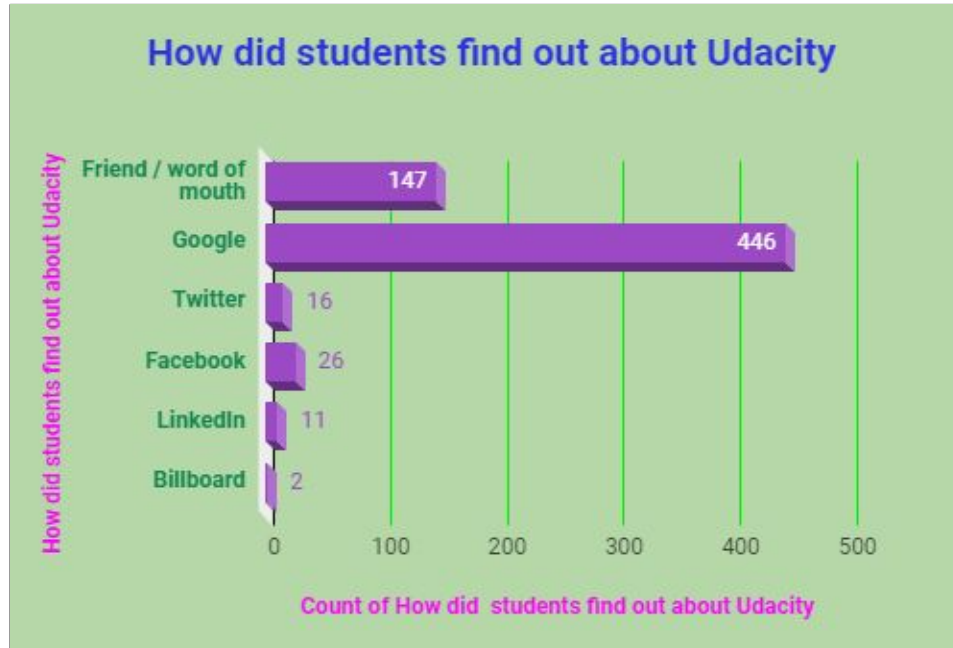


Project 2

Analyze survey data

The data is from survey respondents and not from the entire Udacity Student population

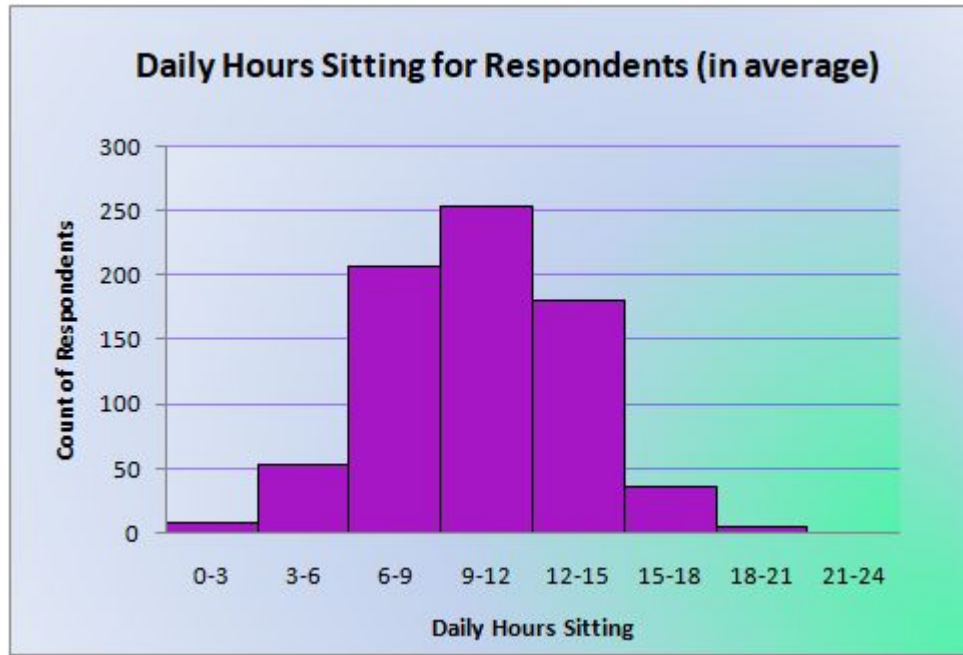
How students find out about Udacity



This bar chart compares the counts of different ways that students (Survey Respondents) use to find out about Udacity. In detail, the graph shows six categorical variables on the x-axis.

Looking at differences in the lengths of the bars, Google is the most common source, with an amount of about 446, followed by Friends/word of mouth (147), Facebook (26), Twitter (16). The least used source to find out about Udacity is Billboard that output only 2.

Average hours spend sitting per day



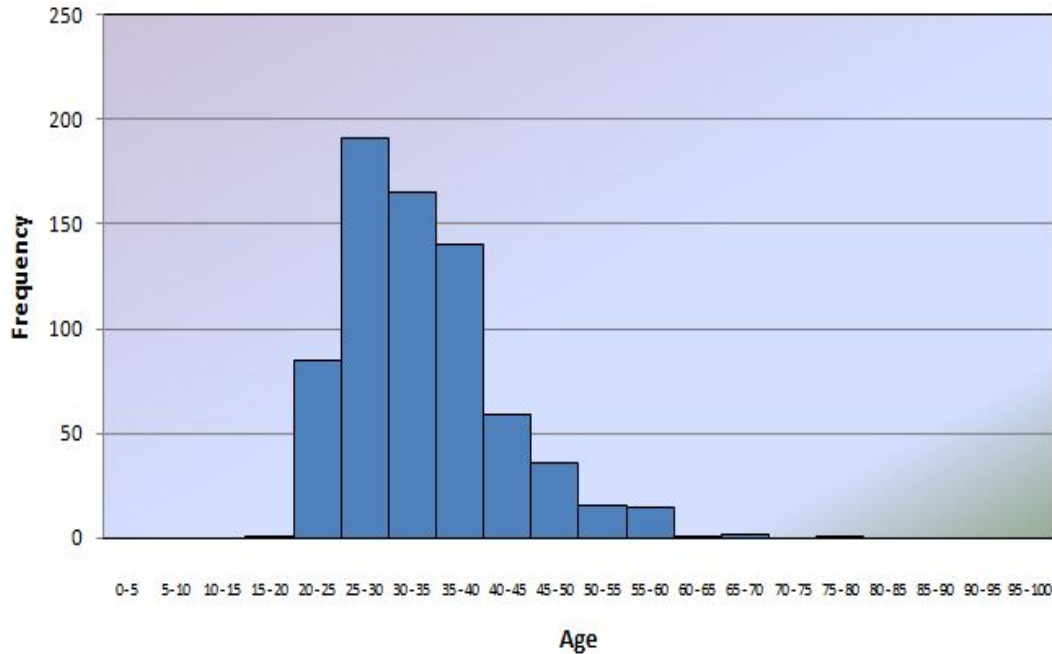
The histogram in the figure, illustrates the average of hours spend sitting per day by survey respondents. A closer look says that the shape of graph is roughly symmetrical.

The mean, median, and mode are approximately all same value, in this case 10 hours; then the result of this analysis highlights that the distribution has a normal shape. Moreover, based on these values, it seems like the average, the majority and the median number of students sit 10 hours per day.

In this approximate symmetrical distribution, the standard deviation is low, only 3.21 hours, therefore analyzing this indication, it can be affirmed that the variability is not high. The range is 19 hours, (a bit high value considering the total 24 hours in one day), means that there is a small dispersion in the distribution, this is because of an outlier in the data.

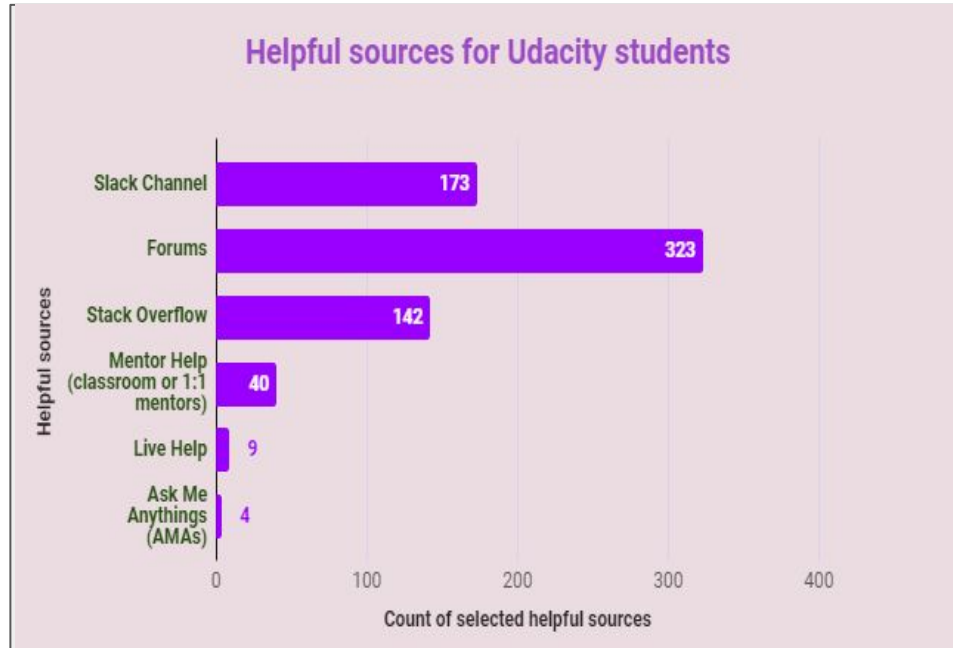
Age in years Udacity Survey Respondents

Age of Udacity Respondents



The chart represents the age of udacity survey respondents and its frequency. The distribution in this histogram appear to be right-skewed. In this data set, the mode about 29 years is close but smaller than either the mean and the median. Based on the mode values, most students are 29 years old. In fact, the bin range from 25 to 30 years on the x-axis has the maximum frequency (near 200). The mean, approximately 33 years is more great than the median (32) and the mode (29) therefore, these values confirm a positively skewed distribution. Looking at these values, it can be affirmed that the majority of participants are very young people with an average age of 33 years old. Analyzing the standard deviation that is approximately 11 years and the overall shape of distribution, this graph would suggest a sample with some outliers, that are greater than the mode. Moreover, the presence of outliers is also confirmed by the range 59 (a quite high value), that points out once again, a large dispersion in the data.

Helpful resources for Udacity students in nanodegree

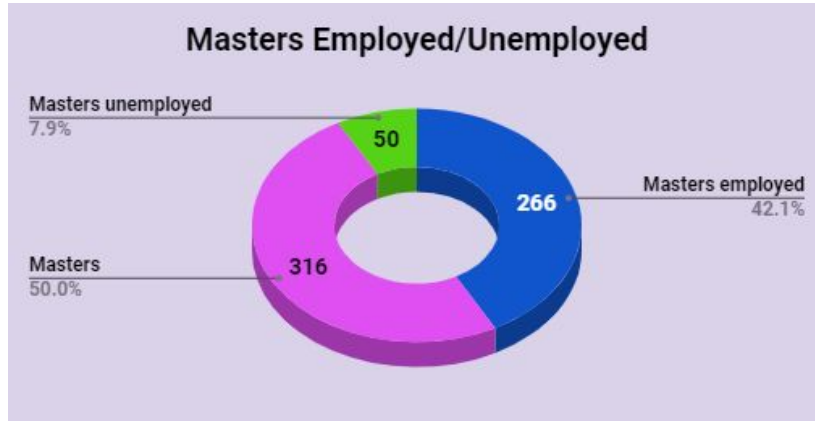


This bar chart describes the most helpful resources used by Udacity survey students when they got stuck in nanodegrees.

The chart breaks these categorical data (helpful sources) down in six groups: Slack Channel, Forums, Stack Overflow, Mentorship, Live Help, Ama. Analyzing the bar graph, the most helpful resource is the Forum with a count of about 323. The second helpful source after Forums is Slack Channel with an amount of 173, followed by Stack Overflow (142).

The least helpful is Ask Me Anything that displays a count of only 4.

Un/employed Phd and Masters Udacity Survey Respondents



These graphs show the results of a combination of multiple data of a survey in which 752 people were asked about their education and un/employment. In fact, questions referred to the highest level of education and the number of employed and unemployed participants. In charts in figure, it was analyzed the number of employed and unemployed students with Phd and Masters education, respectively. As represented in the first chart, 73 people have a Phd education, between these students 70 people have an employment, and the remaining 3 do not have a job. In second graph, 316 participants have a Masters education, moreover it was reported that the 42.1% of these respondents are employed, (266 students) and the 7.9% of sample analyzed do not have an employment (50 participants). In conclusion, it is clear that nearly an half of survey participants have a Master education and only a small minority have a Phd education.