

Exercise 1.1

- Select the `birthord` column, print the value counts
 - o `preg.birthord.value_counts().sort_index()`
- Select the `prglnth` column, print the value counts, and compare to results published in the [codebook](<http://www.icpsr.umich.edu/nsfg6/Controller?displayPage=labelDetails&fileCode=PREG§ion=A&subSec=8016&srtLabel=611931>)
 - o `preg.prglnth.value_counts().sort_index()`
- Create a new column named `totalwgt_kg` that contains birth weight in kilograms. Compute its mean. Remember that when you create a new column, you have to use dictionary syntax, not dot notation.
 - o `preg['totalwgt_kg'] = preg.totalwgt_lb / 2.2`
 - o `preg.totalwgt_kg.mean()`
- Select the `age_r` column from `resp` and print the value counts. How old are the youngest and oldest respondents?
 - o `resp.age_r.value_counts().sort_index()`
- How old is the respondent with `caseid` 1?
 - o `resp[resp.caseid==1].age_r`
- What are the pregnancy lengths for the respondent with `caseid` 2298?
 - o `preg[preg.caseid==2298].prglnth`
- What was the birthweight of the first baby born to the respondent with `caseid` 5012?
 - o `preg[preg.caseid==5012].birthwgt_lb`

Exercise 1.2

- In this exercise, we first read pregnum count from NSFG respondents data, and then compare that count with pregnancy frame, and make sure that both values are equal.
- We iterate through Pregnancy frame data, find the corresponding case number from NSFG respondent data, and check if `pregNumber` from respondents file is equal to the number of records in the pregnancy file. This check gives us the confidence that our results actually match what we expect.

Exercise 1.3

- I have thought about following interesting insights from the dataset 2002 respondent dataset .
 - o To find out live births (including the ones with multi birth)
 - According to my analysis, there are 1639 of such births from the dataset
 - o To find out females who are currently pursuing medical help to get pregnant

- According to my analysis, there are such 69 such females who are pursuing medical help to get pregnant
- To find out interfertility services received in 1st mention
 - As per my analysis, there are 370 such cases
- To find out visits in last 12 moths for medical help
 - Accordingly to my analysis, there are 57 such visits
- To find out number of months of pregnancy, print out number for each months, and compare it with pregnancy file records
 - According to my code, following is the outcome
 - Data does match with pregnancy record.

```
{
  "1": "30",
  "2": "57",
  "3": "41",
  "4": "37",
  "5": "46",
  "6": "32",
  "7": "43",
  "8": "33",
  "9": "26"
}
```

- To find out average age of respondent
 - According to my code, avg is 29.503

My code can be run from Jupiter notebook (chap01ex.ipynb)