

Sorting Through Black Friday Data

By Nicole Maestri | Friday, December 5, 2008



According to its 2008 Black Friday Weekend survey, conducted by BIGresearch and published on Sunday, the NRF said more than 172 million shoppers visited stores and websites over Black Friday weekend (which includes Thursday, Friday, Saturday and projections for Sunday), up from 147 million shoppers last year.

Shoppers spent an average of \$372.57 this weekend, up 7.2 percent over last year's \$347.55. Total spending reached an estimated \$41.0 billion, up from \$34.6 billion a year ago. The results came from a survey that polled 3,370 consumers from Nov. 27-29. The consumer poll has a margin of error of plus or minus 1.7 percent.

'Cyber Monday' spending up 15% over 2007

By Heather Havenstein | Friday, December 5, 2008



Dec. 1 was second-heaviest online spending day on record, with \$846 million in sales. Online shoppers spent \$846 million on Dec. 1, a 15% increase over the Monday after Thanksgiving last year, according to data from research firm ComScore, Inc.

The heavy online spending on "Cyber Monday" made Dec. 1, 2008 the second-heaviest online shopping day on record. comScore added. Online shoppers spent \$881 million on Dec. 10, 2007, making it the top sales day ever on the Web. This year's strong Cyber Monday sales came despite the failure of sites run by several top national retailers over the four-day Thanksgiving weekend preceding Cyber Monday. In fact, online spending during the four-day period spanning the day after Thanksgiving to Dec. 1 increased 13% this year compared with 2007, including double-digit gains on both weekend days and on Monday. For the full holiday shopping season to date, which comScore begins on Nov.

1, the \$12 billion in 2008 online sales is 2% less than last year, the research firm said.

A comScore consumer survey found that online retail customers spent \$8.2 billion during the first 23 days of November this year, 4% less than last year. In addition, the report noted that its projection of flat sales for the holiday season is far below the 9% increase in online sales so far in 2008. ComScore also noted that online sales in 2007 had grown by 19% over the previous year. 51% of consumers found more online promotions and discounts this year. 12% said they found fewer online promotions and discounts. 39% of consumers said they have seen fewer people shopping in brick-and-mortar stores this year. 7% saw more people in the brick-and-mortar businesses than last year.

1. In appropriate paragraph form, compare and contrast the statistical data compiled from both BIGresearch and ComScore, Inc. Additionally, discuss ways in which retailers as well as consumers may benefit from the extensive statistical information provided in the passage above. **(GPS – Grades 6 – 8: MRC a, d)**
2. Understanding the concept of ratios to represent quantitative relationships, at a consistent rate of growth use proportions to determine the number of projected shoppers for both *Black Friday* and *Cyber Monday* for the years 2010, 2012, and 2014. What conclusions can be made as a direct result of this inquiry? What conjectures may be made provided this data? **(GPS - Grade 6: M6P1 – M6P5; MRC; M6A1; M6A2 c, g)**
3. Analyze the results of question two using measures of central tendency solve for mean, median, and mode, including recognition of outliers. In regards to the number of students who participated in either *Black Friday* or *Cyber Monday*, formulate questions and collect data from a census of at least ten students. Analyze and draw conclusions about the data provided in your survey. Design two of the following: a pictograph, histogram, bar graph, line graph, circle graph, and/or line plot to accurately and effectively convey the census results. Communicate your mathematical thinking clearly and coherently in each of your responses. **(GPS Grade 7: M7P1 – M7P5; MRC; M7D1 a, c, e, f)**
4. Represent each of the given situations (question two) using algebraic expressions or equations in one variable in terms of others. Translate each of the following word sentences into mathematical sentences which models the situation and determine the solution regarding *Black Friday*: a) the number of shoppers who visited stores and websites over *Black Friday* weekend over last year, b) the average amount spent this weekend up from last year's figure, c) the consumer poll's margin of error. Solve for *Cyber Monday*: a) online sales over last year, and b) the full holiday shopping season to date over 2007. **(GPS Grade 8: M8P1 – M8P5; M8A1 a - e)**
5. Upon completion of this assignment, how far have we progressed through the 2008-09 series of *The Daughtry Times*®? Express your answer interchangeably as a fraction, decimal, percentage, and circle graph. **(GPS – Grade 6: M6N1 f, g; M6D1c; Grade 7: M7D1 f)**
6. Using contextual clues only, define the following italicized words: *spanning*, *margin*, *preceding*, and *mortar* obtained from the passage above. Additionally, use each word in a complete sentence to demonstrate further comprehension. **(GPS – Grades 6 –8: MRC a, c, d)**

Georgia Performance Standards (GPS) adapted from georgiastandards.org. Standards specifically addressed in this edition are strategically aligned with the curriculum map and annotated adjacent to the respective grade level inquiry.

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