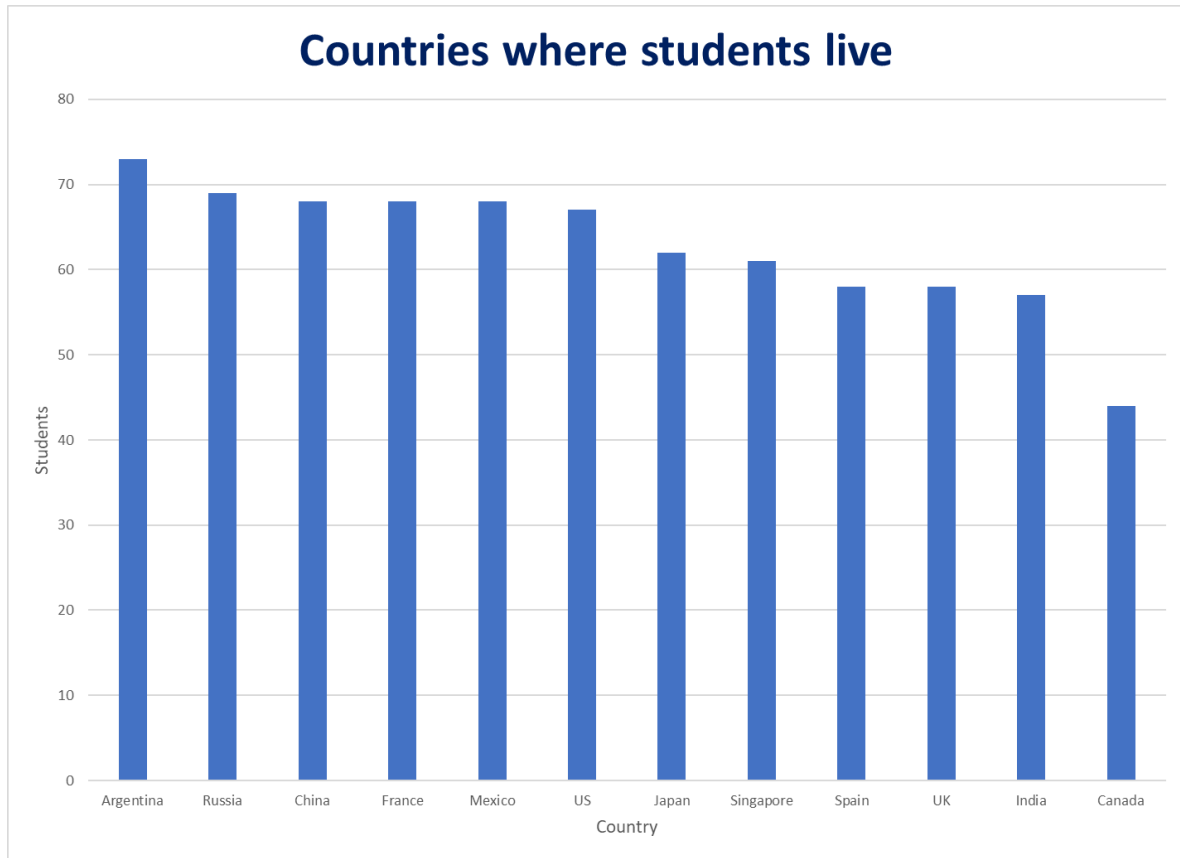


Project 2: Analyze Survey Data

Juan Sebastian Pinzon Gamez

December, 2018

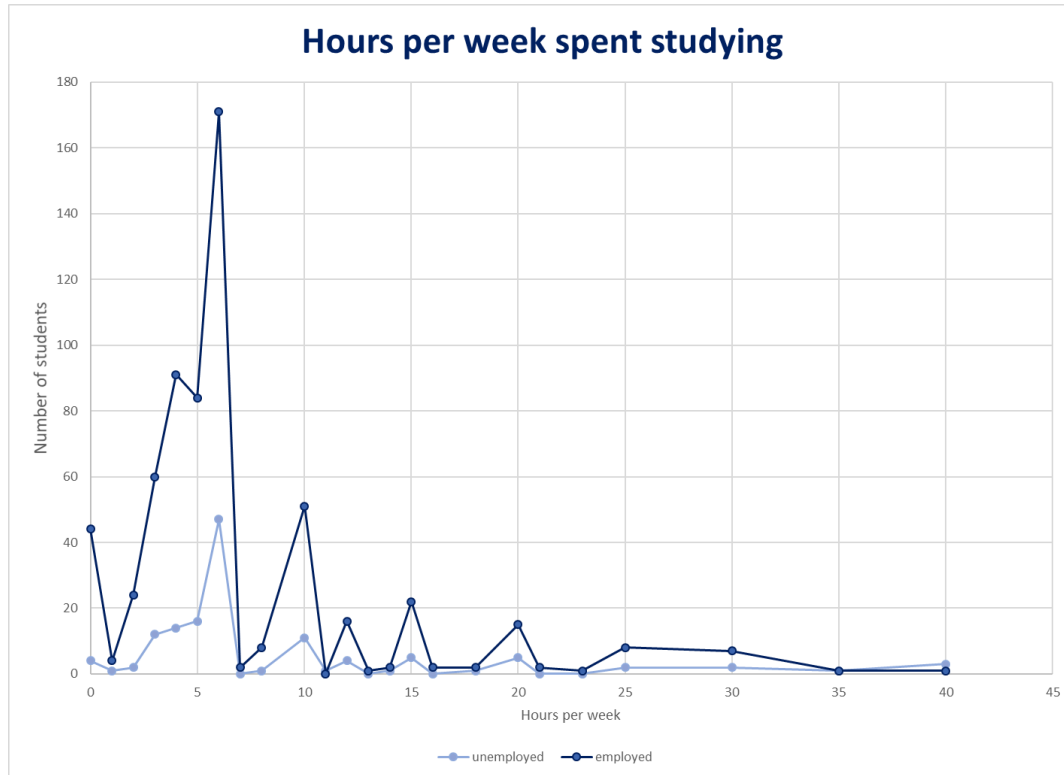
Where do the Udacity students live?



Argentina is the country where more Udacity students live with an amount of 73.

From the countries that we see in the chart, there is no big difference in quantity compared with the total of the sample, as they all have between 40 and 75 Udacity students (range of 29).

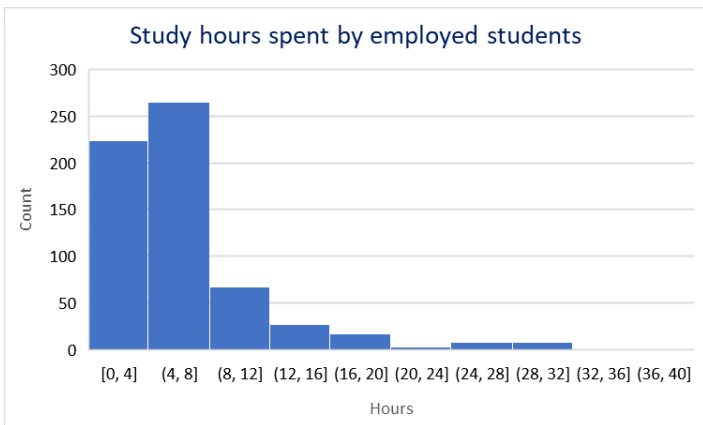
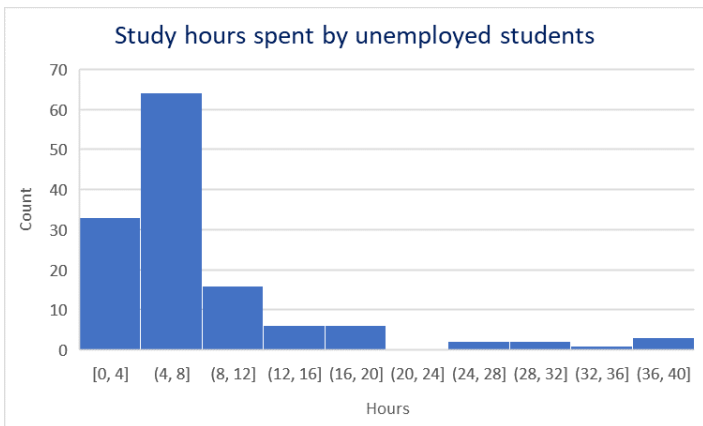
Study hours: employed vs. unemployed (Part I)



Even though employed students (82%) are a lot more than unemployed (18%), the amount of hours spent studying by both groups follow the same pattern, so we might think that all Udacity students study the same amount of hours.

In the next slide we look at this a little more in detail.

Study hours: employed vs. unemployed (Part II)



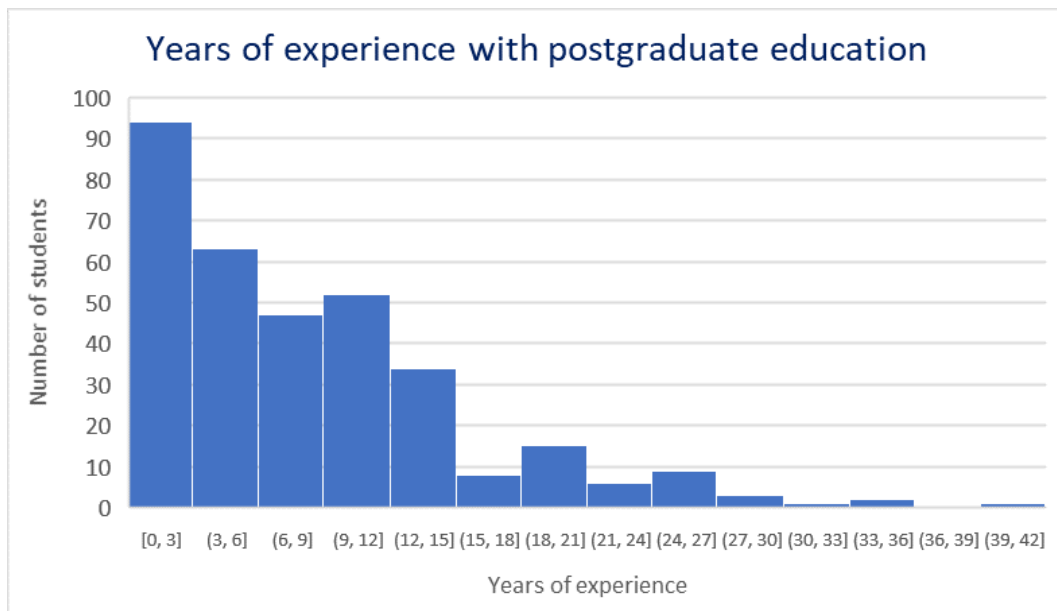
| | Unemployed | Employed |
|--------------------|------------|----------|
| Median | 6 | 6 |
| Mean | 8.33 | 6.63 |
| Standard deviation | 7.65 | 5.56 |

Both distributions for the histograms appear to be right-skewed. The mean, as shown in the table above, is higher than the median.

In average, unemployed students study approximately 1.7 more hours than employed students. Although, the variability in study hours for unemployed students is higher, as the standard deviation for unemployed students is higher than employed students. This may be due to the fact that unemployed people have more free hours to dedicate to studying.

Years of experience in students with postgraduate degree

| | With postgraduate | Without postgraduate |
|--------------------|-------------------|----------------------|
| Mean | 8.76 | 7.20 |
| Median | 7 | 5 |
| Standard deviation | 7.14 | 7.09 |
| Mode | 3 | 1 |



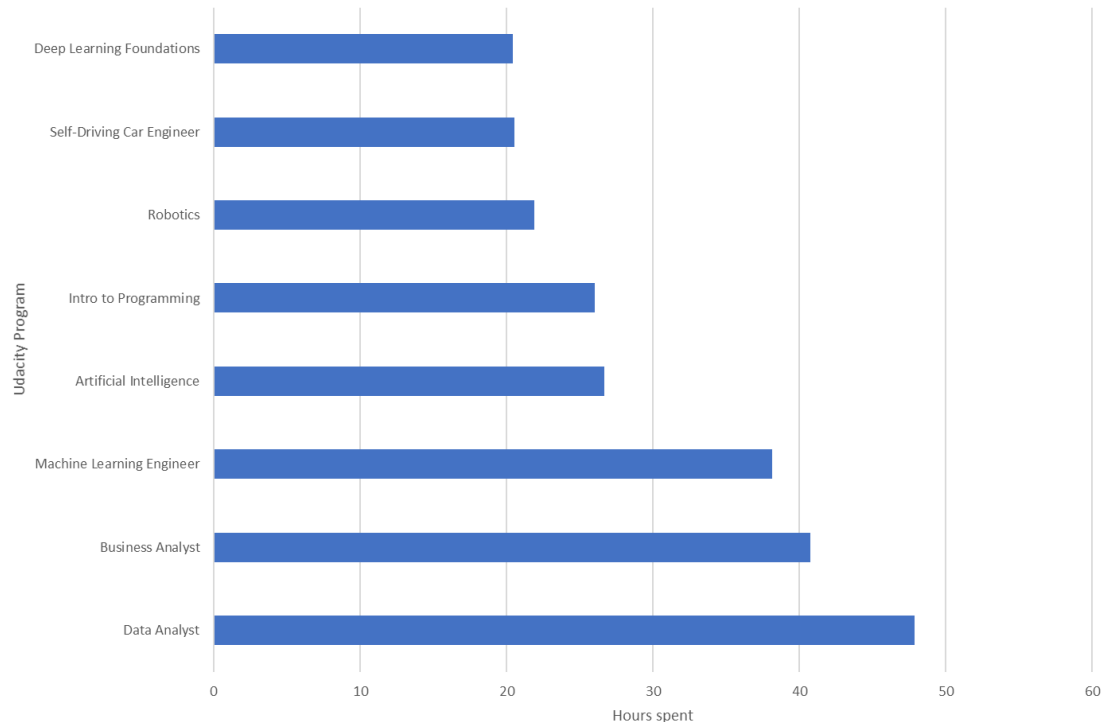
The histogram for the years of experience of students with postgraduate education is right-skewed, so the mean is higher than the median.

As we see in the data, students with postgraduate degrees have more years of experience than students that do not, even though the variability is almost the same, the mean, median and mode are higher.

The range is 40, so the data is more spread from the mean. Looking at spread measures, the standard deviation could be more accurate as outliers can influence the range value.

Hours spent on projects

Hours per week spent on Projects



In average, students spent 33.65 hours per week in developing the different projects of Udacity programs, with a range of 27.43 hours.

As we see in the graph, Data Analyst program has the most hours spent in projects with almost 48, as compared with Deep Learning Foundations with approximately 22 hours and a half spent on projects by students.