

One set of problems on the midterm examination uses data from the Madison public schools. The data is linked on the course web page in the file `MadisonElementary`.

A second set of problems uses the **SleepStudy** data set from the textbook. Variables in this data are described on pages 697–698 of the textbook and the data is available in the `Lock5Data` library in R.

The February 23, 2014 *Wisconsin State Journal* published data on all schools in the Madison Public School System, including 31 elementary schools. Here is a subset of the data.

##	school	highSchool	cap.2013	cap.2018	disadvantaged	proficient
## 1	Allis	LaFollette	66	70	76.5	3.9
## 2	Chavez	Memorial	95	114	26.5	44.9
## 3	Crestwood	Memorial	84	82	43.1	52.3
## 4	Elvehjem	LaFollette	93	81	34.4	40.3
## 5	Falk	Memorial	76	68	73.4	20.0
## 6	Franklin	West	91	85	20.7	50.8

The variables are:

- `school`, which is the name of the elementary school;
- `highSchool`, which is the name of the high school that the elementary school eventually feeds into, one of East, La Follette, Memorial and West;
- `cap.2013`, which is the percentage of students enrolled relative to the capacity of the school in the 2013–2014 school year, as a percentage (which can exceed 100% if the school is overcrowded);
- `cap.2018`, which is the projected percentage of students enrolled relative to the capacity of the school in the 2018–2019 school year, as a percentage;
- `disadvantaged`, which is the percentage of students at the school that are economically disadvantaged; and
- `proficient`, which is the percentage of 4th graders at the school who read at the proficient or advanced levels for their age group.