

# The Future Statistician: consultation summary

January 2026

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## Background

The Future Statistician is a collaboration between the Royal Statistical Society (RSS) and the Government Statistical Service (GSS). This initiative sets out to answer questions such as, in a decade:

- What will statisticians be doing?
- What skills and training will the future statistician need?
- Which factors will influence how the role evolves, and how will these changes impact areas such as recruitment and professional development?
- What are the immediate and long-term opportunities and challenges for the profession?

These questions are crucial to both the RSS and the GSS. The [GSS](#) encompasses all civil servants working in the collection, production and communication of official statistics; and those statisticians for whom the application of statistical skills and expertise is critical in development and evaluation of departmental policy and operational delivery. The [RSS](#) is a professional body for statisticians and other data professionals, as well as a charity that champions the role of statistics and data. Both organisations recognise the need to look ahead, beyond the standard timescales for organisational planning (e.g. the RSS [2024-2029 strategy](#) and the GSS's strategic vision [Strength In Numbers](#)) to explore the role of the statistician in the next ten years.

The aim of this project is to inform RSS and GSS planning and future-proofing, ensuring that these organisations are equipped to meet the challenges of the future and can stay ahead of the curve in their ability to support statisticians and be leaders in the field.

The GSS needs to consider who will compose its workforce over the next decade – who will be recruited, what skills they will have and how to maximise retention of existing employees, as well as what training the workforce will need and what tools they will be working with. This is key to informing recruitment and training strategies to attract and retain the best talent and is also key to considering how to equip future statisticians to carry out their roles.

Considering the future of the statistician is especially important given the crowded data environment. It is important to explore how the statistics profession is perceived and whether people want to become statisticians, including considering how to ensure that statistician roles are viewed as attractive, relevant and impactful in the rapidly changing work environment and world. It is also important to consider the status of 'badged' statisticians - both in terms of how professional statistical skills are formally recognised, and how colleagues from other analytical professions can develop and be acknowledged for their statistical expertise.

The RSS must ensure that its membership offer can keep pace with developments in the statistical field and that membership is valuable and relevant to the needs of members in the future (a substantial proportion of whom work for the GSS), as well as to the needs of future members. The RSS offers training and events for statisticians and data scientists, as well as certification (e.g. Chartered Statistician, Data Science Professional) and accreditation of university degrees. The RSS also provides volunteering opportunities, a mentoring scheme, and carries out policy work on issues regarding statistics, data and the profession. Planning for these activities demands foresight around the skills, interests and needs of the future statistician.

Throughout this work we have interpreted evidence through the Code of Practice pillars of Trustworthiness, Quality and Value, and aligned with the new Standards for Public Use (intelligent transparency, open code, reproducible pipelines).

## Initiative to date

As a first step in this project, the RSS and GSS held a roundtable at the end of 2024 to explore the future of the profession over the next decade. A [report from this roundtable](#) has been published, outlining the constant elements, evolving elements and influential factors impacting the future statistician. A wide range of topics were surfaced, from advances in AI and technology to increased pace of delivery to potential new responsibilities in data-sharing agreements.

We ended this report with a list of eight areas, highlighted during the discussion, in which further exploration could be beneficial. You can find further information on these areas in the [roundtable report](#).

- **Elucidating and recognising core activities and skills** – considering questions such as: what does 'good' look like in terms of statisticians' skills? How do statisticians' skills compare to other analytical professions? Do training courses and accreditation target and recognise the relevant skills?
- **Technology, AI and automation** – considering questions such as: what is the impact of these advancements on the skills statisticians need, as well as on training

needs and recruitment criteria? How to ensure that statisticians remain at the forefront of AI and not left behind?

- **Uncertainty, grey area and trade-offs** – considering questions such as: how can statisticians be supported to produce high-quality insights at pace, balance trade-offs appropriately, and become comfortable with uncertainty and grey area?
- **Feeding data into decision-making** – considering questions such as: how do we ensure that statisticians can advocate for their work and foster an environment where statisticians work closely with other teams to feed data into decision-making?
- **Public communication** – considering questions such as: how can statisticians help to address mis- and dis-information? How can statisticians support the public to be able to critically evaluate claims and reach appropriate conclusions?
- **Pipeline and education** – considering questions such as: how can we ensure that school students are inspired by statistics and data and recognise their relevance, in order to increase engagement with the subject and support a sustainable pipeline into the profession? How can we work towards equity in education to ensure a diverse pipeline? How do recent increases in routes into the profession and variation in existing skillsets impact recruitment and training needs?
- **Funding** – considering questions such as: how can we ensure that funding is allocated towards activities that will allow statistics to best serve the public good and allow statisticians to lead advances in technology and AI, in the face of budgetary constraints?
- **Public statistics** – considering questions such as: how can we foster an environment in which statistics serve the public as far as possible in the next decade (by first considering the societal questions that need answering and utilising data outside as well as inside of government to answer them), and how can we ensure that statisticians inside and outside of government are equipped and ready to do this?

Our aim was to seek feedback from the statistical community on which areas were most important. We held a consultation (open for three months, April - July 2025) and asked:

- Of the areas discussed in this report, which are most important in terms of having the biggest impact on the future of the statistical profession? [rank 8 options]
- Of the areas discussed in this report, which should be prioritised for further work? [tick-box top three]
- Are there other important areas, not included in this report, that will affect the future of the statistical profession within the next decade? What further work is needed in these areas?
- Any other comments?

We also asked for information on sector, job title and organisation, and RSS membership.

## Summary of consultation responses

We received 104 responses in total.

Around two thirds of responses (69 individuals, 66% of the 104 individuals responding to this question) were from individuals working in government or the civil service. The next most popular sector was business or industry (12 individuals, 12%), followed by higher education (10 individuals, 10%). For the question on RSS membership, 102 individuals responded: just over half of responses (58 individuals, 57%) were from RSS members.

When asked which areas were most important in terms of having the biggest impact on the future of the profession, the responses most often ranked top were:

- technology, AI and automation (37 individuals [38% of the 98 individuals answering this question] ranked as most important);
- feeding data into decision-making (17 individuals [17%] ranked as most important); and
- elucidating and recognising core activities and skills (16 individuals [16%] ranked as most important).

When asked which areas should be prioritised for further work, the options most often selected were:

- technology, AI and automation (71 selected within the top three);
- feeding data into decision-making (42 selected within the top three); and
- elucidating and recognising core activities and skills and public communication were jointly third, with 40 responders selecting these within the top three.

The majority of free text consultation responses related to areas that had been identified through the initial roundtable discussions. Climate change and consideration of how the future statistician could be a 'net zero statistician' was a new area, and several responses called for similar useful work in other sectors, including industry, health and academia.

## Overview of consultation responses

In this section we provide an overview of all consultation responses using a combination of qualitative and quantitative approaches.

### Methods

We reviewed the full set of 104 consultation responses. The free text responses were initially mapped against the eight existing areas identified from the earlier stages of this initiative, along with an additional area for comments which did not fit within the existing topic areas. The qualitative consultation responses were primarily analysed manually, using Teams Copilot to corroborate the results.

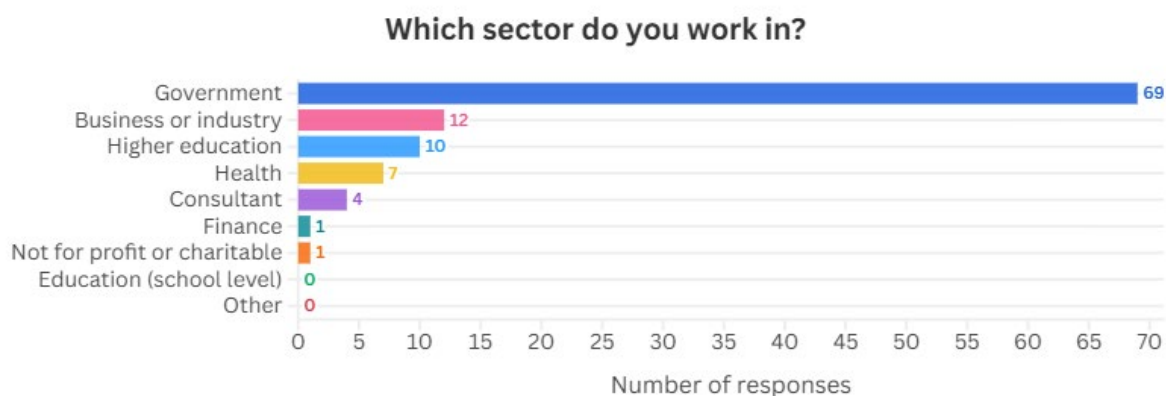
**Thematic Analysis:** Both manual and software-assisted thematic analysis (using tools such as MaxQDA and Excel, including Copilot) were employed to systematically code and group responses from surveys and consultations. This ensured that both explicit and underlying patterns were captured, and that themes were refined through iterative review.

**Ranking and Prioritisation:** Respondents were asked to rank key areas (e.g., technology, core skills, decision-making) by perceived impact and priority. The frequency of each ranking was summarised to identify dominant concerns and priorities.

### Key findings

#### Who answered the survey?

Around two thirds of responses (66%) were from individuals working in government or the civil service. The next most popular sector was business or industry (12%), followed by higher education (10%). Just over half of responses (57%) were from RSS members. Responder information is depicted in Figure 1 and Figure 2 respectively.



*Figure 1 – graph illustrating responders' sector of employment.*

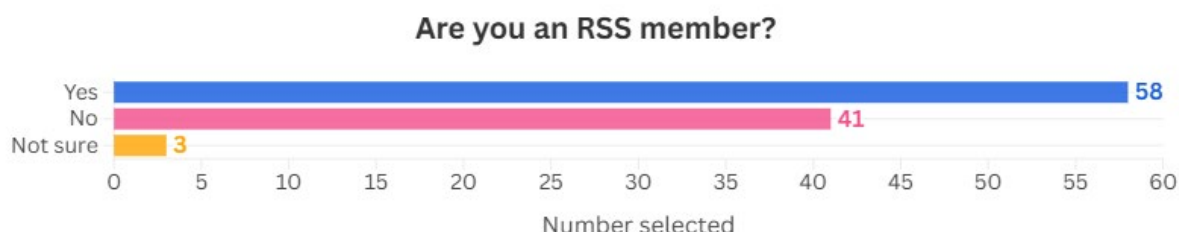


Figure 2 – graph illustrating responders' RSS membership status.

## Ranking responses

When asked which areas were most important in terms of having the biggest impact on the future of the profession, the responses most often ranked top were: technology, AI and automation (38% ranked as most important); feeding data into decision-making (17% ranked as most important); and elucidating and recognising core activities and skills (16% ranked as most important). This is illustrated in figures 3 and 4 below.

When asked which areas should be prioritised for further work, the options most often selected were: technology, AI and automation (71 selected within the top three), and feeding data into decision-making (42 selected within the top three). Elucidating and recognising core activities and skills and public communication came jointly third, with 40 responders selecting these within the top three (Figure 5).

Technology, AI and automation; feeding data into decision-making; and elucidating and recognising core activities and skills were ranked in the top three for both questions and were selected for further in-depth exploration in the qualitative text questions.

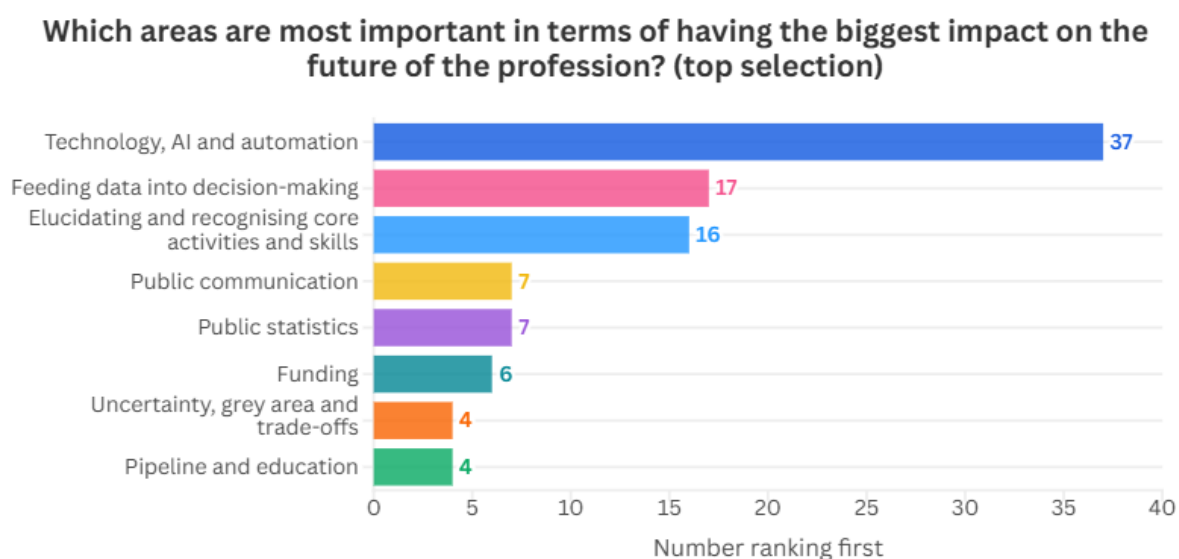


Figure 3 – graph illustrating areas selected first when asked about areas that will have the biggest impact on the profession.



### Which areas are most important in terms of having the biggest impact on the future of the profession? (all rankings)

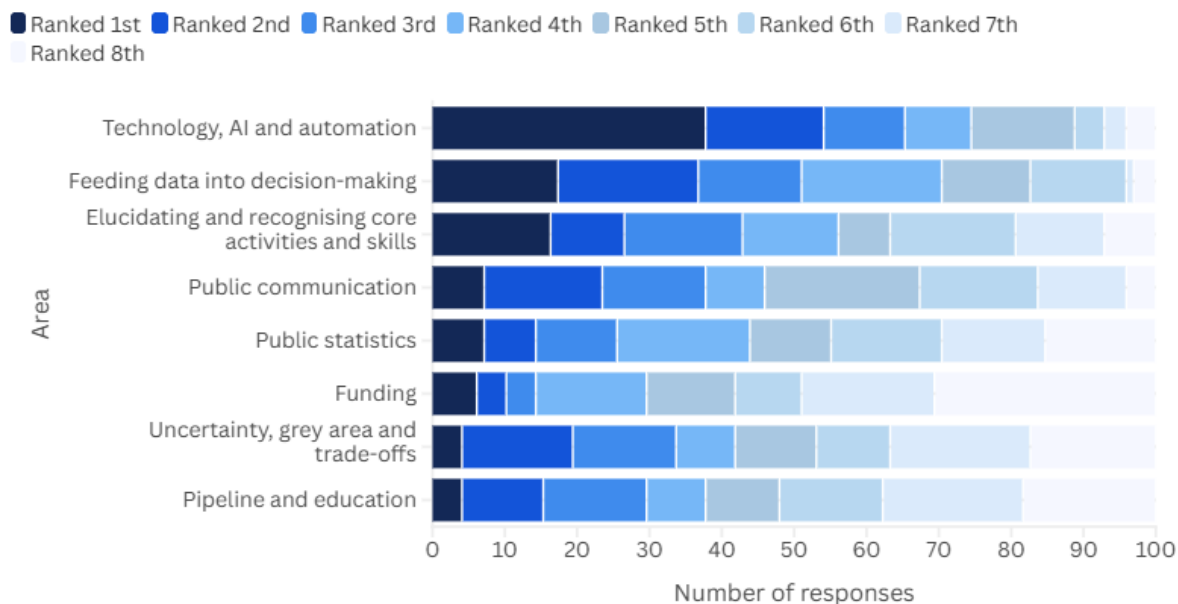


Figure 4 – graph illustrating ranking placements when asked about areas that will have the biggest impact on the profession.

### Which areas should be prioritised for further work? (top three)

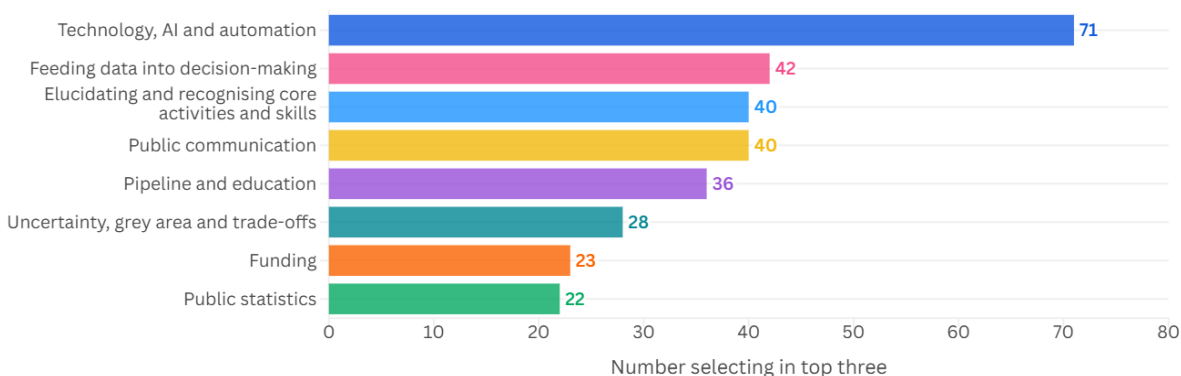


Figure 5 – graph illustrating areas selected on the top three when asked about areas that should be prioritised for further work.

## Qualitative responses

The majority of consultation responses related to areas that had been identified through the initial roundtable discussions. The topics which received the most comments generally aligned with the topics that were selected as most important: elucidating core activities; technology and AI; and feeding data into decision-making, providing more detail on these areas.

Several consultation responses highlighted that referring to data ‘custodians’ or ‘translators’, or ‘champions of data quality’ sounded more transparent than the ‘data guardian’ language originally suggested in the roundtable report.

There were also a number of comments about the value of similar work in other sectors, including in industry, in the health sector, and in academia. One new area was climate and the environment, with a consultation response encouraging consideration of how the future statistician can be 'net zero statistician' with respect to areas including processes, priorities and data efficiency.



## Findings from overview of consultation responses

The key points from the comments for each theme are detailed in table 1. Further detail can be found in the appendix.

**Table 1: key points made in relation to topics**

Topic name	Key points from comments
<b>Elucidating and recognising core activities and skills</b>	<ul style="list-style-type: none"> <li>• Amend wording around ‘data guardians’ to be ‘custodians’, ‘translators’ or ‘champions of data quality’, as this sounds more transparent.</li> <li>• Consideration of statisticians’ identity is important, including acknowledging the broad range of specialisms within statistics and clarifying intersections with related professions. It could be helpful to review the existing competency framework.</li> <li>• Statisticians’ roles should include: being involved in asking the right questions from the beginning; answering topical questions; and being a ‘referee’ for statistics.</li> <li>• Concerns about misalignment between recruitment and skills needed in roles.</li> </ul>
<b>Impact of technology, AI and automation</b>	<ul style="list-style-type: none"> <li>• Statisticians will be advisors and interpreters instead of producers, and may be involved in upskilling others.</li> <li>• Statisticians must remain at the forefront of technological change and understand how they fit into the world of technology and AI.</li> <li>• Ethical use and not losing understanding of underlying statistics is important.</li> </ul>
<b>Supporting statisticians to be comfortable with uncertainty, grey area and trade-offs</b>	<ul style="list-style-type: none"> <li>• User demands must be balanced and prioritised (e.g. traditional products, alternative data formats or layouts).</li> </ul>
<b>Supporting statisticians to enable data to feed into decision-making</b>	<ul style="list-style-type: none"> <li>• There is a need to improve data quality, access and linkage.</li> <li>• Training of data protection, governance, privacy and legislation would be helpful, as these play a larger role in statisticians’ work.</li> <li>• There are trade-offs between local versus national data and traditional versus new outputs.</li> <li>• Pace is a challenge (getting accurate figures to meet fast-paced demand).</li> <li>• Support for navigating working in a political environment including relationships with ministers would be valuable.</li> </ul>
<b>Public communication</b>	<ul style="list-style-type: none"> <li>• The current/future political and information climate influences statisticians’ roles, increasing the focus on misinformation, trust and transparency.</li> <li>• Work is needed around acceptability of administrative data among the public.</li> <li>• User demands must be balanced, e.g. around demand for new or alternative products.</li> </ul>

	<ul style="list-style-type: none"> <li>Increased understanding among statisticians on how the public consumes and interprets statistics would be helpful.</li> </ul>
<b>Pipeline and education</b>	<ul style="list-style-type: none"> <li>Education – there needs to be increased focus on big data and investigative skills in the curriculum to improve subject identity; there is also a need to train teachers.</li> <li>Pipeline – efforts should be made to ensure diversity in the pipeline. Roles may become more accessible as software becomes easier to use and people rely less on understanding underlying maths.</li> <li>Professional affairs -- increased support on technical expertise and general CPD would be helpful across the GSS; career profession includes a focus on people and project management rather than technical aspects.</li> <li>Other sectors and areas – calls for related work covering a broader range of statisticians in different sectors e.g. industry, health, academia. These areas may also have implications on government roles.</li> </ul>
<b>Funding</b>	<ul style="list-style-type: none"> <li>Pay is important for recruitment and retention.</li> <li>Funding should be more fully explored in this work, and it should consider the need for training to keep pace with advancements in tech and AI.</li> </ul>
<b>Public statistics</b>	<ul style="list-style-type: none"> <li>Funding decisions should consider key priorities in serving public good.</li> <li>Public communication to help fight misinformation is a part of statisticians' role in serving public good.</li> <li>Demand for new, fast-paced products rather than traditional products.</li> </ul>
<b>Other areas</b>	<ul style="list-style-type: none"> <li>Climate and environment – consideration should be given to how statisticians can be 'net zero', e.g., relating to processes and priorities and data efficiency.</li> <li>Management and leadership – it is important to help manage uncertainty regarding how strategic changes or technology growth will impact junior roles, and to ensure that upper management is listening to concerns about quality.</li> <li>Comments on the project: whether this should be GSG-wide rather than GSS, ensuring accessible language; adding detail; appreciative of work.</li> </ul>

## Deep Dive into priority areas from consultation responses

In this section, we explore further detail on the three topic areas that were ranked highest in the prioritisation questions: elucidating and recognising core activities and skills; technology, AI and automation; and feeding data into decision-making. For this analysis we have used a combination of qualitative and quantitative approaches.

### Deep Dive 1: Elucidating and recognising core activities and skills

#### Methods

The methods employed in this analysis combined both automated and manual qualitative analysis techniques to ensure a comprehensive understanding of the survey data. Initially, Copilot, an NLP tool, was used to cleanse the data, identify respondent rankings, and extract preliminary insights on emerging themes. This automated process was complemented by a manual thematic analysis conducted in Excel, which allowed for deeper contextualisation and validation of the themes identified by Copilot. The manual review enabled the researchers to draw nuanced comparisons across themes and add further context where necessary. As part of the consultation, respondents were asked to rank eight key areas based on their perceived impact on the future of the statistical profession, selecting their top three priorities. The frequency of each ranking was then tabulated to highlight dominant concerns and priorities within the profession.

'Elucidating and recognising core activities and skills' was ranked 1st by 16% of respondents, with consistent support across all ranks.

Those who ranked it first often paired it with:

- Technology, AI and automation (44% as second choice).
- Feeding data into decision-making (50% as third choice).
- Uncertainty, grey area and trade-offs (frequent across second and third ranks).

Respondents who ranked this theme first were more focused on:

- Internal professional issues (skills, pay, role clarity).
- Civil Service context and technical career tracks.

Respondents who prioritised this theme were mostly from the Government or Civil Service (56%) and higher education (25%), suggesting that public sector and academia are particularly invested in strengthening the professional identity of statisticians.

#### Summary

This theme captures a deep concern about the identity, recognition, and future viability of statisticians. It is not just about skills - it is about how those skills are valued, applied, and evolved in a changing landscape.

A recurrent concern voiced throughout the consultation relates to the skills and technical depth required of statisticians. Respondents placed strong emphasis on the need to define and safeguard the core competencies that distinguish statisticians, expressing frustration at the prevalence of generic job titles that fail to reflect their technical expertise. This sentiment was particularly pronounced within the Civil Service, where pay is frequently cited as a

significant obstacle to both attracting and retaining talented individuals. Many feel that existing career progression pathways too often divert statisticians into management roles, thereby sidelining opportunities for sustained technical development and excellence.

Underutilisation of advanced training emerged as a notable theme, with many participants reporting that their expertise in areas such as Bayesian methods and complex modelling is not being fully leveraged in their current positions. This is compounded by concerns surrounding the rise of artificial intelligence and automation, which some fear may diminish the demand for statisticians in routine analytical work. However, there is a prevailing view that the profession must adapt, positioning statisticians as trusted advisors and validators of analytical integrity in an increasingly automated landscape.

The narrative also highlighted the importance of nurturing the next generation of statisticians, with a particular emphasis on inspiring students early - especially girls in STEM fields. There was considerable support for alternative entry routes into the profession, such as apprenticeships, to broaden access and diversify the pipeline. Respondents drew attention to professional overlap and blurred boundaries between statisticians, data scientists, and analysts, advocating for clearer job titles and more distinct professional demarcations.

Overall, the findings underscore a collective desire to reinforce the professional identity of statisticians, ensuring that their unique skills are both recognised and valued amid ongoing technological and organisational change.

## Findings

From the analysis there were ten themes identified:

1. **Evolving role of statisticians:** Statisticians are increasingly concerned about their identity and relevance in a landscape dominated by AI, automation, and data science. There is a call to redefine their unique value and ensure their expertise is recognised.
2. **Education and training:** Sustaining the profession requires inspiring future talent through better education pathways, teacher training, and curriculum reform. Training and accreditation are seen as essential to maintaining standards and adaptability.
3. **Communication and public engagement:** Themes around misinformation, public understanding, and communication highlight the need for statisticians to engage more actively with society and policy, advocating for evidence-based decision-making.
4. **Infrastructure and funding challenges:** Respondents frequently mention barriers such as outdated systems, lack of funding, and insufficient digital infrastructure, which hinder innovation and responsiveness.
5. **Collaboration and identity clarity:** There is a strong desire for better collaboration across disciplines and clearer role definitions within the profession. Many feel that job titles and career paths do not reflect the diversity of skills and contributions statisticians make.

6. **Skills and technical expertise are central:** Respondents who prioritised core skills are deeply concerned with the definition, recognition, and application of statistical skills. They emphasise the need for technical roles that reflect actual expertise rather than generic job titles.
7. **Pay and career progression are barriers:** The theme of pay appears prominently, suggesting that low compensation is seen as a major obstacle to attracting and retaining top talent in the statistical profession, especially within the Civil Service.
8. **Statisticians feel underutilised:** Many comments reflect a sense that statisticians are not being used to their full potential, particularly in government roles where their advanced training is often not applied.
9. **AI and Data Science are pressing concerns:** There is a clear awareness of the impact of AI and automation, with respondents calling for statisticians to remain at the forefront of these developments and not be sidelined by more tech-driven roles.
10. **Gender and education pipeline issues:** Mentions of girls, maths, and education suggest concern about the declining pipeline, especially for underrepresented groups. Respondents advocate for early intervention and better visibility of statistics as a career.

Additional analysis was undertaken on the comments on additional thoughts on the project to identify further themes:

1. **Identity and role clarity:** Respondents frequently mention the words ‘statisticians’, ‘statistician’, and ‘role’, indicating ongoing concerns about how the profession is defined and understood—both internally and externally.
2. **Data and industry relevance:** The prominence of ‘data’, ‘industry’, and ‘work’ suggests a strong desire for statisticians to remain relevant and influential in data-driven sectors, especially outside traditional government roles.
3. **Government and GSS context:** Comments referencing ‘government’, ‘GSS’, and ‘job’ reflect a tension between expectations and reality in Civil Service roles. Some respondents feel their statistical training is underutilised or misaligned with job functions.
4. **Skills and future needs:** The terms ‘skills’, ‘need’, and ‘future’ point to a forward-looking concern: how we equip statisticians with the right capabilities to thrive in evolving analytical landscapes.
5. **Understanding and importance:** Words like ‘understand’, ‘important’, and ‘think’ suggest a reflective tone—many respondents are grappling with the strategic direction of the profession and its societal impact.
6. **Mismatch between skills and roles:** Many respondents expressed frustration that their statistical training (e.g., Bayesian inference, complex modelling) is underutilised in

government roles. This suggests a need to re-evaluate recruitment and job design to better align with actual skillsets.

7. Professional identity and recognition: There is a recurring concern about the lack of clarity in job titles and the broad use of “statistician” to describe diverse roles. This dilutes professional identity and may hinder career progression and recognition.
8. AI and automation as a disruptor: Respondents anticipate that AI will democratise access to insights, reducing reliance on statisticians for basic analysis. This shift positions statisticians more as advisors and validators of truth, requiring new competencies in critical thinking and communication.
9. Need for strategic influence: Several comments highlight the importance of statisticians being able to influence decision-making and advocate for quality in data use. This implies a need for stronger leadership pathways and interdisciplinary collaboration.
10. Concerns about talent pipeline and pay: Pay and career progression are seen as major barriers to attracting and retaining talent in the Civil Service. There is a call for competitive compensation and technical career tracks that do not force statisticians into management roles to advance.
11. Fragmentation across Government: Confusion around the roles of GSS, GSG, and the Analysis Function suggests a need for clearer governance structures and better communication about professional pathways and expectations.

## Recommendations

Based on the analysis, the following recommendations and actions were identified:

### **R1 Strengthen professional identity and role clarity**

- Standardise job titles across government and academia to reflect statistical expertise and reduce confusion with other analytical roles.
- Define core statistical competencies and promote them through updated framework and accreditation.
- Clarify career pathways within the Civil Service and public sector that allow statisticians to progress without moving into management roles.
- Establish a mentorship and peer network to facilitate mentorship programmes between experienced statisticians and early-career professionals.

### **R2 Reform career progression and pay structures**

- Introduce technical career tracks that reward depth of expertise rather than managerial responsibility.
- Review and improve pay scales for statisticians in the Civil Service to attract and retain talent.
- Create specialist roles in areas like health, research, and AI validation to reflect the value of advanced statistical training.



### **R3 Address underutilisation of skills**

- Audit current roles to assess alignment between job responsibilities and statistical training.
- Promote better deployment of statisticians in decision-making and policy advisory roles.
- Encourage cross-functional teams where statisticians can apply advanced methods (e.g., Bayesian inference, complex modelling).

### **R4 Prepare for AI and automation**

- Develop training and continuous professional development (CPD) for statisticians to act as validators of AI-generated insights.
- Position statisticians as ethical advisors on analytical integrity in automated systems.
- Support research and guidance on the evolving role of statisticians in AI-dominated environments.

### **R5 Invest in education and pipeline development**

- Collaborate with schools and universities to promote statistics as a career, especially among underrepresented groups.
- Support alternative entry routes such as apprenticeships and vocational training.
- Fund outreach initiatives to inspire interest in statistics from an early age.

### **R6 Improve communication and public engagement**

- Train statisticians in soft skills like consultancy, storytelling, and public communication.
- Encourage statisticians to engage with media and public discourse to combat misinformation.
- Promote the role and value of statisticians through targeted campaigns within the Civil Service and public-facing platforms. Include case studies showing the impact of statistical work on policy and public outcomes.

### **R7 Enhance infrastructure and strategic influence**

- Invest in digital infrastructure to support modern statistical work.
- Ensure statisticians have a seat at strategic tables, influencing data use and policy decisions.
- Clarify governance structures across GSG, and the Analysis Function to reduce fragmentation.



## Deep Dive 2: Impact of technology, AI and automation

### Methods

For this deep dive, an exploratory thematic analysis was conducted using MaxQDA, a qualitative data analysis software. The process began with systematic familiarisation with the data, followed by iterative coding to identify recurring concepts and patterns within the responses. These codes were then grouped into coherent themes through a structured refinement process, ensuring that both explicit meanings and underlying patterns were captured for richer interpretation. In addition to the thematic analysis, the study summarised the relative frequency of impact and prioritisation values, providing a quantitative perspective on which areas respondents considered most significant for the future of the profession. We note delivery dependencies via the GSS AI Champions Group and the Analysis Function AI group, and the need for defined assurance roles (e.g., AI Assurance Lead, Ethics Advisor) to embed responsible AI.

### Summary of Findings

Technology, AI, and automation were ranked as the top issue for both impact (36%) and prioritisation (41%), reflecting the profession's acute awareness of the challenges and opportunities posed by technological change.

This deep dive identified four dominant themes that are shaping the future role of statisticians. First, the theme of trust and translation highlights the importance of statisticians as trusted communicators in an era of widespread misinformation, where transparency in methods, data sources, and interpretation is essential to regain public trust. Second, the concept of human-in-the-loop leadership positions statisticians as leaders in the ethical and strategic use of AI, shifting their role from producers of outputs to advisors who frame questions and steer evidence-based decisions. This includes greater ethical oversight over technology, such as privacy, governance, and AI validation. Third, the need to clarify and communicate the distinctive value of statisticians—referred to as professional identity and USP—was evident, especially as the proliferation of data roles has blurred professional boundaries and led to mismatches between job design and day-to-day tasks. Finally, the theme of skills, careers, and collaboration underscores the necessity for upskilling, achieving equity with other data professions, and strengthening cross-sector links.

### Findings

From the analysis there were four themes identified:

1. **Trust and Translation:** Technology, AI and social media amplify misinformation and poor statistics. Statisticians should act as trust builders and data translators that challenge misuse. Consistent transparency on methods, data sources and interpretation is essential to regain public trust.
2. **Human-in-the-loop leadership:** While automation handles routine analysis, statisticians should embrace AI and technology in an uncertain future while focusing on their expertise, creativity, critical thinking and clear communication. This will support them to shift from producers of outputs to advisors who frame questions and steer evidence-based decisions. They will have greater ethical oversight over technology, such as privacy, governance and AI validation/ model risk management. Faster-paced insight

with deeper interpretation will replace traditional, static and figure-heavy outputs. Data enablement (linkage, improved access and reuse) will support speed and quality. They will help organisations strategically shape AI integration, and support junior statisticians to navigate the transition.

3. **Professional Identity and unique selling point (USP):** An explosion of data roles has blurred the boundaries between professions, requiring statisticians to define their USP. Using a 'one-size-fits-all' approach has resulted in past mismatches between job design, recruitment and day-to-day tasks, reducing impact. Roles need to be clarified to align skills with work and when defining the USP, to define different statistician personas and skill-fields.
4. **Skills, Careers and Collaboration:** There is a need to upskill everyone statistically, especially non-experts working with data and leaders consuming insights or leading statisticians. Increasing equity with other professions such as data science, by addressing funding, progression and pay gaps, would help to reduce attrition in the field. Multidisciplinary teams will be the norm and links need to be strengthened across academia, government and industry.

## Recommendations

Based on the analysis, the following recommendations and actions were identified:

### R1 Trust and Translation

- Launch public engagement campaigns, or collaborate with industry partners, to improve statistical literacy and counter misinformation.
- Provide media and communication training for statisticians to explain uncertainty and complex data clearly.
- Develop and promote best practice guidelines for transparency in methods, data sources, and interpretation, including automation quality assurance and templates for documenting what is automated versus human-led.
- Embed communication and storytelling skills into GSS training frameworks.
- Actively challenge misuse of statistics in the public domain, particularly government data.
- Create designated "Statistical Communicator" roles within departments to ensure consistency, clarity, and trust in outputs.
- Work with Heads of Profession to champion transparency and openness to public scrutiny, addressing cultural barriers where fear of backlash currently limits disclosure.
- Introduce challenge sessions and discussions to test how outputs may be perceived and incorporate diverse perspectives.

### R2 Human-in-the-Loop Leadership

- Develop a structured CPD pathway for AI leadership, covering governance, model risk management, and ethical oversight.
- Publish and actively promote an ethics framework for AI and automation, including standards for privacy, transparency, accountability, and environmental sustainability.

- Establish a cross-sector community of practice for statisticians to share best practice and lead AI integration efforts.
- Define clear advisory and governance roles for statisticians (e.g., AI Assurance Lead, Ethics Advisor) to strengthen leadership in technology adoption.
- Identify routine tasks suitable for automation and redeploy saved time to higher-value activities.
- Require documented human oversight points in automated workflows to maintain accountability and ensure quality assurance.
- Introduce coaching and shadowing schemes to build advisory confidence and leadership skills for statisticians transitioning into strategic roles.
- Review the current portfolio of Official Statistics to assess their value and explore opportunities for faster-paced, deeper interpretation outputs.
- Improve data enablement by investing in linkage, access, and reuse systems, supporting departments to move off legacy platforms and enable better data sharing.
- Encourage innovation by allowing controlled access for industry partners to explore new uses of government data.

### **R3 Professional Identity and USP**

- Publish a taxonomy of statistician personas (e.g., applied, methodological, advisory, AI assurance) to guide recruitment, role design, and career development.
- Create case studies showing how automation frees time for interpretation and advisory work and what the latter may look like in organisations.
- Advocate for the unique value statisticians bring in cross-sector, multi-disciplinary, and policy discussions.
- Align job descriptions and recruitment practices with defined personas to prevent role mismatches and ensure clarity of expectations.
- Use appropriate assessment mechanisms to test relevant skills and avoid disadvantaging candidates on competencies not central to the role (e.g., technical assessments where communication is less critical).
- Create clear career pathways that differentiate statisticians from other data professionals, highlighting their distinctive contribution to evidence-based decision-making.
- Foster a culture of innovation by encouraging statisticians to modernise systems and use current data more effectively, unlocking opportunities through new approaches and technologies.

### **R4 Skills, Careers and Collaboration**

- Offer short courses for non-statistical professionals and leaders on interpreting statistical and AI-enabled insights.
- Facilitate cross-sector partnerships between academia, government, and industry for knowledge exchange.
- Ensure leaders are equipped to confidently engage with data, understand uncertainty and associated risks in statistical analysis, and provide structured onboarding and ongoing training opportunities.

- Embed AI and automation topics into career frameworks and competency models to future-proof the workforce.
- Deliver tiered training in emerging technologies, covering both technical skills (e.g., machine learning) and communication of AI-driven insights.
- Address pay and progression gaps compared to other data professions to improve retention and competitiveness.
- Strengthen collaboration with the Digital, Data and Technology profession (DDAT) and ensure statisticians are integrated into data science teams, not siloed.
- Formalise multidisciplinary team structures to bring statisticians together with data scientists, policy analysts, and other specialists for holistic decision-making.

## Deep Dive 3: Supporting statisticians to enable data to feed into decision-making

### Methods

To generate our results and uncover insights, we used a hybrid approach that combined the analytical capabilities of Copilot with manual Excel-based analysis. Copilot helped accelerate data exploration by identifying initial trends, summarising key metrics, and suggesting potential areas of interest. We then complemented this with hands-on Excel work to validate findings and dig deeper into specific themes. This blended method enabled us to identify recurring themes, uncover patterns across datasets, and extract actionable insights with both speed and precision.

### Summary

There is an emphasis that statisticians are often brought into projects too late, which limits their ability to contribute to the framing of questions and the selection of appropriate data sources and methods. Early involvement is therefore identified as crucial for maximising their expertise. Statisticians are also encouraged to advocate for better access to and reuse of data across government, recognising their unique role in ensuring data is used effectively and ethically. While AI can process large volumes of data, the findings stress that statisticians are indispensable for bringing critical thinking, asking the right questions, interpreting data in context, and ensuring that conclusions are valid. There are also concerns about a lack of alignment with professional bodies such as the RSS and insufficient opportunities for technical development.

Overall, the findings highlight the need for statisticians to be more central to multidisciplinary teams, to play a key role in public communication to counter misinformation, and to retain and prioritise critical thinking skills that cannot be replaced by technology.

### Findings

From the analysis there were three themes identified:

#### 1. Collaboration (across boundaries)

- Statisticians are often brought in too late, early involvement is important to utilise their expertise in framing questions and advising on appropriate data sources and methods.

- There is untapped potential for statisticians to influence data infrastructure and system design, not just analysis.
- Statisticians could bring greater value regarding ethical judgment and integrity, which should be more widely recognised and promoted.
- Job titles and responsibilities are often unclear and professional development is siloed, hindering collaboration.
- Statisticians should advocate for better access to and reuse of data across government.

## 2. Communication and verification in a changing world (misinformation, AI)

- Statisticians should play a key role in public communication to help counter misinformation and promote evidence-based understanding.
- AI can process data, but statisticians are crucial to bring critical thinking and ask the right questions, interpret data in context and ensure conclusions are valid.
- Statisticians must retain the ability to judge whether outputs “look right” — a skill that technology alone cannot replace.

## 3. Professional identity and unique skills

- There were observations that statisticians are increasingly working in operational, policy, and service contexts, not just publication areas.
- There were challenges with professional identity in multidisciplinary teams and the need for clear roles and responsibilities.
- There were concerns about lack of alignment with professional bodies like the RSS and insufficient technical development.

## Recommendations

Based on the analysis, the following recommendations were identified:

- R1 Statisticians should work/advise across multidisciplinary teams and advocate for sharing data and intelligence across organisational boundaries.
- R2 Statisticians should be seen as arbiters of truth, especially in a social media age where misinformation spreads easily.
- R3 Statisticians should play a key role in public communication to help counter misinformation and promote evidence-based understanding. This may be leading and delivering the communication or an advisory role.
- R4 Statisticians should prioritise retaining skills in critical thinking - statisticians must retain the ability to judge whether outputs “look right” — a skill that technology alone cannot replace.

## How consultation themes map to the Vision capabilities

To support clarity and show how consultation feedback shaped the final Vision, table 2 summarises how the major themes raised by respondents align with the Future Statistician capabilities set out in the Vision report. This provides a direct line of sight between what consultees told us and the definitive articulation of the profession's future direction.

**Table 2: Consultation themes and vision capabilities**

Consultation Theme	Mapped Vision Capability
Technology, AI and automation	'Lead in technological innovation' (responsible AI leadership, automation, modern analytical tooling)
Feeding data into decision-making	'Shape policy and public discourse' (being present at the start, framing questions) and 'Champion the use of data' (access, linkage, governance)
Elucidating and recognising core activities and skills	'Retain and strengthen core statistical skills' and 'Be skilled in balancing trade-offs to deliver'
Uncertainty, grey areas and trade-offs	'Be skilled in balancing trade-offs to deliver' (ambiguity, proportionality, timeliness vs rigour)
Public communication and misinformation	'Be a skilled communicator' and 'Serve public need and interests' (intelligent transparency; defending against misuse; role as "arbiter of truth")
Pipeline, education and professional development	'Promote the value of education and continuous development' (clear pathways, CPD, diverse talent pipeline)
Collaboration and multidisciplinary working	'Shape policy and public discourse' and 'Champion the use of data' (embedded early; stewardship across systems)
Data access, quality, linkage and governance	'Champion the use of data' (whole-lifecycle stewardship)
Identity, role clarity and USP	Cuts across all capabilities but aligns most closely with the Vision's definition of the statistician and the recommendation to clarify professional identity
Climate, environment and data efficiency ("net-zero statistician")	'Deliver efficient analysis' (sustainability, efficient workflows, data reuse, environmentally responsible analytical choices)
Pay, funding, infrastructure and system constraints	Cross-cutting enablers that support delivery of the Vision recommendations (R1–R5)

## Next steps

We have used the information we have gathered from both the roundtable discussions and the consultation responses, along with feedback gathered at the GSS Conference 2025, to inform a report which details our vision of a successful future government statistician.

The report contains five recommendations and highlights actions for the RSS and GSS, as well as any other key player, to ensure that this vision can be achieved. [The Future Statistician vision report](#) has been published alongside this consultation summary.

Progress will be regularly reviewed to ensure the recommendations remain a priority, and to respond to new and emerging themes. There will be annual reporting, with the first update scheduled for January 2027.



## Appendix – consolidated consultation responses

Table 3 sets out a more detailed summary of the free text consultation responses, mapped against the eight topic areas elucidated from the initial roundtable and resulting report, as well as new areas. A top-level summary of comments (as provided in the report) is provided in middle column, as well as additional detail from the comments (right-hand column).

**Table 3: Detailed summary of free-text consultation responses**

Topic name	Key points from comments	Further detail on comments
<b>Elucidating and recognising core activities and skills</b>	<ul style="list-style-type: none"> <li>Amend wording around 'data guardians' to be 'custodians', 'translators' or 'champions of data quality'.</li> <li>Consideration of statistician's identity is important, including acknowledging the broad range of specialisms within statistics and clarifying intersections with related professions. It could be helpful to develop a competency framework.</li> <li>Statistician's roles should include: being involved in asking the right questions from the beginning; answering topical questions; and being a 'referee' for statistics.</li> <li>Concerns about misalignment between recruitment and</li> </ul>	<b>Statistician identity and role</b> <ul style="list-style-type: none"> <li><b>Data guardians:</b> statisticians' role could be described as 'custodians', 'translators' or 'champions of data quality'; 'guardians' sounds closed off and not transparent.</li> <li><b>Competency framework:</b> it would be helpful to have a competency framework to reflect what statisticians do. This will help inspire people to join and progress.</li> <li><b>Identity:</b> need to consider what it means to be a statistician – consider the difference between the statistical profession (which uses statistics in service of another profession) and professional statistician (which is focussed on being a statistician). Consider what statisticians need, not what other professions need from statisticians.</li> <li><b>Range of specialisms:</b> there are a broad range of specialisms within 'statistician' and this could be conveyed – it is not 'one size fits all'.</li> <li><b>Topical questions:</b> statisticians should have a role in identifying and answering the biggest questions of the day.</li> <li><b>Advising:</b> the role of statisticians in deciding, advising, and driving decision-making (not only providing information for others) should be explored</li> <li><b>From the beginning:</b> statisticians should be involved from the start of work, including in asking the right questions and in interpretation</li> <li><b>Referee:</b> the statistician's role could be as a referee. In other areas, professions e.g. lawyers and accountants act as 'gatekeepers', and statisticians could do this too – not supplying statistics they are not confident in. Ensuring impartiality in data analysis is key.</li> <li><b>Intuition:</b> an important part of a statistician's role is intuition, considering if outputs look sensible. It is important to clarify and highlight</li> </ul>

	skills needed in roles.	<p>statistician's unique selling point (USP) in this data and digital world</p> <ul style="list-style-type: none"> <li>• <b>Skills and confidence:</b> it is important for statisticians to have the skills to question things and the confidence to do so</li> <li>• <b>Obtaining data:</b> the role of obtaining data was described as a core role that won't change – but it may, as machines or their operators may collect data and then pass this to statisticians, and not all statisticians collect data.</li> <li>• <b>Public perception:</b> more should be done to recognise the value that statisticians add and to highlight the professional integrity and ethics expertise. A public relations campaign could be helpful, to elevate Chartered Statistician status to be equivalent with Chartered Accountant/Surveyor etc status.</li> </ul> <p><b>Intersection with related professions</b></p> <ul style="list-style-type: none"> <li>• <b>Analytical landscape:</b> it is important to consider how statisticians and other disciplines co-exist. There is a need to map the analytical landscape across government, including differing job titles and overlapping responsibilities. Awareness of data quality and relating issues is strong among statisticians versus other analytical and programming professions and this should be highlighted.</li> <li>• <b>Needs for clarity:</b> statistical skills should be defined, as well as how they differ from other professions. A lack of clarity weakens the identity of statisticians. There is a need to identify the importance of specialist statistician skills and ensure these are recognised and maintained, by engaging with related professions (economists, accountants, data scientists etc). Job titles should describe what someone does; the statistical profession is far broader than the term gives credit for (e.g. specialising in RAP, or governance, or project delivery, or communication, or modelling etc). With growth in AI and big data, it is more important than ever to distinguish between statisticians and e.g. data visualisation experts.</li> <li>• <b>Common pathways:</b> the blurring of lines is encouraged, while maintaining the importance of statistics. This is important to not get left behind in pursuit of purity. Statisticians should be seen as specialist data scientists rather than something separate – increasingly, 'statistics' is being done under the banner of 'data science'.</li> </ul>
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		<p>The distinction between data scientists and statisticians is unhelpful in industry, as statisticians are undervalued. It is a missed opportunity for data science to not be seen as part of the statistics stream in government; the statistical profession should link to data science and other professions (e.g. economists, social researchers, operational researchers). The inclusion of data paths into the statistical profession should be welcomed. It would be good for the GSS training schedule to align with the DDAT framework – this is creating a two-tier system. There is more work to do for the analysis function to unite analytical disciplines across government and dispel confusion between GSS vs GSG vs analytical function. Professional development paths should not be siloed.</p> <ul style="list-style-type: none"> <li>• <b>Shifts in roles:</b> respondents have noticed a shift towards data scientist elements in statistical jobs – from statistics theory/methods to programming. However, being recruited as a statistician means no data scientist pay supplement. Digital, tech and coding skills are key to keeping pace and avoiding being seen as niche, obsolete or slow to adapt.</li> <li>• <b>Discrepancies in roles:</b> some respondents are told they don't need coding skills but are then put in a coding role, and vice versa. Skills in the badging process are not always relevant to roles. Some responses indicated that data science roles are the only route to technical aspects for statisticians e.g. model building. It will be important to identify what a government statistician is and see if recruitment matches this – often skills assessed in recruitment are not used on the job.</li> <li>• <b>Collaboration:</b> multidisciplinary work is important, but it is harder to collaborate when roles are not defined. Statisticians should be trained in consultancy skills and how to work well in multi-disciplinary teams.</li> </ul>
<b>Impact of technology, AI and automation</b>	<ul style="list-style-type: none"> <li>• Statisticians will be advisors and interpreters instead of producers, and may be involved in upskilling others</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Advisors instead of producers</b> – stakeholders who previously relied on statisticians will use AI themselves; there is a need to consider how to work with these analytical enthusiasts, and to ensure statistician's skill is intuition and interpretation not production.</li> <li>• <b>Skills</b> that will be more important also include critical analysis and communication. The growth of tech and AI means statisticians will need a</li> </ul>

	<ul style="list-style-type: none"> <li>• Statisticians must remain at the forefront of technological change and understand how they fit into the world of tech/AI</li> <li>• Ethical use and not losing understanding of underlying statistics is important</li> </ul>	<p>greater role in challenging mis- and dis-information. Technical skills are essential to keep pace with other technical professions.</p> <ul style="list-style-type: none"> <li>• <b>Upskilling:</b> there will be a greater expectancy for civil servants to be amateur data scientists (using excel, AI etc) - need to consider role for statisticians in upskilling broader workforce as well as GSS staff?</li> <li>• <b>Role for statisticians:</b> it is important for statisticians to understand how they fit into the world of machine learning / AI and new tech and be confident in their skills. The USP should be defined in this data and digital world.</li> <li>• Statisticians should also have a voice on how AI is embedded into government departments.</li> <li>• <b>Insights landscape:</b> AI will change the insights landscape (more emphasis needed on this) and ways of working – roles might be more about data system integration.</li> <li>• <b>Technology</b> should not be used if it is not the best solution for users.</li> <li>• <b>Ethical</b> use should be considered – increasing data availability, growing role for AI and automation, access to sensitive data is more widespread, the profession should develop ethical standards for data use.</li> <li>• <b>Junior roles:</b> consider impact of automation on junior roles – these tasks provide experience in judgement and intuition on data; an overreliance on AI and automation might de-skill less experienced statisticians</li> <li>• <b>Underpinning statistics:</b> there is increased interest in coding, data science and AI but statisticians should not lose understanding of the maths and statistics underpinning models. AI can also be used to advance methodology development.</li> <li>• <b>Innovation:</b> automation may remove space for innovation</li> </ul>
<b>Supporting statisticians to be comfortable with uncertainty, grey area and trade-offs</b>	<ul style="list-style-type: none"> <li>• User demands must be balanced and prioritised (e.g. traditional products, alternative data formats/layouts).</li> </ul>	<ul style="list-style-type: none"> <li>• <b>User demands</b> must be balanced and prioritised (e.g. traditional products, alternative data formats/layouts).</li> <li>• <b>Intuition and judgement</b> are important in assessing data quality and outputs</li> </ul>
<b>Supporting statisticians to enable</b>	<ul style="list-style-type: none"> <li>• There is a need to improve data</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Data quality, access and linkage:</b> there is a need to improve quality, streamline access and improve linkage – there is a complex data</li> </ul>

<p><b>data to feed into decision-making</b></p>	<p>quality, access and linkage</p> <ul style="list-style-type: none"> <li>• Training of data protection, governance, privacy and legislation would be helpful, as these play a larger role in statisticians' work</li> <li>• There are trade-offs between local vs national data and traditional vs new outputs</li> <li>• Pace is a challenge (getting accurate figures to meet fast-paced demand)</li> <li>• Support for navigating working in a political environment including relationships with ministers would be valuable.</li> </ul>	<p>governance landscape and budget also constrains this. It will be important to highlight the need to champion data access and reuse, along with highlighting the increasing importance of governance, ethics, data assurance and quality assurance. Joining up datasets across organisations could lead to a new level of insights. Data privacy (especially with the growth of AI) should be considered as part of this.</p> <ul style="list-style-type: none"> <li>• <b>Training</b> on data protection, governance and legislation would be helpful as these aspects play a bigger role in statistician's work now (eg drawing up privacy notices, data sharing agreements etc).</li> <li>• <b>Documentation:</b> data keeping and documentation should be improved, so personnel changes do not disrupt work.</li> <li>• <b>Locality:</b> government is often focussing on neighbourhood policy and localism with the increased focus on equality – many national and official statistics are not granular enough for this and it is hard for statisticians to meet this demand.</li> <li>• <b>Traditional vs new outputs:</b> many statisticians' roles are not about traditional outputs but fast, new data and interpretation. Nevertheless, it is key to ensure that core statistics are working.</li> <li>• <b>Survey data:</b> there is a need to consider what type of data to focus on collecting – survey versus census versus admin, to get accurate statistics on the UK</li> <li>• <b>Areas to strengthen:</b> these include conflict and war preparedness, misinformation, statistics on public attitudes, military statistics, support for emergency production.</li> <li>• <b>Pace:</b> it is challenging to get accurate figures to meet the fast-paced demand. The covid-19 pandemic demonstrated the importance of getting fast insights – this is partly about professional skill set and how to extract insight from existing data. There may be a role for the future statistician in overhauling legacy statistical processes to increase pace of delivery.</li> <li>• <b>Statistical leadership in a political landscape:</b> support would be helpful for government statisticians, e.g. training for leaders on how to navigate the working environment including relationships with ministers.</li> </ul>
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		<ul style="list-style-type: none"> <li>• <b>Collaboration:</b> multidisciplinary work is important – statisticians should be trained in consultancy skills and how to work well in multi-disciplinary teams.</li> </ul>
<b>Public communication</b>	<ul style="list-style-type: none"> <li>• The current/future political and information climate influences statisticians' roles, increasing the focus on misinformation, trust and transparency</li> <li>• Work is needed around acceptability of admin data among the public</li> <li>• User demands must be balanced</li> <li>• Increased understanding among statisticians on how the public consumes/interprets statistics would be helpful.</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Statistical literacy in the current climate:</b> the current political climate (including populist leaders being less inclined to make evidence-based decisions), living in a 'social media age' with misinformation rife and increasing public dependency on technology mean that statistical literacy and critical interpretation skills are more important than ever. It should be a statistician's role to consider how statistics are perceived, and consideration should be given to what skills statisticians need to be able to do this.</li> <li>• <b>Confidence and transparency:</b> confidence will be lost if users can't tell which statistics they can trust (e.g. distinguishing ChatGPT outputs versus peer-reviewed literature). Transparency is important – including methods, data sources and interpretations being open and accessible. Thought should be given as to how to quality assure AI outputs.</li> <li>• <b>Administrative data:</b> work is needed around administrative data and increasing acceptability among the public</li> <li>• <b>Tech:</b> statisticians will need to consider how to work with non-experts who are able to use tools and technology to analyse data but may not understand methods or context. This links to an increased role for statisticians in advising and interpreting (detailed in the 'AI and technology' section)</li> <li>• <b>User demands:</b> statisticians will need to balance user needs e.g. for traditional products vs alternative formats or layouts.</li> <li>• <b>Public understanding:</b> it would be useful for statisticians to have increased understanding of what the public understands in terms of statistics and data visualisation, to be able to use this to tailor communications for audiences.</li> <li>• <b>Training</b> on ethical use of statistics could be helpful, as this is necessary for building transparency and trust.</li> </ul>
<b>Pipeline and education</b>	<ul style="list-style-type: none"> <li>• Education – there needs to be increased focus on big data and investigative skills in the curriculum</li> </ul>	<b>Education</b> <ul style="list-style-type: none"> <li>• <b>Curriculum changes:</b> big data and investigative skills need to be expanded in the school curriculum, and there needs to be more emphasis on statistical thinking across subjects at all levels.</li> </ul>

	<p>to improve subject identity; there is also a need to train teachers.</p> <ul style="list-style-type: none"> <li>• Pipeline – efforts should be made to ensure diversity in the pipeline. Roles may become more accessible as software becomes easier to use and people rely less on understanding underlying maths.</li> <li>• Professional affairs - increased support on technical expertise and general CPD would be helpful across the GSS; career profession includes a focus on people/project management rather than technical aspects</li> <li>• Other sectors and areas – calls for related work covering a broader range of statisticians in different sectors eg industry, health, academia. These areas may also have implications on government roles.</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Subject identity:</b> statistics needs to have improved subject identity at school-level to inspire students</li> <li>• <b>Teachers:</b> there is a need to train future teachers to teach statistics</li> <li>• <b>Implications:</b> the implications of the changes to the profession covered in this project on education/curriculum should be considered.</li> </ul> <p><b>Pipeline</b></p> <ul style="list-style-type: none"> <li>• <b>Diverse pipeline:</b> efforts should be made to ensure diversity and equity in the pipeline, eg equal numbers of girls taking tech subjects at school as boys</li> <li>• <b>Accessibility of roles:</b> related roles (eg data scientist, data analyst, AI specialist) may become more accessible as software becomes easier to use and people rely less on understanding the underlying maths</li> <li>• <b>Training:</b> it is important to sustain capacity for specialists to train up future statisticians across government, industry and academia.</li> <li>• <b>Professional affairs:</b> increased support on technical expertise, knowledge building, skills assessment and general CPD would be helpful across the government statistical group; stronger links and directing statisticians to the RSS could help with this.</li> <li>• <b>Career progression</b> removes highly technical staff, leaving experts in people/project management.</li> <li>• <b>Core activities:</b> the pipeline is linked to core activities, as there are increased routes into the profession and a broader range of core activities.</li> </ul> <p><b>Other sectors and areas</b></p> <ul style="list-style-type: none"> <li>• <b>Broader reach for related work:</b> this project should investigate a range of statistical careers, not only in government but also outside of STEM, including in social sciences. It should consider those working in the application of statistics, not only official statistics and publications. Not all statisticians collect data - for some the role is to identify questions that need answering, and to find evidence that helps answer them.</li> <li>• <b>Industry:</b> bringing industry into this work will give a better overall view. Statisticians should embrace AI and use it to leverage roles in industry. Capacity building is needed for</li> </ul>
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		<p>specialist statistical skills to evaluate AI. Employers are moving more resource to low cost regions and this is a potential job threat. Stakeholders are likely to be unfamiliar with statistical concepts – knowledge should not be assumed, but unlike with the public, details are important to non-technical decision-makers. Industries are buying and using software without underlying understanding – statisticians need to understand the impact of this and collaborate to make better industry tools. Statisticians need to have a better understanding of industry to advance more effectively, including understanding the needs of stakeholders. Multi-disciplinary teams (eg industrial stakeholders, software engineers, marketing etc) and an awareness of the different skills out there is important. Access to sensitive data is now more widespread and this should not be used for profit at the expense of individuals. It is important for statisticians to understand how they fit into the world of AI – the distinction between data scientists and statisticians is unhelpful; statisticians are undervalued in industry.</p> <ul style="list-style-type: none"> <li>• <b>Health sector:</b> NHS data managers may not have sufficient data or analysis expertise – higher statistical literacy is needed. Capacity building is needed for specialist statistical skills to meet the needs of the diagnostics industry, and support is needed for technical competencies to drive innovation in drug development and precision medicine. Methodology funding is needed for post-doc statisticians in medicine. The medical statistician apprenticeship scheme is no longer funded by government over the age of 21 and there is a risk of losing the ability to develop talent in this area. The Board of Directors of Statisticians in the Pharmaceutical Industry (PSI) would like to offer expertise in the next phase of the project – they have been considering the same questions regarding the future of the profession.</li> <li>• <b>Academia:</b> university funding issues and short-term contracts are reducing the appeal for an academic career – this may mean more statisticians entering other sectors. Universities could work with the GSS/RSS to help maintain the pipeline.</li> <li>• <b>Links between sectors:</b> consideration should be given to how to leverage better connections</li> </ul>
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		between academia and industry. There is a divide between government and private sector statisticians – government statisticians have a narrower scope; some statisticians may identify with e.g. operational research.
<b>Funding</b>	<ul style="list-style-type: none"> <li>• Pay is important for recruitment and retention</li> <li>• Funding should be more fully explored in this work, and should consider the need for training to keep pace with advancements in tech and AI.</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Pay:</b> pay is important to ensure recruitment and retention</li> <li>• <b>Funding:</b> funding decisions should consider the need for training to keep pace with advancements in technology, AI and automation as well as key priorities to serve public good.</li> <li>• <b>Exploration of this area:</b> this area should be fully explored, as reduced funding has the potential to damage the profession including wellbeing and key aspects like training.</li> <li>• <b>Pipeline:</b> constraints relating to funding and pay may affect the pipeline.</li> </ul>
<b>Public statistics</b>	<ul style="list-style-type: none"> <li>• Funding decisions should consider key priorities in serving public good</li> <li>• Public communication to help fight mis-information is a part of statisticians' role in serving public good</li> <li>• Demand for new, fast-paced products rather than traditional products</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Funding</b> decisions must consider key priorities in serving public good</li> <li>• <b>Public communication</b> to help fight mis-information is part of statisticians' role in serving public good</li> <li>• <b>Demand for new</b> (more real-time) outputs rather than traditional products</li> </ul>
<b>Other areas</b>	<ul style="list-style-type: none"> <li>• Climate and environment – consideration should be given to how statisticians can be 'net zero', e.g. relating to processes and priorities and data efficiency.</li> <li>• Management and leadership – it is important to help</li> </ul>	<p><b>Climate and environment</b></p> <ul style="list-style-type: none"> <li>• <b>Net zero:</b> consideration should be given to what a 'net zero statistician' looks like, including consideration of selecting low-emission processes as well as priority selection and data efficiency.</li> </ul> <p><b>Management and leadership</b></p> <ul style="list-style-type: none"> <li>• <b>Leadership:</b> it is important to ensure that upper management is listening to experts with concerns about quality, and to ensure that there is an effective upwards feedback loop.</li> <li>• <b>Managing uncertainty:</b> junior statisticians should be kept in the loop on how strategic</li> </ul>

	<p>manage uncertainty regarding how strategic changes or technology growth will impact junior roles, and to ensure that upper management is listening to concerns about quality.</p> <ul style="list-style-type: none"> <li>• Comments on the project: whether this should be GSG-wide rather than GSS, ensuring accessible language; adding detail; appreciative of work.</li> </ul>	<p>changes will likely impact them. There is a need to manage uncertainty given the pace of technology growth and its ability to influence jobs.</p> <ul style="list-style-type: none"> <li>• <b>Prioritisation:</b> considering the 80/20 principles is important – focusing efforts on the 20% of activities that will glean 80% impact</li> </ul> <p><b>Unique selling points</b></p> <ul style="list-style-type: none"> <li>• Consideration should be given to the unique selling point of statisticians, GSS and RSS</li> <li>• Consider how to make RSS membership valuable to broader range of people, e.g. broadening accreditation</li> </ul> <p><b>Comments on this project</b></p> <ul style="list-style-type: none"> <li>• Should we be consulting with the GSG rather than GSS? There is often confusion over GSS versus GSG versus analysis function.</li> <li>• Appreciative of this project.</li> <li>• Ensure accessible language.</li> <li>• Some aspects are still quite broad and detail could be added.</li> <li>• This is global – it could be worth having more individualised viewpoints and ensuring it does not read as 'one size fits all'.</li> <li>• Ensure involvement of statisticians at all levels.</li> </ul>
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