

The New Hurry-Up Face-Off Rule in the NHL

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I think it [the new face-off rule] could shave
8-10 minutes off our games.

□ Gary Bettman
NHL Commissioner
February 24, 2002 [2]

Hockey □ not unlike baseball, football and basketball □ depends heavily on revenue from broadcasting rights. This dependency on television revenues has changed the way in which National Hockey League (NHL) games are played. In the 2002-03 season, for example, the NHL adopted a new “hurry-up” face-off rule intended to speed up games. Under the new rule, after a stoppage of play, teams have eight seconds to make player changes and only five more seconds to line up. The linesman then drops the puck within five seconds, whether the centers are ready or not [1]. The new face-off rule thereby eliminates much of the line matching by coaches and incessant jockeying for position by skaters after every whistle. The purpose of this brief note is to determine whether or not the average length of NHL games is now appreciably shorter than it was before the rule change.

To test the null hypothesis that the average length of NHL games has not changed, we compared the times for 1230 games in the 2000-01 season (before the rule change) to times for

1230 games in the 2002-03 season (after the change).¹ The average length of all regular-season games in the 2000-01 season was 2 hours, 34.4 minutes. The average length of all games in 2002-03 was noticeably shorter, namely, 2 hours, 19.74 minutes ($p < .0001$). The 95 percent confidence interval for the difference in the population means ranges from 13.95 to 15.43 minutes. Surprisingly, the average length of the 312 games in 2002-03 that ended in overtime was over seven minutes *shorter* than the average length of the 956 games in 2000-01 that were decided in regulation (2000-01 regulation mean = 151.9 minutes, 2002-03 overtime mean = 144.69 minutes, p -value on difference is less than .0001).

Variations in the amount of time it takes to play a hockey game pose a problem for TV networks telecasting games. Overtime games often run into the time slot for the next program, while shorter than anticipated games might leave the networks with embarrassingly large time gaps to fill. A network that allotted, say, exactly 3 hours for a hockey game in 2000-01 had, on average, over 25 minutes to fill. Under the new face-off rule, could TV networks safely allot 2.5 hours for a game? To test this hypothesis, times for all games in the 2002-03 season were selected. The 99 percent confidence interval on the average length of these games extended from 2 hours, 19.3 minutes to 2 hours, 20.3 minutes. Since this interval does not bracket 2 hours, 30 minutes, we can reject the null hypothesis $H_0: \mu = 150$ minutes. Alternatively, for each of the 1230 games in the 2002-03 season, one can create a new variable that takes the value 0 if the game lasted less than or equal to two and a half hours and the value 1 if the game lasted more than two and a half hours. In the first season after the rule change, 72 games, or approximately 5.85 percent of 1230 games in the sample, lasted longer than two and a half hours. The 99 percent confidence interval for the proportion of games (π) that last longer than 150 minutes is .0426 to .0779. By comparison, the corresponding 99 percent confidence interval for π based on the 2000-01 sample is .6452 to .7144.

Concluding Remarks

The hurry-up face-off rule instituted by the NHL before the 2002-03 season seems to be a hit for everyone involved in the game, from the players and coaches to the fans who appreciate faster-paced contests. TV networks also have reason to celebrate the change. Games are noticeably shorter, down about 15 minutes per game from the 2000-01 season. Even overtime games in the 2002-03 season were significantly shorter than games that ended in regulation before the rule change. Heretofore, three hours had to be allotted for each NHL game. Now, two and a half hours can safely be allotted per game. And, as a result, television networks can fit a given “commercial inventory” for each hockey game into a smaller block of time.

Footnote

1. The authors gratefully acknowledge the help of the NHL head office, which provided us with these data.

References

1. Biggane, B. "Players adjust to face-off rule." *Cox News Service*, September 24, 2002.
2. Lassen, D. "Let's hope the NHL learns from its Olympic success." *Ventura County Star* (California), February 24, 2002, p. C2.