



Canadian Statistics
Advisory Council

2025
ANNUAL REPORT

*Towards a Framework for
Official Statistics in the
National Statistical System*



TABLE OF CONTENTS

Message from the Canadian Statistics Advisory Council 3

Recommendation: Develop a framework
to define and accredit official statistics..... 4

1. Canada needs a framework for defining
and accrediting official statistics 5

2. Defining official statistics7

3. Authorities for producing official
statistics need to be clear 8

4. Official statistics must be accredited 10

5. A repository for official statistics
must speak to all Canadians 11

6. Promoting trust in the national statistical system.....13

Endnotes.....15

Message from the Canadian Statistics Advisory Council

We release this year's report in turbulent times, characterized by profound economic and technological change and shifting geopolitics. It is also a time rampant with misinformation and disinformation and increasing challenges to the authority of national statistical organizations.

Despite these trends Statistics Canada remains a trusted and valued institution and a key provider of information for Canadians coast to coast to coast. Accurate and credible data and statistics are essential to support Canada's sovereignty and assure its prosperity and well-being. Poor data lead to bad decisions with costly consequences and contribute to distrust and disunity.

This year's report focuses on solidifying the national statistical framework in order to better coordinate information across jurisdictions and leverage the opportunities that come with new technology. Having official reference points is also essential to combat misinformation and disinformation. To this end, the Council examined what other countries are doing and looked at best practices in Canada and internationally for assuring quality data.

In the Canadian system there is no legally recognized definition of official statistics in Canada nor clear and definitive authority of who produces them and oversees their quality and standards. The Council believes that a robust national statistical framework would lead to stronger partnerships for the collection, production, assessment, coordination, sharing and access of official statistics. Strengthening the authority and trust of the national statistical system is key to ensuring consistent quality statistics for all sectors of Canadian society, especially for navigating turbulent social and economic times.

Equally important is strong leadership, and here the Council is thankful for André Loranger, the Chief Statistician of Canada (who is an ex officio member of the Council). We are also grateful for the support offered by his outstanding team for responding to our requests for information with both written and oral presentations. We offer particular thanks to Étienne Saint-Pierre and Daniel Fahey of the Canadian Statistics Advisory Council Secretariat for their advice and assistance. We would also like to thank Gaëlle Miollan for her years of support as well as departing Council members David Chaundy, Annette Hester, and Jan Kestle who offered years of invaluable insight to the council. As they depart, the Council loses representation from vital sectors of the statistical system. The health and strength of the Council in providing impartial advice to the Minister and Chief Statistician is dependent on timely appointments from a wide range of areas and perspectives. If positions are left unfilled the Council will be limited in its ability to do its work.

Signed:
The Canadian Statistics Advisory Council

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Recommendation:

Develop a framework to define and accredit official statistics

In today's environment of misinformation and disinformation, official statistics are critical for helping Canadians assess the quality of information they use for decision making.

However, there is no legally recognized definition of official statistics in Canada or a national framework for producing them. This lack of official direction impacts the ability of stakeholders of the national statistical system to better support their communities and the priorities of governments across Canada.

There is also no reference to official statistics in Canada's Statistics Act and although Statistics Canada does refer to official statistics on its website, the term is not defined. This is in contrast to most countries who collaborate closely with Canada who reference official statistics in their legislation.

Accreditation of official statistics requires identification of clear legislative authority and strong partnerships for their collection, production, assessment, coordination, sharing and access. Strengthening the authority and trust of the national statistical system is key to ensuring consistent quality statistics for all sectors of Canadian society.

Current ambiguities in authorities create uneven standards and methods across federal departments, other jurisdictions and outside government. For these reasons, the Council recommends that:

The Minister of Industry should:

- i mandate Statistics Canada to develop a framework for official statistics.
- ii communicate with Canadians on the importance of official statistics in supporting the country's sovereignty, prosperity and well-being in a democratic society.

- iii promote a common understanding of the authority and responsibilities of Statistics Canada in the production of statistics under the *Statistics Act*. There should be no ambiguity in the interpretation of its responsibilities and legal authorities.

In developing a framework for official statistics, the Chief Statistician should play a leadership role to:

- iv define the term official statistics for use by federal data producers and users of federal statistics based on the United Nations Principles of Official Statistics.
- v develop provisions for clearly identifying government departments and agencies with accredited federal official statistics and the processes for accreditation.
- vi develop processes to create, publish and maintain a federal repository of official statistics and a list of the government agencies that produce them. This includes clear accreditation and labelling for users and stakeholders of the national statistical system to easily identify official statistics.
- vii regularly review and adapt the framework with government departments to ensure effective statistical data concepts and data flows.
- viii collaborate with other jurisdictions including provinces, territories and Indigenous organizations to identify and promote opportunities for extending the framework of official statistics to other jurisdictions within the national statistical system.



1

Canada needs a framework for defining and accrediting official statistics

High-quality statistical information is among Canada's most valuable resources and is the foundation of a modern and diverse digital economy. Issues of climate change, artificial intelligence, international trade and interprovincial flows of goods and services have heightened the need for quality, comparable national and regional data. These require more sophisticated methods and data flows that produce statistics that are trusted by Canadians.

A national¹ framework for official statistics with standard measures and clear authorities can provide an anchor for generating these statistics. The corner stone of such a framework is a clear and precise definition of official statistics. While Canada's national statistical system already provides data that are key to understanding important economic, social and environmental issues, it does not have a legally recognized definition of official statistics or a national framework for producing them. This lack of official direction impacts the ability of stakeholders and users of the national statistical system to fully leverage the wealth of data that exists in Canada to support communities and governments across the country.

Although credible and coordinated information on the nation's population and assets are the basis of the Canadian *Statistics Act* and are defined in the country's *Constitution*, the governance infrastructure needed to support this mandate and meet the needs of a digital society is lacking. This reflects a national statistical system that is multi-jurisdictional, with statistics produced by Statistics Canada, federal agencies, the central bank and provincial and territorial statistical offices. Other sectors such as Indigenous organizations, academia, the private sector and non-governmental organizations also contribute to these statistics.

The national statistical system plays a vital role in supporting the country's prosperity and well-being. It relies greatly on collaboration within and across jurisdictions to produce quality comparable data at the national and regional levels.

The current statistical ecosystem has become increasingly complex making this collaboration more difficult. Over the last four decades Statistics Canada has linked data across surveys, census, and administrative records to leverage the power of Canada's data. The complexity and challenges increase significantly with the abundance of information available from different levels of jurisdiction and from various sectors.

Canada should formalize a framework for developing and accrediting official statistics to fully leverage the country's wealth of data. This would support the [2023–2026 Data Strategy for the Federal Public Service](#) which focuses on specific data gaps² that require new data environments and collaborations.³ While much source data exists, the problem often lies with conflicting definitions, incompatible data hubs and duplication of data. These all increase the cost of producing quality statistics.

A recognized framework for official statistics would facilitate collaboration of data producers from different jurisdictions and sectors on harmonizing concepts and methods. This includes balancing the need to address technical and legislative barriers for data sharing with the respect for jurisdictional autonomy. Failing to coordinate these data with common statistical standards and methods represent lost opportunities for effectively addressing Canada's most pressing problems. Conflicting information and confusion fuel misinformation and disinformation, and waste financial resources.



2

Defining official statistics

The government should examine options for incorporating a definition of official statistics in legislation and in federal governance. Surprisingly, there is no reference to official statistics in Canada's *Statistics Act*. The term is used sporadically on Statistics Canada's website and is not defined.

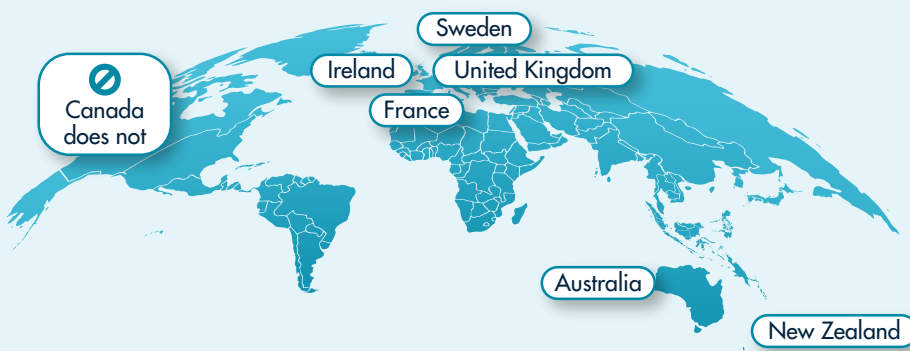
While Statistics Canada is a major source of what should be deemed as official statistics, other jurisdictions and non-government sectors also produce quality information that contribute to understanding national and regional trends and which could also be considered official statistics.

Over the years Statistics Canada has played a leadership role in developing standard statistical concepts and definitions, working with international organizations such as the United Nations, the Organisation for Economic Co-operation and Development and the International Monetary Fund. Yet Canada remains one of the few countries amongst its peers in terms of statistical methodology and technology

development that does not define official statistics in its legislation ⁴.

Statistics Canada endorses and adheres to United Nations Fundamental Principles of Official Statistics which include relevance, impartiality, professional standards, transparency and confidentiality. These principles should be the basis of official statistics produced throughout the national statistical system. This could include fostering the adoption of these principles by non-government sectors such as Indigenous organizations, academia, the private sector and non-governmental organizations. A public dialogue is needed on interpreting these principles as they relate to the Canadian context to ensure they are clearly articulated and commonly understood.

Examples of countries who define official statistics in their legislation and publish a repository, or register, of official statistics:





3

Authorities for producing official statistics need to be clear

The national statistical system requires clear legislative and governance authority and partnerships for the collection, production, assessment, sharing and access of official statistics. Current gaps lead to uneven standards and methods across federal departments as well as other jurisdictions and non-government organizations. These must be strengthened to ensure consistent quality statistics for all sectors of Canadian society.

The *Constitution*, the *Statistics Act* and data privacy and protection legislation are all areas where authority over statistics is outlined. However, their interpretations are too often met with a narrow focus and lack of clarity in the roles played by different actors in the national statistical system creating barriers to data flows across jurisdictions.

The *Canadian Constitution* provides the foundational authority for statistics in Canada. It bestows to Parliament the authority for the Census and statistics. The constitution refers more specifically to matters around representation, equalization transfers, equality rights, minority language rights and rights of Aboriginal peoples which require the Census and statistics to administer.

The *Statistics Act* is more explicit in denoting authority to Statistics Canada. It speaks to three general

areas of authority for the agency. Succinctly, Statistics Canada must first produce, analyze and disseminate statistical information relating to Canadian society. The Act specifically mentions the Census of Population, the Census of Agriculture and a list of social, economic, energy and financial statistics. Second, in producing these statistics, the agency must promote the avoidance of duplication and collaborate with federal departments to use their data. Third, Statistics Canada must also work with provinces⁵ to plan the development of integrated social and economic statistics for the whole of Canada and for each province.

Data privacy and protection legislation and policies cannot be obstacles to the national statistical system. They must recognize the authority of Statistics Canada to collect data, coordinate data flows, and allow for the adoption of emerging data practices.

Current authorities and responsibilities are ambiguous

In the recommended framework there should be no ambiguity in the interpretation of the legal authorities and responsibilities of Statistics Canada and other producers of official statistics.

Currently, the *Statistics Act* does not indicate how the agency should work with federal, provincial and other partners in sharing and integrating statistics. It does not specify protocols for data access and use of coordinated information across jurisdictions. Nor does it specify processes to accredit official statistics. Canada is essentially a cooperative federation which relies on good will and trust on the part of all stakeholders.

A clear framework of official statistics would facilitate collaboration and coordination across departments, jurisdictions, Indigenous organizations and other sectors who are also developing their own data strategies. Harmonizing data strategies across jurisdictions opens new opportunities for creating rich national databases. These data would become part of the national statistical system with common statistical definitions and standards. Promoting this harmonization is one of Statistics Canada's responsibilities under the *Statistics Act*.

Statistics Canada has a long history of collaborating with federal departments and other jurisdictions in areas such as health, education and environment statistics.

Some examples of how Statistics Canada works with across jurisdictions and organizations can be seen with the [pan-Canadian Health Data Strategy](#) and the [Canada Energy Regulator](#) which models uses of energy into the future. Other collaborative work informs today's dialogue on critical minerals, with [Statistics Canada's](#) statistics on the production and value of minerals and metals, and [Natural Resources Canada's](#) data and analysis on investments in exploration and development within this sector.

The [Canadian Research Data Centre Network](#) and [Health Research Data Network Canada](#) play essential roles in providing national quantitative research infrastructures for social, population health and business research.

Too often there is a lack of coordination and debates over jurisdictional authorities. These gaps have been the focus of much of the Council's [previous reports](#). The interpretation of Statistics Canada's legal authorities under the *Statistics Act* should be clear and these authorities cannot be diminished as new legislation is introduced.

There is also a need to clarify the roles and authorities of the Chief Statistician and those of the federal [Chief Data Officer of Canada](#) (CDO). The position of CDO has recently been created to support the objectives of the [2023–2026 Data Strategy for the Federal Public Service](#).

The CDO is responsible for better use of government data within the Public Service. The CDO's mandate includes creating and maintaining policies and procedures for managing public sector data, ensuring its quality, accuracy, and security. While the CDO does not provide statistical or methodological expertise, there seems to be overlap with the work of Statistics Canada. There is also lack of clarity in the interpretation of the scope of CDO's authority and its role as it relates to official statistics.

Statistics Canada's role should be unambiguous. With its internationally recognized expertise in statistical methods and data standards, Statistics Canada has played a leadership role in developing and implementing the federal data strategy including the technical data infrastructure required. The agency has in-depth knowledge of social, economic and environmental issues and advises on data development in support of community and policy decisions. It also has a strong track record creating linkage environments⁶ where various data sources can be effectively and securely collected and integrated for statistical analysis with modern statistical methods and technologies.

As the CDO office works closely with Statistics Canada on federal data management initiatives, it will be important to more clearly establish and communicate the role and authority of the CDO in relation to that of the Chief Statistician.



4

Official statistics must be accredited

Accreditation is an essential tool to ensure that the data in statistics repositories, such as the federal [Canadian Open Data Portal](#), meet professional statistical standards. Labels of accreditation of official statistics would help Canadians discern the credibility of data they find through an increasingly complex and wide range of sources from public and private sectors including online and social media.

The federal government should mandate Statistics Canada to develop a process for accrediting official statistics within the federal government. Countries who publish a repository, or register, of official statistics, such as Australia, France, Ireland, New Zealand, Sweden and United Kingdom, also publish their code of practice used to accredit official statistics. The codes are based on values of trust, quality, professional methods and ease of access.

Statistics Canada's Quality Assurance Framework, currently used for the agency's own statistics, could be used more broadly as a tool to formally accredit official statistics. Respecting the United Nations Principles of Official Statistics, this multi-dimensional framework looks at data quality in a holistic way, where quality, or fitness for use of statistical information,⁷ is defined in terms of six dimensions: relevance, accuracy, timeliness, accessibility, interpretability and coherence.

The federal government should also identify authorities for accrediting official statistics. This is a highly technical endeavour that requires profound statistical and methodology expertise rather than policy or administrative skills. Statistics Canada has the statistical expertise and capacity to carry out this work. Another option is an independent body of statistical experts. This model is used in the United Kingdom⁸. The required statistical expertise and capacity to do this comprehensive and ongoing work is, however, quite limited outside national statistical offices. Duplication of costs and capacity with Statistics Canada's quality assurance program would need to be considered as well as the impact on the agency's legislated independence.

5

A repository for official statistics must speak to all Canadians

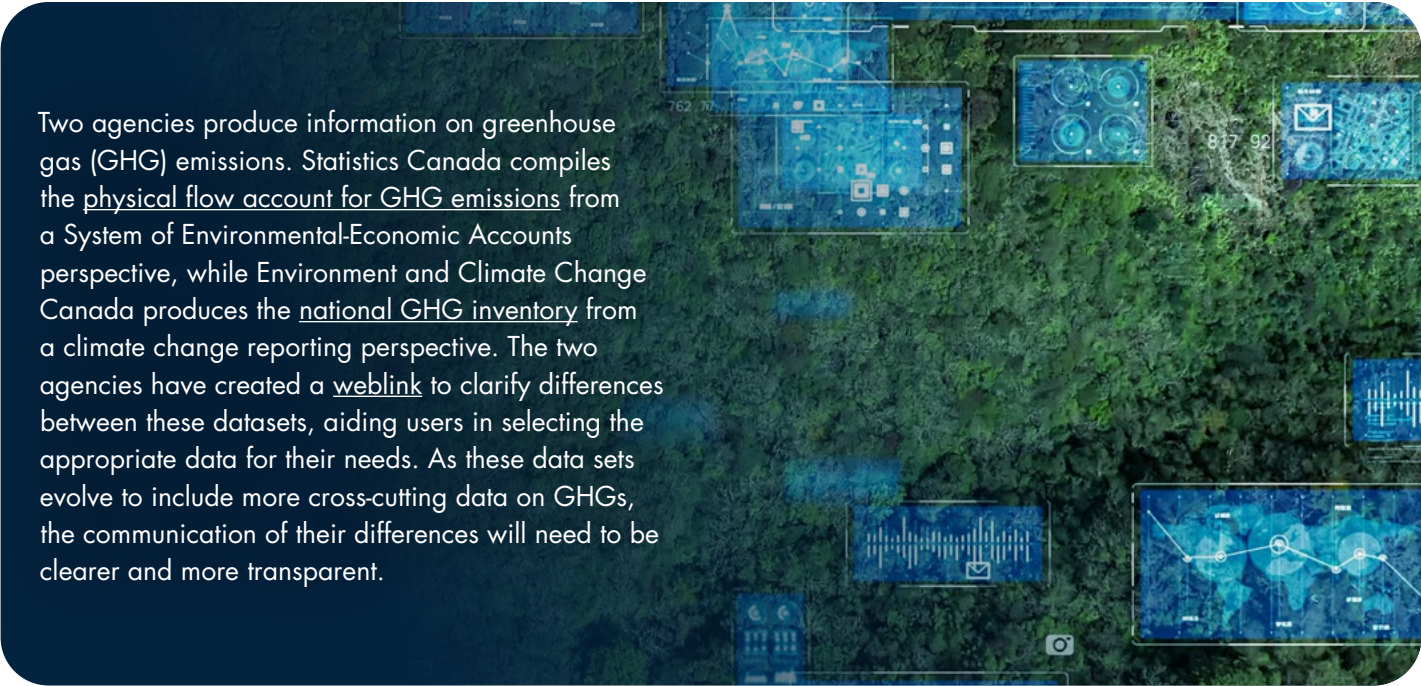
Like many of its international peers⁹, Canada should have a repository of official statistics.

To effectively collaborate and share data, one needs clear beacons for what are trusted and quality data. Within the national statistical system, the official source of national or regional statistics is not always clear. While Statistics Canada is recognized as the primary source of statistics on Canada's population and the economy, there are areas where multiple departments and jurisdictions produce statistical information on similar topics.

While much federal data are available from the [Canadian Open Data Portal](#), the portal does not distinguish between what could be deemed official and other statistics nor does it include information produced by other jurisdictions. Too often the metadata are lacking or vague, leaving the user unclear about how the data were developed or their suitability for decision-making.

When a framework of official statistics is established, the federal government could build on the Open Data Portal providing easy access to official statistics and data sets, with labels that identify their producers including Statistics Canada and other government agencies. The government could also consider building an independent repository that only contains official statistics.

Statistics Canada should collaborate with other jurisdictions including provinces, territories and Indigenous organizations to identify and promote opportunities for extending the framework to other jurisdictions within the national statistical system. While formal accreditation of these data may be a longer-term objective, the broader application of this framework would result in much richer and enlightened sets of data for understanding and acting upon priority national and regional issues.



Two agencies produce information on greenhouse gas (GHG) emissions. Statistics Canada compiles the physical flow account for GHG emissions from a System of Environmental-Economic Accounts perspective, while Environment and Climate Change Canada produces the national GHG inventory from a climate change reporting perspective. The two agencies have created a weblink to clarify differences between these datasets, aiding users in selecting the appropriate data for their needs. As these data sets evolve to include more cross-cutting data on GHGs, the communication of their differences will need to be clearer and more transparent.

Good practices across the national statistical system can be found for easy access to data Canadians need. A few examples:

Statistics Canada:
[Canadian Survey on Interprovincial trade](#)

First Nations Information Governance Centre:
[Housing: FNIGC Knowledge Lodge Search Results](#)

Alberta Energy Regulator:
[Central Data Hub for information about Alberta's oil and gas energy industry](#)

Canadian universities:
[Canadian Longitudinal Study on Aging](#)

British Columbia Hydro:
[Water, flows and reservoirs](#)

Canadian Chamber of Commerce:
[Real-Time Data for Canadian Businesses](#)

Institut de la statistique du Québec :
[Municipal population projections](#)

EnviroNics Analytics:
[PRIZM® segmentation system for understanding customers and markets](#)

Ontario Health Regions:
[Ontario Health System Performance](#)

Care Canada:
[Towards a Gender Just Future: Gender Equality Annual Report 2023](#)

City of Moncton:
[Open data for areas such as environment, transportation, housing](#)

6

Promoting trust in the national statistical system

The federal government should communicate with Canadians on why recognition and trust in official statistics are so important. First and foremost, official statistics are key to defining, measuring and articulating Canada as a sovereign nation and must reflect conscientious and moral principles of a democratic society. They provide Canadians with an unbiased shared narrative and common set of facts on the economic, social and environmental state of the country's diverse population and its regions. They are also important to understanding issues that affect the daily lives of Canadians and their quality of life. This includes issues on productivity, trade, climate change, health care, education, transportation, employment and cost of living, to name a few.

While the proposed framework for official statistics will allow Statistics Canada and the national statistical system to be more effective, they must continue to earn the trust and support of Canadians, the business community and government sectors. Statistics Canada and other producers of official statistics must be recognized as the source of quality statistics that Canadians need. This is only possible when Canadians relate to and see themselves in these data. Having easy access to accredited official statistics with clear labels and definitions would elevate this trust.

It is also a two-way street. National and regional statistics are based on data collected from Canadians. There must be a willingness for Canadians to share information for statistical purposes and for the public good¹⁰ which is a foundation of democracies and strong societies.



Sharing health data across jurisdictions has been a particular challenge which the Council has highlighted in our [previous reports](#). Federal, provincial, and territorial health ministers have recently agreed to continue to modernize the sharing of public health data between their governments.¹¹ An update to the 2014 Multi-lateral Information Sharing Agreement is expected by the end of 2025. Of particular interest will be updated bilateral and multilateral agreements to improve how health data are collected, shared, used and reported; and measures such as data stewardship and data confidentiality to increase trust and transparency.


Misinformation and disinformation affect the trust in statistical information from more official sources. Reliable official information increasingly competes with information produced with little or no scientific basis, especially when the latter is presented as “alternative facts”. According to [recent Statistics Canada studies](#), 43% of Canadians thought it was becoming harder to distinguish between true and false news or information and 73% reported having seen content online that they suspected to be false or inaccurate.

Examples of misinformation include questioning of Statistics Canada’s statistics on the price of consumer goods¹² and on the number of temporary migrants in Canada¹³. In both cases, the ensuing debates showed methodological flaws in the challenges to the agency’s methods and statistics.^{14, 15}

Also, foreign states are using disinformation to undermine Canadian democracy and economic well-being. President Trump has used disinformation as a pressure tactic to misrepresent the terms of trade between Canada and the United States.¹⁶ Russia and China use artificial intelligence and other disinformation tools to undermine democratic national elections around the world including Canada¹⁷.

Artificial intelligence is also contributing to the problem. In our [2024 Annual Report](#), the [Canadian Statistics Advisory Council](#) discussed benefits and challenges of artificial intelligence in statistics. Not all technologies are suitable for producing statistics, and methodology should never be trumped by technology. Improper use of artificial intelligence when collecting data or in data analytics can lead to an erosion of trust and disengagement of citizens.

To counter misinformation and disinformation, the federal government and Statistics Canada must do a better job of communicating to Canadians and to communities the real and positive benefits they get from well-informed policies based on information they provide to Statistics Canada and to other government agencies. The language describing Statistics Canada’s rigorous process¹⁸ to responsibly collect and use statistical information needs to be simple, and the message must resonate with examples that individual Canadians can relate to. The government must also be attuned to changing social norms and perceptions around the collection and use of personal information.



When used maliciously, disinformation lays the seeds of mistrust in public institutions including legal, government and financial sectors. This undermines the use of quality unbiased data for effective evidence-based decision making. It also undermines the country’s sovereignty.

Endnotes

- 1 The national framework for official statistics recommended in this report would be developed by the federal government and implemented within its federal jurisdiction. This would require collaboration with other partners within the national statistical system. This could also include identifying and promoting opportunities for extending the framework to other jurisdictions within the national statistical system.
- 2 This includes gender gaps, racism and systemic barriers, support for the creation of a world-class health data system, and support for Indigenous data sovereignty. There are also data gaps in other key areas that touch everyone, such as within the housing, economic, energy, and environment sectors. The valuation of data and data holdings, long missing from the United Nations guidelines on System of National accounts, is to be included in the upcoming 2025 revision.
- 3 The federal data strategy objectives address priority issues discussed by the Council in our [previous reports](#). This includes clarifying data leadership responsibilities across the federal government; embedding planning for data activities in policy, program and service development, delivery, monitoring and evaluation; providing clear expectations for resource allocation for data development; establishing a data stewardship model for the management of data and standards across the federal government; prioritizing open and responsible data flow to improve service to Canadians; and advancing a whole-of-government approach to the management and sharing of Indigenous data.
- 4 Examples of countries who define official statistics in their legislation and publish a register of official statistics include [Australia](#), [France](#) (in French only), [Ireland](#), [New Zealand](#), [Sweden](#), [United Kingdom](#)
- 5 The [Statistics Act](#) reference to provinces is interpreted to include territories as well.
- 6 Statistics Canada linkage environments include [Social Data Linkage Environment \(SDLE\)](#), [Business - Linkable File Environment \(B-LFE\)](#), [Canadian Employer-Employee Dynamics Database \(CEEDD\)](#)
- 7 Some users might appreciate a single quality rating. However, this is not practical, given that an assessment of quality depends on what the user needs the data for, and they may prioritize one of the six dimensions over another. For example, annual federal transfer payments to provinces and territories amounting to billions of dollars require economic and social indicators of the highest accuracy, while during the pandemic, Statistics Canada published more timely flash economic and employment indicators that were not as accurate as its regular monthly estimates.
- 8 [United Kingdom Accredited Official Statistics Policy](#)
- 9 Examples of countries with registers of official statistics include [Australia](#), [France](#), [Ireland](#), [New Zealand](#), [Sweden](#), [United Kingdom](#)
- 10 Public good describes actions by citizens and organizations performed for the benefit or well-being of the public.
- 11 <https://www.canada.ca/en/public-health/services/data/modernizing-information-sharing.html>
- 12 SaskToday (2024), [Commentary: Is Statistics Canada underreporting food inflation?](#)
- 13 Financial Post (2023), [David Rosenberg: Canada can't count to a million — and it's skewing the data policymakers need](#)
- 14 La Presse (2024), [Peut-on encore se fier à Statistique Canada ?](#) (in French only)
- 15 CBC (2023), [StatsCan to change how it counts non-permanent residents](#)
- 16 <https://www.cbc.ca/news/politics/trump-trade-war-disinformation-1.7489805>
- 17 [Cyber Threats to Canada's Democratic Process](#) by the Communications Security Establishment (CSE).
- 18 The terms “value proposition” and “risk management” are used to describe the rigorous process to responsibly collect and use statistical information. The value of statistical information generally increases with the level of in-depth and cross-cutting detail captured. Risk management weighs this value against the privacy incursion and considers the participant, the data collector and the data user.