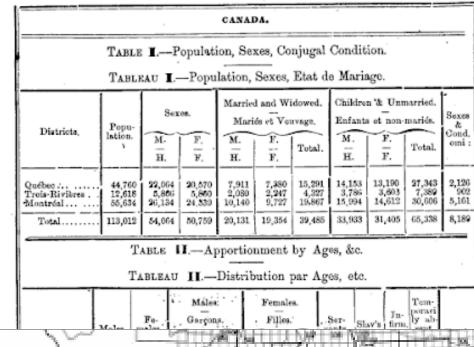
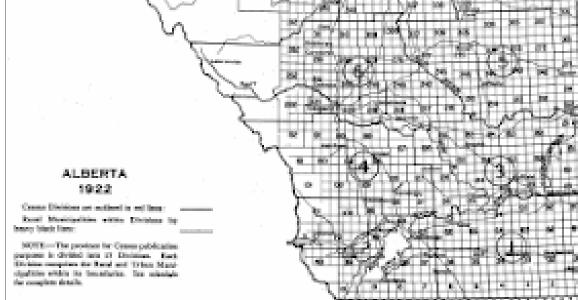
Canadian Census Data Discovery Partnership (CCDDP):

Building a comprehensive inventory for open discovery and pathways for sustainable stewardship

Leanne Trimble, University of Toronto



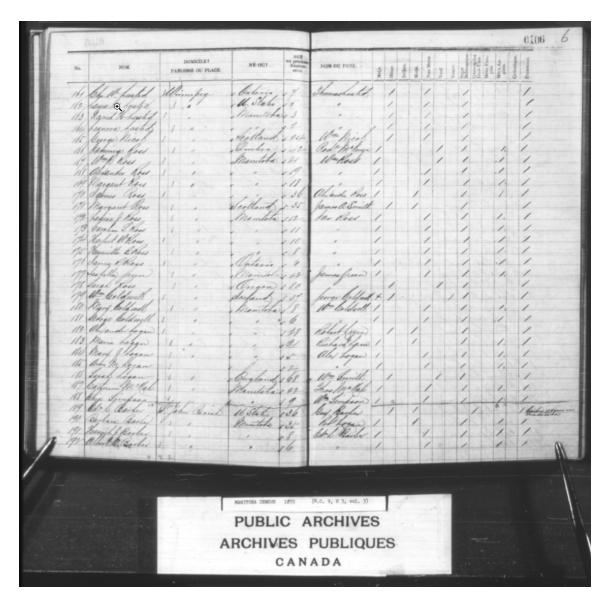


Canadian Census Data Discovery Partnership (CCDDP)

Our Vision:

- Build an open, bilingual, Census of Canada data discovery platform
- Foster collaboration between the academic and government sectors
- Reduce barriers to access and preservation of historical Canadian census data

Archival materials (census returns)

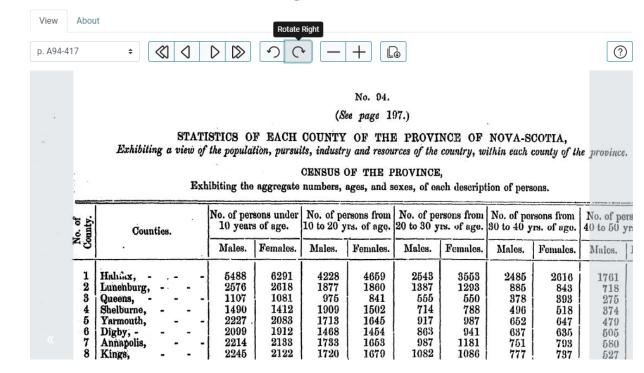


- Archival materials (census returns)
- Published tables

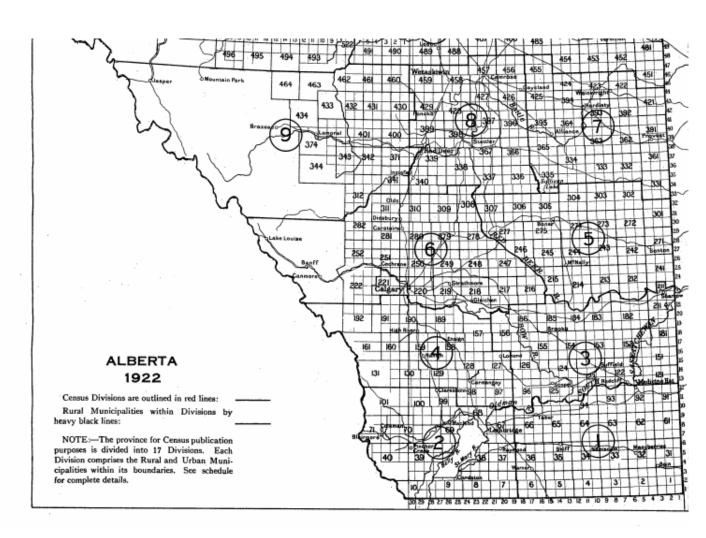


Journal and votes of the House of Assembly for the province of Nova Scotia: [Journal and proceedings of the House of Assembly, Session 1852]

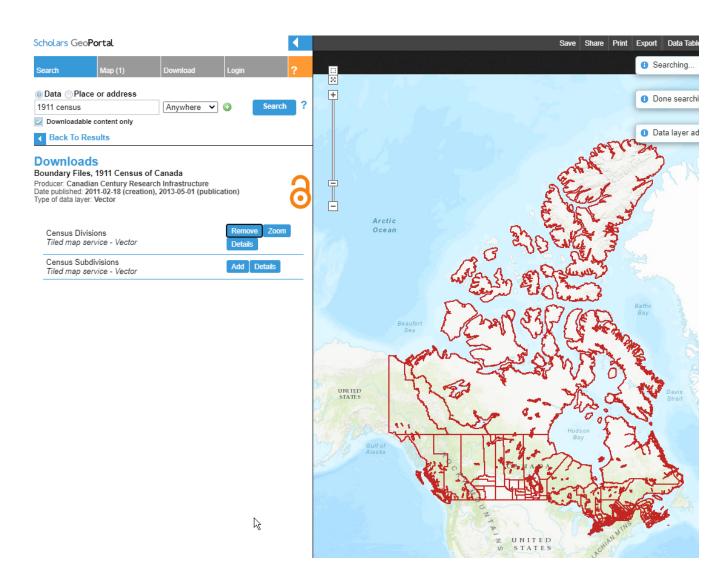
[Halifax, N.S.: R. Nugent, 1852; 625 pages, 622 with full-text search ?



- Archival materials (census returns)
- Published tables
- Maps



- Archival materials (census returns)
- Published tables
- Maps
- Geospatial data



- Archival materials (census returns)
- Published tables
- Maps
- Geospatial data
- Microdata

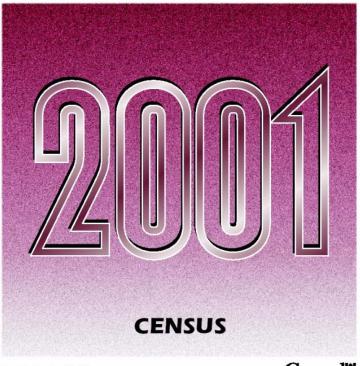
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		Ø WGHT_P ER	₩GHT_H SD	♣ AGEGR5	AGEGR1 0	♣ SEX	MARSTA T	AGEPRG RDIF	♣ SEXPR	PRTYPE C	AGECHR YGRC	AGEHSD Y	& CHRFLA G	CHRINHS DC	CHRTIME 6	CHH0014 C	PARHSE C
1	1	535.1704	267.5852	14	7	2	1	12	1	1	97	76	2	0	0	0	-
2	2	420.6068	420.6068	15	7	1	1	97	0	0	97	88	2	0	0	0	
3	3	200.7676	200.7676	8	4	1	1	6	2	1	3	11	1	2	6	1	1
4	4	399.7322	199.8661	9	4	2	1	13	1	1	97	53	2	0	0	0	1
5	5	574.3806	287.1903	10	5	1	1	7	2	1	7	23	1	1	1	0	1
6	6	129.4005	129.4005	13	6	1	5	97	0	0	97	73	2	0	0	0	
7	7	1011.0628	505.5314	10	5	1	1	7	2	1	97	58	2	0	0	0	
8	8	55.2428	55.2428	10	5	2	5	97	0	0	97	59	2	0	0	0	
9	9	313.4140	313.4140	13	6	2	3	97	0	0	97	72	2	0	0	0	
10	10	301.8966	150.9483	14	7	1	1	6	2	1	97	76	2	0	0	0	
11	11	238.9468	238.9468	15	7	2	3	97	0	0	97	88	2	0	0	0	
12	12	402.8749	201.4375	9	4	2	1	11	1	1	97	53	2	0	0	0	
13	13	341.7810	341.7810	11	5	2	3	97	0	0	97	61	2	0	0	0	
14	14	618.1944	309.0972	10	5	2	2	14	1	2	6	19	1	1	1	0	
15	15	606.8531	303.4266	11	5	1	1	2	2	1	97	57	2	0	0	0	
16	16	849.1632	849.1632	8	4	1	1	5	2	1	1	1	1	3	5	3	
17	17	252.0385	126.0192	12	6	2	1	10	1	1	97	66	2	0	0	0	
18	18	867.9461	433.9730	11	5	2	1	13	1	1	97	62	2	0	0	0	
19	19	598.2348	299.1174	9	4	2	1	12	1	1	97	53	2	0	0	0	
20	20	726.7825	363.3912	8	4	1	1	8	2	1	5	17	1	2	4	0	
21	21	700.8518	350.4259	14	7	1	1	10	2	1	97	77	2	0	0	0	
22	22	272.2841	136.1420	8	4	1	1	9	2	1	97	49	2	0	0	0	

- Archival materials (census returns)
- Published tables
- Maps
- Geospatial data
- Microdata
- Documentation



2001 Census Public Use Microdata File

Families File
User Documentation

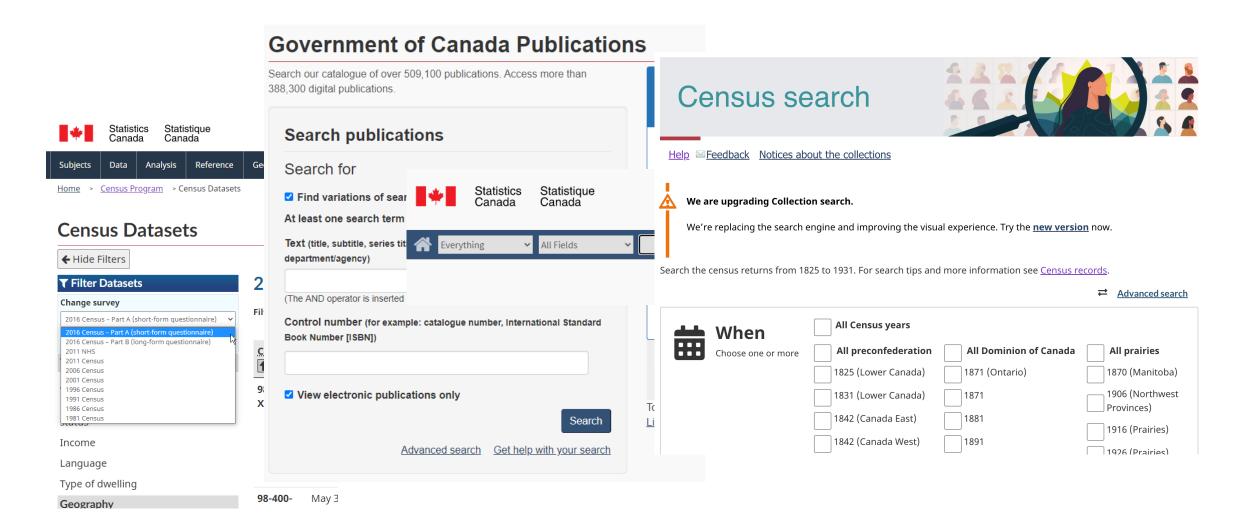


Statistics Statisti

Canadä

How do we access the census?

Government websites/portals



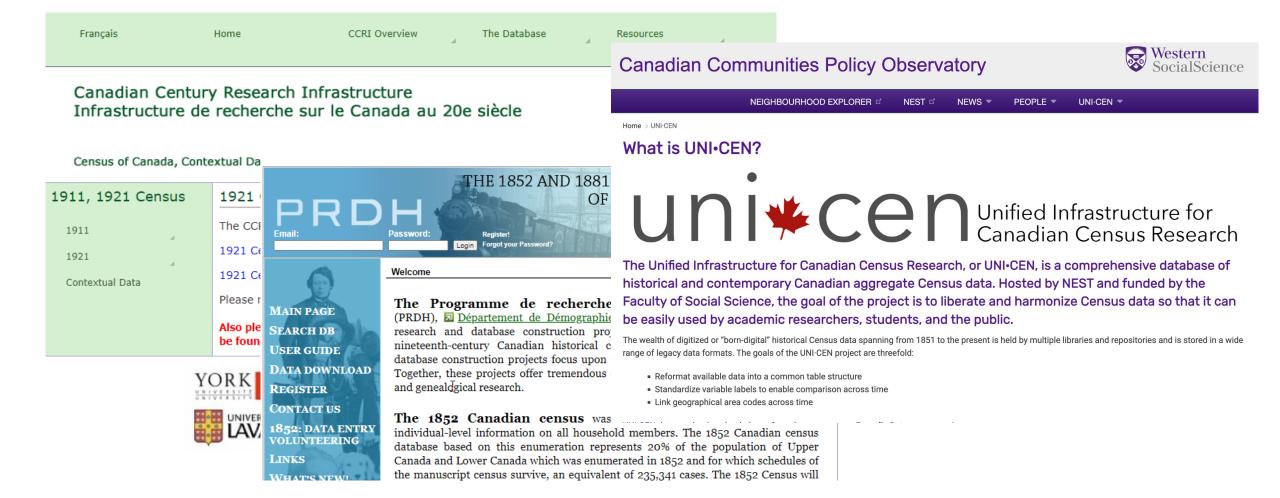
How do we access the census?

Community - built platforms



How do we access the census?

Community - built platforms



How do we WANT to access the census?

- Single access point where people can identify all of these different resources for all census years
- Consistent metadata and nuanced search tools by geography, time period, subject, and material type
- Provide search results at the item level e.g. identify individual tables rather than just the publication the table is found within
- Continued and reliable access to census data

Ideally, achieve this through academic library, government and research partners working collaboratively

Evolution of the CCDDP



SSHRC Partnership Development Grant

Partner institutions

- Library and Archives Canada
- Statistics Canada
- University of Toronto Libraries (applicant organization)
 - Map & Data Library
 - Scholars Portal
- University of Ottawa Libraries
- University of Alberta Library
- Mount Saint Vincent Library
- Concordia Library

Individual contributors

- 9 co-investigators
- 12 collaborators
- 11 student employees

SSHRC Partnership Development Grant

Awarded in March 2021, completion March 2025.

Key deliverables:

- 1. User and stakeholder consultations
- 2. Bilingual Canadian census inventory
- 3. Census discovery portal proof-of-concept
- 4. Canadian census discovery infrastructure research

Relationship building and exploring partnership opportunities

Highlights: Census Inventory

Comprehensive, bilingual census inventory database. For each item (data table, microdata file, spatial data file, etc.) we tracked:

- > Title
- Census year of publication
- Census year(s) covered by item
- ➤ Data producer
- > Publication date
- Subject headings
- Geographic coverage
- ➤ Geographic units

- ➤ Language(s)
- Citation to publication the item is found within (if applicable)
- > File formats
- URLs to access data
- Links to related materials & documentation
- ➤ Notes

Inventory status

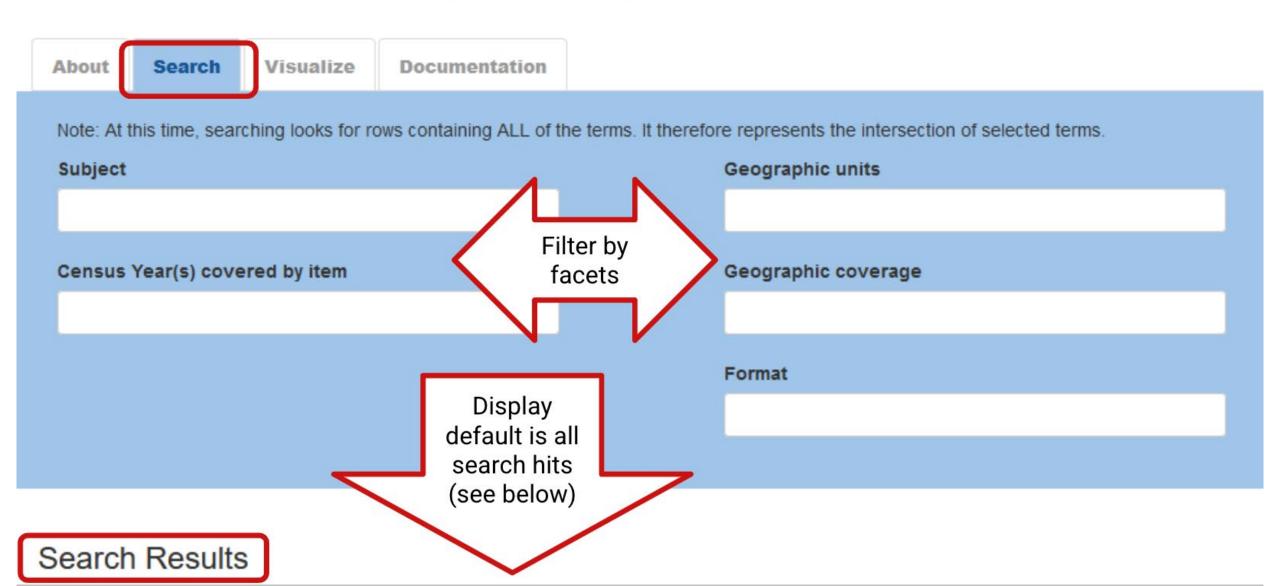
- Contains approx. 22,000 items from 144 censuses (1665 to 2021), each with metadata records in English & French
- 8 additional censuses were identified, but no in-scope content was found to inventory
- 4 years still need to go through the QC process: 1981, 1986, 2001, 2021
- Some additional proofreading of French translations remains

Highlights: Portal prototype

- Proof-of-concept web application to query and visualize the inventory data
- Developed by Zack Taylor (co-investigator) with the help of a research assistant using the R/Shiny platform
- Bilingual interface
- Filter by subject, census year, geography and format

Census Discovery Portal Portail de découverte du recensement



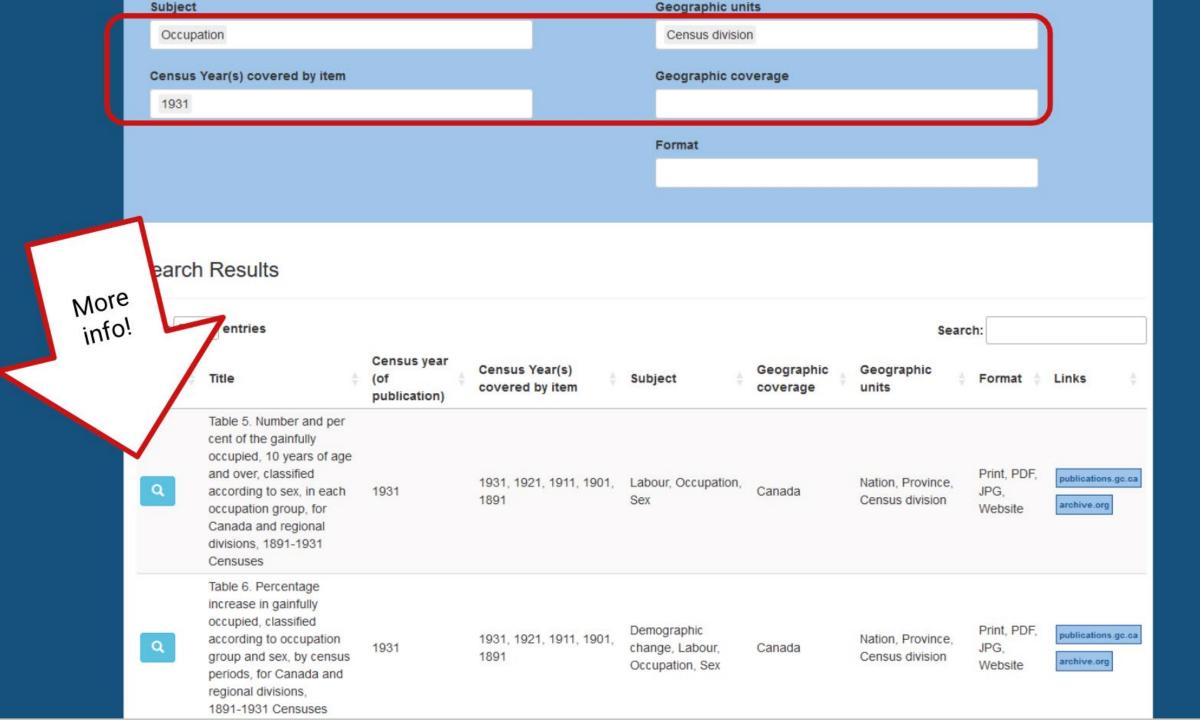


Census Discovery Portal Portail de découverte du recensement



out	Search	Visualize	Documentation	
lote: At t	his time sear	hing looks for p	Avs containing ALL of th	ne terms. It therefore represents the intersection of selected terms.
Subject	ins time, scare	Tilling looks for	vs containing ALL of th	Geographic units
ubject			Prop-down list of	Geograpine units
1			vailable subjects	
Nationa	ality		valiable dabjedto	0
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Occupa	ation		N	
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Origin				Format
Place o	of birth			
Place o	of residence			
Popula	tion		~	

Search Results



Selected Record

Title	Table 5. Number 2 per cent of the gainfully occupied, 10 years of age and over, classified according to sex, in each occupation group, for Canada al divisions, 1891-1931 Censuses									
Content type	Aggrega Table 5									
Supplementary	V 3									
Census year (of publication)	1931									
Census Year(s) covered by item	1931, 1921, 1911, 1901, 1891									
Parallel Title	Tableau 5. Nombre et pourcent de la population active, âgée de 10 ans et plus, classifiée selon le sexe, dans chaque groupe occupationnel, pour l'ensemble du Canada et les divisions régionales, recensements de 1891-1931									
Author/Producer of item	Canada. Dominion Bureau of Statistics									
Subject	Labour, Occupation, Sex									
Release date	1939									
Ge ge	Canada									
Ged Pages	Nation, Province, Census division									
Lang 6-9	English, French									
Fox (e)	""Occupational trends in Canada, 1891-1931"" Title of source document									
Found in (digitalie)	accurrent.									
Page numbers (born print only)	6-9									

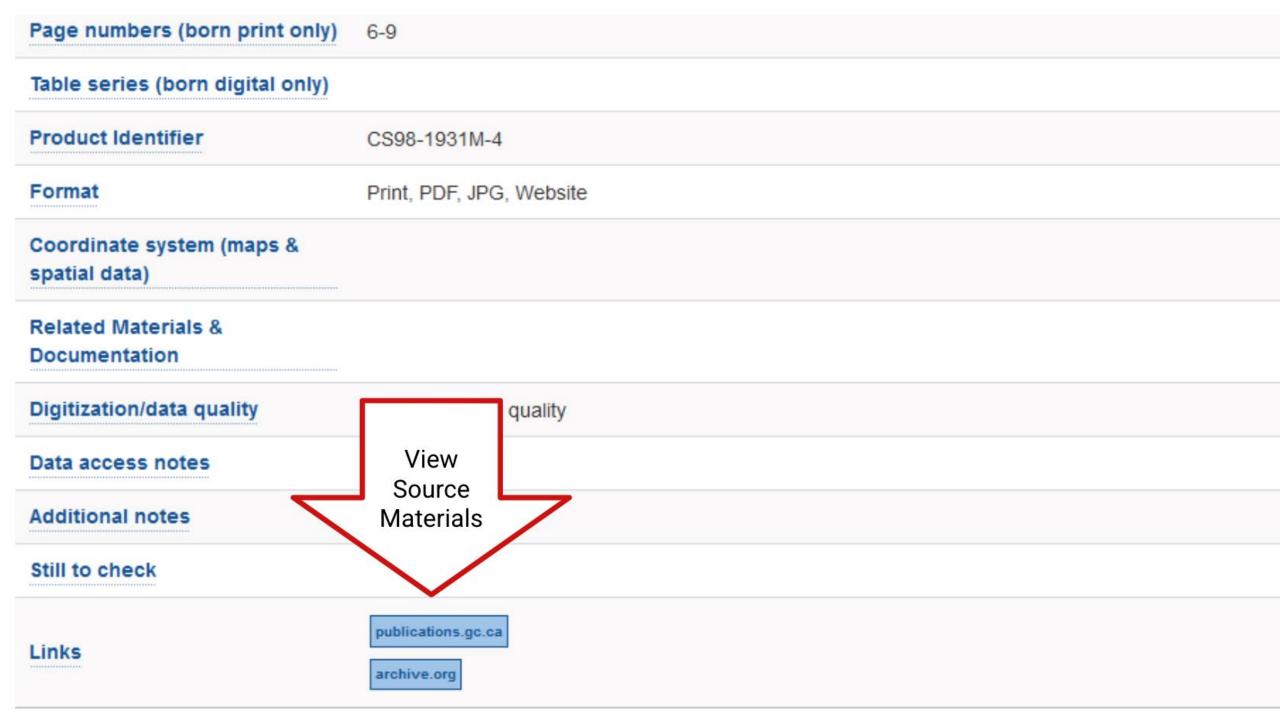


TABLE 5. Lumber and per cent of the gainfully occupied, 10 years of age and over, classified according to sex, in each occupation group, for Canada and regional divisions, 1891–1931 Censuses.

		189	1		191					
Occupation group	Males Hommes		Females Femmes		Mal Homm		901 Females Femmes		Males Hommes	
ا ا	No.	p.c.	No.	p.c.	No.	P.C.	No.	p.c.	No.	p.c.
Canada All occupations Agriculture Fishing and trapping Logging Mining, quarrying Manufacturing Construction Transportation Railway Road Trade and finance Service Professional Personal Clerical Labourers Other and unspecified	12,756 15,410 175,861 86,605 60,326 15,210 20,102 81,130 87,533 34,442 35,108 (8) 21,029	2) 2.11 0.90 1.09 12.45 6.13 4.27 1.08 1.42 5.74 6.20 2.44 2.49		100.00 6.00 (2)0.10 30.56 0.04 0.48 3.41 57.26 12.35 44.52 (8)1.52 0.52 0.10	707,924 (3) 27,160 16,055 28,341 229,027 89,100 81,161 27,750 27,248 91,795 100,623 39,521	45.82 (3)1.76 1.04 1.83 14.82 5.77 5.25 1.80 1.76 5.94 6.51 2.56 3.09 2.99 8.20	70,508 65 1,322 29 23 7,757 135,582 34,679 100,306 12,569	3.76 (3)0.01 (6) 29.63 0.03 0.56 0.01 0.01 3.26 56.98 14.57 42.15	34,547 (5)42,658 (7)62,404 275,439 150,520 153,586 65,567 49,090 193,154 139,054 53,720 68,996	38.91 1.46 (5) 1.81 (7)2.65 11.68 6.38 6.51 2.78 2.08 8.19 5.90 2.28 2.93 3.08
Maritime Provinces 8 All occupations 9 Agriculture 10 Fishing and trapping		100.00 1)50.22 (2) 7.02 1.09	3,416 (2) 122	100.00 8.44 (2) 0.30	265, 0 26 121,86 0 (3) 17,911 3,396	45.98 (3) 6.76	2,967	8,30	111,141	39.66 6.73 (5)2.71

Portal prototype status

- Once all censuses are included in the prototype, we will make it publicly available
- Some redevelopment of the code to make the system more responsible is planned for May/June 2025
- We plan to release the R/Shiny code via Borealis and/or Github
- Challenge: how to ensure ongoing development, support, and maintenance

Challenges

Project sustainability

- Long-term home for the inventory and proof-of-concept discovery portal
- Maintenance of census inventory & associated documentation
 - Broken links
 - Expansion of scope
- Funding to build a production-ready discovery portal

Challenges

Preservation & improved usability of census materials

- Current project has been focused on discovery
- We have not addressed issues around preservation or the longterm usability of historical datasets
- There is no single Canada-wide organization or infrastructure responsible for all census data types and formats

Challenges

Respectful handling of this material

- Canada's colonial past is reflected in the historical census materials – use of problematic terminology & definitions for groups and places
- Respectfully addressing this when creating a metadata collection and discovery tool is challenging

Next steps

- Continue to foster national collaboration around census data access and preservation
- Build the production census data discovery portal
- Secure an infrastructure host and develop a plan for a national Canadian census data repository
- Develop a sustainable model for ongoing inventory work and for the hosting of the discovery portal
- Continue to lead and support projects that improve usability of census data (e.g. turning digitized print into digital data tables and spatial data, etc)
- Secure funding for a next phase to this project

How to find us

Project website: https://cddp-pddr.ca/

Subscribe to our listserv: http://listserv.utoronto.ca/cgi-bin/wa?A0=CDDP-PDDR-L

Reach us by email: census@scholarsportal.info

Borealis data repository

- Census inventory database
- Supporting documentation
- Project reports (still being released)

Proof-of-concept-discovery portal – to be released soon, check our website for updates

Questions?

SSHRC grant co-investigators

- Leanne Trimble (University of Toronto lead investigator)
- Graeme Campbell (Queen's University)
- Katie Cuyler (University of Alberta)
- Alex Guindon (Concordia University)
- Tracey P. Lauriault (Carleton University)
- Amber Leahey (Scholars Portal)
- Susan Mowers (University of Ottawa)
- Sandra Sawchuk (Mount Saint Vincent University)
- Zack Taylor (Western University)

SSHRC grant partner institutions & representatives

- Library and Archives Canada
- Statistics Canada
- University of Toronto Libraries (applicant organization)
 - Map & Data Library
 - Scholars Portal
- University of Ottawa Libraries
- University of Alberta Library
- Mount Saint Vincent Library
- Concordia Library

- Representing Library and Archives Canada:
 - Martin Lanthier
 - Marcel Barriault
 - Julie Roye
- Representing Statistics Canada
 - Lysanne Brazeau
 - Jennifer Pagnotta

SSHRC grant collaborators

- Julia Barkhouse (Library and Archives Canada)
- Alexandra Clemence (Library and Archives Canada)
- Nick Field (University of Toronto)
- Glen Hohlmann (Statistics Canada)
- Julie Marcoux (Dalhousie University)
- Kaitlin Newson (Scholars Portal)
- Alina Ruiz (Mount Saint Vincent University)