



# Canadian Census Data Discovery Partnership: 2023 Project Update

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Gov Info Days, Dec 12, 2023

Graeme Campbell & Katie Cuyler



# Outline

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- Project Overview
- Recent Progress
  - Knowledge Mobilization
  - Inventory
- Portal Development
- Sneak Peak: proof-of-concept portal
- Next Steps

# Project Overview

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# Canadian Census Data Discovery Partnership

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- **A comprehensive, bilingual inventory database** using consistent taxonomies and standards that integrates the work already completed
- **A vision for a future Canadian census discovery portal**, developed through stakeholder consultations, an environmental scan of existing initiatives, tools, and websites related to census data discovery.
- **Feasibility analysis, design, and proof-of-concept** implementation for a fully functional discovery portal
- **Assessment of opportunities** for long-term preservation of census materials

See more: <https://cddp-pddr.ca/>

# Project Leaders

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Leanne Trimble, Acting Head, Map & Data Library, University of Toronto (Principle Investigator)

Susan Mowers, Research Librarian (Data), University of Ottawa

Alex Guindon, GIS and Data Services Librarian, Concordia University

Sandra Sawchuk, Data Services & User Experience Librarian  
Mount Saint Vincent University

Katie Cuyler, Open Publishing and the Government Information Librarian, University of Alberta

Amber Leahey, Data & GIS Librarian. Scholars Portal / University of Toronto, Toronto.

Graeme Campbell, Open Government Librarian, Queen's University

Tracey P. Lauriault, Associate Professor of Critical Media and Big Data, Carleton University

Zack Taylor, Assistant Professor of Political Science and Founding director of Centre for Urban Policy and Local Governance, Western University

Jennifer Pagnotta, Chief, Centre for Statistical and Data Standards, Statistics Canada

Julie Roy, Manager, Reference Services, Public Services Branch, Library and Archives Canada

<https://cddp-pddr.ca/en/contact/>

# Recent Progress

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# Knowledge Mobilization

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- Updates & research reports shared throughout
- Conference presentations
- Research articles underway
  - Landscape analysis census data portals: current access
  - Subject/thematic analysis of inventory content

# Comprehensive, bilingual census inventory database

Inventory will be complete early 2024. For each item (data table, microdata file, spatial data file, etc) we track:

- Title
- Census year of publication
- Census years covered by the 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 files
- Notes



# Historical Census Inventory Database

ENGLISH - Census Inventory

Subjects: Census years: Content type: Geographic coverage: Geographic units: Author/Producers: Publications list

Views: Main view | 4 hidden fields | Filter | Group | Sort | Color | Share view

ID	Title	Content type	S.	Cen...	Census Year(s) covered by item	ID	Parallel Title	Author/Producer of item	Subject	Release ...	Geogra...	Geographic units
259	Appendix to Census of Canada, No. 7: Upper Canada. Professions, Trades and Occu...	Aggregate data tables		1851	1851	DP20000461	Appendice du Recensem...	Province of Canada. Board of Registration a	Occupation	1853	Canada West	Uj Town County City
260	Appendix to Census of Canada, No. 8: Lower Canada. Professions, Trades and Occu...	Aggregate data tables		1851	1851	DP20000463	Appendice du Recensem...	Province of Canada. Board of Registration a	Occupation	1853	Canada East	Lo Town County City
261	Appendix to Census of Canada, No. 9: Upper Canada. Deaths and Causes of Deaths	Aggregate data tables		1851	1851	DP20000465	Appendice du Recensem...	Province of Canada. Board of Registration a	Mortality	1853	Canada West	Uj Town County City
262	Appendix to Census of Canada, No. 10: Lower Canada. Deaths and Causes of Deaths	Aggregate data tables		1851	1851	DP20000467	Appendice 10: Recensem...	Province of Canada. Board of Registration a	Mortality	1853	Canada East	Lo County City
263	Census of Canada. Return of Lunatic Asylum of Toronto	Aggregate data tables		1851	1851	DP20000469	Recensement des Canadas...	Province of Canada. Board of Registration a	Children Marital status Age - single years	1853	Upper Canada	1 County
264	Census of Canada. Return of Lunatic Asylum of Québec	Aggregate data tables		1851	1851	DP20000471	Recensement des Canadas...	Province of Canada. Board of Registration a	Children Marital status Age - single years	1853	Lower Canada	C City
265	1852 Rural Census of Canada: Public-use microdata sample of Canada West and C...	Microdata		1851	1851	DP10000473	Recensement canadien rur...	Programme de recherche en démographie I	Marital status Occupation Ethnic origin	F 2013	Canada West	Ci Rural Province Village City Town
266	1852 Urban Census of Canada: Public-use microdata sample of Canada West and C...	Microdata		1851	1851	DP10000474	Recensement canadien urb...	Programme de recherche en démographie I	Marital status Occupation Ethnic origin	F 2013	Canada West	Ci Urban Province Village City Town
	User's guide: 1852 and 1861 microdata	Product level documentati			1881 1851	RP40000475	Guide d'utilisation: Micro-d...	Programme de recherche en démographie I		2010	Canada West	Ci
268	Instructions to Enumerators	Census reference products		1851	1851	RP10000476		Province of Canada. Board of Registration a		1852	Canada West	Ci
269	Search: Census of 1851	Census returns		1851	1851	DP40000477	Recherche : Recensement d...	Province of Canada. Board of Registration a	Marital status Occupation Ethnic origin	F 2018 (last modi...	Lower Canada	L Village City Township Town Count
270	Census of 1851 [documentation for census returns]	Census reference products	✓		1851	RP10000478	Recensement de 1851 [doc...	Library and Archives Canada		2019 (last modi...	Lower Canada	L
271	Districts and Sub-districts: Census of 1851	Census reference products	✓		1851	RP10000500	Districts et sous-districts : R...	Library and Archives Canada		2018 (last upda...	Upper Canada	L
272	Appendix 94: Statistics of each county of the Province of Nova-Scotia. Census of 1...	Aggregate data tables		1851	1851	DP20000479		Nova Scotia. Board of Statistics Nova Scoti	Indigenous peoples Ethnic origin Visible n	1852	Nova Scotia (pre	County
273	Appendix 94: Statistics of each county of the Province of Nova-Scotia. Births & - ...	Aggregate data tables		1851	1851	DP20000480		Nova Scotia. Board of Statistics Nova Scoti	Mortality Education Marital status Fertil	1852	Nova Scotia (pre	County
274	Appendix 94: Statistics of each county of the Province of Nova-Scotia. Religious de...	Aggregate data tables		1851	1851	DP20000481		Nova Scotia. Board of Statistics Nova Scoti	Religion	1852	Nova Scotia (pre	County
275	Appendix 94: Statistics of each county of the Province of Nova-Scotia. Number of p...	Aggregate data tables		1851	1851	DP20000482		Nova Scotia. Board of Statistics Nova Scoti	Occupation	1852	Nova Scotia (pre	County
276	Appendix 94: Statistics of each county of the Province of Nova-Scotia. Buildings, va...	Aggregate data tables		1851	1851	DP20000483		Nova Scotia. Board of Statistics Nova Scoti	Low income Families Housing	1852	Nova Scotia (pre	County
277	Appendix 43: [Earl Grey's instructions]	Census reference products		1851	1851	RP10000484		Nova Scotia. House of Assembly		1849	Nova Scotia (pre	
278	Census Districts (CD), 1851 Census of the Canadas	Digital spatial products		1851	1851	DP930000485		Historical Atlas of Canada Data Disseminati		1998	Unorganized ter	County Census district
279	Historical Atlas of Canada Data Dissemination Project - data use agreement	Product level documentati		1851	1851	RP40000486		Historical Atlas of Canada Data Disseminati				
280	Distribution information sheet - census division base maps 1851-1961	Product level documentati		1851	1851	RP40000487		Historical Atlas of Canada Data Disseminati				
281	Historical Atlas of Canada, summary of population growth, 1851-1961: Authors an...	Product level documentati		1851	1851	RP40000488		Historical Atlas of Canada Data Disseminati				
282	Table I: Dwelling, Families, Population, Sexes, Conjugal Condition	Aggregate data tables		1870-71	1851	DP20000489	Tableau I : Demeures, Ména...	Canada. Department of Agriculture	Marital status Dwellings Population Sex	1876	Canada West	Uj County
283	Table II: Population by Religions	Aggregate data tables		1870-71	1851	DP20000490	Tableau II : Population par ...	Canada. Department of Agriculture	Religion	1876	Canada West	Uj County
284	Table III: Birth places of the people	Aggregate data tables		1870-71	1851	DP20000491	Tableau III : Population par ...	Canada. Department of Agriculture	Place of birth	1876	Canada West	Uj County

+ Add... 1774 records

# Portal



# Preliminary proof-of-concept portal considerations

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## End product goals:

- open source / non-proprietary programs and formats
- portal has long term compatibility with database
- extensible

## We considered:

- continuing with Airtable
  - ◆ external connections are limited / proprietary
  - ◆ subscription based
- Compute Canada infrastructure (mysql / website for access)
  - ◆ not a long-term solution
  - ◆ VM was a barrier to access

# Develop preliminary proof-of-concept portal

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## Prototype: developed using R / Shiny

- One of our co-investigators already had some experience with it
- shinyapps.io is a free hosting/deployment service that works with R or Python
  - ◆ publicly available
  - ◆ limit of 5 apps on free plan
  - ◆ can be deployed on a private Shiny server if more security is needed

# Sneak Peak: Proof-of-Concept Portal

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# Census Discovery Portal

## Portail de découverte du recensement

Select language

English

About

Search

Visualize

Documentation

Select  
interface  
language

## About

This portal is a project of The Canadian Census Data Discovery Partnership. It provides access to a comprehensive inventory of Canadian Census materials held by numerous institutions across the country.

Censuses, or population counts, have been conducted in the territory now known as Canada since 1665-66 in New France (Statistics Canada, 2015). Canada's census is our most valuable primary economic, social, and cultural data set, and is an essential research tool for the formation of new knowledge and understanding about the populations that lived here in the past and present.

The Canadian Census Data Discovery Project is a two-year project to improve access to and research conditions for existing qualitative, quantitative and spatial data sources from the population censuses of Canada. Key deliverables are the design and delivery of this proof-of-concept bilingual discovery portal, and future-looking recommendations upon which this project can be further built.

The sources of information that make up these censuses are rich, diverse, and complex. They consist of databases of archival records, publications, and data files, containing a mix of primary data, expert analyses, and supporting documentation. This project is focused on those sources that contain data, and documentation that supports the use of the data.

Inventory data last updated from Airtable: 2023-09-26

App Last Updated: 2023-09-26.

# Census Discovery Portal

## Portail de découverte du recensement

Select language  
English

- About
- Search**
- Visualize
- Documentation

Note: At this time, searching looks for rows containing ALL of the terms. It therefore represents the intersection of selected terms.

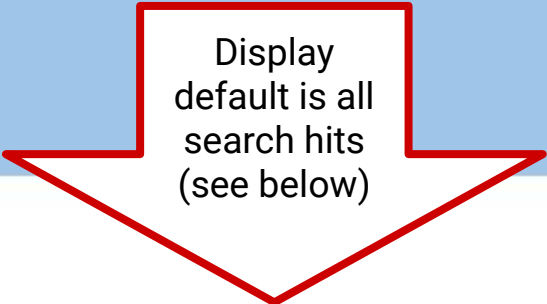
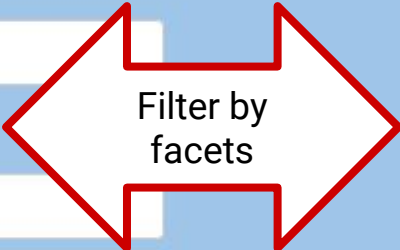
Subject

Geographic units

Census Year(s) covered by item

Geographic coverage

Format



**Search Results**








# Search Results

Show 5 entries

Sort by column

Search by keyword

Search:

Details	Title	Census year (of publication)	Census Year(s) covered by item	Subject	Geographic coverage	Geographic units	Format	Links
	Table 1: Population of Canada, its provinces and territories, 1871-1921	1921	1870-71, 1881, 1891, 1911, 1921	Population, Demographic change	Canada	Province, Territory, Nation	Print, PDF	<a href="#">publications.gc.ca</a>
	Table 2: Per cent distribution of the population by provinces, 1871-1921.	1921	1870-71, 1881, 1891, 1911, 1921	Population, Demographic change	Canada	Province, Territory	Print, PDF	<a href="#">publications.gc.ca</a>
	Table 3: Numerical increase in population of Canada by provinces and territories, 1871-1921.	1921	1870-71, 1881, 1891, 1911, 1921	Demographic change, Population	Canada	Province, Territory, Nation	Print, PDF	<a href="#">publications.gc.ca</a>
	Table 4: Increase per cent of population by provinces, 1871-1921.	1921	1870-71, 1881, 1891, 1911, 1921	Demographic change, Population	Canada	Province, Territory, Nation	Print, PDF	<a href="#">publications.gc.ca</a>
	Table 5: Population at each Census period and its increase over preceding census, 1871-1921.	1921	1870-71, 1881, 1891, 1911, 1921	Demographic change, Population	Canada	Nation, Province, Territory	Print, PDF	<a href="#">publications.gc.ca</a>

Showing 1 to 5 of 3,004 entries

Previous

1

2

3

4

5

...

601

Next








Search Results

View full record

Go directly to source material

Show

Details

		Census year (of publication)	Census Year(s) covered by item	Subject	Geographic coverage	Geographic units	Links
	Table 1: Population of Canada, its provinces and territories, 1871-1921	1921	1870-71, 1881, 1891, 1911, 1921	Population, Demographic change	Canada	Province, Territory, Nation	Print, PDF <a href="#">publications.gc.ca</a>
	Table 2: Per cent distribution of the population by provinces, 1871-1921.	1921	1870-71, 1881, 1891, 1911, 1921	Population, Demographic change	Canada	Province, Territory	Print, PDF <a href="#">publications.gc.ca</a>
	Table 3: Numerical increase in population of Canada by provinces and territories, 1871-1921.	1921	1870-71, 1881, 1891, 1911, 1921	Demographic change, Population	Canada	Province, Territory, Nation	Print, PDF <a href="#">publications.gc.ca</a>
	Table 4: Increase per cent of population by provinces, 1871-1921.	1921	1870-71, 1881, 1891, 1911, 1921	Demographic change, Population	Canada	Province, Territory, Nation	Print, PDF <a href="#">publications.gc.ca</a>
	Table 5: Population at each Census period and its increase over preceding census, 1871-1921.	1921	1870-71, 1881, 1891, 1911, 1921	Demographic change, Population	Canada	Nation, Province, Territory	Print, PDF <a href="#">publications.gc.ca</a>

# Census Discovery Portal

## Portail de découverte du recensement

Select language

English

About

**Search**

Visualize

Documentation

Note: At this time, searching looks for rows containing ALL of the terms. It therefore represents the intersection of selected terms.

### Subject

- Nationality
- Not a visible minority
- Occupation**
- Official languages
- Origin
- Place of birth
- Place of residence
- Population

Drop-down list of available subjects

### Geographic units

### Geographic coverage

### Format

Search Results

Subject

Occupation

Geographic units

Census division

Census Year(s) covered by item

1931

Geographic coverage

Format

## Search Results

1 entries

Search:

	Title	Census year (of publication)	Census Year(s) covered by item	Subject	Geographic coverage	Geographic units	Format	Links
	Table 5. Number 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	1931	1931, 1921, 1911, 1901, 1891	Labour, Occupation, Sex	Canada	Nation, Province, Census division	Print, PDF, JPG, Website	<a href="http://publications.gc.ca">publications.gc.ca</a> <a href="http://archive.org">archive.org</a>
	Table 6. Percentage increase in gainfully occupied, classified according to occupation group and sex, by census periods, for Canada and regional divisions, 1891-1931 Censuses	1931	1931, 1921, 1911, 1901, 1891	Demographic change, Labour, Occupation, Sex	Canada	Nation, Province, Census division	Print, PDF, JPG, Website	<a href="http://publications.gc.ca">publications.gc.ca</a> <a href="http://archive.org">archive.org</a>

More info!

## Selected Record

<b>Title</b>	Table 5. Number 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
<b>Content type</b>	Aggregated
<b>Supplementary</b>	
<b>Census year (of publication)</b>	1931
<b>Census Year(s) covered by item</b>	1931, 1921, 1911, 1901, 1891
<b>Parallel Title</b>	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
<b>Author/Producer of item</b>	Canada. Dominion Bureau of Statistics
<b>Subject</b>	Labour, Occupation, Sex
<b>Release date</b>	1939
<b>Geographic</b>	Canada
<b>Geographic</b>	Nation, Province, Census division
<b>Language</b>	English, French
<b>Found in (document)</b>	""Occupational trends in Canada, 1891-1931""
<b>Found in (digital file)</b>	
<b>Page numbers (born print only)</b>	6-9

Table 5

Pages  
6-9

Title of source  
document

**Page numbers (born print only)** 6-9

**Table series (born digital only)**

**Product Identifier** CS98-1931M-4

**Format** Print, PDF, JPG, Website

**Coordinate system (maps & spatial data)**

**Related Materials & Documentation**

**Digitization/data quality** quality

**Data access notes**

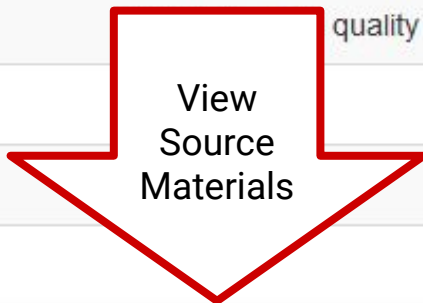
**Additional notes**

**Still to check**

**Links**

[publications.gc.ca](http://publications.gc.ca)

[archive.org](http://archive.org)





98-1931 M4 C. 2

Published by Authority of the

Publié par ordre de l'

HON. W.D. EULER, M.P.,

Minister of Trade and Commerce.

Ministre du Commerce.

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**CANADA**

**DOMINION BUREAU OF STATISTICS**

**BUREAU FEDERAL DE LA STATISTIQUE**

**CENSUS BRANCH**

**BRANCHE DU RECENSEMENT**

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**OCCUPATIONAL TRENDS**

**IN CANADA, 1891-1931**

TABLE 5. Number 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.

No.	Occupation group	1891				1901				1911	
		Males Hommes		Females Femmes		Males Hommes		Females Femmes		Males Hommes	
		No.	p.c.	No.	p.c.	No.	p.c.	No.	p.c.	No.	p.c.
<b>Canada</b>											
1	All occupations	1,412,386	100.00	203,222	100.00	1,544,883	100.00	237,949	100.00	2,358,813	100.00
2	Agriculture	(1) 723,013	(1) 51.19	12,194	6.00	707,924	45.82	8,936	3.76	917,848	38.91
3	Fishing and trapping	(2) 29,841	(2) 2.11	(2) 204	(2) 0.10	(3) 27,160	(3) 1.76	(3) 24	(3) 0.01	34,547	1.46
4	Logging	12,756	0.90	-	-	16,055	1.04	-	-	(5) 42,658	(5) 1.81
5	Mining, quarrying	15,410	1.09	-	-	28,341	1.83	4	(6)	(7) 62,404	(7) 2.65
6	Manufacturing	175,861	12.45	62,111	30.56	229,027	14.82	70,508	29.63	275,439	11.68
7	Construction	86,605	6.13	89	0.04	89,100	5.77	65	0.03	150,520	6.38
8	Transportation	60,326	4.27	984	0.48	81,161	5.25	1,322	0.56	153,586	6.51
9	Railway	15,210	1.08	-	-	27,750	1.80	29	0.01	65,567	2.78
10	Road	20,102	1.42	-	-	27,248	1.76	23	0.01	49,090	2.08
11	Trade and finance	81,130	5.74	6,934	3.41	91,795	5.94	7,757	3.26	193,154	8.19
12	Service	87,533	6.20	116,364	57.26	100,623	6.51	135,582	56.98	139,054	5.90
13	Professional	34,442	2.44	25,092	12.35	39,521	2.56	34,679	14.57	53,720	2.28
14	Personal	35,108	2.49	90,478	44.52	47,788	3.09	100,306	42.15	68,996	2.93
15	Clerical	(8) 21,029	(8) 1.49	(8) 3,092	(8) 1.52	46,220	2.99	12,569	5.28	72,595	3.08
16	Labourers	115,546	8.18	1,052	0.52	126,726	8.20	1,141	0.48	317,008	13.44
17	Other and unspecified	3,336	0.24	198	0.10	751	0.05	41	0.02	-	-
<b>Maritime Provinces</b>											
18	All occupations	260,918	100.00	40,465	100.00	265,026	100.00	35,749	100.00	280,222	100.00
19	Agriculture	(1) 131,021	(1) 50.22	3,416	8.44	121,860	45.98	2,967	8.30	111,141	39.66
20	Fishing and trapping	(2) 18,306	(2) 7.02	(2) 122	(2) 0.30	(3) 17,911	(3) 6.76	(3) 5	(3) 0.01	18,860	6.73
21	Logging	2,853	1.09	-	-	3,396	1.28	-	-	(5) 7,687	(5) 2.74
22	Mining, quarrying	6,219	2.38	-	-	8,190	3.09	2	0.01	(7) 17,908	(7) 6.39



# Census Discovery Portal

## Portail de découverte du recensement

Select language

English

About

Search

Visualize

Documentation

Select a record attribute (column) and controlled vocabulary item to display counts of items in the inventory over time. Time can be selected as 'year of publication' or 'year covered by publication'. Records containing items with multiple years in the selected time column are counted multiple times.

The visualizer is in a preliminary form and is available in English only.

### Attribute

Subject

### Controlled Vocabulary Item

Citizenship

### Handling of Time

Census Year(s) covered by item

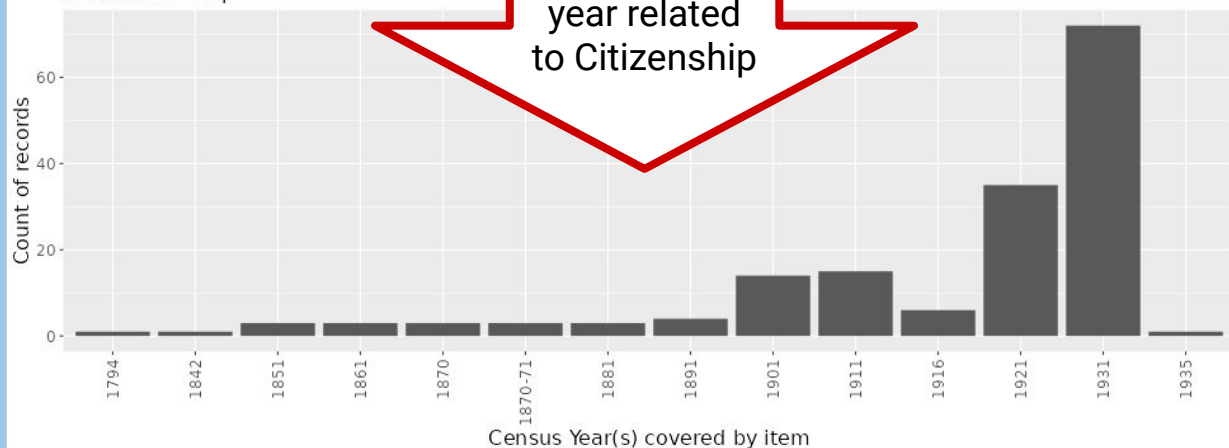
Inventory data last updated from Airtable: 2023-09-26

Download the data

Download the AirTable CSV used

Download the displayed plot

Attribute: Subject  
Item: Citizenship



Download options



# Census Discovery Portal

## Portail de découverte du recensement

Select language

English

About

Search

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Documentation

## Documentation

TBA

Nothing yet

# Next Steps

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# Next steps

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Considering options for continued access and presentation of inventory

- Datasets will be added to Borealis
- Seeking funding or support for the development of a sustainable and accessible portal

Synthesize and share project findings

- Knowledge Mobilization
- Grant report & recommendations for future project phase
  - Census Discovery Portal development
  - Ways to improve discovery, usability & preservation of census material

# Thank You!

Questions?

Website:

<https://cddp-pddr.ca/>

Contact us:

[census-comms@scholarsportal.info](mailto:census-comms@scholarsportal.info)

Listserv:

<https://listserv.utoronto.ca/cgi-bin/wa?A0=CDDP-PDDR-L>

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