Econ 3040 - Assignment 2: Sales from different video game consoles

Ryan T. Godwin

The big three 7th generation video game consoles released in 2005-2006 were the Nintendo Wii, Playstation 3, and Xbox 360. Use the data below to determine if the critic score of a video game is related to its sales. The data for your assignment is the same as from Computer Lab 1. The data was obtained by Abdulshaheed Alqunber.

Due date: October 26th, 2025. Worth 3% of your final grade.

Instructions: Submit your assignment in the "Assignment 2" drop box on UM Learn. You must complete your assignment individually. Submit both your answers to the assignment questions, and the R code that you use. Make sure all graphs and tables are appropriately labelled. Load the data using:

mydata <- read.csv("https://rtgodwin.com/data/vidsales.csv")</pre>

- 1. Make a subset that contains only Wii, PS3, and X360 games. Use this subset for the remainder of the assignment. Please see the hint in Computer Lab 1 for making subsets.
- 2. Draw a scatterplot of Score (on the x-axis) vs. Sales (on the y-axis).
- 3. How much does it pay to make a *good* game? Estimate a model by least squares (LS) to answer the question: how much more does a video game sell on average, when it has a higher critic score rating?
- 4. Interpret the R-square from the estimated model in question 3.
- 5. Test the hypothesis that Score has no effect on Sales.
- 6. Estimate a new model. Use dummy variables to differentiate between Wii, PS3, and X360 games. What is the average difference in sales for these three consoles?