Introduction to Social Data Analytics

Class 4

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Today's Learning Objectives

From Pre Class 4 Exercise:

- resizing columns, pasting values, using MATCH and VLOOKUP

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- Use the RAND function to conduct a simple random sample

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Please download and open class4.xlsx if you haven't already.

Kinds of Variables

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- Logical: True/False variables

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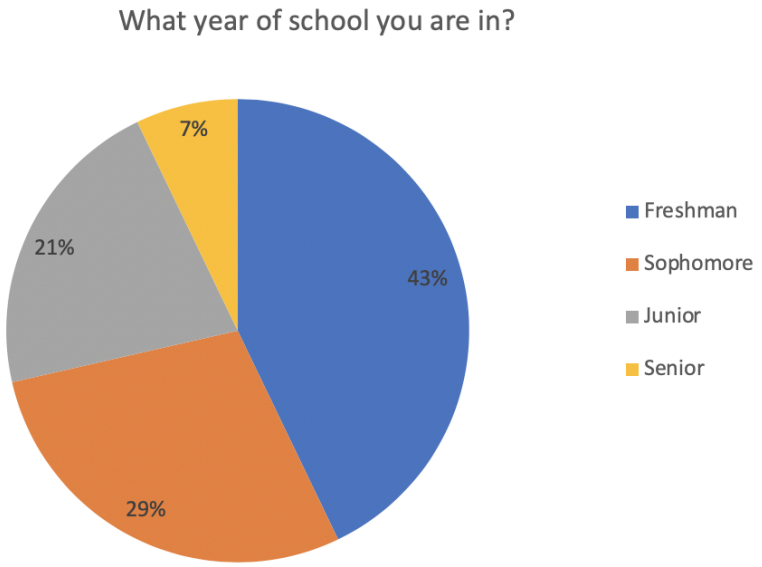
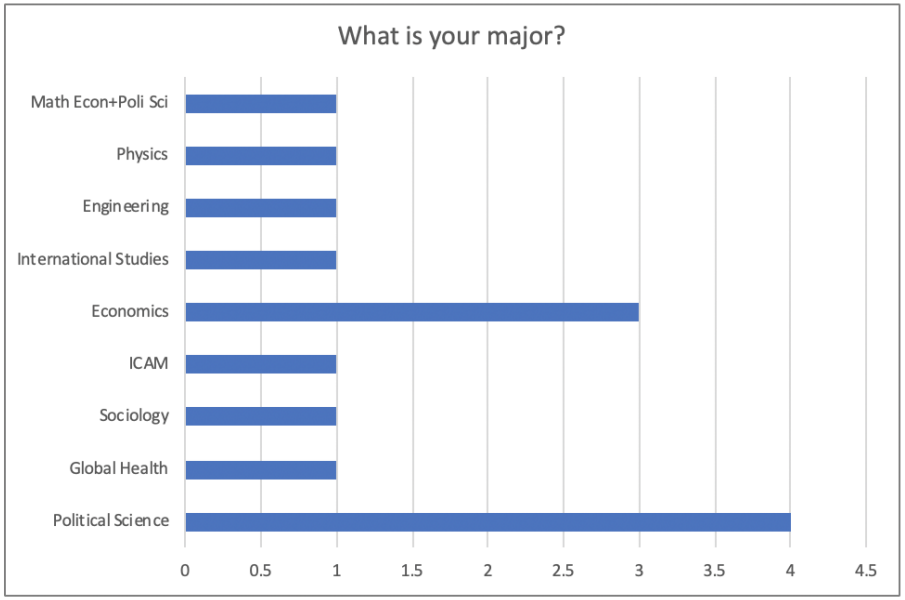
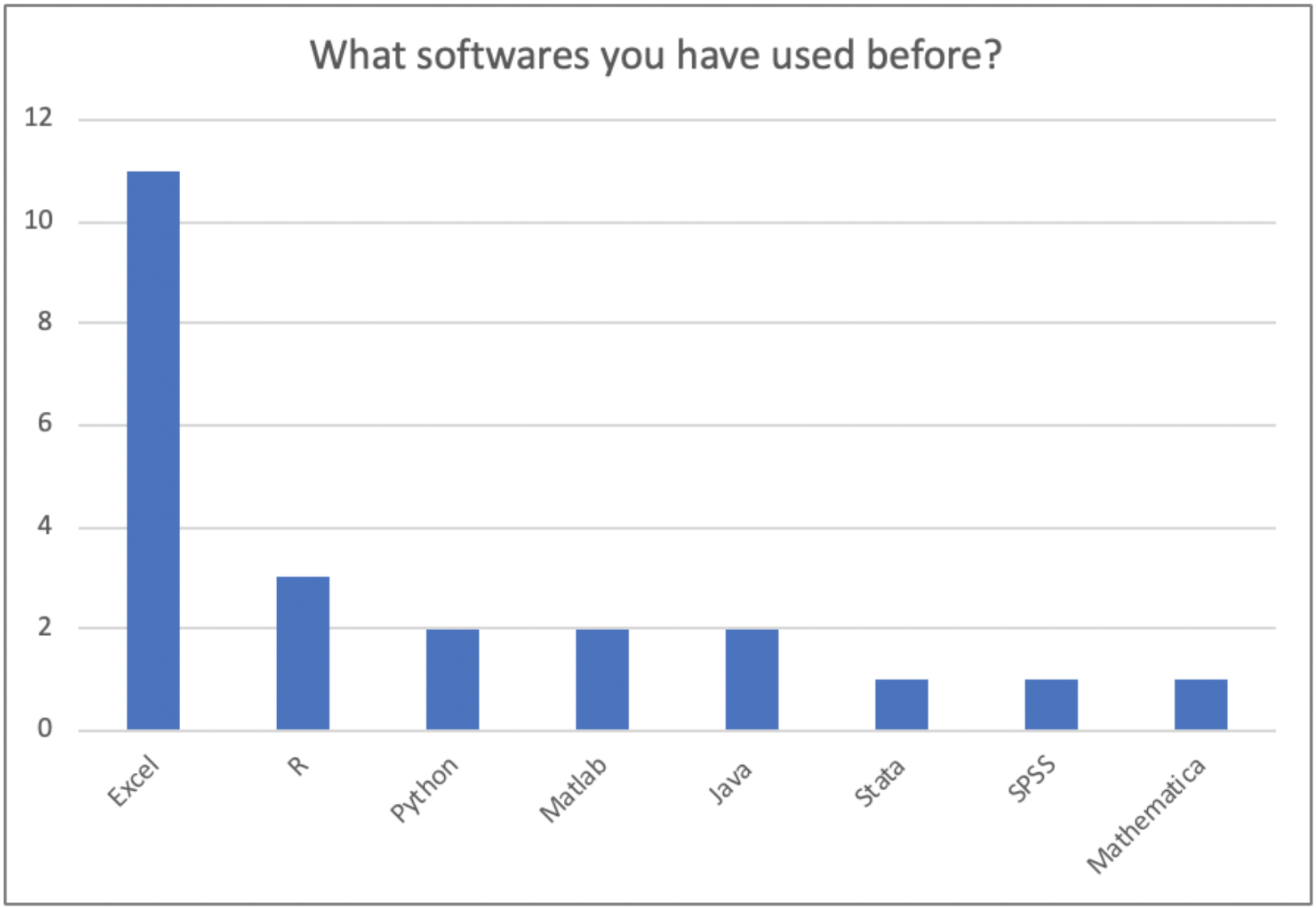
- Rating of High, Medium, or Low of a student's confidence with Excel
- Whether or not a student turned in an assignment on time
- A student's score on an exam
- A student's college at UCSD

What year are you?





Check all software you've used before.



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- Do you know how to use Excel?
- On a scale from 1 to 10 how well do you know Excel?
- Across sections, what % have used Excel before?
- Which software package do you know best?

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  - Non-responses result in sampling bias

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- How likely are you to recommend my company's product to a friend? (Don't want to hurt surveyor's feelings)

Example: wages after graduation

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- Why might the data contain response bias?

class4.xlsx

	A	B	C	D	E	F	G	H	I	J	K
1	id	phone	actual salary	salary provided to surveyor	random number	selected?	selected and answered phone?		Sample	Average Salary	Difference from population mean
2	1	Y	112820.87	115000					Entire Population	$ 57,868.98	-
3	2	Y	39371.62	40000					Simple random sample w/ response bias		
4	3	Y	63118.67	65000					Sample with response and sampling bias		
5	4	Y	95692.48	100000							
6	5	N	36642.72	40000							
7	6	Y	84664.83	85000							
8	7	Y	11981.42	15000							
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- If the random number > 0.5 but phone $=$ "N", they are NOT included in the random sample with sampling bias (column G)

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- If the random number $>$ 0.5, they are selected for the random sample (column F)
- If the random number $>$ 0.5 but phone $=$ "N", they are NOT included in the random sample with sampling bias (column G)
- Determine the average reported salary amongst those selected (J3) and amongst those selected who answered their phones (J4).

Next class

1. We will be plotting in Excel.
2. Submit your pre class exercise before class.