

DENZEL GREEN
KIONNA TAYLOR
MICHAEL VALENZUELA

ANALYZING SEASONAL ATTENDANCE TRENDS AND SOCIO-DEMOGRAPHIC FACTORS IN STUDENT PERFORMANCE

INTRODUCTION

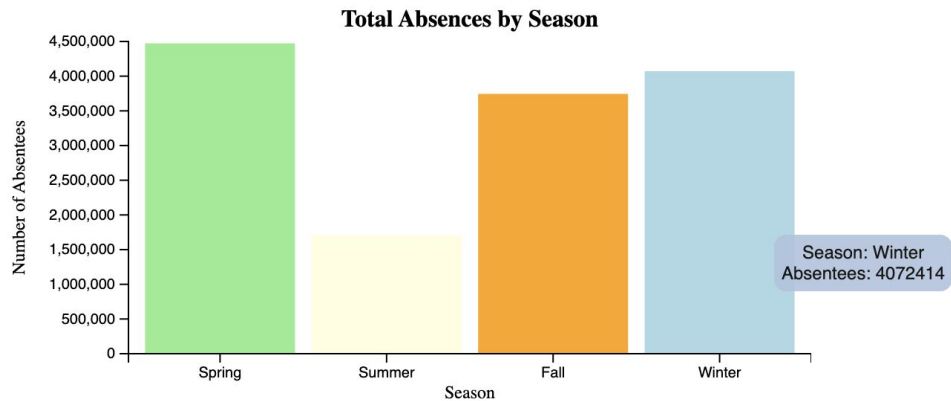
- **Analyzing seasonal trends in student attendance and assessing the influence of socio-economic factors on student performance**

DATA SET: DAILY ATTENDANCE TRENDS

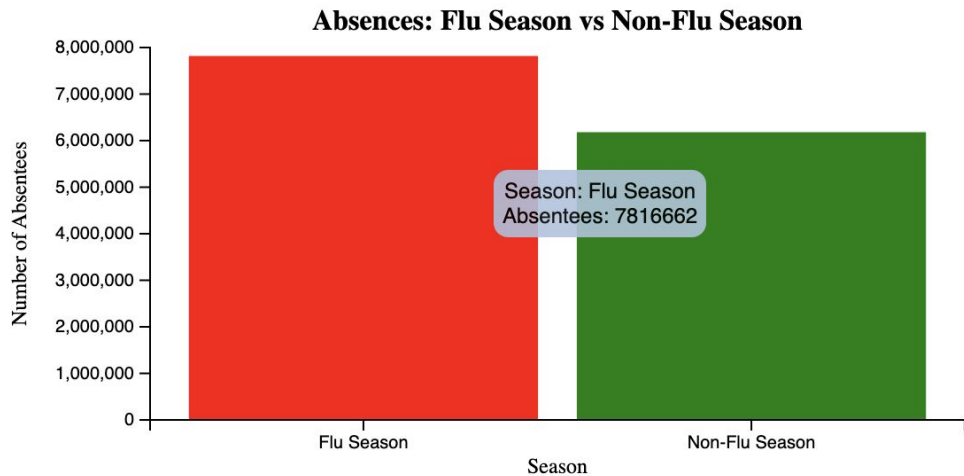
- DAILY LISTING OF STUDENTS REGISTERED, PRESENT, ABSENT, AND RELEASED BY SCHOOL DBN



SEASONAL ABSENTEEISM




FLU SEASON IMPACT



**SPRING: HIGHEST
ABSENTEEISM**

**FLU SEASON: SIGNIFICANT
IMPACT**

KEY FINDINGS: ATTENDANCE



**FAMILY INCOME,
PARENTAL
EDUCATION, ACCESS
TO RESOURCES,
NEIGHBORHOOD
ENVIRONMENTS**

**SOCIO-ECONOMIC
FACTORS**



**GUARDIAN TYPE,
STUDY TIME, INTERNET
ACCESS IMPACT
PERFORMANCE**

LOGISTIC REGRESSION INSIGHTS

**STUDY TIME, FAMILY
DYNAMICS, ALCOHOL
CONSUMPTION
PATTERNS INFLUENCE
OUTCOMES**

RANDOM TREE ANALYSIS

**81.82% ACCURACY, 95.4%
RECALL FOR 'PASS'
CLASS**

RANDOM FOREST RESULTS

A row of wooden figures, with one red figure standing out in the center. The figures are arranged in a line, and the red figure is the only one of its color. A vertical red line is positioned to the left of the red figure.

**STRUGGLES WITH
IDENTIFYING
STUDENTS AT RISK OF
FAILING**

MODEL LIMITATIONS

**ADDRESS CLASS
IMBALANCE,
INCORPORATE
MENTAL HEALTH
FACTORS**

FUTURE WORK

A network diagram with nodes and connections, overlaid on a background of pushpins. The nodes are represented by colored pushpins (red, white, green, yellow, blue) and are connected by a complex web of black lines. The background is a light gray surface with several pushpins of various colors (red, white, green, yellow, blue) scattered across it. The network diagram is centered on the page, with a vertical white line separating the text on the left from the text on the right.

**TARGETED
INTERVENTIONS,
POLICY
DEVELOPMENT,
EQUITABLE
EDUCATION ACCESS**

**PRACTICAL
APPLICATIONS**



THANK YOU!