



# Road to Success: Identifying Areas To Improve Retention In North Carolina Community Colleges

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## Problem Statement

Identify reasons why **one third** of students in North Carolina Community Colleges **do not return** for second year of college.

## First Year Progression

Students that attempt at least 12 hours of classes within their first academic calendar year and complete at least 12 hours of classes within that year

## Data

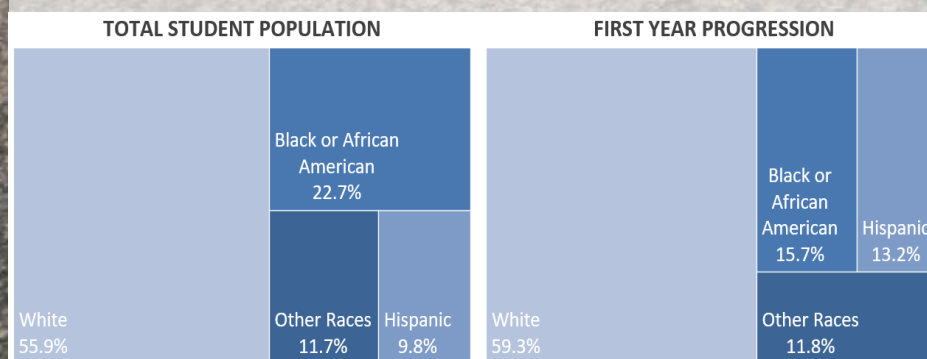
### Goals:

- Address the problem statement
- Create a NC Community College Data Repository to be available to the Data Scientist community

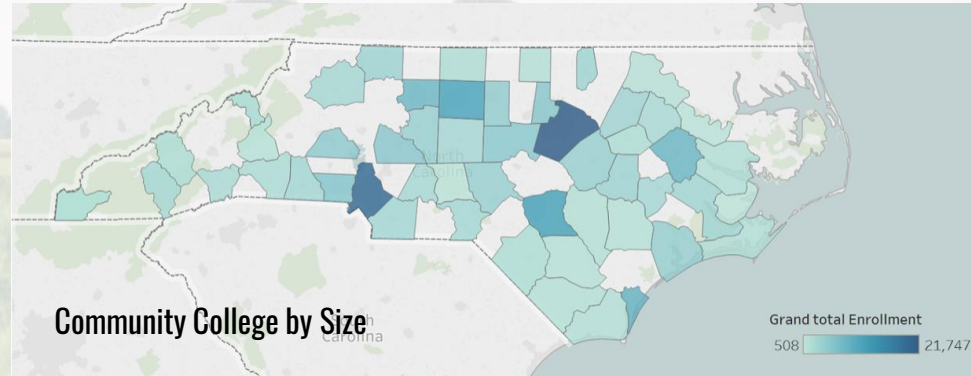
### Sources:

- NC Office of State Budget and Management
- Internal Revenue Service
- National Center for Education Statistics
- NC Community College page for Analytics and Reporting
- NC Public High School Data (compiled by Dr. Drew)

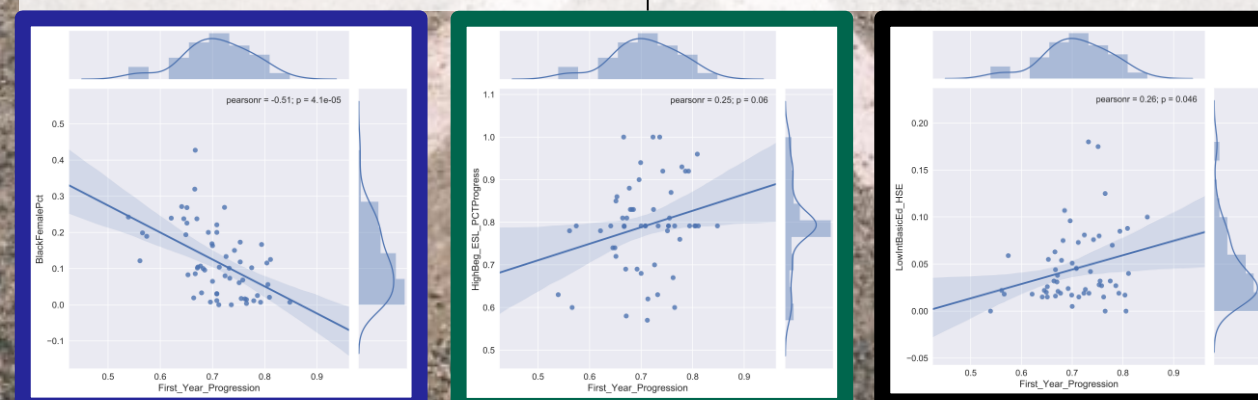
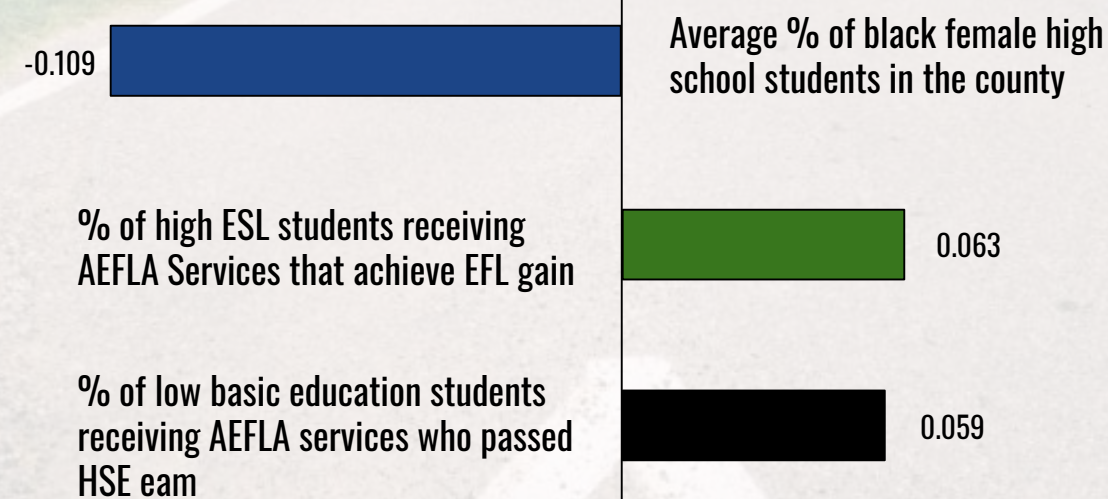
## Student Population vs. First Year Progression



## 58 out of 102 Counties in NC have a Community College

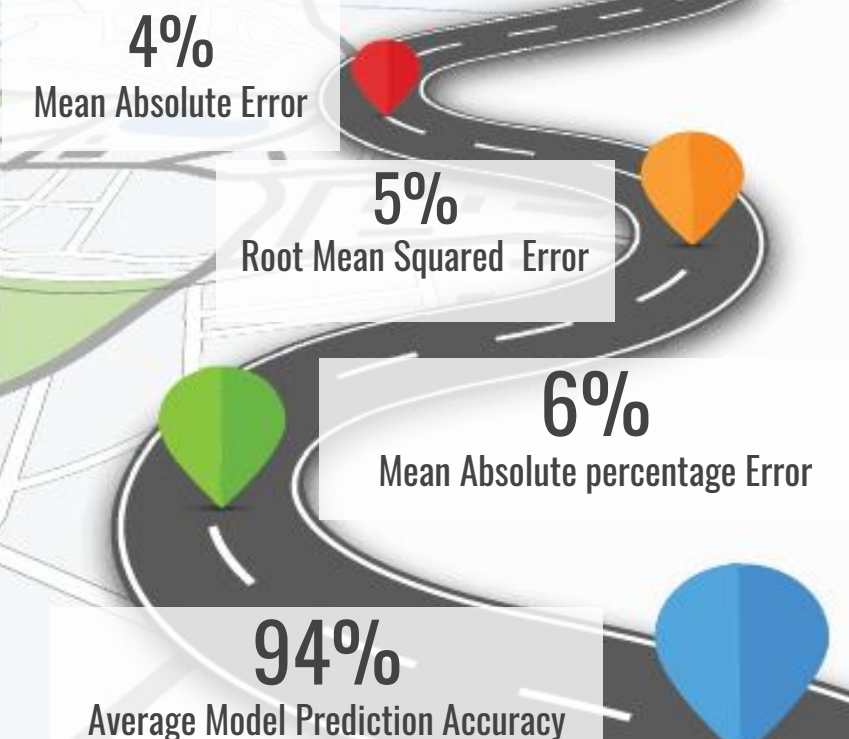


## Most Important Features - Variable Coefficient



## Model and Evaluation

- 10 fold cross validation
- Elastic Net Linear Regression



## Conclusion

- **AEFLA services** are helpful for students completing their first year of college. These services help **educationally at-risk** and **ESL** students.
- Future work can be done to further investigate the **racial inequalities** that exist within the North Carolina educational system.