspond to reality' (van de Walle & Bouchaert, 2003, p.905).

Confounding this, van de Walle and Bouchaert claim that negative attitudes 'seem to support themselves [and] examples of good performance are just not noticed anymore' (2003, p.906). This challenges the performance–trust hypothesis, which proposes that performance (meeting policy goals, maintaining promises, etc.) is sufficient to build trust. On the contrary, it suggests that (expressions of) distrusting attitudes are influenced by public perceptions, and that distrusting attitudes are socially reinforced.

This points to the importance of securing and maintaining a positive public image in order to avoid being engulfed within the 'culture of distrust' and becoming the object which 'the people think most people have a negative perception of' (van de Walle & Bouchaert, 2003, p.905). One way to achieve this in the sphere of official statistics may be by encouraging public figures to express trust in said statistics, specifically in instances where this trust is earned.

Honesty is an important aspect of trust (as evidenced in survey responses). This theme is covered by Ipsos, which, in 2024, reported a slight increase of 5pp. in trust in government ministers to tell the truth, and a 2pp. increase for politicians. However, it remains the case that both received a negative net trust calculation (-65% for government minsters and -74% for politicians), and they rank penultimate and last in terms of trust (15% and 11%, respectively). In addition, across all OECD countries, only 41% of respondents reported that they think the government uses the best evidence in decision making; this drops to 37% for the UK (Figure 5.13, UK referred to as GBR, OECD, 2024b).

Studies have evaluated this phenomenon of low trust and perceptions of dishonesty, and explanations have been proposed. A survey conducted by the OECD (2024a) explored patterns of trust and distrust in the government. It highlighted demographic variations (with women and younger people associated with lower levels of trust) alongside socioeconomic explanations (reflecting the finding that those experiencing economic hardship reported lower levels of trust).

The same survey also revealed that the UK is one of a very small number of countries where higher education is not associated with higher levels of reported political trust (lower levels of education reported: 30%, compared to those with higher levels of education: 23%) (OECD, 2024b). This finding that higher education was not necessarily associated with higher political trust suggests that, whilst understanding patterns and variations may be useful to help tailor communication efforts, education is not a universal remedy for low levels of trust (contradicting the knowledge deficit model).

Concentrating on the finding that trust is lower among the younger demographic, models of political socialisation can be helpfully applied to provide a picture of whether it is context (environmental stimuli) or life stage (nature) which contributes to lower levels of trust. Strengthened by the observation that the previously observed pattern of trust (where older people reported lower levels) has changed, this finding indicates that the context of socialisation (the generational model, as outlined by Blais et al., 2012) has a greater impact on one's trust levels than their life stage. In other words, it suggests that trust levels are low among the younger generation because of the political conditions in which they have been socialised: contemporary society appears to be negatively associated with trust.

Interestingly, it seems that this bleak picture of low levels of societal trust has not necessarily translated fully into politicians' own calculations of others' levels of trust in them. Weinberg (2023) has investigated this discrepancy using comparable questions focused on trust, and perceived trust. In pointing to a 'trust gap', he reports that, on average, perceptions of trust were markedly higher than actual trust, and perceptions of distrust were considerably lower.

This reiterates the importance of directly monitoring public levels of trust via public engagement and/or social research. If this route is neglected, and we are left to depend upon politicians' own calculations of themselves as being trusted, as Weinberg shows, this is unlikely to be accurate.

Monitoring public levels of trust closely will allow government ministers to receive responsive feedback specifically on how their actions and behaviours are interpreted by the public (trustworthy, or suspicious/harmful to trust). ONS surveys (ONS 2024) indicate that integrity is positively associated with trust in the government, and previous OECD studies (2024a) signal that reliability, openness and fairness are desirable traits. The same study also pointed to specific drivers of trust, finding that following the same rules (63%), competence (50%) and engaging citizens (49%) were considered important by members of the public (ONS 2024).

However, the granular insight, which may explain why government ministers' efforts to exemplify trustworthiness (via specific behaviours) are being lost in translation, is missing.

Establishing a feedback mechanism of this nature could provide an invaluable tool for governmental officials to learn about how they are perceived, and to provide actionable strategies to avoid falling into the 'trust gap'. In the context of official statistics, this feedback tool could involve polling and gathering opinions immediately following ministerial communication of an official statistic. Focus groups or other research methods could be implemented to explore communicative interaction in more depth.

2.1.2 Trust in Government Departments, Civil Servants and Public Bodies

Trust in the civil service and wider government bodies is important as official statistics are produced by civil servants based in government departments. By virtue of their role, for producers of official statistics, understanding public levels of trust in the wider governmental apparatus is critical.

A study carried out by the OECD (2024a) shows that civil servants are the most trusted part of government (45% compared to 27% for the UK Government and 12% for political parties). This finding was reiterated by ONS (2024), who reported higher levels of public trust in non-political arms of government – such as the Civil Service – compared to political parties, parliament and devolved governments.

Echoing these relatively optimistic reported trust levels, the Veracity Index (Ipsos, 2024) reports a net positive rating (+21%) showing that more people trust civil servants to tell the truth than expect them to lie. That being said, although civil servants' overall trust rating (56%) has increased by 31pp. since the index's inception in 1983, this is a considerable fall from the peak of 65% in 2019 (Ipsos, 2024). This recent decline shows that while trust has remained positive, civil servants have not been isolated from the wider trends of falling trust in recent years.

Amidst this broader trend of waning trust, attitudes towards governmental bodies differ, and trust may not be universally applied to different actors or sectors. Understanding this point is important as it relates to how trust can be shared and borrowed across networks (such as the government apparatus) and suggests that bandwagoning is not a foolproof option.

To illustrate this point, data from the Public Attitudes to Data and AI Tracker Survey (2024) are used. This survey is specifically designed to explore public attitudes towards data uses, including data sharing, and the risks and opportunities associated with artificial intelligence (AI). The survey is, however, included in this review as its core finding, that trust is driven by the organisation involved, is particularly relevant to illustrate differing levels of trust across the arms of government. This conclusion was reached through a conjoint-choice-based experiment, where participants were presented with two options and asked to indicate their preference. Across both identifiable and anonymised data, the results of an attribute analysis showed that the organisations involved in the data transfer

mattered more to individuals than either what the data were going to be used for or the governance structures that were in place.

This finding emphasises the importance of a positive organisational or departmental reputation. This suggests that even if the use case is valuable for society, or of personal importance to the individual, if the public do not trust the organisation, then efforts to highlight the purposes of data collection and any reassurances the organisation provides may be insufficient.

The literature dedicated to the question of trust in civil servants is relatively marginal compared to that focused on trust in government and/or political actors. That being said, studies suggest that trust is higher when government performance is positive. These studies are based on the notion that 'bad performance of government actors and agencies would create negative attitudes towards government in general' (Van de Walle & Bouchaert, 2003, p.893, as cited in Morelock, 2021, p.319). This is in line with the performance–trust hypothesis (Yang & Holzer, 2006) and proposes that departmental trust is evaluated against performance criteria.

Challenging the importance of performance, van de Walle and Bouchaert (2003) propose that the performance–trust hypothesis may be more compelling when negative attitudes are presented as the independent variable (rather than government performance). To elaborate, 'the existence of a generalised negative attitude' (such as the 'culture of distrust', as discussed in the previous section, Trust in Government,) creates a situation whereby the actions of government will be evaluated in a negative way 'just because they are government actions' (van de Walle & Bouchaert, 2003, p.902). This flips the mechanism on its head and points to the possibility of reverse causality. In line with this account, trusting attitudes are situated as the starting point (independent variable), and evaluations of government performance (including government ministers, officials and civil servants) are portrayed as the outcome (dependant variable).

Also taking an alternative outlook to studies which have prescribed improved performance as a route to establish trust, another branch of the literature focuses on 'the processes used by government, rather than outright results' (Morelock, 2021, p.316). To quote Van Ryzin (2011), 'public perceptions of the trustworthiness of civil servants depend not just on the extent to which government succeeds at delivering outcomes to citizens – but on getting the process right by treating people fairly, avoiding favouritism and containing corruption' (p.755, as cited in Morelock, 2021, p.319). Houston et al. (2016) concur: 'citizens do not only expect competence, administration must also be characterised by ethical behaviour' (p.1211, as cited in Morelock, 2021, p.319–320). These contributions suggest that it is not enough to deliver positive or quality outcomes, and that the public expect more than performance when asking the question "In bureaucrats we trust?" In other words, performance and quality are necessary, but they are not sufficient to build trust in civil servants.

In accompaniment to positive performance and a reliable track record, civil servants must ensure they are acting impartially, behaving with integrity and holding bad behaviour (not just bad performance) to account.

Further evidence to support the recommendation of good governance, rather than simply effective governance, is provided by Morelock (2021). His study involved performing a multilevel logistic regression, using data from 23 OECD countries. The UK was not included in the sample due to insufficient data; however, as the UK fits the selection criteria of 'advanced industrial economies' (p.320) and the cases included do vary in their structural and institutional characteristics, the results may still be helpful in the UK context. To summarise, Morelock finds that trust in civil servants was higher among individuals with higher political efficacy (the knowledge to participate in politics and the belief that their participation has an impact) and individuals with perceptions of lower government corruption.

This suggests that emphasising accountability structures, behaving in a transparent manner and communicating these responsibilities to the public can help build trust in the departmental body in question.

One final theme raised in the literature relating to public trust in government bodies is public engagement. Public engagement is a much richer process than gathering feedback; it implies a two-way process where parties exchange knowledge, experience and views in an effort to come to a shared understanding. Petts (2008) critiques the transactional account of how public engagement builds trust, making the case that to engage in public engagement under the false pretence that simply gathering views '*will* result in enhanced trust' [emphasis in original] is an error (p.822).

This premise points to an important takeaway: the conditions of public engagement matter. Performative, superficial and empty efforts to engage with public and stakeholder views are unlikely to increase trust simply by virtue of the process having taken place.

As Petts (2008, p.832) explains, the International Framework for Risk Governance (IGRC, 2006) provides some helpful guidance based around the criteria of representation, collaboration and decision impact. Specifically, it advocates for wide representation, referring to both invited participants and contributors within government. Based on her own extensive experience of the deliberative process, Petts recommends that an array of experts which bring differing opinions are invited and that time is taken to translate complex technical jargon into accessible language. Next, developing a shared construction of the problem is recommended in order to

counteract the concern that engagement is superficial. However, this is a balancing act within the constraints of what is legislatively possible, as well as a desire to not leave the process completely directionless, which may in turn decrease trust as it is seen to denote a lack of competence.

The final recommendation focuses on the importance of the decision being reflective of the discussions held. This is not to command that the outcome translates directly into practice without reflecting other considerations; rather, it is to warn that if outcomes are not witnessed, and no explanation is given for why this is the case, the public may start to question the value in participating. In this case, any interpersonal trust built during the deliberative process may remain context-specific and not translate to future activities, nor the wider institution, organisation or department.

These principles (representation, collaboration and decision impact) are included to provide some guidance of meaningful public engagement, and to demonstrate how, if conducted in a superficial manner, it may have a net negative effect on trust.

2.1.3 Trust in Experts and Scientists

Scientists mirror the role of official statistics producers. Both produce evidence which is used to inform individual, and wider societal, decisions. However, scientists are not direct producers of official statistics, and they most often operate outside of government structures. Despite this, as scientists are expert communicators of evidence, examining how they are perceived by the public may reveal interesting findings that can be applied to the official statistical sphere. Furthermore, within the literature, there has been a concern that the public perception of scientists influences their willingness to trust scientific evidence (Besley, 2015). Consequently, it is important to understand how scientists are perceived.

To clarify, this section focuses on trust levels in scientists (the agent) as opposed to trust in scientific evidence (which is reviewed here). Echoing the overall structure of this review, the studies presented here subscribe to the notion that people may trust someone, not something.

According to public opinion research carried out in 2025 by the Campaign for Science and Engineering (CaSE), “scientist” was reported to be the profession that people indicated they trusted the most, with 7 in 10 people reporting that they trust scientists, and 22% saying that they trusted them completely. It is possible that these figures may be somewhat higher due to social desirability effects. Nonetheless, comparably high figures are reported elsewhere. For instance, according to the 2024 Ipsos Veracity Index, 79% of respondents indicated trust in scientists.

High levels of trust in scientists were also reported in the 2019 Public Attitudes to Science (PAS) survey, with their place of work highlighted as a factor in differing trust levels (Department for Business, Energy, Industrial Strategy, 2020). Specifically, scientists working in the university sector were the most trusted by the

public (around 90%), whereas those in the private sector were trusted the least (57%). Interestingly, government-employed scientists were trusted by around 75% of people, which, though displaying a lower level of trust than that observed for university-sector scientists, is higher than that reported for civil servants generally (45%). Taken together, this suggests that sector and profession both contribute to levels of public trust.

To capitalise on the higher levels of trust in government-employed scientists compared to civil servants generally, statistics producers may benefit from emphasising their membership of the Government Statistical Service in publications, rather than departmental membership.

Moreover, it is interesting that scientists were seen as the most trusted profession (CaSE, 2025), yet when presented with pairs of opposing attributes, more people indicated that they viewed scientists as secretive (44%) than open (41%) (Department for Business, Energy, Industrial Strategy, 2020). This pairs activity did not relate specifically to trust. Nonetheless, it is interesting that 74% of people indicated that they trust scientists (Ipsos, 2023), yet (as reported in PAS, 2019), when given the binary option, more respondents selected the secretive attribute. This may imply that openness is not the main component in determining trust.

Further research suggests that openness is not necessarily conducive to improving trust levels. As Younger-Khan et al. (2024) conclude, self-disclosure – one method of signifying openness – is found to signify "warmth" and improve the perception of one's benevolence and integrity. However, it is viewed as a determent to perceptions of competence. Alternmüller et al. (2023, as cited in Younger-Khan et al., 2024, p.3) examine the trade-off and show that a high perception of warmth (and openness) does not lead to an overall improvement in levels of trust. Applying the ABI model to this question, the finding that perceptions of warmth (which may improve perceptions of benevolence and integrity) do not necessarily increase levels of trust implies that benevolence and integrity may not be prevalent attributes when it comes to generating trust in scientific experts. Instead, one's ability and their perceived level of competence appears to be the principal attribute.

Relating this discussion on desirable attributes to the bigger picture, it is worth noting that the prioritisation of competence diverges from Devine et al.'s (2024) finding that, for political trust, benevolence is considered to be the most essential attribute. This reiterates the importance of acknowledging different professional standards when seeking to increase levels of trust.

Hence, it is important to establish what characteristics and standards people consider to be important for official statistics producers. This would help in providing clearer guidance on what standards should be aspired to, as well as insights as to how they are received by the public. Moreover, this clearer picture may also be useful in the sense that it may safeguard

against potentially mistaken efforts, which may prove counterproductive should they emphasise attributes the public do not consider to be essential, or even appropriate, for producers of official statistics.

The final observation related to scientific experts reflects the importance of value alignment. These studies suggest that trust is not necessarily determined by the specific values that a scientist (or an expert, more broadly) displays. Rather, what matters in terms of exemplifying trustworthiness is that the values of the expert and public align. In other words, do the public see themselves reflected in the expert? As Siegrist, Cvetkovich and Roth (2000) show, in cases where values align, general trust increases, whereas in cases of disparity, trust falls.

This finding that value alignment may help foster relations of trust can be helpfully applied to the official statistics sphere with the recommendation that producers align themselves with the public's expectations around statistical production.

OSR's public dialogue project (2022) provides evidence showing what aspects of statistical production, and dissemination, the public value. The following aspects were identified: public involvement; reflecting real-world needs; clear communication; minimising harm; and best-practice safeguarding.

Continued public dialogue in order to remain at the forefront of any value shifts, or emergent concerns relating to the use of statistics, will be necessary to ensure continued alignment.

2.1.4 Trust in Journalist and the Media

The role of the media and journalists is crucial in the communication of, and the public's engagement with, official statistics. Although they are not involved in the production of official statistics, journalists and the media contribute to salience and coverage, thereby playing a significant role in shaping the public's interpretation of official statistics. This highlights the role of the news as an intermediary in terms of shaping how official statistics are communicated to the public. Alongside this, it also alludes to the possibility that media coverage has broader ramifications.

The 2023 OECD Survey on Drivers of Trust in Public Institutions (OECD 2024a) found that, in the UK, trust in the media was reported as 19%. This is below that afforded to the Civil Service (45%), the police (56%) and the courts and judicial system (62%). This low ranking is not a particularly surprising finding as journalists are consistently ranked among the five least trusted professions, with only 27% of people trusting them to tell the truth in 2023.

This low rating of perceived honesty (27%) is a 6pp. increase from 2022. However, journalists still received a negative net rating of -40%, indicating that public perception is heavily skewed towards the expectation that journalists will not tell the truth (Ipsos, 2024). This is reiterated in the findings of the Edelman Trust Barometer (2025), which shows that, globally, 70% of people believe that journalists 'purposely mislead people by saying things they know are false or gross exaggerations'. This is an increase from 2021 (59%) and is part of a broader pattern, with respondents reporting being more concerned about being intentionally misled by business leaders (68%), and to a greater degree government leaders (69%), in 2025 than in 2021 (56% and 58%, respectively).

According to the Trust in News Providers report published by the UK Parliament in 2024, there is a shortage of causal evidence for why people trust or distrust the media. This makes prescribing solutions challenging. However, the report does signpost three potential causal factors: frequent social media usage including exposure to polarised views; poor representation and low levels of media diversity; and finally, a reaction to wider political events, alongside personal political affiliations (Bettis, 2024).

Further factors that may influence trust levels include media consumption and exposure (Schranz et al., 2018), with studies showing that habitual engagement may have a positive impact on trust (Frederiksen, 2014). This points to the importance of daily routines and frequent consumption (Tsfati & Ariely, 2013), exemplifying how familiarity can be a positive contributor to trust.

In addition, the media can shape trust, as they direct public focus and contribute to levels of policy salience (Hetherington & Rudolph, 2015). Alongside this, studies suggest that trust in government 'tends to be boosted' when media coverage is positive, and trust typically falls under negative media attention (STATEC, 2023).

Studies also show that people tend to believe, and trust, news sources which confirm their existing opinions (Bettis, 2024). This may be reflected in the selection bias of news sources, and people's low engagement with sources that typically contradict or challenge their existing opinions (Taber & Lodge, 2006). Moreover, studies have also suggested that those who already trust the media are, to some degree, more open-minded to trust-building initiatives than those with low levels of initial trust in the media. For this latter group, better communication in explaining why the strategies have been implemented may be helpful, though this is prefixed on the caveat that the strategies must be authentically adopted and sustained over time (Banerjee et al., 2023).

The task of analysing and improving media trust has become increasingly crucial in recent years. Across the literature, academics and practitioners have proposed solutions. A report published by Reuters Institute for the Study of Journalism identified four approaches to building trust: better aligning news coverage with topics the public say they want; showing transparency and good ethics and avoiding conflicts of interest; ensuring journalistic independence and improving diversity; and finally, ensuring the public feel heard (Banerjee et al., 2023).

Though developed with media and journalism in mind, these four strategies could also be applied to the sphere of official statistics – with topical alignment, transparency, independence and public engagement providing helpful principles to follow.

Looking into one strategy – transparency – in detail, Khan (2025) asks, "Is it working?". This report draws on previous work carried out by the Reuters Institute and shows that 54% of people indicated that they would be more likely to trust journalists if they explained their decisions about how they report the news (Banerjee et al., 2023). Furthermore, when asked which factors influenced their trust levels, 72% of respondents said that transparency about how the news is made influences which news outlet they trust (Nielsen & Fletcher, 2024).

Khan's 2025 report also signposted specific strategies which can help "explain decisions about how", such as open-source investigations, and prioritising replicability as part of the scientific method. Considering the concept of radical transparency, Khan (2025) praises initiatives such as "show your work" for their dedication to transparency. This willingness to show your working out, even if anecdotal stories suggest that the supplementary material may be largely ignored, can have a positive influence on trust. This plea for transparency is an important step in displaying vulnerability, and being open to scrutiny, as part of the trust building process.

This "show your working out" mentality can be applied to official statistics as a positive strategy in trust building. This is of particular interest when official statistics are cited in the media, especially on topics where multiple statistics could each be used to support conflicting narratives. An application of the finding may be to encourage journalists to explain why they selected the statistics that they did in these scenarios.

Universally, there is a recognition that these solutions are not easy and should not follow a one-size-fits-all mentality. Of course, once released, the output is in the hands of the media, and ultimately how it is reported is beyond the producer's control. However, it is important that official statistics producers – as well as anyone acting in the capacity of an intermediary, or who is involved in the dissemination of official statistics – be mindful of sensationalised headline coverage and media logics.

This points to the importance of ensuring that all statistical outputs are properly caveated, and that the statistics will not be placed in a position where they are taking more weight than they can reasonably bear. Adhering to the strategies and principles outlined in the Code of Practice of Statistics, as well as following the principles of collaborative

communication and intelligent transparency, as discussed here, may help shield from possible misinterpretation.

2.2 Trust in Relevant Objects

So far, this review has detailed how levels of trust vary depending on the actor in question, with trust in the government, politicians and the media ranked below that granted to civil servants and scientists. Building on the accounts provided, one would expect trust in communication platforms (the object corresponding with the media) to be lower than trust in evidence (the object of scientists). This section explores this expectation, considering the objects to which trust is assigned in turn. This complements the agent-centric approach adopted in section 2.1.

2.2.1 Trust in Communication Outlets, Platforms and Intermediaries

It is important to understand levels of trust in the communication channels used to disseminate official statistics. These include government websites, alongside news outlets, online sources and other intermediaries. These outlets are crucial in the communication of, and the public's engagement with, official statistics. As such, it is important that the public can trust them.

To situate this section, it is essential to note that this review was conducted without access to the data needed to fully understand precisely which platforms, outlets and media the public are using to access official statistics. With this ambiguity in mind, this section takes an all-encompassing approach and considers levels of trust across official communications, traditional media and online platforms.

There are very limited data on the public's levels of trust in official communications. For these purposes, the section discussing trust in the government apparatus may provide the most appropriate proxy. The section considers trust in civil servants and other governmental bodies.

Specifically on the topic of platforms, the goal of building trust in government communication is explicitly recognised in the Government Communication Service (GCS) Strategy 2022-2025. This indicates that (in 2022) levels of trust had not surpassed the threshold which the GSC considered to be sufficient.

Monitoring the updated strategy for 2026 could provide an indication of whether, from the perspective of the GCS, trust has reached an acceptable level. Beyond this, further research in this area could be fruitful, specifically research considering public levels of trust in official communications, including GOV.UK as a platform.

Continuing the analysis of communication platforms, this review turns to media outlets – both traditional and online. Data generated as part of the Public Confidence

in Official Statistics (PCOS) survey illustrate that the media are often the vehicle through which official statistics are transported to the public (National Centre for Social Research, 2024). Specifically, in 2023, 60% of people reported seeing statistics on the news at least several times a week, and only 4% stated that they had never seen statistics on the news. The same survey also revealed that a slightly lower percentage of people, 49%, reported seeing statistics on social media either daily (20%) or a few times a week (29%).

These high levels of self-reported exposure to statistical outputs via news outlets and online media highlight the role that intermediaries play in shaping how official statistics are communicated to the public. Alongside this, studies have pointed to the existence of a 'trust gap' between news media and online platforms (Mont'Alverne et al., 2022). This is interesting as it suggests that the platform from which the public access official statistics may impact their levels of trust in the statistics.

In the past, television was regarded as the public's most relied-upon news source, holding the 'crown…. since the 1960s' (Ofcom, 2024). However, in 2024, Ofcom reported that online outlets had surpassed traditional televised news for the first time and had become the public's leading source of news (71%). This overtake features a 5pp. increase in one specific mode of news engagement: social media (from 47% in 2023 to 52% in 2024), which has been matched by a fall in the number of people primarily consuming televised news (from 75% in 2023 to 70% in 2024).

With this trend in mind, it may be worth further emphasising direct-to-consumer publication of official statistics. This could be facilitated via social media platforms. Increasing emphasis on a diversified communication strategy, such as this, may broaden the audience scope and help to ensure that the public are informed of official statistics, even if they migrate to other platforms to access news. It is possible that this could mitigate against the effect of declining television viewership on the dissemination of official statistics.

Meanwhile, the same Ofcom study (2024) also reported that traditional outlets remain the most trusted news source (television is the highest-rated source for trust at 69%, followed closely by radio at 68% and printed press at 66%).

Given the relatively high levels of trust in these news sources, there may be value in official statistics producers investing significant time in seeking opportunities to promote their products through television, radio and printed press.

Trust ratings for online news sources, on the other hand, are much lower, with 53% reporting trust in news accessed online and only 43% trusting news circulated via social media (Ofcom, 2024). This suggests that although people may be accessing

news more frequently via online intermediaries, they may not trust them to the same degree as traditional media.

Moving beyond trust in the news itself, other studies show that consumption of traditional media is associated with higher levels of trust in several public institutions, compared to those who access news online (STATEC, 2023, p.6). This points to the possibility of there being a spillover between the medium of news which members of the public use and levels of trust in public institutions.

Looking at trust in online platforms in more detail, a survey carried out by the Reuters Institute (Mont'Alverne et al., 2022) revealed that those who access news via online platforms on a daily basis are more likely to trust those platforms than those who use them for other purposes, or not at all. To illustrate this pattern, consider Google, the most frequently used online source for daily news of the seven platforms listed in the research (32% for the UK). In the UK, 83% of respondents who stated that they use Google to access their daily news reported that they trust Google, compared to 75% of those who use Google for other purposes, and 52% of non-users (Figure 2.2). A similar pattern is seen across other platforms. Of course, it may be possible that people turn to platforms which they already trust when searching for a regular source of reliable news. Accordingly, it should be recognised that this is an observation of association, rather than causation.

In the context of official statistics, PCOS reports that the use of official statistics is associated with higher levels of trust in official statistics (National Centre for Social Research, 2024).

Papers also report that news of a political nature tends to be treated as more suspect (Ross Arguedas et al. 2022, as cited in Mont'Alverne et al, 2022). Mont'Alverne et al. also found that UK respondents reported higher trust in news in general than trust in news about politics (53% vs 45%). This is a relevant consideration for official statistics, as, given that they are often produced by governmental departments, it is possible that they may be treated with political suspicion.

Reviews that focused on trust in news providers have also identified evidence that people who access news via social media tend to be more polarised and less trusting, with algorithms pushing certain sources, and echo chambers perpetuating, and intensifying, distrusting opinions (Bettis, 2024). This association between social media and distrust has also been considered in a Public Attitudes to Science case study exploring trust in alcohol research and guidance (PAS, 2019, p,60). The case study showed that social media users expressed confusion and became dismissive when evidence presented to them was contradictory. This scepticism of contradictory evidence may reduce trust in scientific evidence, and have a knock-on effect to other related areas.

With this in mind, it is important that, when communicating official statistics which feature conflicting messages or messages which may contradict the public's established opinions or experiences, producers and

intermediaries remain mindful of the possibility of being met with suspicion and withdrawal and consider how to present statistical outputs in ways which are less jarring to the audience's worldview.

As presented in earlier in this section, this is only going to become more important as the trend of people relying on social media for information increases. Similarly, the potential for conflicting narratives in statistics may increase as official statistics continue to move from predominantly survey-based estimates towards estimates from a mixture of survey and administrative data.

Interestingly, however, studies suggest that advocating for the removal of social media, and a return to traditional news outlets, does not necessarily equate to increased levels of trust. This is exemplified in a study conducted by STATEC (the National Institute for Statistics in Luxemburg) in 2023. This study showed that whilst overall levels of trust in institutions were higher for those who accessed information about current affairs and the government from TV than those who accessed information from the internet, for both cases (traditional media and the internet), those who did not access any information from these sources reported lower levels of trust than those who used these sources to access information.

To illustrate this, frequent exposure to information on the internet had a positive effect on levels of trust in STATEC (+3pp.), whereas avoidance of information on the internet had a negative effect (-14pp.). This is counterintuitive as, based on the premise that consumption of news via online sources is thought to have a negative impact on trust (i.e., Bettis, 2024), one would expect no engagement with these online sources to result in positive levels of trust (as opposed to the negative coefficients reported in Figure 9).

Learning from this observation, official statistics producers and intermediaries may wish to consider a range of communications outlets and channels when disseminating official statistics within the public sphere. In addition to reaching a broader scope of audiences, a wide communication network prevents certain channels being neglected.

2.2.2 Trust in Evidence

As discussed in section 2.2.1, trust in news media is declining. This makes communicating official statistics more challenging, as the likely mode of delivery is facing increasing scrutiny.

When it comes to communicating evidence, it is important to be mindful of the wider context, as scientific evidence can only provide a 'common factual baseline for public discourse if it has widespread support from the public' (Younger-Khan et al., 2024, p.2). Additionally, incorporating Schäfer's reflections on 'mediated trust in science' (2016), this picture is further complicated by 'trust intermediaries like media…which

may provide symbolic indicators' (Bentele, 1994, as cited in Schäfer, 2016), thereby 'doubl[ing] the configuration of trust' (or distrust) and shaping public attitudes (Kohring, 2004, p.165, as cited in Schäfer, 2016). Adding to this, the British Academy (2024) also points to spillover effects and warns that distrust in politics can spill over to distrust in evidence. This review takes note of this implication that trust does not exist in a vacuum and recognises that the levels of trust the public assign to one actor, object or entity may be influenced by, and can have an influence upon, other actors, objects and/or entities.

That being said, the current section homes in on the question of trust in scientific evidence (the object). Accordingly, it highlights studies which investigate trust in scientific evidence, providing a picture of current levels, and signposting strategies for improvement. This distinction is prefixed on the suggestion by the British Academy that maintaining a clear distinction between the logics of politics (mobilising support) and scientific evidence (producing knowledge) – and effectively communicating these parameters to the public – may help stem some of the spillover effects (the British Academy, 2024).

Although reflective of a pre-COVID-19 picture, the results of the most recently published Public Attitudes to Science (PAS) survey from 2019 provide a helpful illustration of public levels of trust in scientific evidence (Department for Business, Energy, Industrial Strategy, 2020). In this survey, 50% of respondents believed that the information they hear about science is generally true (43% tended to agree, 7% strongly agreed). Meanwhile, only 8% disagreed (7% tended to disagree, 1% strongly disagreed). Interestingly, when asked to qualify their reasoning, participants' responses more often referred to 'a general feeling or instinct' as opposed to specific reflection that related to scientific evidence.

Respondents of the same survey (PAS, 2019) also reported a default position of trusting science, largely because they had no reason not to. This reflects the idea of 'resigned trust' – which refers to a combination of apathy and insufficient knowledge or will to question one's position. To paraphrase Schäfer's comments, 'trust is a substitute for knowledge and control' (citing Kohring, 2001), and in situations of insufficient knowledge, there is little option but to trust (2016, p.3). This passive attitude was also observed for those who had expressed a negative view, with distrust being their default response, until they were provided with evidence to confront their position. Unfortunately, comparable post-pandemic data on the Public Attitudes to Science survey are not yet available (those interested in monitoring trust levels should look out for the fifth wave, which is scheduled to be completed in spring 2025).

Thus far, societal and political changes have been alluded to with brevity. However, in reviewing the literature on trust in evidence, it would be a glaring omission not to reflect on 'science-related populism' as part of the anti-elite backlash which has gained momentum in the current political juncture. Science-related populism applies the same antagonistic framework as political populism. However, instead of positioning 'the people' against 'the political elite', it positions 'the people' against 'the academic elite' and claims that scientific evidence is inferior to the 'common sense of

the people' (Mede & Schäfer, 2020). This may undermine trust in evidence-based decision making, as science-related populism denies the expert credentials of scientists and proffers narratives that they are not acting in line with the public's best interest (Cologna et al., 2025, p.714).

This positioning of common sense as antagonistically opposed to scientific evidence has also been reflected in concerns voiced by the public specifically in relation to official statistics. This positioning relates to concerns that official statistics do not reflect lived experiences and appear to some as contradictory to common sense. Criticism of inflation statistics provides one such example of people viewing statistics as not being reflective of their experiences. This criticism stems from the observation that inflation for the poorest 10% of households was actually 12.5% in October 2022 – notably higher than the headline figure of 11% (David, 2022). This highlights the importance of ensuring that official statistics reflect the common sense of different groups, as from the perspective of the poorest 10%, this figure did not reflect their lived experiences.

As a recommendation, producers should make efforts to ensure that official statistics are in line with the lived experiences of the different publics. Strategies to improve the personalisation capacity of official statistics may help to remedy concerns of this nature.

ONS has developed an example, the "personalised inflation rate calculator", which is designed to allow the public to generate a more representative picture of what the statistics mean for them in their everyday lives (ONS, 2022).

In addition to providing bespoke and tailored statistical products to reflect common-sense experiences, transparent action, such as explaining "how" the evidence has been incorporated, is also encouraged to increase trust levels (the British Academy, 2024).

Sense about Science has been advocating for this as part of its #ShowYourWorkings campaign, as well as producing resources such as the Evidence Transparency Framework (an evaluative tool which scores the transparency of evidence from 0 to 3). These examples share similar overtones to the discussion surrounding transparency in the section dedicated to building trust in media actors. This once again demonstrates that explaining the process, and being transparent in your working out, can better position the evidence and hopefully prevent outright dismissal.

Further strategies recommended in the Public Trust in Science for Policy-making report highlight the importance of communication and understanding underlying attitudes (the British Academy, 2024). Specifically, the report mentions styles of communication, which echoes the previous discussion about the trade-off between

being open and relatable, versus exemplifying competence and scientific rigour, as well as emphasising the importance of communicating uncertainty.

As Kerr et al. (2023) explain, the myriad of ways that uncertainty can be presented necessitates a considered, and careful, approach. Based on a large survey experiment focused on information relating to COVID-19, they found that 'an explicit verbal statement of uncertainty… decreases the perceived trustworthiness of the [number]' (p.11–12). Yet providing a numerical range cue may 'buffer against future damage if figures are revised' (p.13). Alongside this caveat, Kerr et al. (2023, p.3) also note that the time frame, the language used and the field or topic may alter the effects of communicating uncertainty. To quote van der Bles et al., 'in some decision settings, people might expect uncertainty' (2019, p.20). For instance, as Joslyn and LeClerc (2013, as discussed in van der Bles et al., 2019) report, warnings of uncertainty around weather forecasts may be more forgiving and actually contribute to improved trust and more accurate expectations.

Based on this, although there is consensus about the need to communicate uncertainty, producers should consider specific guidance which is applicable to the type of statistic they are working with.

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van der Bles et al.'s (2019) review develops a framework for communicating epistemic uncertainty based on Lasswell's model of communication. Statistical producers may find this to be a helpful resource. OSR has also reviewed ways in which uncertainty can be communicated in statistics, which may be useful to producers.

With regard to understanding underlying attitudes, the Public Trust in Science for Policy-making report highlights the spillover of political distrust and suggests that people process information in a biased fashion (the British Academy, 2024).

This suggests that it is important to be mindful of underlying attitudes when communicating official statistics which may contradict the public's established opinions or experiences.

Alongside this, the report also outlines the philosophical stance of the British Academy, which points to the unsuitability of the "deficit" mentality and notes that 'simply providing more evidence is unlikely to shift attitudes' (2024, p.6). In the context of this review, there is an important distinction to highlight here: "more evidence" is not the same as more-detailed workings out, or a more thorough account of the decisions underpinning the statistical output. In line with this, the advocation of "more evidence" as an attempt to "plug the knowledge gap" should not be confused as contradictory to, or mistaken for, the recommendation to provide more transparency and depth.

Rather, the recommendation proposed in this review is a qualitative change in the way the evidence is presented (to provide the necessary detail in a way which users can easily understand), not a quantitative prescription to provide "more".

Additionally, studies have also alluded to the possibility that the method of exposure (direct or mediated) to scientific evidence influences trust in that evidence. However, further research is needed to establish a systematic picture of 'what kinds of media representations effectively trigger trust in science' (Schäfer, 2016, p.4). Some studies have shown that the way evidence is reported may not be a predictor of trust in science (Wintterlin et al., 2022), whereas others, to quote Younger-Khan et al., find that 'exposure to misinterpreted, sensationalised information or pseudoscience can lead to distrust or scepticism' (2024, p.5).

Focusing on official statistics, Radermacher warns that 'trust could easily be lost because of misunderstandings and wrong perceptions or expectations' (2020, p.72). This points to the importance of credible communication as a method to convey to audiences that the statistical output has met the quality criteria and is "fit for purpose". With this in mind, Blastland et al. (2020) developed 'Five rules for communication'. These are: inform not persuade; offer balance, not false balance; disclose uncertainties; state evidence quality; and inoculate against misinformation (as summarised by the British Academy, 2024, p.29).

Continuing the theme of communication, technical and specialist jargon, which can be isolating for users, should be avoided. Instead, producers should explain the complexities of statistical processes in a simple and easily interpretable manner.

This is important for trust, as it exemplifies transparency and makes statistical outputs accessible to a wider audience. In this respect, using exclusive language can be interpreted as a barrier to meaningful understanding, and result in misunderstanding, confusion and/or isolation. Consequently, working to dismantle some of the barriers that technical jargon constructs and "lift the curtain" on the mystery of statistics may be conducive to building trust.

The final point to highlight on this theme relates to the topic, or area, of evidence. Despite overall reporting a weak positive relationship in favour of the "knowledge deficit model", a meta-analysis carried out by Allum and colleagues in 2008 suggests that the area of science – including whether it is contentious or not – may possibly alter the relationship between knowledge and attitudes (with willingness to trust being treated as attitudinal). Specifically, in reviewing the literature, they highlight a study carried out by Evans and Durrant (1995) which showed that the more people learnt about the science relating to human embryos (regarded as a contentious issue), the more negative their attitudes towards science became. Although

insufficient to discredit the assumptions of the knowledge deficit model entirely, the observation that, in certain situations, increased awareness may result in the inverse outcome (of negative attitudes) is noteworthy. Studies such as this promote caution and indicate that when it comes to prescribing increased knowledge, the picture may be more mixed than first assumed.

In addition, studies also suggest that trust levels depend on the field of science. This builds on academic debates which refer to a hierarchical distinction between 'hard' and 'soft' science, with 'scientific' virtues more commonly ascribed to the former. Intuitively in line with this, Younger-Khan et al. (2024) developed a vignette experiment which found that hard sciences (genetics and material sciences) were considered to be more trustworthy than the softer sciences of economics and education. Relying on a parsimonious measure developed by Hendriks et al. (2015), the same research also reported higher mean outcomes for the harder science disciplines in terms of competence (expertise), honesty (integrity) and responsibility (benevolence).

Further research to ascertain whether this distinction influences the levels of trust in different official statistics would be useful. Specifically, this may uncover whether statistics relating to "hard" fields are regarded as more trustworthy than those capturing "softer" areas.

2.3 Trust in Official Statistics

As mentioned earlier in this review, surveys, and other studies more broadly, dedicated to the theme of understanding levels of public trust in official statistics are sparse. There are, however, a few exceptions, which will be highlighted here.

The studies detailed in this review provide helpful insights relating to the question of trust in official statistics. Nevertheless, some of the design choices rely on a pre-determined list of options or stop short of asking respondents what strategies can be adopted to help remedy the low levels of trust they report. This limits responses in line with the possibilities prescribed, and may miss important, and perhaps even widely shared, reasons for the public's decision to trust, or distrust, official statistics.

Consequently, over and above reporting on existing studies, additional primary research has been carried out as part of this project. This provides further qualitative insights in an unstructured, user-led format. This primary research is based on free-text responses which members of the public provided as part of OSR's research project, Statistics in Personal Decision Making. The responses to the question 'what might increase your trust in official statistics?' were thematically analysed and themes are outlined. Where applicable, commonalities and discordance will be signposted within the upcoming section. The detailed analysis is presented in Appendix 1.

2.3.1 Trust in Producers of Official Statistics

Before moving to report what members of the public thought would help build trust in official statistics as a product, this section will start by focusing on one prominent, high-profile producer, the Office for National Statistics (ONS). Within the UK statistical system, official statistics can be produced by or on behalf of central and devolved governments, and by others (listed in secondary legislation). ONS is a non-ministerial department that independently produces official statistics.

Evidence from the Public Confidence in Official Statistics (PCOS) survey in 2023 shows that 87% of respondents who provided an answer reported that they trust ONS, which is a higher percentage than those reporting to trust the courts (82%), the government (31%) and the media (25%) (National Centre for Social Research, 2024). It should be noted that while the survey aims to be broadly representative of the population in Great Britain in terms of a range of demographic factors, an adjusted household-level response rate of 21.2% means that the achieved sample may differ from the wider population in other ways. For example, those who trust ONS may have been more likely to complete the survey.

Further insights from PCOS reveal that those who used official statistics reported higher assessments of the accuracy and independent integrity (being free from political interference) of official statistics than non-users (91% vs 80% and 82% vs 68%, respectively). Moreover, PCOS also revealed that trust, for both the statistical output and ONS as a producer, was higher for people who use statistics than non-users (99% vs 82% and 98% vs 80% respectively). This reiterates the observation that use and familiarity may increase trust level.

Further evidence that public profile and wider familiarity are conducive to fostering a more trusting and receptive audience can be learnt from other contexts. For example, in examining institutions in the Czech Republic, Lyons (2013) highlights the importance of visibility and shows that institutions with high salience are more likely to be trusted. A similar pattern of familiarity being associated with higher trust levels was noted in a survey carried out in 2023 by the Northern Ireland Statistics and Research Agency (NISRA). This survey reported that public awareness of the producer is associated with higher levels of trust in the outputs they deliver.

Turning to the question of why people trust, or do not trust ONS, the PCOS (2023) survey finds that not having a vested interest and their level of expertise were the most frequent responses given for why respondents trust in ONS (63% and 56%, respectively) (National Centre for Social Research, 2024). Meanwhile, when asked to elaborate on reasons for distrusting ONS and the statistics it produces, not telling the whole story (45%) and misrepresentation by external actors, i.e., politicians (49%) or the media (38%), were the top three responses. Whilst these responses were selected from a pre-determined list which was provided to participants, these concerns were also shared within the free-text format. Specifically, the findings of the primary research conducted for this report (as discussed in Appendix 1) reveal that in the free-text format, respondents suggested that remedying the manipulation or

skewed presentation of official statistics would be a fruitful area for dedicated improvement.

2.3.2 Effective Communication

Whilst these concerns around distorted communication and possible manipulation may be external and, to some extent, beyond producers' control, the importance of effective communication has been emphasised in other surveys. Thus, it remains a recurrent theme which is often advocated as a route to build trust in official statistics.

For instance, respondents of a survey titled "Official Statistics: Perceptions and Trust", which featured in the 2005 Statistics Commission report, recommended a measured approach to using statistics (though this reference is perhaps slightly outdated).

Building on this, recommendations include not allowing statistics to take on more weight than they can reasonably bear and increasing efforts to improve communication with users, particularly with regard to interpretation, accessibility and use by a non-technical audience.

Likewise, a second survey which featured in the UK Statistics Authority report on Strengthening User Engagement (2009) repeated many of these pleas. It calls for clearer communication and the inclusion of the necessary contextual information to aid interpretation. This is clearly reminiscent of the responses provided in the 2004 survey.

Equally, the primary research, which has been conducted as part of this project (described in the appendix), also identified issues with the communication strategies which accompany the circulation of official statistics. Respondents pointed to the need to be more explicit when acknowledging the limitations of the statistical product, as well as advocating for simplicity, wider publication and clearly articulating the value that official statistics can provide.

Taking these suggestions into account, communicators may wish to make a concerted effort to highlight the relevance of any statistical output. In so doing, they should use simple language that is easily accessible, and that avoids an overreliance on statistical jargon or existing analytical knowledge.

Recommendations relating to communication also feature elsewhere within this review, and detailed evidence to support their advocated implementation is provided. This indicates that mechanisms to improve trust may be echoed and shared across different bodies and outputs.

2.3.3 Quality Products

Furthermore, additional interesting insights can be gained from the "Official Statistics: Perceptions and Trust" survey (Statistics Commission, 2005). This survey presents a positive picture of trust levels in 2004, with interviewees rating the quality of UK official statistics as being the 'best in the world'. This points to the importance of maintaining a reputation of being high quality, with a first-rate product noted as being important to members of the public.

The results of the present primary analysis also highlight how it is important to communicate the quality of official statistics. For example, respondents expressed an interest in seeing a more detailed account of the methods and suggested this may improve confidence in the output.

Also relevant from the perspective of quality, the findings of the primary research reveal that members of the public consider that regular updates and the accessibility of a statistic positively contribute to levels of trust (see Appendix 1). Moreover, reiterating the findings discussed earlier in this review, the primary research also points to the benefits of providing paper trails and showing your working out.

In line with this, statistical producers should ensure they are clearly communicating the participant recruitment protocols, data collection procedures and analytical methods utilised in the production of the statistical output.

2.3.4 Spillover Effects

Moving on to other studies, this review considers what can be learnt from other countries. Looking at trust in official statistics in Luxemburg, STATEC (2023) performed a regression analysis to show that trust in official statistics can increase the likelihood of trusting other governmental bodies and institutions. Whilst this analysis does not provide evidence for spillover effects moving towards official statistics, it does show how trust in official statistics improves the likelihood that people trust other parts of the government apparatus. This provides evidence in favour of network dynamics, showing how trust can be diffused and shared across government bodies, and the outputs they produce.

Echoing the observation of possible spillover effects, a study conducted in France (Chiche & Chauverie, 2016) suggested that trust in official statistics is correlated with trust in political institutions (such as government, parliament and president). Understanding whether this correlation also occurs in the UK context, and whether the relationship works in reverse (i.e., does increasing trust in producers increase trust in official statistics?) is an avenue worthy of further exploration.

2.3.5 Transparency

Continuing this mindset of learning lessons from overseas, Zeelenberg's (2012) examination of levels of trust in official statistics in the Dutch context is considered. Although the figures relate to Dutch citizens, the conclusion that 'the public must regard official statistics as undisputed' is worth highlighting and may be valuable in the context of this report. To clarify, by 'undisputed', Zeelenberg does not mean unquestioned. Rather, the recommendation proposed relates to promoting transparency and access in order to provide no reason for the public to dispute official statistics. This is reminiscent of OSR's initiative of intelligent transparency, which reflects the importance of providing data in an accessible and clear way.

Resonant of O'Neill's (2013) plea to reserve trust for that which is trustworthy, Radermacher recommends that, rather than pleading with individuals to have 'blind faith in statistics', transparency and participation should be adopted to enable trust to be built through mechanisms of experience (participation) and evidence (open transparency) (2020, p.171). These two pillars tie in with further themes identified as part of the primary analysis, with transparency and personal experience mentioned as possible avenues to help build trust in official statistics.

In proposing recommendations, the suggestions to improve transparency are considered in tandem with comments relating to appeals for impartiality to be guaranteed and requests for official statistics to be audited, monitored and verified. Bringing all these responses together, it seems that signposting may helpfully contribute towards the exemplification of transparency, impartiality and 'true independence'.

Consequently, those involved in the communication and dissemination of statistical outputs may wish to dedicate further efforts to overtly highlighting, where applicable, any review process that the statistic has undergone, as well as underscoring the impartiality of statistical producers.

2.3.6 Reflect Personal Experiences

Echoing the pillar of experience that Radermacher (2020) alludes to, Rupert et al. (2018) highlight the importance of "subjective statistics". In terms of strategies, co-production and collaboration are recommended to help overcome barriers of poor representation and issues surrounding data detachment. An advocate of "citizen science", Rupert et al. promote an approach which combines statistical science and the lived experiences of citizens in order to produce representative data. In so doing, the report challenges the notion that there is only one route to achieving the status of "official" and instead promotes user-driven collaboration in the creation of facts.

Reflecting on this diversity of experience, Rupert et al. (2018, p.180) caution of the issues with 'calling out bad numbers' and explains how this should not be positioned as competition between fact and fiction because this reinforces a mistaken belief that

there is one accurate number which represents objective fact. In practice, this approach highlights the importance of acknowledging that irrespective of whether the numbers reported in statistics are assigned the verdict of good or bad, they 'inevitably involve normative judgements about social meaning' and represent only one possible version of knowledge production. This points to the importance of monitoring who is included (and excluded), with workshops highlighting the importance of representative collaboration which ensures that citizens are continually involved in the processes of statistical production.

Others have taken an alternative outlook and highlighted the importance of 'speaking out when the evidence is unpalatable' (Pullinger, 2020). In addition to the importance of speaking out in disagreeable situations, the performance–trust model of trust building would imply that being held accountable for poor performance is crucial to build trust (or more accurately, prevent existing trust from being undermined).

Nonetheless, Ruppert et al.'s (2018) point remains valid, and a 'care-full' approach to 'calling out bad numbers' is important, especially as these 'bad numbers' may reflect citizens' lived experiences and calling them out may intensify feelings of exclusion.

This sentiment was identified in the primary analysis, whereupon taking steps to ensure statistics reflect users' experiences was mentioned by respondents as a potential mechanism to increase trust in official statistics. Providing a summary, respondents suggested that statistical producers could provide personalised statistical outputs which reflect the users' current situation and/or locality, as well as suggesting that they further invest in efforts to communicate user relevance.

This suggests that signposting user relevance and making clear and direct comparisons to personal experiences may help build trust in official statistics.

Following a similar theme, according to PCOS, 45% of respondents who provided an answer indicated that the belief that official statistics alone do not tell the whole story contributed to feelings of distrust (National Centre for Social Research, 2024).

In some situations, it may be unrealistic to expect official statistics to tell the 'whole story'. For these situations, it would be important to be upfront about which aspects are and are not included in the data, and where possible, to signpost to other complementary information that may complete the picture.

The paper written by Allegrezza (2022) also reflects on the disenfranchisement that individuals can experience when they do not consider themselves to be reflected in the “average man” account which official statistics represent. In the article, they highlight the negative ramifications of numbers as muting individual distinctiveness and explains how this can then cause frustration.

Complementing official statistics with other sources, such as qualitative analysis, may help demonstrate the person-level stories that may be masked in population-level statistics.

In summation, this approach suggests that portraying statistics as something that must be objective and universal is actually harmful, as this has the effect of shutting down debate and contestation, dismissing the importance of lived experience. This may have further repercussions in terms of trust levels.

Finally, dedicating attention to the importance of reflecting lived experience is particularly prominent because, as this review has shown, being able to see yourself in the data is a principal foundation of trust in the end product.

In response to this, Ruppert et al. (2018) suggest that trust in official statistics can be achieved through the legitimisation mechanisms embedded in co-production as a central feature of statistical production.

In addition to this, as the primary research reveals, providing a fuller, and more comprehensive, picture that displays results from ‘a wide range of areas and people’ may help to remedy concerns about the statistics not telling the full story.

Lastly, by increasing efforts to provide personalised statistics that reflect an individual’s story, producers may be able counteract feelings of being underrepresented, or neglected, in the ‘story’ that the official statistics tell.

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3 How To Build Trust

Within the literature, several models have been developed that seek to provide a systematic account of how trust is built, maintained and, in some cases, broken. Including these models here is helpful to situate the recommendations, as it highlights how trust dynamics function and reveals what features “go into” building trust.

Before responding to the question of how trust is built, it is important to be mindful that trust is not a static process, and as implied in stage models of trust, it changes over time (Rousseau et al., 1998; Korsgaard, 2018). Setting these stages at the forefront displays synergism with the recommendation to apply differentiated types of trust, and tailor bespoke recommendations. This recommendation of bespoke trust building efforts is important as, just like how not all types of trust are the same, how trust is built can vary depending on the different stages of trust. Recognising this helps situate the discussion around the relevant stage, type and model of trust, and ensures that a focused overview of the dynamics involved can be provided.

An overview of three stages is provided by Korsgaard (2018):

> *The first, deterrence-based (Shapiro et al., 1992) or calculus-based (Lewicki & Bunker, 1996), refers to early-stage relationships that are relatively transactional. Trust is conditional on the potential costs and benefits to each party of trusting and being trustworthy.*
> *In the second stage, knowledge-based trust is based on the accumulated knowledge of the partner’s trustworthiness over repeated interactions.*
> *The third and most robust stage of trust is identification-based trust wherein the actor’s values and interests are aligned with the partner. As the basis of trust shifts, the paths of influence between cooperation and trust change over time.*

As the above synopsis makes clear, different stages align more closely with different definitions of trust. Namely, the first stage displays clear synergy with trust as a rational choice; the second emphasises reciprocity, learning and the importance of past experiences; and finally, stage three refers to what Faulkner (2018) may term affective trust, which is more intimate and values-based than the predictive alternative.

To clarify, for the purpose of this report, official statistics are considered to be subject to predictive trust. Consequently, it is recommended that they earn their status as being trustworthy by operating in accordance with the dynamics of ability and performance, as opposed to relying on the age of relationship and degree of intimacy (Santana & Cook, 2020).

This recommendation to focus on the earlier stages of trust building does not mean that expressing shared values should be avoided, only that one should not be reliant on the processes outlined the final stage of trust building: firstly, because the type of trust that official statistics require does not necessitate that level of depth or intimacy; and secondly, because if statistical producers wait until stage three to engage in trust building behaviours, there is a very real risk that audiences will have already become distrustful. This is not unduly pessimistic. It is based on the 'established wisdom that trust is built slowly and lost quickly', alongside a concern that if opportunities to build trust are neglected, distrust may fill the void (Korsgaard, 2018, p.20).

With this conclusion in mind – that efforts to build trust in official statistics should be predominately concentrated in the first two stages of trust – this review provides a brief synopsis of four distinct routes to trust building. The four routes are based on models of trust which have been thematically grouped. The resulting techniques and mechanisms involved in building trust are: 1) learning from past experiences; 2) evaluating qualities and characteristics; 3) gaining knowledge and developing understanding; and finally, 4) relying on the context and borrowing trust from others. It is beyond the scope of this review to provide a detailed analysis of these four strategies. For this, readers can make use of the links and references provided to investigate the models further.

For the purpose of this review, this section provides a short, focused synopsis. Throughout the review, links which signpost to the relevant model have been included. This reverse signposting centralises the topic focus (i.e., trust in actor/object) and centres recommendations with a topical priority.

3.1 Learning from Past Experiences

This section includes trust models which emphasise repeated learning, experiences and evaluations of past performance as the mechanisms through which trust is built. These models are particularly useful in the earlier stages of trust building.

3.1.1 Experience and Familiarity (Luhmann, 1979)

This model of trust relies on the notion that trust is the product of repeated exposure to positive experiences. To quote Luhmann (1979, p.19–20), 'familiarity is a precondition for trust and distrust.' This model states that the outcome of trust (or in the case of negative experiences, distrust) will be decided primarily on the 'assumption that the familiar will remain.'

To summarise the model: familiarity creates expectations of future outcomes. These expectations are based on past experiences. Consequently, if the experience is positive, trust will be increased; inversely, if the experience is negative, trust will be destroyed.

3.1.2 Performance–trust hypothesis (Yang & Holzer, 2006)

This model proposes that performance underpins trust. It suggests that observations of positive performance increase trust in the actor, whereas failing to meet the performance criteria can have a negative impact on trust.

To provide an example: ‘individuals are more likely to express trusting attitudes if they also assess government performance in a positive light’. This clearly involves a subjective assessment of what constitutes a ‘positive’ performance. This demonstrates that although appraisals of trust may differ from one person to another, even after witnessing the same performance, this does not invalidate the model, because the subjective assessment of performance may still determine trust on a personal level.

3.1.3 Universal Sequence for Trust (Dietz, 2011) and Distrust (Six & Latusek, 2023)

This model functions as a feedback loop whereby certain inputs (i.e., disposition, character and institutional context) inform beliefs, decisions and actions. The decision of whether to respond proactively (trust) or protectively (distrust) is based on feedback from actions which then inform the input.

As Six and Latusek (2023) explain, though this model is universal, it is not rigid. To elaborate: the model is flexible in the sense that it acknowledges that different stages of the process (input, beliefs, decision, action) may demand more weight depending on the given situation or context but that the process – that is, the sequence through which the outcome of trust or distrust is reached – remains consistent.

3.2 Evaluating Qualities and Characteristics

Methods included within this section propose that trust is built on the basis of evaluative judgements based on personality, qualities and characteristics. These features may differ in accordance with different professional standards, and they are particularly suited to building trust in the second stage, as judgement and expectations are relied upon ‘in lieu of their immediate experience’ (Korsgaard, 2018, p.20).

3.2.1 Ability, Benevolence and Integrity (ABI) Model (Mayer et al., 1995)

This model highlights three dimensions of trust: ability (competence to perform the task); benevolence (cares about them); and integrity (adheres to similar set of values). It suggests that when evaluating the agent’s trustworthiness, each of these aspects is considered. These are subjective judgements.

To paraphrase Hamm, Smidt and Mayer (2019), the model itself displays a high degree of parsimony (ability to capture the concept in the fewest number of variables); has considerable empirical evidence to support the validity of the variables; and is purposefully designed to be consistently applicable across contexts – even if, as mentioned, the relative importance of the three aspects may vary.

In reviewing the existing literature on distrust, Six and Latusek (2023) signpost an alternative model – incompetence, malevolence and deceit (IMD) – which has been proposed for measuring distrust. The model uses the subconstruct’s incompetence (the actor’s lack of ability, knowledge or expertise to accomplish the assigned task);

malevolence (harmful intentions); and deceit (perceptions of the other person as dishonest, treacherous or fraudulent in their character).

3.2.2 Trust-as-Evaluation Model (Hardin, 2002)

This model proposes that trust is a judgement of competence (skill) and integrity (commitment to do no harm): A trusts B (who demonstrates integrity) to do X (because they have the skill to do so). This model has inspired a breadth of theoretical literature and empirical studies.

To flesh the components of this model out with an example, one may be trusted to water plants but not to mind a child. Other examples could highlight a particular profession or skillset – one may trust a builder to construct a garden wall but would probably be more hesitant to trust them to perform surgery or land a plane.

3.2.3 Subjective–Rational Evaluation (van der Meer, 2010)

According to this account, trust is the product of a rational process of evaluation, whereby the potential trustor subjectively appraises the object of trust against a four-part typology. The assessment of whether the actor meets each criterion is based on prior experience and 'perceptions' of the actor's ability to meet expectations (van der Meer, 2010, p.532). As such, it is both subjective and rational.

The four criteria shaping this evaluation are: competence (ability which may be general or domain-specific); intrinsic care (benignity, shared values and a commonality of interest); accountability (external systems which moderate negative behaviour and facilitate accountability for wrongdoing); and finally, reliability (predictability, keeping promises and behaving as expected).

This typology is overtly relational, bringing together 'the characteristics of the citizens, *and* the political system, as well as their interplay' [emphasis in original] (van der Meer, 2010, p.519). Although initially designed to evaluate political trust, this actor/system and intrinsic/external 'interplay' is also useful in cases of institutional (i.e., the UK Statistics Authority) and system-level trust (the statistical system).

3.3 Gaining Knowledge and Developing Understanding

The model included under this heading prescribes knowledge as the foundation of trust, or to be more specific, the absence of knowledge and understanding as liable for distrust.

3.3.1 Knowledge Deficit Model (Miller, 1983)

This model is based on the idea that "plugging the knowledgeable gap" will lead to more-positive attitudes (Irwin, 2014, as cited in Taylor et al., 2023). The model argues that a lack of understanding leads to scepticism – a feature of distrust – and to mitigate against this, further knowledge should be sought. This knowledge–attitude nexus was originally developed for science communication, and it continues to be endorsed, in spite of considerable evidence that the objective of increasing knowledge is unlikely to change behaviour, with 'condescending claims of "public

ignorance" too often serv[ing] to further alienate key audiences.' (Nisbet & Scheufele, 2009).

OSR's own work concludes that this approach is unlikely to effectively build trust in isolation. This is considered in more detail in OSR's report on statistical literacy, which recommends that the onus is placed on the producer to better meet the needs of their audiences, rather than blaming audiences for gaps in their knowledge and viewing it 'as a deficit that needs to be fixed' (OSR, 2023).

3.4 Relying on the Context and Borrowing Trust from Others

The model outlined here explains how trust can be borrowed and shared between individuals and/or organisations within the same network. The conditions under which trust is shared are not universal. As such, establishing a better picture of the network dynamics relevant to official statistics may help tailor the recommendations more effectively.

3.4.1 Networks and Chains of Trust (Buskens, 2002)

This model proposes that one's position in a network can influence levels of trust, with the agent's sanction potential (determined via interconnectivity within the network); the importance, and duration, of future interactions (learning effects, including information of previous abuses of trust); and higher density and stronger ties helping support trust (Buskens, 2002).

The model also points to the importance of ascertaining whether trust is shared via a chain network or non-chained exchanges. As outlined by Cook and Santana (2020), in the former, trust can disintegrate if one actor in the chain behaves in an untrustworthy manner (the chain of trust collapses). In the latter, the network is vulnerable to free-riding, whereby one actor's positive reputation is treated as a proxy for the trustworthiness of the others engaged within the network.

The second insight relates to one's position within the network. Cook and Santana (2020) have suggested that members of a network can borrow status from those close to them in their networks. Thus, a high-status individual may be more trusted than those on the periphery. This is a result of their network position, and their connections, rather than any exemplification of trustworthy behaviours. Conversely, those in a peripheral position have fewer contacts to influence and may trust less-trustworthy members out of 'desperation and dependence' (Cook et al., 2006).

4 Conclusions and Recommendations

This research has explored the factors that can influence levels of trust and considered how these could relate to building trust in official statistics.

The findings of the research point to lots of things that actors across the statistical system and beyond can do to demonstrate the trustworthiness of organisations producing official statistics and of the statistics themselves. Throughout the report, recommendations have been made that, if acted upon, could ultimately build trust in official statistics.

To conclude, these recommendations are reiterated below. They have been grouped by theme, and some overlapping recommendations have been combined. The primary audience for the recommendations – statistical producer, communicator or statistical regulator – is also given. Though a helpful ordering device, recommendations attributed to one group may still be beneficially adopted by others involved in the production or use of official statistics.

Finally, recommendations for future research are provided. This includes avenues that have been prompted by this review, and/or are designed to remedy identified gaps.

4.1 Producers

4.1.1 Reputation and commitments: make a public-facing commitment to behave in a trustworthy manner

Producers should:

- Align themselves with the public's expectations around statistical production. This includes: public involvement; reflecting real-world needs; clear communication; minimising harm; and best-practice safeguarding. Behaving in line with the public's expectations is important because predictability and reliability are seen as helpful criteria against which the public can make subjective and rational choices about the trustworthiness of the actor/object. Meeting these criteria can help build trust.

- Make sure the strategies implemented to improve trust are explained, authentically adopted and sustained over time. Evidence to support this should be made publicly available and provided in an easily accessible format. The process of communicating their intentions to act in a trustworthy way can increase the commitment by the producer to abide by them and, as such, contribute towards heightened trust.

- Explore bespoke approaches to building trust among different groups of the public. This is because actions to improve trust may not be universally effective. For instance, producers may consider utilising different communication networks and supporting a wider range of public engagement efforts.

- Ensure a publicly available trustworthy track record to showcase. This is because both positive and negative reputational legacies can shape future trust decisions.

4.1.2 Public engagement: embrace user dialogue and publicise efforts in this space

Producers should:

- Embrace meaningful public engagement: ensure that public engagement is representative and provides opportunities for collaboration from a wide range of voices. Details of the public engagement process, including indications of those invited to participate, should be shared publicly. This provides an opportunity to showcase efforts to capture a representative picture.

- Embrace co-production opportunities: allowing the public to shape the engagement process, and recognising the valuable insights they can provide, is a positive way to demonstrate trust. This enables producers to exhibit their willingness to bare vulnerability and take the first 'leap of faith' in trusting relations. This could help build trust because signals of trust are often mutually reciprocated.

- Advertise public engagement opportunities: producers should share information about how users could be involved in future public engagement opportunities. Clearly advertising this would allow those who want to be more involved in the process to have their voice heard and considered. This is constructive from the perspective of trust because being reflected in the story that official statistics tell is reported to reduce suspicion and increase trust.

- Respond to stakeholder views in a thorough manner: the false pretence that simply gathering views 'will result in enhanced trust' should be avoided. Performative, superficial and empty efforts to engage public and stakeholder views will not result in increased trust simply by virtue of the process having taken place. In addition to being meaningful, the outcome of any public engagement process should be clearly communicated to stakeholders. Explaining why views have not been taken forward is an important part of public engagement, and bypassing this may have negative ramifications for future trust relations.

4.1.3 Handle challenge with an open mind: look for opportunities to address concerns and exemplify trustworthiness

Producers should:

- Acknowledge and attempt to understand mistrust, avoiding critical or dismissive reactions and statements, which paint mistrust as irrational. Instead, producers should view doubt/challenge from users of statistics as an opportunity to exemplify trustworthiness to the audience, and support them in arriving at a confident, and appropriate, assessment.

- Continue to monitor public levels of trust: producers should be aware of any value shifts and remain at the forefront of any new or developing concerns relating to the use of statistics. This can be achieved through continued investment in their own public engagement and/or social research. Alternatively, or alongside this, engaging with the wider research community, and monitoring upcoming studies, surveys and reports, would support further understanding. This would ensure producers are in a better position to address any concerns as and when they emerge, and hopefully before they become unmanageable.

4.2 Communicators

4.2.1 Be transparent: explain how decisions are made and show any working out

Communicators should:

- Caveat all statistical outputs: ensure that the statistics will not be placed in a position where they are taking more weight than they can reasonably bear. Anyone who is publishing statistics should be open and honest about their limitations. This is important as transparency can help build trust.

- Follow the principles of intelligent transparency: open and honest communication about the limitations of statistical products can help shield official statistics from possible misinterpretation. Alongside this, it can also help safeguard against future damage to trust levels, which may occur if hidden inaccuracies or other issues are later uncovered or disclosed.

- Explain decisions about “how” official statistics are made: this willingness to show working out has been signposted as a positive strategy in trust building. This is because it provides a paper trail which the public can then review in order to evaluate the accuracy of the statistical output.

- Provide all methodological details in a format which supports public understanding and avoid technical and specialist jargon: anyone publishing official statistics should be mindful of underlying attitudes and remember that “simply providing more evidence is unlikely to shift attitudes.” To build trust, there should be a qualitative shift, and the complexities of statistical processes should be communicated in a simple and easily interpretable manner.

4.2.2 Highlight user relevance: publish tailored and bespoke statistical products

Communicators should:

- Provide personalised statistics which reflect an individual’s story, wherever possible: This could include regional/localised statistics, and/or statistics which provide a more bespoke reflection of different socioeconomic situations. Developing tailored statistics affords the public opportunities to see how the

statistics are relevant to them. Exemplifying user relevance can help build trust as relevance supports wider use, and wider use and familiarity can positively contribute to improved trust levels.

- Consider user reception: when the official statistics feature messages which may contradict the publics established opinions or experiences, they should be presented in ways which are less jarring. This may help prevent individuals feeling neglected in the 'story' that the official statistics tell. If this is not possible, anyone communicating official statistics should make a concerted effort to explain to the public why the story the statistics are telling may be odds with their lived experiences. This is crucial because dismissing lived experiences can negatively impact trustworthiness.

4.2.3 Increase awareness: use a variety of publication channels to increase public awareness of official statistics

Producers should:

- Embrace a variety of communications outlets and channels: this should include online intermediaries, social media and more-traditional formats, and within this, direct-to-consumer publication should be encouraged. Frequent exposure to official statistics via media heightens familiarity and improves expectations of trustworthiness. Alongside this, it is important that certain communication channels are not neglected as absence can contribute to distrust.

- Strive to increase public awareness of official statistics**.** This is because recognition, familiarity and exposure support trust building. As part of this public awareness strategy, the value that official statistics deliver, or could deliver, should be highlighted. This may increase people's willingness to bear the costs of trusting and the vulnerability this entails.

4.3 Regulators

4.3.1 Emphasise accountability: visibly hold poor behaviour to account

Regulators should:

- Recognise that performance and quality are necessary, but they are not sufficient to build trust. Accountability structures should be emphasised, and poor behaviour (not just poor performance) should be held to account. Regulators should be transparent in this respect, and examples where accountability structures have been actioned should be clearly communicated to the public. This is because it important that accountability is visible and seen to be applied. If not, this can have a negative impact on trustworthiness as it signals to the public that poor behaviour is permissible.

4.3.2 Apply accountability with care: be mindful of individual experiences

Regulators should:

- Adopt a “care-full”, transparent and well-explained approach to accountability. This is because “calling out bad numbers” which are reflective of citizens’ experiences may negatively contribute to low levels of trust, since it may be interpreted as a dismissal of their lived experiences. As such, regulators should take extra care to explain why the statistics are being challenged. This should be explained plainly and without reliance on technical jargon.

4.3.3 Clarify accountability: explain reasoning to the public

Regulators should:

- Reassure the public that challenging a statistic does not mean the observations reflect incorrect patterns, nor that lived experience is invalidated. Regulators should make it clear that the issues may be methodological or relate to the way the statistic was communicated. Articulating these reasons to the public may help temper frustration and disenfranchisement, and prevent trustworthiness being undermined.

4.4 Recommendations for Further Research

Whilst this review has provided some insight as to the current levels of trust, further research would be welcome. This review has provided a broad indication of the sorts of strategies that organisations and academics recommend for increasing trust levels. This review included exploratory primary research into the types of strategies that members of the public would consider to be effective in building trust in official statistics. In spite of this effort, several gaps and opportunities for further investigation remain.

For instance, when asking the public “do you trust official statistics?”, it is not clear what they interpret “trust” to mean. Cognitive interviews to help get a better understanding of the responses provided in the PCOS survey have been conducted. This reveals that there is variation in the ways that people interpret “statistics” (OSR, 2025). However, similar cognitive interviews to understand how the public interpret “trust” were not conducted. Further research into this would be helpful to get a fuller picture of what aspects of trust the public consider to be sufficient, and which are missing when responses of low or no trust are given. The different definitions and variants of trust given in this review could provide a useful basis from which to design a survey which would facilitate investigation of which variant(s) of trust the public are referring to when they signal their levels of trust.

Further research to help establish what characteristics the public regard as valuable for statistical producers would also be beneficial. As mentioned in the review, the professional standards and characteristic attributes which are seen as valuable vary across different professions – with honesty and care considered important for politicians, and competence and expertise respected for those in the scientific

profession (Seyd et al., 2022). However, it is not clear what configuration of characteristics the public would consider to denote a trustworthy producer of official statistics. Research dedicated to this question would ensure positive qualities can be emphasised and prevent professionals positioning themselves in ways that may damage trustworthiness.

Studies have suggested that the area of science (hard or soft) has an impact on whether people trust its findings. However, this could be expanded further within the remit of official statistics. Specifically, future research to understand if there is a difference in the type of official statistics could help develop a fuller understanding of trust dynamics and if they function differently across different areas, policies and/or status of the official statistic. This could help establish a better picture of whether the "type of official statistic" influences levels of trust. In other words, is the hard/soft distinction maintained?

Evidence in favour of network dynamics has been proposed, showing that trust in official statistics improves the likelihood that people trust other parts of government apparatus (STATEC, 2023). Further research to investigate whether the diffusion of trust also operates in the reverse (i.e., does increasing trust in producers and/or others across government increase trust in official statistics) would provide fuller detail of trust diffusion across government networks.

Due to the wide variety of ways official statistics are accessed, the evidence to be able to confidently assert the network via which people are accessing them is not available. Further research to help fill this gap and get a better picture of where people access official statistics would be valuable. This would make the discussion surrounding network dynamics more practically applicable. For instance, for questions relating to the communication of official statistics, it may be possible that the chain is broken for one outlet or mode of delivery (say, reports on the national news), yet it can remain intact for another (i.e., the official bulletin). Getting a more complete picture of this will help tailor the recommendations.

In addition to this, getting a better picture of the network via which the public are accessing official statistics may also provide insight as to what mode of delivery (or what platform) future research would be best positioned to focus on. The current challenges associated with accessing the data required to be able to identify which platform the public are using to access official statistics (directly via the statistical bulletin, traditional news, online intermediaries, social media, word of mouth, etc.) makes this a difficult recommendation to action. This is acknowledged. However, it is included as a recommendation, as if the capability arises, this acts as a signpost to point to possible future avenues for valuable research. This recommendation, specifically involving exploration into the way official statistics are communicated via intermediaries, and the possibility of collaboration as an approach to measure access, was also suggested in OSR's research project, Statistics in Personal Decision-Making (2025).

Finally, commentators are vocally proclaiming a crisis of trust in science and evidence-based decision making. This has inspired further research on this theme, with the fifth wave of the Public Attitudes to Science (PAS) survey adding new

questions on the trustworthiness of science and refreshing the section dedicated to science in the media.

The survey, which is delivered by Ipsos and the British Science Association, is scheduled to be completed in spring 2025. Familiarising oneself with the results would be advantageous for anyone interested in the topic of trustworthiness in science and scientific evidence. In addition to this, reviewing the PAS data highlighted in this review and comparing the new figures (2025) to those published in 2019 (which are used in this review) would help identify if the patterns are up-to-date and enable any necessary adjustments to be signposted, particularly as the 2025 survey is the first PAS survey to be carried out in a post-COVID-19 context.

5 Annex 1: Methods

In the task of evaluating levels of trust in official statistics, a literature review was established as an appropriate first stage. This enabled the project to meet the stated objectives of both enhancing understanding and providing practical recommendations. This was then followed by primary research which was based on analysis of free-text answers to the question: 'what might increase your trust in official statistics?' The responses were analysed using NVivo software, and the identified themes, along with a more detailed methodology, are reported in Appendix 1: Primary Research: Building trust in official statistics.

For the literature review, a dual process was undertaken when selecting literature for inclusion. Firstly, stakeholders, namely those with a particular interest in understanding public levels of confidence in official statistics or evidenced-based information more broadly, were invited to suggest resources to be considered in the review. This included submissions from those working on trust in data, as well as members of ONS who had been involved in surveys dedicated to this theme. Each of the recommended resources was screened and considered for inclusion in the review. This process of expert suggestions was particularly helpful in uncovering reports and surveys, and meaningfully contributed to the evidence base this review draws upon.

The second stage followed a more systematic and structured approach. This involved conducting a Boolean search for academic contributions which featured "official" and "statistics" in the title and/or abstract. Once duplicated results were removed (n=18), the remaining articles were screened (n=83). As part of the screening process, 50 records were excluded due to an irrelevant title, and a further 21 were removed on the basis of the abstract. To account for this, oftentimes, these contributions appeared to use the search terms in a different capacity, which meant they were not suitable for inclusion in this exercise. For instance, to generally refer to "statistics" (i.e., poll data, or a product of the authors own analysis) or using "official" to refer to an established, approved, or recognised policy or position maintained by a government or organisation.

At the end of this process, given the specificity of the topic area, it became clear that traditional approaches would only generate a few studies of relevance (n=16). To provide a breakdown, this included 12 articles which were identified via this process and a further 4 which were identified using snowballing. Consequently, a more pragmatic approach was taken.

Over and above source limitation, the pragmatic approach which was adopted within this review is beneficial as it recognises the wider context within which official statistics are produced and communicated to the public. With this in mind, the inclusion criteria were expanded to accommodate studies which considered other relevant areas. The relevant areas were established based on conversations with those working in the official statistics sphere and with the intent to reflect the journey official statistics take. This approach of centralising the journey adheres to the premise that trust can be broken at any stage of this process, and reflects the idea

that low levels of trust do not simply depict a hesitancy to trust official statistics (as a product). The approach taken in this review reflects the premise that the dynamics involved in trust mechanisms are far wider.

Having settled on this pragmatic approach, it was identified that initial searches on these broadened fields were far beyond what was manageable for an exhaustive review within the time frame of this fixed-term appointment (3 months). Moreover, they were often unrelated, or tangentially related, in such a way that efforts to systematically filter searches did not produce helpful material. With this in mind, it is acknowledged that this review is not exhaustive, and that relevant material may have been missed.

As part of this pragmatic approach, articles and documents were inspected. Those which met the criteria of 1) being focused on trust in experts and/or government practitioners, and 2) concentrated on the production and/or dissemination of evidence and/or data, were deemed relevant. Alongside this, any contributions which discussed trustworthy protocols of evidence production, or promoted trustworthy communication practices, were examined.

From this, a process of snowballing was undertaken, and a further literature search was conducted focusing on key terms uncovered in the initial stage. The key terms included the respective definitions (trust as: a personality trait, a reciprocal process, a rational choice, a socially desirable objective, and vulnerability in trust), alongside a dedicated search which ensured the entire journey of statistical production, dissemination and reception was accounted for and that the relevant factors which relate to trust in media, trust in government and trust in evidence/data were not missed. This funnelled snowball approach was particularly useful as it produced a series of literature reviews and dedicated book chapters which were based in different disciplines and concentrated on these specific themes. These resources were valuable in the more theoretically oriented aspects of the review. In addition, they signposted to further points of exploration, particularly with regard to the models of trust building which are frequently cited within the literature.

This review is not intended to be exhaustive, and is informed by the literature searches, key terms and stakeholders engaged in the selection process. It does, however, provide an overview of key themes related to trust in official statistics, as well as signposting to some practical recommendations which those based in the area of official statistics may want to consider.

6 References

Achterberg, P., Koster, W., & van der Waal, J. (2017). A Science Confidence Gap: Education, Trust in Scientific Methods, and Trust in Scientific Institutions in the United States, 2014. *Public Understanding of Science*, 26(6), 704–720. https://doi.org/10.1177/0963662515617367

Alldritt, R. & Wilcock, J. (2011). *Why Measure Trust in Official Statistics?.* UK Statistics Authority. 58th World Congress of the International Statistical Institute. Dublin. *(Accessed 17th April, 2025)*

Allegrezza, S. & Joxhe, M. (2022). *Exploring the Determinants of Trust in Official Statistics: Evidence from Luxembourg.* Économie et Statistiques (Report Number 128). https://statistiques.public.lu/dam-assets/catalogue-publications/economie-statistiques/2022/working-paper-02-22.pdf (*Accessed April 27th, 2025*)

Allum, N. (2008). Science Knowledge and Attitudes Across Cultures: A Meta-Analysis. *Public Understanding of Science,* 17(1), 35–54. http://dx.doi.org/10.1177/0963662506070159

Alternmüller, M. S. et al. (2023). Science Communication Gets Personal: Ambivalent Effects on Self-Disclosure in Science Communication on Trust in Science. *Journal of Experimental Psychology,* 29(4), 793–812. https://doi.org/10.1037/xap0000489

Altenmüller, M., Wingen, T. & Schulte, A. (2024). Explaining Polarised Trust in Scientists: A Political Stereotype Approach. *Science Communication,* 46(1), 92–115. https://doi.org/10.1177/10755470231221770

Baier, A. (1986). Trust and Antitrust. *Ethics,* 96(2), 231–260. http://www.jstor.org/stable/2381376

Bailey, R., Rofique, J. & Humphrey, A. (2010). *Public Confidence in Official Statistics 2009.* National Centre for Social Research. https://natcen.ac.uk/sites/default/files/2023-07/public-confidence-official-statistics-2009.pdf (*Accessed May 10th, 2025*)

Banerjee, S. et al. (2023). *Strategies for Building Trust in News: What the Public Say They Want Across Four Countries.* Reuters Institute. https://reutersinstitute.politics.ox.ac.uk/strategies-building-trust-news-what-public-say-they-want-across-four-countries (*Accessed May 12th, 2025*)

Besley, J. (2015). Predictors and Perceptions of Scientists: Comparing 2001 to 2012. *Bulletin of Science, Technology and Society,* 35(1-2), 3–15. https://doi.org/10.1177/0270467615604267

Bettis, J. (2024). *Trust in News Providers.* UK Parliament. Post. https://researchbriefings.files.parliament.uk/documents/POST-PN-0727/POST-PN-0727.pdf (*Accessed May 20th, 2025*)

Blais, A. & Rubenson, D. (2012). The Source of Turnout Decline: New Values or New Contexts?. *Comparative Political Studies,* 46(1), 95–117. https://doi.org/10.1177/0010414012453032

Blastland, M. (2020). Five Rules for Evidence Communication. *Nature,* 587(7834), 362–364.https://doi.org/10.1038/d41586-020-03189-1

Brennan, G. (1998). Democratic Trust: A Rational-Choice Theory View. In Braithwaite, V. & Levi., M. (Ed.), *Trust and Governance,* (pp.197–217) Russell Sage Foundation. ISBN. 0-87154-134-3

British Science Association. (2025). *UKRI, Ipsos and the BSA Announce Launch of*

2023 Public Attitudes to Science Survey. https://www.britishscienceassociation.org/news/launching-2025-public-attitudes-to-science-survey *(Accessed 24th April, 2025)*

Bunting, H., Gaskell, J. & Stoker, G. (2021). Trust, Mistrust and Distrust: A Gender Perspective on Meanings on Measurements. *Frontiers in Political Science,* 3 https://doi.org/10.3389/fpos.2021.642129

Buskens, V. (2002). Summary and New Perspectives. In *Social Networks and Trust,* (pp.191–211) Springer. https://doi.org/10.1007/b109038

Campaign for Science and Engineering. (2025). *CaSE Public Opinion Research Summary.* https://www.sciencecampaign.org.uk/what-we-do/public-opinion/research/research-summary/#trust *(Accessed 24th April, 2025)*

Carter, J. A. & Simion, M. (n.d.). *The Ethics and Epistemology of Trust*. Internet Encyclopaedia of Philosophy https://iep.utm.edu/trust/ *(Accessed April 30th, 2025)*

Chiche, J. & Chanvril, F. (2016). Confiance Dans Les Statistiques Publiques: Une Relation Contrariée' *Statistics and Society,* 4(3), 55–63. https://www.persee.fr/doc/staso_2269-0271_2016_num_4_3_1012 *[google translated]*

Citrin, J. & Stoker, L. (2018). Political Trust in a Cynical Age, *Annual Review of Political Science,* 21, 49–70. https://doi.org/10.1146/annurev-polisci-050316-092550

Clemence, M. & King, L. (2023). *Trust in Politicians Reaches its Lowest Score in 40-years.* Ipsos. https://www.ipsos.com/en-uk/ipsos-trust-in-professions-veracity-index-2023 *(Accessed 18th April, 2025)*

Cohen, M. A. & Isaac. M. S. (2021). Trust Does Beget Trustworthiness and Also Begets Trust in Others. *Social Psychology Quarterly,* 84(2), 189–201 https://www.jstor.org/stable/48637025

Coleman, J. S. (1990). Relations of Trust. In *Foundations of Social Theory* (pp.91–118), Harvard University Press. https://www.academia.edu/5875176/

Cologna, V. et al. (2025). Trust in Scientists and Their Role in Society Across 68 Countries. *Nature Human Behaviour,* 9, 713–730. https://doi.org/10.1038/s41562-024-02090-5

Cook, K. S., Hardin, R. & Levi, M. (2005). *Cooperation without Trust?* New York: Russell Sage Foundation. ISBN:978-0-87154-165-9

Cook, K. S., Cheshire, C. & Gerbasi, A. (2006). Power, Dependence, and Social Exchange. In P. J. Burke. (Eds.), *Contemporary Social Psychological Theories.* (pp.194–215) Stanford University Press. 99514171202346

Cook, K. S. & Santana, J. J. (2020). Trust: Perspectives in Sociology. In Simon, J. (Eds.), *The Routledge Handbook of Trust in Philosophy* (pp.189–204). Routledge. ISBN 9781138687462

Dancey, L. (2012). The Consequences of Political Cynicism: How Cynicism Shapes Citizens Reactions to Political Scandals. *Political Behaviour,* 34(3), 411–423. https://doi.org/10.1007/s11109-011-9163-z

David, D. (2022, November 16th). Inflation: Why Price Rises Are Worse for Some People than Others. *BBC News* https://www.bbc.co.uk/news/business-62553641 (*Accessed May 7th, 2025*)

Deck, C. A. (2010). An Experimental Investigation of Trust and Sequential Trade' *Southern Economic Journal,* 76(4), 993–1004. https://www.jstor.org/stable/27866739

Delgado-Márquez, B. L. et al. (2015). Does Knowledge Explain Trust Behaviours

and Outcomes? The Different Influences of Initial Knowledge and Experiential Knowledge on Personal Trust Interactions. *The International Journal of Human Resource Management,* 26(11), 1498–1513. https://psycnet.apa.org/doi/10.1080/09585192.2014.938679

Department for Business, Energy, Industrial Strategy. (2020). *Public attitudes to science 2019.* *https://assets.publishing.service.gov.uk/media/5f22cf7bd3bf7f1b1593c15c/public-attitudes-to-science-2019.pdf (Accessed 25th September, 2025)*

Department for Science, Innovation and Technology. (2024). *Public Attitudes to Data and AI: Tracker Survey (Wave 4) Report, Trust in Data Actors and Views on the Use of Data in Society.* https://www.gov.uk/government/publications/public-attitudes-to-data-and-ai-tracker-survey-wave-4/public-attitudes-to-data-and-ai-tracker-survey-wave-4-report#trust-in-data-actors-and-views-on-the-use-of-data-in-society *(Accessed 27th April, 2025)*

Deutsch, M. (1958). Trust and Suspicion. *Journal of Conflict Resolution,* 2(4), 265–279. http://doi.org/10.1177/002200275800200401

Devine, D., Valgardsson, V., Jennings, W., Stoker, G. & Bunting, H. (2024). The Causes of Perceived Government Trustworthiness. *European Journal of Political Research,* 1–19. https://doi.org/10.1111/1475-6765.12742

Dietz, G. (2011). Going Back to the Source: Why do People Trust Each Other?. *Journal of Trust Research,* 1(2), 215–222. https://doi.org/10.1080/21515581.2011.603514

Edelman Trust Barometer. (2025). *Global Report: Trust and the Crisis of Grievance.* Edelman Trust Institute. https://www.edelman.com/sites/g/files/aatuss191/files/2025-01/2025%20Edelman%20Trust%20Barometer%20Global%20Report_01.23.25.pdf *(Accessed 14th April, 2025)*

Evans, G. & Durant, J. (1995). The Relationship Between Knowledge and Attitudes in the Public Understanding of Science in Britain. *Public Understanding of Science,* 4(1), 57–74. https://doi.org/10.1088/0963-6625/4/1/004

Eyal, G. (2019). *The Crisis of Expertise*. Polity Books. ISBN: 9781509538874

Faulkner, P. R. (2018). Finding Trust in Government. *Journal of Social Philosophy,* 49(4),626–644. ISSN: 0047-2786

Fellegi, I. (2010). *Report of the Electronic Working Group on Measuring Trust in Official Statistics* OECD. Meeting of the Committee on Statistics. Paris. https://isi-web.org/sites/default/files/import/files-2011/950889.pdf

Ferrin, D. L., Bligh, M. C. & Kohles, J. C. (2008). It Takes Two to Tango: An Interdependence Analysis of the Spiralling of Perceived Trustworthiness and Cooperation in Interpersonal and Intergroup Relationships. *Organizational Behavior and Human Decision Processes,* 107, 161–178. https://doi.org/10.1016/j.obhdp.2008.02.012

Frederiksen, M. (2014). Relational Trust: Outline of a Bourdieusian Theory of Interpersonal Trust. *Journal of Trust Research,* 4(2) 167–192. https://doi.org/10.1080/21515581.2014.966829

Freitag, M. & Ackermann, K. (2016). Direct Democracy and Institutional Trust: Relationships and Differences Across Personality Traits. *Political Psychology,* 37(5), 707–723. https://doi.org/10.1111/pops.12293

Glynn. C. L., Hayes, A. F. & Shanahan, J. (1997). Perceived Support for One's

Opinions and Willingness to Speak Out: A Meta-Analysis of Survey Studies on the “Spiral of Silence”, *The Public Opinion Quarterly,* 61(3), 452–263. http://www.jstor.org/stable/2749581

Government Communications Service. (2022). *Our Strategy for 2022-2025.* https://gcs.civilservice.gov.uk/about-us/government-communication-service-our-strategy-for-2022-to-2025/ (*Accessed May 25th 2025*)

Hamm, J. A., Smidt, C. & Mayer, R. C. (2019). Understanding the Psychological Nature and Mechanisms of Political Trust. *PLOS One,* 14(5) 1–20. https://doi.org/10.1371/journal.pone.0215835

Hardin, R. (2002). *Trust and Trustworthiness.* New York: Russell Sage Foundation. ISBN. 978-0-87154-341-7

Hetherington, M. J. & Rudolph, T. J. (2015). *Why Washington Won’t Work.* Chicago: Chicago University Press. https://press.uchicago.edu/ucp/books/book/chicago/W/bo21516007.html

Hendriks, F., Kienhues, D. & Bromme, R. (2015) Measuring Laypeople’s Trust in Experts in a Digital Age: The Muenster Epistemic Trustworthiness Inventory (METI). PLoS ONE, 10(10). https://doi.org/10.1371/journal.pone.0139309

Houston, D et al. (2016). Citizens Trust in Civil Servants: A Cross-National Examination. *International Journal of Public Administration,* 39(4), 1203–1214. http://dx.doi.org/10.1080/01900692.2016.1156696

Humpherson, E. & Baugh, S. (2025, January 6th). Growing Public Trust in Statistics Through Collaborative Communication and Intelligent Transparency. *Government Analysis Function.* https://analysisfunction.civilservice.gov.uk/blog/growing-public-trust-in-statistics-through-collaborative-communication-and-intelligent-transparency/ (*Accessed May 20th, 2025*)

Ipsos UK. (2023). *Ipsos Veracity Index.* https://www.ipsos.com/sites/default/files/ct/news/documents/2023-12/ipsos-trust-in-professions-veracity-index-2023-charts.pdf *(Accessed 18th April, 2025)*

Ipsos UK. (2024). *Ipsos Veracity Index.* https://www.ipsos.com/sites/default/files/ct/news/documents/2024-11/Veracity%20index%202024_v1_.pdf *(Accessed 18th April, 2025)*

Irwin, A. (2014). From Deficit to Democracy (Revisited). *Public Engagement in Science*, 23(1), 71–76. https://doi.org/10.1177/0963662513510646

Jones, K. (1996). Trust and an Affective Attitude. *Ethics,* 107(1), 4–25. http://www.jstor.org/stable/2382241?origin=JSTOR-pdf

Joslyn, S. & LeClerc, J. (2013). Decision with Uncertainty: The Glass Half Full. *Current Directions in Psychological Science,* 22(4), 308–315. http://dx.doi.org/10.1177/0963721413481473

Keefer, P., Scartascini, C., Vlaicu, R. (2021). Trust, Populism and the Quality of Government. In Bågenholm, A. et al., (Eds.), *The Oxford Handbook of the Quality of Government,* (pp.249–267). Oxford University Press. ISBN: 9780198858218

Kerr, J. et al. (2023). The Effects of Communicating Uncertainty Around Statistics, On Public Trust. *Royal Society Open Science*, 10(11), 1–16. https://doi.org/10.1098/rsos.230604

Khan, G. (2025). *These Newsrooms are Trying to Boost Trust Through Transparency. Is It Working?.* Reuters Institute. https://reutersinstitute.politics.ox.ac.uk/news/these-newsrooms-are-trying-boost-trust-through-transparency-it-working (*Accessed May 12th, 2025*)

Korsgaard, M. A. (2018). Reciprocal Trust: A Self-reinforcing Dynamic Process. In Searle, R. H., Nienaber, A. I. & Sitkin, S. B. (Eds.), *The Routledge Companion to Trust.* (pp.14–28) Routledge. ISBN:9781315745572

Latusek, D. (2025). Trust in Public Governance: Scoping the Field. In Six et al., F. (Eds.), *Handbook on Trust in Public Governance.* (pp.1–23). Edward Elgar Publishing. ISBN: 9781802201390

Luhmann, N. (1979). Familiarity and Trust. In *Trust and Power*. (18–23) Wiley and Sons. ISBN: 978-1-509-51945-3

Lyons, P. (2013). Impact of Salience on Differential Trust Across Political Institutions in the Czech Republic. *Czech Sociological Review,* 49(3), 347–374.

Martin, A., et al. (2020). Political Probity Increases Trust in Government: Evidence from Randomised Survey Experiments. *PLoS One,* 15(2), 1–12. https://doi.org/10.1371/journal.pone.0225818

Mayer, R. C., Davis, J. H. & Schoorman, F. D. (1995). An Integrative Model of Organizational Trust. *Academy of Management Review,* 20(3), 709–734. https://doi.org/10.2307/258792

McCabe, K. & A Smith. V. L. (2000). A Comparison of Naïve and Sophisticated Subject Behaviour with Game Theoretic Predictions. *Proceedings of the National Academy of Sciences,* 97(7), 3777–3781 https://doi.org/10.1073/pnas.040577397

McCabe, K. A., Rigdon, M. L., & Smith. V. L. (2003). Positive Reciprocity and Intentions in the Trust Game. *Journal of Economic Behavior and Organization*, 52(2) 267–275. https://doi.org/10.1016/S0167-2681(03)00003-9

Mede, N. G. & Schäfer, M. (2020). Science-related Populism: Conceptualising Populist Demands Towards Science. *Public Understanding of Science,* 29(5), 473–491. https://doi.org/10.1177/0963662520924259

Mondak, J. & Halperin, K. (2008). A Framework for the Study of Personality and Political Behaviour. *British Journal of Political Science,* 38(2), 335–362. https://doi.org/10.1017/S0007123408000173

Mont'Alverne, C. et al. (2022). *The Trust Gap: How and Why News on Digital Platforms in Viewed More Sceptically Versus News in General.* Reuters Institute. https://reutersinstitute.politics.ox.ac.uk/trust-gap-how-and-why-news-digital-platforms-viewed-more-sceptically-versus-news-general - header--0 (*Accessed May 20th, 2025*)

Morelock, A. L. (2021). In Bureaucrats We Trust? Good Governance and Trust in Civil Servants. *Public Administrations Quarterly*, 45(3), 315–337. https://doi.org/10.37808/paq.45.3.6

Müller, J. & Schwieren, C. (2020). Big Five Personality Factors in the Trust Game. *Journal of Business Economics,* 90(1), 37–55. 10.1007/s11573-019-00928-3

National Centre for Social Research. (2024). *Public Confidence in Official Statistics Survey*. https://natcen.ac.uk/publications/public-confidence-official-statistics *(Accessed 2nd April, 2025)*

National Centre for Social Research. (2024). *Trust and Confidence in Britian's System of Government at Record Low.* https://natcen.ac.uk/news/trust-and-confidence-britains-system-government-record-low (*Accessed 25th April, 2025*)

Nielsen, R. & Fletcher, R. (2024). *Public Perspectives on Trust in News.* Reuters Institute. https://reutersinstitute.politics.ox.ac.uk/digital-news-report/2024/public-perspectives-trust-news *(Accessed May 12th, 2025)*

Nisbet, M. C. & Scheufele, D. A. (2009). What's Next for Science Communication?

Promising Directions and Lingering Distractions. *American Journal of Botany,* 96(10), 1767–1778. https://doi.org/10.3732/ajb.0900041

NISRA Statistical Support Branch. (2025). *Public Awareness of and Trust in Official Statistics in Northern Ireland 2023.* https://datavis.nisra.gov.uk/ssb/public-awareness-of-and-trust-in-official-statistics-northern-ireland-2023.html *(Accessed 14th April, 2025)*

OECD. (2024a). *Trust in Government.* https://www.oecd.org/en/topics/sub-issues/trust-in-government.html *(Accessed 14th April, 2025)*

OECD. (2024b). *OEDC Survey on Drivers of Trust in Public Institutions - 2024 Results: Building Trust in a Complex Policy Environment.* https://doi.org/10.1787/9a20554b-en *(Accessed 14th April, 2025)*

Ofcom. (2024). *TV Loses its Crown as Main Source for News.* https://www.ofcom.org.uk/media-use-and-attitudes/attitudes-to-news/tv-loses-its-crown-as-main-source-for-news (*Accessed May 12th, 2025*)

Office for National Statistics. (2024). *Trust in Government, UK: 2023.* https://www.ons.gov.uk/peoplepopulationandcommunity/wellbeing/bulletins/trustingovernmentuk/2023 (*Accessed April 25th, 2025*)

Office for Statistics Regulation. (2022) A UK-wide Public Dialogue Exploring what the Public Perceive as 'Public Good' Use of Data for Research and Statistics. https://osr.statisticsauthority.gov.uk/publication/a-uk-wide-public-dialogue-exploring-what-the-public-perceive-as-public-good-use-of-data-for-research-and-statistics/ *(Accessed 18th May, 2025)*

Office for Statistics Regulation. (2023). *Statistical Literacy: It's All in the Communication*. https://osr.statisticsauthority.gov.uk/publication/statistical-literacy-its-all-in-the-communication/ (*Accessed May 20th, 2025*)

Office for Statistics Regulation (2025) *Statistics in Personal Decision-Making.* https://osr.statisticsauthority.gov.uk/publication/statistics-in-personal-decision-making/pages/7/ *(Accessed April 30th, 2025)*

O'Neill, O. (2013). *What We Don't Understand About Trust.* [Video]. TED Conferences. https://www.ted.com/speakers/onora_o_neill *(Accessed 17th April, 2025)*

O'Neill, O. (2018). Linking Trust to Trustworthiness. *International Journal of Philosophical Studies,* 26(2), 293–300. 10.1080/09672559.2018.1454637

Peperzak, A. T. (2013). *Trust: Who or What Might Support Us?.* Fordham University Press. http://www.jstor.org/stable/j.ctt1c5ck36

Petts, J. (2008). Public Engagement to Build Trust: False Hopes. *Journal of Risk Research,* 11(6), 821–835. http://dx.doi.org/10.1080/13669870701715592

Pullinger, J. (2020). Trust in Official Statistics and Why it Matters. *Statistical Journal of the IAOS,* 36(2), 343–346. https://doi.org/10.3233/SJI-200632

PytlikZillig, L. M. & Kimbrough. C. D. (2016). Consensus on Conceptualisation and Definitions of Trust: Are we there yet?. In Shockley, E., Neal, T. M., PytlikZillig, L. M., & Bornstein, B. H. (Eds.)*, Interdisciplinary Perspectives on Trust: Towards Theoretical and Methodological Integration.* (pp.17–48) New York: Springer. https://psycnet.apa.org/record/2015-53125-002

Radermacher, W. J. (2020). *Official Statistics 4.0: Verified Facts for People in the 21st Century.* Springer. https://doi.org/10.1007/978-3-030-31492-7

Riker, W. H. (1980). Political Trust as Rational Choice. In Lewin, L. & Vedung, E. (Eds.), *Politics as Rational Action*. Theory and Decision Library, 23. Springer. https://doi.org/10.1007/978-94-009-8955-9_1

Rotter, J. (1967). A New Scale for the Measurement of Interpersonal Trust. *Journal of Personality,* 35(4), 521–676. https://doi.org/10.1111/j.1467-6494.1967.tb01454.x
Rousseau, D. et al. (1998). Not So Different After All: A Cross-discipline View of Trust. *Academy of Management Review,* 23(3), 391–404. https://doi.org/10.5465/amr.1998.926617
Ruppert, E et al. (2018). Citizen Data and Trust in Official Statistics. *Economics and Statistics,* no. 505-506, 171–184. doi.org/10.24187/ecostat.2018.505d.1971
Schäfer, M. (2016). Mediated Trust in Science: Concept, Measurement and Perspectives for the 'Science of Science Communication'. *Journal of Communication, Communication Science: Trust and the New Media Ecology,* 15(5), 1–7. https://doi.org/10.22323/2.15050302
Schranz, M., Schneider, J. & Eisenegger, M. (2018). Media Trust and Media Use. In Otto, K. & Köhler, A. (Eds.), *Trust in Media and Journalism* (pp.73–91). Springer. https://doi.org/10.1007/978-3-658-20765-6_5
Sense About Science. (n.d.). *Evidence Transparency Framework.* https://senseaboutscience.org/transparency-of-evidence/evidence-transparency-framework/ (*Accessed May 20th, 2025*)
Seyd, B., Jennings, W., & Hamm, J. (2022). People Who Trust Scientists are more likely to get a Covid-19 Vaccine. So, what Traits make Scientists Trustworthy?. *British Politics and Policy at LSE.* https://blogs.lse.ac.uk/politicsandpolicy/covid-vaccine-trust/ *(Accessed 14th April, 2025)*
Siegrist, M., Cvetkovich, G. & Roth, C. (2020). Salient Value Similarity, Social Trust and Risk/Benefit Perception. *Risk Analysis,* 20(3), 353–362. https://doi.org/10.1111/0272-4332.203034
Simion, M. (2023). Knowledge and Disinformation. *Episteme,* 21(4), 1208–1219. https://doi.org/10.1017/epi.2023.25
Six, F. E. & Latusek, D. (2023). Distrust: A Critical Review Exploring a Universal Distrust Sequence. *Journal of Trust Research,* 13(1), 1–23. https://doi.org/10.1080/21515581.2023.2184376
Smirnova, M. & Scanlon, P. (2016). Experience and Cultural–Repertoire Based Avenues of Trust: An Analysis of Public Trust in Statistical Agencies and their Data. *Social Policy and Society,* 16(2), 219–236. https://doi.org/10.1017/S147474641500069X
STATEC. (2023). *Trust in Institutions, Democracy and Official Statistics.* https://statistiques.public.lu/dam-assets/catalogue-publications/regards/2023/regards-11-23.pdf *(Accessed 4th April, 2025)*
Statistics Commission. (2004). *Legislation to Build Trust in Statistics: Report by the Statistics Commission* (Report No. 18). https://uksa.statisticsauthority.gov.uk/wp-content/uploads/tempdocs/report-18--legislation-to-build-trust-in-statistics--may-2004-.pdf *(Accessed 17th April, 2025)*
Statistics Commission. (2005). *Official Statistics: Perceptions and Trust*. (Report No. 24). https://uksa.statisticsauthority.gov.uk/wp-content/uploads/tempdocs/report-24--official-statistics---perceptions-and-trust.pdf (*Accessed 26th September 2025)*
Statistics Commission. (2008). *Official Statistics: Value and Trust.* (Report No. 38).

https://uksa.statisticsauthority.gov.uk/wp-content/uploads/tempdocs/report-38--official-statistics---value-and-trust--january-2008-.pdf *(Accessed 17th April, 2025)*

Sztompka, P. (1999). *Trust: A Sociological Theory*. Cambridge: Cambridge University Press. http://ndl.ethernet.edu.et/bitstream/123456789/17643/2/28.pdf

Taber, S. & Lodge, M. (2006). Motivated Scepticism in the Evaluation of Political Beliefs. *American Journal of Political Science,* 50(3), 755–769. https://doi.org/10.1111/j.1540-5907.2006.00214.x

Taylor, M., Kennedy, H. & Oman, S. (2023) Challenging Assumptions About the Relationship Between Awareness of and Attitudes to Data. Uses Amongst the UK Public. *The Information Society,* 40(1), 32–53. doi:10.1080/01972243

The British Academy. (2024). *Public Trust in Science-for-Policymaking.* https://www.thebritishacademy.ac.uk/publications/public-trust-in-science-for-policymaking/ *(Accessed 23rd April, 2025)*

Tsfati, Y. & Ariely, G. (2013). Individual and Contextual Correlates of Trust in Media Across 44 Countries. *Communication Research,* 41(6), 760–782. https://doi.org/10.1177/0093650213485972

UK Statistics Authority. (2010). *Strengthening User Engagement.* (Monitoring Report 7). https://uksa.statisticsauthority.gov.uk/wp-content/uploads/2015/12/images-strengthening-user-engagement-final-report_tcm97-32795-1.pdf *(Accessed 17th April, 2025)*

Van de Walle, S. & Bouckaert, G. (2003). Public Service Performance and Trust in Government: The Problem of Causality. *International Journal of Public Administration,* 26(8), 891–913. https://doi.org/10.1081/PAD-120019352

Van der Bles, A. et al. (2019). Communicating Uncertainty About Facts, Numbers and Science. *Royal Society Open Science,* 6(5). https://doi.org/10.1098/rsos.181870

Van der Meer, T. (2010). In What We Trust? A Multi-level Study into Trust in Parliament as an Evaluation of State Characteristics. *International Review of Administrative Sciences,* 76(3), 517–536. https://doi.org/10.1177/0020852310372450

Van der Meer, T. & Zmerli, S. (2017). The Deeply Rooted Concern with Political Trust. In Van der Meer, T. & Zmerli, S. (Eds.), *Handbook on Political Trust*. (pp. 1–16) Edward Elgar Publishing. https://doi.org/10.4337/9781782545118.00010

Van Ryzin, G. (2011). Outcomes, Process and Trust of Civil Servants. *Journal of Public Administration Research and Theory,* 21(4), 745–760. https://doi.org/10.1093/jopart/muq092

Verhoest, K. (2024). Trust and Distrust in Public Governance Settings: Conceptualising and Testing the Link in Regulatory Relations. *Journal of Trust Research,* 14(2), 127–156. https://doi.org/10.1080/21515581.2024.2383918

Weber, J., Malhotra, D., & Murnighan, J. K. (2005). Normal Acts of Irrational Trust: Motivated Attributions and the Trust Development Process. *Research in Orgonisational Behaviour: An Annual Series of Analytical Essays and Critical Reviews,* 26, 75–101. https://psycnet.apa.org/record/2005-08763-003

Weinberg, J. (2023). It Takes Two to do the Trust Tango: Politicians' Trust Perceptions and why they Matter. *Political Insight*, 14(4), 36–39. https://doi.org/10.1177/20419058231218327

Wiesehomeier, N. & Ruth-Lovell, S. P. (2024). Trust the People? Populism, Trust

and Support for Direct Democracy. *Politics and Governance*, 12, 1–18. ISSN: 2183-2463

Wintterlin, F. et al. (2022). Predicting Trust in Science: The Role of Basic Orientations Towards Science, Perceived Trustworthiness of Scientists, and Experiences with Science. *Frontiers in Communication: Science and Environmental Communication,* 6, 1–13. https://doi.org/10.3389/fcomm.2021.822757

Yang, K. & Holzer, M. (2006). The Performance-Trust Link: Implications for Performance Measurement. *Public Administration Review,* 66(1), 114–126. http://dx.doi.org/10.1111/j.1540-6210.2006.00560.x

Younger-Khan, S., Weidmann, N. B. & Oswald, L. (2024). Consistent Effects of Scientistic Characteristics of Public Trust Across Political Regimes. *Humanities, Social Science Communication,* 11(1379), 1–14. https://doi.org/10.1057/s41599-024-03909-2

Zeelenberg, K. & se Bie, S. (2012). *Trust and Dissemination in Official Statistics.* Statistics Netherlands (Discussion Paper 201220) ISSN: 1572-0314

Appendix 1: Primary Research: Building Trust in Official Statistics

Introduction

This short primary research project complements the adjacent literature review, "Trust and Official Statistics".

The literature review provides insight into the current levels of trust in bodies, actors and platforms involved in the production and communication of official statistics, as well as providing a broad indication of the sorts of strategies that organisations and academics recommend for increasing trust levels. The literature review identified that further primary research to understand whether members of the public think these strategies would have a meaningful impact on their own trust levels is needed.

This piece of work is specifically tailored to start to fill this gap by analysing data gathered as part of a previous Office for Statistics Regulation (OSR) research project, where members of the public were asked what they think would help increase their trust in official statistics. This supports a user-focused ambition and provides an initial picture of the types of strategies that members of the public would consider to be effective to build trustworthiness, and consequently levels of trust.

Methodology

The analysis presented here is based on the open-text responses to a survey question asked as part of the OSR research project Statistics in Personal Decision Making. Given the source of these data, any occasions where the themes identified here echo those presented in the project Statistics in Personal Decision Making will be signposted.

This research focuses on analysis of free-text answers to the question: 'what might increase your trust in official statistics?' This question was asked as part of a broadly nationally representative online survey conducted in October 2024. More details about the survey can be found in the Appendix of OSR's published Statistics in Personal Decision Making report. The full survey can be found in Appendix 2. Appendix 5 provides more detail about how the survey was designed, and Appendix 7 includes details of the survey sample composition.

The survey responses (n=1405) underwent an inductive qualitative data analysis (QDA) process where classification was based directly on the data as opposed to a predetermined list of codes. NVivo software was used to structure the organisation of codes and to facilitate the identification of patterns and themes. This approach adhered to Braun and Clarke's (2006) six steps, following the systematic process of: familiarisation; preliminary coding; collation and theme generation; reviewing themes; defining and naming themes; discussion and write up.

During the familiarisation phase, some responses were removed (n=173). As a consequence of this being the final question in OSR's online survey, some responses made references to earlier answers (n=4). In addition to this, responses

which stated the respondents already trusted official statistics (n=41), did not propose a solution or dismissed the prospect that anything could improve their trust (n=97), or declared that they do not use them (n=11), were also removed. The final category removed during this phase was irrelevant or nonsensical responses (n=20). Following this, the remaining 1232 responses were preliminary coded.

Continuing the process, during the collation and review phases, seven themes were identified. These are: quality product; verification and reviews; integrity and transparency; user relevance; communication; trust in producers; and finally, data management. In addition to this, 32 sub-themes were also created. The inclusion of sub-themes enriches the analysis, as it reveals what aspects of each broad theme respondents considered to be necessary and presents this in a more coherent manner than isolated codes would allow.

Within the analysis, responses which reflected more than one theme were coded accordingly, with duplicates treated as examples of both themes. However, a different approach was taken for duplications within the respective themes. Duplications at this level were manually reviewed, and a subjective decision was taken as to which sub-theme best captured the survey response.

Results

This small-scale thematic research analysed responses members of the public gave when asked, ‘what might increase your trust in official statistics?’ To present this thematic analysis, each sub-theme is provided in a table format (Table 1). This table presents the exemplar answers from survey respondents, alongside the sub-theme with which they correspond. Verbatim quotations of the specific answers given within the survey are indicated by quotation marks.

Sub-theme	Definition/Examples
Theme 1: Quality Product	
Confidence in the Output	This sub-theme includes recommendations of accuracy, credibility, quality and reliability, alongside requests for ‘evidence to support them’ and ‘proof they are true’.
Methods	This sub-theme includes pleas to dedicate further effort to explicitly outlining the data collection process and citing sources. Further to this, clear articulations of methodologies, including ‘paper trails [users] could follow’ and requests for the inclusion of more detail are also included. The final element incorporated within this sub-theme refers to sample sizes, with the importance of ‘a well-established research sample size’ and efforts to get ‘more people in the surveys’ requested by respondents.
Useful Output	This sub-theme incorporates suggestions relating to the importance of access, use and context. Access relates to ease of access to all the necessary material, as a precursor to effective use. This includes being ‘fully open to the public’, as well as ‘access to raw data’, ‘more open-source statistics’ and ‘the ability to view all the data not just the results’. Use incorporates ‘consistency and comparability over time’ with

	pleas for ‘uniformity’ and ‘not changing the method of [how] they get the data’ proposed as a route to ‘help build trust in their reliability’. Finally, respondents also suggested providing background information, context and more detail to help users situate the analysis.
Amendments	This sub-theme includes responses where modifications to the statistics themselves were proposed. Specifically, this includes suggestions to use more-innovative methods and to ‘integrate new technologies’. Furthermore, respondents also requested that the type of statistic be expanded to include ‘a wide range of basic topics’.
Theme 2: Verification and Reviews	
Endorsements and Approvals	This sub-theme includes any suggestions of endorsements. Respondents proposed celebrity endorsements including by ‘Carol Vorderman’ or advocated for them being checked by ‘Martin Lewis, Preston etc.’. Within this sub-theme, ‘official documentation’ being ‘backed by [an] official body’ and a ‘government guarantee that it is real’ were all mentioned. In addition to this, recommendations for ‘more signposts to official status’, ‘gov.uk on the paperwork’ or a ‘logo to show verification from an approved source’ were also included. Given that there is already an accredited official statistics badge, this suggests that the status of official statistics, in particular accredited official statistics, could be communicated more overtly to the public.
Monitoring and Verification	This sub-theme incorporates recommendations relating to audits, cross-referencing outputs, peer review and verification procedures. Within this sub-theme, ‘watchdogs’, ‘pilot reviews’ and ‘peer review and scrutiny’ were all recommended. ‘More accountability’, ‘information in the media about wrongdoing’ and ‘statisticians that are willing to answer all questions put to them’ were directly requested. There was also a suggestion that ‘data auditors be named’ to improve transparency and accountability.
Recommendations and Reviews	This sub-theme exemplifies the processes respondents suggested they would find reassuring before assigning their trust. In this respect, familiarity and ‘hearing others use them’, as well as showcasing ‘good experiences from friends and family’ are included in this sub-theme. Alongside this, a wider pool of user reviews where ‘others recommended the service’ was also mentioned as a route to heighten trust.
Self-verification	This sub-theme captures responses which emphasise verification through self-use. Suggestions highlight the importance of ‘personal experience’ and point to the belief that ‘if [they] used them and found they were correct’, they would have confidence in them. These suggestions do not relate to specific strategies that can be adopted per se but do reiterate the importance of communicating the value of statistics and supporting use across a wider user base.

Theme 3: Integrity and Transparency	
Avoid Manipulation and Deceit	This involves honesty, avoiding manipulation and not breaking promises. Within this sub-theme, honesty and truth were often cited explicitly as important characteristics. Respondents also requested a 'uniform analysis, not always changing the goalposts to suit the perceived need', and pleas to ensure statistics were 'plain and couldn't be twisted to suit', or 'adapted to look good' also featured. Concerns relating to statistics being collected 'to make the government look better' were also expressed.
Free from Interference	This sub-theme incorporates impartiality, independence and no profitability. It includes recommendations such as 'be sure that [there are] no profitable businesses', with 'the knowledge that they are truly impartial' and 'confirmation of no political interference' suggested. In addition to the need for statistics to actually be independent, respondents also signposted the importance of this independence being communicated, exemplified and showcased to the public. Only then can trust be built on the basis of 'true independence'.
Open and Balanced	This sub-theme reflects respondents' pleas that statistical production and dissemination be open, transparent and unbiased. Requests for 'stats without judgement', 'accurate and unbiased data' and 'reflect[ing] a balanced view' are included in this sub-theme. To quote one respondent, 'transparency: clearly communicating the methodologies, data collection processes and any limitations of the statistics can help users understand how the data is produced.'
Professional and Courteous	This sub-theme includes responses where requests for alignment with standards of behaviour and conduct are proposed. Alongside this, being 'less intrusive', 'more responsible' and 'more approachable' are also reflected here.
Theme 4: User Relevance	
Providing Examples	The recommendations proposed here reflect respondents' wishes to see more examples and 'real life experiences' reflected in statistical outputs. Suggestions include 'highlighting success stories: showcasing instances where official statistics have led to positive outcomes can reinforce their value and reliability' as well as showing 'real world examples where they have been used and the benefits derived'.
Outcomes and Action	These responses capture respondents' desire to see 'things happen instead of relying on statistics'. Within this, respondents appeared to value 'outcomes' and 'when solutions are provided to problems'. These suggestions indicate that translating statistical insights into policies and taking action to remedy some of the negative situations that official statistics report is seen as a necessary component of their value to members of the public.

Reflecting Personal Experiences	This incorporates responses where ‘more information related to [the individual]’ was requested. Specifically, this involves providing ‘more statistics relevant to [the individual’s] local area’ alongside more generalised requests to showcase ‘their relevance on a day-to-day basis’ as well as dedicating efforts to ensuring they ‘correlate with personal experience’. The importance of personal experience, and ensuring that official statistics resonate with individuals, can be achieved by providing more-varied statistical outputs, with bespoke personalisation capacities.
Representative	These suggestions include presenting the whole story alongside requests to increase representation and inclusivity. Requests include ‘seeing results from a wide range of areas and people’, ‘wider demographics’ and ensuring ‘the whole story was presented’.
Responsive	This sub-theme incorporates responses relating to ‘public engagement and consultation’, ‘more open discussion’ and ‘being involved’. In addition to this, a respondent also noted that when ‘actively seeking feedback from users’, it is important to ‘demonstrate that the producers of statistics are responsive to the needs and concerns of the public’. This points to the importance of effective public dialogue, moving beyond superficial engagement, and genuinely reflecting public concerns. In addition to this, the feedback loop must be completed, and participants should be informed of any outcomes stemming from the engagement exercise.
Supportive	This sub-theme captures any suggestions that producers provide ‘more help’ to assist users with the usability of statistics. This may involve supporting members of the public in developing the critical skills needed to scrutinise statistics as well as providing ‘information on how to fact check the figures provided’.
Timely	This sub-theme includes suggestions to ensure that the ‘information [is] supplied at the right time’ and that ‘regular updates and refreshers’ are provided. Alongside this, respondents also requested ‘more real time data or frequent updates [to] make statistics more reflective of the current situation.’ In addition to this, ‘fresher, dynamic content’ was also requested.
User-Friendly Publication	This sub-theme reflects responses related to ease of use. This includes suggestions of a ‘simple format’ and ‘making them less complicated’. Furthermore, respondents also requested that statistics be ‘easy to find’, with access and a ‘user friendly page where they can all be displayed in easy-to-understand ways by categories or searching’ provided.
Theme 5: Communication	
Communicating Uncertainty	This sub-theme captures responses which suggest that the ‘clear communication of margins of error’ would positively contribute towards higher levels of trust. Alongside this,

	responses which proposed that measures to ensure that users are made aware of any limitations in the process of data collection and the methods of analysis were also included.
Education and Support	Suggestions relating to education and providing users with the information they need to be able to effectively use statistical products are included in this sub-theme. For instance, responses include ‘enhanced public understanding’, requests for statistics to be ‘explained better’ and pleas for ‘more information’ to be provided. In addition, respondents also proposed ‘training and resources’ and reflected on how ‘increasing [their] skills’ and providing ‘a grounding in statistics [would allow them to] appreciate them more’ and help to ‘build confidence’.
Incentivisation	This sub-theme proposes the distribution of ‘vouchers to people who take part’, suggesting that ‘if people were incentivised to believe them’, trust may increase.
Increased Exposure Efforts	This sub-theme captures recommendations to invest in the profile of statistical outputs. Suggestions include ‘more exposure’, ‘more publicity and creating more awareness’, alongside statements such as ‘I [am] just not aware of what good they are.’ Furthermore, enhanced media coverage also featured within this sub-theme. For example, ‘if they were talked about on tv’, ‘quoted more often in social media’ and ‘if they were made public on the news’. In addition to this, being ‘widely available’ and ‘knowing where to look for them’ was also recommended by respondents. This suggests that well-signposted publication, and thus exposure, is seen by the members of the public as an effective route to improved trust.
Statistics Giving Positive News	This relates to the way official statistics are presented and discussed within the public discourse, with recommendations of ‘more good news’ and ‘higher positive results’ included in this sub-theme. This may be a problematic driver of trust, as accurate statistics cannot, by definition, always reflect a positive experience.
Consistency in Messaging	This sub-theme captures issues relating to statistics being undermined by ‘other bod[ies] saying they are not correct’. This is identified as a negative contributor, with conflicting messaging by others seen to lower trust.
Simplicity	This includes responses which relate to simplicity in communication, reducing the amount of technical jargon, and the use of visuals. Within this, ‘charts’, ‘bullet points’ and ‘more use of graphics’ are suggested. Respondents also suggested that statistics be ‘clearer and easier to understand’, ‘easier to follow’ and ‘explained simply’. Overall, suggestions included within this sub-theme promote a ‘simplistic approach [which uses] easy-to-understand language’ as well as the use of ‘less jargon’ as a possible strategy to heighten trust.

Theme 6: Trust in Actors	
Trust in Politicians, Government and Civil Servants	This sub-theme is inherently more politically charged. Statements such as ‘a more honest government’, ‘better trust in the government’ and ‘my trust will increase when the government becomes more trustworthy’ exemplify this point. This is included as a separate sub-theme as the spillover effects between official statistics producers and the government/civil service was explicitly reported in the survey. For instance: ‘this is difficult since trust in statistics means trust in the government’ and ‘anything produced by the government is suspect.’ As such, it is important to acknowledge the wider environment of trust, pay attention to spillover effects and consider networks of trust building (or falling).
Trust in the Competence of Statistical Producers	This sub-theme is explicitly tied to official statistics. It incorporates responses which highlight expertise and competence, reputation and finally, confidence in the statistical producer. ‘Pro-advice’, being ‘thorough’ and knowing that ‘a lot of thought has been put into it’ are considered important from a competence perspective, with producers having ‘the necessary experience’ cited as an important asset. In addition, these suggestions point to a ‘better reputation’, with brand recognition as a ‘reliable, reputable source’ also included here.
Theme 7: Data Management	
Automation Concerns	This sub-theme relates to apprehensions surrounding AI. For example, ‘having humans obtain the information’ [all capitalised] and ‘if they were based on actual evidence and not just calculated data from a computer’. This reflects the impersonal nature of AI. However, it is worth noting that AI usage was not always viewed as negative, with some respondents expressing apathy rather than concern.
Data Governance	This shows the importance of ‘strong data-driven governance’, with ‘good infrastructure’, ‘using public data’ and ‘sharing data’ reflecting examples of this sub-theme. Moreover, responses which endorse collaboration surrounding data are also included.
Data Security	This sub-theme includes responses which reflect data security and privacy concerns. ‘Secure and trusted’, ‘assur[ance] that my data is safe’ and ‘robust data security and protection’ were all proposed by respondents. This suggests that reassurances around data security may be a precondition of trust in official statistics. As such, wider dialogue to articulate the precautions and procedures involved in data collection and data storage process could help moderate concerns.

Recommendations based on the analysis

Based on the answers given by respondents, the following section provides a synopsis of the key takeaways and recommendations from the survey analysis. They are structured thematically, and the intended audience for each recommendation is made clear.

Theme 1: Quality Product

- Producers should commit efforts to ensuring that explanatory information about data collection methods and (where suitable) analytical approaches is easily accessible to the public. Producers may wish to dedicate attention to considering how this information gets into the public domain. Encouraging intermediaries to signpost explanatory information alongside headline figures could be helpful here.

- Anyone involved in the communication of official statistics should dedicate efforts towards demonstrating that the statistical output is a quality product. Actions to display the quality of the product and help build public confidence in the accuracy and authenticity of official statistics should be embraced.

- Anyone involved in statistical production or communication should 'show the [positive] track record' of the statistical products they produce. 'Ongoing reliability' and a 'past history of being correct' are regarded as an important part of having confidence in the product.

Theme 2: Verification and Reviews

- OSR, as the independent UK regulator of official statistics, should ensure statistics are aligning to the Code of Practice. In addition, producers of statistics should implement robust audit and quality checks on a regular basis. It is important that this process, and the outcome – including any recommendations – be communicated to the public, and that they are aware that the audit and monitoring procedure has occurred.

- Regulators should ensure that retrospective accountability, or waiting for issues of misuse to occur, is not relied upon in place of active and ongoing monitoring.

- Respondents reported that hearing recommendations and reviews from people who had used official statistics in the past could be a possible route to building trust. As such, anyone involved in the statistical system could encourage the wider use of official statistics and contribute towards publicising efforts. As mentioned previously, wider exposure may support this route to trust building.

Theme 3: Integrity and Transparency

- Producers, and the regulator should take concerted steps to exemplify impartiality and 'true independence' to the public.

- Anyone involved in the statistical system should be aware that honesty was one of the core areas respondents signposted for improvements. With this in mind, producers should continue to ensure their outputs are objective, truthful and honest, and invest in ensuring this is clearly exemplified to the public.

- Producers should be open and transparent about statistical production, and those communicating official statistics must ensure they are presented in a balanced manner.

- It is paramount that the manipulation of statistics is avoided. Statistics must not be distorted or skewed in order to present a more favourable account of the situation. In addition, producers should ensure that this professionalism is clear in the way statistics are presented, emphasising the political independence of statistical production.

Theme 4: User Relevance

- Anyone involved in the statistical system has a responsibility to ensure that statistics are useful to the public. One way of achieving this is to reflect the users' current context, whether from the perspective of time or experience. Another is to provide personalised statistics and highlight how each individual statistic relates to user experiences.

- Statistics should be circulated in a way which ensures members of the public can access them, and thus benefit from the value they provide.

- Producers should ensure official statistics are published in a timely manner and are up to date. This is seen as important to ensure relevance to users.

Theme 5: Communication

- When communicating official statistics, producers should explicitly state any limitations and uncertainties within the data and the statistical output.

- Anyone producing, disseminating or citing official statistics should explain them simply and clearly, using non-technical language, and where possible, visual strategies should be included to support comprehension. Alongside this, guidance and support on how to use – and interpret – official statistics should accompany any publication (whether written or verbal).

- Those involved in the statistical sphere should dedicate efforts towards clearly explaining the value of statistics.

- Official statistics should be published via a range of communication channels, and they should be clearly signposted as official (and as accredited where applicable). Increased exposure for the purpose of generating 'more publicity and creating more awareness' was suggested as a positive route to building trust.

Theme 6: Trust in Producers

- Anyone involved in statistical production or communication should explain who is producing the statistical outputs. Their expertise, and the processes they followed, should be also laid out.

Theme 7: Data Management

- Producers should be clear about the amount, and nature, of AI involvement in statistical outputs.

- Producers should reassure the public that ‘privacy [is] a priority’, and public assurances that they are adhering to appropriate data management protocols and that all data are kept securely should be made.

Further Research

Recognising the limits of the analysis presented here, further research to establish the prioritisation of measures would be useful. This would help provide a fuller picture of which responses are the most significant, from the perspective of the public, and therefore help focus efforts in the most effective areas.