MARKETING ANALYTICS NANODEGREE PROGRAM

2ND PROJECT: Analyze Survey Data

Visualized Insights

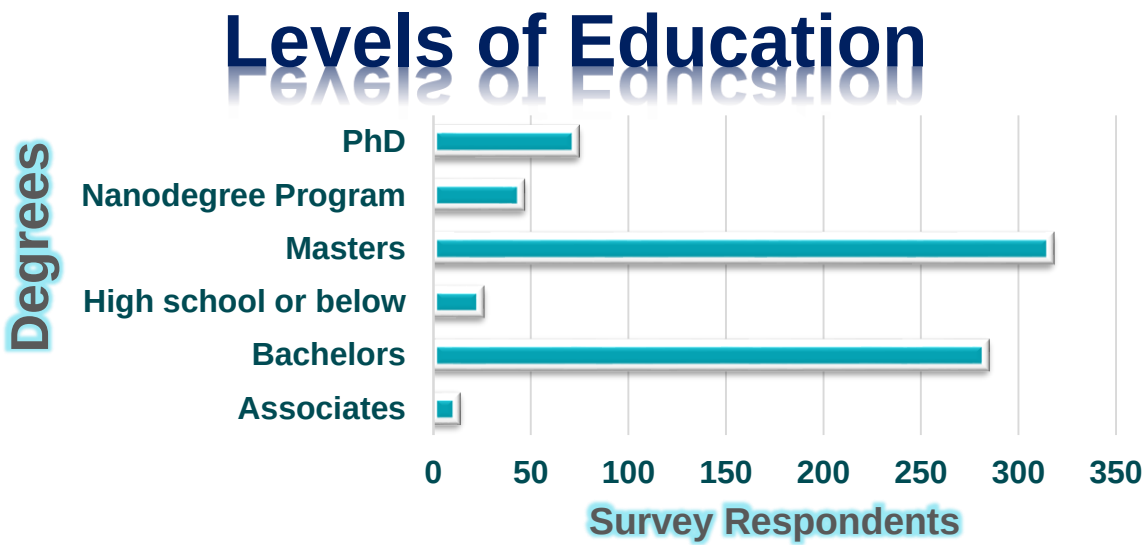
From Udacity Survey Respondents Data

"Keep in mind that this Survey Data is from the respondents,
not from all the entire Udacity students population"

What is the most common highest degree earned by Udacity survey respondents?

Count of Respondents per Degree

Degree	Associates	Bachelors	High school or below	Masters	Nanodegree Program	PhD
Respondents	12	283	24	316	45	73



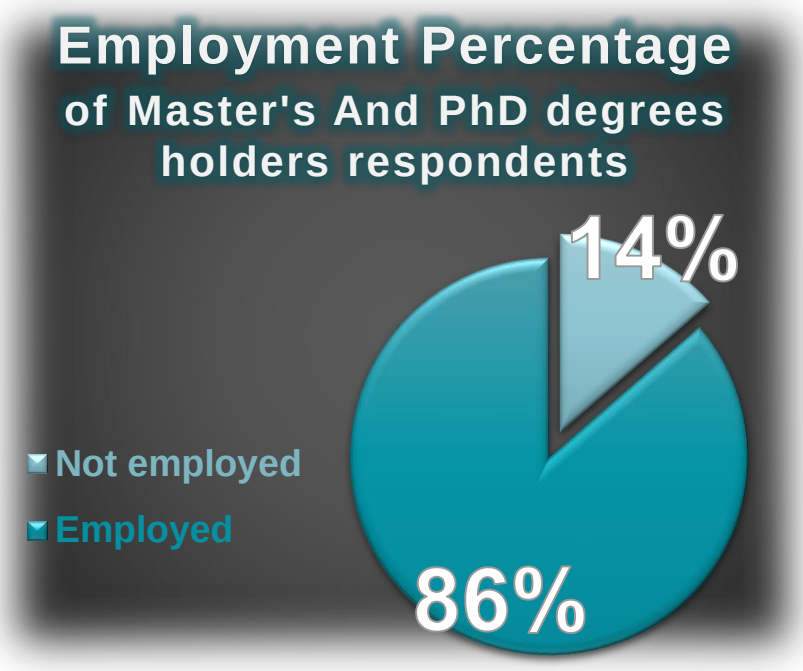
By looking at the visualized graph, we can deduce that most of respondents hold a Master degree.

Then, we obviously see that Bachelors degree holders are second.

Also there are respondents who didn't admit for a college yet.

And the associates ones come at least count in chart.

To which extent goes the range between employed and unemployed counts of survey respondents that hold Master's and PhD degrees?



Employed and Unemployed Respondents Counts per Degree

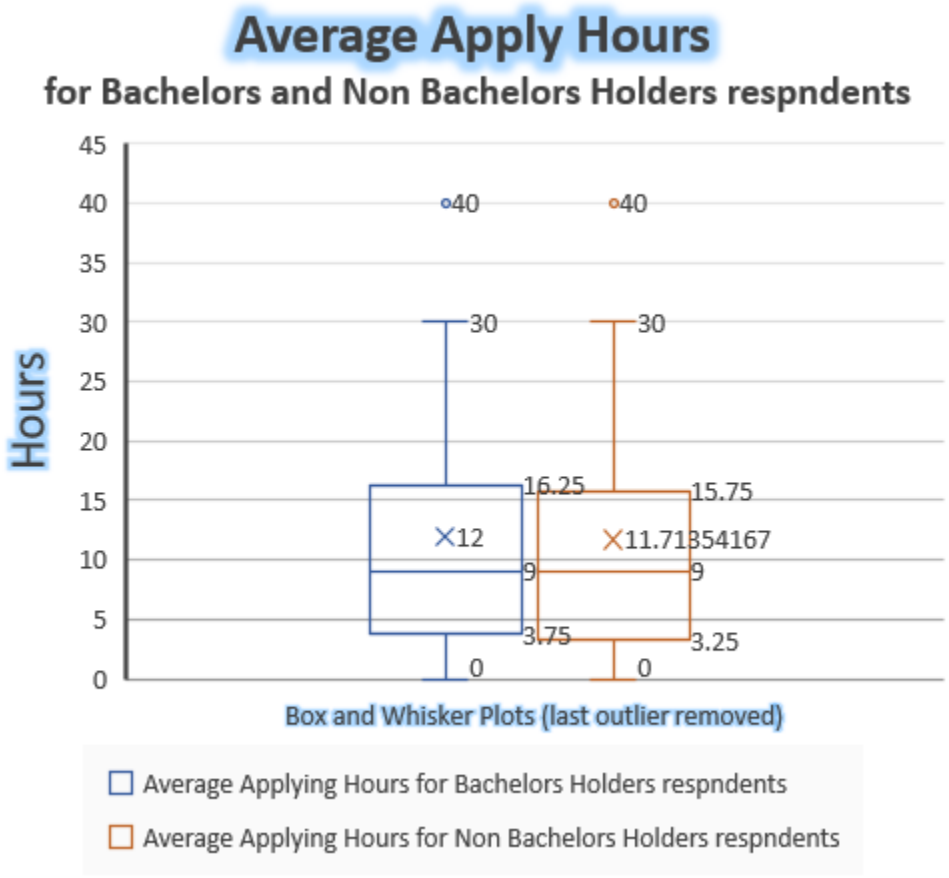
Respondents Degrees	Not employed	Employed	Grand Total
Associates	1	11	12
Bachelors	60	223	283
High school or below	9	15	24
Masters	50	266	316
Nanodegree Program	10	35	45
PhD	3	70	73
Grand Total	**133**	**620**	**753**

Employed and Unemployed Respondents Counts holding Master's or PhD Degree

	Count	Percentage
Count of Master's or PhD degrees holders respondents	389	100%
Count of Not employed	53	14%
Count of Employed	336	86%

From the visualized Pie Chart, it is clear that count of employed survey respondents who have a Master or PhD degrees, exceeds count of those who are not employed ones of the same category for a high 6 times range.

Is there a difference how much could it take per week from Bachelors and Non Bachelors holders who responded to survey to apply learning outcomes on quizzes and projects ?



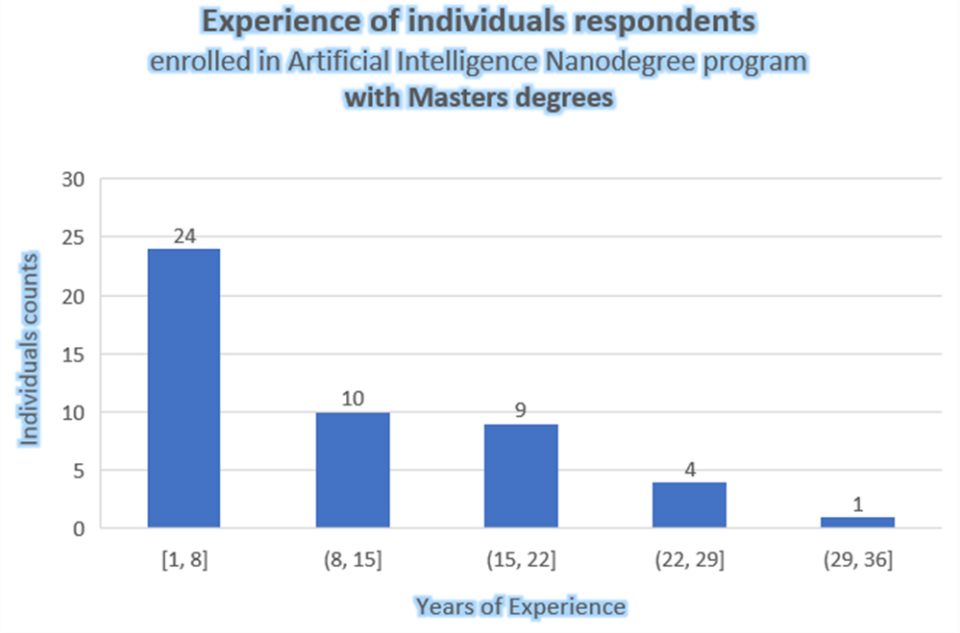
As seen in Box and Whisker plots with mean and five summary statistics , almost there is no too observed difference between the time taken per week from both Bachelors and Non Bachelors respondents to apply what they learned.

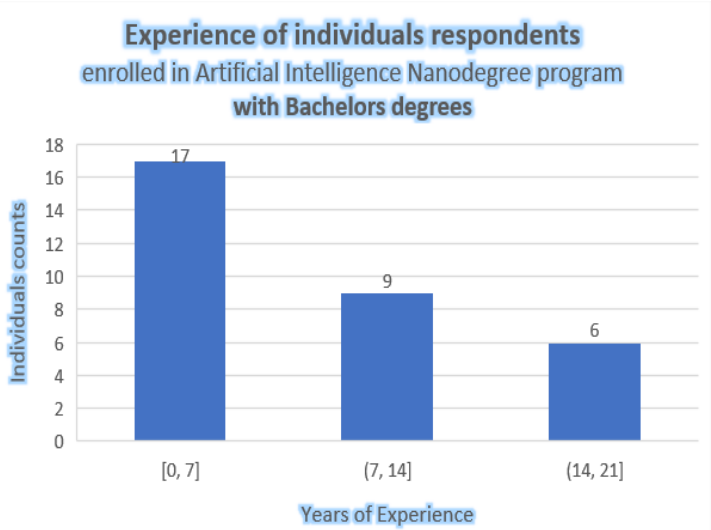
After removing last outliers from both timings (“100” for Bachelor’s and “56” for Non Bachelors), it comes to eyes that the median is 9 hours for both, though the means have a little difference (about 0.28 hours), assuring noticed before of timings approximated similarity.

However, keeping outliers, standard deviation for applying hours of Bachelor’s respondents is approximately 23 hours exceeding the number for Non Bachelors with about 6.5 hours, stating more larger variability in apply timing of Bachelors respondents rather than timing of Non Bachelors.

In case of removing last outliers again, we gain a little standard deviation difference estimated by about 0.06 of an hour, then timings variabilities almost are the same.

Of survey respondents enrolled in Artificial Intelligence Nanodegree program; Who has the largest count with the most experience; Masters or Bachelors holders?





A combined view of both Histograms gives the point for respondents with Masters degree. We could see that they have the largest count of individuals with most years of experience on several levels. As a clarifing pinned tip, years of experience due to 9 of respondentes with master degrees lies from or between 15 and 22 years, also there are other 5 individuals with more than these experience years; where 6 individuals respondents with Bachelor degrees enrolled in Artificial Intelligence Nanodegree program have the top level of years of experience within Bachelors holders that didn't even exceed 21 years.

Thanks