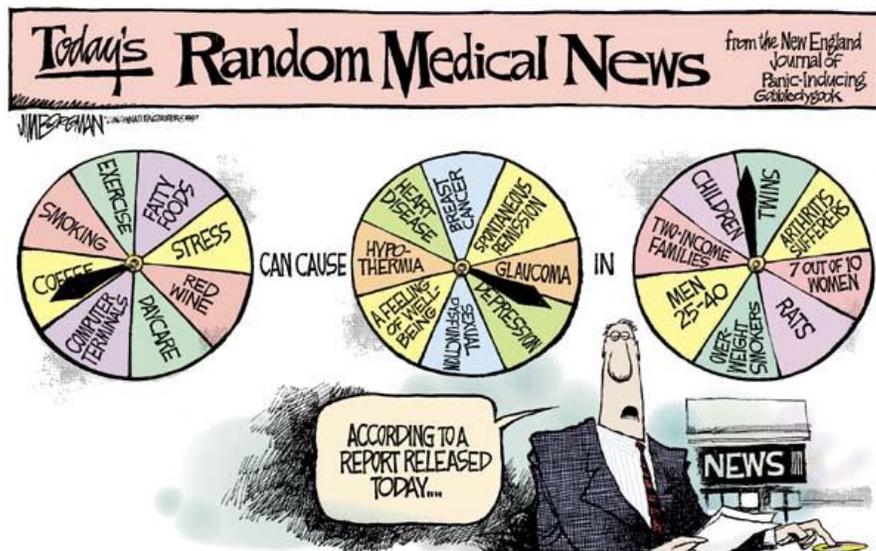


Practical Applications of Statistics In the Work Place And In Everyday Life

Advanced Placement Statistics at WHS 2022-23

We live in an information society; raw data, graphs, charts, rates, percentages, probabilities, averages, forecasts, and trend lines are an inescapable part of our everyday lives. It is hard to pick up a newspaper without finding an article in which a recent study makes a claim about the effect of a food product on people's health. Studies in which people who ate oatmeal had lower cholesterol than those who did not might suggest that those with high cholesterol would be wise to eat oatmeal. In AP Statistics, we learn to examine the details of studies. We might question if oatmeal really lowered cholesterol or did the subjects just eat oatmeal instead of their normal breakfast of two fried eggs? Perhaps eating cornflakes would have had the same effect.



http://www.nearingzero.net/sci_math_and_stats.html

Many **companies** use statistics. **Business** decisions are made based on market research. **Advertising executives** want to know whether a new ad campaign significantly increases sales. **Doctors** must know the reliability of medicine and treatments. Products such as **pharmaceuticals** require significant evidence of effectiveness and safety. **Politicians** rely on data from polls and public opinion. **Courts** inquire about statistical significance in hearing class action discrimination cases. Any company that expects to obtain a **government contract** must have strong evidence of a statistical quality control program. **Statistical literacy** is important as we are all **consumers** of goods and services and need to make intelligent choices. Advanced Placement Statistics provides the opportunity for students to learn how to make good decisions with data.

This brochure is based on a similar brochure by Michelle Krummel of Wilde Lake HS, Columbia, MD.

AP Stats FAQ

What is AP Statistics?

AP Stats is a college level introductory course in statistics. You'll learn how to collect, organize, analyze, and interpret data.

Why should I take it?

Statistics is the most widely applicable branch of mathematics. It is used by more people than any other kind of math.

How hard is AP Stats?

It's a college course, so the expectations are high. You'll be assigned a full homework assignment for each class. You will need to think hard about the concepts.

What is class like?

The course is for students who prefer a lab-based, student-center class with an emphasis on real world connections.

Do you have to be a top rate mathematician?

No. The course does not depend heavily on mathematics. You only need Algebra II and not much of that. Rather, you are asked to explore and explain concepts with the help of hands-on investigations while technology lowers the drudgery of computation.

Could I take statistics in college?

Yes. Statistics is required for many majors, and strongly recommended for others. However, most BB&N students receive AP grades high enough to be allowed to skip the introductory course.

Why should I take it at WHS?

At WHS, it's a full year course in a small class so you'll have more opportunities to explore, ask questions, and do your own true research studies.

Would it be my only math course next year?

It can be for seniors. If you are not a senior, it would be your second mathematics course.

Who can sign up?

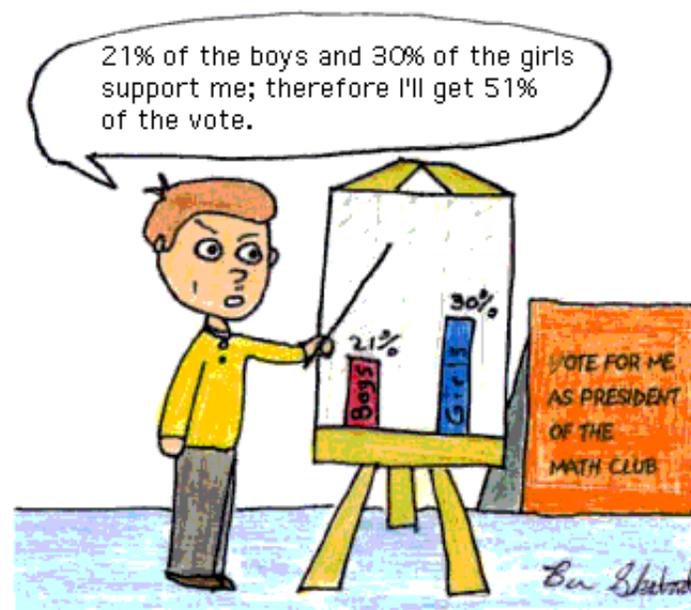
You must have completed Algebra II and have the recommendation of your teacher.

Who does sign up?

This year's course has 10th, 11th, and 12th graders and it is gender balanced.

Service!

Since the inception of AP Statistics, the class web site has provided examples of student work, investigations, and reference material to the international AP Statistics community.



<http://iil67babygirl.tripod.com/id1.html>

What the Course Covers The Four Major Components of AP Stat

- 1. Experimental Design**
Students design appropriate experiments in order to draw conclusions that can be generalized to the population of interest. Students will also interpret studies and experiments to determine whether the conclusions from the studies warrant consideration.
- 2. Exploring Data**
Students collect and examine data and display the patterns that emerge. Data from students in class as well as real world data sets are gathered and used to illustrate concepts.
- 3. Producing Models Using Probability and Simulation**
Students learn to anticipate patterns and produce models for prediction. Students use simulations to model situations that are not practical to replicate using other methods.
- 4. Statistical Inference**
Students learn what can be generalized about the population. Students also consider how to investigate research questions, design a study, and interpret the results.

Question? Come see Mr. Nolton in room E111
or email him at bjnolton@fcps.edu