Students' Predicted Dropout and Academic Success Rates

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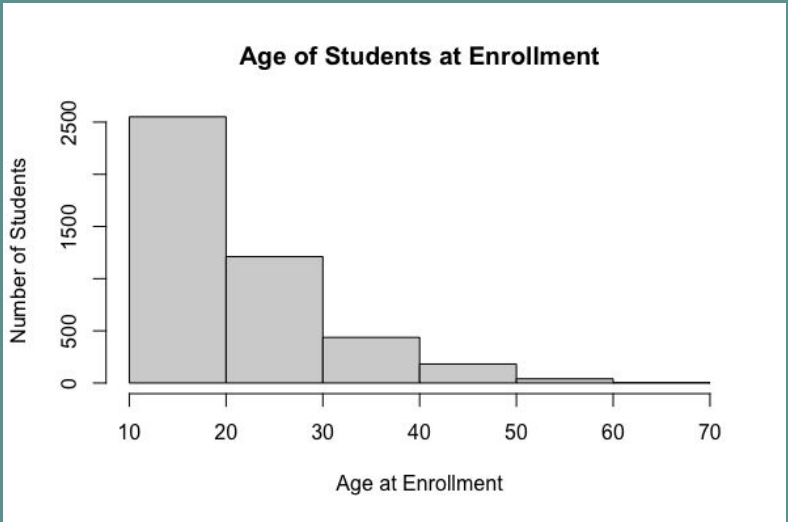
Why is this Important?

- The dataset provides information on students enrolled in various undergraduate degrees offered at a higher education institution. It includes demographic data, social-economic factors and academic performance information that can be used to analyze the possible predictors of student dropout and academic success.
- Additionally, this data can be used to estimate overall student performance at the end of each semester by assessing curricular units credited/enrolled/evaluated/approved as well as their respective grades.
- This powerful analysis tool will provide valuable insight into what motivates students to stay in school or abandon their studies for a wide range of disciplines such as agronomy, design, education nursing journalism management social service or technologies

Histogram: Ages of Students



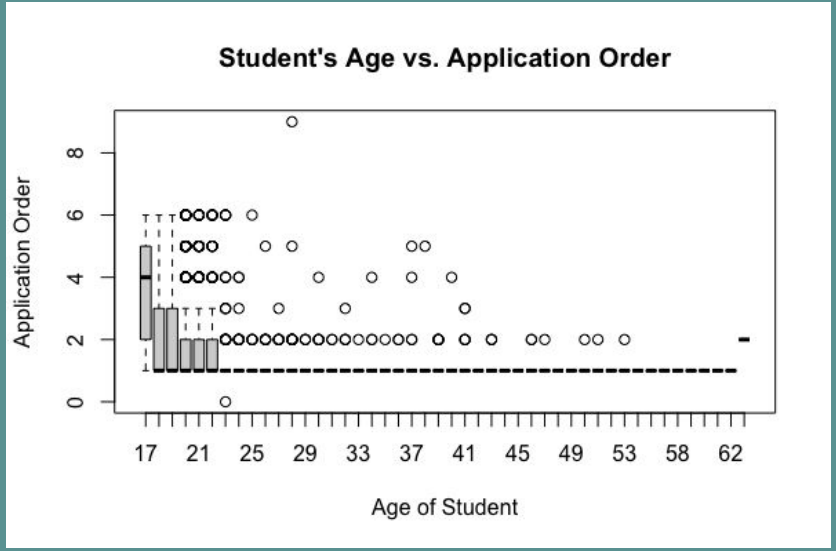
This histogram shows the ages of students when they enrolled in various undergraduate degrees and the frequency of students for each age.

- Majority of the students in the dataset enrolled between the ages of 10-20 years old (minimum age recorded in data set is 17)
- The histogram is clearly right skewed
- The age range with the lowest age of students enrolled is between 50-60 years old

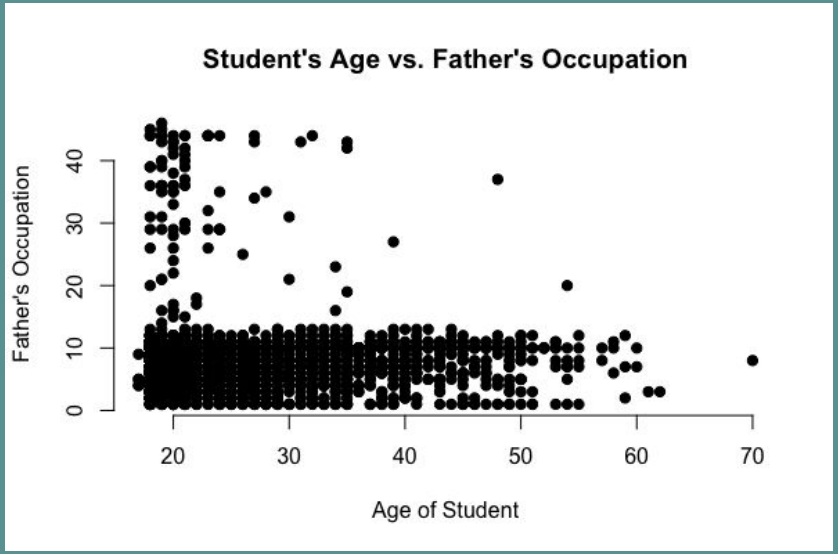
Box Plot: Students Ages vs. Application Order

This boxplot shows the age of students and the order of which they applied to their respective universities.

- It illustrates one of the several conditions that could affect the enrollments and academic success of a student
- Most students appear to have applied early, as their is consistent data for every age region at the application order of 1



Scatterplot: Students Age vs. Father's Occupation



This scatterplot illustrates the ages of students from the dataset and the distribution of their father's occupations.

- Father's occupations are categorical and correspond to various occupations
- The data contains multiple outliers
  - For example, one being a student that is 70 years old with a father that has the occupation corresponding to 10
- This demonstrates a demographic factor that could affect a student's enrollment and success.

Conclusion

- Throughout the various age groups of students in the data set, several conditions and demographic factors, like the order in which they applied and their parent's occupation, affect the dropout and success rate of students.
- The trends observed in the data can help to predict future dropout and success rates among students.
- It can also illustrate changes that can be made to the current systems to take into account demographic factors and potentially lower future dropout rates.