Summary

A research analysis on New Coders Survey 2016 dataset (NewCodersSurvey. (2016). 2016-FCC-New-Coders-Survey-Data [Data set CSV file]. Retrieved from https://github.com/FreeCodeCamp/2016-new-coder-survey September 13, 2016) can prove to be useful for a number of organizations, MOOCs and educational institutes that offer programming courses and related trainings. The marketing board of directors are always looking for ways to increase their popularity, the number of students enrolled, the diversity of the enrolled students and their profit margins. The answer to the research questions such as 'Does the amount of money spent on learning how to code vary with age? ' can help the institutes to strategically market their courses to a tailored audience and grow the market share of their institute. Also, answers to questions such as 'Does a major in computer science or information technology or experience in related fields reduce the amount of time spent in learning and practicing?' can be used to guide the students to understand how their background can help them better understand the course.

The dataset is made available under the Open Database License (ODbL) v1.0: http://opendatacommons.org/licenses/odbl/1.0/.

Data was cleaned in order to remove null and blank values that would have interfered with our statistical tests and analysis. The columns that contained responses to questions not needed for our study were also removed. The resulting dataset had 42 columns with 1371 rows of responses.

Initial analysis revealed that people between the age of 25 and 40 are more likely to enroll in a course than their counterparts. Also, people who have jobs that require them to commute daily still manage to take out time to study.

Using results from the analysis, the following plots were derived:

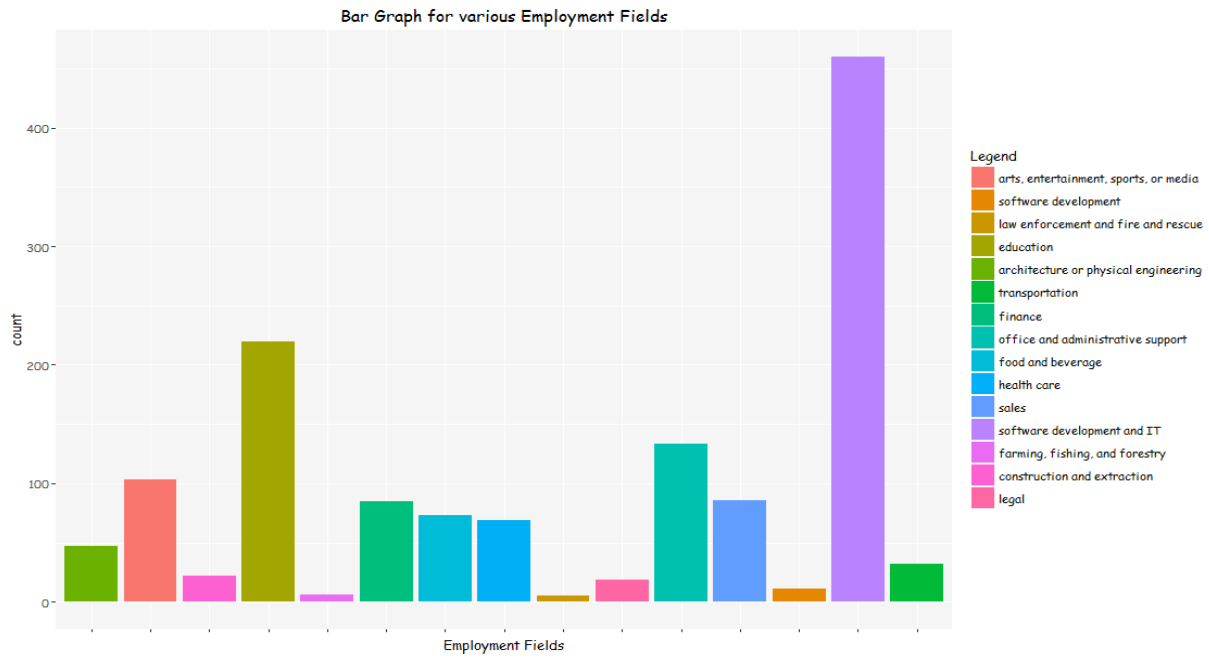

Figure 1 Bar graph of various employment fields

The graph in Fig. 1 displays various employment fields that the respondents belong to. The marketing board can use this result in two ways – to target people from other fields that have shown satisfactory frequeny levels such as the field of 'Education' and to tailor their courses keeping in mind the computer proficiency of the students gained from their jobs.

To give a deeper insight about the people from computer science and related majors, the graph in Fig. 2 displays the time spent by these students in learning how to code. Statistical tests show that there is no significant difference in the time spent learning by people from 'Computer Science' related acadamic majors.

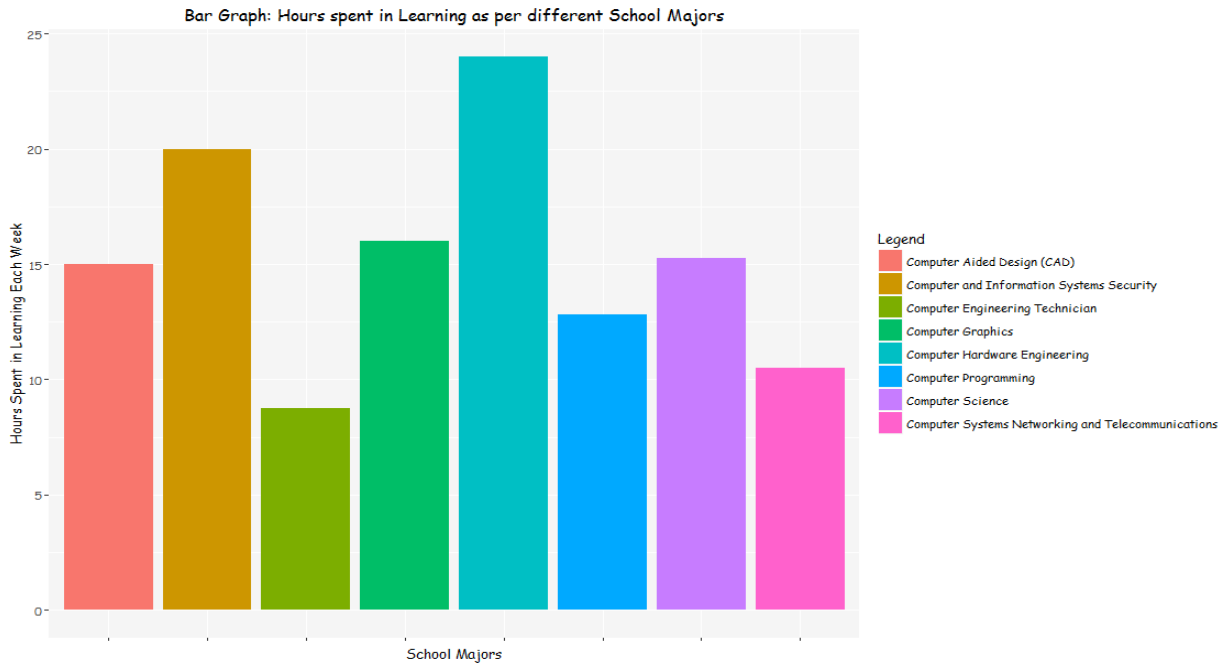

Figure 2 Bar graph of Number of hours spent by people belonging to various school majors

From the above results, the marketing board could make a decision and segment their marketing campaign in such a way that major focus is on people in the age group between 25 and 40 and takes into account the people from fields that are showing an interest in learning how to code. There seems to be a potential client base in industries such as 'education' and 'Office and Administrative Support' that organizations can tap into that.

Word Count: 491