Brief Article

The Author

August 21, 2015

Chapter 1

Why you should use data science?

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Solution 1.6-1
All of the choices is the correct answer.
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Solution 1.6-2
The level of measurement of marital statis is nominal.
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Solution 1.6-3
The level of measurement of marital status is interval-ratio.
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Solution 1.6-4
The number of reported robberies in June 2014 is Kalamazoo County is a continuous variable.
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Solution 1.6-5

Numeric - interval
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Solution 1.6-6
Numeric - ratio
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Solution 1.6-7
all adult residents of the U.S.
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Solution 1.6-8
birth weight.
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Solution 1.6-9

Variable: Homicide rate
Level of Measurement: Interval-ratio
Type: Continuous
Application: Descriptive (two variables)

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Solution 1.6-10

Variable: party, gender, opinion
Level of Measurement: nominal, nominal, ordinal
Type: discrete, discrete, discrete
Application: inferential, NA, NA

Chapter 2

Dataset Descriptive Information

Solution 2.5-1

$$(2.)p = \frac{250 - 195}{250} = 0.22 \tag{2.1}$$

Solution 2.5-2

$$(3.)ratio = \frac{195}{250 - 195} = 3.55 \tag{2.2}$$

Solution 2.5-3

$$(2.)rate = \frac{13}{25000} \times 100000 = 52 \tag{2.3}$$

Solution 2.5-4

$$(1.)PC = \frac{(83 - 89)}{89} \times 100 = -6.7\% \tag{2.4}$$

Solution 2.5-5
(1.) The percentage of nurses who are female is 36.8%. **(2.)** The proportion of orderlies who are males is 0.367. **(3.)** Ratio is 18 females docs to 83 males docs or approximately 1 female doc for every 5 males docs. **(4.)** Percentage of females on the staff is 43.3%.

Solution 2.5-6
The measure of the lost hours due to traffic is interval-ratio.

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Solution 2.5-7

$$pc = \frac{169.53 - 159.90}{159.90} \times 100 = 6.02\%$$
(2.5)

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Solution 2.5-8

Min. 1st Qu. Median Mean 3rd Qu. Max.
15.70 17.60 18.30 18.24 19.28 20.70

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Solution 2.5-9
$p = \frac{(19+15)}{50} \times 100 = 68$