**4.3 Optional Assignment 2**

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OPTIONAL LEARNING ACTIVITY: GRAPHS2

The file <http://www.stat.columbia.edu/~gelman/bda.course/electric.txt> contains data from an experiment performed in two cities (Fresno, Calif., and Youngstown, Ohio) in grades 1, 2, 3, and 4, in several different schools.

The classrooms in each grade in each school were paired, with one classroom randomly assigned to the treatment condition (the kids in those classrooms were shown a special educational television show) and the other classroom getting the control condition (no TV show). In each classroom (treated or control), the students were given a “pre-test” at the beginning of the school year and a “post-test” at the end.

Each row of the table shows the data for the two schools in a pair:  the average pre-test score for the students in the treated classroom, the average post-test score for those students, then the average pre- and post-test scores for the students in the control class.  You can ignore the last row of the table.

**Discussion Question:  How best to graph these data?**  There are lots of options.

It can help to sketch your ideas by hand.  For making real graphs, everyone uses the computer.  But for this discussion activity, it makes sense to do sketches by hand because this will allow you more flexibility to try out different options. You can attach your sketches as images in this discussion thread, however, you will need to make the file size less than 500 Kb.

**Post your findings in the space below.**