Trust, Governance and Data Flows in the National Statistical System

2022 Annual Report

Canadian Statistics Advisory Council

Contents

Message from the Canadian Statistics Advisory Council

A national statistical system is the cornerstone to providing Canadians with timely, regional and local data they need. Canadians need trusted and detailed data that reflect their day-to-day experiences to make personal and family decisions and run their businesses. Governments also need access to high-quality data to design and deliver effective public services.

Presently, organizations in both the public and private sectors are driving the use of digital information, as well as generating new data at unprecedented rates. There is now a proliferation of data held by governments, financial institutions, corporations, the research sector, private data analytics firms and data mining companies. Yet abundance of data does not automatically translate into ease of use and insights. Appropriate data governance and coordination are needed for developing the right information Canadians and decision makers need.

This is exactly what we tackle in this year's report. We examine the need for new types of partnerships and data coordination to support Canadians and our leaders as the country recovers from the pandemic and deals with socioeconomic and global environmental challenges.

This focus builds on our first two reports. In 2020, our report showed how the COVID-19 pandemic made evident the statistical challenges of not having timely, consistent and disaggregated data in areas such as health and on racialized Canadians and Indigenous peoples. In our second report, in 2021, we focused on principles for the development of a national statistical system to address critical data needs, including data stewardship considerations, new partnerships, and capacities for making greater use of Canada's wealth of existing and potential data resources. We believe these are essential for building the infrastructure needed for a vibrant economy and a healthy population, and for meeting the pressing problems the country faces today and in the years to come.

For Canada to succeed in an increasingly dynamic digital world, Statistics Canada's leadership role in the national statistical system is key. The agency's employees should be commended for building on opportunities presented by the rapid changes sparked by the COVID-19 pandemic. They helped accelerate Statistics Canada's modernization efforts and reinforced the agency's position as a leader of innovation both at home and internationally. They also worked to create new infrastructure for collaborating and coordinating information.

In some areas, new partnerships, innovative data sources and data sharing technologies have made a big difference to the detail and timeliness of key indicators provided by Statistics Canada. These changes include completing the transformation to a contactless census, with most Canadians now filling out their census questionnaire online. The agency also reflected changing consumer spending practices in its calculation of inflation, used satellite imagery as an innovative data source to better capture growth of crops and made Canada the first country to introduce non-binary gender

on the census. The agency plays a leading and collaborative role internationally, creating and promoting cutting-edge statistical methods that recognize national interests.

Still, our work over the last three years shows that critical data gaps remain. In crucial sectors, the national statistical system is hampered by fragmentation, unused data and unmet data needs. New governance models are needed that drive innovative methods and data uses. These require broader partnerships to bring new perspectives. Furthermore, statistical legislation and policy practices must also be reviewed to re-evaluate the collection and use of critical data.

Through our work, we have observed that there are overly simplistic views on many issues that are fundamental to the statistical system. There is also a broad lack of data literacy. For example, there is no conflict between respect for the privacy of Canadians and the need for Canadians to contribute data to the national statistical system.

Yet researchers and decision makers are concerned over the inability to access the data they need. Some people question why data are being collected, how they will be used and what measures exist to protect data privacy. Many feel there are inadequate legislative and regulatory measures to promote the innovative use of data and at the same time protect the privacy of their personal information and prevent the potential harmful use of individual data.

We are grateful to Statistics Canada, the Chief Statistician of Canada (who is an ex officio member of the Council) and his excellent team for responding to our requests for information with both written and oral presentations. We would like to offer our very particular thanks to Romy Ochmann St-Jean, Sam Ndayishimye, Kacie Ha and Gaëlle Miollan of the Canadian Statistics Advisory Council Secretariat for their advice and assistance. We are also grateful for the work of Gail Mc Donald, Gurmeet Ahluwalia and Dr. Michael C. Wolfson and their insights as members of the Council.

For us, the best way to provide Canadians with these data is to ensure that the national statistical system has strong statistical leadership. This should be built upon mutually beneficial collaboration and partnerships across all levels of government and sectors. There is too much at stake for Canadians and communities not to have access to the statistical information they need to make decisions for today and tomorrow.

Signed:

The Canadian Statistics Advisory Council

Dr. Howard Ramos, chairperson
Annette Hester
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Executive Summary

Information and data are the foundations of a modern and diverse digital economy. They are also the foundations of national and official statistics. High-quality statistical information is among Canada's most valuable resources. A robust national statistical system is driven by innovation that crosses all sectors and communities. Canadians require disaggregated, timely, regional and local data to make personal and family decisions and run their businesses. Governments need these data to make informed decisions in times of crisis and every day as they provide public services.

The fast pace of social and economic change is affecting the kinds of data and analyses Canadians need. There has been a dramatic shift in how Canadians collect and receive information, with a proliferation of digitized data banks, sensor data and social media. New tools are being used to produce, collect, map, process, transform and visualize information.

However, data gaps remain in key areas that touch everyone, such as the environment and health. For example, there is a need to track and better understand the more frequent and devastating environmental occurrences to inform climate change policy and adaptation. As well, a recent expert advisory report to the Public Health Agency of Canada, **Toward a world-class health data system**[i], indicated that "failure to collaborate across Canada to build a learning health system risks continued escalation of health care costs, underperformance of health services and poor health outcomes including: avoidable illness and death, low levels of innovation, perpetuation of health inequities, and ineffective responses to future public health threats."

It is in the interest of Canadians, businesses and governments to ensure a national statistical system that promotes the sharing and integration of data across jurisdictions and sectors. For Canada to succeed in a dynamic digital economy, public and private organizations must collaborate to produce coherent and trusted statistical information. The true power of data comes with shared standards and coordination. There should be greater investment by the federal government and other sectors in implementing and maintaining state-of-the-art software and communications technologies to facilitate this data sharing. This would enable timely collection of important data to build a truly national data infrastructure.

As a country, Canada also needs to move past old debates around data and privacy that dominate ongoing discussions of these issues. The interpretation of statistical legislation needs to reflect a modern economy. For example, it is important to be able to responsibly obtain data not currently available in areas that are considered critical, such as in the energy, natural resources and environmental sectors.

This shift includes moving the thinking from simply the collection of data to also discussing the access and use of data. There needs to be a more extensive and informed conversation about the responsible, innovative use of data in a digital economy and the privacy of information. This includes a balance between individual rights and collective needs.

Recommendations

1. Maintain the authority and responsibilities of Statistics Canada

There is no conflict between respect for the privacy of Canadians and the need for Canadians to contribute data to the national statistical system. It is in the interest of Canadians, businesses and governments to ensure a national statistical system that protects the privacy of Canadians' data and at the same time promotes the sharing and integration of data across jurisdictions and sectors.

The Minister of Innovation, Science and Industry should ensure that the authority and responsibilities of Statistics Canada are not diminished or compromised by privacy or other legislation related to data and digital infrastructure.

2. Strengthen data stewardship within the national statistical system

Statistics Canada has a critical role to play in ensuring that Canada has the data it needs to successfully tackle social, economic and environmental challenges in a digital world. There should be no ambiguity around its responsibilities in national data standards and data flows.

2.1 The Minister of Innovation, Science and Industry should

(i) ensure that the authority and responsibilities of Statistics Canada as data steward within the national statistical system are strengthened, both in legislation and governance

(ii) ensure that new federal programs are mandated to include an assessment of data needs and have the resources to support the development and integration of data flows.

2.2 The Chief Statistician of Canada should

(i) maintain and build on the momentum of the agency's efforts in addressing data gaps through new partnerships, modernization and innovation

(ii) better navigate the complex landscape of data acquisitions from within the private sector and other sectors

(iii) continue to improve access to and use of data obtained by Statistics Canada.

3. Strengthen data sharing across jurisdictions

National data strategies should develop multi-jurisdictional approaches to addressing data needs in Canada, including provincial, territorial and regional data flows. When data are shared across jurisdictions, the benefits to health, social, economic and environmental outcomes increase dramatically.

The Minister of Innovation, Science and Industry should

(i) ensure there is the legal, governance and resource support required for coordinating and sharing data across jurisdictions according to data standards

(ii) ensure the federal government makes fiscal transfers contingent on data flows that can be integrated into the national statistical system.

Trust must be at the forefront of the national statistical system

The national statistical system is based on a foundation of trust. Canadians value the protection of the personal data they share. They also value Canadian innovation in supporting a modern digital economy.

Canadians entrust their data to Statistics Canada … Data protection is at the forefront of every activity the agency does, from the collection of individual data to access to detailed local results.

Canadians entrust their data to Statistics Canada, which has a long-standing track record of providing high-quality and timely statistics. The agency's statistical and technical expertise in creating nationally comparable data is highly regarded within Canada and internationally. Data protection is at the forefront of every activity the agency does, from the collection of individual data to access to detailed local results.

Canadians trust Statistics Canada more than other institutions. Almost 90% of Canadians trust Statistics Canada, according to an EKOS public opinion survey conducted in 2018.[ii] This is a much higher level of trust than that in other government institutions, banks and financial institutions, private market research or polling companies, and the media. As well, 98% of Canadians complete the census every five years. Also, rather than answer detailed financial questions on the census, the majority of Canadians allow Statistics Canada to access their income tax records.

At the same time, many studies, including the 2022 Edelman Trust Barometer: Trust in Canada,[iii] Charity Report[iv] and Proof Strategies CanTrust Index,[v] have shown a downward trend in trust in governments, businesses and media that predates the pandemic. This trend is driven by Canadians who feel anxiety as they deal with a rapidly shifting economy and a changing society, now compounded by the effects of the pandemic.

Yet this is precisely the time when Canadians and their governments require timely, independent, high-quality statistics. It has never been more important for Statistics Canada and the national statistical system to deliver on this service. Outreach by Statistics Canada to Canadians is important as they grapple with issues such as privacy and data literacy. The new Trust Centre web portal and the agency's Necessity and Proportionality Framework are good examples of how Statistics Canada is taking action to become more transparent about how data are collected and used.

Privacy legislation must recognize and integrate Statistics Canada's authorities

Laws and governance around statistics, data infrastructure and data protection need to be clear and unambiguous. They especially need to clearly define the authorities of governments and the rights of Canadians.

For example, in response to the COVID-19 pandemic, the Public Health Agency of Canada in 2020 began using smartphone mobility data[vi] to help develop public policy and determine where to allocate much-needed resources. This action met the needs and expectations of Canadians who wanted more granular and timely data on the trajectory of the pandemic. Although the government used properly de-identified data to assess mobility patterns, privacy advocates argued that the current regulatory framework and federal privacy laws do not adequately address the use of data, particularly de-identified or aggregated data. Such arguments favour individual concerns over the collective needs and expectations of society.

These concerns, however, can be mitigated through legislation and policy practice, as well as data literacy.

Canada and many other countries are reviewing their data protection laws, given the dramatic increase in the prevalence and use of personal information from administrative data. This review includes the consideration of new technologies, such as artificial intelligence, machine learning, and mobile and tracking data. Internationally, there are growing concerns about the data holdings collected by multinational companies and the information they scrape from the Internet. Canada needs to amend its legislation by the end of 2022 to comply with European Union legislation that affects, among other things, global trade.

In the spring of 2022, the Canadian government introduced Bill C-27, the *Digital Carter Implementation Act*.[vii] The proposed legislation will ensure the continued safety and trust of Canadians in the digital environment in terms of private sector use of personal information and use of technology.

The new legislation is very welcome as the federal government enables responsible data innovation in a data-driven, digital and global economy.

It revises the *Personal Information Protection and Electronic Documents Act* (PIPEDA),[viii] which set the ground rules for how private sector organizations collect, use and disclose personal information. The new legislation reflects the principles of the Digital Charter[ix] launched in 2019, a blueprint for digital transformation in Canada.

The Canadian Statistics Advisory Council supports the planned revisions to PIPEDA. The new legislation is very welcome as the federal government enables responsible data innovation in a data-driven, digital and global economy.

At the same time, the Council has concerns on what governance there will be for the interpretation and application of the legislation. Without the proper expertise and authorities, there is potential for ambiguity. Caution is needed to ensure that privacy concerns do not, through law or policy interpretation, compromise the ability of government, the private sector and the research sector to access and use critical data in responsible, innovative ways.

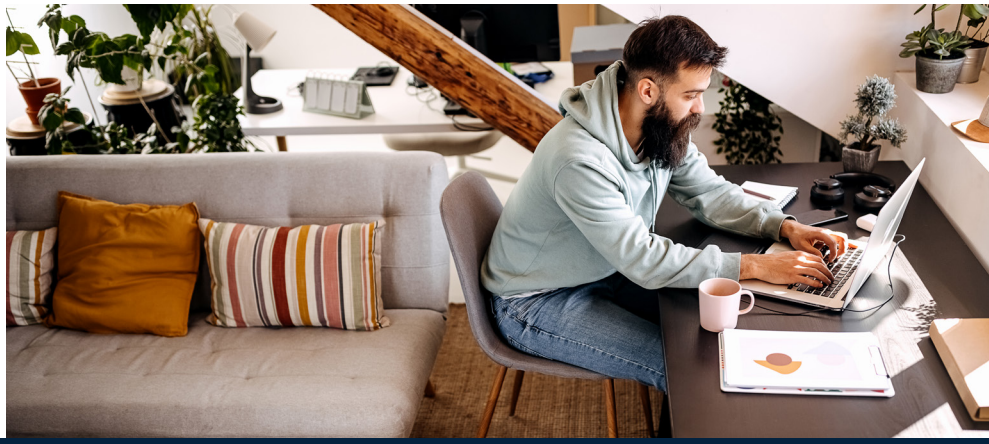
Statistics Canada has the legal authority to collect federal, provincial and territorial data under the *Statistics Act*. The act also gives the agency the authority to collect data from the private sector and individuals. Most provincial and territorial jurisdictions include provisions in their data protection laws to permit data sharing with Statistics Canada for statistical purposes. The confidentiality of this information is already protected under the *Statistics Act*.

It is disconcerting that excessive powers of oversight and enforcement on technical statistical matters, such as those related to the use of de-identified data, would be attributed to the Privacy Commissioner in the proposed legislation.

Technical statistical matters should be assessed and governed by statistical experts in conjunction with privacy officials. The Council continues to advocate that federal, provincial and territorial data protection laws and policies recognize the imperative of data sharing for statistical purposes. There should be no legislative ambiguities with regard to Statistics Canada's authority to obtain these data under the *Statistics Act*.

The Council's recommendation this year reinforces this point. Federal agencies should work with Statistics Canada to ensure revisions to privacy legislation recognize and integrate these authorities for statistical purposes. All sectors should understand that the new legislation does not impede the coordination and sharing of data with Statistics Canada. Rather, new statistical methods and technologies have opened up possibilities to continue to protect the privacy of Canadians' personal information while bringing together more granular social, economic and environmental data that are important for tackling the issues Canadians face.

There is no conflict between respect for the privacy of Canadians and the need for Canadians to contribute data to the national statistical system



Statistical governance and data flows must be strengthened

Data gaps in areas such as health, the economy and the environment touch everyone, and Canadians are continuing to pay the price for a lack of coordinated and accessible data. For example, there is a need to track and better understand the more frequent and devastating environmental events to inform climate change policy and adaptation. These include floods, forest fires and droughts affecting Canadians and the country's natural resources. There also must be a better understanding of how business data critical for economic indicators can be provided without affecting a business's competitiveness. There is a need to understand and address barriers and inequities faced by racialized groups and Indigenous peoples, across Canada and at the local level. Canadians are also adopting new social, consumer and labour practices as a result of societal changes that have been evolving over decades. Accelerated and amplified by the pandemic, many of these practices will remain in some form.

Strengthening the national statistical system requires long-term and sustained leadership and commitment from the public, private and non-governmental sectors across Canada. A truly national statistical system is one where all sectors play a role. At the same time, stronger authorities and governance are necessary to ensure the coordination of data across sectors and to promote data flows in areas where barriers have hindered progress for many years.

Central to improving data flows within the Canadian statistical system are better relationships and partnerships across jurisdictions and with Indigenous peoples, the academic sector, non-governmental organizations (NGOs) and the private sector. When founded on trust, respect and meaningful engagement, these partnerships can lead to mutually beneficial opportunities, creating the data Canadians need and providing access to these data.

Movement toward a more comprehensive and inclusive national statistical system would benefit from broader consultations and engagement with stakeholders and communities. These include outreach to experts and voices that may at times be non-conventional.

Central to improving data flows within the Canadian statistical system are better relationships and partnerships.

Statistics Canada's legal mandate includes promoting and facilitating the interoperability of data flows.

Statistics Canada's legal mandate includes promoting and facilitating the interoperability of data flows so that data collected and shared from a range of public and private sources can better contribute to the national data system. While the agency's legal mandate and stewardship have served Canadians well, they need to be strengthened to deal with new and long-standing barriers to data development and data flows.

The agency should be recognized as a prime national data steward to ensure that Canada has the data it needs. There should be no ambiguity around its responsibilities and authorities. The Council's 2021 report[x] presented principles of data stewardship that outline the relationships Statistics Canada should have with other government jurisdictions, Indigenous organizations and the private sector. The key duties of such stewardship are around coordinating data, setting shared standards and promoting the exchange of data.

Federal statistical system

In 2019, the federal government launched the Digital Charter, a blueprint for digital transformation in Canada. This is too important to be left to informal ad hoc initiatives. In Budget 2021,[xi] the government reinforced its commitment to a whole-of-government approach to help protect people's personal data and encourage innovation in the digital marketplace. Defining and prioritizing data needs should thus be an integral part of federal program planning. Without a holistic approach, opportunities and investments are lost.
Too many government programs lack an upfront assessment of statistical measures required to successfully develop, monitor and assess the relevance and effectiveness of programs. They also often fail to consider the resources needed to fulfill such assessments. Opportunities are missed for collaborating with other programs to develop data strategies that would not only serve common needs, but result in more comprehensive and enriched data.

The stewardship role of Statistics Canada must be clearly articulated and recognized in the governance of federal program planning to ensure the right statistics are identified and developed. With federal programs representing billions of dollars in investments, there is a significant financial cost to keeping the long-standing culture of narrow and siloed departmental data governance. This situation also adds a burden for Canadians, who are unnecessarily asked to provide the same information in multiple surveys and to different parts of the federal government, not to mention other jurisdictions.

The 2021 federal budget tasked Statistics Canada with creating a Disaggregated Data Action Plan to fill data and knowledge gaps. As Statistics Canada continues to consider new approaches to enable more detailed data on diverse population groups, the Disaggregated Data Action Plan

has allowed the agency to improve and expand data collection in its major surveys. For example, this has resulted in the release of labour market information for visible minority groups. As well, Statistics Canada will now be able to release timely data on business conditions in Canada for businesses that are majority-owned by women, by visible minority sub-populations, by Indigenous peoples, by persons with a disability, and by immigrants to Canada. In addition, the agency has been a leader in linking data including administrative data to make up for shortfalls in other sources of information. An integrated approach through innovation and use of multiple and modern methodologies generally means more disaggregated data can be produced.

Provincial, territorial and regional data flows

As a national data steward, Statistics Canada does not have to, and should not, collect and control all the data in the country. Most data in Canada are collected by government departments at all levels of jurisdiction and by the private sector. Collected primarily to meet the administrative and operational needs of organizations, these data can be invaluable to the national statistical system if they are collected in a coordinated manner with common data standards.

When data are shared across jurisdictions, the benefits to health, social, economic and environmental outcomes increase dramatically. For example, to meet the demands for new types of data on biodiversity, clean technology, sustainable agriculture and reduction in plastic waste, there needs to be more sharing and integration of energy and environmental data from provincial and territorial governments, environmental NGOs, academic researchers, and the private sector.

National data strategies should present multi-jurisdictional approaches to addressing data needs in Canada, including provincial, territorial and regional data flows. There should be greater investment by the federal government and other sectors in implementing and maintaining state-of-the-art software and communications technologies to enable and coordinate the timely collection of important data across jurisdictions to build a truly national data infrastructure.

Integrating data at provincial and territorial levels has added complexity when jurisdictions become siloed, and legislation and policies create barriers to data sharing. It has been next to impossible to develop national comparative data for some critical areas.

For example, health is a complex and intricate sector, with large numbers of subsectors that interconnect with many social, economic and environmental disciplines. The governance structures for health data are often fragmented, with limited authority to coordinate data nationally. There is no central governance structure in Canada to oversee pan-Canadian health statistics. The recent expert advisory report to the Public Health Agency of Canada, **Toward a world-class health data system**,[xii] and this agency's Pan-Canadian Health Data Strategy[xiii] represent positive efforts to address these issues.

There is also no central governance structure in Canada to provide official statistics in other domains such as the environment, natural resources and energy. Given the relevance of environmental challenges for decades to come, data requirements and funding for these areas should be based on a holistic approach involving all levels of government and private sector companies. As Canada moves to tackle climate change and address the United Nations' Sustainable Development Goals, it needs to transition from collecting information on resources alone to creating new models and measures that transcend jurisdictions to look at energy, the environment, the economy and social demographic factors multidimensionally. To be effective at tackling the greatest problem that countries will face this century, coordination and partnerships will be key.

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More substantive debates are required about holding provinces and territories accountable to Canadians in terms of sharing data and statistical information for the billions of dollars transferred annually to provide health services. As the Council has recommended in previous reports, there should be an obligation under the transfer agreements for provinces and territories to share individual-level data with Statistics Canada for statistical purposes.

Indigenous Data Strategies

Indigenous-led data strategies are integral to the national data system. First Nations, Inuit and Métis communities are developing distinctions-based approaches to asserting their unique jurisdiction, ownership and control over their data. Indigenous-led data development and capacity investments are essential at the community, regional and national levels to support these efforts. Statistics Canada can play an important role in enhancing opportunities for communities and organizations to contribute to nationwide data development.

Relationships with governments are important in shaping trust and building partnerships. Over the coming years, as First Nations, Inuit and Métis implement their data strategies, there are opportunities for new collaborative frameworks to foster meaningful and long-term partnerships, enable mutual learning across jurisdictions, advance innovation, and guide transformative initiatives toward a more inclusive and stronger national statistical system.

Distinctions-based relationships ensure that the unique rights, interests and circumstances of First Nations, Inuit and Métis over their data are acknowledged, affirmed and acted upon.

For this approach to be successful, First Nations, Inuit and Métis must be fully part of the governance structures of the national statistical system. In particular, Indigenous peoples, through their representative data organizations, should participate at appropriate federal data committees and tables.

The First Nations Information Governance Centre[xiv] and its regional partners are playing a leadership role in developing and implementing the First Nations Governance Data Strategy.[xv] This strategy reflects priorities for establishing a First Nations-led network of fully functioning, interconnected data and statistical service centres, or Regional Information Governance Centres. This process includes developing all the capacities needed to best meet the data and statistical needs of First Nations communities, their governments, and their political and service delivery organizations.

The communities of Inuit Nunangat[xvi] face particular opportunities and challenges in the rapidly changing Canadian Arctic. Inuit Tapiriit Kanatami[xvii] has developed the National Inuit Strategy on Research[xviii] to improve the way Inuit

Indigenous-led data strategies are integral to the national data system.

Nunangat research is governed, resourced, conducted and shared. ArcticNet's[xix] Inuit-led research program involves universities, companies, governments, non-profit organizations and Indigenous organizations across Canada and worldwide to advance collective knowledge of the Arctic through research and knowledge sharing efforts.

The Métis National Council[xx] has created web information portals and data tools to share information on Métis Nation governance in areas such as the environment, economic development and Métis healing.

Today, much Indigenous-led research and efforts to leverage their own data are hampered by how data on Indigenous peoples can be accessed and used once they are collected. The national statistical system would benefit from Statistics Canada working with Indigenous organizations, federal agencies and other jurisdictions to resolve long-standing legal and policy issues around data sovereignty.

Private sector

There is a wealth of private sector data in this country that are not integrated within the national statistical system. The need for timely sharing and integrated analysis for the public good has never been more critical. When built upon shared standards and definitions, these data can fill critical gaps and help inform some of the more complex social, economic and environmental issues Canadians face.

Many leading-edge private sector organizations are driving the use of digital information to do just that. As Canadians show an appreciation for the value of good data, there is an opportunity for increased collaboration with private sector partners. Statistics Canada has a role to play in helping coordinate data standards, promote data flows and ensure data protection.

At the forefront of this issue is building and maintaining a strong position of trust with Canadians in an environment of heightened sensitivity for the protection of personal data. The ability of Statistics Canada to partner with the private sector can be hampered by ambiguity or misperceptions of existing legislation and policy practices. There needs to be more informed public dialogue in Canada about the alignment of data in a digital economy that is key to effective decision making and the privacy of information.

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Canada's future success is contingent on a strong national statistical system

The value of the wealth of data in Canada is strongly correlated with cutting-edge innovations in how they are collected and used. Increasingly, detailed microdata are required by researchers and policy makers to better understand and address multidimensional issues. Informative statistics are founded on relevant, high-quality data, accessible from both established and innovative sources. Machine sensors, mobile phone data, banking data, administrative records and the Internet are at the cutting edge of data collection. The future of statistics is tied to the use of these new forms of data and measures that reflect the needs and concerns of the 21st century.

To this end, Statistics Canada's effort to modernize with investments in data science and cloud computing has been key. Infrastructure that promotes collaboration and coordination is essential. The agency has been a leader internationally in developing satellite data to help fill the deficiencies of surveys and censuses, as well as moving to new means of accessing and sharing information. Data are more accessible compared with having to visit the older brick-and-mortar data centres. The agency is also a leader in developing statistical concepts and data standards, such as new sociodemographic measures on gender and ethnocultural diversity.

Canada's future success is contingent on a strong national statistical system. It will be important to build on the momentum of new partnerships and modernization. At the same time, statistical governance and data flows must be strengthened to overcome long-standing data gaps in the critical areas of health, the economy and the environment. The roles and responsibilities around data coordination and integration must be unambiguous.

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Definitions

Administrative data are holdings of individual records collected by government departments and other organizations for the purpose of administering benefits, services and taxes. Under provisions of the *Statistics Act*, administrative data can be shared with Statistics Canada for statistical purposes.

Data stewardship, in support of the national statistical system, is the coordination and facilitation of nationwide data to inform Canadians and the country's public and private decision makers. It ensures these data are of high quality, easily accessible and used in a consistent manner. It includes data collected and managed by federal, provincial, territorial, municipal and Indigenous jurisdictions, as well as by the private sector.

Distinctions-based Indigenous led processes for First Nations, Inuit and Métis, both in and outside their communities, acknowledge the unique rights and jurisdiction of each group to maintain ownership and control over data that relate to its identity, people, language, history, culture, communities, and nations, both historical and contemporary. Each will establish laws and regulations to govern its data and determine how they will be managed, accessed and shared with other governments, organizations or individuals. Each is unique and distinct.

Equity-deserving groups are designated groups under the *Employment Equity Act* for which the government is required to strive to meet representation levels based on estimated workforce availability. They include women, Indigenous peoples, persons with disabilities and members of visible minorities. The term also includes other groups that are disadvantaged, such as members of the 2SLGBTQIA+ community, who are not recognized in the act but are increasingly considered in government policies.

Indigenous as a term in this report is understood at all times to mean First Nations, Inuit and Métis, living both in and outside their communities. Indigenous organizations, as referenced in this document, include the Assembly of First Nations, the Congress of Aboriginal Peoples, the First Nations Information Governance Centre, Inuit Tapiriit Kanatami, the Métis National Council and the Native Women's Association of Canada.

Integrating data involves linking records from different data sources on the same entity (i.e., a person or business). Microdata linkage is an internationally recognized statistical method that maximizes the use of existing information by linking different files and variables to create new information that benefits Canadians. Integrated microdata files should generally be created independently for research activities, and only on an as-needed basis. Linkage, storage and disposal protocols ensure the confidentiality of personal information.

Interoperability is the ability of different systems or products to connect and communicate in a coordinated way.

Microdata are individual records containing information collected from the census, surveys, administrative data and other sources. They may represent an individual, a household, a business or an organization. The confidentiality of identifiable information about individuals is protected under the *Statistics Act*.

Necessity and proportionality refer to principles applied to the collection of information. Statistics Canada considers needs for data to ensure the well-being of the country (necessity), and it also tailors the volume and detail of the data collected to meet these needs (proportionality).

A **non-governmental organization (NGO)** is a non-profit organization that operates independently of any government, typically one whose purpose is to address a humanitarian, social or political issue.

Racialized is a term increasingly used in place of "visible minority," a term that has been criticized in Canada and internationally, including by the United Nations. Racialized refers to people or groups who are categorized or discriminated against because of their racial background or appearance.

Statistical information is the added value to statistics resulting from quantitative interpretation, modelling and analysis. It can take many forms, including charts, interactive visualizations and analytical articles.

Endnotes

[i] Expert Advisory Group Report 3: Toward a world-class health data system, Public Health Agency of Canada, 2022; https://www.canada.ca/en/public-health/corporate/mandate/about-agency/external-advisory-bodies/list/pan-canadian-health-data-strategy-reports-summaries/expert-advisory-group-report-03-toward-world-class-health-data-system.htm

[ii] EKOS Survey of Canadians' Views on Statistics Canada, 2018; https://www.statcan.gc.ca/en/consultation/2018/scvsc

[iii] Edelman Trust Barometer: Trust in Canada, 2022; https://www.edelman.ca/trust-barometer/2022-edelman-trust-barometer-trust-canada

[iv] The Charity Report, 2022; https://www.thecharityreport.com/news/%EF%BF%BCpublic-trust-in-government-and-institutions-further-deteriorating/

[v] Proof Strategies, CanTrust Index, 202; https://getproof.com/what-we-do/cantrust/

[vi] Collection and use of mobility data by the Government of Canada and related issues, Report of the Standing Committee on Access to Information, Privacy and Ethics, 2022; https://publications.gc.ca/collections/collection_2022/parl/xc73-1/XC73-1-1-441-4-eng.pdf

[vii] Bill C-27: *Digital Charter Implementation Act*, introduced 2022; https://www.parl.ca/legisinfo/en/bill/44-1/c-27

[viii] *Personal Information Protection and Electronic Documents Act* https://www.priv.gc.ca/en/privacy-topics/privacy-laws-in-canada/the-personal-information-protection-and-electronic-documents-act-pipeda/

[ix] Canada's digital charter in action: a plan by Canadians, for Canadians, 2019; https://publications.gc.ca/site/eng/9.873181/publication.html

[x] Canadian Statistics Advisory Council 2021 Annual Report – Strengthening the foundation of our National Statistical System https://www.statcan.gc.ca/en/about/relevant/CSAC/report/annual2021

[xi] Budget 2021: A Recovery Plan for Jobs, Growth, and Resilience; https://budget.gc.ca/2021/home-accueil-en.html

[xii] Expert Advisory Group Report 3: Toward a world-class health data system, Public Health Agency of Canada, 2022; https://www.canada.ca/en/public-health/corporate/mandate/about-agency/external-advisory-bodies/list/pan-canadian-health-data-strategy-reports-summaries/expert-advisory-group-report-03-toward-world-class-health-data-system.htm

[xiii] Pan-Canadian Health Data Strategy; https://www.canada.ca/en/public-health/programs/pan-canadian-health-data-strategy.html

[xiv] First Nations Information Governance Centre; https://fnigc.ca

[xv] A First Nations Data Governance Strategy, 2020; https://fnigc.ca/wp-content/uploads/2020/09/FNIGC_FNDGS_report_EN_FINAL.pdf

[xvi] Inuit Nunangat is the homeland of Inuit in Canada. It consists of four northern Canadian regions: the Inuvialuit Settlement Region, Nunavut, Nunavik in northern Quebec, and Nunatsiavut in Newfoundland and Labrador.

[xvii] Inuit Tapiriit Kanatami; https://www.itk.ca

[xviii] National Inuit Strategy on Research; https://www.itk.ca/wp-content/uploads/2018/04/ITK_NISR-Report_English_low_res.pdf

[xix] ArcticNet; https://arcticnet.ulaval.ca/

[xx] Métis National Council; https://www.metisnation.ca