This course examines quantitative methods for historical analysis. We will explore research designs, statistical techniques, and the impact of quantitative historical analysis on the social sciences more generally. Throughout the course, we will highlight the peculiar methodological problems historians face. In particular, they frequently work with data collected in the past for non-statistical purposes or with incomplete data. We will explore methods to deal with these issues. To give you an appreciation of the issues first hand, you will use a statistical computer package (mostly SPSS) to analyze historical data sets provided by ICPSR. By the end of the course, you should have the skills necessary to read quantitative historical research intelligently and to undertake research projects yourself.

Required Book:


Recommended Books


The schedule of readings below also includes the relevant pages from the following quantitative history textbooks. They are available in the ICPSR Library.


Other required and optional reading—mostly articles—will be available in the ICPSR Library.

Class Schedule

**June 23**: Introduction to quantitative history - the logic of social science research, statistical techniques, social theory, and where history fits in. The data matrix - observations, variables, levels of measurement, summary notation. Math review.

Reading: MHC, Ch. 1.


**June 24**: Initial exploration of data. What gets asked and why. What gets tabulated and how.
Univariate analysis - frequencies, proportions, measures of central tendency and dispersion.
First Short Assignment (Due 6/26)
Reading: MHC, Ch. 2-2.4; Anderson 2007.
Recommended Reading: H&J, 13-75; D&R. 37-58; Hudson, ch. 2.

June 25: Replicating the past in the present. What was possible in the 1880s; what is possible now. Download and tabulate data.
Reading: Browse http://ipums.org/and http://icpsr.umich.edu/
Reading: Clubb pp. 29-49; HM 95, Part II; HM 99, An Update; Hudson, chs. 3-4.

June 26: Recent Historical Research: The New Work on Standards of Living and Consumption
Univariate assignment due
Recommended Reading: Fogel 'Conquest of High Mortality and Hunger;' Shammas, 'Explaining Past Consumption;' Fogel and Costa, 'A Theory of Technophysio Evolution;' Fogel, Escape from Hunger; Steckel, “Heights and Human Welfare”

June 29: Inferential statistics - population and sample, normal distribution, point and interval estimation; choosing sample size
Reading: MHC, Ch. 2.5-2.6; 5.
Recommended Reading: H&J, 121-57; 167-206; D&R, 59-90; HM95, Part III; Hudson, ch. 7

June 30: Hypothesis testing and significance tests; Bivariate analysis – t-tests, cross tabulation and chi square
Second Short Assignment: Due July 3 (Bivariate Analysis)
Reading: MHC: Ch. 6-7
Recommended Reading: H&J, 209-27; D&R, 91-135; Clubb et al. pp. 50-82; Hudson, ch. 6.1-6.2; CSS, chs. 1-4.

July 1: Crosstabs and beyond; Analysis of Variance
Reading: Johnston, et al. “Quantitative Historical Methods: A Permutation Alternative”
Recommended Reading: Kousser et al. 'Log-linear analysis of contingency tables'

July 2: Bivariate OLS regression, scatterplots
Reading: MHC, Ch. 3-4.
Recommended Reading: Clubb et al. 97-118; Lewis-Beck; 1-25; H&J, 228-47; D&R, 137-94; HM 99, Gardner (Metro).

July 3: Examples of Historical Research: Urbanization and Population Change; Measurement Issues for Households and Family; Historian’s Data Dilemmas
Reading: Spaeth, “Representing Text as Data;” McCants, “After Death Inventories”
Second Assignment Due
Recommended Reading: Anderson, 'The History of Women and the History of Statistics; Smith, 'The Meanings of Family and Household'; de Vries European Urbanization, Ch. 1, Part III, conclusion; Haines and Steckel, browse; Nugent, chs 3-4; Anderson, ch. 6.

July 6: Multivariate analysis - OLS regression; Assumptions of the linear model; Coefficients,
statistical tests, R square

Paper assignment: Due July 17
Reading: MHC, ch 8
Recommended Reading: H&J, 259-82; D&R, 195-232; Lewis-Beck 26-54; Hudson, ch. 6.3-6.15.

July 7: OLS regression - dummy variables; Microlevel cross-sectional designs: cost of living data set and labor force participation
Third Short Assignment (Due July 10)
Reading: MHC, ch. 9-10
Recommended Reading: H&J, 282-316; Lewis-Beck, 54-75; Haines, 'Industrial Work and Family;' Clubb et al., 174-96

July 8: Microlevel cross-sectional designs: cost of living data set and the measurement of consumption - logging, elasticities
Reading: MHC, ch 11-12
Recommended Reading: Williamson, 'Consumer behavior;' Clubb et al. pp. 119-173; Hudson, ch. 8; Logan, “Is the Calorie Distribution Log Normal.”.

July 9: Regression and aggregate cross-sectional designs. Examples of Historical Research: Electoral Behavior and Politics-from ecological regression to rational choice;
Reading: MHC, ch 14.
Recommended Reading: Crimmins and Condran, 'Mortality Variation in U.S. Cities'; Kousser, 'Ecological Regression;' Kousser, 'Total Political History;' Field, '19th c. Voting Studies'

July 10: Other multivariate techniques; Factor analysis, logit and probit; Finding Historical Data
Third Assignment Due
Reading: MHC, ch 13.
Recommended Reading: Smith, 'Early Fertility Decline in America;' Shammas 'Dealing with Dichotomous Variables'; Hudson, ch. 9.

July 13: Historians and Time: Analogy, context, period.; Time ordered research designs; Putting time in cross-sectional designs; Simple disaggregation of trends
Reading: Fogel and Costa, “Technophysio Evolution”
Recommended Reading: Floud, ch. 6 and pp. 156-163; H&J, 319-61; D&R, 232-69; Hudson, ch. 5; Fogel, Escape from Hunger: browse.

July 14: Time ordered research designs (continued); Time series regression model; Issues of Data Development.
Recommended Reading: Gouda & Smith, 'Famine, Crime, Gender;' McDonald, 'Reconciling Theory and Practice in San Francisco' Parameters of Urban Fiscal Policy
July 15: Types of Time ordered research designs (cont.). Is time series regression ahistorical?
Pooled-time series; Event history; The history of an event; Sequence analysis

Recommended Reading: Issac & Griffin, 'Ahistoricism in Time-Series;' Costa, Evolution; Goldin, 'Changing Economic Role of Women;' Alter, 'Methods and Data,' Family and Life Course; Vinovskis 'Social Historians Lost Civil War'; Andrew Abbott, http://www.spc.uchicago.edu/users/abbot/, on sequence analysis; Andrew Abbott, Time Matters, ch. 1..

July 16: Building space and time in. Historical GIS applications; Recent historical research. Control of Fertility and the Demographic Transition


Recommended Reading: Schofield 'Through a Glass Darkly'; Special Issue: Historical GIS. 2000. Social Science History. 24 (3).

July 17: The strengths and the limitations of quantitative historical analysis.

Paper due.

Recommended Reading: Smith, 'A Mean and Random Past'; Abbott, Time Matters; chs. 4-5; CSS, browse, particularly, chs. 20-24.

Course Bibliography:

Abbott, Andrew, http://www.spc.uchicago.edu/users/abbot/ (website for sequence analysis software and review article)


Crimmins, Eileen M. and Gretchen A. Condran, 1983. 'Mortality Variation in U.S. Cities in 1900: A Two-Level Explanation by Cause of Death and Underlying Factors,' *Social Science History* 7:31-60.


Readings Pertaining to Cost of Living Dataset


See also Clubb et al., Haines, Logan, and Williamson above.

ICPSR: [http://www.icpsr.umich.edu](http://www.icpsr.umich.edu)

**Readings Pertaining to Census Datasets**


IPUMS Website Bibliography: [http://bibliography.ipums.org/](http://bibliography.ipums.org/)