

Introducing Linear Regression: An Example Using Basketball Statistics

Tom Arnold and Jonathan Godbey¹

ABSTRACT

The intuition behind linear regression can be difficult for students to grasp particularly without a readily accessible context. This paper uses basketball statistics to demonstrate the purpose of linear regression and to explain how to interpret its results. In particular, the student will quickly grasp the meaning of explanatory variables, r-squared, and the statistical significance of estimates of regression coefficients. Even if the student is not a sports fan the examples are easily understood and familiar. The student can easily replicate the procedures in this paper to reinforce learning.

¹Tom Arnold, F. Carlyle Tiller Chair in Business, Robins School of Business, University of Richmond, 1 Gateway Road, Richmond, VA 23173; Jonathan M. Godbey, Clinical Assistant Professor, J. Mack College of Business, Georgia State University, 1209 RCB Building, Atlanta, GA 30303. The authors would like to thank an anonymous referee, Jerry Stevens, David Greenberg, and participants at the 2010 Financial Management Association Meetings for helpful comments.