Pitfalls in Student Report Assignments

How Spurious Correlations Distort Empirical Findings

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1 Introduction

In many introductory economics or statistics courses, students are often asked to analyze publicly available data and “find correlations” between variables. While such assignments appear pedagogically useful, they can unintentionally lead students to misinterpret correlations as economically meaningful relationships.

Time-series data in particular are prone to spurious correlations, where two variables appear strongly correlated simply because they both follow similar upward or downward trends. Without appropriate statistical techniques, students may draw incorrect causal conclusions and reinforce misunderstandings about empirical methods.

This report highlights these risks through a simple empirical demonstration and proposes improvements in assignment design.