

Evaluating School Attendance Data Using SAS®

**By: Jacob Foard, Thomas Nix,
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Evaluating School Attendance Data Using SAS®

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Abstract

The worst part of going to school is having to show up. However, data shows that those who do show up are the ones that are going to be the most successful (Johnson, 2000). As shown in a study done in Minneapolis, students who were in class at least 95% of the time were twice as likely pass state tests (Johnson, 2000). Studies have been conducted and show that school districts that show interest in attendance have higher achievement in students (Reeves, 2008). The goal in doing research on student attendance is to find out the patterns of when people are missing class and why they are absent. The data comes directly from the Phillip O Berry High School Attendance Office, with around 1600 students; there is plenty of data to be used from the 2012–2013 school year. Using Base SAS® 9.3, after importing the data in from Microsoft Excel, a series of PROC formats and PROC GCharts were used to output and analyze the data. The data showed the days of the week and period that students missed the most, depending on grade level. The data shows that Freshman and Seniors were the most likely to be absent on a given day. Based on the data, attendance continues to be a issue; therefore, school districts need to take an active role in developing attendance policies.

Objective

- Finding Patterns In Student Attendance
- Finding Why Students are Absent
- How the data correlates over the week



Method

- Acquiring Quantitative Data From the School Attendance Office
- Merging All of Data into SAS Tables
- Using PROC Freq, Gchart, Means ect. To Analyze Data

```

'20245000' = 'Honors Algebra II'
'20305000' = 'Honors Discrete Math'
'20302000' = 'Geometry'
'20305000' = 'Honors Geometry'
'20705000' = 'Honors Pre-Calculus'
'30385000' = 'Honors Earth/Envi.'
'30205000' = 'Honors Biology'
'30505000' = 'Chemistry'
'30505000' = 'Honors Chemistry'
'40245000' = 'Honors World Hist.'
'40305000' = 'Honors Civ/Gov'
'10512000' = 'Spanish I'
'10522000' = 'Spanish II'
'10535000' = 'Honors Spanish III'
'10545000' = 'Honors Spanish IV'
'14012000' = 'Spanish I Native'
'14025000' = 'Spanish II Native'
'10412000' = 'French I'
'10422000' = 'French II'
'52522000' = 'Band (Beginning)'
'72705000' = 'Honors PLTW Principles'
'64212000' = 'Computer Programming I'
'64155000' = 'Honors E-Commerce'
/*Other = 'Course Discontinued'*/; run;

/*Found some extensions on the Class Codes-reformatted and kept same, and added new-116*/
Proc format Value WDay;
  1='Sunday'
  2='Monday'
  3='Tuesday'
  4='Wednesday'
  5='Thursday'
  6='Friday'
  7='Saturday'; Run;

/*Reformatted SAS-Value weekdays to read the actual day names-116*/

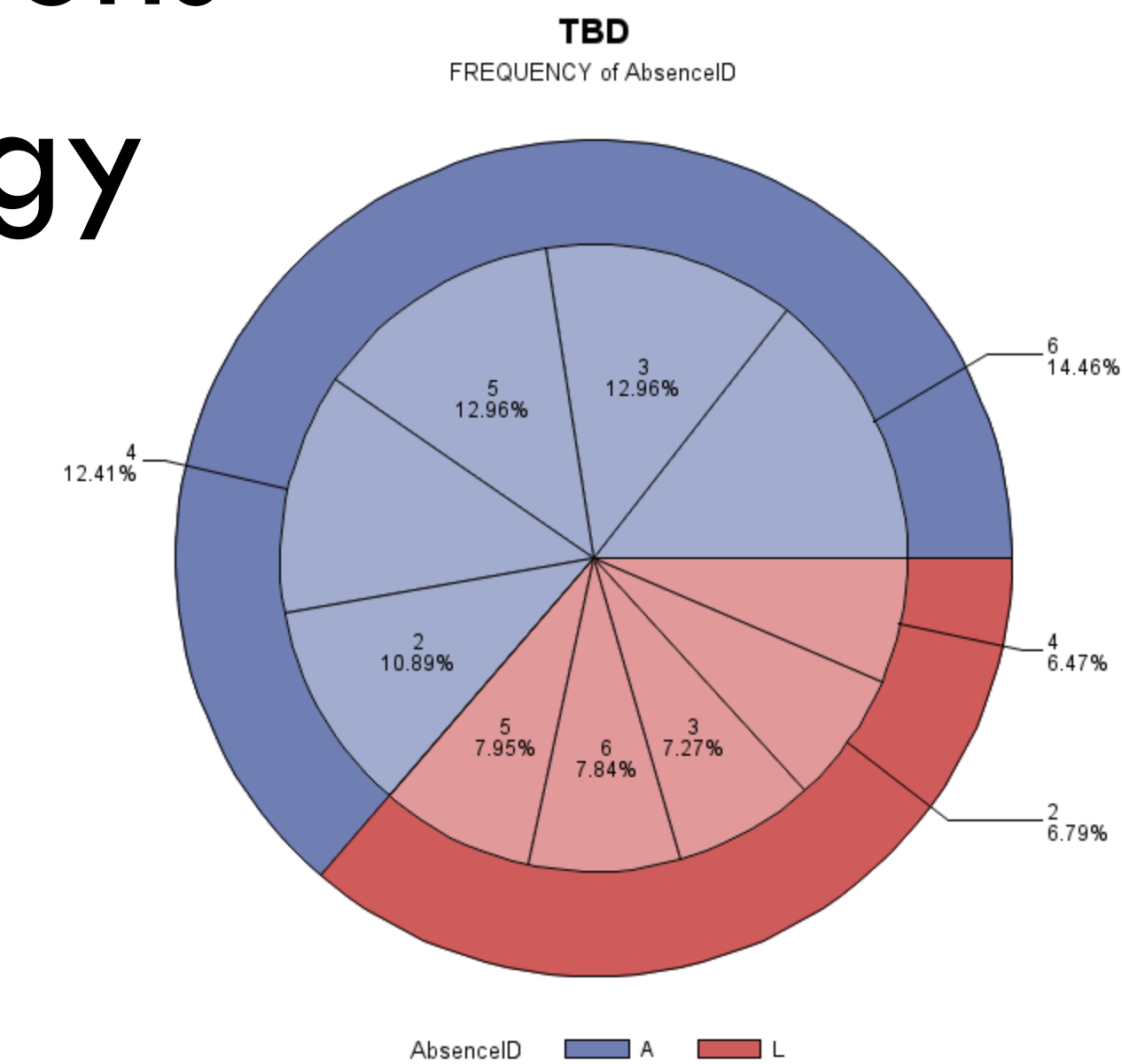
Proc print data=work.Attendances_1 NOOBS;
var Grade Period AbsenceID AbsentDate ClassCourse Reason d;
Format AbsentDate DATE9. ClassCourse $CCode. Reason $RCode. d WDay.; run;

Proc print data=work.Attendances_2 NOOBS;
var Grade Period AbsenceID AbsentDate ClassCourse Reason;
Format AbsentDate DATE9. ClassCourse $CCode. Reason $RCode.; run;

```

Results

- Seniors Were the Overall Most Tardy
- Freshmen and Seniors Were the Most Absent
- Monday/Friday Absences Were Almost Double that of Tuesday - Thursday



Conclusions

- We need to find ways to improve student attendance.
- Create incentives to motivate students for near perfect-perfect attendance.
- Possibly starting later would improve student attendance and preformance.

References

- Johnson, 2000
- Reeves, 2008



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