

CCRI geographic component

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

CCRI Geocoding subgroup



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Kerrie Lowe	Laura-Lee Bolger
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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

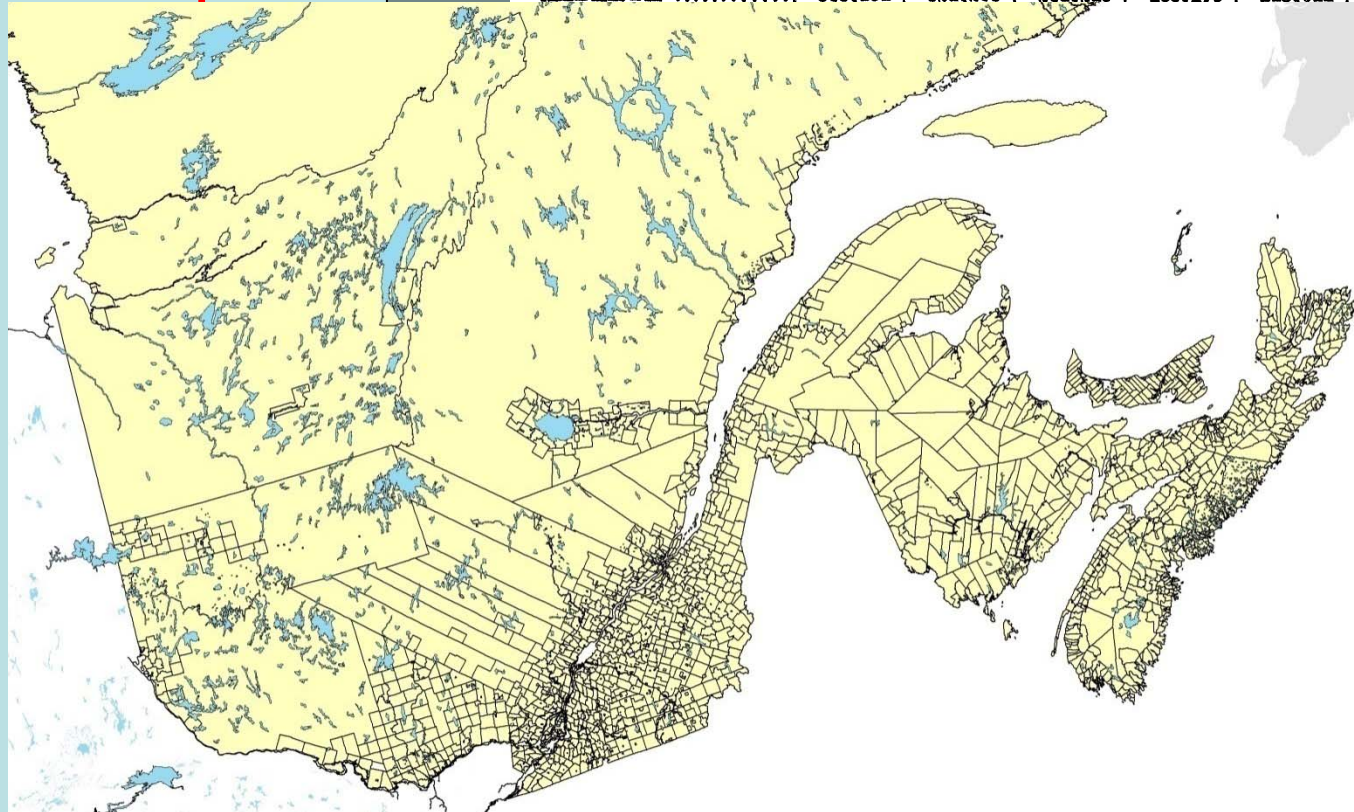
CCRI geographic products

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	Male	Female	Male	Female	Male	Female	Male	Female
	Les deux sexes	Hommes	Femmes	Hommes	Femmes	Hommes	Femmes	Hommes	Femmes
ALBERTA ¹	588,454	324,208	264,246	166,176	148,914	55,724	43,668	102,308	71,664
						2,377	2,012	6,511	4,753
						7	-	21	20
						16	9	75	47
						7	5	113	69
						50	38	265	150
						42	17	258	193
						14	8	142	106
						7	4	36	15
						39	31	304	207
						50	28	186	124
						62	46	266	187



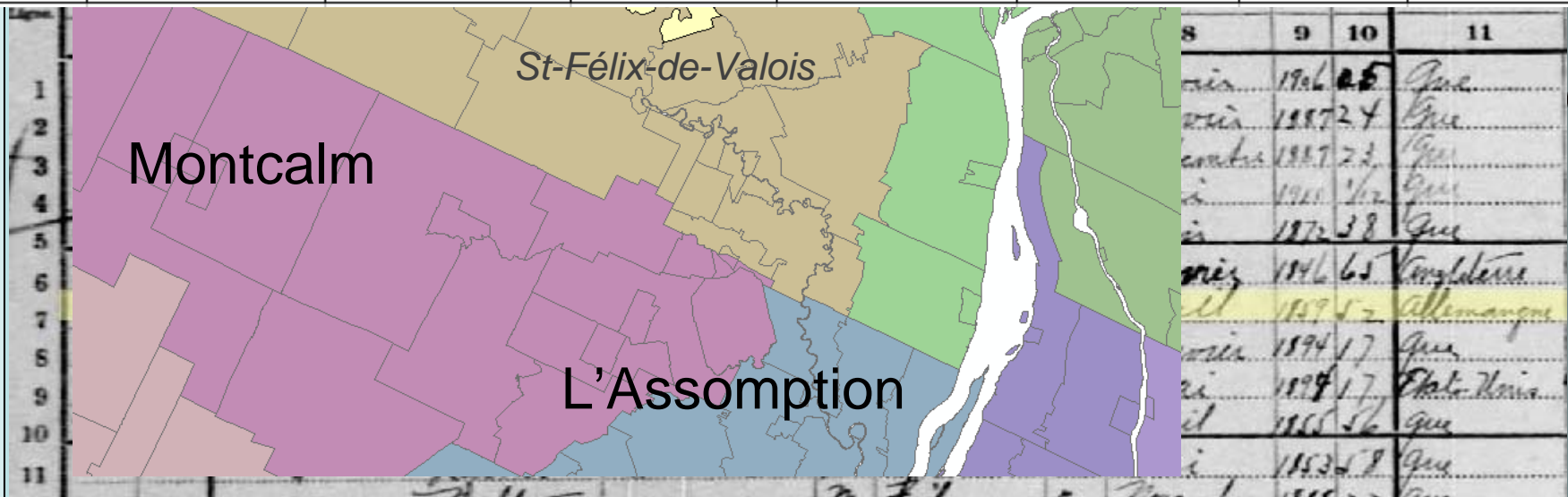
polygons
(CCRIUID)

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. Côme	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

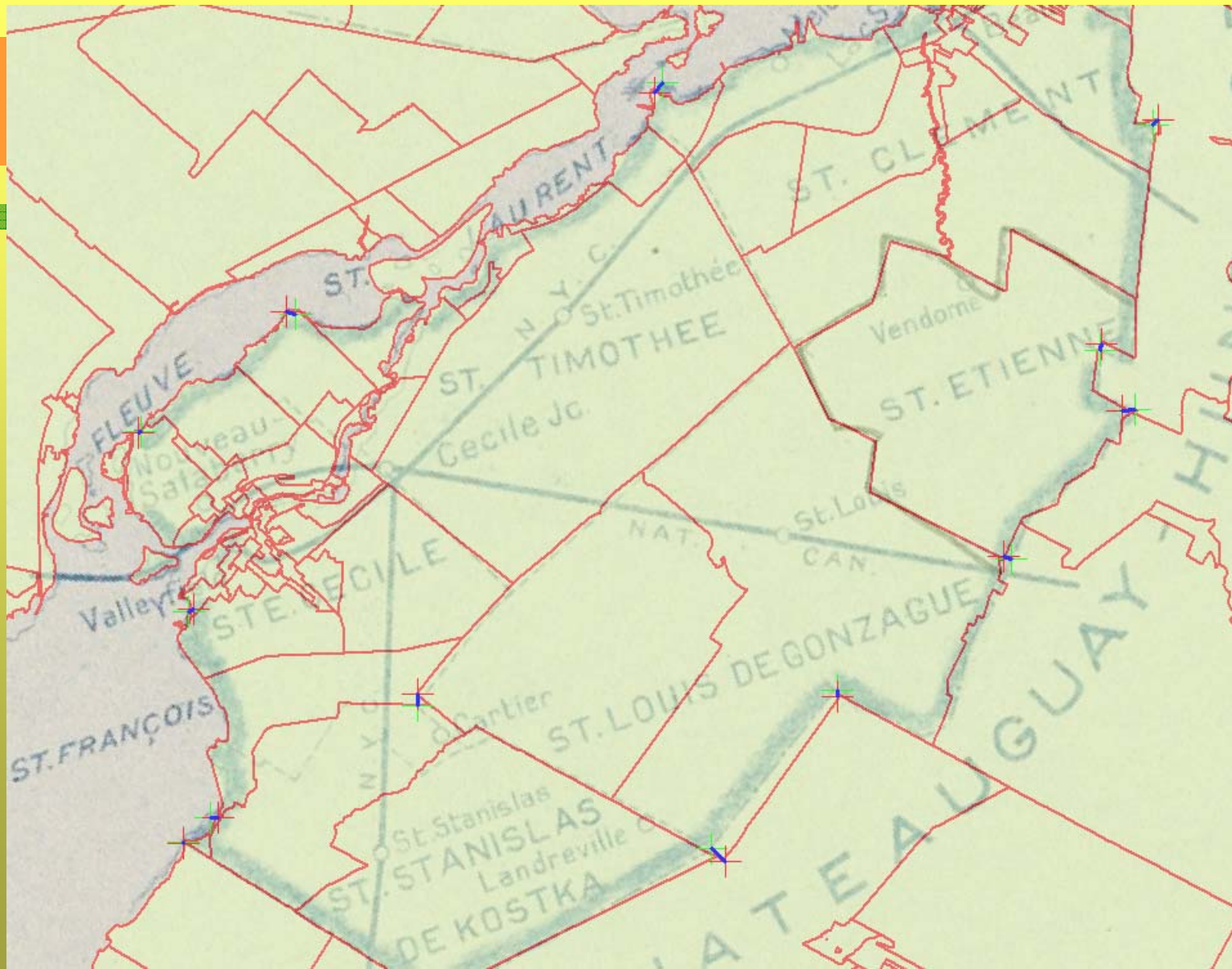
Canadian census geographies

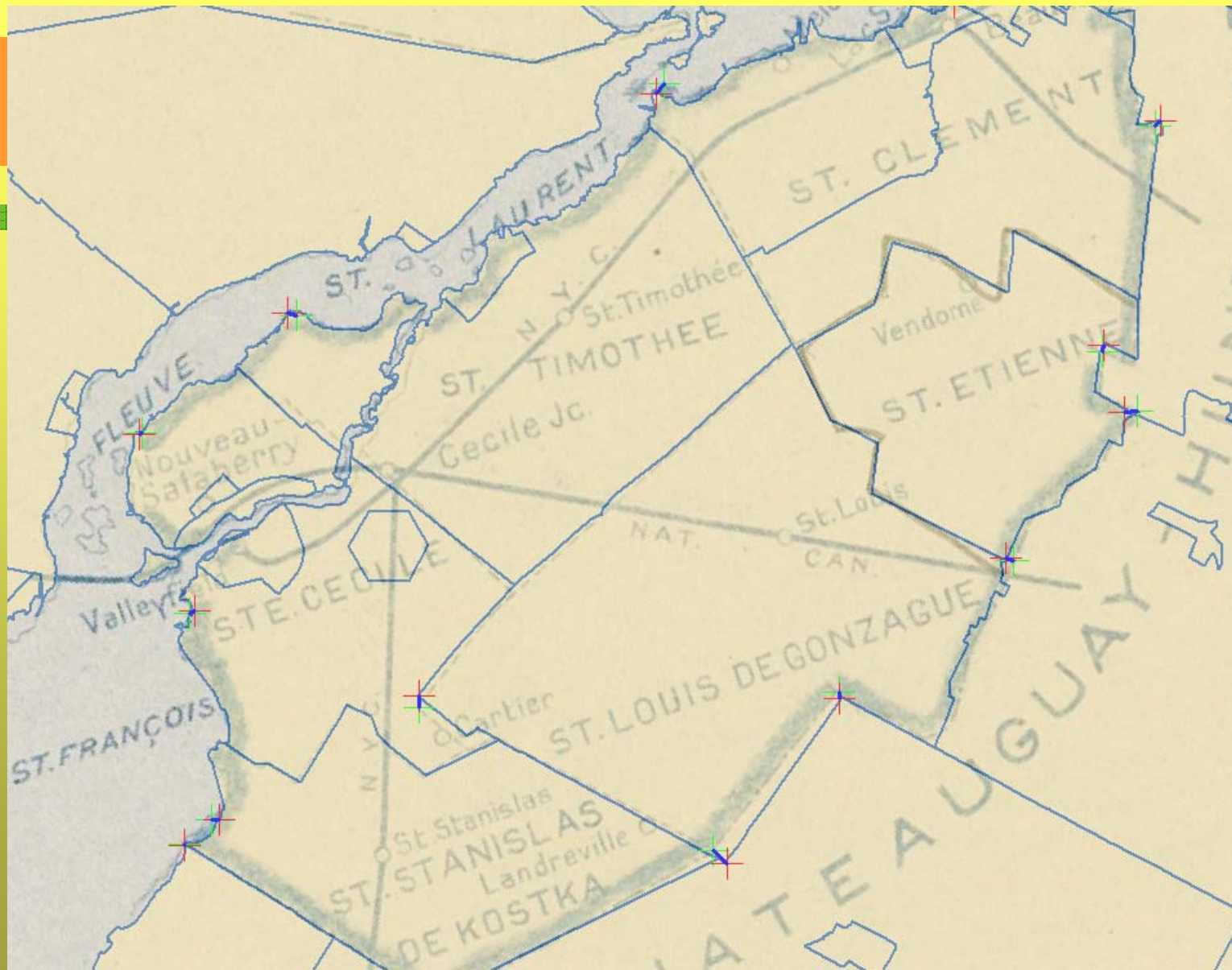
- **Census-taking geography:**
 - Based upon electoral geography
 - Two levels:
 - Census division (CD) = Federal electoral district
 - Enumeration area (EA) = Polling district (“walked” by the enumerator)
 - Used for the enumeration and the preservation of manuscript census schedules (bending and microfilming)
- **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?

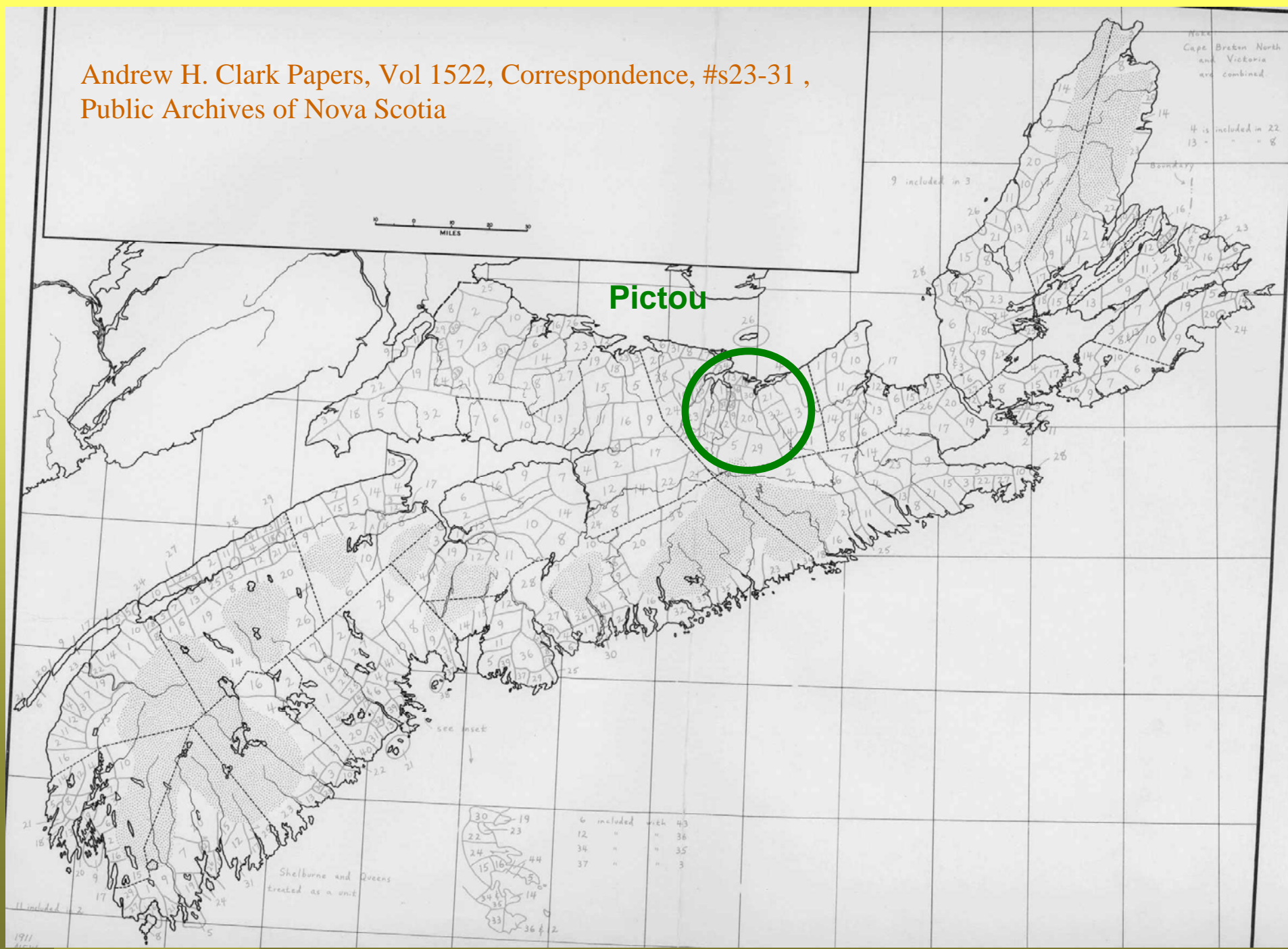
1. Digitized published tables (N=23)
2. Polygon files
3. Processing of the micro-data
 - a. Location of the micro-data
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Andrew H. Clark Papers, Vol 1522, Correspondence, #s23-31,
Public Archives of Nova Scotia



csd_Pictou_11_arc

LOCLINE

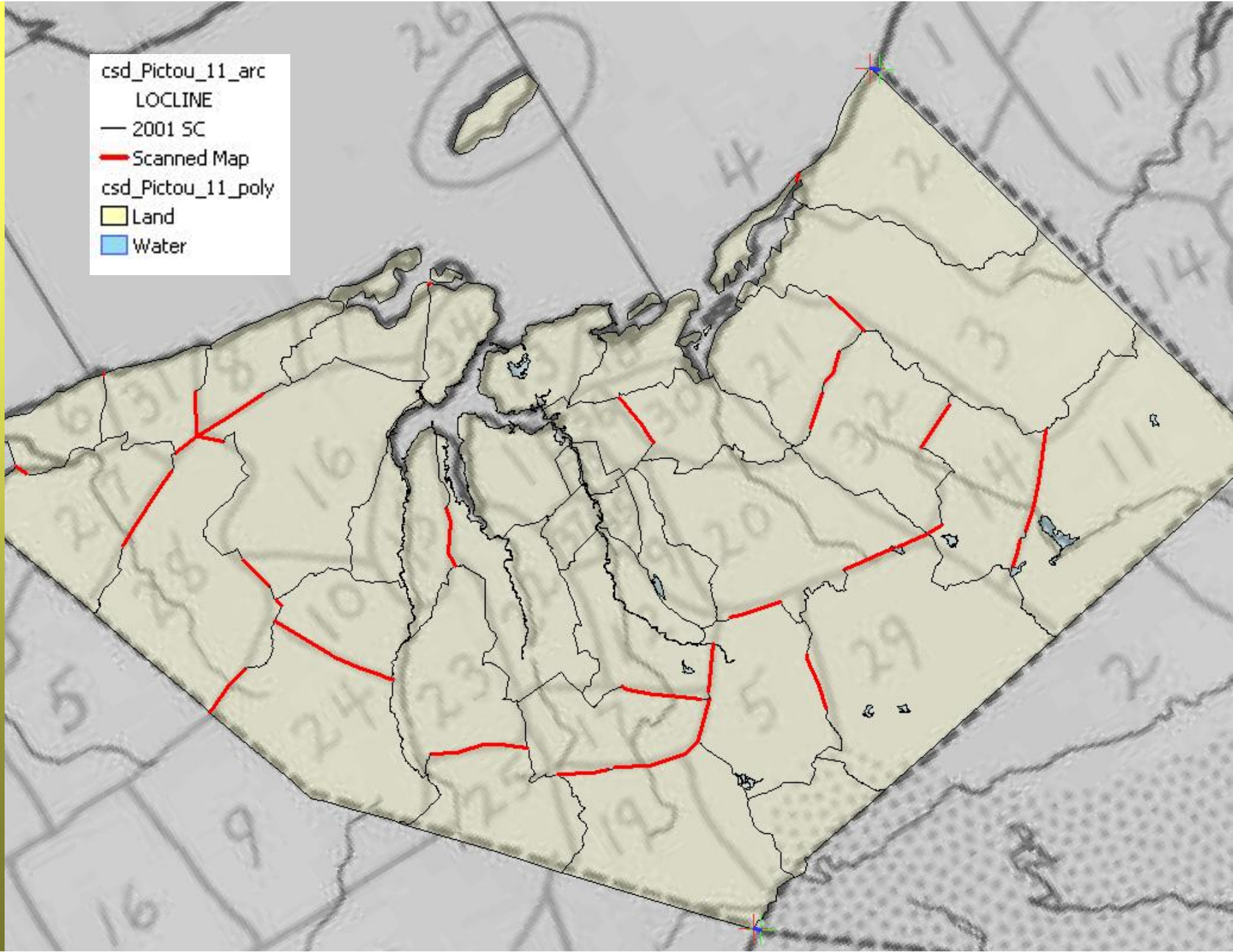
— 2001 SC

— Scanned Map

csd_Pictou_11_poly

Land

Water



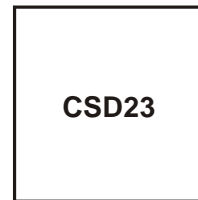
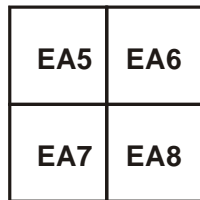
How has geographic products been constructed?

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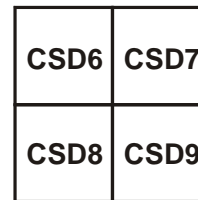
Locate the micro data sample

Census taking

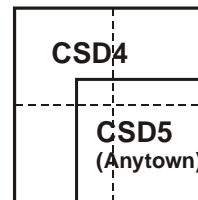
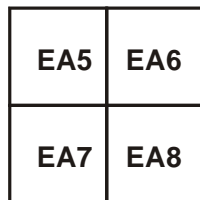
Census dissemination



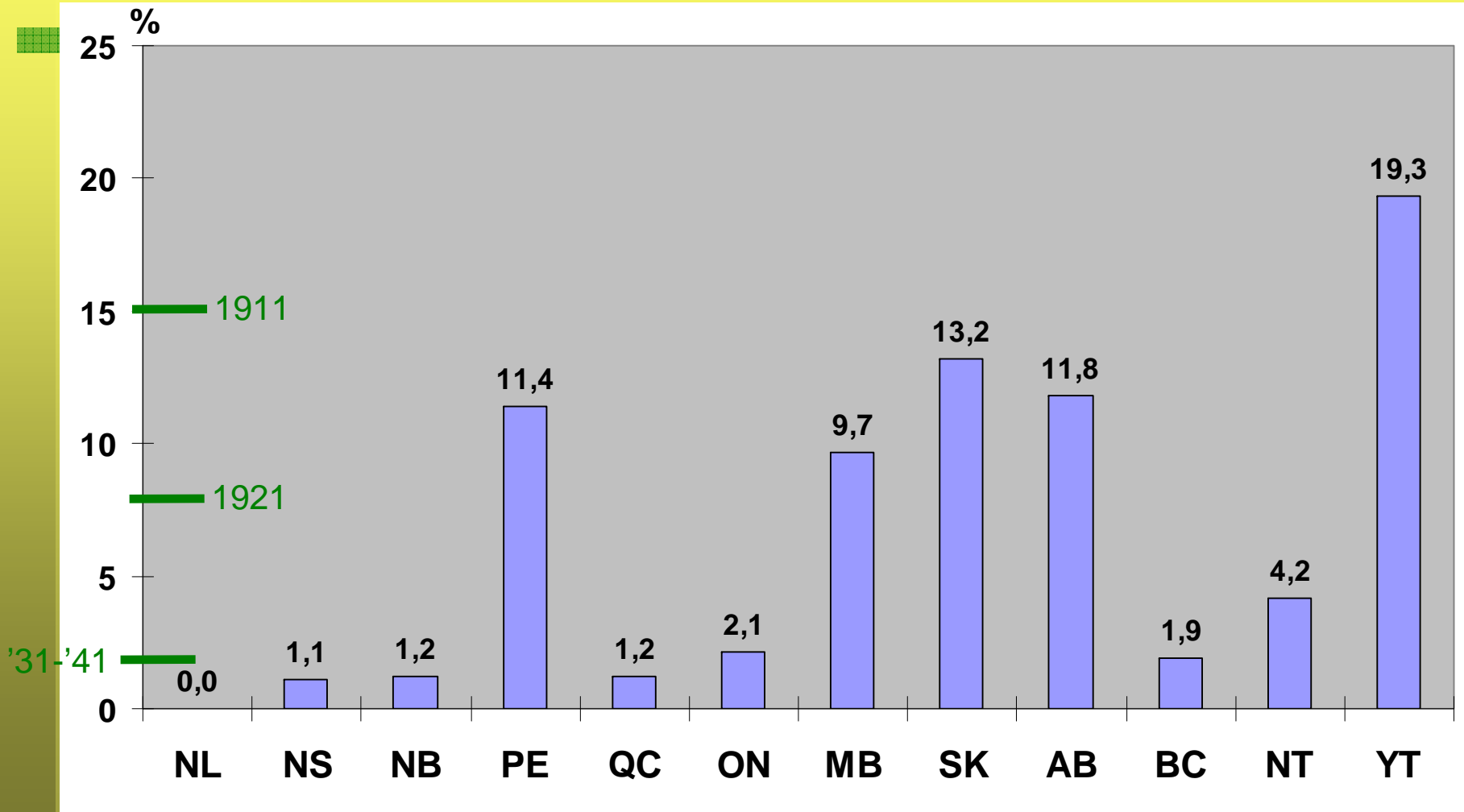
Direct One to One or Many to One correspondence: EAs aggregate well to CSDs



EA is split among more than one CSD



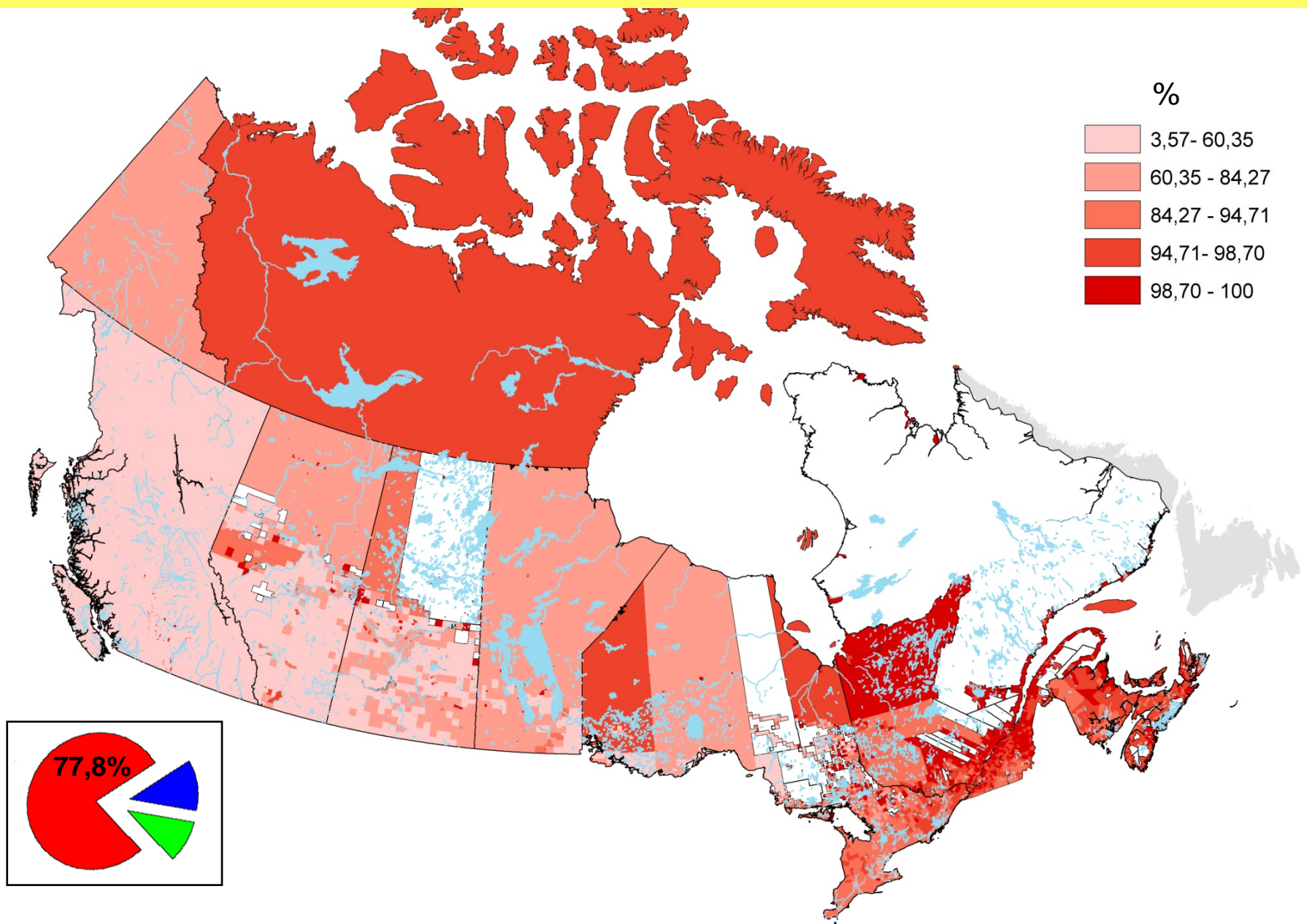
EA split by province (1911-1951)



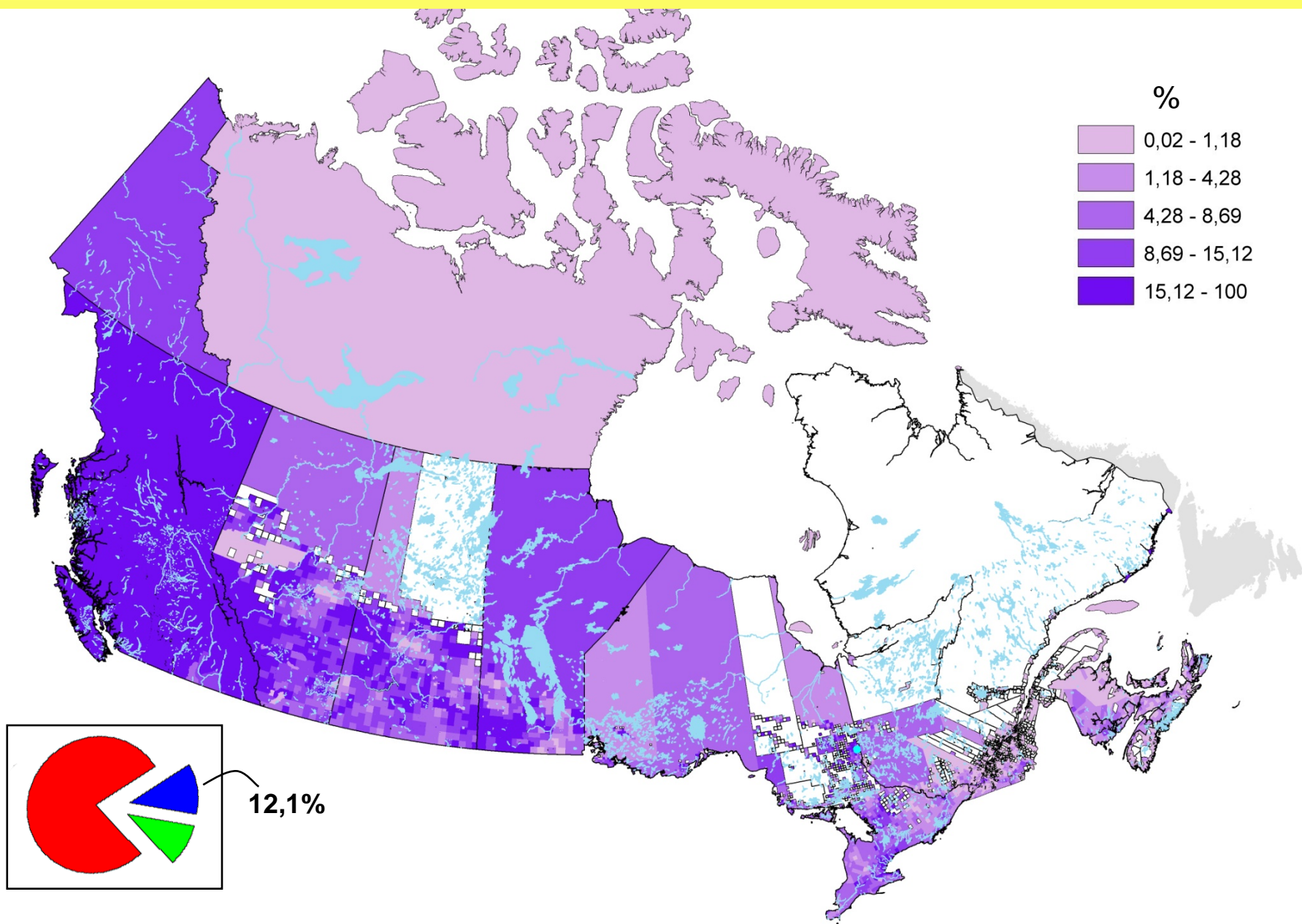
Three examples

- 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**

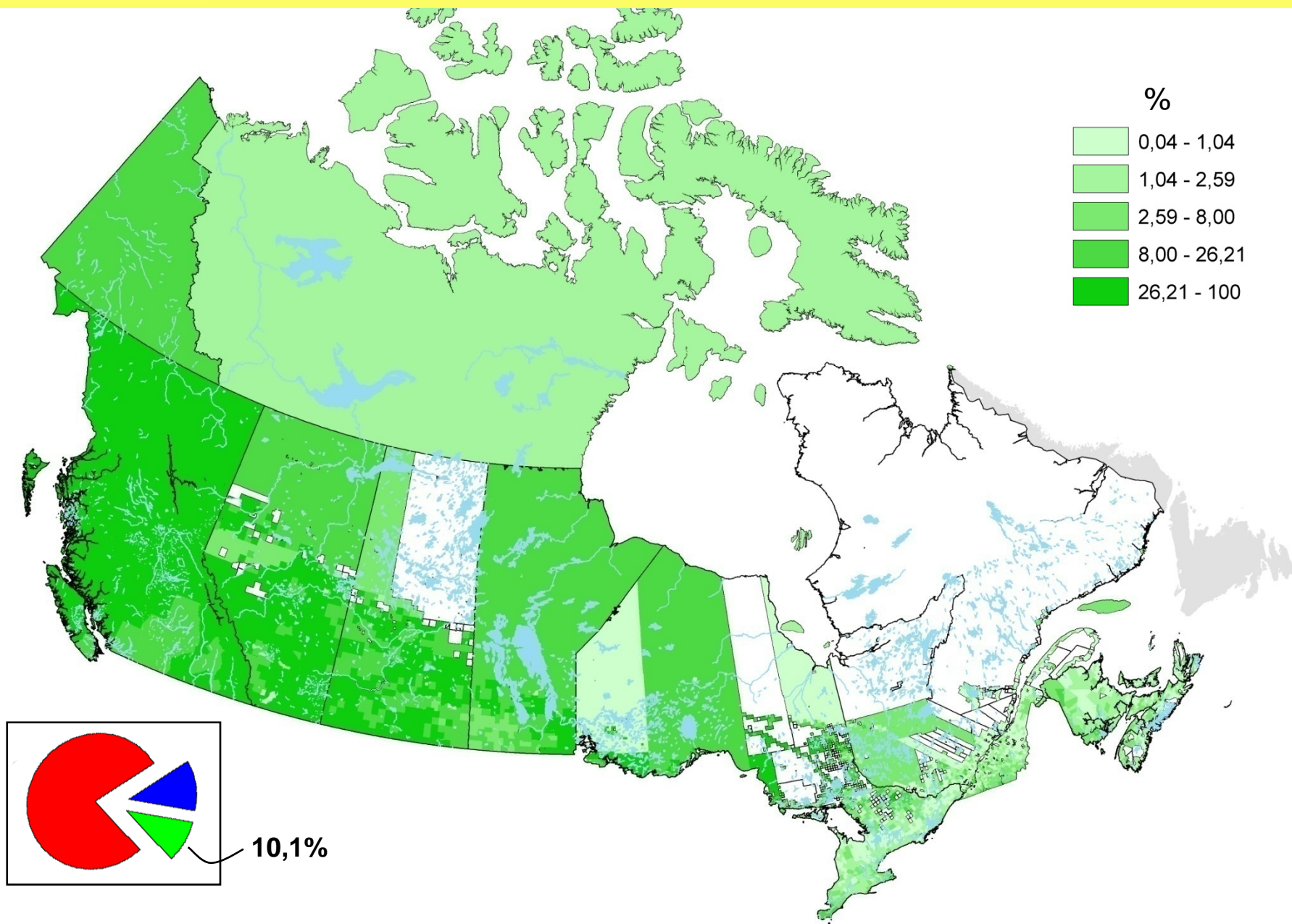
Canadian-born population, 1921 (N= 6,832,747)



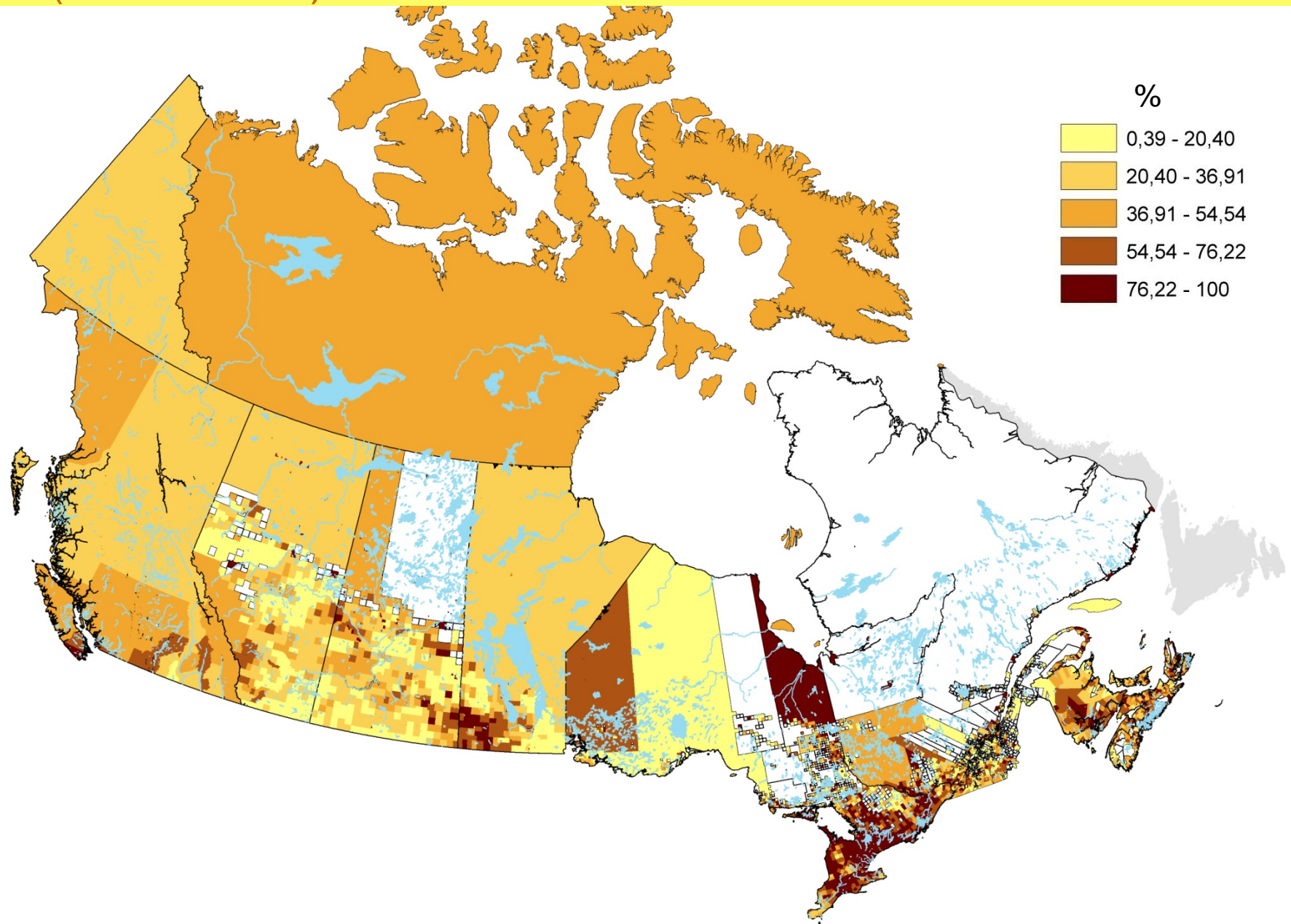
British-born population, 1921 (N= 1,065,454)



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



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



Three examples

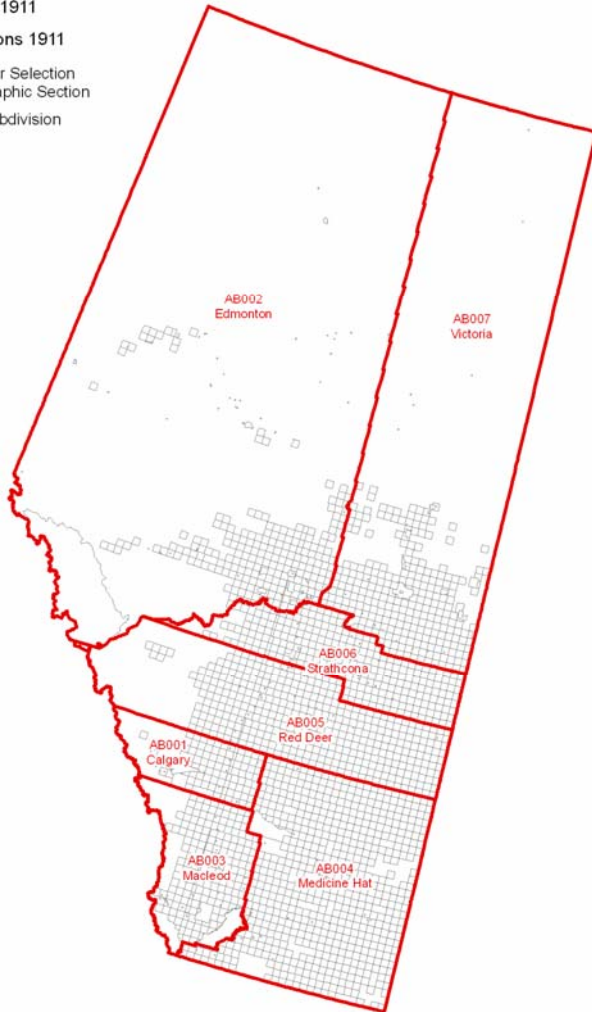
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CCRI REFERENCE MAP ALBERTA 1911

- 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

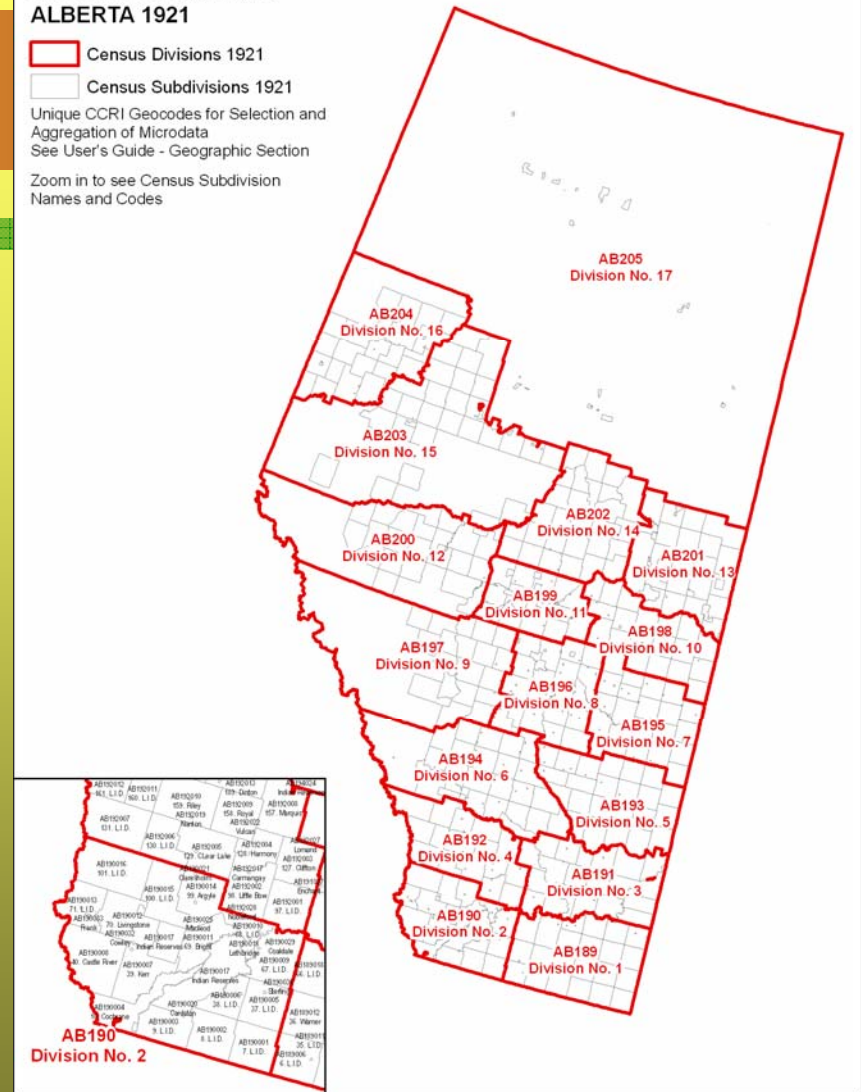


CCRI REFERENCE MAP ALBERTA 1921

- Census Divisions 1921
- Census Subdivisions 1921

Unique CCRI Geocodes for Selection and
Aggregation of Microdata
See User's Guide - Geographic Section

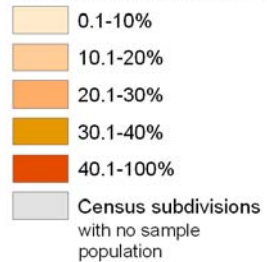
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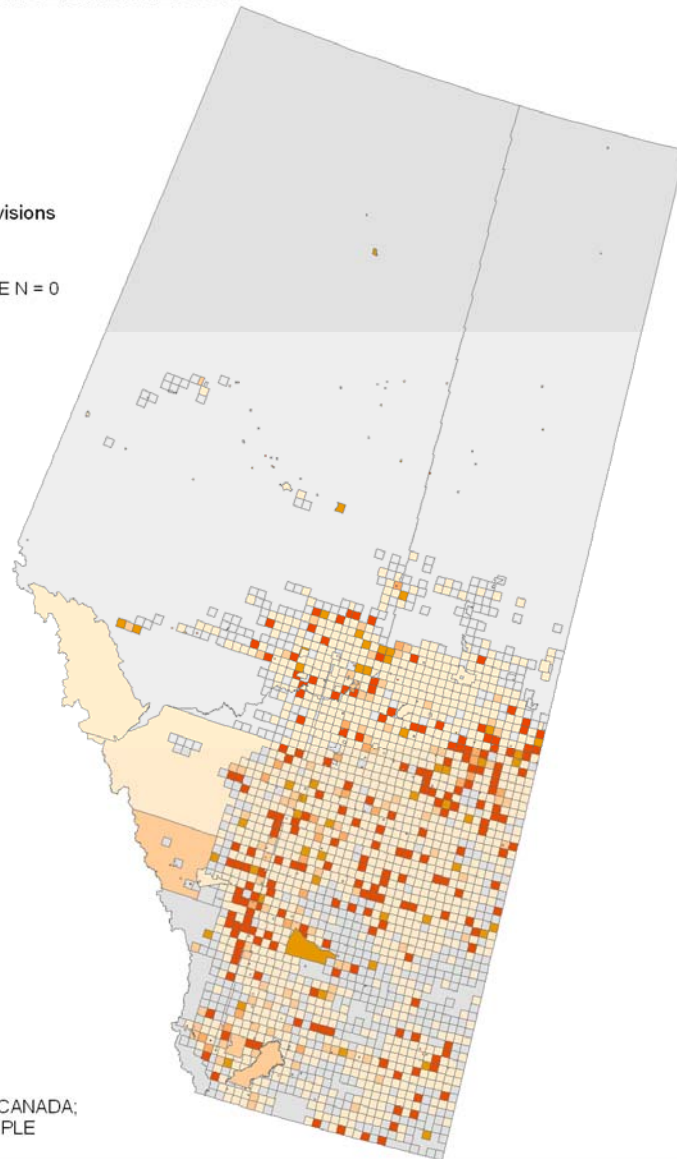
CCRI Reference map showing CDs and CSDs, 1911 and 1921

ALBERTA 1911 CENSUS SUBDIVISIONS

% of population ANGLICAN RELIGION

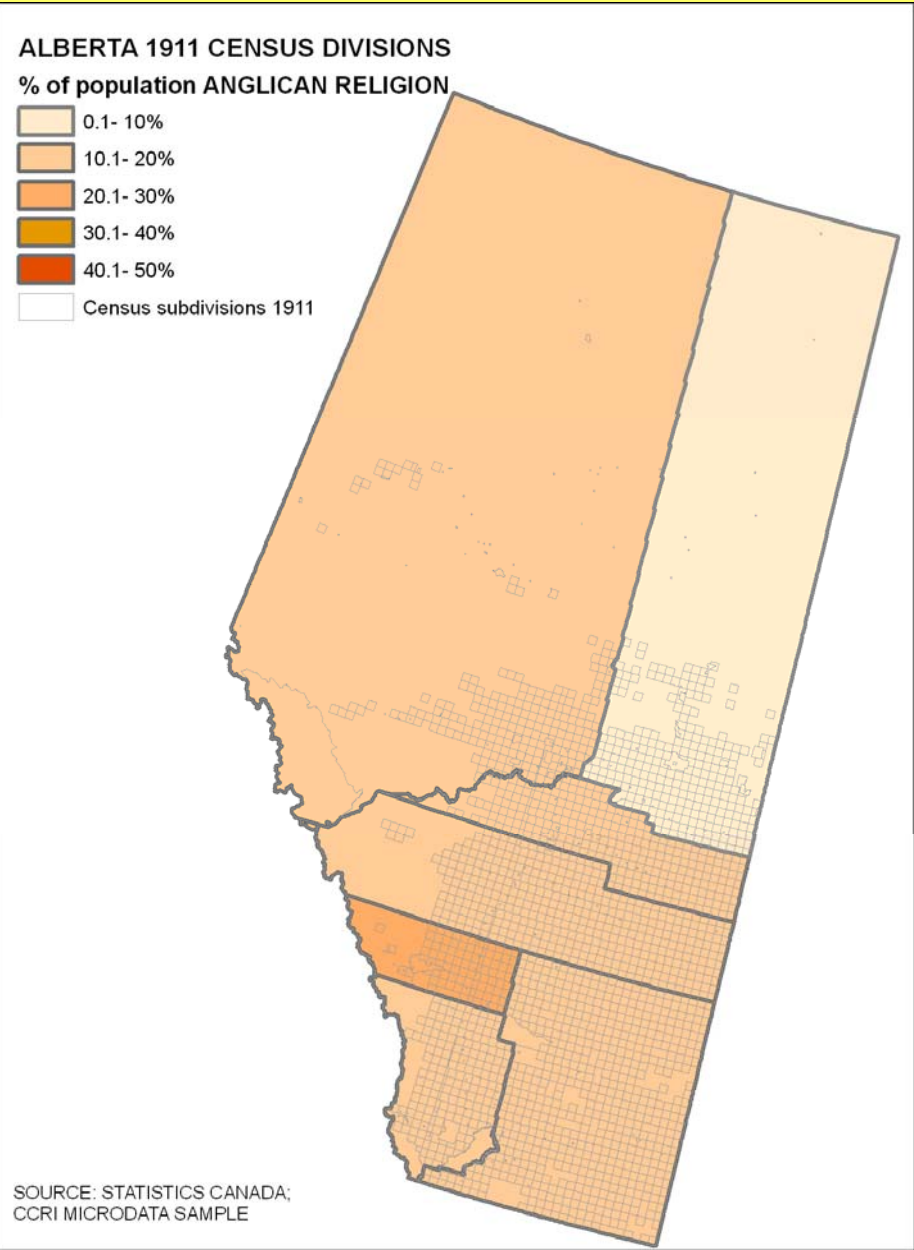


SUBDIVISIONS WHERE N = 0
ARE NOT SHOWN

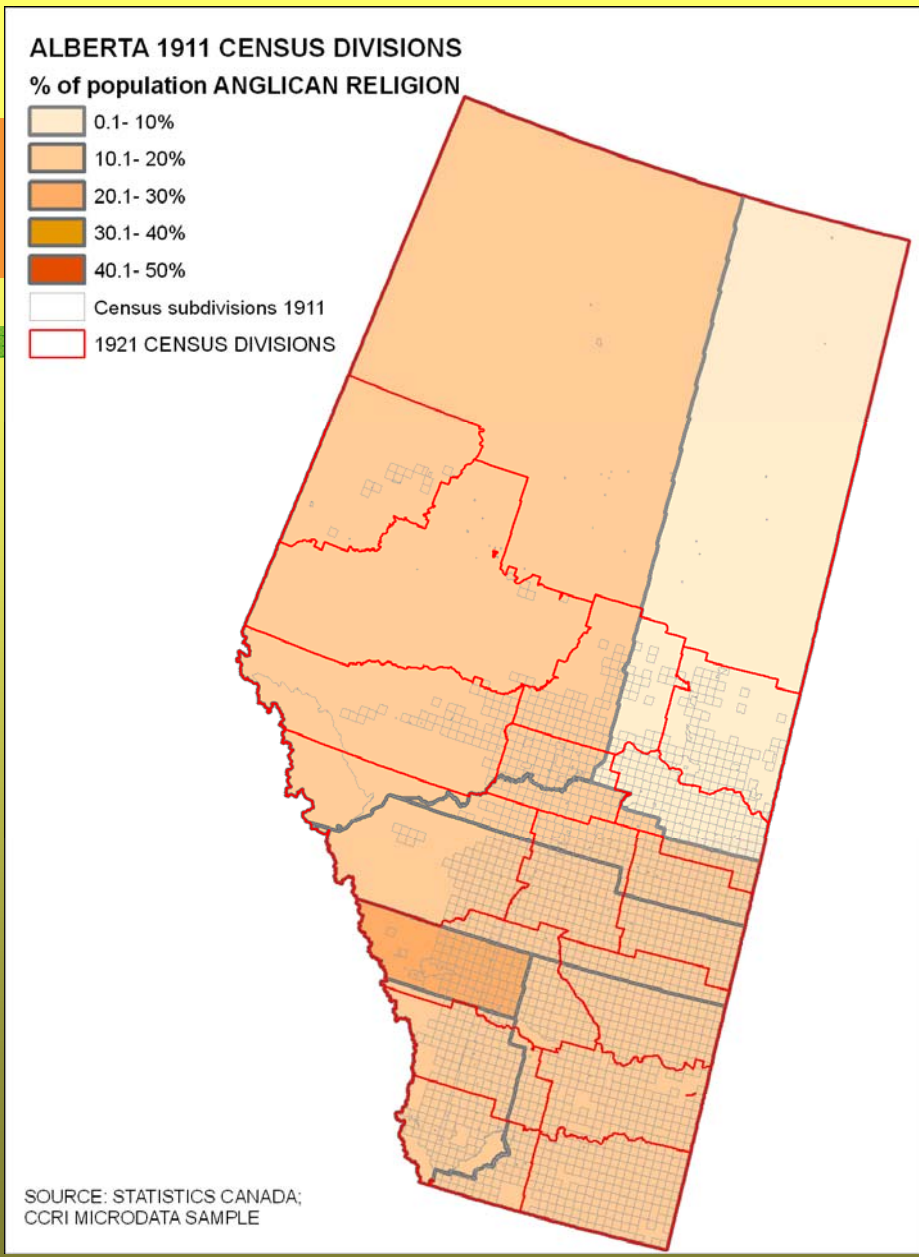


SOURCE: STATISTICS CANADA;
CCRI MICRODATA SAMPLE

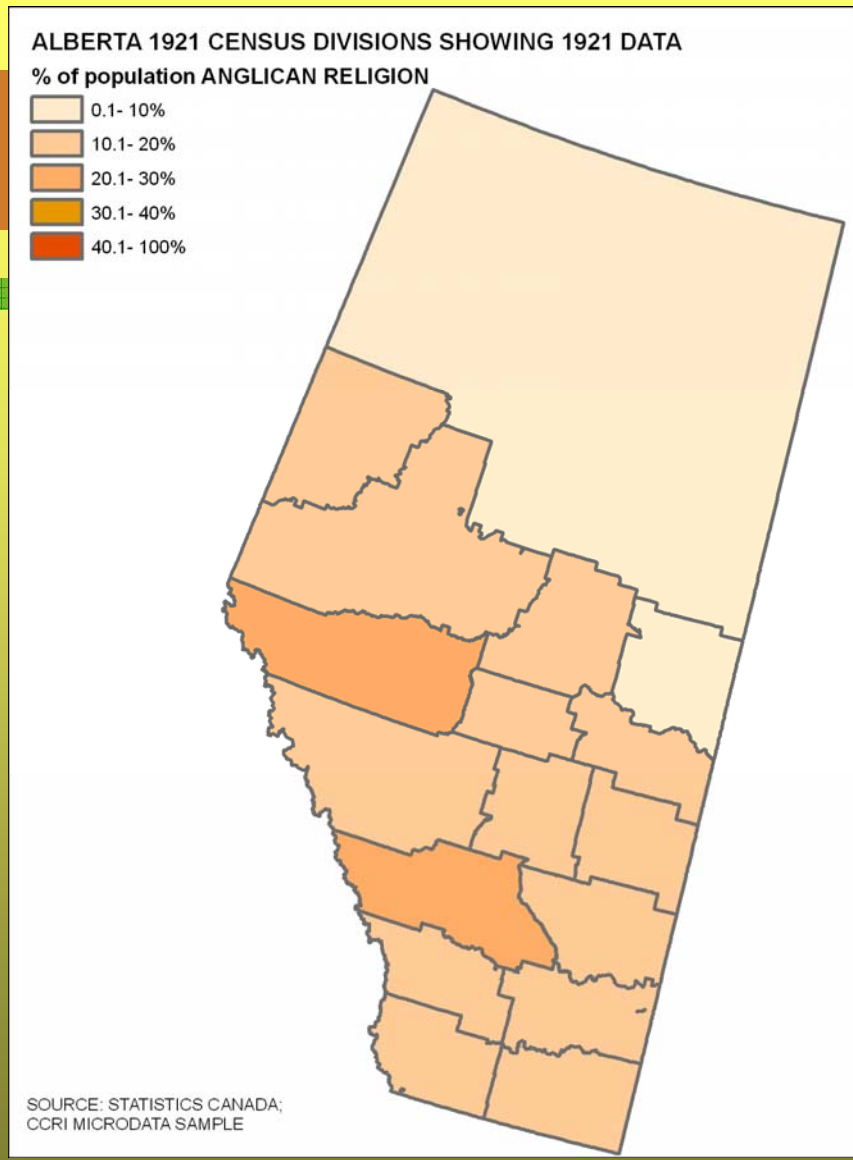
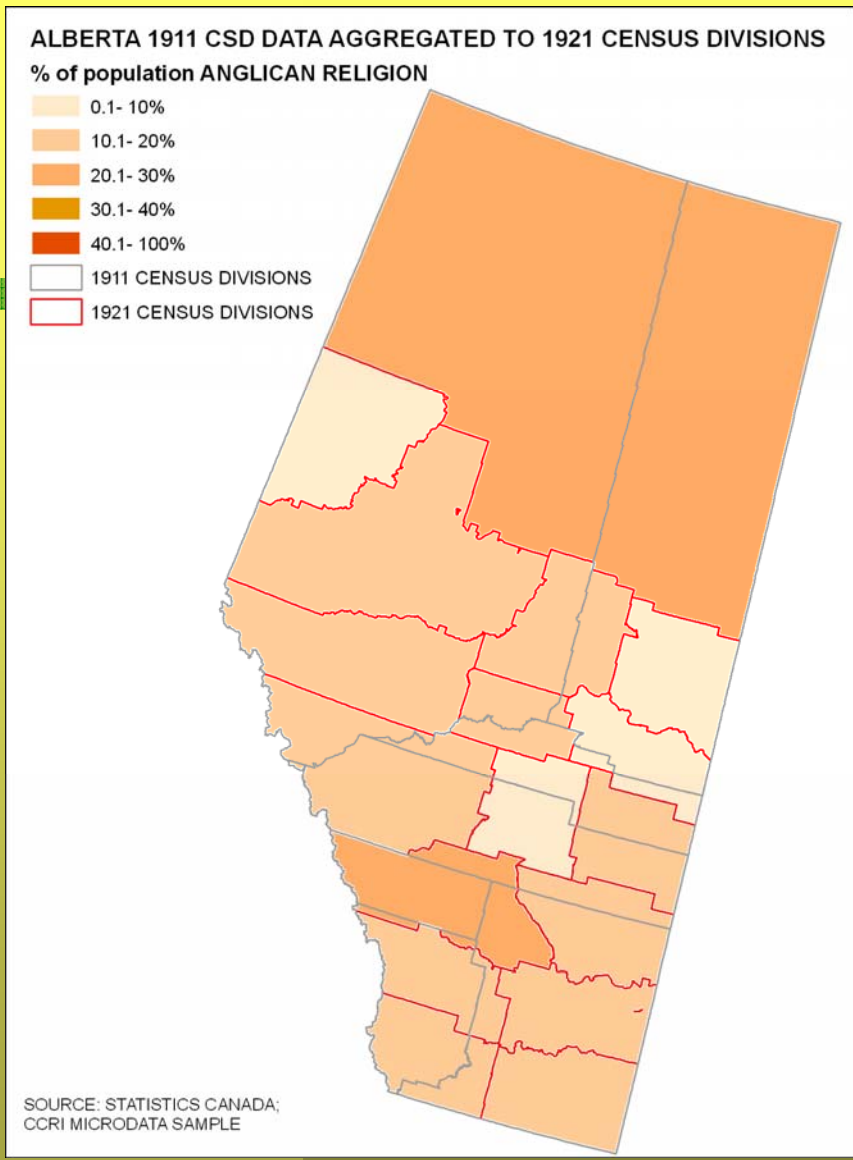
Mapping of data from CCRI sample at 1911 CSDs



CCRI microdata 1911 aggregated for mapping at CD

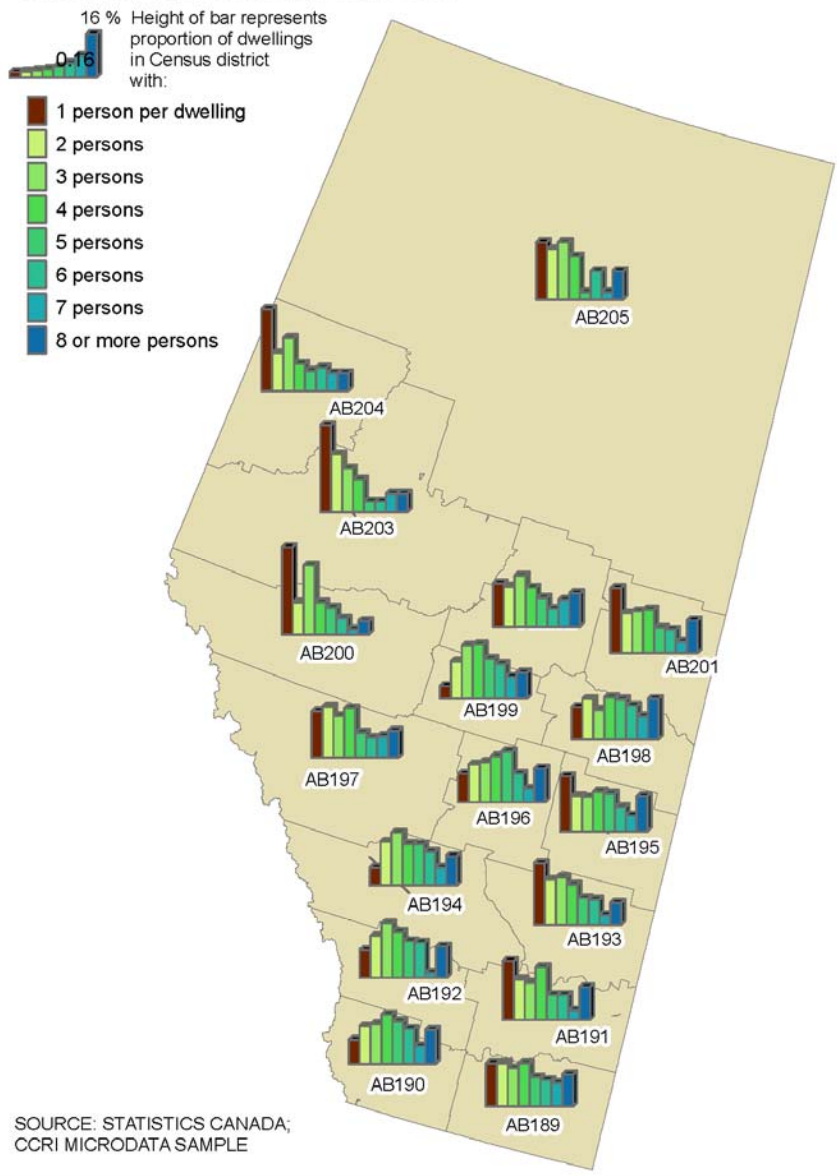


CCRI microdata 1911 overlaid by 1921 CDs



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

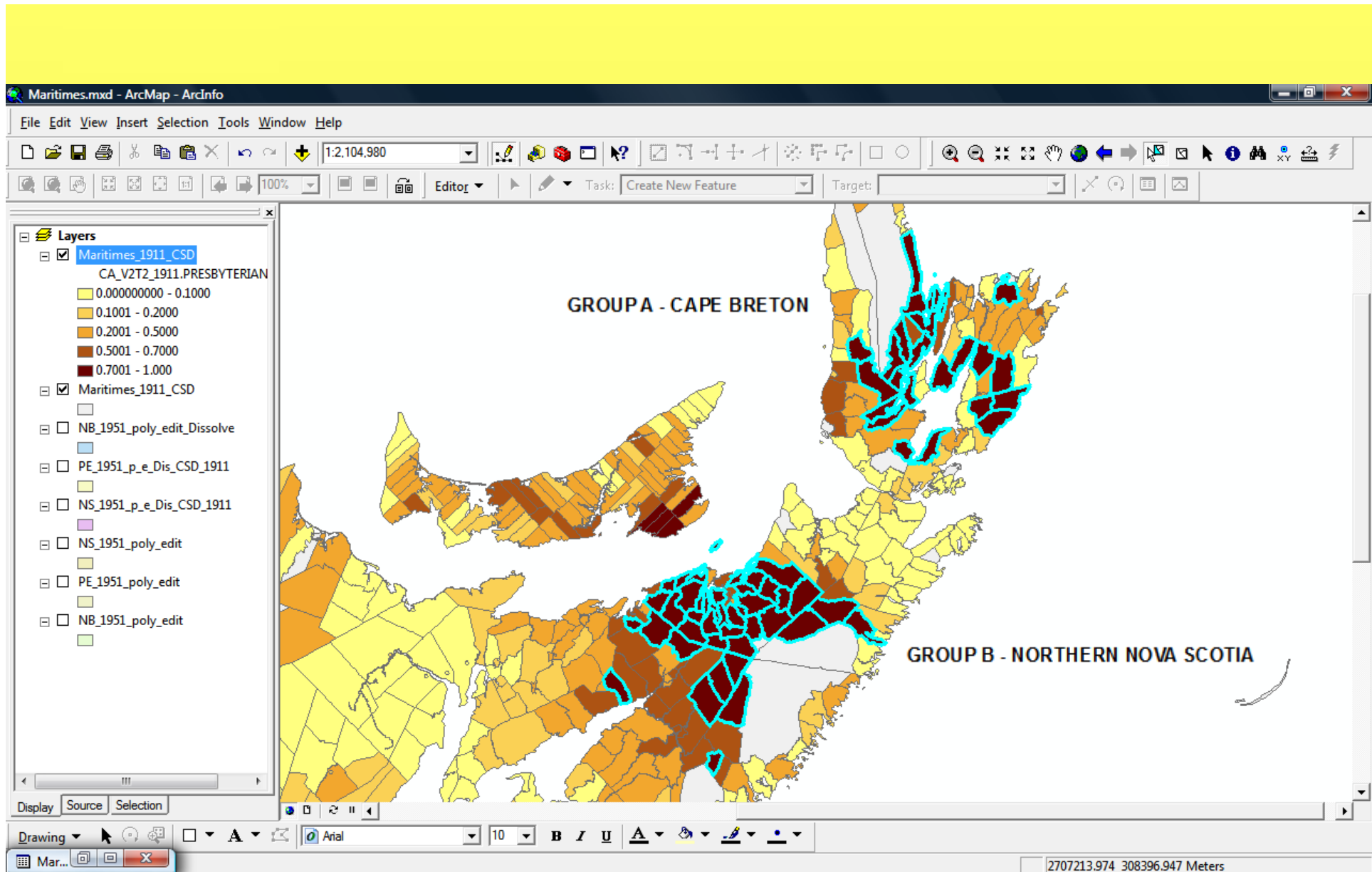
ALBERTA 1921 CENSUS DIVISIONS Proportions of dwellings of different sizes



Title here

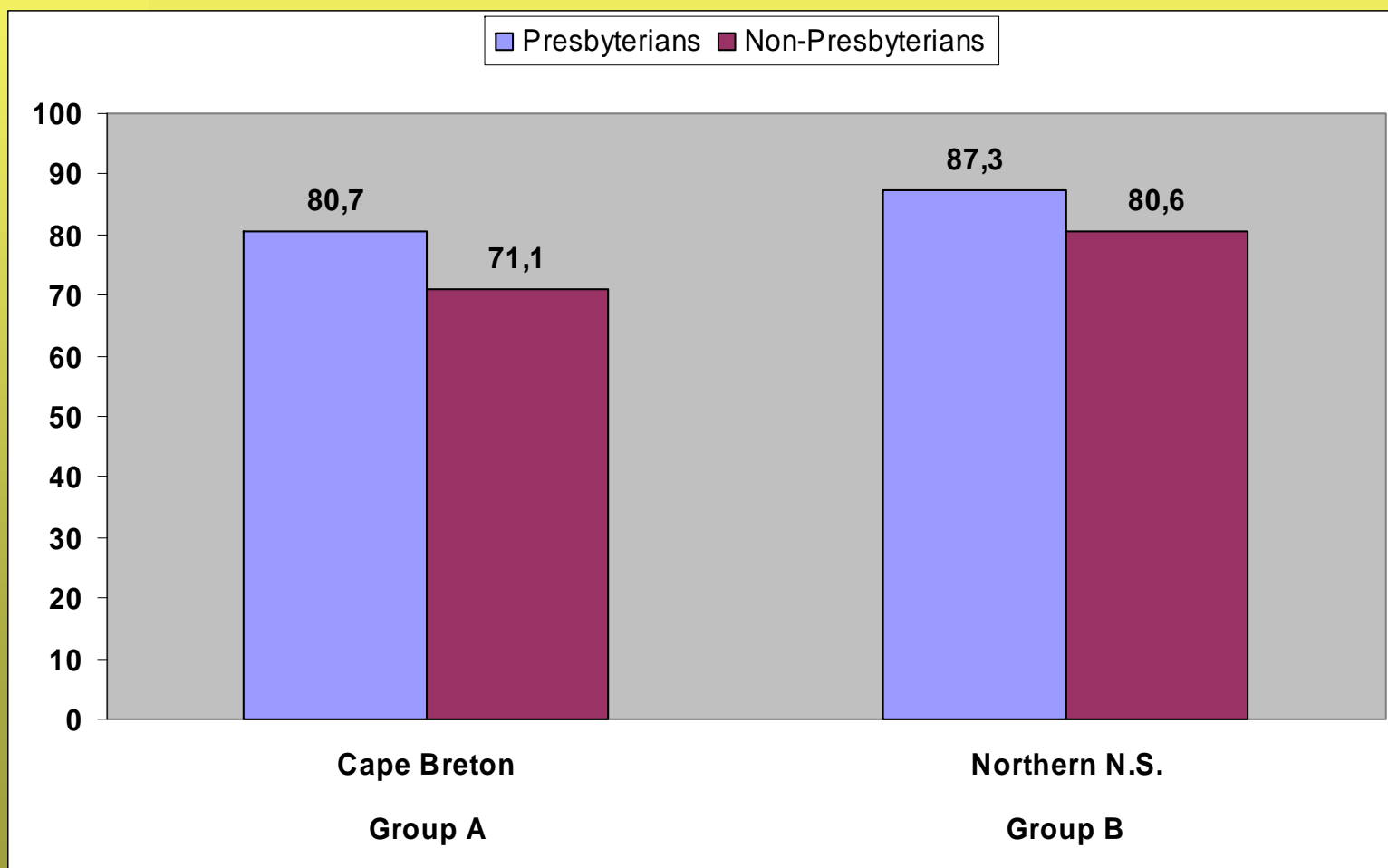
Three examples

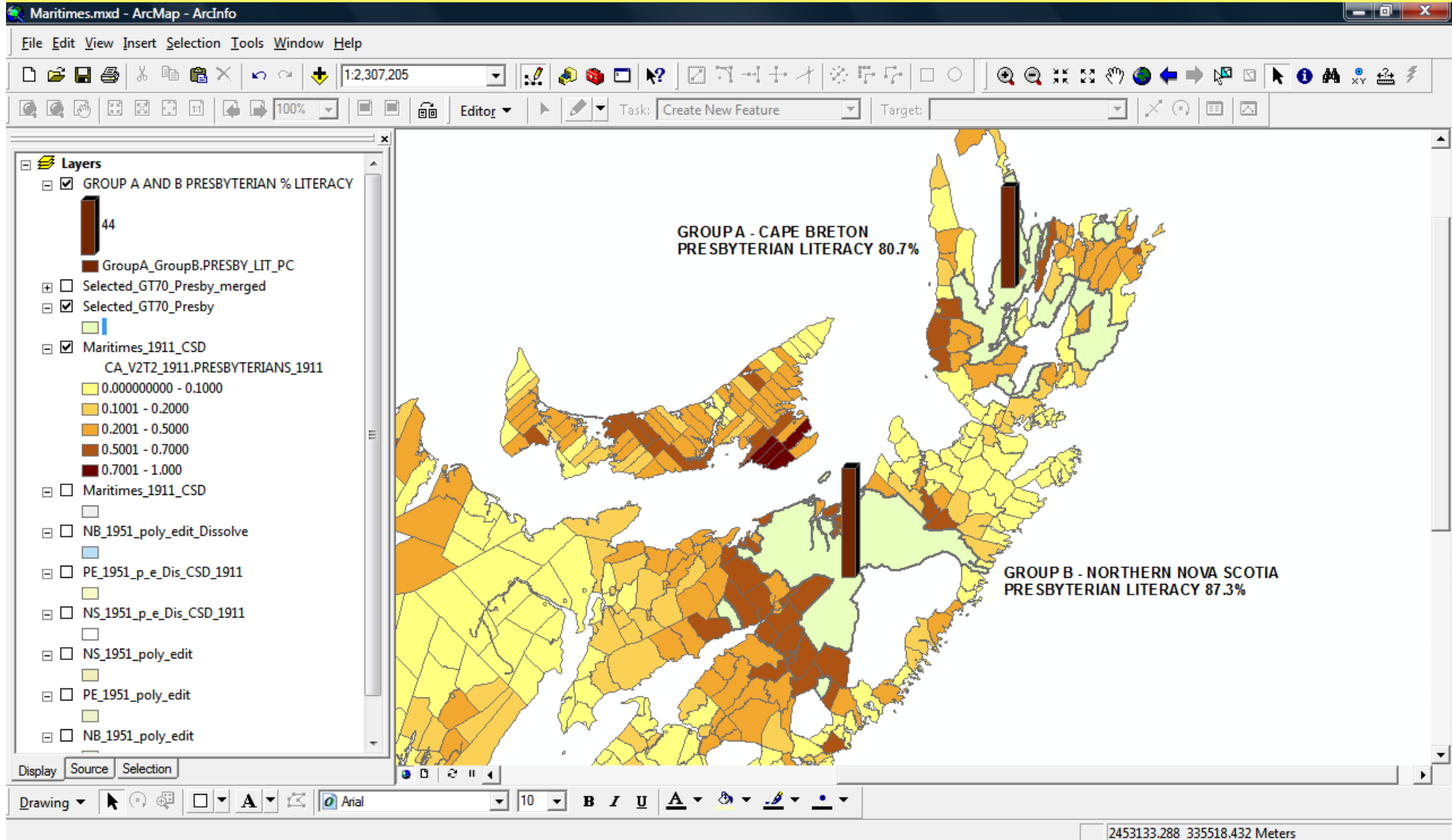
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Selected CSDs Nova Scotia >70% Presbyterian (from published table)

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?