This course is designed to develop introductory skills needed for the analysis of large-scale data bases such as those provided by the U.S. Census Bureau, other government agencies such as the National Institute of Health, the Bureau of Labor Statistics, or census data bases provided by other countries throughout the world. After you conclude this course you should be able to use the skills you have learned to analyze any kind of data base, large or small, including those which you may develop independently in your future research.

There are three broadly based skill sets you will learn in this course: 1) how to download data from specific web sites; 2) how to analyze these data to extract the specific information you want; 3) how to present these data in tables and graphic materials. If time permits, we may even teach you how to present data in maps.

The course will first focus on the skills needed to download data files to your computer using the IPUMS web site (Integrated Public Use Microdata Series) from the Minnesota Population Center, University of Minnesota (https://usa.ipums.org/usa/) which maintains a repository of every census of the United States from 1790 on. There is also a number of ‘companion’ sites such as IPUMS International which maintains an ever-growing archive of census materials from around the world which you may register for and use as you develop your skills. (https://international.ipums.org/international/).

We will then teach you how to access contemporary census data using the American FactFinder (AFF) program developed by the U.S. Census Bureau.

**WARNING:** There is a learning curve which may lead to extraordinary frustration, irrational acts caused by despair, and other behavioral manifestations typical of neophyte data analysts! These should pass with patience and perseverance and soon you will be ‘experts’ at how to access real data on the internet. You may also wonder why all you have ever thought of in your
graduate careers until this transformative moment is something called ‘culture.’ (OK, not all of you!)

The course will then move to the real nuts and bolts of data analysis and teach you how ask questions of, and to extract specific data, from any data base (such as the number of males/females, their age structures, race/ethnicity, their incomes and on and on into infinity) using SPSS, the Statistical Package for the Social Sciences first developed at the University of Chicago in 1968, and now owned by IBM (since 2009) under the name IBM SPSS STATISTICS. Other programs such as SAS or STATA can perform the same statistical procedures. (See WARNING above).

Finally, we will teach you how to present complex data in easy-to-understand (hopefully) tables and graphs so that mere mortals may comprehend them. Here we revert to Excel and PowerPoint which I’m certain many of you are already familiar with.

Class Outline

August 31 Introduction. The possibilities and uses of hard data.

Sept. 7 Accessing and downloading U.S. Census data sets from IPUMS (Module 2)

Sept. 14 Accessing and downloading U.S. Census data sets from American FactFinder (Module 3)

Sept. 17 (Classes follow a Thursday schedule)
   Introduction to SPSS: Importing Excel Files, Basic Procedures, Frequencies, Saving Results (Module 4)

Sept. 21 No Class

Sept. 28 SPSS: Missing Values, Crosstabs, Importing text files (Module 4)

Oct. 5 SPSS: Means, Selecting Cases (Module 5)

Oct. 12 SPSS: Correlations, Recoding Data (Module 5)

Oct. 19 SPSS: Using Means to Prepare a Table on Wealth Distribution (Module 6)

Oct. 26 SPSS: Automating SPSS by Running Syntax Files (Module 7, NOT YET ON BLACKBOARD)

Nov. 2 Creating Tables from SPSS ‘output’ using Excel
<table>
<thead>
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<th>Date</th>
<th>Topic</th>
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<tbody>
<tr>
<td>Nov. 9</td>
<td>Creating Presentation Graphics in Excel and PowerPoint from SPSS output + many cheap tricks and tips</td>
</tr>
<tr>
<td>Nov. 16</td>
<td>(Continuation of previous class)</td>
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<tr>
<td>Nov. 23</td>
<td>Thanksgiving No Class</td>
</tr>
<tr>
<td>Nov. 30</td>
<td>Mapping Data using ArcMap (1)</td>
</tr>
<tr>
<td>Dec. 7</td>
<td>Mapping Data using ArcMap (2)</td>
</tr>
<tr>
<td>Dec. 14</td>
<td>Finish the unfinished</td>
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