

Data 8 Summer 2021

Discussion: By The Numbers (Lab01)

Welcome to your first Data 8 lab! Answer the following questions to the best of your ability. Complete the worksheet with one other partner, and please make sure that both members of your group agree on each answer before moving on.

1. Which of the following numbers is the closest to the average size of all Berkeley classes in the 2019-2020 academic year?

30 40 50 60 70 80 90

Answer: 50, the actual average was 49.4. It was 48.2 in the 2018-2019 academic year 2018-2019, 48.1 in the 2017-2018 academic year, and 44.5 in the 2016-2017 academic year. [Source](#) **Note- class size is calculated by counting each section offered in a class and lecture as a class, so Data 8 would be one 1300 person class, and 45 30 person classes.*

2. In the 2019-2020 academic year, close to half of all undergraduate degrees at Berkeley were awarded to students in the 10 largest major programs. The top five (in decreasing order of number of degrees awarded) are L&S Computer Science, Economics, Political Science, EECS and Data Science. What are the next five?

Answer: Business Administration (385), Cog Sci (344), Applied Math (329), Sociology (310), Media Studies (282). The number of students in the top five largest programs are as follows L&S CS (851), Econ (755), Poli Sci (482), EECS (452), Data Science (407). Note that updated data was not found, so data science, which is probably in the top 10, is not listed. [Source](#)

3. "Life expectancy at birth" (LEB) measures roughly how many years a newborn baby is expected to live, and is a commonly used metric to quantify the health of a population. What two states would you expect to have the highest LEB?

Answer: Hawaii (81.3) and California (80.9), but there is some uncertainty in these predictions. Connecticut and Minnesota are at 80.8.

4. Picking from the list of numbers below, fill in the numbers which you expect to be the closest to the LEB of the United States as well as the world.

68 70 72 74 76 78

United States_____

World_____

Answer: USA 78, World 72