

A Safe and Inclusive Approach to Disseminating Statistical Information about the Non-binary Population in Canada

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Overview

- Guiding principles and context ⇒ Methodological aspects of gender dissemination
- 2021 Census of Population: ~~sex~~ gender and sex at birth questions, dissemination strategy based on a **new 2-category gender variable (Men+, Women+)** and some findings
- **Recommendations for social surveys** on collecting and disseminating gender information
- **Supporting documentation:** communication tools, reference documents and presentations
- **Current and future work:** updating gender question for the 2026 Census, filling data gaps on the intersex and Two-Spirit populations, and releasing publications on the transgender and non-binary populations

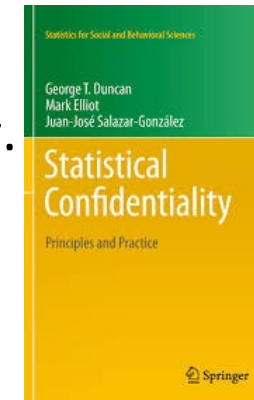
Disclaimer: The views expressed here are those of the authors and do not necessarily reflect those of Statistics Canada

Some Guiding Principles

- Duncan et al. (2021) nicely convey the dual mission of National Statistical Organizations (NSOs)

[A NSO] *is serving two masters* [providing high quality information and protecting confidentiality], *each with conflicting interests and concerns*.

⇒ In practice, NSOs must find proper balance between utility and confidentiality protection considering all relevant factors



- StatCan collects personal data (privacy) that, once entrusted to the Agency *under the Stats Act*, becomes confidential – less sensitive is no less confidential; it is then protected against unauthorized access and use (security) as it gets transformed into quality statistical information to be safely released (using confidentiality protection measures)

Some Guiding Principles

Fundamental Principles of Official Statistics

In 1992, the United Nations Economic Commission for Europe (UNECE) adopted the fundamental principles of official statistics in the UNECE region. The [United Nations Statistical Commission](#) adopted these principles in 1994 at the global level. The Economic and Social Council (ECOSOC) endorsed the Fundamental Principles of Official Statistics in 2013; and in January 2014, they were adopted by General Assembly. This recognition at the highest political level underlines that official statistics - reliable and objective information - is crucial for decision making.

1. Relevance, impartiality and equal access

Official statistics provide an indispensable element in the information system of a democratic society, serving the government, the economy and the public with data about the economic, demographic, social and environmental situation. To this end, official statistics that meet the test of practical utility are to be compiled and made available on an impartial basis by official statistical agencies to honour citizens' entitlement to public information.

2. Professional standards and ethics

To retain trust in official statistics, the statistical agencies need to decide according to strictly professional considerations, including scientific principles and professional ethics, on the methods and procedures for the collection, processing, storage and presentation of statistical data.

3. Accountability and transparency

To facilitate a correct interpretation of the data, the statistical agencies are to present information according to scientific standards on the sources, methods and procedures of the statistics.

4. Prevention of misuse

The statistical agencies are entitled to comment on erroneous interpretation and misuse of statistics.

5. Sources of official statistics

Data for statistical purposes may be drawn from all types of sources, be they statistical surveys or administrative records. Statistical agencies are to choose the source with regard to quality, timeliness, costs and the burden on respondents.

6. Confidentiality

Individual data collected by statistical agencies for statistical compilation, whether they refer to natural or legal persons, are to be strictly confidential and used exclusively for statistical purposes.

7. Legislation

The laws, regulations and measures under which the statistical systems operate are to be made public.

8. National coordination

Coordination among statistical agencies within countries is essential to achieve consistency and efficiency in the statistical system.

9. Use of international standards

The use by statistical agencies in each country of international concepts, classifications and methods promotes the consistency and efficiency of statistical systems at all official levels.

10. International cooperation

Bilateral and multilateral cooperation in statistics contributes to the improvement of systems of official statistics in all countries.

Context

- Recently in Canada:
 - Public awareness and sensitivity towards 2SLGBTQI+ populations have grown substantially
 - Legal changes were made with respect to gender e.g., *Canadian Human Rights Act* and *Criminal Code* were amended in 2017 to protect gender identity and expression
 - Gender data gaps were identified
- 2018 Government-wide policy direction: collection of accurate gender data should be the default for all federal organizations ⇨ *Sex at birth* only when necessary (previous survey interpretations of 'sex' were conflating the two, sex at birth and gender)

Context

- 2018 Survey of Safety in Public and Private Spaces: first large-scale survey conducted by StatCan to collect information about gender and sex at birth
 - ✓ 1 in 400 people (0.24%) aged 15+ were transgender or non-binary: Very small populations
 - ✓ Important differences in victimization, discrimination and mental health by the gender diversity status of respondents: Enhanced sensitivity

The screenshot shows the Statistics Canada website header with the logo and navigation menu. Below the header is a breadcrumb trail: Home > 85-002-X > Juristat > Main page. The main heading of the report is "Experiences of violent victimization and unwanted sexual behaviours among gay, lesbian, bisexual and other sexual minority people, and the transgender population, in Canada, 2018". A "Highlights" section contains the following bullet point:

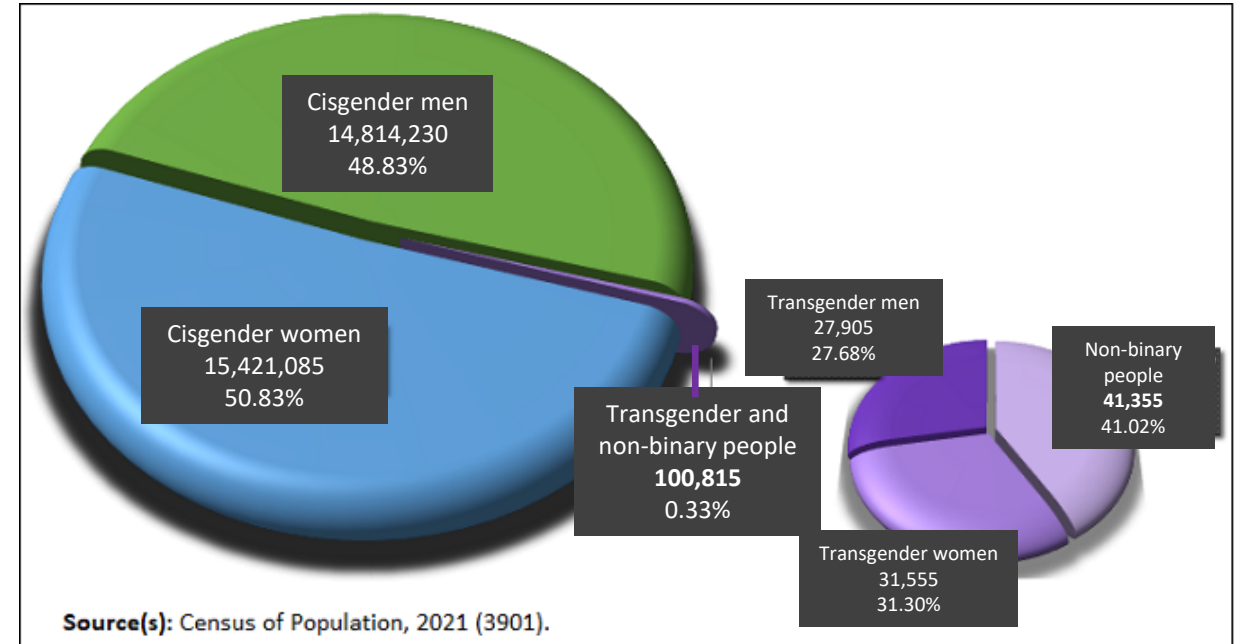
- Transgender Canadians were more likely to have experienced violence since age 15, and also more likely to experience inappropriate behaviours in public, online and at work than cisgender Canadians.



Census: Disseminating Statistical Gender Information

- Factors to consider about the non-binary population in Canada:

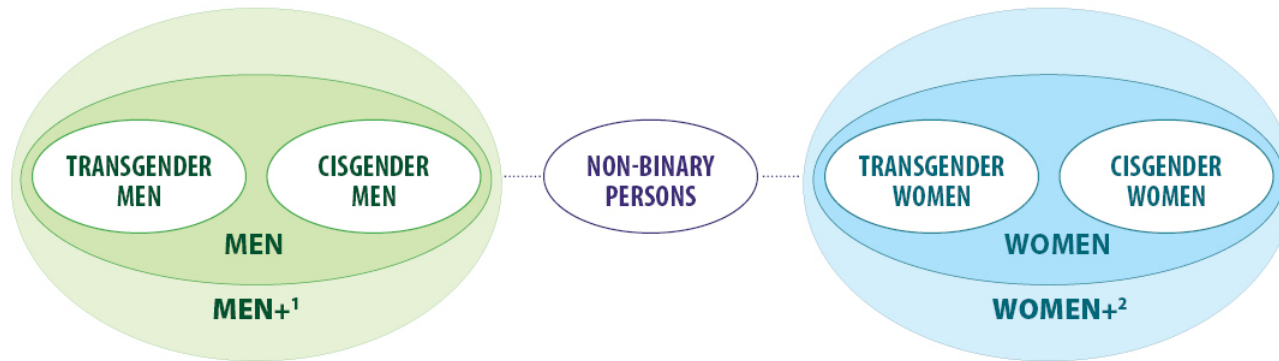
- Very small in size
- Subject to heightened discrimination and violent victimization
- New area of dissemination of statistical information: in 2022, Canada became the first country to disseminate on gender based on census data



- While committed to providing the most useful information, best quality and confidentiality practices call for a cautious dissemination approach to be used: drawing conclusions from low quality statistical results can do more harm than good in this context

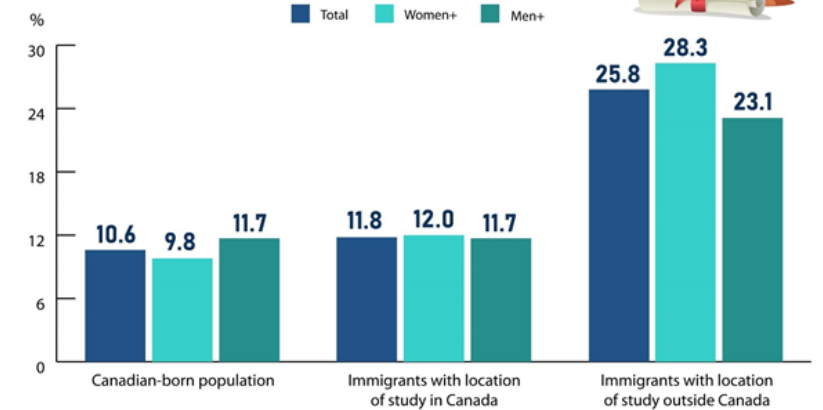
Census: Disseminating Statistical Gender Information

- After consulting experts on gender – many of whom with lived experience – and on confidentiality, **new 2-cat. gender variable (Men+, Women+)** was derived from collected data (Men, Women, Non-binary persons) and used at the lower dissemination levels: safe and more inclusive



1. This category includes men (and/or boys), as well as some non-binary persons.
2. This category includes women (and/or girls), as well as some non-binary persons.

Overqualification rate of degree holders aged 25 to 64, by immigrant status, location of study and gender, 2021



Note(s): Given that the non-binary population is small, data aggregation to a two-category gender variable is sometimes necessary to protect the confidentiality of responses provided. In these cases, individuals in the category "non-binary persons" are distributed into the other two gender categories and are denoted by the "+" symbol. The category "Men+" includes men, as well as some non-binary persons. The category "Women+" includes women, as well as some non-binary persons.
Source(s): Census of Population, 2021 (3901).


- In releases: Men+/Women+ in charts, figures and infographics, but Men/Women in text body
Among immigrants with a foreign degree, overqualification was higher among women (28.3%) than among men (23.1%)

Recommendations for Social Surveys

- In line with policy direction and Census, gender ~~sex at birth~~ at the forefront of social surveys
- Collecting detailed gender info. (3-cat.: Men, Women, Non-binary persons) by default – ethical and methodologically sound, allowing respondents to better identify with options proposed
- Disseminating statistical gender info. using the **new 2-cat. gender variable (Men+, Women+)** unless counts allow for a safe release based on 3-cat. gender e.g., in a general survey with 50K respondents, fewer than 100 non-binary persons are expected
- Disseminating based on sex at birth only when warranted: insufficient justifications include comparability over time (*sex at birth* \neq *sex*, as previously collected) and the mere presence of biological factors (as gender may be playing a major role too)
- Additional statistical disclosure control measures may be required

Recommendations for Social Surveys

- Implementation: 2-cat. gender is derived by survey team from collected gender data as
 - Transgender and cisgender men: Men+
 - Transgender and cisgender women: Women+
 - Non-binary persons: each record is ~~deterministically~~ randomly recoded to Men+ or Women+

 *The men+ category includes men and boys, as well as some non-binary persons. The women+ category includes women and girls, as well as some non-binary persons.*

- *Random* recoding is a hands-off approach, surrendering precise control over the outcome
- Recoding \neq Imputing (for nonresponse), as it is performed on *valid* answers for *confidentiality protection reasons* rather than on missing answers to enhance quality

Some Statistical Disclosure Control Options

- Random recoding e.g., based on Men/Women distribution at predetermined level

Fictitious numerical example

Gender (3)	Region 1	Region 2	Total
Men	30 (30 / 80 = 37.5%)	40 (40 / 115 = 34.8%)	70
Women	50 (50 / 80 = 62.5%)	75 (75 / 115 = 65.2%)	125
Non-binary Persons	2	3	5
Total	82	118	200



One possible outcome of the random recoding

Gender (2)	Region 1	Region 2	Total
Men+	30+2 (32 / 82 = 39.0%)	40+2 (42 / 118 = 35.6%)	74
Women+	50+0 (50 / 82 = 61.0%)	75+1 (76 / 118 = 64.4%)	126
Total	82	118	200

- ...or on modeling *but* without using strongly correlated auxiliary variables e.g., ~~using sex at birth~~ (more prudent and respectful)

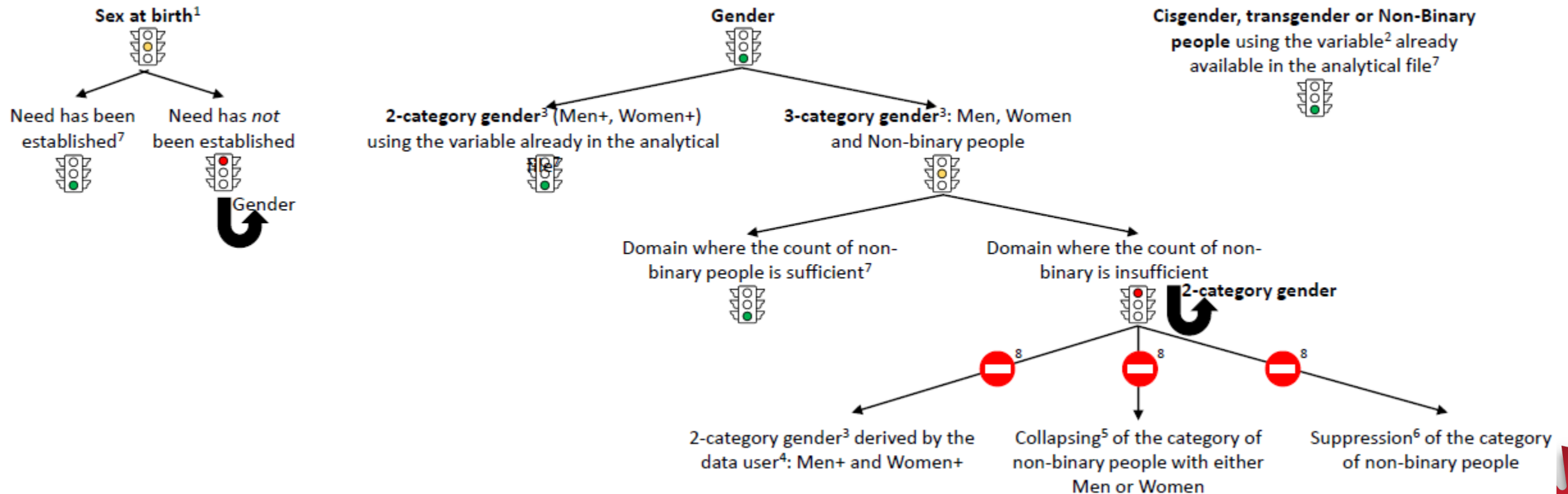
Supporting Documentation: Transparency and Accountability

- Communication tools aimed at the general public and data users:
 - [Factsheet](#); [Video](#); [Reference Guide](#); [Balancing the Protection of Confidentiality](#)
 - Reference documents that enhance transparency by outlining key considerations and promote accountability by improving users' understandability of gender-related official statistics include:
 - Forthcoming publication in StatCan's 2024 International Methodology Symposium Proceedings
 - Roadmap (see following slide)
- as well as numerous internal and external presentations, including:
- Canadian Research Data Centre Network
 - Data Liberation Initiative: 2023 Annual Virtual Training
 - 2023 Federal Committee on Statistical Methodology SOGI Research Group and 2024 Federal Committee on Statistical Methodology (USA)
 - StatCan's 2024 International Methodology Symposium

Supporting Documentation: Transparency and Accountability

Roadmap: a quick and visual reference outlining the various dissemination options

The Road to Disseminating Gender-Related Statistical Information, using either Gender OR Sex at Birth OR Gender Diversity



Gender and Sex at Birth Questions in the 2024 Census Test

Gender (response options for persons aged 15 or older)

What is this person's **gender**?

Gender refers to an individual's personal and social identity as a man (or a boy), a woman (or a girl) or a person who is not exclusively a man (or a boy) or a woman (or a girl), for example, non-binary, agender, gender fluid, queer or Two-Spirit.

- Man
- Woman
- Or please specify this person's gender:

Sex at birth

What was this person's **sex at birth**?

Sex at birth refers to the sex recorded on a person's first birth certificate. It is typically observed based on a person's reproductive system and other physical characteristics.

- Male
- Female



Current and Future Work

- Feasibility study of collecting quantitative data on the intersex population in Canada
- Engagement with Indigenous partners to inform the development of a statistical standard on Two-Spirit identity
- Forthcoming article on transgender and non-binary populations (Census 2021 data)
- Planned analysis on transgender and non-binary children and youth (Census 2021 data)

Thank you! Merci!

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Questions?

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