ESD.83 Assignment 1: Observations, Data Sources and Data Reduction Assignment

(no more than 1000 word paper, 10% of the total)

Reading Material:

A series of 18 articles have been selected for Assignment 1, and a list of the citations is published as an appendix here. For consistency, we have taken all of these from the NBER (National Bureau of Economic Research) Working Paper series. However, for variety we require that each student pick a different article to analyze. This will occur on a first come, first serve basis.

However, few, if any subjects are expected to closely correlate with your evolving interests as this is not the point of the assignment. The learning involves appreciation of how empirical observations are handled in a field of research that studies complex systems systematically and empirically.

Assignment:

- 1. After reading the assigned paper in depth (and possibly looking at a key reference or two);
- 2. write a short paper (~1000 words total) addressing as many of the following issues as seems appropriate for the paper you are analyzing:
 - a. What empirical observations are utilized in the paper?
 - b. Characterize these observations (for example, quantitative vs. qualitative, well-known vs. original, essential vs. relatively unimportant, time dependence dynamic or static, etc.)
 - c. What is your assessment of the accuracy and reliability/validity of the observations?
 - d. Identify the methods used in the paper to analyze the observations and comment on your understanding of the appropriateness.
 - e. Was establishing the observational set important to the progress that is claimed in the paper?
 - f. Can the conclusions of the paper be supported by the observational set? How is correlation vs. causation addressed in the paper?
 - g. How does the observational set influence the generalizability of the conclusion? Does the paper seem to strike an appropriate balance between specificity and generalizability?

Appendix A – List of Available Articles from most recent to oldest

1	Bhattacharya, J., Bundorf, K., Pace, N. and Sood, N. (2009). Does Health Insurance Make You Fat? National Bureau of Economic Research, Inc. NBER Working Paper No. 15163. http://www.nber.org/papers/w15163
2	Schwarz, M., & Takhteyev, Y. (2009). Half a Century of Public Software Institutions: Open Source as a Solution to Hold-Up Problem. National Bureau of Economic Research, Inc, NBER Working Papers: 14946. http://www.nber.org/papers/w14946.pdf
3	Libecap, G., & Lueck, D. (2009). The Demarcation of Land and the Role of Coordinating Institutions. National Bureau of Economic Research, Inc, NBER Working Papers: 14942. http://www.nber.org/papers/w14942
4	Nunn, N. (2009). The Importance of History for Economic Development. National Bureau of Economic Research, Inc, NBER Working Papers: 14899. http://www.nber.org/papers/w14899.pdf
5	Acemoglu, D., Cantoni, D., Johnson, S., & Robinson, J. (2009). The Consequences of Radical Reform: The French Revolution. National Bureau of Economic Research, Inc, NBER Working Papers: 14831. http://www.nber.org/papers/w14831.pdf
6	Steckel, R. (2008). Heights and Human Welfare: Recent Developments and New Directions. National Bureau of Economic Research, Inc, NBER Working Papers: 14536. http://www.nber.org/papers/w14536.pdf
7	Atack, J., Haines, M., & Margo, R. (2008). Railroads and the Rise of the Factory: Evidence for the United States, 1850-70. National Bureau of Economic Research, Inc, NBER Working Papers: 14410. http://www.nber.org/papers/w14410.pdf
8	Bogart, D., & Richardson, G. (2008). Estate Acts, 1600 to 1830: A New Source for British History. National Bureau of Economic Research, Inc, NBER Working Papers: 14393. http://www.nber.org/papers/w14393.pdf
9	Maccini, S., & Yang, D. (2008). Under the Weather: Health, Schooling, and Economic Consequences of Early-Life Rainfall. National Bureau of Economic Research, Inc, NBER Working Papers: 14031. http://www.nber.org/papers/w14031.pdf
10	Keller, W., & Shiue, C. (2008). Tariffs, Trains, and Trade: The Role of Institutions versus Technology in the Expansion of Markets. National Bureau of Economic Research, Inc, NBER Working Papers: 13913. http://www.nber.org/papers/w13913.pdf
11	Chou, S., Liu, J., Grossman, M., & Joyce, T. (2007). Parental Education and Child Health: Evidence from a Natural Experiment in Taiwan. National Bureau of Economic Research, Inc, NBER Working Papers: 13466. http://www.nber.org/papers/w13466.pdf

12	Ruhm, C. (2007). Current and Future Prevalence of Obesity and Severe Obesity in the United States. National Bureau of Economic Research, Inc, NBER Working Papers: 13181. http://www.nber.org/papers/w13181.pdf
13	Bleich, S., Cutler, D., Murray, C., & Adams, A. (2007). Why Is The Developed World Obese?. National Bureau of Economic Research, Inc, NBER Working Papers: 12954. http://www.nber.org/papers/w12954.pdf
14	Stevenson, B., & Wolfers, J. (2007). Marriage and Divorce: Changes and their Driving Forces. National Bureau of Economic Research, Inc, NBER Working Papers: 12944. http://www.nber.org/papers/w12944.pdf
15	Bordo, M. (2006). Sudden Stops, Financial Crises, and Original Sin in Emerging Countries: Deja vu?. National Bureau of Economic Research, Inc, NBER Working Papers: 12393. http://www.nber.org/papers/w12393.pdf
16	Mitchell, O., Utkus, S., & Yang, T. (2005). Turning Workers into Savers? Incentives, Liquidity, and Choice in 401(k) Plan Design. National Bureau of Economic Research, Inc, NBER Working Papers: 11726. http://www.nber.org/papers/w11726.pdf
17	Lamoreaux, N., & Sokoloff, K. (2005). The Decline of the Independent Inventor: A Schumpterian Story? National Bureau of Economic Research, Inc, NBER Working Papers: 11654. http://www.nber.org/papers/w11654.pdf
18	Gruber, J. (2005). Religious Market Structure, Religious Participation, and Outcomes: Is Religion Good for You?. National Bureau of Economic Research, Inc, NBER Working Papers: 11377. http://www.nber.org/papers/w11377.pdf

MIT OpenCourseWare http://ocw.mit.edu

ESD.83 Doctoral Seminar in Engineering Systems Fall 2009

For information about citing these materials or our Terms of Use, visit: http://ocw.mit.edu/terms.