

## Stats Support 1: Lectures 1 and 2

### Practice questions

*Will be taken up in **Stats Support** on Fri January 17<sup>th</sup> – at 1130 in BH103 and 230 in LH101. Remember you do not need to complete the questions to attend this portion of stats support.*

1. What is the Level of Measurement of the following variables?

1a. Wrkstat (work status)

1. Full time
2. Part time
3. Unemployed
4. Dropped out of the labour force
5. Not applicable (wrong age etc.)

1b. Marital Status

1. Married
2. Cohabiting
3. Divorced
4. Widowed
5. Never Married

1c. Sibs (number of siblings)

1d Childs (number of children) 1e). Age (current age)

1e. Zodiac (what's your sign?)

1. Aries
2. Cancer
3. Sagittarius
4. ....etc.

1f. Educ (Years of education)

1g. Degree (highest degree earned)

1. Hs or less
2. College
3. University
4. Graduate/professional degree

2. Below we have raw data for 10 cases, about which we have information on two variables. The first variable records whether each case has a gender that is 1 (male) or 2 (female). The second variable records whether each case is 1 (below) or 2 (above) average income.

Case	Gender	Income
a	1	2
b	1	2
c	2	2
d	1	1
e	2	1
f	2	1
g	2	1
h	2	2
i	1	2
j	2	1

2a. Make a frequency table for gender and another frequency table for income. Include %s for both of your tables.

2b. From the tables:

What is the level of measurement of these variables? How many of the 10 cases are male?

What proportion of all cases is that?

What is the % of cases who have above average income?

What is the ratio of above average to below average income earners in this sample?

3. In 1998 18% of married women and 36% of married men claimed to have an egalitarian division of household work in their homes. In 2018, those percentages are 29% for women and 52% for men.

3a). Using the above information, state who is more likely to believe that household work is equally divided in 1998? What about 2018?

3b). Which gender had the greatest percentage change in attitudes over this period?

4. Of the 845000 male public servants on the payroll of a nordic country, 2756 took parental leave within the last 2 years. Of the 657000 female public servants, 2643 took parental leave.

4a). Using this information, what is the parental leave rate for women and what is it for men? Who has the highest parental leave rate? What is the percentage difference between them?

5. Reconsider the variables from question 1.

5a). What is the most appropriate measure of central tendency for each?

5b). Are there any that would benefit from more than one measure being considered for the same variable?

6. Here we have 7 test scores out of 50: 49, 34, 28, 44, 15, 31, 34.

6a). What is the level of measurement of this variable? Calculate all three measures of central tendency for the 7 test scores. Which is the most informative in this situation and why?