

MSDS 455 Final Project - Vegas vs. Seattle

Data Sources:

Salary data:

1. CapFriendly. (2022). www.capfriendly.com.

Team and Player Statistics Data:

1. ESPN. (2022). www.espn.com.
2. Hockey Reference. (2022). <https://www.hockey-reference.com/>.
3. NHL. (2022). www.NHL.com.
4. Spotrac. (2022). www.spotrac.com.

Team Color Data:

1. 2022. "Seattle Kraken Color Codes Hex, RGB, and CMYK." 2022. Team Color Codes. August 17. <https://teamcolorcodes.com/seattle-kraken-colors/>.
2. 2022. "Vegas Golden Knights Color Codes Hex, RGB, and CMYK." Team Color Codes. August 17. <https://teamcolorcodes.com/vegas-golden-knights-colors/>.

Arena Attendance Data:

1. 2022. "List of National Hockey League Attendance Figures." Wikipedia. Wikimedia Foundation. September 26. https://en.wikipedia.org/wiki/List_of_National_Hockey_League_attendance_figures.

Data Dictionary

Kraken emphasized skaters while Knights emphasized goalies, but Vegas skaters drastically outperformed Seattle's

- Forwards - players whose listed position is either center, left wing, or right wing

Seattle emphasized early rounds in draft first two seasons, while Vegas focused on later rounds

- Abbreviations
 - C = Center
 - LW = Left Wing
 - RW = Right Wing
 - D = Defenseman
 - G = Goalie

Inaugural Season Success and Spending

- Payroll - Entire amount of cap space used by teams in a given season
- Points - Total number of points accrued in the given season (2 points for a win, 1 point for an overtime/shootout loss)

Inaugural Season Salary Breakdown by Position and Player

- Salary Cap Hit - USD spent by the team for the given position/player
- Retained - This is cap money spent by the team on players not actively on the roster, despite being paid by the team
 - Teams do this in order to accrue draft picks and other assets

Top 5 Players Inaugural Regular Season Stats

- +/- (Plus/Minus) measures the amount of goals a team scores while a player is on the ice at even strength minus the amount of goals scored against while that player is on the ice at even strength.
 - A '+' means a player is on the ice for more goals for than against at even strength

Inaugural Season Defensive Stats Comparison

- Penalty Kill % - Measures the rate in which a team prevents their opponents from scoring when the team is at a man disadvantage due to a penalty (the opposing team is on a power play). The higher this rate the better teams are considered to be at preventing goals when short handed.
- Shorthanded Goals Against - Number of goals against while the team is on the power play

Inaugural Season Offensive Stats Comparison

- Shooting % - Number of goals divided by the total number of shots
- Power Play % - Total number of power-play goals divided by total number of power-play opportunities. A power play means one team has a man advantage due to the opposing team committing an infraction.
- Shorthanded Goals For - Goals scored while on the penalty kill (at a man disadvantage)

Goalie play helped Knights reach playoffs, Stanley Cup Finals

- GAA - Goals Against Average - How many goals a goaltender allows per game on average. Goals-against average, or GAA, is calculated by taking the number of goals scored on a goaltender, multiplying that figure by 60 (the number of minutes in a standard NHL game), and dividing the result by the total number of minutes the goaltender has played so far ($GAA = (\text{goals scored on} \times 60) / \text{minutes played}$).
- SV% - Save Percentage - Number of shots saved divided by the total number of shots against
- GS - Games Started - Number of games a goalie started

Year 1 vs. Year 2 Team Performance

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 - Power Play % - Total number of power-play goals divided by total number of power-play opportunities. A power play means one team has a man advantage

due to the opposing team committing an infraction.

Inaugural Season Player Demographics

- Handedness - Refers to which way a player handles the puck. A right-handed player has their right hand on the bottom of their stick