

CCRI geographic component

- Who?
- What?
- How?
- What is next?

CCRI Geocoding subgroup



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CANADIAN CENTURY RESEARCH INFRASTRUCTURE
INFRASTRUCTURE DE RECHERCHE SUR LE CANADA AU 20^e SIECLE



Main goals

To provide the user with:

- geographic information and tools to apprehend the spatial dimension of considered phenomena
- statistical background to help with the assessment of the sample at any level

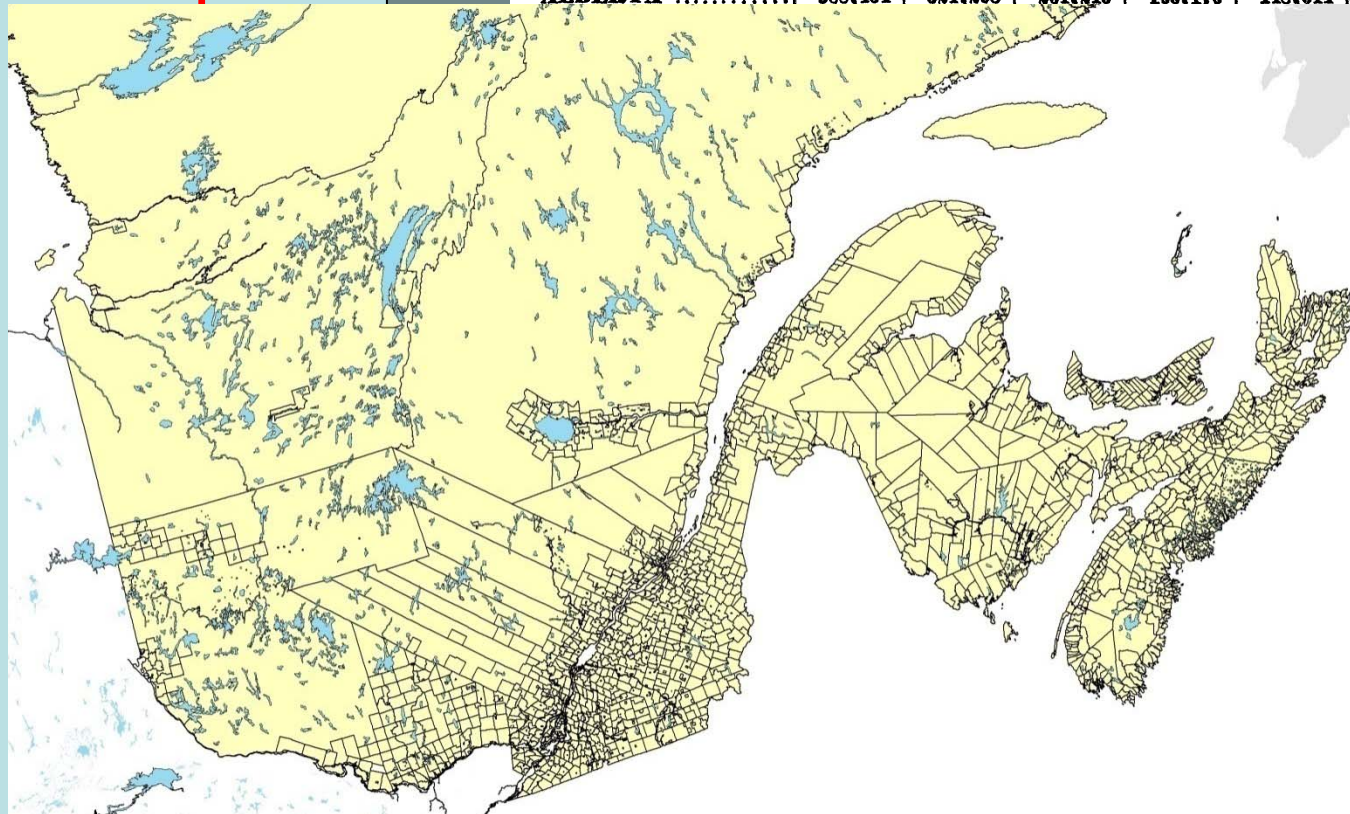
CCRI geographic products

1. Digitized published tables (N=23)
2. Polygons files
3. Processing of the micro-data
 - a. Location of the micro-data
 - b. Coding of census geographic variables

Published tables

TABLEAU 16. Population classifiée comme étant de naissance canadienne, britannique et étrangère, selon le sexe par comtés ou divisions de recensement, 1921—*suite*.

Municipality, township or subdivision — Municipalité, canton ou subdivision	Total			Canadian born — De naissance canadienne		British born — De naissance britannique		Foreign born — De naissance étrangère	
	Both sexes — Les deux sexes	Male — Hommes	Female — Femmes	Male — Hommes	Female — Femmes	Male — Hommes	Female — Femmes	Male — Hommes	Female — Femmes
ALBERTA ¹	588,454	324,208	264,246	166,176	148,914	55,724	43,668	102,308	71,664
	2,377	7	16	7	16	2,012	21	6,511	4,753
	7	16	7	5	113	38	265	150	193
	42	14	7	8	36	31	186	124	187
	50	62	46	28	266				



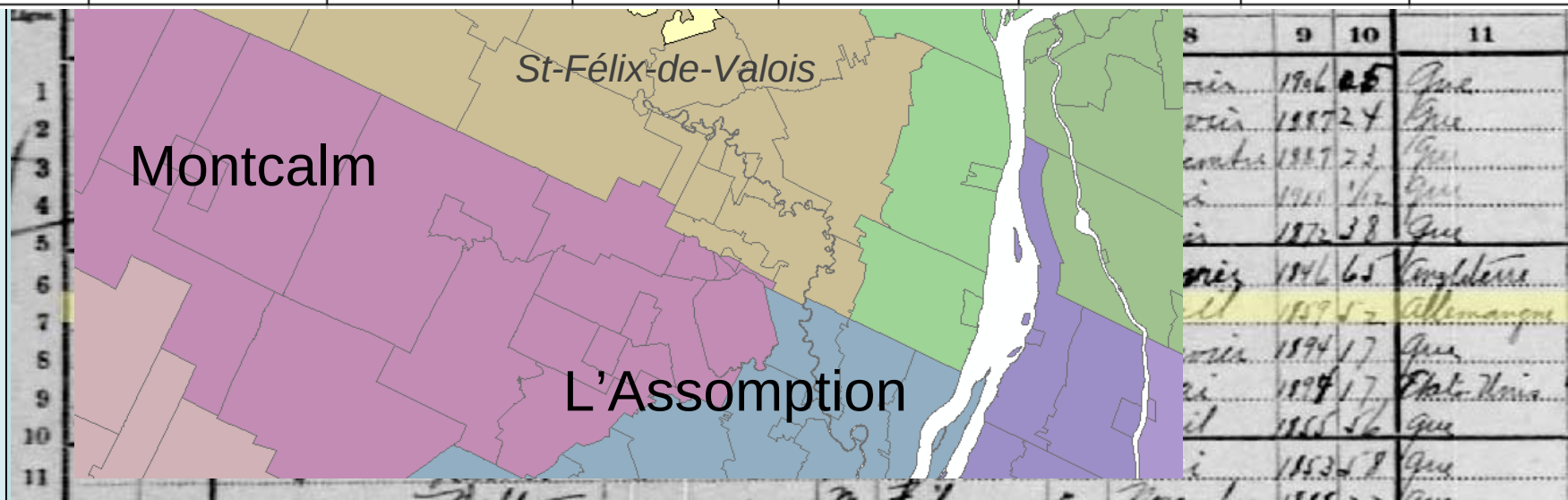
polygons
(CCRIUID)

Micro-data sample



Published tables

V2T7_1911	PR_CD_CSD	BRIT_ENGLISH_1911	BRIT_IRISH_1911	BRIT_SCOTCH_1911	BRIT_OTHER_1911	FRENCH_1911	GERMAN_1911	...
QC163000	Joliette	162	311	63	1	23 227	16	
QC163001	St. Alphonse		192			681		
QC163002	St. Ambroise	12	18			1 470	1	
QC163003	Ste. Béatrice					1 052		
QC163004	St. Charles Borromée		1	1		1 005		
QC163005	St. Cléophas					355		
QC163006	St. Côte	1	11			940	1	
QC163007	Ste. Élizabeth					2 372		
QC163008	Ste. Émilie					1 466		
QC163009	St. Félix de Valois	21	4	12		1 855	1	
QC163010	St. Jean de Matha	1			1	1 956		
QC163011	Ste. Mélanie	3				1 115		
QC163012	St. Paul	6		1		1 426		
QC163013	St. Thomas	3				1 522	1	
QC163014	Joliette	115	85	49		6 012	12	



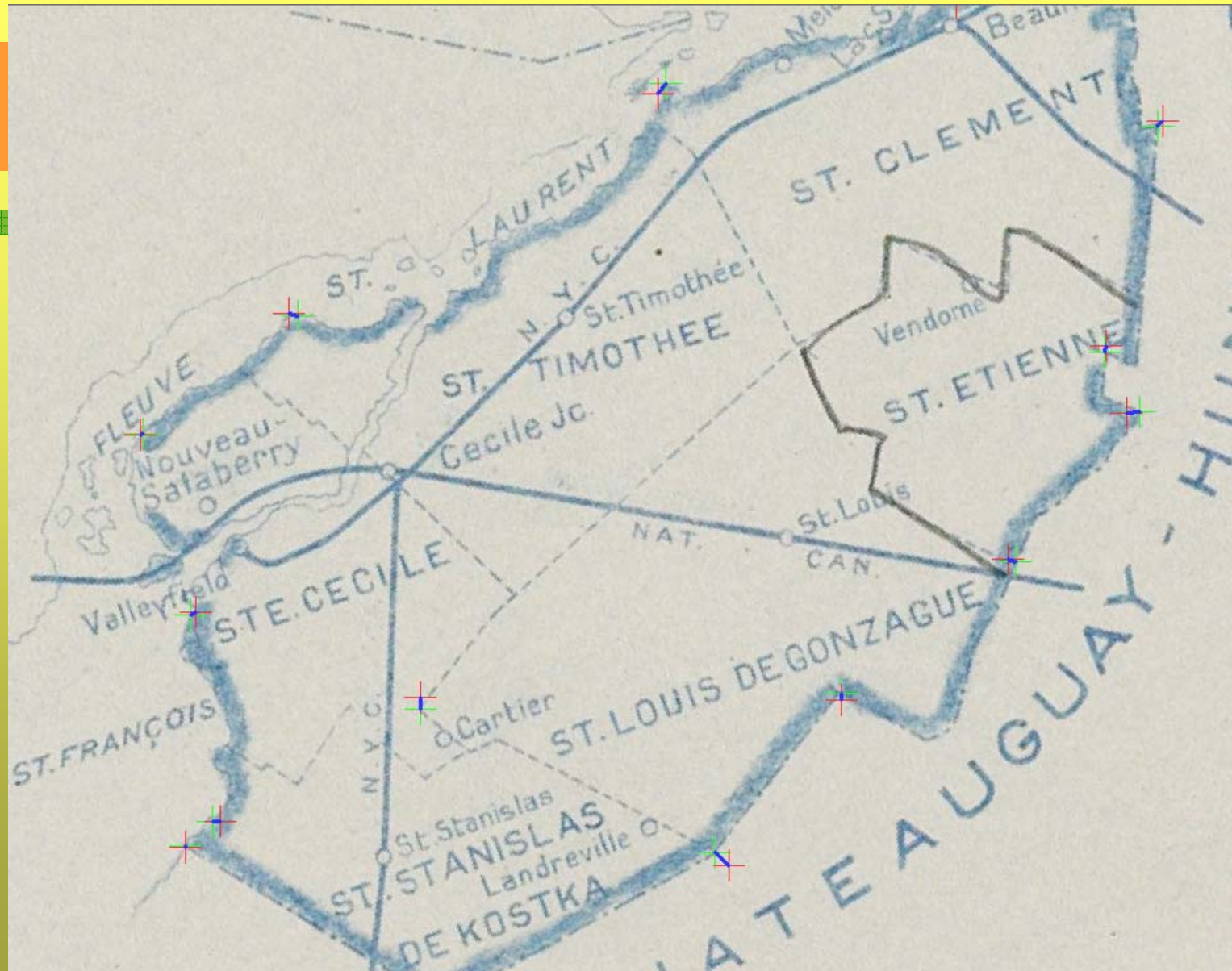
Micro-data sample

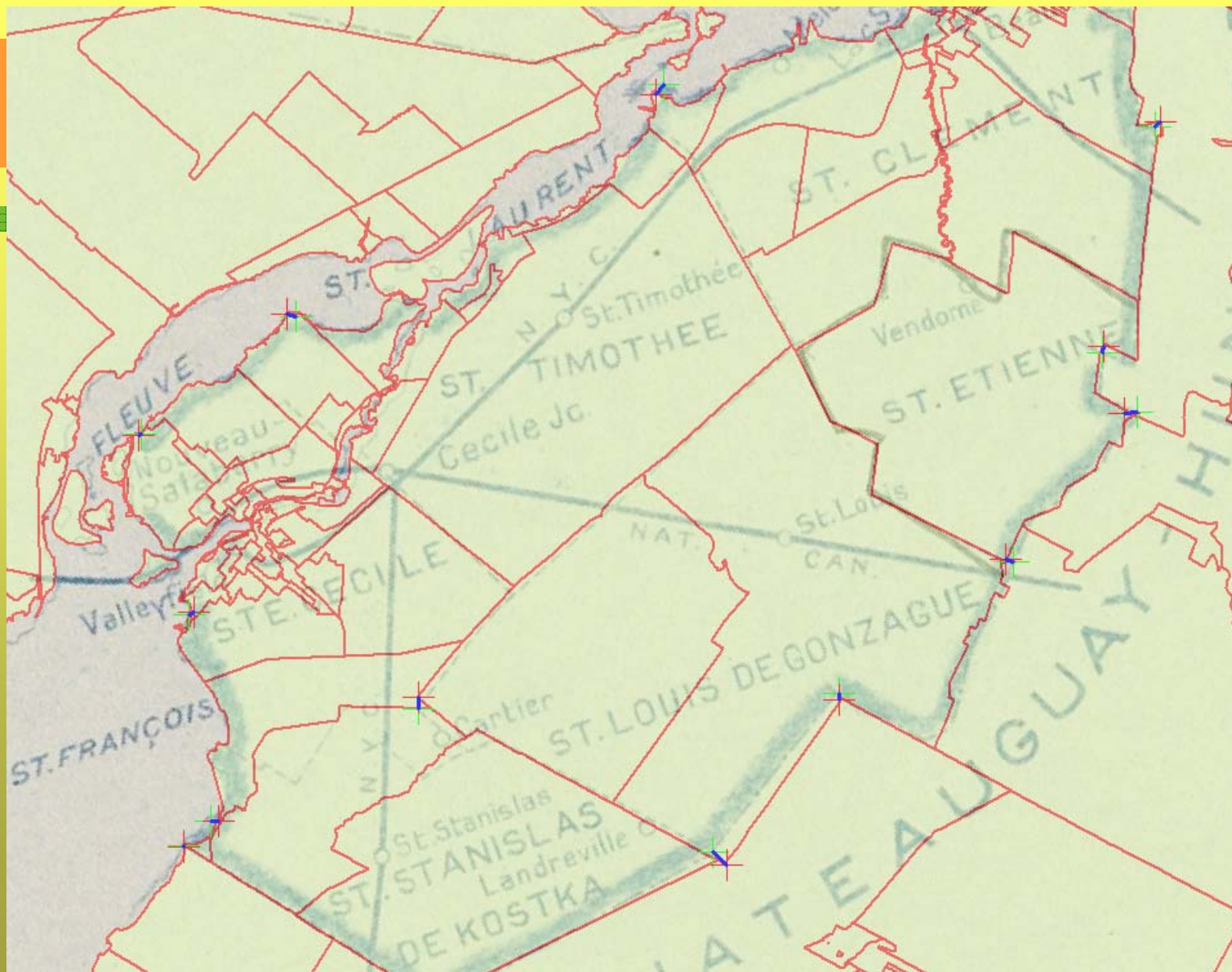
Canadian census geographies

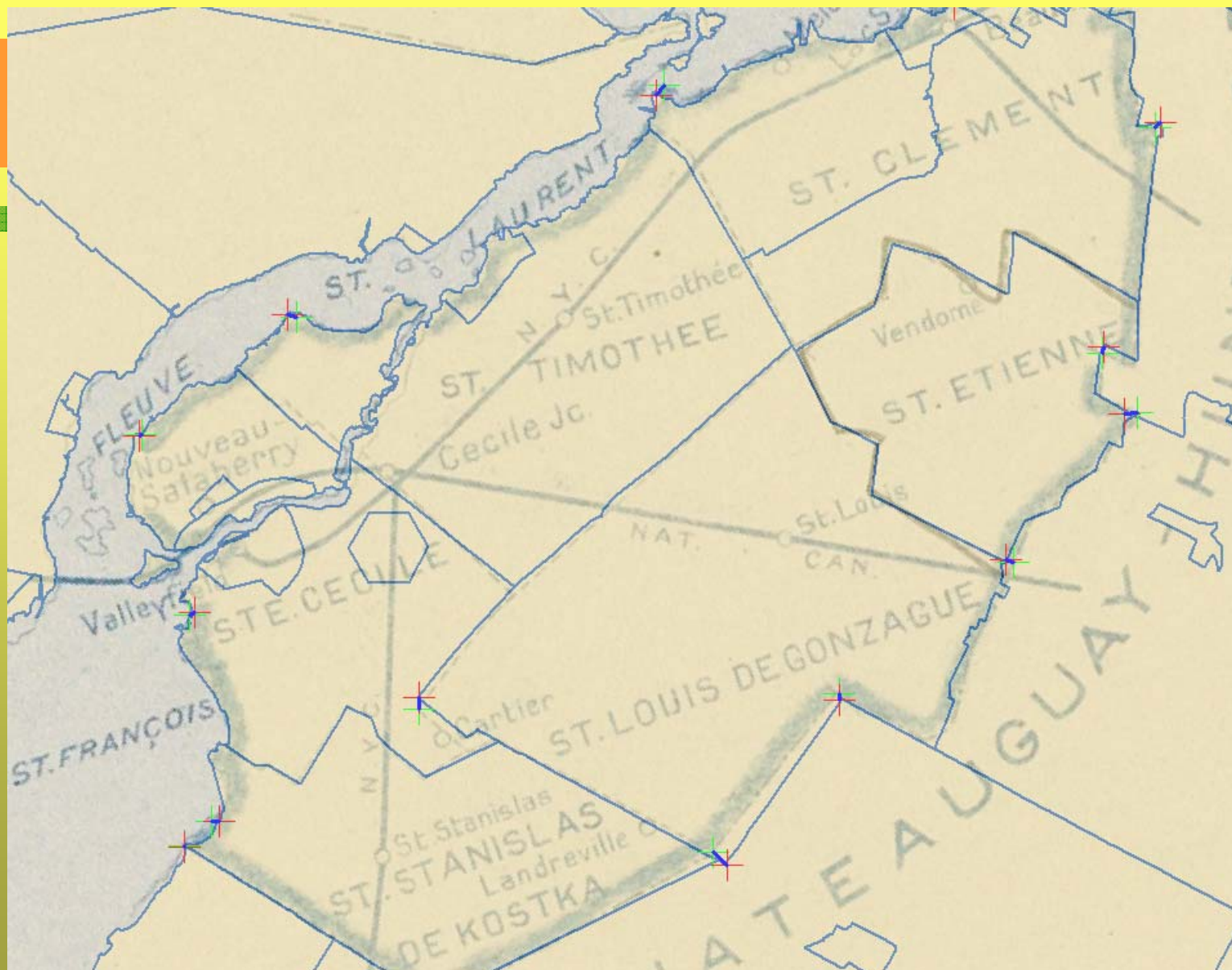
- Census-taking geography:
 - Based upon electoral geography
 - Two levels:
 - Census division (CD) = Federal electoral district
 - Enumeration area (EA) = Polling district (“walked” by the enumerator)
 - Used for the enumeration and the preservation of manuscript census schedules (bending and microfilming)
- Census-compilation and -dissemination geography:
 - Based upon local administrative organisation (municipalities) or on cadastral units (where there is no municipal organisation)
 - Two levels:
 - Census division (CD) = supralocal administrative entities (county)
 - Census subdivision (CSD) = municipality (city, town, village, parish) or cadastral unit (township)
 - Absent from manuscript schedules

How has geographic products been constructed?

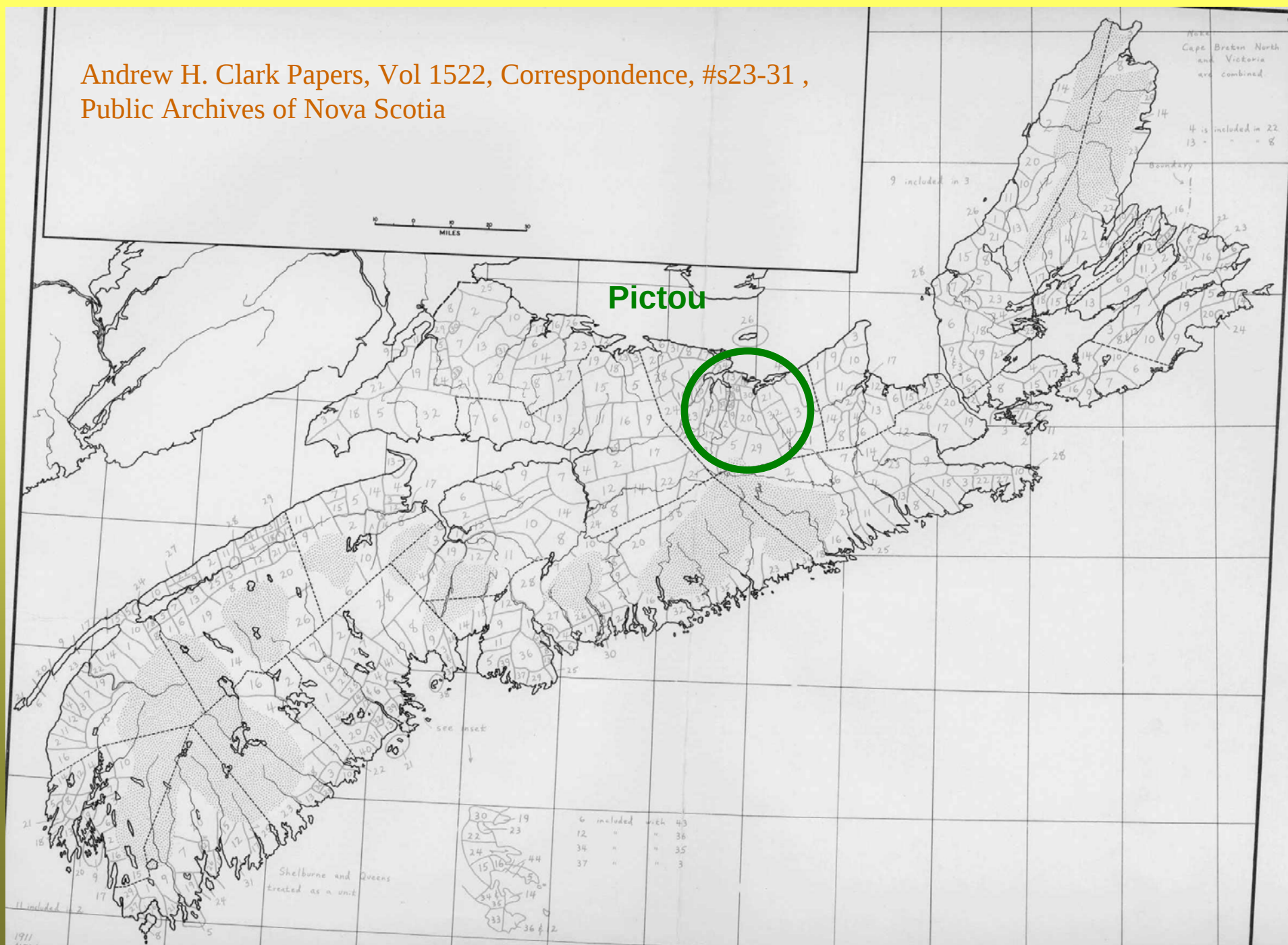
- 
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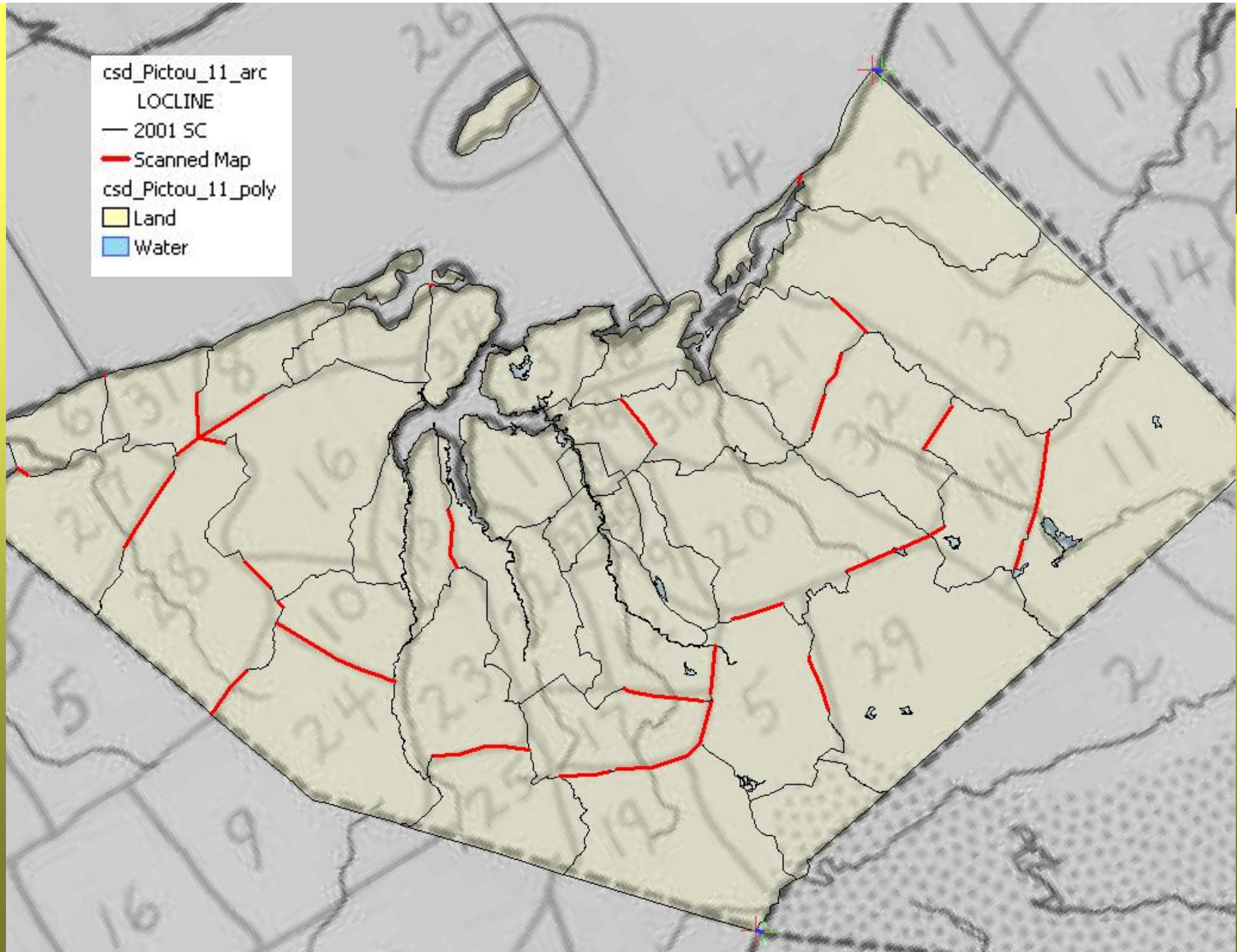




Andrew H. Clark Papers, Vol 1522, Correspondence, #s23-31 ,
Public Archives of Nova Scotia



- csd_Pictou_11_arc
LOCLINE
— 2001 SC
— Scanned Map
csd_Pictou_11_poly
Land
Water



How has geographic products been constructed?

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Locate the micro data sample

Census
taking

Census
dissemination

EA5	EA6
EA7	EA8



CSD23

**Direct One to One or
Many to One correspondence:
EAs aggregate well to CSDs**

EA18



CSD6	CSD7
CSD8	CSD9

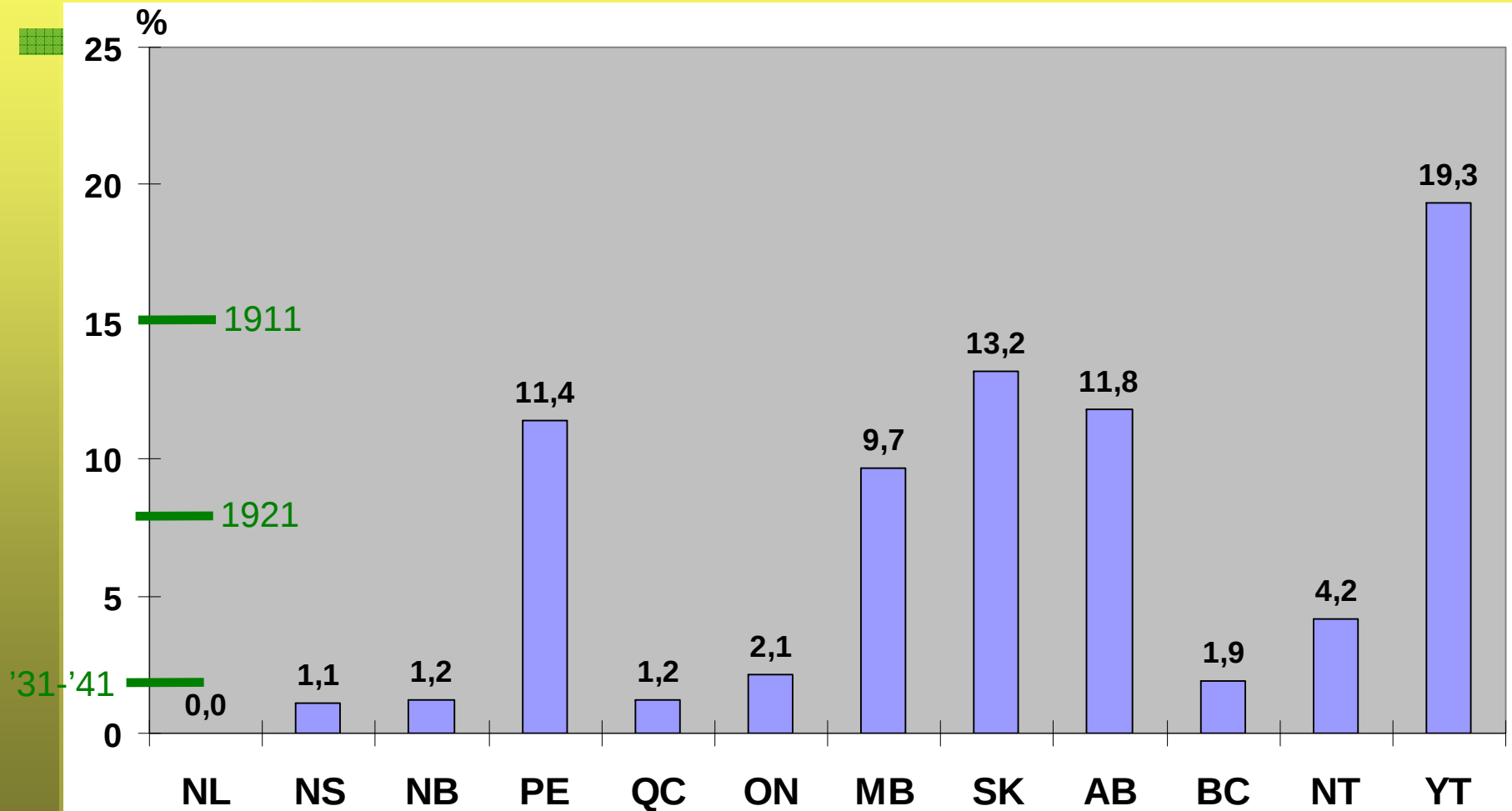
**EA is split among
more than one CSD**

EA5	EA6
EA7	EA8



CSD4	
	CSD5 (Anytown)

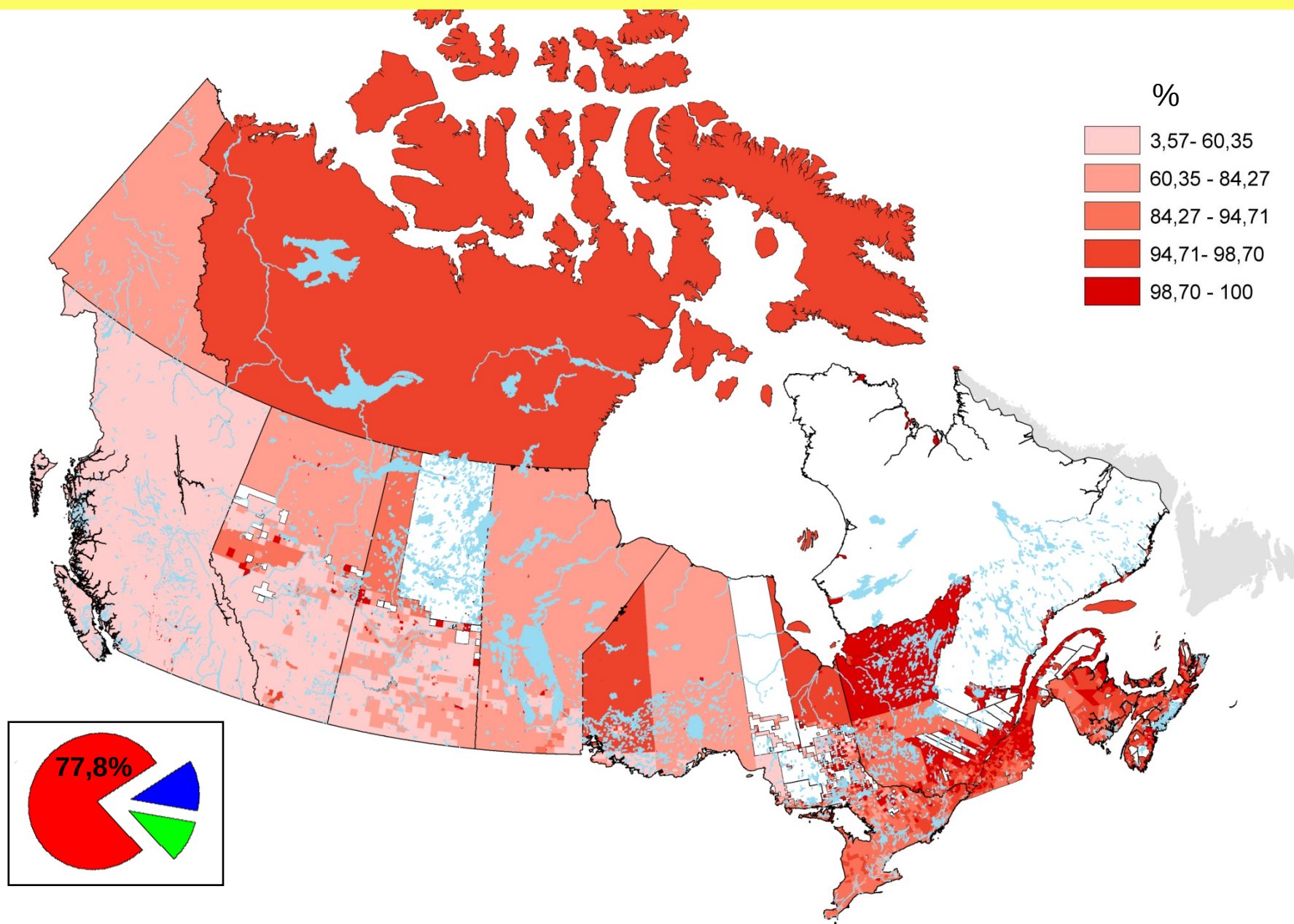
EA split by province (1911-1951)



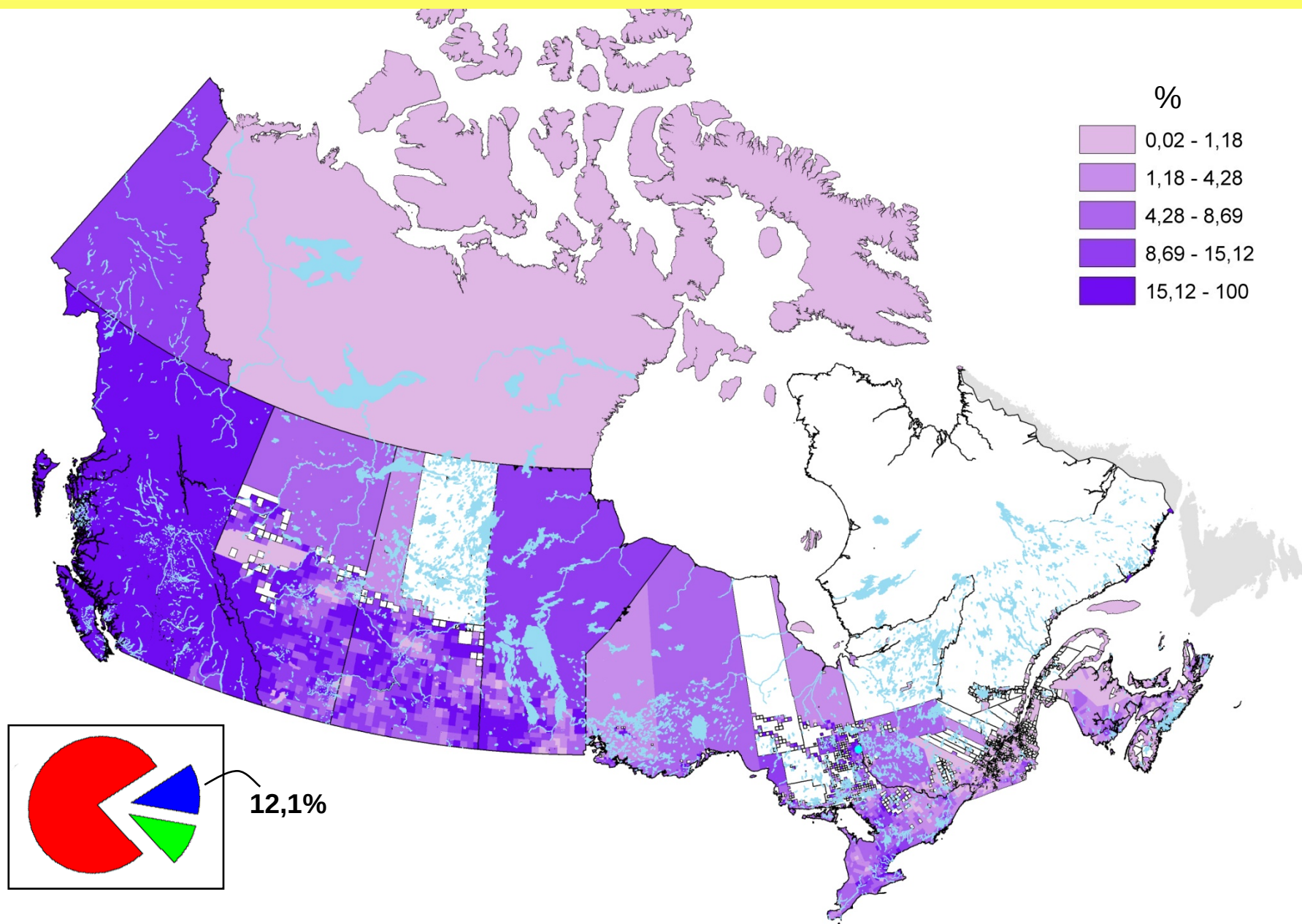
Three examples

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1. Mapping the published data
 2. Mapping the sample data: Aggregating the microdata by Census geographic units, using GIS for mapping and other data exploration
 3. Using the published data in maps to identify areas of interest, then using those areas to select the microdata for aggregation, analysis and mapping

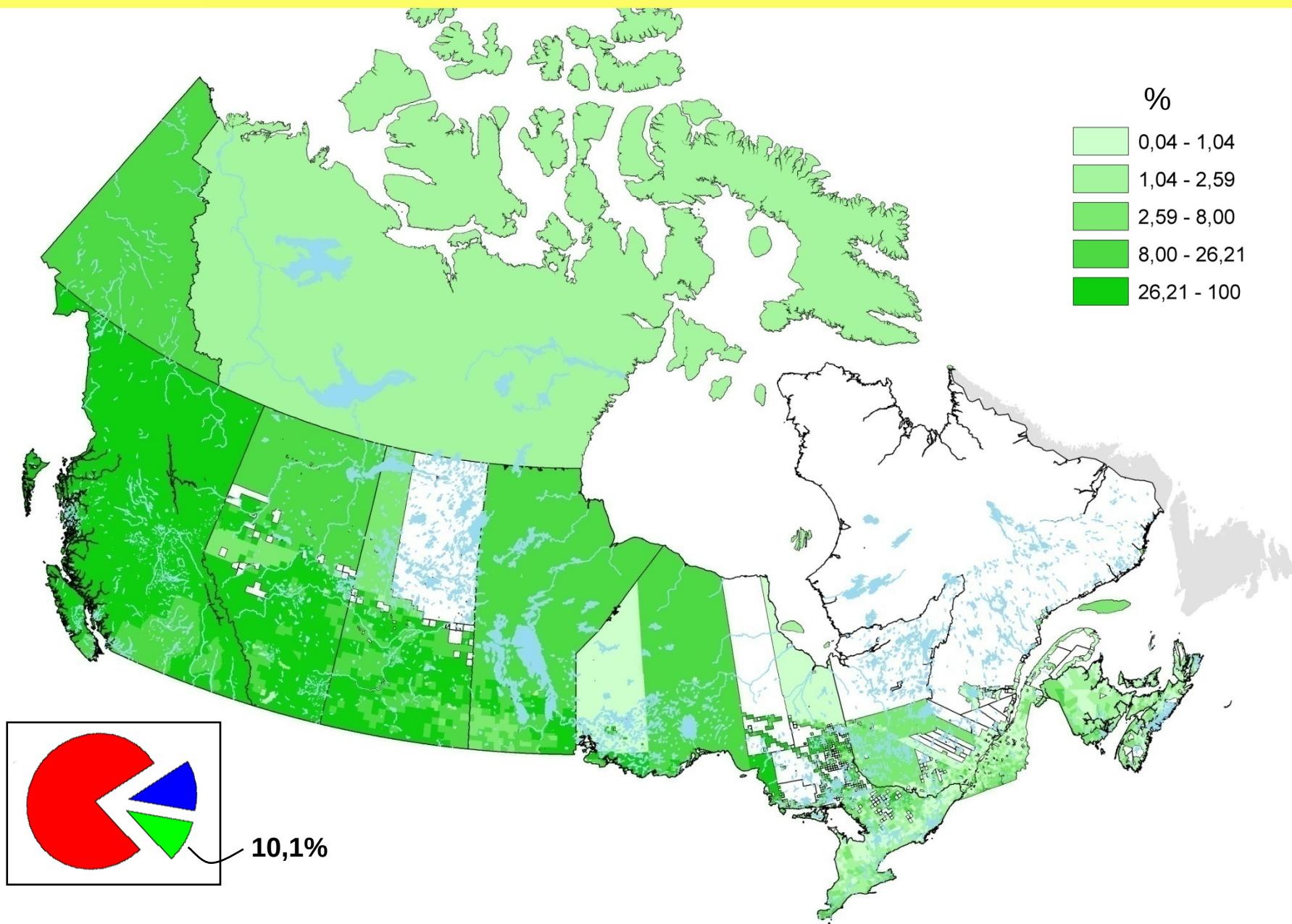
Canadian-born population, 1921 (N= 6,832,747)



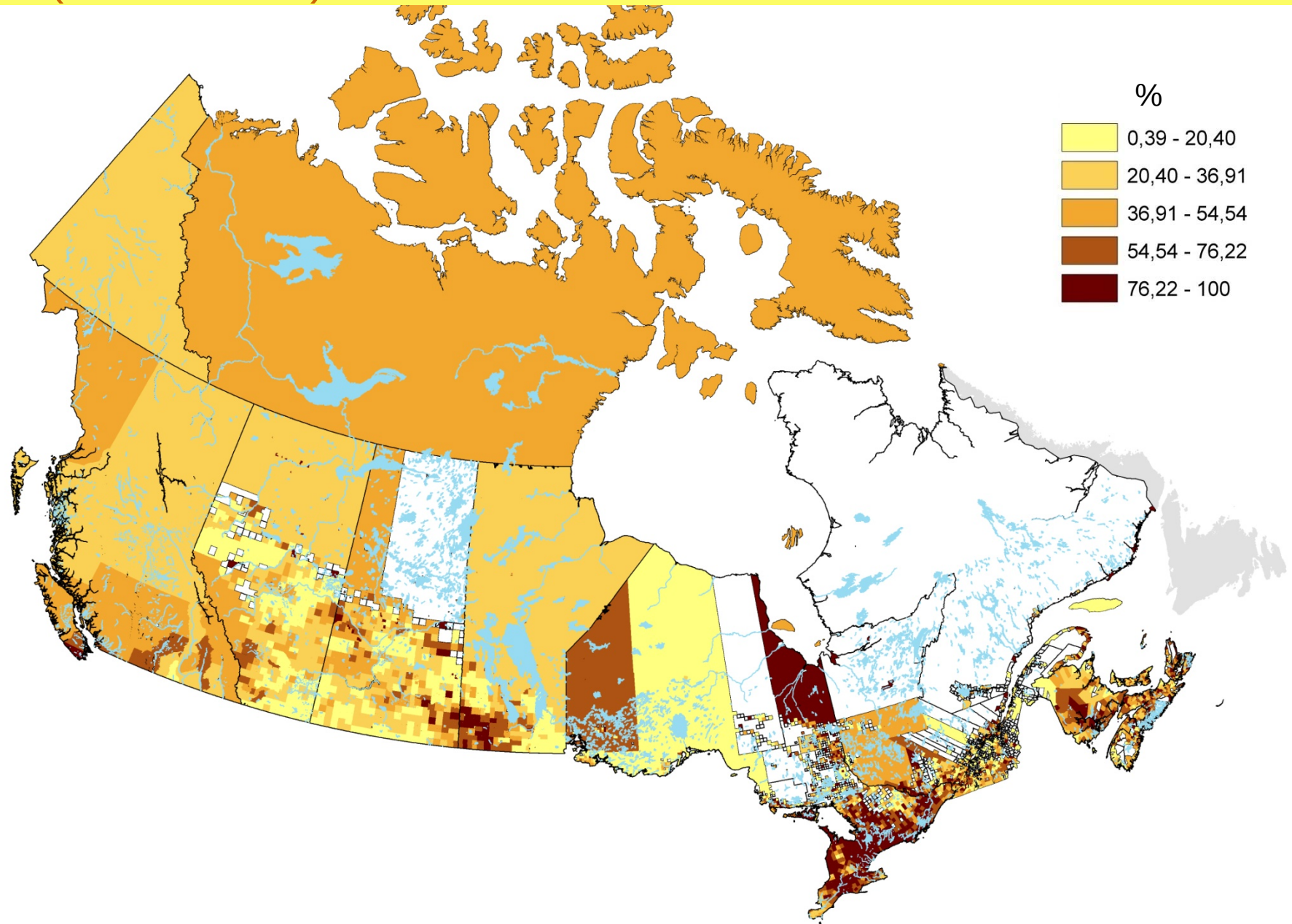
British-born population, 1921 (N= 1,065,454)



Foreign-born population, 1921 (N= 890,282)



Proportion of British-born in the non-Canadian-born population , 1921 (total: 54.5%)



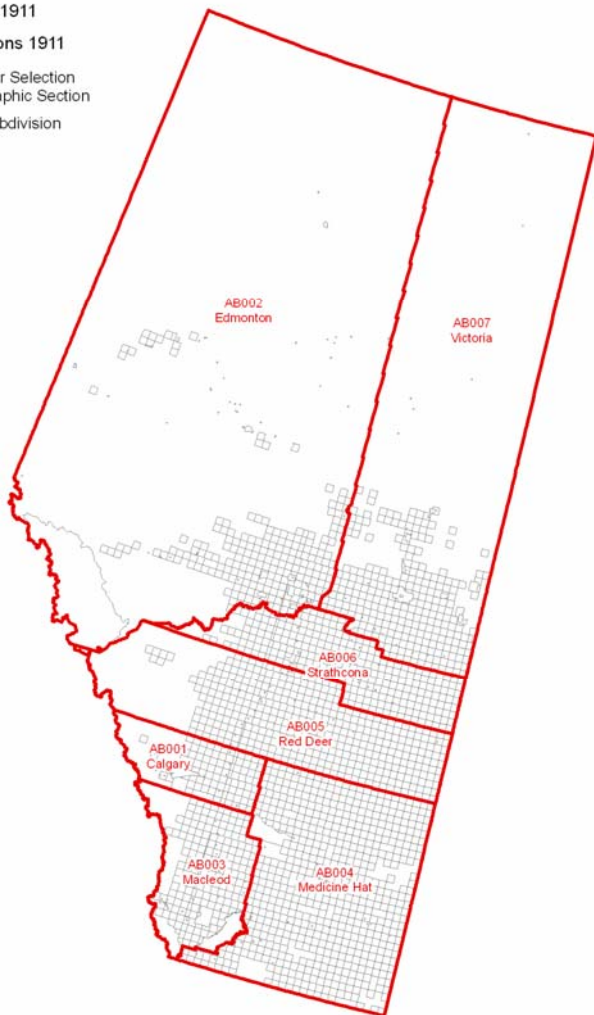
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CCRI REFERENCE MAP ALBERTA 1911

- Census Divisions 1911
- Census Subdivisions 1911

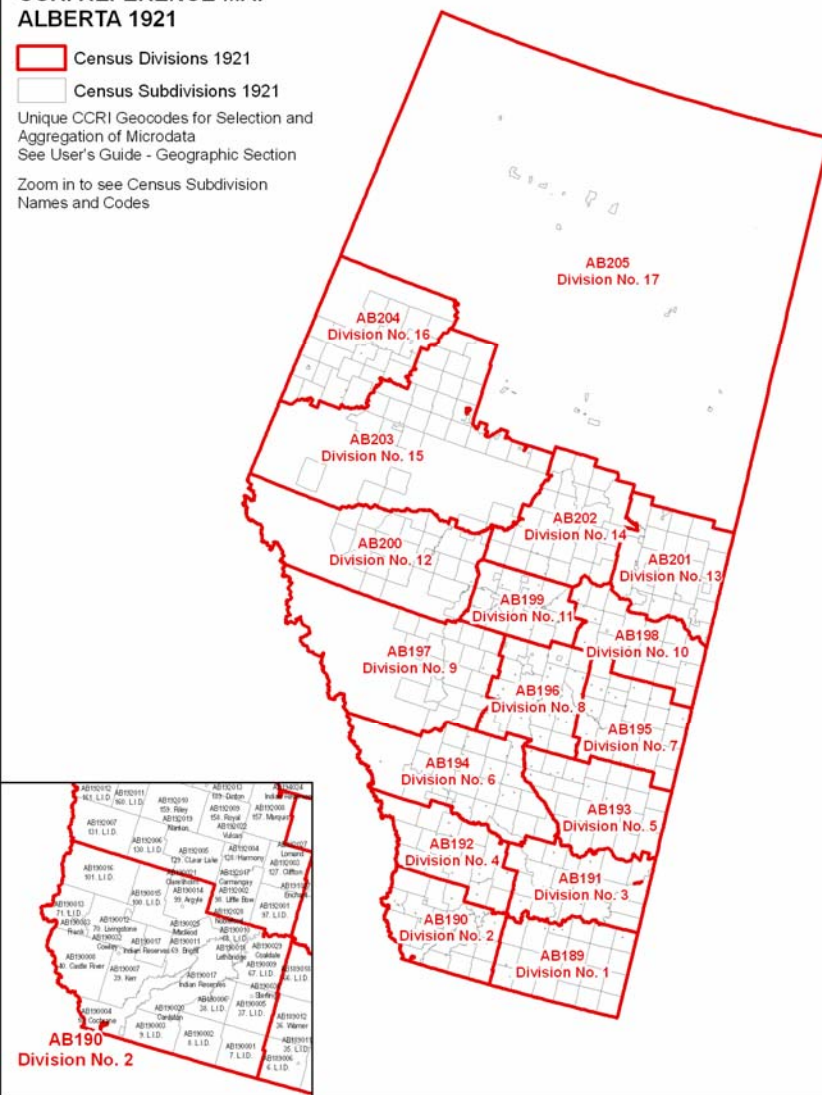
Unique CCRI Geocodes for Selection
See User's Guide - Geographic Section
Zoom in to see Census Subdivision
Names and Codes



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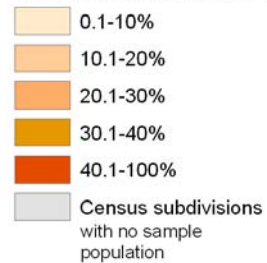
Unique CCRI Geocodes for Selection and
Aggregation of Microdata
See User's Guide - Geographic Section
Zoom in to see Census Subdivision
Names and Codes



CCRI Reference map showing CDs and CSDs, 1911 and 1921

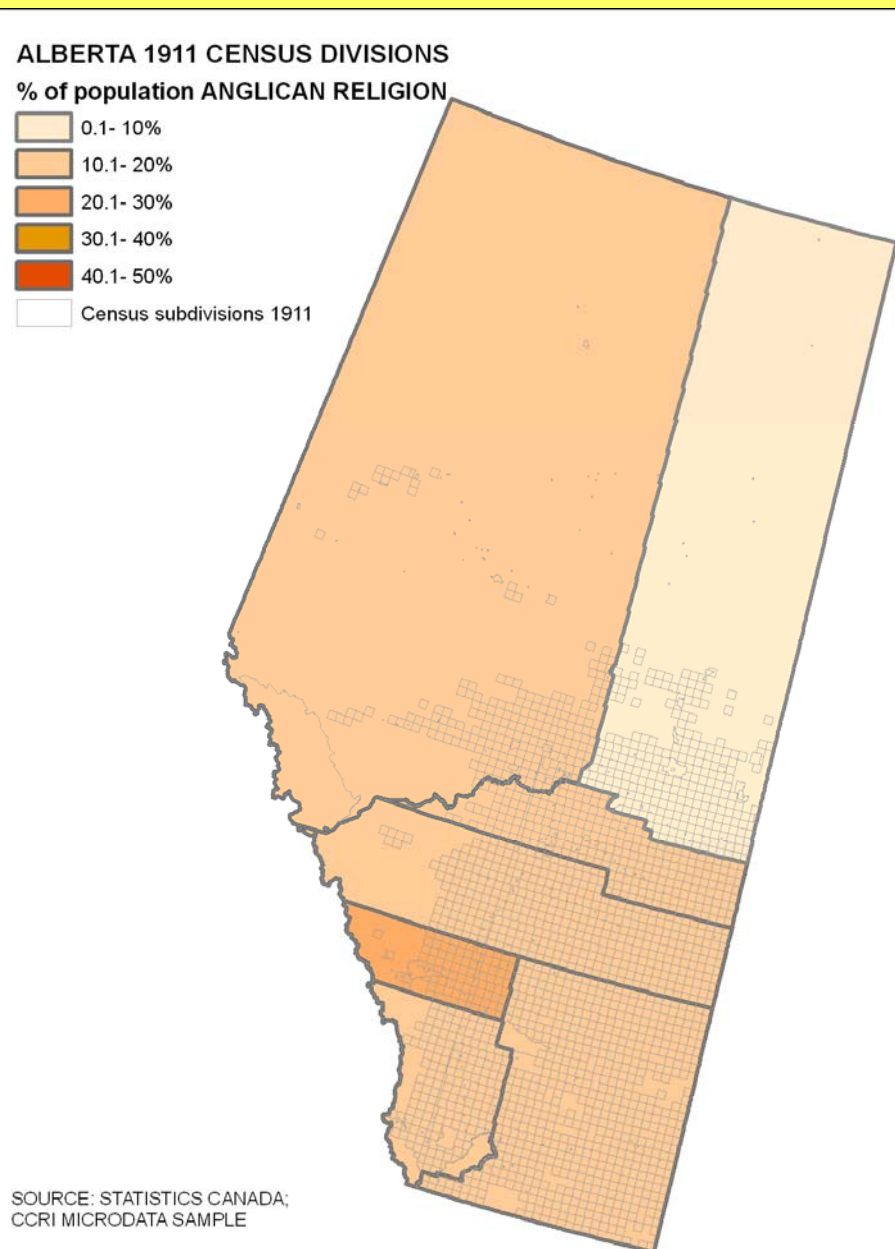
ALBERTA 1911 CENSUS SUBDIVISIONS

% of population ANGLICAN RELIGION



SOURCE: STATISTICS CANADA;
CCRI MICRODATA SAMPLE

Mapping of data from CCRI sample at 1911 CSDs



CCRI microdata 1911 aggregated for mapping at CD

ALBERTA 1911 CENSUS DIVISIONS

% of population ANGLICAN RELIGION

0.1- 10%

10.1- 20%

20.1- 30%

30.1- 40%

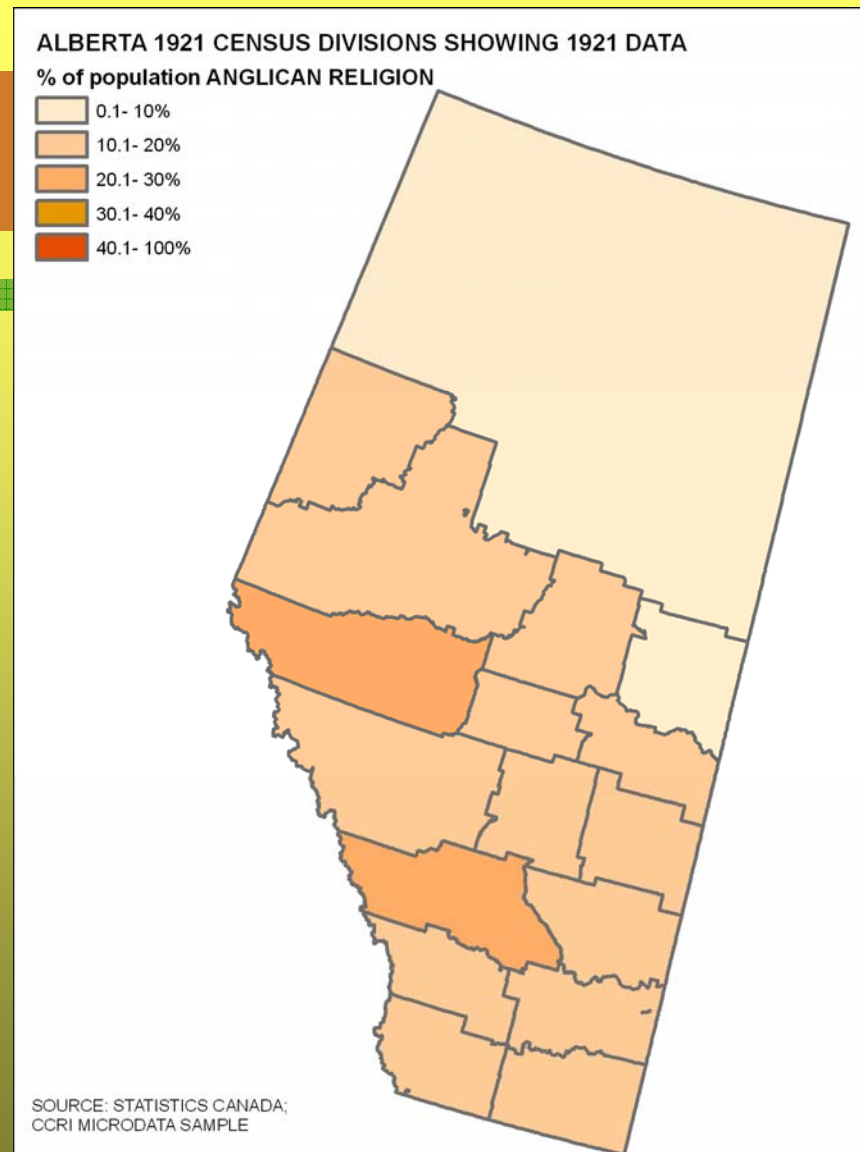
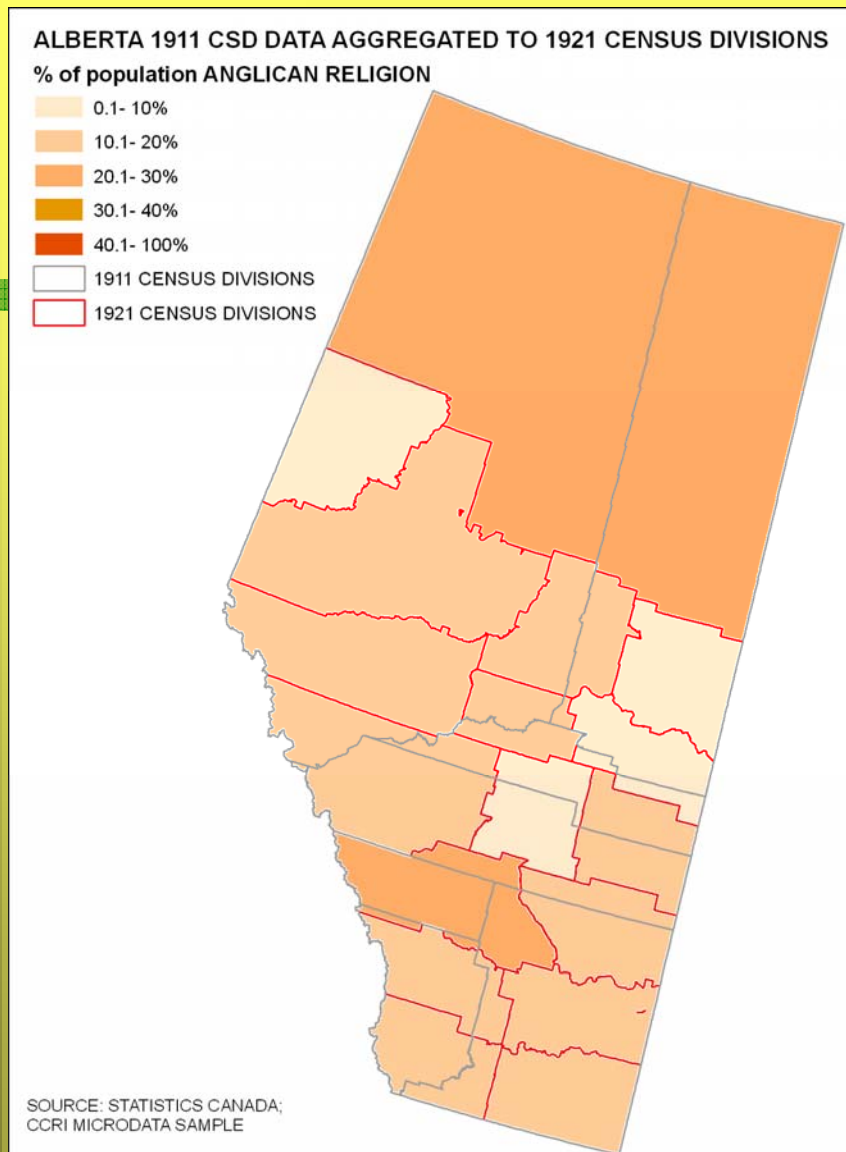
40.1- 50%

Census subdivisions 1911

1921 CENSUS DIVISIONS

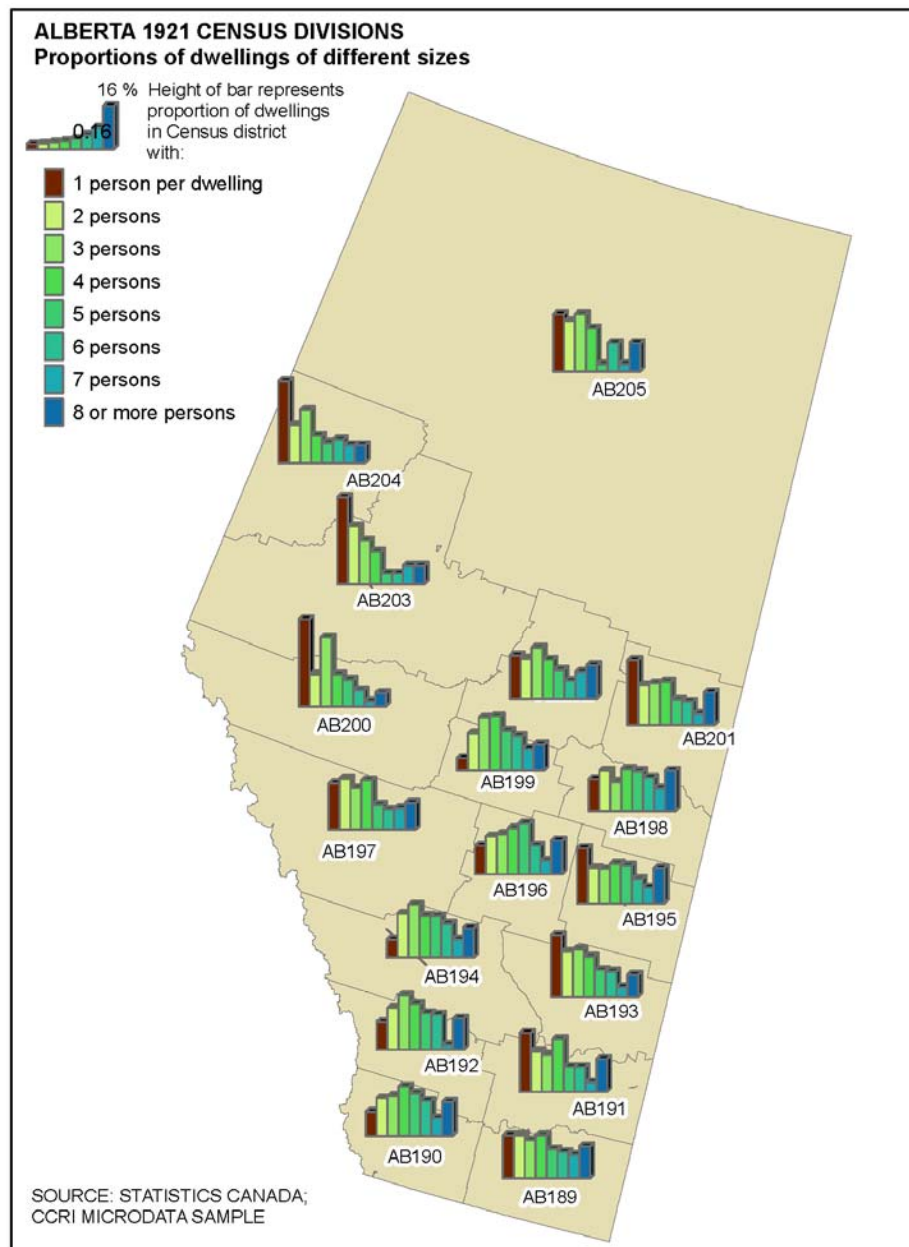
SOURCE: STATISTICS CANADA;
CCRI MICRODATA SAMPLE

CCRI microdata 1911 overlaid by 1921 CDs



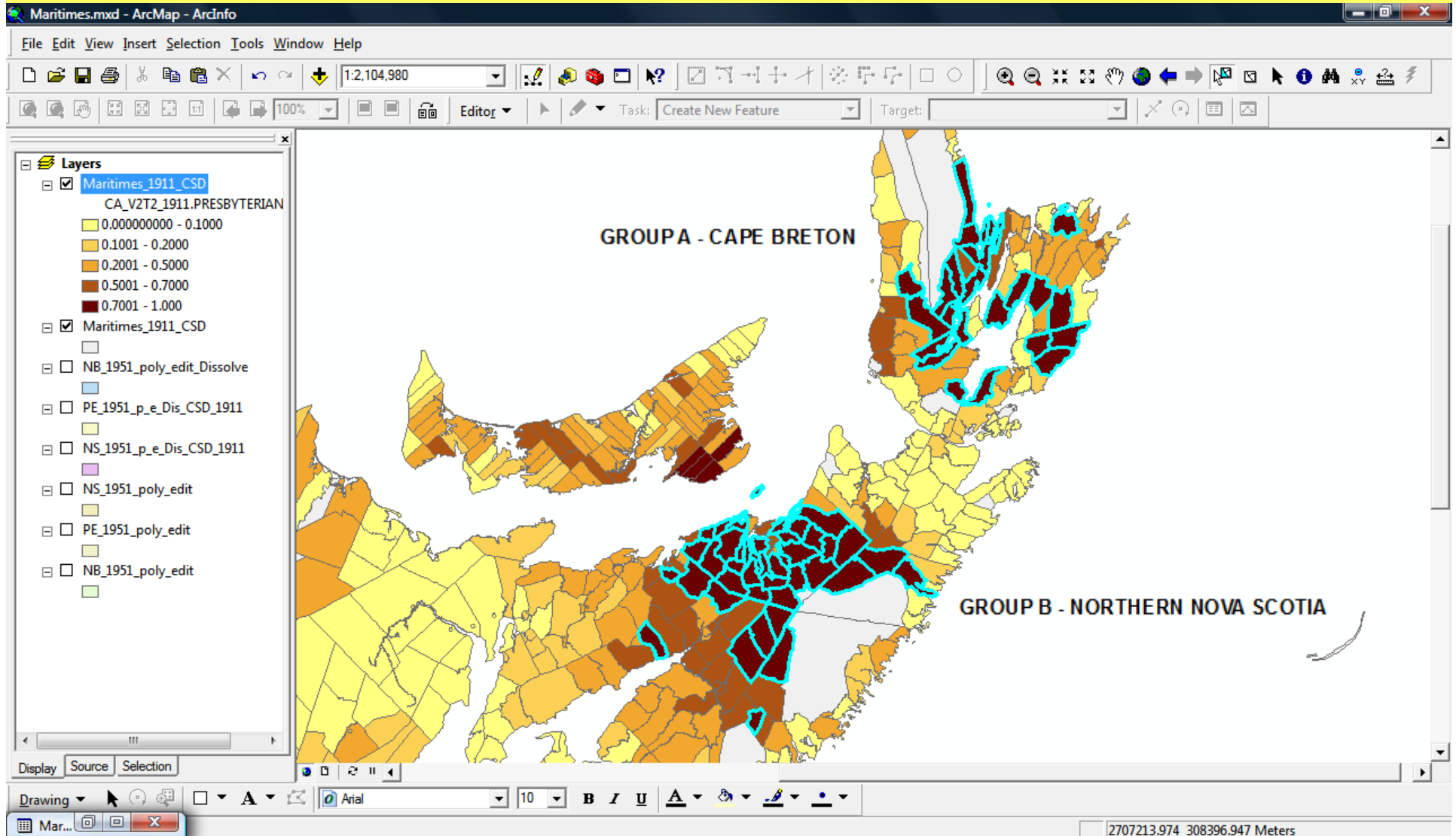
Ability to re-aggregate based on CSDs may allow better intercensal comparisons

Title here



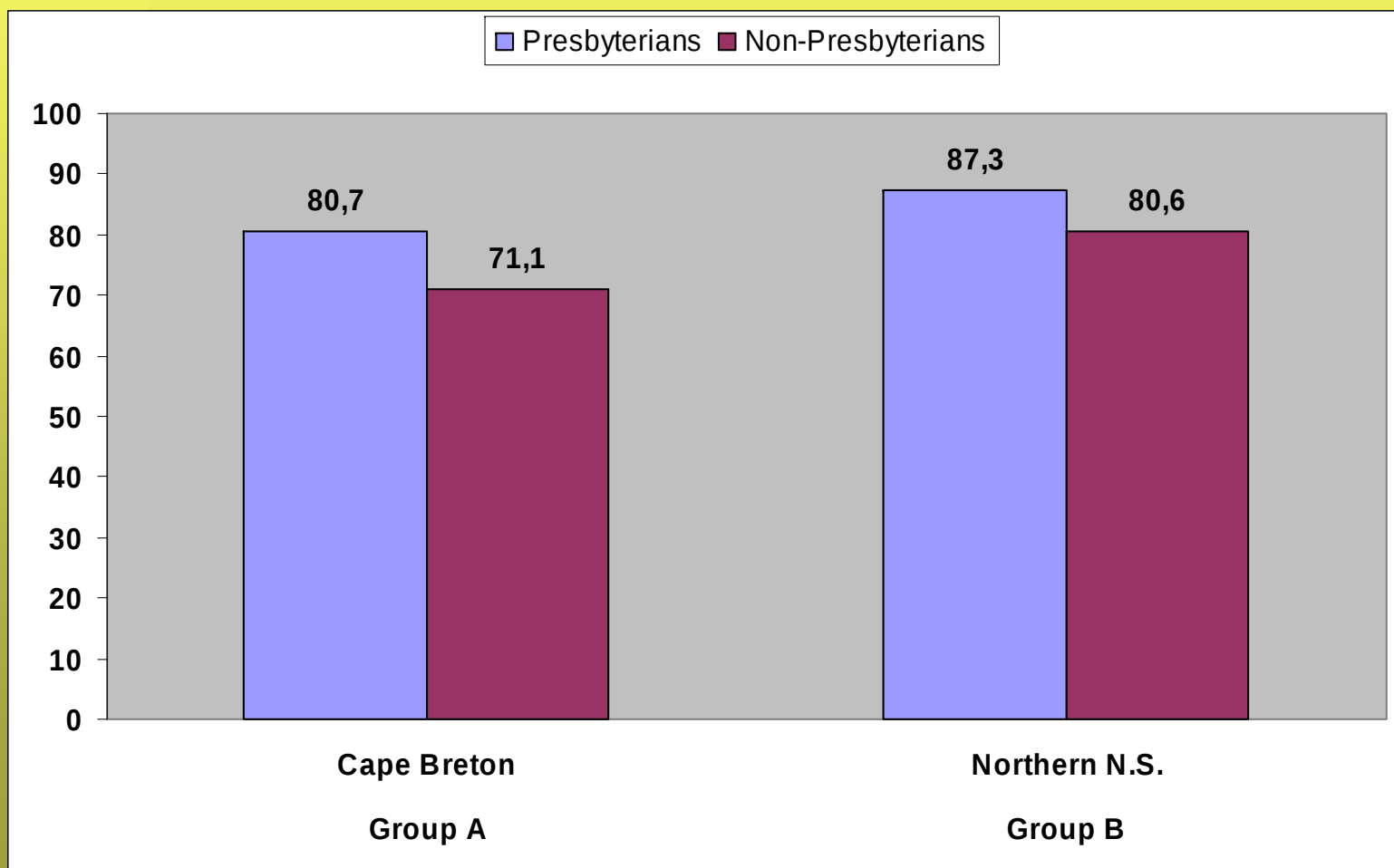
Three examples

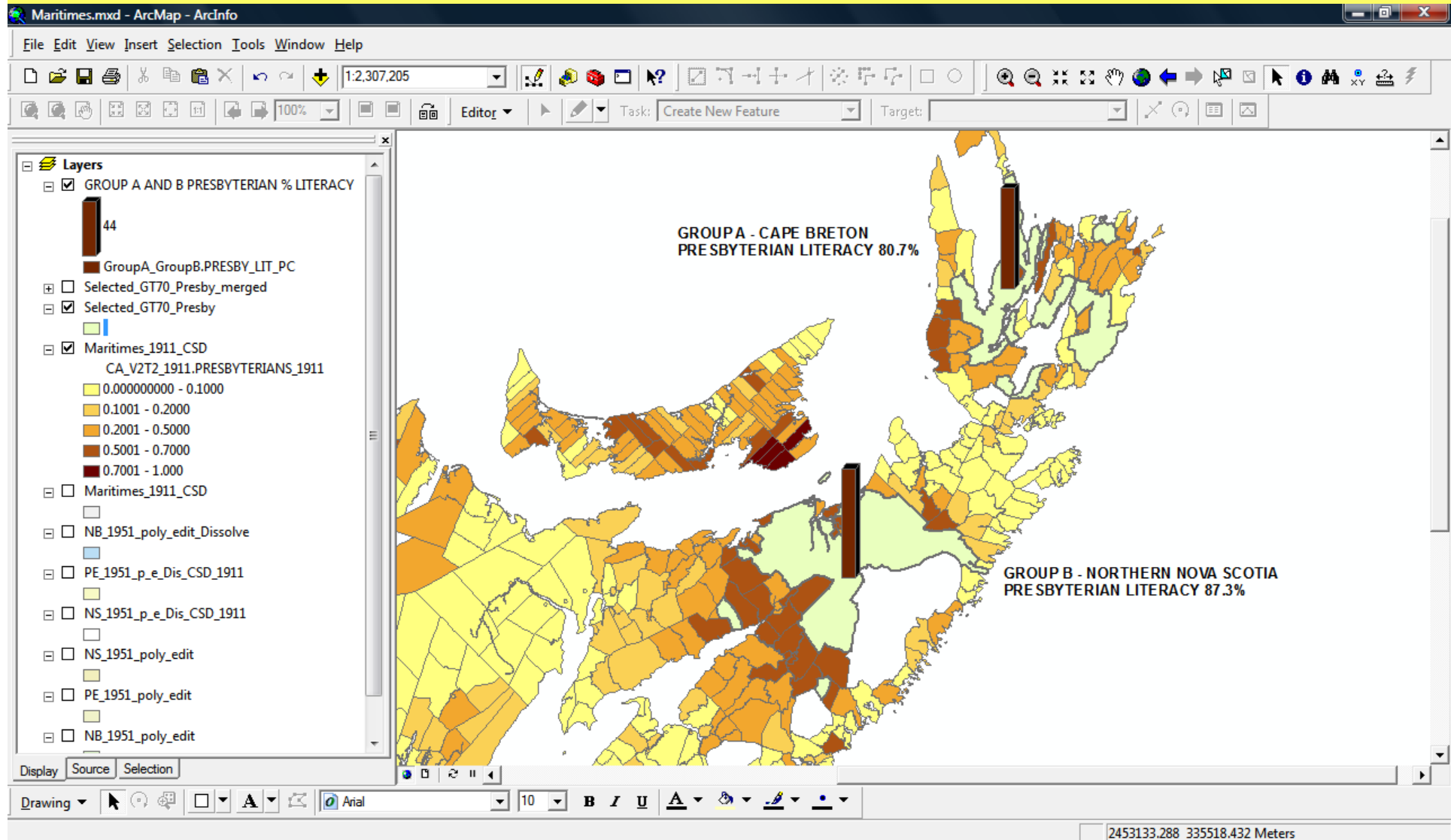
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Selected CSDs Nova Scotia >70 % Presbyterian (from published table)

Literacy rate (can read and can write)





Mapping results of analysis by Group A and Group B

The CCRI's specificities

- Fully integrated micro- and aggregate published data, both georeferenced
- Two-way cross-census harmonisation tools (cartographic and statistical)

Perspectives for the CCRI geographic component

- Updating and enhancing geographic files: census tracts polygons in some cities?
- Propositions for geographical groupings?
- Canadian HGIS?