MAT 3312 Homework 1/ Computing exercise Spring 21

Name: Student 2 Date: 02/24/21

Use SAS on demand to answer the following questions regarding descriptive statistics. You may place your results from SAS below. **Please copy and paste your SAS code to the end of your assignment.**

Import the Hospital dataset from the course data in SAS on demand. **Use the dataset to questions 1-8.**

Question 1. 2.1 from the book

Mean 8.6, Median 8.0

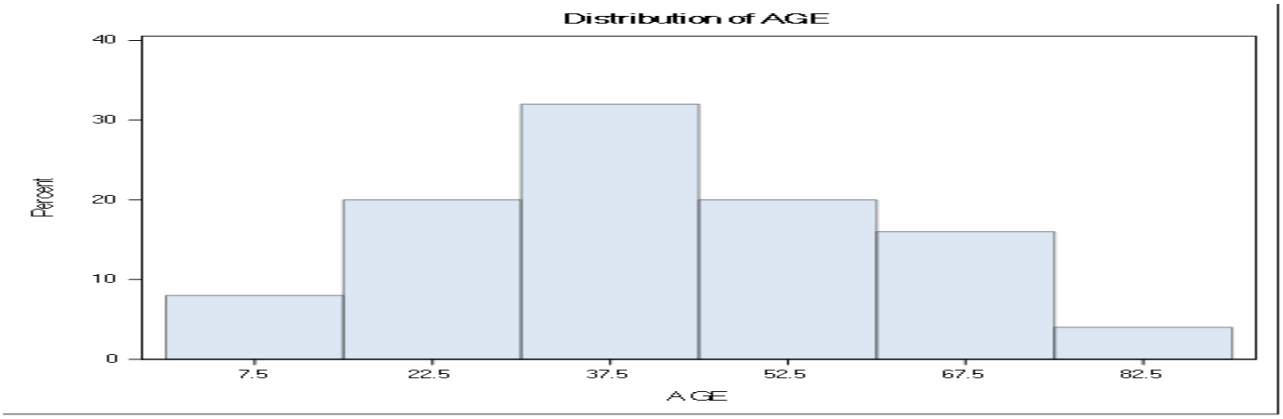
Question 2. 2.2 from the book

Range 27, St.Dev 5.71

Question 3. Graphically display the distribution of the variable age and add a title to your graphical display using SAS. Please include your initials in the title. Example "Distribution of Age FS"

distribution of age

The UNIVARIATE Procedure



Question 4. Describe the distribution of the variable age based on the graphical display you created in question 3. Roughly skewed

Question 5. Find the five number summary of the variable first temp following admission?

Q1 = 98.0 , Q2 = 98.2, Q3 = 98.6

Question 6. What is the range, mode, and IRQ of the variable white blood cell count (WBC)?

Range = 11, Mode = 5 , IQR = 6

Question 7. Graphically display the distribution of the variable service and add a title to your graphical display using SAS. Please include your initials in the title.

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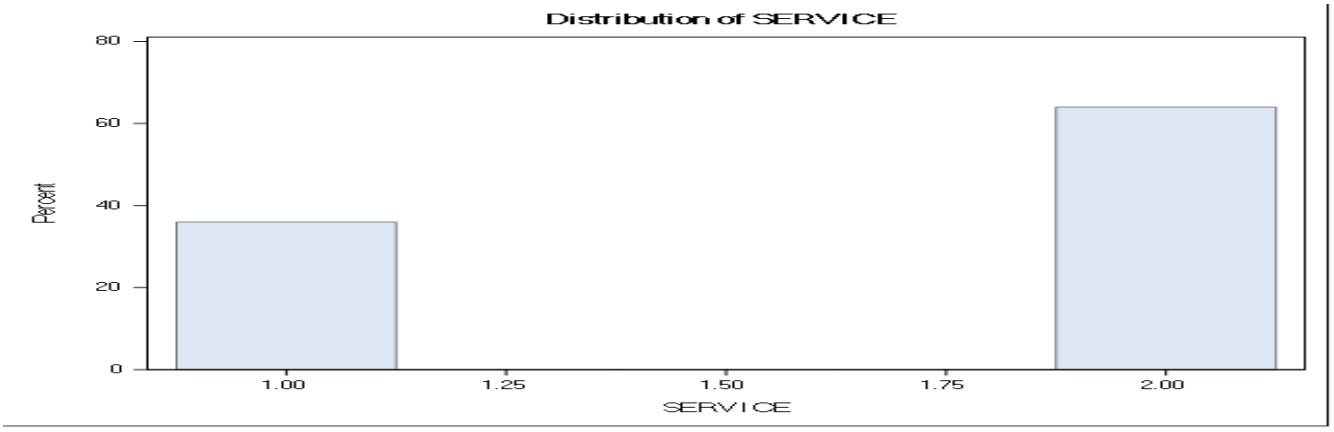
distribution of service

The UNIVARIATE Procedure



Question 8. Describe the distribution of the variable service based on the graphical display you created in question 7. Left skewed

Use the data containing baseline information of subjects entering a health study below to answer questions 9 and 10.

Sex	Age	Cholesterol level	Smoking status
F	50	178	Y
M	61	146	Y
M	72	208	N
M	55	147	Y
F	59	202	N
M	65	215	N
F	68	184	N
F	59	208	Y
F	63	206	N
M	52	169	N

Question 9. Convert the raw data into a SAS data file. Print the data below.

Obs	sex	age	cholesterollevel	smokingstatus
1	F	50	178	Y
2	M	61	146	Y
3	M	72	208	N
4	M	55	147	Y
5	F	59	202	N
6	M	65	215	N
7	F	68	184	N
8	F	59	208	Y
9	F	63	206	N
10	M	52	169	N

Question 10. What is the mean and standard deviation of the variable cholesterol? Is there no variability, small or a lot of variability for this variable?

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Mean 183.6 , St.dev 25.69 , There is a small amount of variability

```
1 & 2. proc univariate data = datalib.hospital;
var dur_stay;
run;

3. proc univariate data= datalib.hospital;
var age;
histogram age;
title 'distribution of age';
run;


5. proc univariate data = datalib.hospital;
var temp;
run;
6. proc univariate data = datalib.hospital;
var wbc;
run;
```

```
8.  data htwt; /* health study*/
input  sex $age  cholesterolLEVEL smokingstatus $; /*input names of variables*/
cards;
F 50 178 Y
M 61 146 Y
M 72 208 N
M 55 147 Y
F 59 202 N
M 65 215 N
F 68 184 N
F 59 208 Y
F 63 206 N
M 52 169 N
;
RUN;
```

```
9. proc print data= smokingstat;
run;
10. proc univariate data=smokingstat;
var cholesterollevel;
run;
```