

## Code Book for Data Exercise 1

There are 17,723 observations in the sample, with such large sample size, you can regard the sample size  $N$  to be infinite so that the distribution converges to a normal distribution.

### Variables Description:

math\_score: the standardized math test score of a student with mean close to 70 and standard deviation closed to 10;

english\_score: the standardized english test score of a student with mean close to 70 and standard deviation closed to 10;

cognitive\_ability: standardized test score of cognitive ability test with mean 0 and standard deviation closed to 1; the higher this score is, the higher the cognitive ability of the student is;

birth\_year: the year the student was born (for you to compute the age of the student);

studying\_time: the number of hours a student spent on study during weekends;  
grade: the grade the student was in, 9 indicates Grade Nine, 7 indicates Grade Seven;

female: a dummy variable indicating whether the student is female or not;

male: a dummy variable indicating whether the student is male or not;

income\_status: an index ranged from 1 to 5, the larger the value is, the higher the income level is;

mother\_edu/father\_edu: an index ranged from 1 to 9, the larger the value is, the higher the education level is; if the value is equal to 7 or above 7, it means the mother/father of the student attained college.