The Home Field Disadvantage in Sports Championships: Does it Exist in Hockey?

William F. Gayton, Griffith R. Matthews, and Cynthia J. Nickless
University of Southern Maine

Popular belief in "a home field advantage" has persisted for many years in organized sports (Koppet, 1972). Recently this belief has received empirical support. Schwartz and Barsky (1977) found the home team winning 53% of the time in professional baseball, 60% in professional football, 64% in professional ice hockey, and 64% in college basketball. Edwards (1979) found the home team winning 54.4% of the time in professional football, 58.6% in college football, and 55.6% in professional baseball. Varca (1980) found the home team winning 70% of the time in college basketball. Thus, through statistical analysis, all of these studies confirm the popular belief in the home court advantage.

Although these studies consistently support a home field advantage, Baumeister and Steinhilber (1984) have recently reported that under certain conditions the home field may be disadvantageous. Specifically, they hypothesized that the imminent opportunity of winning a major championship in front of a supportive audience would lead to a paradoxical decrement in performance. This was expected to be the result of self-presentational concerns that interfere with the execution of skillful responses. An analysis of archival data from championship playoffs in professional baseball and basketball supported their reasoning.

Comparing home-win percentages of the first 2 games of the baseball world series with the last game during the period 1924 to 1982, Baumeister and Steinhilber found the home team winning 60% of the time in games 1 and 2 but only 40% of the time in the last game, whether the last game was game 5, 6, or 7. When the analysis was restricted to defining game 7 as the decisive game, a similar reversal of the home team advantage was apparent. Similarly, using National Basketball Association championship series between 1967 and 1982, they found the home team winning 70% of the time in games 1 through 4 but only 46% of the time in the last game, whether it was game 5, 6, or 7. When the analysis was restricted to the 13 series that lasted all seven games, a similar reversal of the home team advantage was apparent.

Requests for reprints should be sent to William F. Gayton, Department of Psychology, University of Southern Maine, 96 Falmouth St., Portland, ME 04103.
Method

The present study is an attempt to determine if the home field disadvantage identified by Baumeister and Steinhilber (1984) can be extended to professional ice hockey. The semifinal and final Stanley Cup championship series between 1960 and 1985 provided the data base for this study. Information on the outcome of the games was obtained from box scores in microfilmed editions of the Boston Globe. In the Stanley Cup series, games 1, 2, 5, and 7 occur at the home of the team with the better record. As a result, the home ice is not randomly assigned but is assigned in such a way that the deciding game is most often played at the home of the better team. To deal with the problems created by biased scheduling, we adopted the solution of Baumeister and Steinhilber (1984), who used games 1 through 4 as the baseline instead of just the first two games. The 19 series that involved a sweep by one team were excluded from the analysis because, as Baumeister and Steinhilber (1984) note, the home court disadvantage is not likely to appear when one team is far superior to the other.

Results

Table 1 shows the results. Contrary to what was found for professional baseball and basketball, no evidence was found for a home court disadvantage in professional hockey. The home team does not fare significantly better in the early games than in the final ones. This is true whether the analysis uses game 5, 6, or 7 as the last game, $\chi^2 (1, N = 299 \text{ games}) = .027, p > .05$, or whether the analysis defines game 7 as the decisive game, $\chi^2 (1, N = 252) = .095, p > .05$. The same pattern emerges if the analysis is restricted to the 12 series that lasted all seven games. For these 12 series, the home team record (won 25, 1

Table 1

<table>
<thead>
<tr>
<th>Games</th>
<th>Home</th>
<th>Visitor</th>
<th>Home %</th>
</tr>
</thead>
<tbody>
<tr>
<td>1–4</td>
<td>129</td>
<td>111</td>
<td>.538</td>
</tr>
<tr>
<td>Last</td>
<td>31</td>
<td>28</td>
<td>.525</td>
</tr>
<tr>
<td>7</td>
<td>7</td>
<td>5</td>
<td>.583</td>
</tr>
</tbody>
</table>

The $\chi^2$ statistic requires that events be classified as independent of one another. Treating a series of contests between the same two teams as independent may violate that assumption. Readers should be aware of the problems and limits of the $\chi^2$ statistic as it is applied to these data.