

Complete all exercises and examples referenced in the following introductory notes for Chapter 1. Your textbook can be downloaded through the Book Locker. Responses will be graded on clarity and completeness. Submission through Canvas due Tuesday, August 13, 2019 at 7:30 am. This will be graded as a quiz assignment.

CHAPTER 1 INTRODUCTION – DATA ANALYSIS: MAKING SENSE OF DATA

Data Analysis – organizing, displaying, and summarizing data as well as asking questions

Individuals – objects described by a set of data

Variable – any characteristic of an individual

Categorical variable (aka qualitative variable) – places an individual into one of several groups or categories

Quantitative variable – takes on numerical values for which it makes sense to find an average

*Read example on page 3 and 4: “Census at School”

*Example: U.S. Census data – Here is information about 10 randomly selected U.S. residents from a recent census.

STATE	NUMBER OF FAMILY MEMBERS	AGE	GENDER	MARITAL STATUS	TOTAL INCOME	TRAVEL TIME TO WORK
Kentucky	2	61	Female	Married	21,000	20
Florida	6	27	Female	Married	21,300	20
Wisconsin	2	27	Male	Married	30,000	5
California	4	33	Female	Married	26,000	10
Michigan	3	49	Female	Married	15,100	25
Virginia	3	26	Female	Married	25,000	15
Pennsylvania	4	44	Male	Married	43,000	10
Virginia	4	22	Male	Single	3,000	0
California	1	30	Male	Single	40,000	15
New York	4	34	Female	Separated	30,000	40

Problem:

- a) Who are the individuals in this data set?
- b) What variables are measured? Identify each as categorical or quantitative.
- c) Describe the individual in the first row.
- d) What are three characteristics you can say about the individual in the eighth row that is different from the other individuals?

Distribution of a Variable – tells us what values the variable takes and how often it takes these variables

Inference – drawing conclusions that go beyond the data at hand

*Do “Check your understanding” on page 4 in the textbook.

*Do exercises 1 – 8 on pages 6 – 7 in the textbook.