

Instructor Notes

Re: “No fans effect, Using Covid-19 data to explore fan effect”

Disciplines/courses suitable for this project: This project is an appropriate supplement to any introductory course in sports management or sociology.

Degree of difficulty: Depending on the number of predictors and post-project discussion on interpretation of the coefficients, this project is classified as M (moderately difficult), A (advanced.)

Resources/background needed:

In addition to the links provided to the students, following resources can be obtained from the author:

Elizabeth Klaehn , “ Using Covid-19 data to explore fan effect in athletics” , unpublished paper, summer 2022.

About running individual or group project: Groups of 2-3 should work together in this project. Note that during the presentation of their results, the instructor and the audience will be asking questions and all members of the group should be prepared to answer those questions.

Discussion on duration of the project: The M (medium difficulty) version of this project should take 2-3 period of a typical course. A more advanced version, where we add more predictors and discussion on the results, may take 4 class sessions.

Expanded study: (distance from fans to area of play)

1) It is believed that the proximity of fans to the field of competition, area of field of competition and number of fans matter. One way to quantify this effect is to introduce a parameter, R, which considers all three factors. There are various ways to approach this, but the simplest and most rudimentary approach would be to define an index: $R = SF/(A \cdot D)$ where SF: % of seats filled, A: Area of field of play, D: average distance of fans from field of play. So R will be the largest if the stadium is full, field of play is small and distance from the field of play is small. Ask students to calculate R for several different scenarios.

2) Repeat the project utilizing data from other countries and other sports.

Special instructions and assumptions: Students should be reminded about underlying assumption for a regression model. Issues such as normality of residuals, co-linearity of variables, etc. are too advanced for an introductory class but a reference to potential pitfalls of the model is recommended.

Revision and Continuation: This project can certainly be repeated at a later date with a larger set of data and/or with a different focus. For example, instead of ten years of data, student could utilize 20 or 30 years of data.

Further guidelines on evaluation: None.

Other information for faculty not covered above:

It is best to assign students to projects that use data from a sport of their interest. Something that they either play or follow. That will raise the level of enthusiasm.