Post Season Analysis

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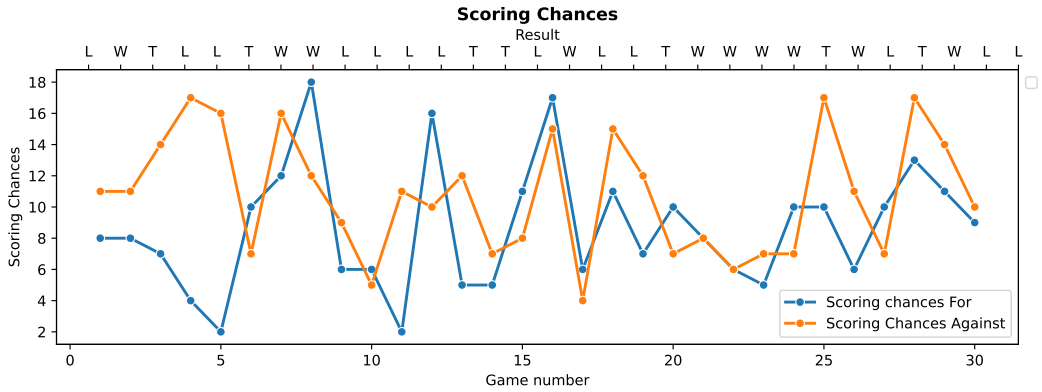
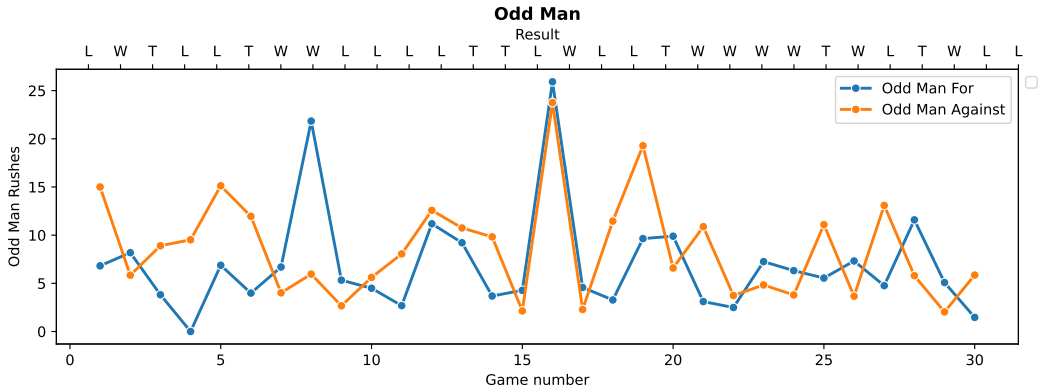
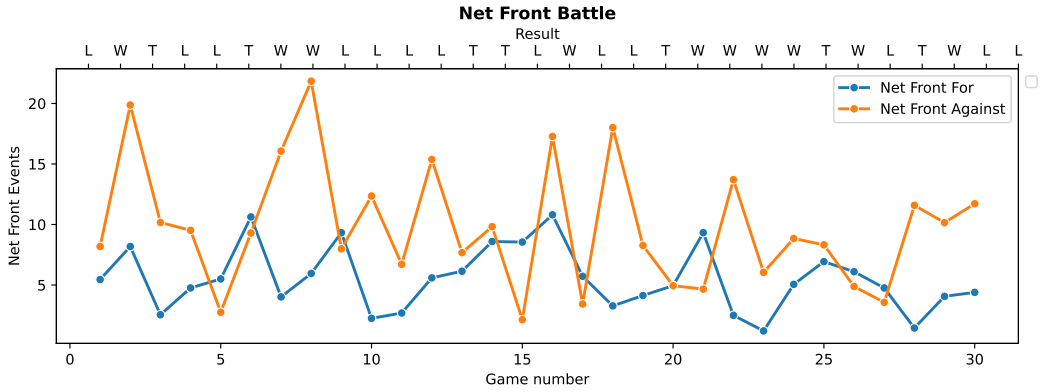
Here are a bunch of graphs representing our season wide trends on all team level stats I tracked. On every X-axis you will see the game ID number (what game of the season it was as well as the result of the game. Note for result I categorized overtime games as ties.)

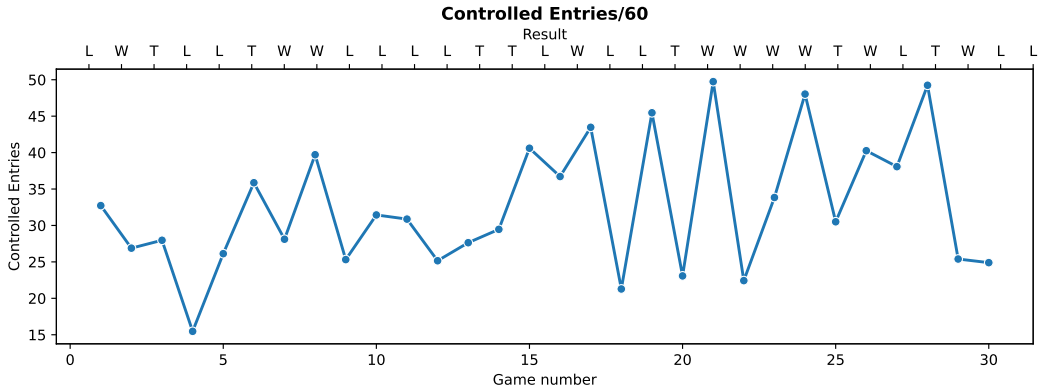
Coaches Stats

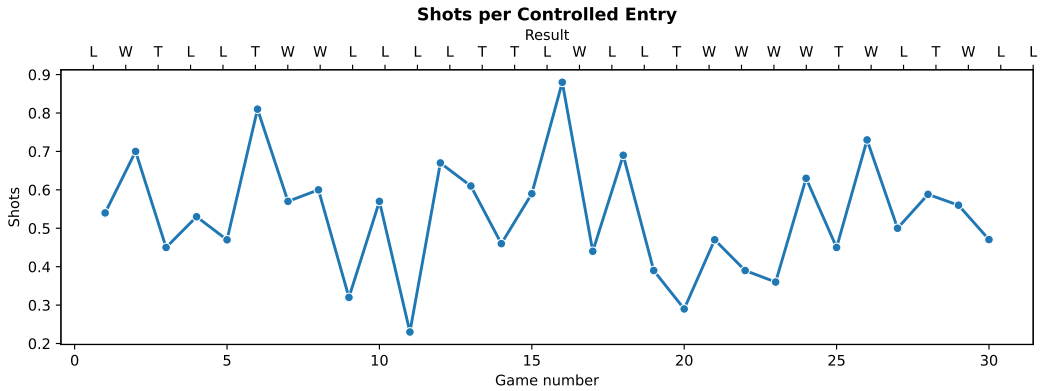


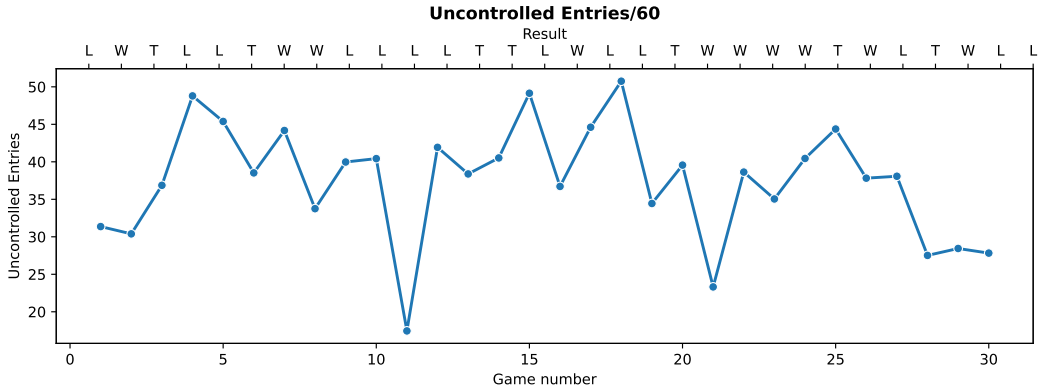


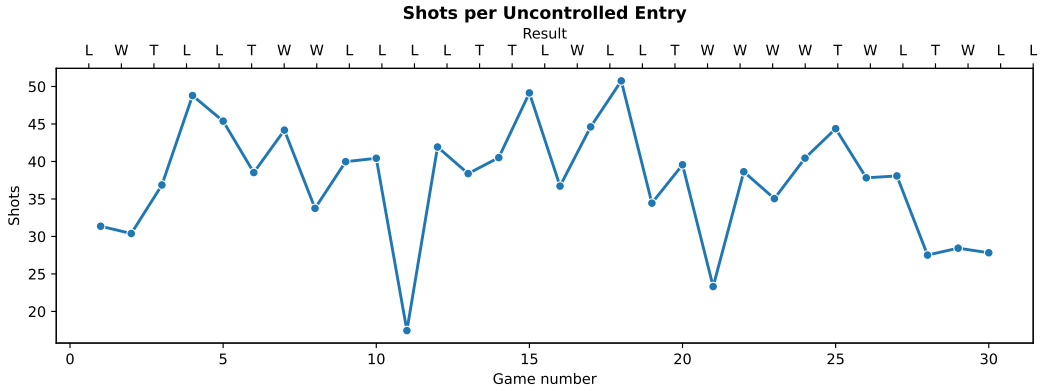

Net Front Battle
Result
L W T L L T W W L L L L T T L W L L T W W W W T W L T W L L
Net Front For
Net Front Against
Net Front Events
Game number

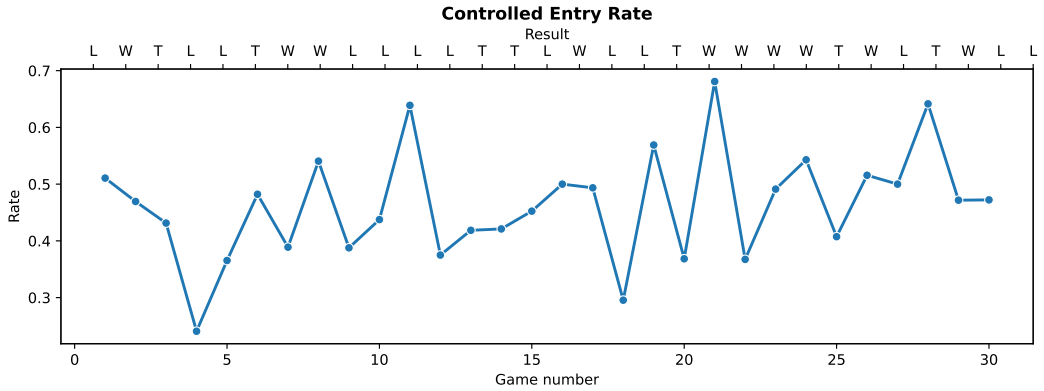
Transition

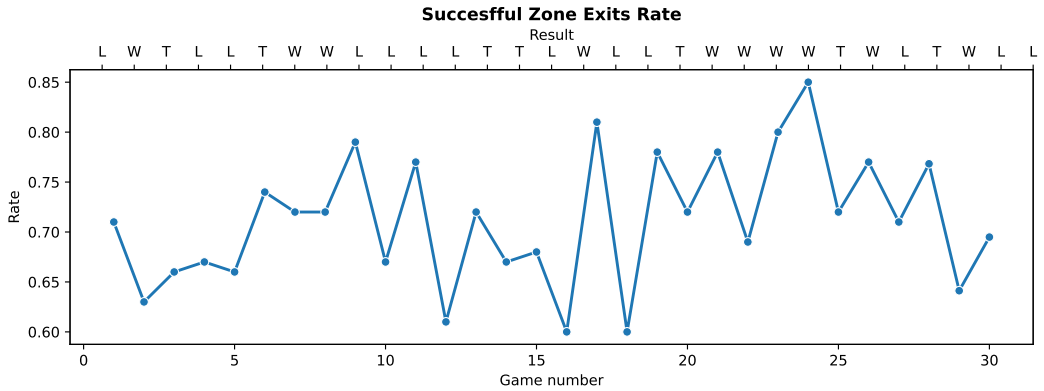

Controlled Entries/60
Result
L W T L L T W W L L L L T T L W L L T W W W W T W L T W L L
Controlled Entries
Game number

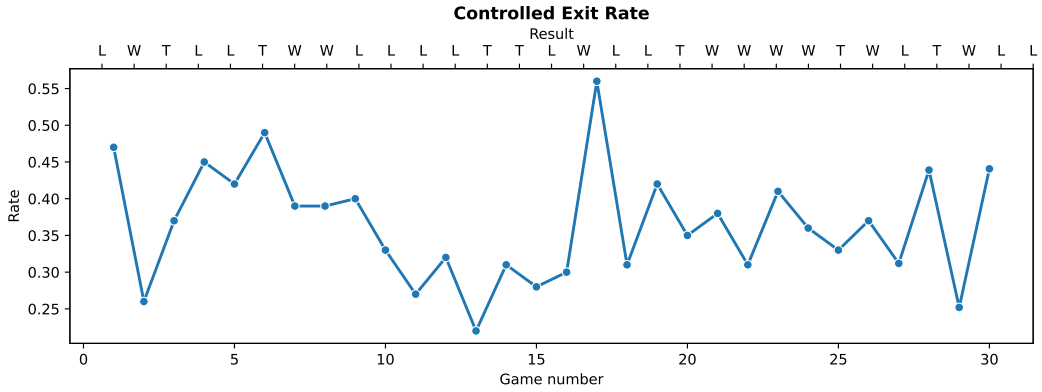

Shots per Controlled Entry
Result
L W T L L T W W L L L L T T L W L L T W W W W T W L T W L L
Shots
Game number


Uncontrolled Entries/60
Result
L W T L L T W W L L L L T T L W L L T W W W W T W L T W L L
Uncontrolled Entries
50
45
40
35
30
25
20
0
5
10
15
20
25
30
Game number

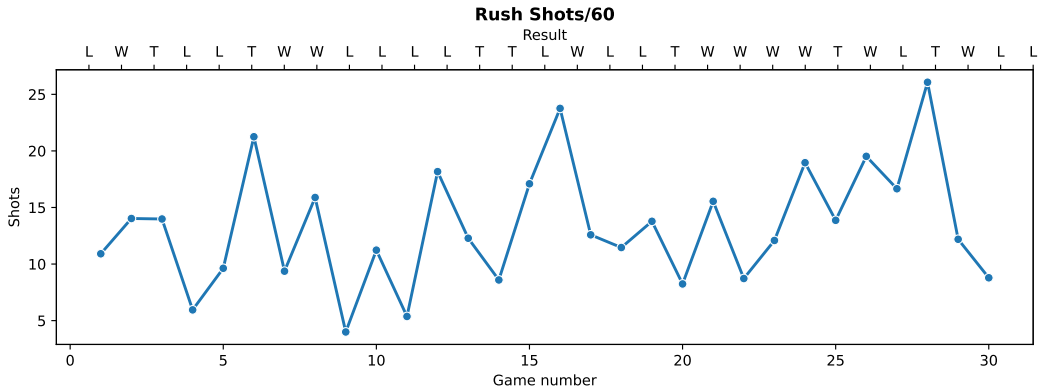

Shots per Uncontrolled Entry
Result
L W T L L T W W L L L L T T L W L L T W W W W T W L T W L L
Shots
50
45
40
35
30
25
20
0
5
10
15
20
25
30
Game number

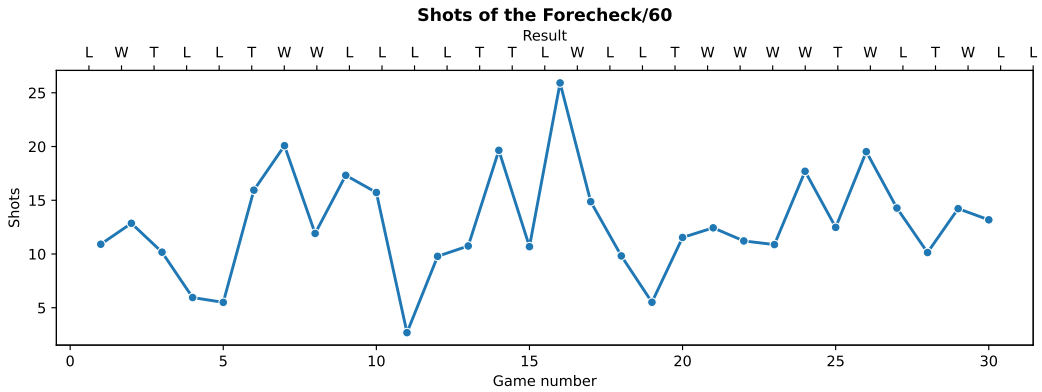

Controlled Entry Rate
Result
L W T L L T W W L L L L T T L W L L T W W W W T W L T W L L
Rate
0.7
0.6
0.5
0.4
0.3
0
5
10
15
20
25
30
Game number

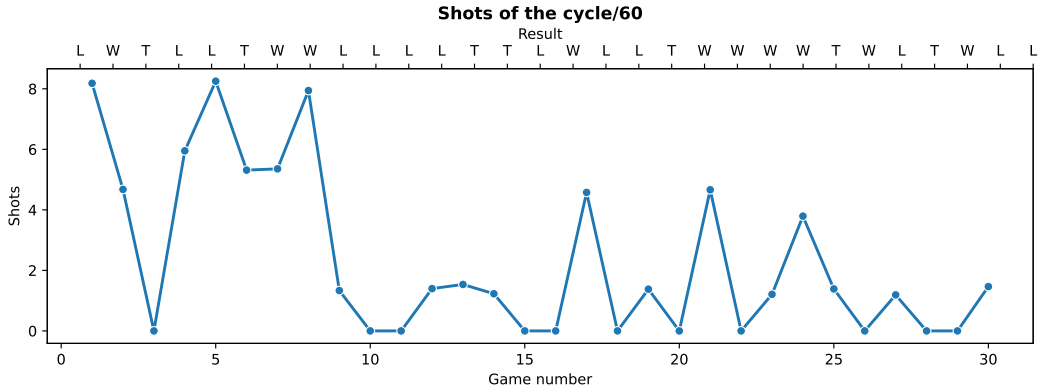

Succesfful Zone Exits Rate
Result
L W T L L T W W L L L L T T L W L L T W W W W T W L T W L L
Rate
0.85
0.80
0.75
0.70
0.65
0.60
0
5
10
15
20
25
30
Game number

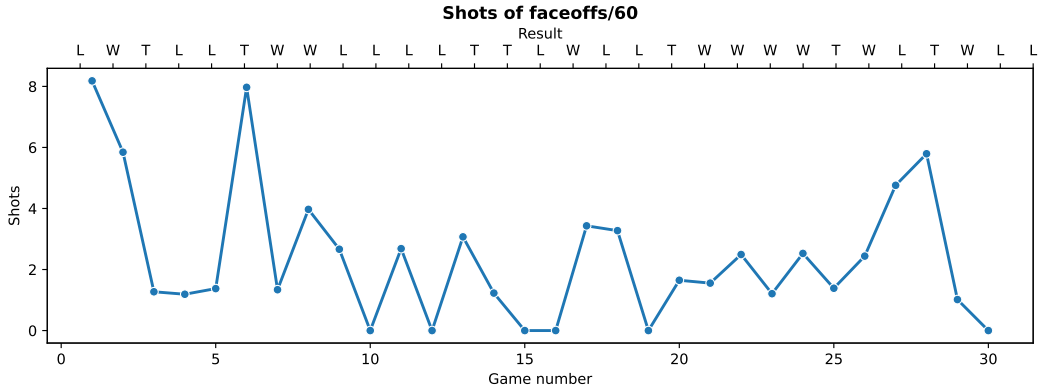


O-Zone shot creation on a per 60 basis (Shot levels divided by 5v5 time then multiplied by 60)









How We Scored / Got Scored On

(Only 5v5)

49 Goals For at 5v5

- 59% of goals off a controlled entry
- 22% of goals off a dump-in
- 12% of goals off O-zone faceoffs
- 43% of goals off the rush
- 43% of goals from the forecheck
- 27% of goals from a net front event

41 Goals Against

- 51% off controlled entries
- 24% off uncontrolled entries

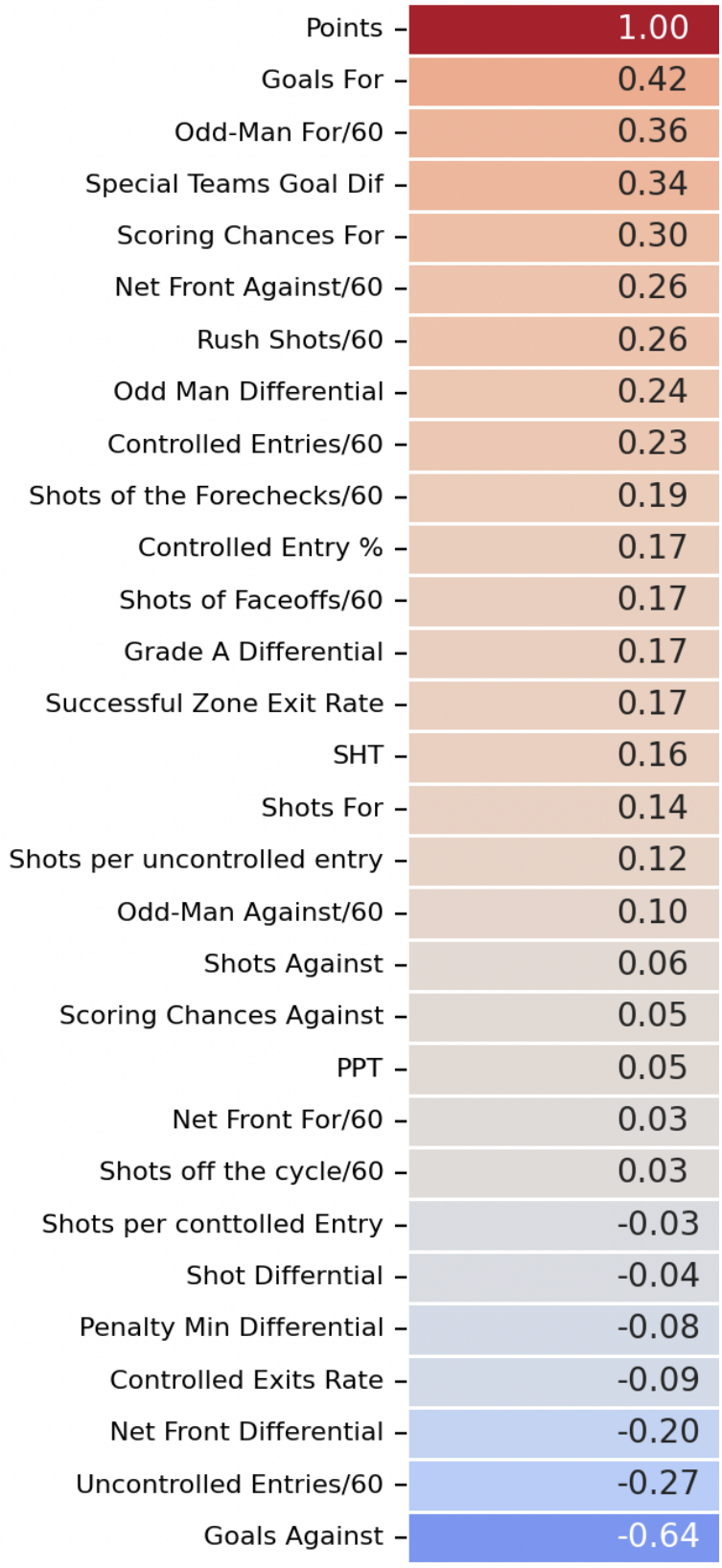
- 20% off faceoffs in our zone
- 44% off the rush
- 37% off the forecheck / turnovers
- 37% from net front events

Correlation Analysis

General guidelines for interpretation are:

- **0.8 – 1.0:** Very strong relationship
- **0.6 – 0.8:** Strong relationship
- **0.4 – 0.6:** Moderate relationship
- **0.2 – 0.4:** Weak relationship
- **Below 0.2:** Does not matter

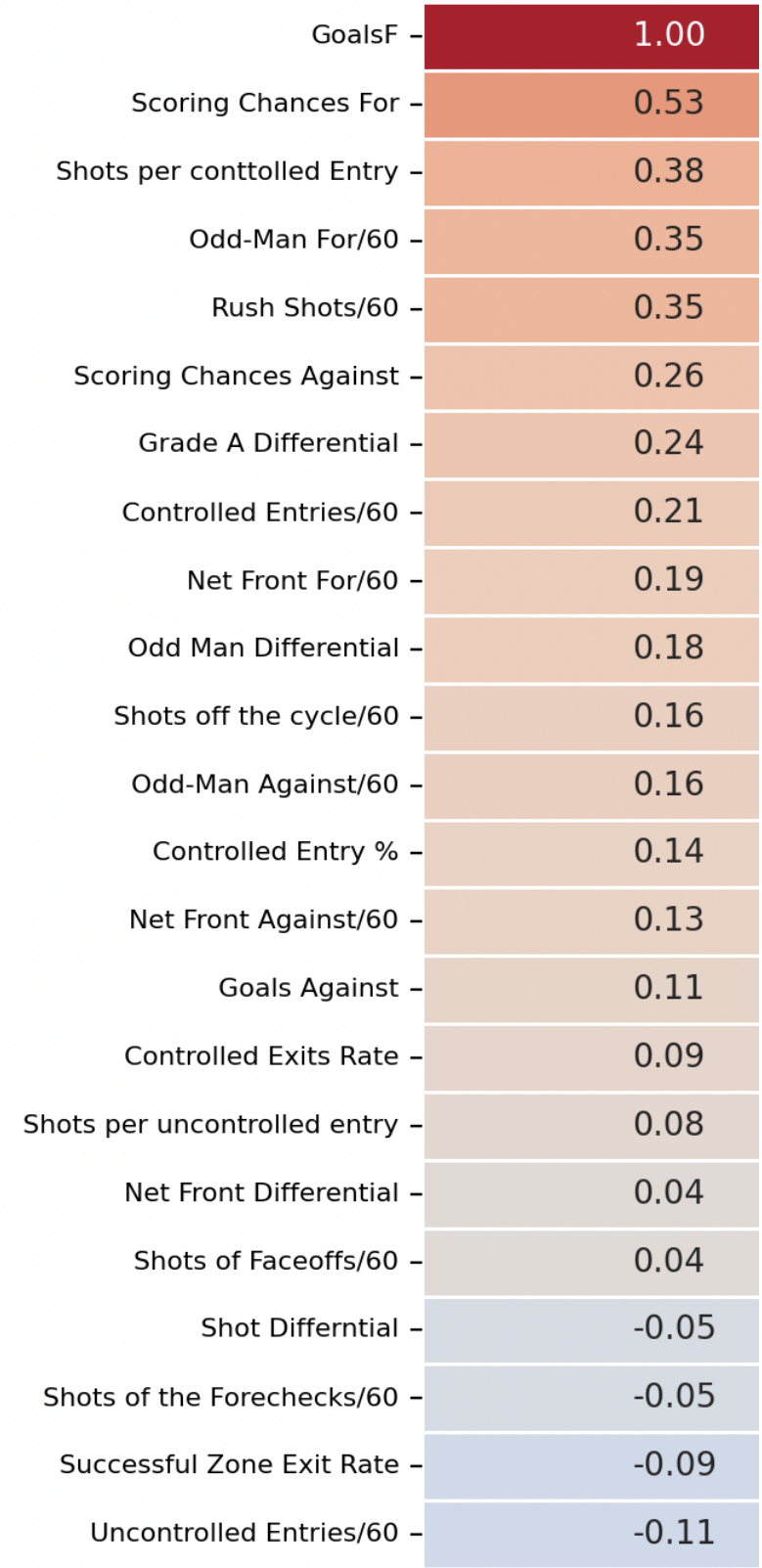
Points What stat led us to getting or not getting 2 points on a given night.


Points 1.00
Goals For 0.42
Odd-Man For/60 0.36
Special Teams Goal Dif 0.34
Scoring Chances For 0.30
Net Front Against/60 0.26
Rush Shots/60 0.26
Odd Man Differential 0.24
Controlled Entries/60 0.23
Shots of the Forechecks/60 0.19
Controlled Entry % 0.17
Shots of Faceoffs/60 0.17
Grade A Differential 0.17
Successful Zone Exit Rate 0.17
SHT 0.16
Shots For 0.14
Shots per uncontrolled entry 0.12
Odd-Man Against/60 0.10
Shots Against 0.06
Scoring Chances Against 0.05
PPT 0.05
Net Front For/60 0.03
Shots off the cycle/60 0.03
Shots per conttolled Entry -0.03
Shot Differntial -0.04
Penalty Min Differential -0.08
Controlled Exits Rate -0.09
Net Front Differential -0.20
Uncontrolled Entries/60 -0.27
Goals Against -0.64

Takeaways

- There is a strong negative correlation between goals allowed and points earned — even stronger than the correlation between goals for and points.
- Odd-man rushes for have the highest correlation with points (outside of actual goals). This could partially be because we generate more odd-man rushes when leading, but it still highlights their importance.
- Special teams goal differential, Grade A chances for, rush shots/60, and odd-man rush differential all show a small but noticeable relationship with points.
- Uncontrolled entries are negatively correlated with earning points, which is an interesting and potentially actionable insight.

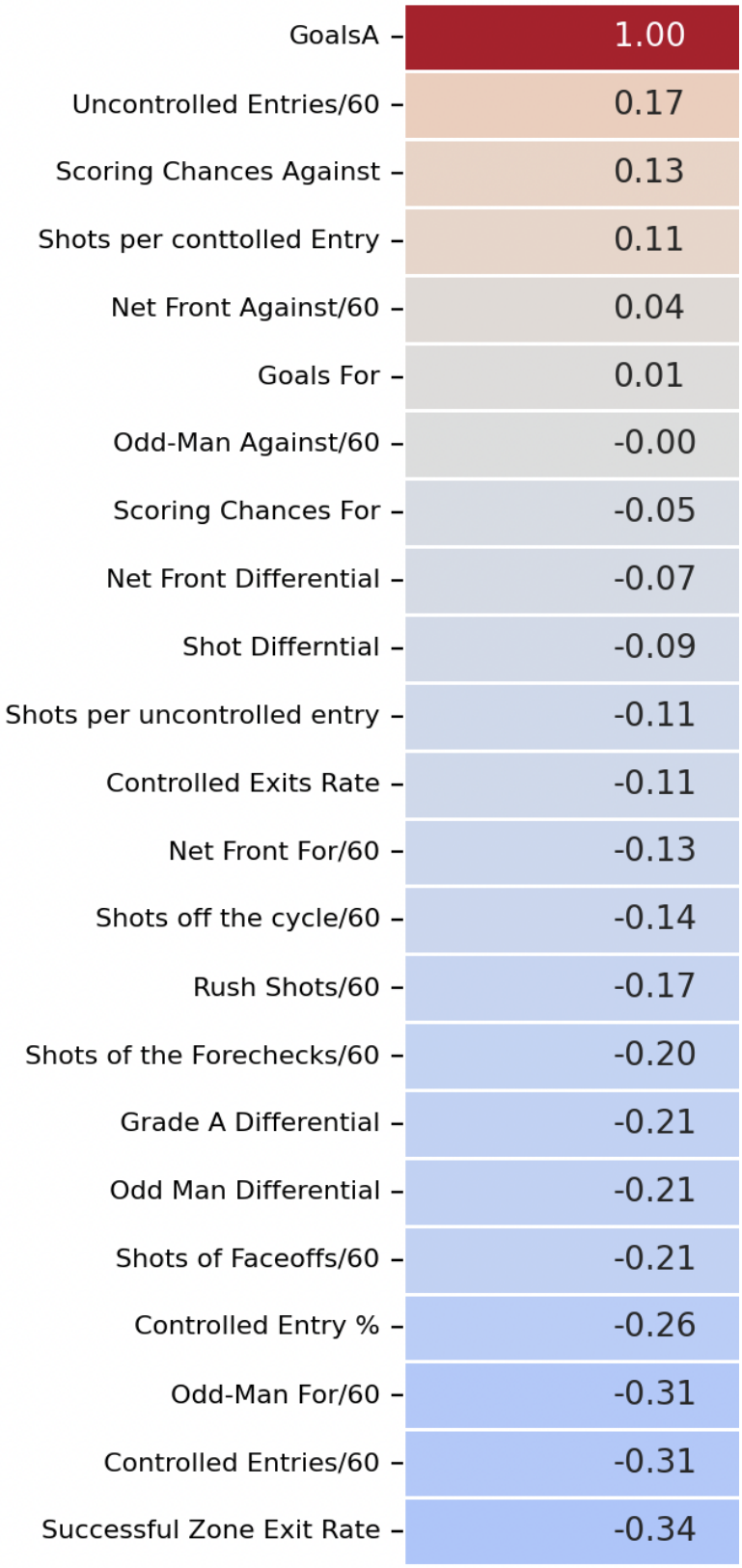
Even Strength Goals For Corr Normalized for even strength ice time, as this is different each game


GoalsF 1.00
Scoring Chances For 0.53
Shots per conttolled Entry 0.38
Odd-Man For/60 0.35
Rush Shots/60 0.35
Scoring Chances Against 0.26
Grade A Differential 0.24
Controlled Entries/60 0.21
Net Front For/60 0.19
Odd Man Differential 0.18
Shots off the cycle/60 0.16
Odd-Man Against/60 0.16
Controlled Entry % 0.14
Net Front Against/60 0.13
Goals Against 0.11
Controlled Exits Rate 0.09
Shots per uncontrolled entry 0.08
Net Front Differential 0.04
Shots of Faceoffs/60 0.04
Shot Differntial -0.05
Shots of the Forechecks/60 -0.05
Successful Zone Exit Rate -0.09
Uncontrolled Entries/60 -0.11

Takeaways

- Great relationship with the Grade A chance metric we track in game, means this is a good indicator of how we played offensively (Much better then instats expected goals model which only correlates to goals 0.2% of the time much worse then NHL models that are close to 50%)
- The other valuable info from this is our rush offence and efficiency drives goals, with odd man rushes for, shots per controlled entry and controlled entries being some of our biggest drivers

Even Strength Goals Against Corr


GoalsA 1.00
Uncontrolled Entries/60 0.17
Scoring Chances Against 0.13
Shots per conttolled Entry 0.11
Net Front Against/60 0.04
Goals For 0.01
Odd-Man Against/60 -0.00
Scoring Chances For -0.05
Net Front Differential -0.07
Shot Differntial -0.09
Shots per uncontrolled entry -0.11
Controlled Exits Rate -0.11
Net Front For/60 -0.13
Shots off the cycle/60 -0.14
Rush Shots/60 -0.17
Shots of the Forechecks/60 -0.20
Grade A Differential -0.21
Odd Man Differential -0.21
Shots of Faceoffs/60 -0.21
Controlled Entry % -0.26
Odd-Man For/60 -0.31
Controlled Entries/60 -0.31
Successful Zone Exit Rate -0.34

Takeaways

- Most important stat for us in terms of limiting goals against is, successful zone exit rate, shows our hand tracked zone exit stats are a valuable player evaluation tool
- Interestingly controlled entries/60 and odd man rushes for are correlated with not giving up goals. This pushes back against the idea of dump-ins and not adding an extra d-man on the rush are detrimental to our defense, this is especially encouraging as those 2 stats correlate to goals for and they don't seemingly have any drawbacks. A major caveat is this is not causal so it could be that in games we give up few goals we are winning and the other team gets aggressive giving us odd man rushes the other way and controlled entries
- No real stats that lead to us regularly giving up a lot of goals