

Team performance and the perception of being observed: Insights from a natural experiment in football



Due to Covid-19, many football matches across Europe have been played behind closed doors. Drawing on recent research, [Massimiliano Ferraresi](#) and [Gianluca Gucciardi](#) assess how team performance is affected by the presence of supporters. Using data from the top divisions in England, France, Germany, Italy, and Spain, they find that home teams won fewer points when playing behind closed doors than they would have achieved with supporters in attendance, which potentially offers some insights on the performance of workers when they feel they are not being observed.

To control Covid-19, countries across Europe have announced measures that restrict the movement of individuals and impose social distancing. Following these strategies, a new organisational model of work known as ‘[smart working](#)’ is becoming increasingly important. Along these lines, workers are allowed to work outside their workplace, with a flexible time schedule, and with fewer interactions (at least physically) with other colleagues and supervisors, thereby reducing the level of pressure and stress. While such a new model unequivocally calls for the [creation of new jobs](#), it also poses the key question of whether the performance of workers will be affected. In this respect, knowledge about how professionals perform when the perception of being observed is high or low is relevant not only for the construction of incentives schemes but also – and primarily – for the design of the future workplace.

Generally speaking, it is quite intuitive to believe that [performing in front of a supportive crowd increases motivation](#) as succeeding in front of a familiar group of people might be more satisfying and thus enhance performance. Nevertheless, while an audience might increase a performer’s will to succeed, the fear of not meeting expectations might become dominant. In this case, it is likely that the higher level of pressure induced by a friendly audience is associated with low performance, leading to the so-called ‘[choking under pressure](#)’ effect. But which of the two effects prevails? To address this question, we exploit a randomised natural experiment in football competitions. As such, professional sports [provide an excellent opportunity](#) to study how performance is influenced by an audience as they allow us to overcome [two typical limitations](#) of a real-life setting: 1) complexity, and 2) ambiguity and unobservability of outcomes.

Football as a natural experiment

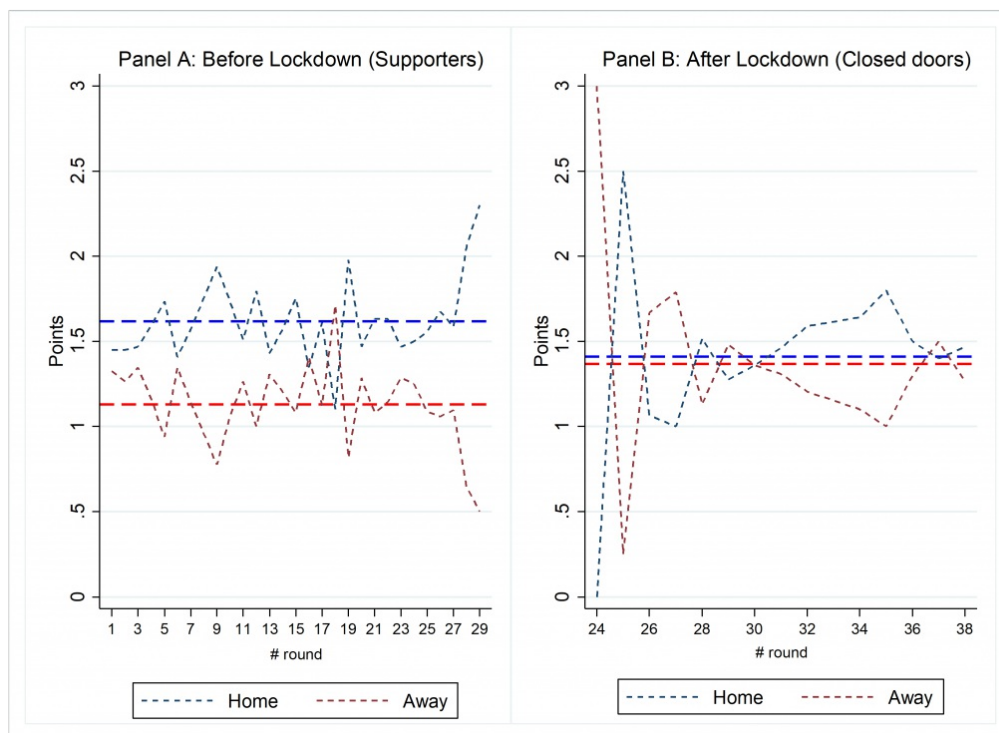
In a [recent study](#), we use information on football teams in the top-level competitions across England (*Premier League*), France (*Ligue 1*), Germany (*Bundesliga*), Italy (*Serie A*), and Spain (*La Liga*) over the 2019/2020 season to study whether – and to what extent – supporters influence the performance of teams. To do so, we take advantage of an unusual opportunity provided by the lockdown, which forced all matches to take place behind closed doors. Such an exogenous change offers a unique framework to compare the difference between the amount of points gained by teams playing at home (treated) and teams competing away (controls) before Covid-19, when supporters could attend any match, and after the lockdown, when all matches took place behind closed doors.

From a theoretical perspective, if performance is positively influenced by workers being observed, the difference in the utility (amount of earned points) should be much more pronounced when performing in front of a supportive crowd (namely, when playing at home before the pandemic) than when performing in front of a neutral one (when playing at home behind closed doors after the outbreak of Covid-19).

Results

We find that team performance is strongly influenced by crowd supporters. According to our difference-in-differences (DiD) estimates (Figure 1), it emerges that before the pandemic, the average amount of points obtained by home teams (1.624) is significantly higher than that of away teams (1.127), with a difference equal to 0.497. After the lockdown, the same difference reduces to 0.045. It then follows that when teams are forced to play behind closed doors, they obtain 0.451 fewer points compared to what they would have gained in the absence of the pandemic ($-0.451 = 0.045 - 0.497$). This is a sizable effect, corresponding to roughly a 28% decrease with respect to the points achieved by home teams before the pandemic, on average. What all of this seems to point to is that team performance is affected by fans; that is, performance is better when teams can see that they are being supported.

Figure 1: ‘Difference in differences’ estimates of the effect of lockdown on team performance



Note: The short-dash lines represent the average number of points gained by home (blue) and away (red) teams in each round, whereas the long-dash lines indicate the average number of points earned by home (blue) and away (red) teams over the 2019/2020 season, before and after the lockdown.

Implications

Despite many limitations of these findings, the evidence that teams are more likely to perform better in front of a supportive audience calls for extra attention in these times of pandemic. The results, which are consistent with the hypothesis that positive public expectations or a friendly environment induce individuals to enhance their performance, may have some relevant implications for workplace design. Along these lines, for example, our results seem to indicate that workers who feel they are not being observed by bosses, colleagues, or spectators perform worse than they otherwise would. This might become more salient since smart working has become the ‘new reality’. Indeed, under this new organisational model of work, the worker perceptions of not being fully observed might increase, thus affecting their performance at least within the football industry.

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