The background features a decorative graphic consisting of three overlapping circles in shades of blue, arranged in a diagonal line from the top right to the bottom right. Two thin, light blue lines intersect at the top left and extend diagonally across the page, framing the central text.

**The Government Statistician
Group (GSG) Competency
Framework**

The Government Statistician Group (GSG) Competency Framework

Our Mission

The statistical profession works across the whole range of public sector organisations, meeting high standards in all that we do, applying the principles of the Code of Practice for Official Statistics and acting with integrity, honesty, objectivity and impartiality. The core of our work is to provide, interpret and analyse statistical evidence and to provide clear and reliable advice in a way that is necessary for sound decision making within Government and across society.

Analysis and insight provided by professional statisticians and statistical data scientists goes beyond analysing our own data, to appraising and interpreting a wide range of evidence to address current challenges and problems. It is crucial to effective policy formulation and evaluation, informing the direction of economic and commercial activities across the economy and supporting evidence-based debate. Our sphere of influence is very broad as we provide vital information that is used right across the public, private and third sectors, including international bodies, academia and the public.

By actively engaging with users, we promote the understanding and use of statistical evidence and approaches. We anticipate new opportunities and operate at the forefront of techniques and technologies, identifying and exploiting innovative methods and data sources.

This framework will support us in meeting these aims. It will help us to recruit and retain a strong cadre of Statisticians and Statistical Data Scientists and to build the professional capability of all members of the GSG, keeping statistical evidence and advice at the heart of decision making across society.

This framework sets out what members of the statistical profession are expected to achieve in addition to the competencies set out in the Civil Service Competency Framework (CSCF) [<http://www.civilservice.gov.uk/wp-content/uploads/2012/07/Civil-Service-Competency-Framework-July-2012.pdf>]

The Levels

- **Level 1** – Statistical Officer (StO), Statistical Data Scientist (SDS), or equivalent
- **Level 2** – Higher StO/Higher SDS, Senior StO*/Senior SDS*, Assistant Statistician*
- **Level 3** – Grade 7/Grade 6* – Principal Statistician/ Principal Statistical Data Scientist

* *Higher level competencies are indicated throughout the framework, in blue italics, where applicable*

The Government Statistician Group (GSG) Competency Framework

Helpful – Innovative – Capable – Efficient – Professional

About this Framework

This framework sets out how we want members of the statistical profession to work across government. The framework draws on the Better Statistics, Better Decisions Strategy (https://www.statisticsauthority.gov.uk/wp-content/uploads/2015/12/images-betterstatisticsbetterdecisionsstrategyfor2015to2020_tcm97-44175-5.pdf).



Through aligning with the five pillars (Helpful, Innovative, Capable, Efficient and Professional), it describes the way that we want statisticians and statistical data scientists to work with others to provide a professional and high quality service, be innovative, deliver in a cost effective way and ensure we continue to grow the capability of the statistical community.

In alignment with the Civil Service Competency Framework (CSCF) and the Better Statistics, Better Decisions Strategy, it places the values of honesty, integrity, impartiality and objectivity at the heart of everything that statisticians do.

The framework is structured into the five pillars, which describe *how* we will deliver our strategic objectives (e.g. we will be innovative in our approach to presenting and disseminating results that meet our customers' needs). Within each of the five pillars, competencies are grouped into four statistical strands (*Acquiring data/Understanding customer needs, Data analysis, Presenting and disseminating data effectively, Working with credibility*) that outline *what* we will do to deliver our strategic objectives (e.g. we will apply the latest data visualisation method to our statistical product to boost user engagement).

Statisticians and statistical data scientists work in a huge range of roles across government and this framework has been designed with that flexibility in mind. No individual will be expected to satisfy the full suite of competencies within a given pillar/level – the competencies that you are required to demonstrate will depend on your post, and these will have been initially established at the recruitment stage, or where they have changed, at the start of the performance year. However, you will be expected to be aware of the wider competencies/skills in play across both the GSG Competency Framework and the CSCF.

For Recruitment principles, please refer to the **GSG Recruitment and Promotion Guidance** <insert link>. Please note that jobs will be advertised using the competencies pertinent to the particular post.

What does it mean for me?

Competencies are the skills, knowledge and behaviours that lead to successful performance. This framework has been designed to complement the CSCF, and some of the key elements considered pertinent to statisticians and statistical data scientists have been drawn out at the start of each pillar/level. Your role should be defined by a mixture of professional and CSCF competencies, and these frameworks should be used in any discussions around your performance and/or development needs.

This framework will be used for recruitment, performance management and development discussions from **April 2016**.

NB: 'Team' – in the following framework, any references to the phrase 'team' may be taken to mean 'self' or 'colleagues', especially where staff have no line management responsibilities.

The Government Statistician Group (GSG) Competency Framework

Helpful – Innovative – Capable – Efficient – Professional

Helpful. Sound decision making must be driven by evidence, supported by robust analysis and insight. Similarly, democratic debate thrives when it is based on a common understanding of an evidence base that is believed to be trustworthy by all involved. By effectively communicating our professional knowledge, and using our specialist analytical skills alongside other professionals, our independent analysis will drive and influence decision making across society, making statisticians an integral part of cross-disciplinary delivery teams.

Level 1 links to CSCF - professional competencies build on the **Collaborating and Partnering** and **Managing a Quality Service** elements of the CSCF. In particular, members of the profession are expected to work and engage closely with customers to understand the problem or request, and to remain fully engaged through to the delivery of the output. Statisticians are also expected to develop and build their network of contacts, to work across teams/departments and to share knowledge and experience with others.

Key words - Influences decision making; is influential; is customer focussed

Level 1 – Statistical Officer (StO), Statistical Data Scientist (SDS), or equivalent
<p>Acquiring data/Understanding customer needs</p> <ul style="list-style-type: none"> • Shares knowledge and suitability of data sources with customer (administrative, survey or census). • Proactively engages customer with own ideas for relevant data sources.
<p>Data analysis</p> <ul style="list-style-type: none"> • Is able to identify or translate questions into appropriate hypotheses for the customer. • Undertakes appropriate data analysis and uses technical skills to deliver a solution that meets customer needs. • Engages with customer early and often to share analytical results, discuss alternative analyses, explain data limitations and discuss findings.
<p>Presenting and disseminating data effectively</p> <ul style="list-style-type: none"> • Presents statistical data through various data visual techniques and provides clear narratives using appropriate language that meets customer needs. • Verifies with users that they understand the analysis presented and consider alternative methods, as required.
<p>Working with credibility</p> <ul style="list-style-type: none"> • Works in a way that promotes personal credibility and which builds trust with customers.



The Government Statistician Group (GSG) Competency Framework

Helpful – Innovative – Capable – Efficient – Professional

Level 2 links to CSCF – professional competencies build on the **Collaborating and Partnering, Leading and Communicating** and **Managing a Quality Service** elements of the CSCF. In particular, Statisticians are expected to take account of diverse, changing customer needs and requirements when planning statistical work, to implement ways of obtaining ongoing feedback and to act on the feedback received to improve the helpfulness of statistical products. At this level, statisticians are also expected to communicate effectively in order to influence decision making, and to continue grow and develop their network, within and outside the profession.

Key words - Influences decision making; is influential; is customer focussed

Level 2 - Higher StO/Higher SDS, Senior StO*/Senior SDS*, Assistant Statistician*
<p>Acquiring data/Understanding customer needs</p> <ul style="list-style-type: none"> Works proactively with the customer, shares knowledge and suitability of data sources (administrative, survey or census), outlines the strengths and limitations. Helps the customer, including Policy professionals, to understand the value of a strong evidence base. <i>Influences the design of initiatives to ensure that robust data collection is facilitated (SStO, AS years 2+).</i> <i>Uses knowledge of customer needs to anticipate potential future changes to statistical products (SStO, AS years 2+).</i>
<p>Data analysis</p> <ul style="list-style-type: none"> Proactively engages early and often with the customer to share analytical results, and to discuss findings, taking data limitations into account. <i>Influences the debate and the decision making process (SStO, AS years 2+).</i> Selects analytical techniques and conducts analysis in such a way as to strengthen customer trust in the evidence base.
<p>Presenting and disseminating data effectively</p> <ul style="list-style-type: none"> Produces products that are considerate of the three user personas (Expert Analyst, Information Forager, Inquiring Citizen). Tailors products to the differing needs. Evaluates products to ensure that they are meeting the needs of different users, and uses information to feed continuous improvement. Draws out the key/headline messages for the customer and <i>provides insight to inform debate and influence decision making (SStO, AS years 2+).</i>
<p>Working with credibility</p> <ul style="list-style-type: none"> Builds strong relationships with customers and develops own reputation, <i>as well as that of the team or Department (SStO, AS years 2+)</i>, through strong customer engagement and the continued delivery of customer requirements. Actively seeks to build a diverse network of contacts, strengthening relationships by offering help wherever possible. <i>Begins to use this network to help their current work (SStO, AS years 2+).</i>

* Higher level competencies are indicated throughout the framework, in blue italics, where applicable



The Government Statistician Group (GSG) Competency Framework

Helpful – Innovative – Capable – Efficient – Professional

Level 3 links to CSCF - professional competencies build on the **Seeing the Big Picture** and **Collaborating and Partnering** elements of the CSCF. In particular, Statisticians are expected to bring together the views and perspectives of stakeholders to gain a wider picture of the landscape surrounding activities and policies. Statisticians at this level are also expected to actively build and maintain a wide network of colleagues and contacts (this may include international colleagues) to achieve progress on objectives, and are expected to use this network to influence more widely.

Key words - Influences decision making; is influential; is customer focussed

Level 3 – Grade 7/Grade 6* - Principal Statistician/Principal Statistical Data Scientist
<p>Acquiring data/Understanding customer needs</p> <ul style="list-style-type: none"> Instils a culture across the team of helping the customer, including Policy professionals, to understand the value of a strong evidence base and the importance of using appropriate data sources. Leads and supports the work of the team in acquiring the appropriate data sources to deliver customer needs.
<p>Data analysis</p> <ul style="list-style-type: none"> Inspires self and team to engage with the customer, share findings and to lead on debates that may influence decision making. Leads on or supports the team in more complex analytical discussions with customers or Policy colleagues. <i>Represents discussions where a higher level of influence is required (G6).</i> Is an advocate for basing discussions with customers and Policy colleagues on the data analysis and evidence presented, strengthening customer trust in the evidence base.
<p>Presenting and disseminating data effectively</p> <ul style="list-style-type: none"> Is able to advise customers and stakeholders on presentation and dissemination matters. <i>Is able to advise more widely as a topic area expert, e.g. across Departments, at GSS Committees or possibly at an international level (G6).</i> <i>Influences and champions the use of presentation and dissemination tools at the departmental level or wider (G6)</i> Has well established links with internal communications and press office teams. Encourages the evaluation of presentations and disseminations through user engagement, encouraging a culture of meeting user needs through continuous improvement.
<p>Working with credibility</p> <ul style="list-style-type: none"> Operates with credibility, is accountable for the work of the team(s) (where applicable) and champions the Statistical profession. As a subject matter expert, contributes to an expert network, knows what else has been done in the same field and where to go for wider evidence. Uses expertise to deliver optimal solutions to customers and to influence decision making more widely.

* Higher level competencies are indicated throughout the framework, in blue italics, where applicable



The Government Statistician Group (GSG) Competency Framework

Helpful – **Innovative** – Capable – Efficient – Professional

Innovative. Innovation plays a vital role in government and is a key driver in the growth and development of a modern-day society. Every day new challenges are faced and it is how these challenges are embraced that determines how we, as statisticians, can shape a bright technological future. In a world which is rapidly evolving with new technologies, it is our desire for the statistician to be at the forefront of innovation and with the use of specialist statistical skills, it is our vision for us to become inquisitive and curious, casting a fresh eye over existing methods to create a culture which drives insight.

Level 1 links to CSCF - professional competencies build on certain aspects of the **Changing and Improving** element of the CSCF. In particular, Statisticians are expected to regularly consider and suggest new and potentially innovative techniques for improvements to solutions in meeting customer needs. Staff are also expected to seek feedback on innovations, to feed continuous improvement.

Key words - Drives innovation; is innovative

Level 1 – Statistical Officer (StO), Statistical Data Scientist (SDS), or equivalent
<p>Acquiring data/Understanding customer needs</p> <ul style="list-style-type: none"> • Uses most relevant technology to gather contextual data from internal and external sources, to meet customer needs.
<p>Data Analysis</p> <ul style="list-style-type: none"> • Keeps abreast of new and evolving technologies, tools and analytical techniques to deliver results effectively, whether this is employing new methods or using existing products in new and innovative ways. • Looks for ways to generate repeatable statistical applications. • Takes effort to use statistical data in innovative ways, rather than automatically and uncritically following past methodologies. • Logically identifies strengths and weaknesses of ideas and technical methods and makes effective decisions based on these attributes.
<p>Presenting and disseminating data effectively</p> <ul style="list-style-type: none"> • Implements the latest data visualisation methods for statistical products, new or existing, to boost user engagement.
<p>Working with credibility</p> <ul style="list-style-type: none"> • Uses the Civil Service Code and Code of Practice for Official Statistics to their advantage by finding pragmatic solutions to statistical problems with innovative methods.



The Government Statistician Group (GSG) Competency Framework

Helpful – **Innovative** – Capable – Efficient – Professional

Level 2 links to CSCF – professional competencies build on certain aspects of the **Changing and Improving** element of the CSCF. In particular, Statisticians are expected to find innovative ways to improve and streamline processes, and to involve the team and stakeholders to inform ideas. At this level, Statisticians are also expected to support others who are faced with the challenges of improving processes and systems, and to ensure that the team is prepared for change.

Key words - Drives innovation; is innovative

Level 2 - Higher StO/Higher SDS, Senior StO*/Senior SDS*, Assistant Statistician*
<p>Acquiring data/Understanding customer needs</p> <ul style="list-style-type: none"> • Uses innovative techniques to acquire new data sources, to aid in the delivery of customer needs. • Obtains and utilises customer feedback to regularly feed into and direct the development of innovations in own team <i>or across business areas (SStO, AS years 2+)</i>.
<p>Data analysis</p> <ul style="list-style-type: none"> • Applies knowledge of new and evolving technologies, including open-source software, and has confidence in making decisions around which methods and techniques to apply. <i>Assists others in making these decisions (SStO, AS years 2+)</i>. • Experiments with innovations, manages and learns from failures and shares lessons learned within, <i>and across teams (SStO, AS years 2+)</i>. • Drives forward suitable technologies, tools and analytical techniques, leads the way in their application and acts as a main point of contact to ensure effective delivery within, <i>and across teams (SStO, AS years 2+)</i>.
<p>Presenting and disseminating data effectively</p> <ul style="list-style-type: none"> • Actively seeks out new and insightful ways to present and visualise statistical data. • <i>Applies new approaches to improve current publications and data visualisations (SStO, AS years 2+)</i>.
<p>Working with credibility</p> <ul style="list-style-type: none"> • Uses legal frameworks to provide back up in the use of innovative solutions to more complex problems.

* Higher level competencies are indicated throughout the framework, in blue italics, where applicable



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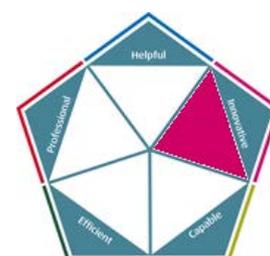
Helpful – **Innovative** – Capable – Efficient – Professional

Level 3 links to CSCF - professional competencies build on the **Seeing the Big Picture** and **Changing and Improving** elements of the CSCF. In particular, Statisticians are required to anticipate technological developments, and to encourage a culture for innovation.

Key words - Drives innovation; is innovative

Level 3 – Grade 7/Grade 6* - Principal Statistician/Principal Statistical Data Scientist
<p>Acquiring data/Understanding customer needs</p> <ul style="list-style-type: none"> Leads on and supports the team in the use of innovative techniques for acquiring new data sources. Promotes the innovative work of the team across the Department <i>or more widely (G6)</i>.
<p>Data Analysis</p> <ul style="list-style-type: none"> Inspires colleagues (and oneself) to perform experimental analyses and offers appropriate support to ensure that innovation is embedded within the culture of their work area, <i>and more widely e.g. across Department(s) (G6)</i>. Promotes new ways of working and continuously seeks opportunities to improve processes, statistical documents and statistical techniques using innovative methods, showing awareness of the impact on own business area of implementing any changes. Decides which innovations are most suitable and drives the case forward to delivery, applying logic and leadership. Actively seeks out examples of statistical innovations in other internal and external products, considers their appropriateness for reuse, and where applicable, investigates ways of transferring these for use within own work area, <i>or more widely e.g. across their Department (G6)</i>.
<p>Presenting and disseminating data effectively</p> <ul style="list-style-type: none"> Champions innovative data dissemination techniques within and across teams, <i>or more widely e.g. across Department(s) (G6)</i>. Seeks out examples of data dissemination innovations from across the analytical community, and investigates ways of transferring these for use within own work area, <i>or more widely e.g. across Department(s) (G6)</i>.
<p>Working with credibility</p> <ul style="list-style-type: none"> Seeks out, where necessary, appropriate funding/resource and demonstrates the ability to build a network of relationships, internally or <i>externally to Government (G6)</i>, to enable opportunities for innovation. Considers flexible ways of supporting innovation while ensuring the Civil Service Code and Code of Practice for Official Statistics are respected in the letter and the spirit. Shares own knowledge and experience of data innovations (including data dissemination aspects) with others within work area and/or Department, <i>or more widely e.g. across Department or possibly at an international level (G6)</i>.

* Higher level competencies are indicated throughout the framework, in blue italics, where applicable



The Government Statistician Group (GSG) Competency Framework

Helpful – Innovative – **Capable** – Efficient – Professional

Capable. We are a learning profession, continually building on the already strong skills and capabilities of our people, so that we remain experts; resilient and ready for change. This is key to our advice and support remaining relevant and to our being able to tackle current and future challenges with innovative solutions. We aim to empower our statisticians to develop strong leadership and management skills now and to become the leaders of the future at the most influential levels.

Examples of statistical tools and techniques used by Statisticians and Statistical Data Scientists are set out in **Annex 1**. This is not an exhaustive list, but serves to demonstrate the areas in which we might expect the profession to be building its technical capability.

Level 1 links to CSCF - professional competencies build on the **Building Capability for All** element of the CSCF. In particular, all staff are expected to identify any gaps in their own skills and knowledge and to make plans to meet these.

Key words - Deploys capability; builds capability of self and others

Level 1 – Statistical Officer (StO), Statistical Data Scientist (SDS), or equivalent
<p>Acquiring data/Understanding customer needs</p> <ul style="list-style-type: none"> Is able to identify and obtain most appropriate data source(s) to meet customer needs. Understands the strengths and limitations of data source(s).
<p>Data Analysis</p> <ul style="list-style-type: none"> Can describe the main theoretical and practical features, assumptions and limitations of the analytical techniques and software used in their area, as well as the circumstances in which it would be appropriate to deploy them, what the expected outputs would look like and how to interpret them. Demonstrates statistical and analytical aptitude through the appropriate use of statistical, data science and/or methodological knowledge to achieve a specific end goal. Understands bias and uncertainty and takes account of these in analytical work. Is able to analyse complex datasets, apply statistical curiosity and draw evidence based conclusions.
<p>Presenting and disseminating data effectively</p> <ul style="list-style-type: none"> Is able to present and disseminate data effectively through the use of tables, charts and graphs. Is able to draw out the key statistical messages and to “tell the story”. Uses social media, in accordance with Departmental guidance, to disseminate statistical products and key messages. Keeps abreast of new presentation and dissemination developments and builds own capability.
<p>Working with credibility</p> <ul style="list-style-type: none"> Is aware of own capabilities and knows when to seek assistance from others. Seeks opportunities to share own knowledge, to build the capability of others in the team.



The Government Statistician Group (GSG) Competency Framework

Helpful – Innovative – **Capable** – Efficient – Professional

Level 2 links to CSCF – professional competencies build on the **Building Capability for All** element of the CSCF. In particular, all staff are expected to maintain a strong focus on continuous learning for oneself, and others if they are in a position of management within a team, keeping knowledge and skill sets current and evolving. Staff are also expected to seek and act on feedback to evaluate and improve their own and team's performance. Finally, staff are expected to proactively manage their own career, identifying learning needs with a line manager, then planning and carrying out learning opportunities.

Key words - Deploys capability; builds capability of self and others

Level 2 - Higher StO/Higher SDS, Senior StO*/Senior SDS*, Assistant Statistician*
<p>Acquiring data/Understanding customer needs</p> <ul style="list-style-type: none"> Is able to create new data solutions/collections through the manipulation of multiple data sources, to better meet customer needs. Applies techniques to link or match data. <i>Recognises where external data sources can be easily integrated with own datasets (SStO, AS years 2+).</i> <i>Designs and commissions new work such as a new survey (SStO, AS years 2+).</i> Builds the capability of others by sharing knowledge about data sources, data manipulation and appropriate innovations within own team <i>or across business areas (SStO, AS years 2+).</i>
<p>Data analysis</p> <ul style="list-style-type: none"> Is able to identify and apply the most appropriate analytical method in different situations, knows what the expected outputs would look like and how to interpret findings. Actively identifies opportunities to share and build technical knowledge and skills within <i>and across teams (SStO, AS years 2+).</i> <i>Is able to choose the appropriate analytical approaches for whole work streams (SStO, AS years 2+).</i>
<p>Presenting and disseminating data effectively</p> <ul style="list-style-type: none"> Demonstrates breadth of data presentation and dissemination capability through the application of sound data visualisation and/or statistical commentary techniques. Is able to embed social media strategies within communications plans for the work area. <i>Identifies shortcomings in currently used dissemination methods and seeks skills that enable them to fill these gaps (SStO, AS years 2+).</i>
<p>Working with credibility</p> <ul style="list-style-type: none"> Understands the roles that other professionals within <i>and outside the team (SStO, AS years 2+)</i> play. Recognises when the skills and expertise of others within <i>or outside the team (SStO, AS years 2+)</i> is required, and is able to draw on these skills in a productive way. Builds own capability by keeping abreast of new developments. Applies learning to add value in day-to-day work. Builds the capability of others by sharing good practice with own business area <i>and with other analytical and/or Policy colleagues (SStO, AS years 2+).</i>

* Higher level competencies are indicated throughout the framework, in blue italics, where applicable



The Government Statistician Group (GSG) Competency Framework

Helpful – Innovative – **Capable** – Efficient – Professional

Level 3 links to CSCF - professional competencies build on the **Building Capability for All** and **Achieving Commercial Outcomes** elements of the CSCF. In particular, staff are expected to ensure that capability requirements within the team are identified, and that coaching and support are provided where required. Staff are expected to provide leadership on the technical and analytical capability across the team, while maintaining alignment with wider strategic goals of the department and the profession. Staff are also expected to maintain an economic long-term focus in all activities.

Key words - Deploys capability; builds capability of self and others

Level 3 – Grade 7/Grade 6* - Principal Statistician/Principal Statistical Data Scientist
<p>Acquiring data/Understanding customer needs</p> <ul style="list-style-type: none"> Is highly knowledgeable of the breadth of data sources available for use by the Department (internally and externally), and their strengths and limitations. Knows when a new data collection is required, and leads and advises on the design and/or commission of this. Is highly knowledgeable of the breadth of techniques available for manipulating and creating new data sources through linking or matching multiple datasets. Leads and advises others on data manipulations and appropriate innovations. Shares good practice and knowledge on data sources to build the capability of others within/across teams, <i>and more widely e.g. across Department(s) (G6).</i>
<p>Data Analysis</p> <ul style="list-style-type: none"> Has a breadth of knowledge across a range of areas and is able to advise independently, either on analytical aspects or as a topic area expert. Knows where to look and how to use appropriate analytical techniques, including assumptions, applications, and limitations, and can assess the potential of emerging technology. Freely shares expertise and builds the technical knowledge and skills of others in or across teams. <i>Through keeping abreast of data analysis techniques being used elsewhere (e.g. international NSIs) is able to ensure that the data analysis capability of the Department is 'world class' (G6).</i>
<p>Presenting and disseminating data effectively</p> <ul style="list-style-type: none"> Is knowledgeable about data dissemination tools and techniques and takes the lead in building capability within and outside the team or with Policy colleagues. Develops communication and social media strategies, in accordance with Departmental guidance.
<p>Working with credibility</p> <ul style="list-style-type: none"> Shares knowledge and expertise to build the capability of others within or across teams. Ensures that statistics and analyses are widely used, presented and explained effectively by self and staff, where applicable.

* Higher level competencies are indicated throughout the framework, in blue italics, where applicable



The Government Statistician Group (GSG) Competency Framework

Helpful – Innovative – Capable – **Efficient** – Professional

Efficient. We must deliver high quality evidence and analysis in an efficient and transparent manner. We will strive to improve approaches to analysis and dissemination of data and extract more value from existing data and analysis. We will maximise the impact of our work by identifying and focusing on priorities.

Level 1 links to CSCF - professional competencies build on the **Delivering Value for Money** and the **Managing a Quality Service** elements of the CSCF. In particular, Statisticians are expected to choose the most efficient route to delivering customer requirements (this will affect the choice of methods, tools and techniques), and to manage work in an efficient and effective way through the use of appropriate planning and resource management techniques. Staff are also expected to understand how their own organisation works and to know where to ask for information prior to embarking on a new piece of work.

Key words - Extracts value from existing data and analysis; works efficiently; enables efficiency to happen

Level 1 – Statistical Officer (StO), Statistical Data Scientist (SDS), or equivalent
<p>Acquiring data/Understanding customer needs</p> <ul style="list-style-type: none"> Is aware of data sources available in own area and makes best use of existing data. Readily shares knowledge of data sources with colleagues and others enabling others to work efficiently.
<p>Data Analysis</p> <ul style="list-style-type: none"> Has breadth of view across a statistical field, and is able to make decisions about the most appropriate methods and tools for the task, recognising when processes are inefficient and taking action to improve them. Where appropriate, uses techniques to link or match data or demonstrates better use of administrative or management data to make the best use of existing data. Has an understanding of database management and can organise own datasets. Produces effective and timely documentation for coding, processes and data files, for own use and use by others.
<p>Presenting and disseminating data effectively</p> <ul style="list-style-type: none"> Seeks opportunities to review the work of others and to consider its reuse for the benefit of self/team. Disseminates data in an 'open' format wherever possible, so that it can be easily accessed and used by others for analysis.
<p>Working with credibility</p> <ul style="list-style-type: none"> Seeks feedback and uses networks to learn about more efficient processes and/or practices from others. Readily shares own knowledge with others across the statistical field, to enable others to work more efficiently. Delivers a responsive and timely service.



The Government Statistician Group (GSG) Competency Framework

Helpful – Innovative – Capable – **Efficient** – Professional

Level 2 links to CSCF – professional competencies build on the **Delivering Value for Money** and **Delivering at Pace** elements of the CSCF. In particular, Statisticians at this level are expected to quickly identify the most efficient way of delivering customer requirements through a combination of careful planning, effective collaboration, and appropriate selection of analytical tools and methods in order to deliver a high quality outcome within the time and resources available. Processes should be challenged and improved where they appear to prevent good value for money or impede efficiency, and staff should respond constructively to feedback received from others.

Key words - Extracts value from existing data and analysis; works efficiently; enables efficiency to happen

Level 2 - Higher StO/Higher SDS, Senior StO*/Senior SDS*, Assistant Statistician*
<p>Acquiring data/Understanding customer needs</p> <ul style="list-style-type: none"> • Has an in depth knowledge of data sources available in their own, <i>and related areas (SStO, AS years 2+)</i>. • Maximises the use of existing data sources, where possible. • Advises others on the design and management of data collections to meet customer needs (administrative, survey or census), enabling others to work efficiently.
<p>Data Analysis</p> <ul style="list-style-type: none"> • Quickly decides on the most appropriate methods and tools to use to deliver analysis, confidently adapting their approach as required to effectively manipulate a variety of data sources. • Has a broad data analysis knowledge base and uses lessons learned from their own work and others' to implement changes to processes and methods which improve practices, <i>and drive efficiency (SStO, AS years 2+)</i>. • Shares knowledge and recommends appropriate data analysis techniques to those in <i>and/or across team(s) (SStO, AS years 2+)</i>, enabling efficiencies. • Confidently manages and organises large datasets in order that they can be easily manipulated by self and/or others. • Produces clear and informative documentation on coding, processes and data files to ensure that knowledge is shared and future analysis can be undertaken speedily by themselves and others, encouraging others to do the same.
<p>Presenting and disseminating data effectively</p> <ul style="list-style-type: none"> • Disseminates data in an 'open' format (with clear and appropriate metadata) such that it can be effectively used by colleagues or customers for analysis. • Provides guidance on the appropriate use of imperfect or incomplete data, so that the maximum value is extracted and inappropriate use avoided.
<p>Working with credibility</p> <ul style="list-style-type: none"> • Builds own reputation, <i>and that of the team (SStO, AS years 2+)</i>, for working efficiently and/or for finding efficient solutions to statistical problems. • <i>Engages widely to ensure that efficiencies are enabled elsewhere (SStO, AS years 2+)</i>.

* Higher level competencies are indicated throughout the framework, in blue italics, where applicable



The Government Statistician Group (GSG) Competency Framework

Helpful – Innovative – Capable – **Efficient** – Professional

Level 3 links to CSCF - professional competencies build on the **Delivering Value for Money** and **Managing a Quality Service** elements of the CSCF. In particular, Statisticians at this level are expected to use their knowledge of wider strategies and priorities to know when to stop or reduce work and to focus on that will have the most impact. Staff are also expected to be able to pull together evidence to make the case for sensible efficiency decisions, to effectively communicate their aims, and are able to identify the skills required for efficient delivery.

Key words - Extracts value from existing data and analysis; works efficiently; enables efficiency to happen

Level 3 – Grade 7/Grade 6* - Principal Statistician/Principal Statistical Data Scientist

Acquiring data/Understanding customer needs

- Develops new uses of existing data sources; maximises the statistical potential of new and existing data sources, including open data sources.
- Promotes increased efficiency and effectiveness in the use of data, e.g. through increased use of data sharing and techniques for linking and matching. Is considerate of respondent burden (i.e. ensuring proportionality).
- Instils a culture within the team of enabling efficiencies through ensuring that information on data sources is documented and made available for the benefit of others.
- Readily shares information with others within/across teams, *and/or more widely e.g. across Department(s) G6*, so that the appropriate data sources can be sought more quickly.

Data Analysis

- Ensures adequate documentation and knowledge management are in place to improve speed of analysis/production and minimise duplication and errors.
- *Ensures the wide use, re-use and understanding of statistical analyses through collaborations with other Departments and/or organisations (e.g. ESRC) (G6).*

Presenting and disseminating data effectively

- Shares good practice with others, including Policy colleagues, to ensure that value can be drawn from the analytical presentations efficiently and effectively.

Working with credibility

- Ensures good practice is used within the team; *is an advocate for good practice more widely, e.g. across Department (G6).*
- Manages a portfolio of work, involving colleagues from a range of analytical and/or other disciplines, anticipates future needs and focuses resources in the areas that will provide efficiency as well as the most impact.
- Undertakes succession planning and develops business continuity strategies that are supported by adequate documentation and knowledge management systems.

* Higher level competencies are indicated throughout the framework, in blue italics, where applicable



The Government Statistician Group (GSG) Competency Framework

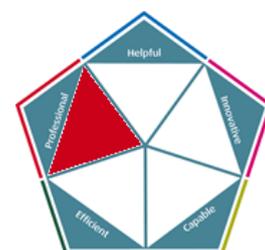
Helpful – Innovative – Capable – Efficient – **Professional**

Professional. Our professional support must be valued and used with trust and confidence. Similarly we must have the confidence of the individuals and organisations whose data we use. We will continue to develop this trust through effective communication and delivering consistently high quality statistics, analysis and advice, challenging the misuse of statistics and supporting our analytical work with robust and properly governed analytical assurance processes. We will meet the diverse needs of our customers, using approaches that are aligned with sound professional standards, through applying and navigating the Code of Practice in Official Statistics in a constructive way.

Level 1 links to CSCF - professional competencies build on the **Managing a Quality Service** element in the CSCF. In particular, Statisticians are expected to adhere to relevant policies, procedures, regulations and legislation that affect their work. This includes having an awareness of how the legal framework for statistical work, including the Code of Practice for Official Statistics and the Data Protection Act, affects their area.

Key words - Adheres to statistical frameworks; quality assures work; builds trust

Level 1 – Statistical Officer (StO), Statistical Data Scientist (SDS), or equivalent
<p>Acquiring data/Understanding customer needs</p> <ul style="list-style-type: none"> • Uses the principles of the Code of Practice for Official Statistics to deliver appropriate results and standards with respect to user needs. • Demonstrates a high level of professional integrity when working with customers and data users, building trust.
<p>Data Analysis</p> <ul style="list-style-type: none"> • Takes personal responsibility for the delivery of high quality statistical advice and data analysis. • Uses appropriate methods to quality assure analytical work, in line with Aqua Bookⁱ and GSS guidance, to ensure that analysis is fit for purpose.
<p>Presenting and disseminating data effectively</p> <ul style="list-style-type: none"> • Adheres to Code of Practice in Official Statistics to ensure that data is presented in a way that prevents the unintentional disclosure of any business, individual or other. • Takes personal responsibility for the delivery of high quality statistical presentations and disseminations.
<p>Working with credibility</p> <ul style="list-style-type: none"> • Offers advice on and challenges the proposed use of statistics, as appropriate. • Maintains integrity and builds trust by working with confidence and acting in a transparent way. • Is aware of guidance and good practice relevant to own role. • Develops self in understanding the role of Statisticians and other professions in Government and their own Department, aligning work with wider strategic goals. • Keeps knowledge up to date, expands range and documents all learning within a Continuing Professional Development log book.



The Government Statistician Group (GSG) Competency Framework

Helpful – Innovative – Capable – Efficient – **Professional**

Level 2 links to CSCF - professional competencies build on the **Making Effective Decisions** element of the CSCF. In particular, staff are expected to use sound judgement, evidence and knowledge to arrive at accurate, expert and professional decisions and advice, as well as contribute to a culture that handles information and data securely.

Key words - Adheres to statistical frameworks; quality assures work; builds trust

Level 2 - Higher StO/Higher SDS, Senior StO*/Senior SDS*, Assistant Statistician*
<p>Acquiring data/Understanding customer needs</p> <ul style="list-style-type: none"> Develops and maintains a reputation with customers and colleagues as the first port of call for professional advice on data sources. Works with integrity and confidence, building trust. <i>This may include working with Ministers and colleagues in the Minister's private office or Press Office (SStO, AS years 2+).</i> Is an advocate for the investigation and use of administrative data.
<p>Data analysis</p> <ul style="list-style-type: none"> Takes responsibility for the delivery of high quality statistical advice and analysis given by self <i>and/or team (SStO, AS years 2+).</i> Uses <i>and promotes (SStO, AS years 2+)</i> appropriate methods to quality assure analytical work, in line with Aqua Book¹ and GSS guidance, to ensure that analysis is fit for purpose. Quality assures others' analytical work, in order to gain insight into methods used, or offer refinements. Is committed to finding new ways to meet customers' needs using appropriate available technologies and evidence, while maintaining sound professional standards (right methodology, right interpretation).
<p>Presenting and disseminating data effectively</p> <ul style="list-style-type: none"> Identifies advantages and disadvantages of different ways of presenting and visualising data (including different types of chart, colour schemes, use of interactive software) and can justify decisions on data presentation in reference to these and to customer requirements.
<p>Working with credibility</p> <ul style="list-style-type: none"> Understands the legal framework for statistical work, including the Code of Practice for Official Statistics, the relevant pre-release access legislation and the Data Protection Act. Keeps knowledge up to date, expands range and documents all learning within a Continuing Professional Development log book.

* Higher level competencies are indicated throughout the framework, in blue italics, where applicable



The Government Statistician Group (GSG) Competency Framework

Helpful – Innovative – Capable – Efficient – **Professional**

Level 3 links to CSCF- professional competencies build on the **Leading and Communicating** element of the CSCF. In particular, staff are expected to regularly undertake activities that build and instil trust, to set the expectations for the team and to be a role model throughout.

Key words - Adheres to statistical frameworks; quality assures work; builds trust

Level 3 – Grade 7/Grade 6* - Principal Statistician/Principal Statistical Data Scientist
<p><i>Acquiring data/Understanding customer needs</i></p> <ul style="list-style-type: none"> Is an advocate for the investigation and use of administrative data. Demonstrates a high level of statistical integrity when working with customers, potentially including Ministers' private office, Press Office colleagues and the media, showing a commitment to delivering solutions to meet the diverse range of customer needs whilst still upholding professional standards. Uses and understands the position or views of others, knowledge of the wider evidence base and any limitations imposed by legal or regulatory frameworks to overcome constraints in delivery customer needs.
<p><i>Data Analysis</i></p> <ul style="list-style-type: none"> Establishes, maintains and promotes a culture that enables team members to take responsibility for delivering high quality statistical advice, analysis and outputs based on robust methods. Quality assures analytical work of the team or colleagues in accordance with Aqua Bookⁱ and GSS guidance, challenges source data and assumptions, and interprets final analyses for the purposes of providing supporting evidence. Fulfils appropriate formal roles assigned under Aqua Book guidelines. Advocates the use of data analysis and evidence in decision making, actively participating in the business planning process to identify where input from the profession will be most beneficial and actively seeking opportunities to promote the skills and knowledge of their team.
<p><i>Presenting and disseminating data effectively</i></p> <ul style="list-style-type: none"> Understands the wider statistical position and is able to deliver the key analytical messages while taking account of the ministerial/policy standing, and retaining integrity. Ensures statistical releases are impartial and takes steps to ensure that statements issued by others (e.g. Ministers, Press Office, others) are statistically accurate.
<p><i>Working with credibility</i></p> <ul style="list-style-type: none"> Ensures that the legal framework for statistical work, including the Code of Practice for Official Statistics and the Data Protection Act, is understood and embedded in their area, taking personal responsibility for upholding the principles and requirements when challenged. Actively keeps abreast of, and contributes to, relevant statistical developments within and outside the Department, including internationally, adopting and promoting good practice in their area and aligning with the objectives of the broader statistical community. Keeps knowledge up to date, expands range and documents all learning within a Continuing Professional Development log book.

* Higher level competencies are indicated throughout the framework, in blue italics, where applicable

ⁱ The Aqua Book was introduced by HM Treasury in 2015; the Book provides guidance for all professions on the production of quality analysis for government. <https://www.gov.uk/government/publications/the-aqua-book-guidance-on-producing-quality-analysis-for-government>

