
Urban Research Studio
Geography 450
January-May, 2014
Tuesdays, 9:00 am to noon, Geography Room 115
http://www.geog.ubc.ca/~ewyly/g450.html

The objectives of this course are to a) learn how to access and analyze publicly available databases of secondary data on urban-geographic processes, b) critically evaluate the use of quantitative and spatial-analytical methods for the study of urban-geographic processes, and c) produce a research manuscript based on the analysis of secondary data, or on the critical analysis
of the use of data by corporations, state institutions, or social movements. For examples of the work that has been produced by students who have taken this course in previous years, see


Various studio materials from previous years are available at http://www.geog.ubc.ca/~ewyly/g450.html
Texts

Required:

Alan C. Acock (2010). *A Gentle Introduction to Stata*. College Station, TX: Stata Press.

Choose One:


Additional Recommended References:


Grading

Marks are based on attendance and participation (one third), paper-in-progress writing submissions (one third), and a final research paper (one third). Attendance and participation entails short labs and response papers, oral presentation of research results, and co-leading one seminar discussion.

Paper-in-progress writing submissions are due January 21, February 25, and March 25. The first submission should be a two-page topic statement; the second submission should be about five pages either in the form of a i) detailed outline, ii) annotated bibliography, iii) preliminary empirical analysis and interpretation, or iv) preliminary draft of a major section of the paper. The third submission should be a draft version of the full final paper.
In choosing a topic, students are encouraged to consider two options: 1) an analysis of urban social and housing inequalities as measured in the Public Use Microdata File for the Census of Canada, or 2) an analysis of racial disparities in urban policing practices as captured in the New York City Police Department’s Stop, Question, and Frisk dataset.

Final papers are due no later than 5:00 pm on Friday, April 25, 2014. Papers should be approximately 3,500 words of text, not counting references, tables, maps, chart, or other analytical supplements. Include an abstract of no more than 150 words. Papers must conform to general guidelines at http://www.geog.ubc.ca/~ewyly/guidelines.html

Note that our work in this course focuses on the use of existing secondary data without personally identifiable information. While some of the literature we’ll read will include materials from interviews, focus groups, and similar methods, federal and University regulations prohibit research on human subjects without first undergoing formal review and approval for behavioral research ethics. We will not be able to undertake these processes for this course; students interested in these research methods should consider Geography 371, Research Strategies in Human Geography.

Schedule

The first two weeks are devoted to an introduction of the purpose of the course and some of the urban research projects that will be used to illustrate various analytical techniques. Beginning in the third week, each meeting will be divided into three segments. In the first hour, two or three students will collaborate to lead a panel discussion of readings. Each student should prepare and submit one page of notes for discussion, and be prepared to speak for five or ten minutes on the questions explored in the readings. The second hour will be devoted to laboratory demonstration of analytical methods applied to urban and regional datasets, primarily with the statistical software package STATA. The third hour will be a theoretical and methodological lecture designed to prepare for the next week’s readings.

Please note that I will have to miss one class for long-planned family travel. I’m sorry. I will be traveling, and unavailable by email, from the afternoon of February 5 to the afternoon of February 21.

In the schedule below, required readings are indicated with an asterisk (*). All other readings listed are optional recommendations.

JANUARY 7. INTRODUCTION. Course purposes; getting to know your colleagues; inventory of interests and expertise. Distribution of lab credentials and discussion of lab procedures.

DISCUSSION:

Assignment for next week: Complete the survey, at
http://www.geog.ubc.ca/~ewyly/g450/g450survey_2014.doc

and write a one-page reaction paper to Student. (Don’t send emails asking, “What should I write, what is a reaction paper?” Just write a one-page response, as if you are corresponding with several students who took Wyly classes last year. Bring a one-page response on paper to next class.)

LECTURE: How Geographers Approach the City.

JANUARY 14: PHILOSOPHY AND METHOD: ANALYTICAL URBAN GEOGRAPHY. Philosophies of method and explanation since Geography’s “Quantitative Revolution,” and today’s New Quantitative Revolution.

DISCUSSION:


**LABORATORY:** A short introduction to STATA.

Reference: Acock, Chapter 1, and notes at
http://www.geog.ubc.ca/~ewyly/g450/stata.pdf

**LECTURE:** The Politics of Data. Facts, assumptions, starting points. Primary and secondary data; institutional considerations; units of observation; summary data, microdata, cross-sectional vs. longitudinal data; unique features of spatial data.

**JANUARY 21. THE POLITICS OF DATA.**

DISCUSSION, led by: _______________________________ 

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**LABORATORY:** Presentation of case study research projects and datasets: Canadian urban and regional inequalities, as measured in the Public Use Microdata File; racialized policing as measured in the New York City Police Department Stop, Question, and Frisk Database. Simple descriptive statistics.

Reference: Acock, Chapter 5, and notes at
http://www.geog.ubc.ca/~ewyly/g450/simple.pdf

**LECTURE:** Methods and Politics of Sampling.
JANUARY 29. SAMPLING AND REPRESENTATION.

DISCUSSION, led by: _______________________________ 
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LABORATORY: Drawing inferences about a population from a sample. Hypothesis tests and confidence intervals. Simple hypothesis tests in STATA.

Reference: Acoc, Chapter 7, and notes at http://www.geog.ubc.ca/~ewyly/g450/hypotheses.pdf

LECTURE: Measuring City Labor Markets

FEBRUARY 4. CITY LABOR MARKETS.

DISCUSSION, led by: _______________________________ 
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**LABORATORY:** Simple indicators of labor market segmentation measured in the PUMF; simple indicators of NYPD stop-and-frisk encounters.

**LECTURE:** Example research questions on Canadian urban and regional inequalities, and racialized policing in New York City.

**FEBRUARY 11. WYLY ABSENCE.**

**ASSIGNMENT:** Work on your research project; prepare about five pages either in the form of a i) detailed outline, ii) annotated bibliography, iii) preliminary empirical analysis and interpretation, or iv) preliminary draft of a major section of the paper.

Use the materials listed below as references and resources as you structure your research project. I recommend you 1) explore the literature references (and also consider tracking down a few of the citations in the reference lists of these articles) while 2) exploring the data documentation carefully to understand the kinds of variables available in the PUMF and the NYPD database.

*Canadian Urban-Regional Inequalities: Literature*


*Canadian Urban-Regional Inequalities: Data Documentation*


*New York City Policing: Literature*


*New York City Policing: Data Documentation*

Data resources at http://www.geog.ubc.ca/~ewyly/g450nypd.html

FEBRUARY 25. RESEARCH PROJECT PROGRESS REPORTS, AND CORRELATION AND REGRESSION.

DISCUSSION: All students will deliver short oral updates on research projects.

LECTURE: Correlation and Regression. Measuring the association between an outcome (dependent variable) and one or more influences (independent variables). Scatterplots, positive correlation, negative correlation, and non-linearity; correlation coefficients; bivariate ordinary least-squares (OLS) regression; multiple regression.

Reference: http://www.geog.ubc.ca/~ewyly/g450/correlation.pdf

Reference: http://www.geog.ubc.ca/~ewyly/Private/g350/hedonic.pdf

LABORATORY: Correlation and Regression in STATA, with examples from the PUMF and NYPD Stop-and-Frisk Database.

MARCH 4. ANALYZING CHANGES IN CANADIAN METROPOLITAN SPATIAL STRUCTURE.

DISCUSSION, led by: _______________________________

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LABORATORY: More Correlation and Regression in STATA, with examples from the PUMF and NYPD Stop-and-Frisk Database.

LECTURE: Logistic regression. Measuring the association between a binary outcome and one or more influences (independent variables). Natural logs; the logistic function; maximum likelihood estimation; assessing model fit; odds ratios. Logistic regression in STATA.


MARCH 11. USING LOGISTIC REGRESSION TO ANALYZE URBAN RACIAL INEQUALITIES.

DISCUSSION, led by: ____________________________________________
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LABORATORY: Logistic Regression in STATA, applied to the NYPD dataset.

LECTURE: Accounting for Context and Contingency; Extensions and Refinements of Regression. Partial decomposition analysis; interaction terms; the expansion method; local indicators of spatial association (LISA) and spatial regression. LISA and spatial regression in GeoDA.
MARCH 18. CITY MEDIA REPRESENTATIONS.

DISCUSSION, led by: ____________________________________________

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*George Glasze, Robert Putz, Melina Germes, Henning Shirmel, and Adam Brailich (2012). “The Same but Not the Same: The Discursive Constitution of Large Housing Estates in Germany, France, and Poland.” Urban Geography 33(8), 1192-1211.

LECTURE: Principal Components Analysis and Factor Analysis. Measuring the association between many characteristics (variables). Purposes of PCA and factor analysis; geometric illustration of principal components; eigenvalues, eigenvectors, loadings, and scores; rotations.


LABORATORY: PCA and Factor Analysis in STATA.

MARCH 25: USING PCA AND FACTOR ANALYSIS TO EXPLORE URBAN STRUCTURE.

DISCUSSION, led by: ____________________________________________

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LABORATORY: More PCA and Factor Analysis in STATA, with examples from PUMF and NYPD datasets.

LECTURE: Classification and cluster analysis. Epistemologies, applications, and implications of classification; the distance measure of similarity; linkage rules; assessing accuracy and meaning in cluster solutions.

Reference: http://www.geog.ubc.ca/~ewyly/g350/gawc.pdf

APRIL 1: CLASSIFICATION AND URBAN INEQUALITIES.

DISCUSSION, led by: ________________________________

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APRIL 8: ROUNDTABLE PRESENTATION OF RESEARCH PROJECTS.

Last Day of Classes: Tuesday, April 8

Final G450 papers due: 5:00 pm, April 25.