**Exercise 2.4**

**Using the variable totalwgt\_lb, investigate whether first babies are lighter or heavier than others. Compute Cohen’s d to quantify the difference between the groups. How does it compare to the difference in pregnancy length?**

Per solution from thinkstats solutioning, comparing the weight of first vs other babies-

Mean - First vs Other babies weight

firsts: 7.20109443044

others: 7.32585561497

stdev- First vs Other babies weight

firsts: 7.20109443044

others: 7.32585561497

median- First vs Other babies weight

firsts: 7.3125

others: 7.375

Cohen Effect Size of first vs other babies -

CohenEffectSize(firsts.totalwgt\_lb, others.totalwgt\_lb)

-0.088672927072602006

Compare the mean Parity for high income respondents and others.

mean parity, high income: 1.07586206897

mean parity, other: 1.24957581367

Cohen Effect Size of High income vs non-High income mothers -

CohenEffectSize(hinc.parity, other.parity)

-0.12511855314660611

**The Cohen Effect Size for the difference in parity between mothers with high income and mothers with low income is much larger than the Cohen Effect Size for the difference in pregnancy length for first babies and others. It is also negative, suggesting that, mothers with high incomes tend to have fewer children in comparison to low income mothers.**