

Homework #3

Due Friday Sept 23, 2011

Econ B2000, MA Econometrics

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For this exercise your study group may hand in a single assignment. When submitting assignments, **please include your name and the assignment number as part of the filename**. Please write the names of your study group members at the beginning of your homework. These assignments will be made public and available to all members of the class.

1. Who are the people in your study group?
2. What topic do you think you would like to have for your final project? Find two academic articles and write short (about a page) review of each.
3. Using the SPSS dataset on the ATUS, state a hypothesis that can be tested using the available information there. Carefully specify the null hypothesis, the distribution of the test statistic, and the conclusions from the hypothesis test. Do this twice more, for three hypothesis tests in total.

About the ATUS data:

The "American Time Use Survey," or ATUS asks respondents to carefully list how they spent each hour of their time during the day; it's a tremendous resource. The survey data is collected by the US Bureau of Labor Statistics (BLS), a US government agency, using the Current Population Survey (CPS) as a baseline. You can find more information about it here, <http://www.bls.gov/tus/>. The dataset has information on 98,778 people interviewed from 2003-2009. This gives you a **ton** of information – we really need to work to get even the simplest information from it.

These are coded and assembled; the summaries are provided in this file (i.e. the total number of minutes spent sleeping, but not the particular times during the day that each individual was sleeping). At the beginning are a few summary variables that I've created, including some basic coding-up into broad categories – for example, we have detailed data on time spent on aerobics, baseball, basketball, biking, ... all the way to wrestling and yoga; I added these into the category, "Time playing sports." When analyzing these, remember that in many cases the salient variation is between those with zero time spent on a particular activity and those with a non-zero time.

You might want to make your own categorizations. It is helpful to understand the ATUS classification system, where additional numbers at the right indicated additional specificity. The first two digits give generic broad categories. The general classification **To5** refers to time spent doing things related to work. **To501** is specific to actual work; **To50101** is "Work, main job" then **To50102** is "Work, other job," **To50103** is "Security Procedures related to work," and **To50189** is "Working, Not Elsewhere Classified," abbreviated as n.e.c. (usually if the final digit is a nine then that means that it is a miscellaneous or catch-all category). Then there are activities that are strongly related to work, that a person might not do if they were not working

at a particular job – like taking a client out to dinner or golfing. These get their own classification codes, **T050201**, **T050202**, **T050203**, **T050204**, or **T050289**. The list continues; there are "Income-generating hobbies, crafts, and food" and "Job interviewing" and "Job search activities." These have other classifications beginning with **T05** to indicate that they are work-related.

So for instance, to create a variable, "Time Spent Working" that we might label "T_work," you would have to add up T050101, T050102, T050103, T050189, T050201, T050202, T050203, T050204, T050289, T050301, T050302, T050303, T050304, T050389, T050403, T050404, T050405, T050481, T050499, and T059999. You might want to add in "Travel related to working" down in T180501. No sane human, outside a story by Borges, would remember all these codings but you'd look at the "Labels" in SPSS and create a new variable. It's tedious but not difficult in any way. (The pdf Lexicon gives the complete list.)