GEOG 204

LECTURE 3

Lit Review
 Course Schedule

This week: Canada Census Data

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A little more on spatial autocorrelation

(but it is outside of the syllabus, only that a few were curious)

- Spatial autocorrelation describes the degree two which observations (values) at spatial locations (whether they are points, areas, or raster cells), are similar to each other. So we need two things: observations and locations.
- Spatial autocorrelation in a variable can be caused by another spatially autocorrelated variable (e.g. rainfall) or caused by the process at play (e.g. the spread of a disease).
 - It indicates if there is clustering of a variable i.e similar things are clustered together
 - Positive spatial autocorrelation (clustered)
 - Negative spatial autocorrelation (dispersed)



Census Data

- Every five years
 - 2 questionnaires
 - Short form (100% of the population)
 - Longform (20% of the population)
 - Mandatory (except 2011)
 - Random sample

Census Data

- Geographic Units
 - Dissemination Block
 - An area bounded on all sides by roads and/or boundaries of standard geographic areas. The dissemination block is the smallest geographic area for which **population and dwelling counts** are disseminated.
 - Dissemination Areas
 - composed of one or more adjacent dissemination blocks with an average population of 400 to 700 persons. It is the smallest standard geographic area for which **all census data** are disseminated.
 - Enumeration Areas: term used for the same geographic unit prior to 2001
 - Census Tracts
 - Larger areas that have a population between 2,500 and 8,000 persons.
 - They are located in centres of 50,000 or more in the previous census.

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Working with Census Data

- An important point is to determine the area units meaningful to your research
- Estimates for small areas
 - Higher risk of suppression due to confidentiality concerns
 - More sensitive to
 - rounding
 - non-responses
 - Leads to greater margin of error in small area estimates

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9/4/20XX

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Pros & Cons of Census Small Areas

Unit	PROs	CONs			
Block Face	 very high resolution entire country covered 	 households and population counts only inconsistent boundaries higher risk of data suppression, influence of rounding 			
Enumeration Areas	 fairly high resolution all Census questions entire country covered 				
Dissemination Areas	 consistent boundaries fairly high resolution all Census questions entire country covered 	 risk of data suppression influence of rounding 			
Census Tracts	 consistent boundaries all Census questions lower risk of data suppression Presentation Title 	 lowest resolution potential for boundaries to become "outdated" only available for larger centres 			

2011 Census Long Form Elimination

- "Long Form" Census form had been around a long time (the 8 question short form was introduced in 1971)
- Sections:
 - Demography; Labour markets & income; Transportation; Education; Language; Activity Limitations; Housing; Citizenship and immigration; Ethnicity/culture

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2011 Census Long Form Elimination

- Mandatory fill it out or else fine or jail time!
- Up to 2006, sent to one in five households (20%) "random" sample
 - 2016 now sent to one in four (25%) households
- 2010 Federal government decided to cancel it
 - Replaced with a **voluntary** household survey (National Household Survey)
- Present government reinstated it in time for 2016 Census

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Hierarchy of standard geographic areas



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DAUID	PRUID	CDUID	CDNAME	CSDUID	CSDNAME	ERUID	ERNAME	CMAUID	CMAPUID	CMANAME	CTUID	CTNAME	ADAUID
59530236	59	5953	Fraser-Fort George	5953023	Prince George	5950	Cariboo	970	59970	Prince George	9700001	1	59530014
59530101	59	5953	Fraser-Fort George	5953023	Prince George	5950	Cariboo	970	59970	Prince George	9700002	2	59530016
59530100	59	5953	Fraser-Fort George	5953023	Prince George	5950	Cariboo	970	59970	Prince George	9700002	2	59530016
59530102	59	5953	Fraser-Fort George	5953023	Prince George	5950	Cariboo	970	59970	Prince George	9700002	2	59530016
59530103	59	5953	Fraser-Fort George	5953023	Prince George	5950	Cariboo	970	59970	Prince George	9700002	2	59530016
59530104	59	5953	Fraser-Fort George	5953023	Prince George	5950	Cariboo	970	59970	Prince George	9700002	2	59530016
59530105	59	5953	Fraser-Fort George	5953023	Prince George	5950	Cariboo	970	59970	Prince George	9700002	2	59530016
59530106	59	5953	Fraser-Fort George	5953023	Prince George	5950	Cariboo	970	59970	Prince George	9700002	2	59530016
59530107	59	5953	Fraser-Fort George	5953023	Prince George	5950	Cariboo	970	59970	Prince George	9700002	2	59530016
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59530217	59	5953	Fraser-Fort George	5953023	Prince George	5950	Cariboo	970	59970	Prince George	9700004	4	59530007
59530218	59	5953	Fraser-Fort George	5953023	Prince George	A 11	يد . ما : .			Georg			530007
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59530087	59	5953	Fraser-Fort George	5953023	Prince George	Cei	nsus	Iract		Georg			530013
59530088	59	5953	Fraser-Fort George	5953023	Prince George	5950	Canboo	970	39970	Ennce George	9700005	5	53 0013
59530089	59	5953	Fraser-Fort George	5953023	Prince George	5950	Cariboo	970	59970	Prince George	9700005	5	59530013
59530090	59	5953	Fraser-Fort George	5953023	Prince George	5950	Cariboo	970	59970	Prince George	9700005	5	59530013
59530091	59	5953	Fraser-Fort George	5953023	Prince George	5950	Cariboo	970	59970	Prince George	9700005	5	59530013



Boundary Files

• You can download census boundary files from the Statistics Canada website

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