

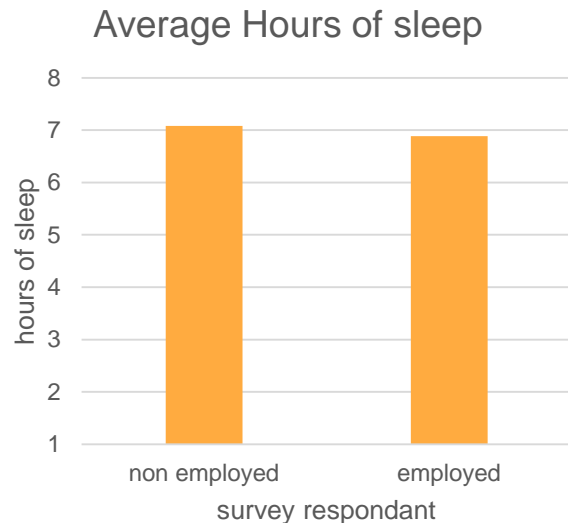
# Abdulaziz Alquniah

## Project 2

# Data preparation

- Deleted extra column like indexes
- Change names
- Change birthdate to age
- Merge Item swag, slogan, occupation, job level, industry, most helpful, hours per week learning, two columns into one
- remove the wrong symbols
- prepare all other columns

# Employment status and Sleep

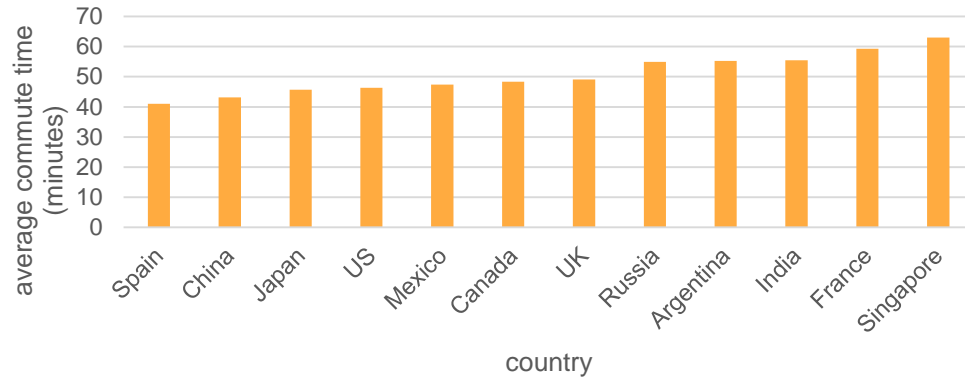


The median number of hours slept by survey respondents was 7 hours; for employed or non employed. The average number of hours slept shows a slightly difference, for unemployed was 7.08, while for employed was 6.88. It looks like both employed and non employed need same hours of sleep.

I removed the unreasonable hours of sleep which is <1 or >15 hours

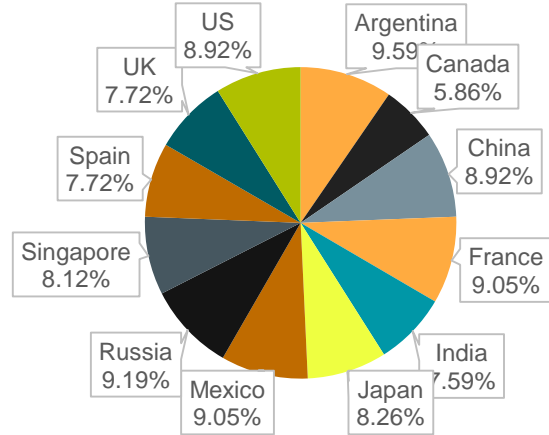
# Commute time based on country and student geographical distribution

average commute time for students by country



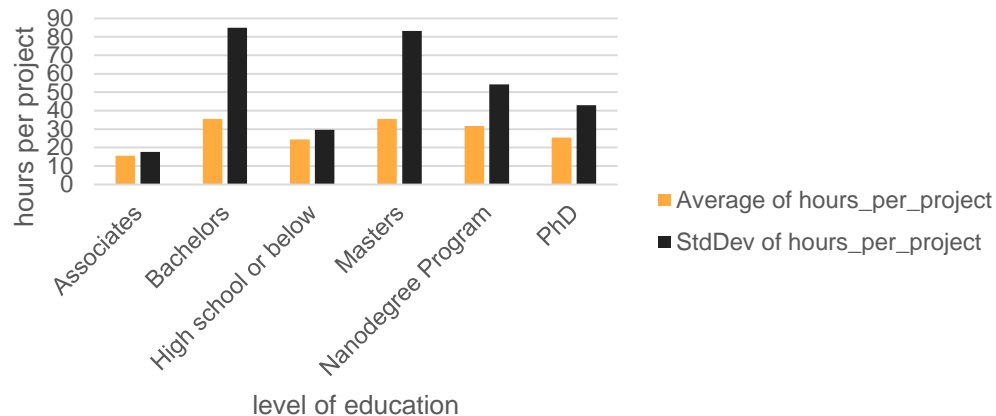
The average commute time for students of Singapore is the maximum, while in Spain it is the minimum; the average for all students is 50.88 minutes, there are countries above the average starting from Russia to Singapore.

Students distribution over countries

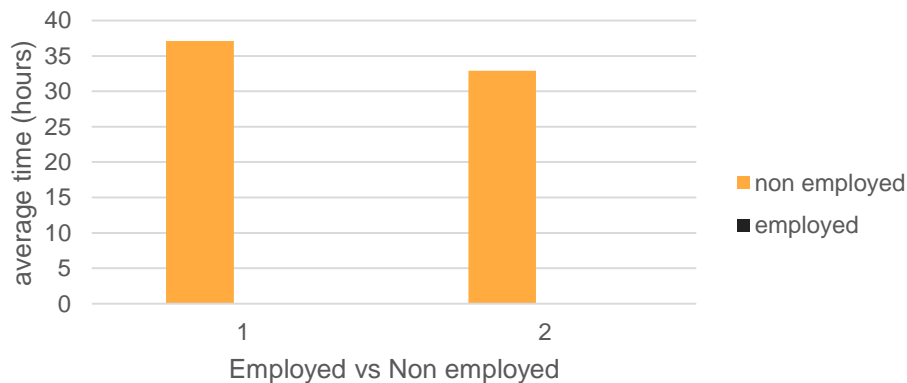


It is a chance also to show how the survey students are distributed over the world, this is in the pie chart. Maximum percentage came from Argentina while Canada is the lowest. Udacity needs more advertising in Canada.

# Hours per project and level of education / employment status



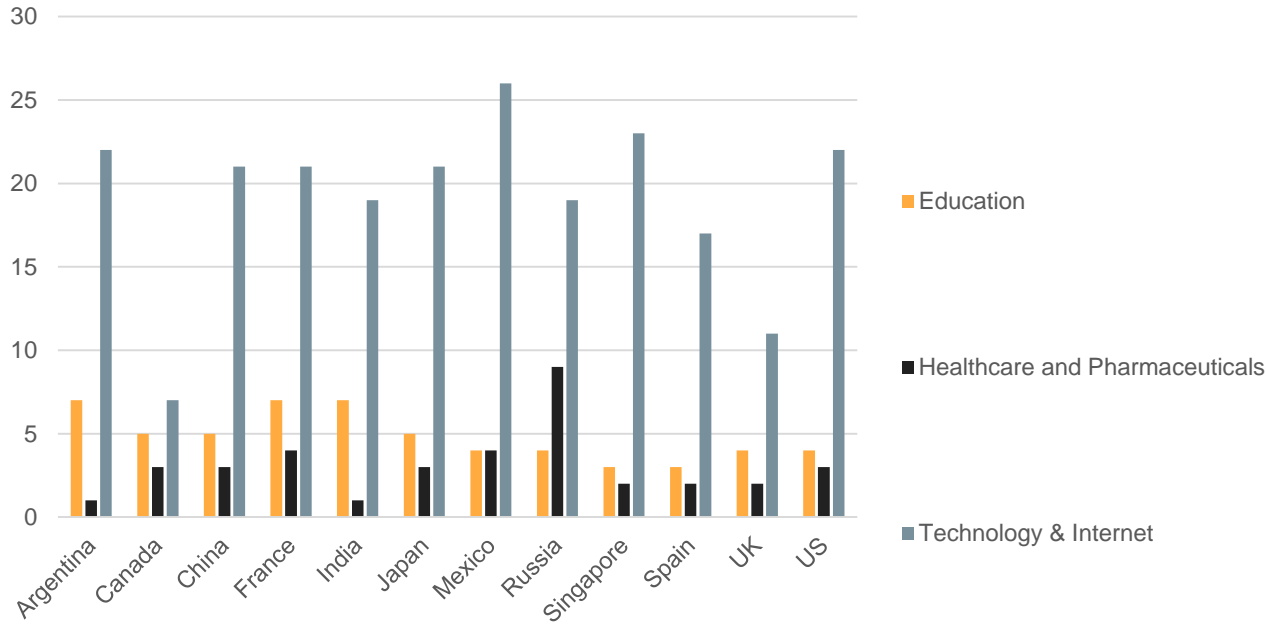
average time spent on project



Trying to figure out the effect of the level of education on the average amount of time the student spend on a project. For me the result is not making sense; so, I also used the standard deviation which is very high. From the data, I think students did not understand the question or put random numbers. I could not figure outliers because the numbers were confusing (1000-1).

Another question to answer is (does the employment status effect the time spent on project? Employed students spend a less time (on average ) than non employed. Being busy at work will make your time valuable

# Top Employed Students Industry over countries



This insight clarifies which industries employees interested in the course over different countries. Education, Healthcare and technology have the largest percent; they mostly have the same order in different countries: Education first, Technology second and Healthcare last. Except in Russia. Education people are the most interested, Udacity should gave them priority