

Stats 401: Analysis

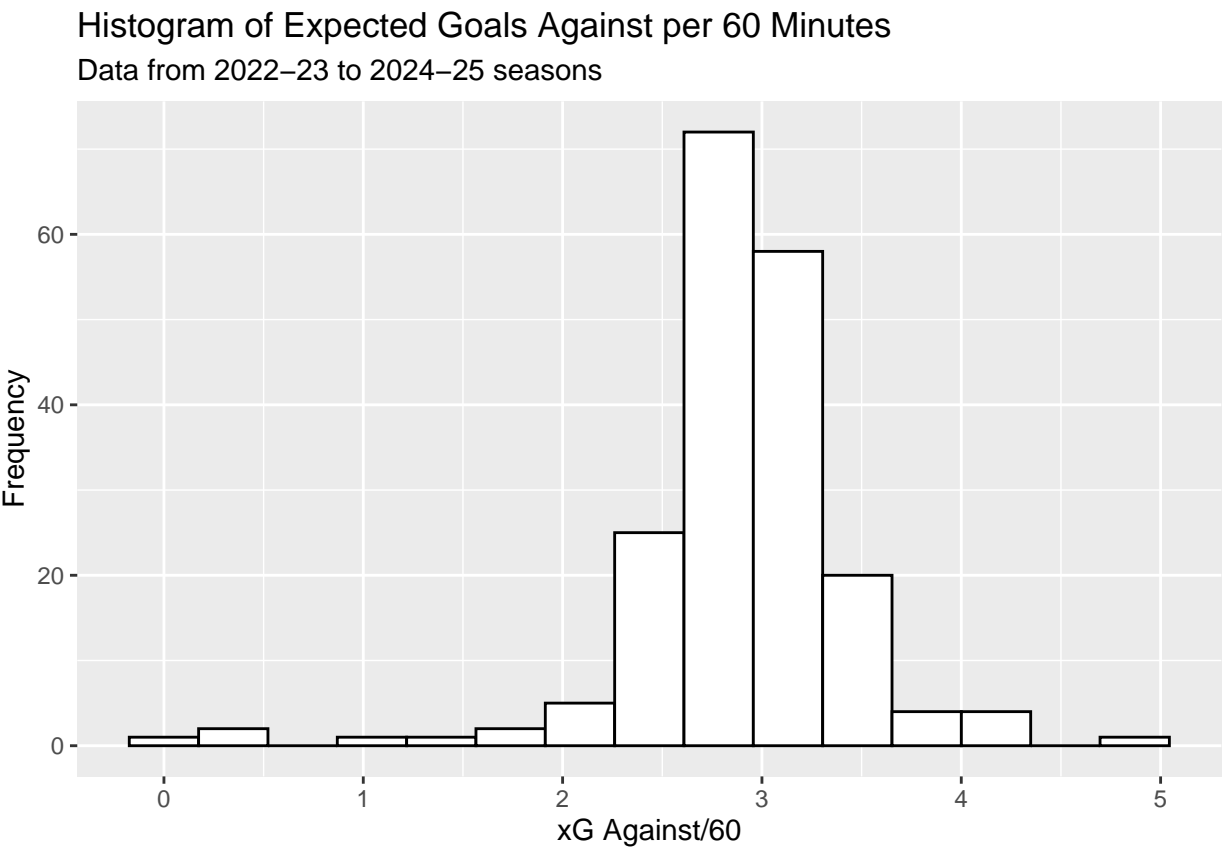
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Contents

Figure 1	2
Figure 2	3
Figure 3	4
Figure 4	7
Figure 5	8
Figure 6	9
Figure 7	11
Figure 8	14
Figure 9	15
Figure 10	17
Figure 11	20
Figure 12	21
Figure 13	27
Figure 14	29
Figure 15	30
Figure 16	33

Figure 1



```
##      Min. 1st Qu.  Median    Mean 3rd Qu.    Max.
##  0.000   2.688   2.900   2.887   3.143   4.870

## [1] 0.5558763
```

Figure 2

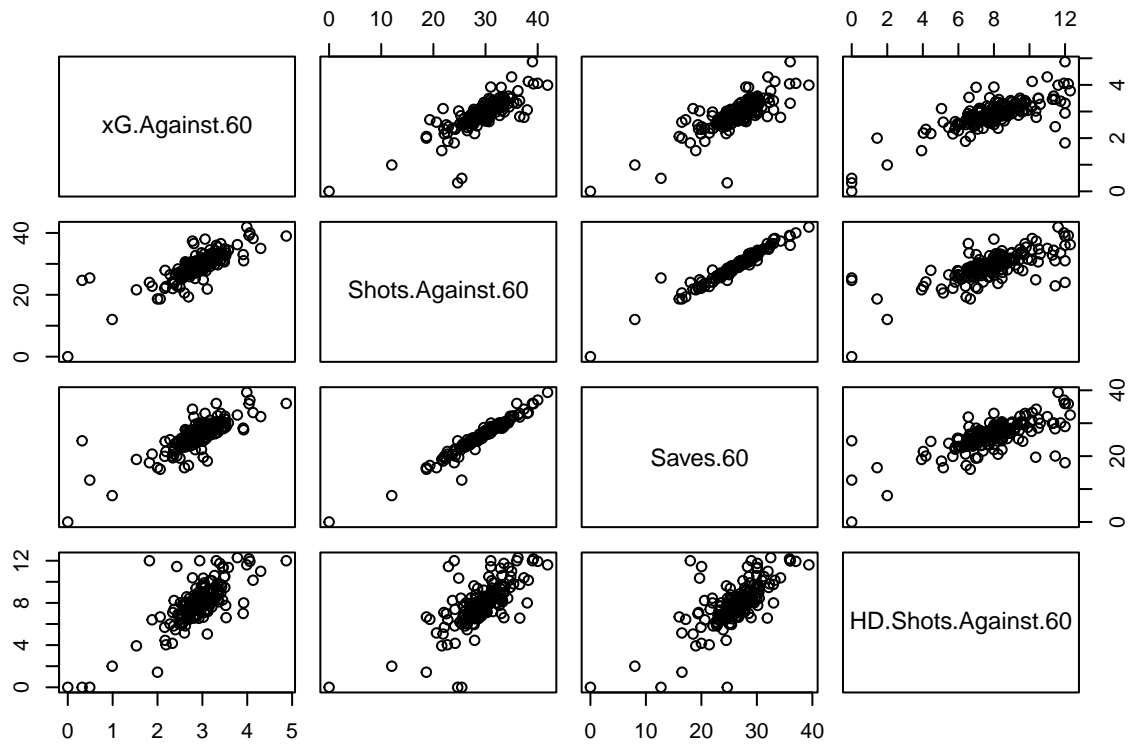
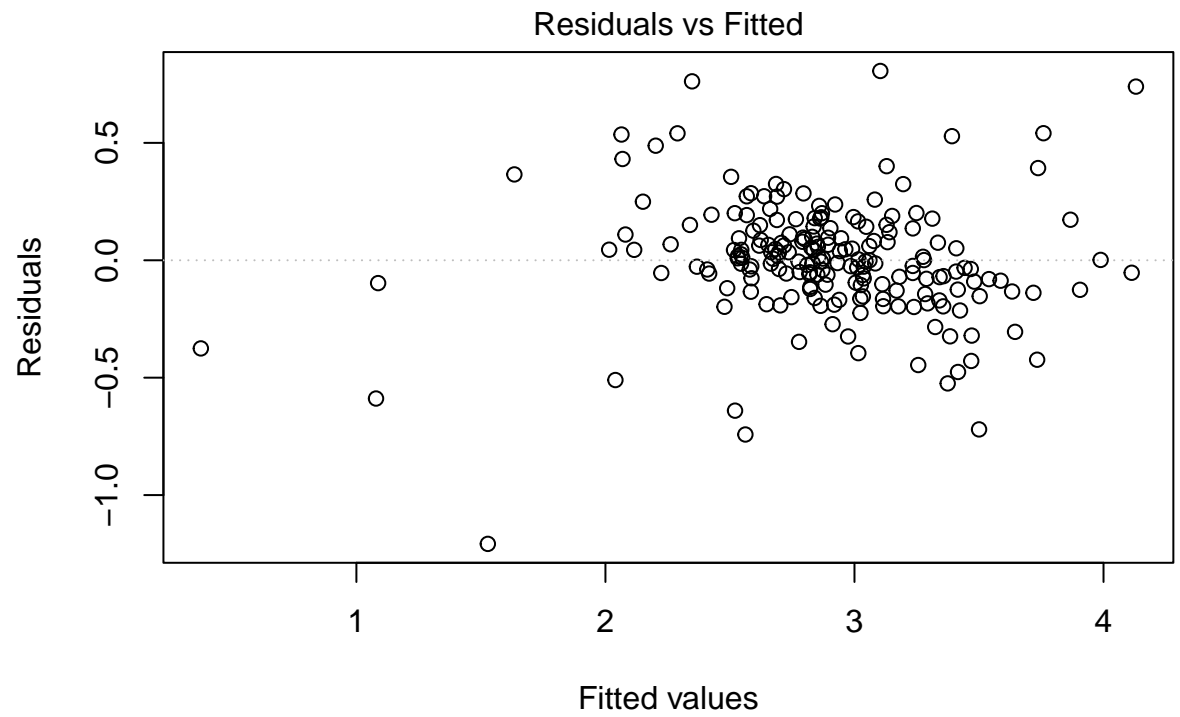


Figure 3

```
##
## Call:
## lm(formula = xG.Against.60 ~ Shots.Against.60 + Saves.60 + HD.Shots.Against.60 +
##     Team, data = goalies)
##
## Residuals:
##      Min       1Q   Median       3Q      Max
## -1.20780 -0.11453  0.00036  0.12113  0.80620
##
## Coefficients:
##              Estimate Std. Error t value Pr(>|t|)
## (Intercept)    0.561823   0.234366   2.397  0.01767 *
## Shots.Against.60  0.023426   0.022726   1.031  0.30419
## Saves.60        0.034777   0.022912   1.518  0.13103
## HD.Shots.Against.60 0.111108   0.016057   6.920 1.03e-10 ***
## TeamARI        -0.025582   0.181361  -0.141  0.88800
## TeamBOS        -0.220715   0.185580  -1.189  0.23607
## TeamBUF        -0.137832   0.171286  -0.805  0.42219
## TeamCAR        -0.289360   0.175670  -1.647  0.10148
## TeamCBJ         0.042052   0.150552   0.279  0.78036
## TeamCGY        -0.175940   0.201157  -0.875  0.38308
## TeamCHI         0.069556   0.152608   0.456  0.64916
## TeamCOL        -0.125117   0.154061  -0.812  0.41793
## TeamDAL        -0.175956   0.185917  -0.946  0.34536
## TeamDET        -0.281755   0.151024  -1.866  0.06392 .
## TeamEDM        -0.469328   0.178817  -2.625  0.00951 **
## TeamFLA        -0.218789   0.174218  -1.256  0.21101
## TeamL.A        -0.195547   0.158465  -1.234  0.21901
## TeamMIN        -0.336895   0.201339  -1.673  0.09623 .
## TeamMTL         0.064145   0.181277   0.354  0.72392
## TeamN.J        -0.041385   0.160193  -0.258  0.79647
## TeamNSH        -0.178477   0.171613  -1.040  0.29991
## TeamNYI        -0.521367   0.169348  -3.079  0.00245 **
## TeamNYR        -0.240663   0.185742  -1.296  0.19695
## TeamOTT        -0.214096   0.149336  -1.434  0.15362
## TeamPHI        -0.116334   0.165610  -0.702  0.48342
## TeamPIT        -0.218110   0.162397  -1.343  0.18115
## TeamS.J        -0.003374   0.142727  -0.024  0.98117
## TeamSEA        -0.256959   0.164279  -1.564  0.11975
## TeamSTL        -0.229927   0.198384  -1.159  0.24818
## TeamT.B        -0.137604   0.172952  -0.796  0.42743
## TeamTOR        -0.186445   0.162713  -1.146  0.25357
## TeamUTA         0.240787   0.183759   1.310  0.19196
## TeamVAN        -0.097092   0.162620  -0.597  0.55132
## TeamVGK        -0.205511   0.160441  -1.281  0.20208
## TeamWPG        -0.226925   0.186811  -1.215  0.22626
## TeamWSH        -0.104596   0.170351  -0.614  0.54009
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 0.2779 on 160 degrees of freedom
## Multiple R-squared:  0.7949, Adjusted R-squared:  0.7501
```

F-statistic: 17.72 on 35 and 160 DF, p-value: < 2.2e-16



Im(xG.Against.60 ~ Shots.Against.60 + Saves.60 + HD.Shots.Against.60 + Team ...

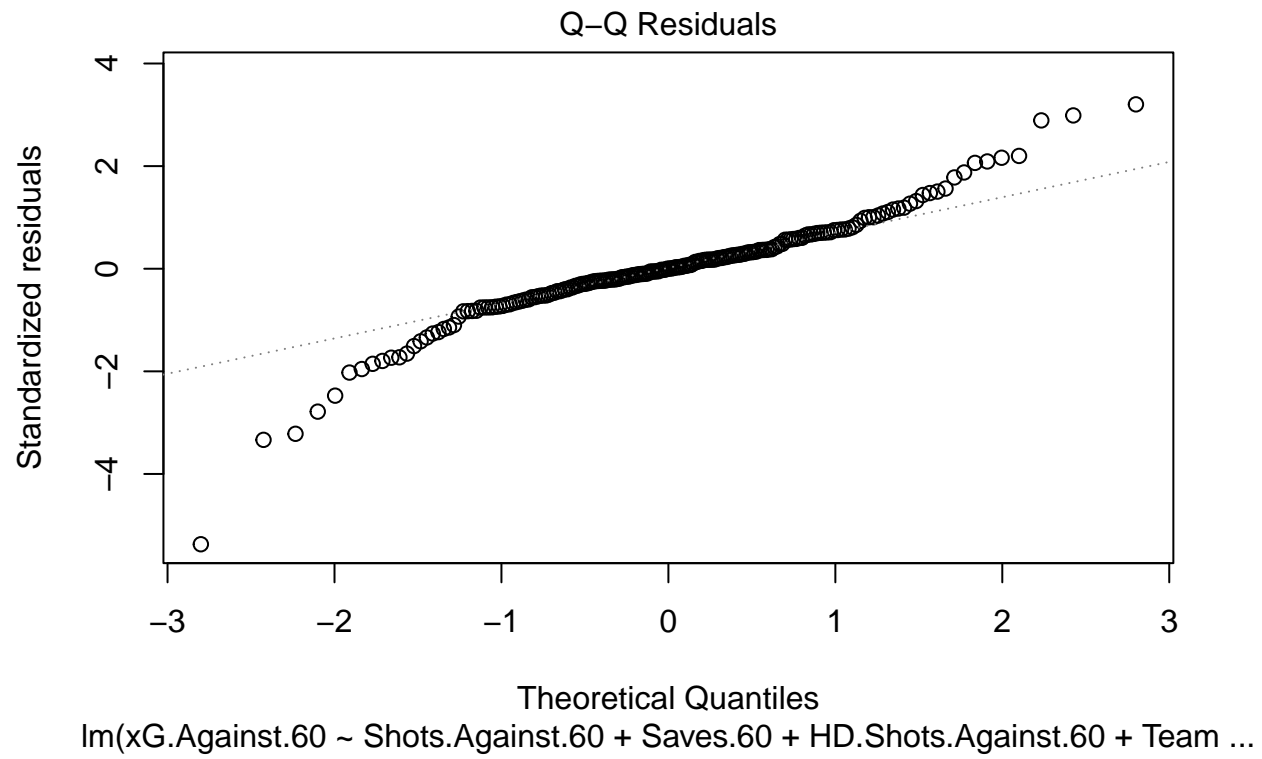


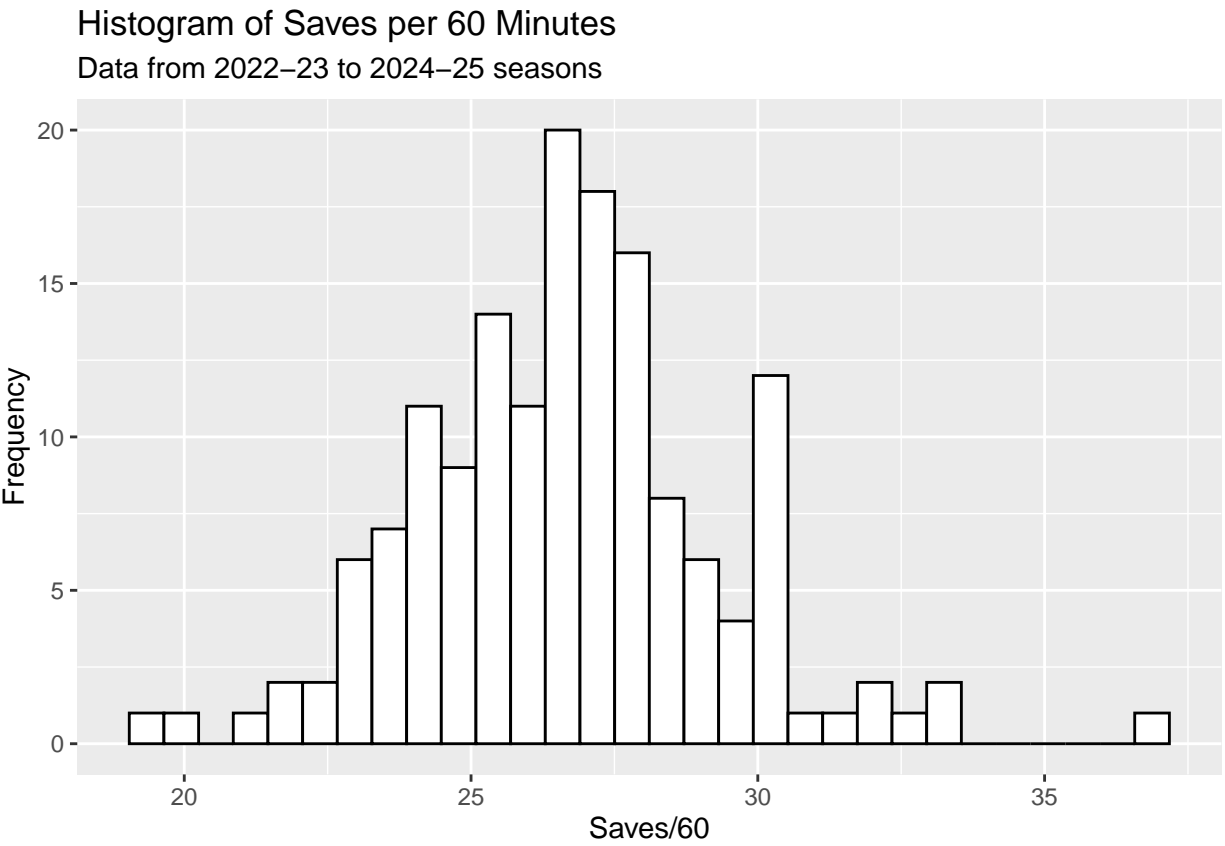
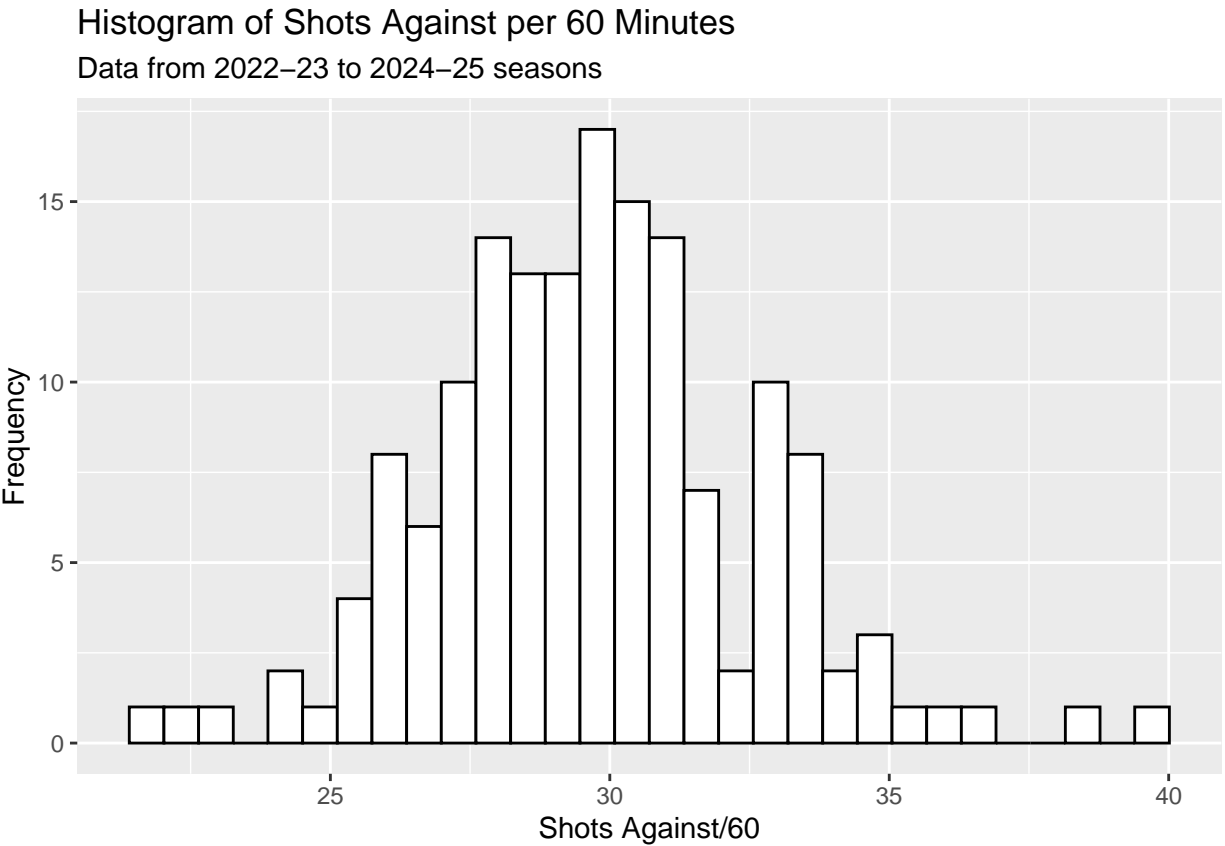
Figure 4

##	Shots.Against.60	Saves.60	HD.Shots.Against.60
##	18.186430	18.680302	2.058479

Figure 5

##	X	Player	Team	GP	TOI	TOI.GP	Shots.Against.60	Saves.60
## 5	159	Akira Schmid	VGK	5	238.1000	47.62000	22.68	21.42
## 10	44	Laurent Brossoit	VGK	11	636.0333	57.82121	29.90	27.73
## 11	45	Laurent Brossoit	WPG	23	1351.3167	58.75290	27.53	25.53
## 12	65	Linus Ullmark	BOS	90	5282.6833	58.69648	30.27	28.07
## 13	63	Anthony Stolarz	TOR	34	1986.9000	58.43824	28.84	26.69
## 14	62	Anthony Stolarz	FLA	27	1506.4500	55.79444	27.24	25.21
##	SV.	GAA	GSAA.60	xG.Against.60	HD.Shots.Against.60	HD.Saves.60	HDSV.	HDGAA
## 5	0.944	1.26	0.96	2.19	4.03	3.28	0.813	0.76
## 10	0.927	2.17	0.76	2.65	8.58	7.45	0.868	1.13
## 11	0.927	2.00	0.70	2.68	6.75	5.82	0.862	0.93
## 12	0.927	2.20	0.77	2.77	8.21	6.96	0.848	1.25
## 13	0.926	2.14	0.68	3.02	6.64	5.62	0.845	1.03
## 14	0.925	2.03	0.64	2.89	8.48	7.29	0.859	1.19
##	HDGSAA.60	MD.Shots.Against.60	MD.Saves.60	MDSV.	MDGAA	MDGSAA.60		
## 5	0.00		8.32	8.06	0.970	0.25	0.72	
## 10	0.48		8.96	8.02	0.895	0.94	0.11	
## 11	0.33		7.19	6.44	0.895	0.75	0.09	
## 12	0.29		7.79	7.18	0.921	0.61	0.30	
## 13	0.22		7.34	6.61	0.901	0.72	0.14	
## 14	0.40		6.05	5.54	0.914	0.52	0.19	
##	LD.Shots.Against.60	LD.Saves.60	LDSV.	LDGAA	LDGSAA.60			
## 5		10.08	9.83	0.975	0.25	0.15		
## 10		10.85	10.75	0.991	0.09	0.34		
## 11		12.08	11.77	0.974	0.31	0.17		
## 12		12.44	12.10	0.973	0.34	0.16		
## 13		13.29	12.89	0.970	0.39	0.14		
## 14		11.23	10.91	0.972	0.32	0.13		
##	Rush.Attempts.Against.60	Rebound.Attempts.Against.60	Avg..Shot.Distance					
## 5		0.50		3.78		33.81		
## 10		1.98		4.06		33.88		
## 11		1.42		5.15		36.54		
## 12		2.11		5.02		36.03		
## 13		2.26		6.49		37.85		
## 14		1.51		5.81		34.51		
##	Avg..Goal.Distance							
## 5		20.00						
## 10		19.30						
## 11		20.42						
## 12		19.67						
## 13		21.21						
## 14		19.33						

Figure 6



Histogram of High Danger Shots Against per 60 Minutes

Data from 2022–23 to 2024–25 seasons

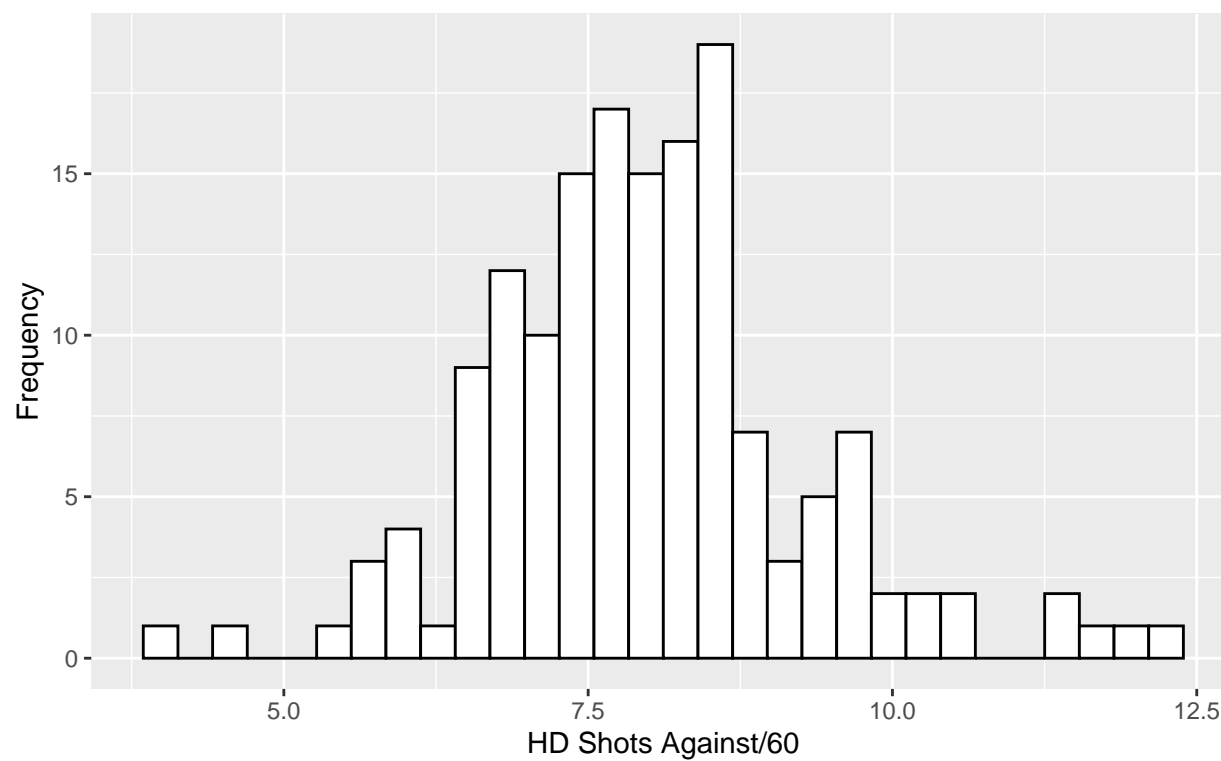
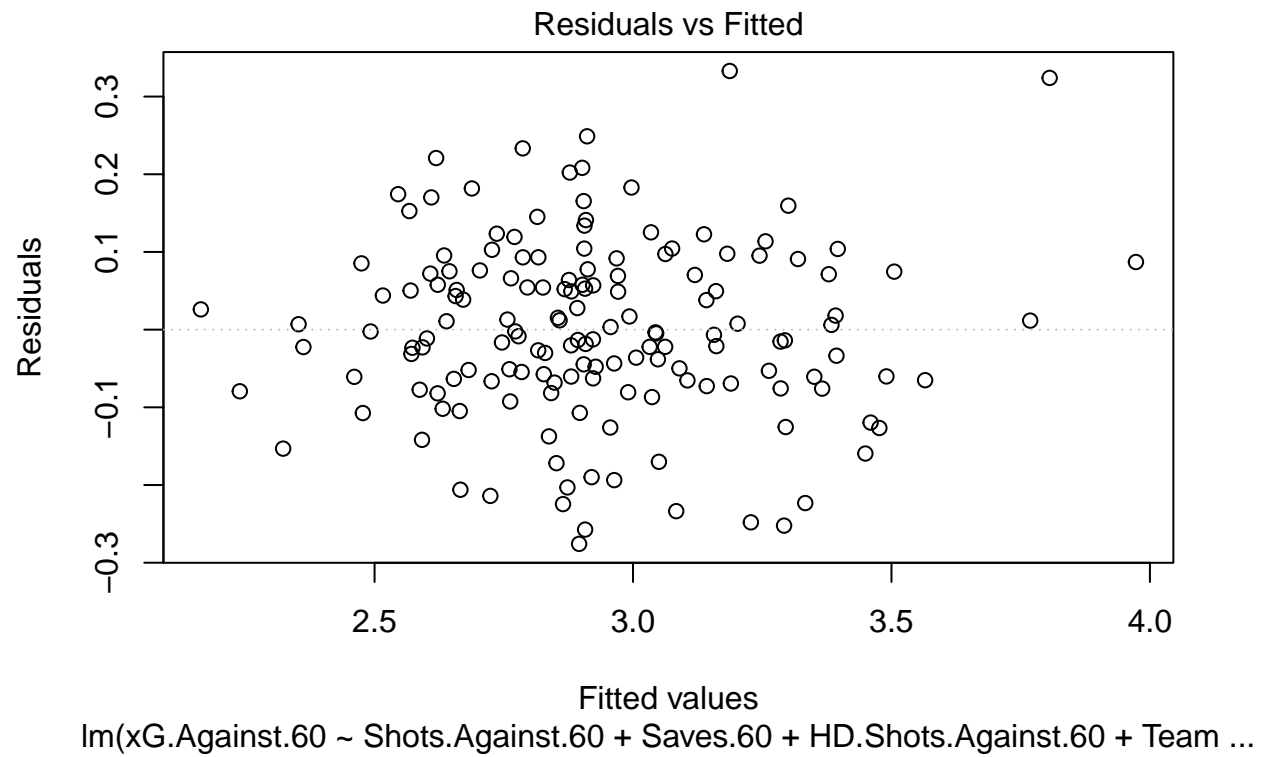


Figure 7

```
##
## Call:
## lm(formula = xG.Against.60 ~ Shots.Against.60 + Saves.60 + HD.Shots.Against.60 +
##     Team, data = goalies_adjusted)
##
## Residuals:
##      Min       1Q   Median       3Q      Max
## -0.27575 -0.06532 -0.00481  0.07465  0.33291
##
## Coefficients:
##              Estimate Std. Error t value Pr(>|t|)
## (Intercept)    0.742645   0.215953   3.439 0.000802 ***
## Shots.Against.60  0.063415   0.028197   2.249 0.026322 *
## Saves.60        -0.002750   0.028805  -0.095 0.924086
## HD.Shots.Against.60 0.066576   0.015746   4.228 4.6e-05 ***
## TeamARI         -0.054815   0.102957  -0.532 0.595421
## TeamBOS         -0.167890   0.107797  -1.557 0.121970
## TeamBUF         -0.115014   0.092605  -1.242 0.216646
## TeamCAR         -0.228774   0.109170  -2.096 0.038204 *
## TeamCBJ         -0.091647   0.086159  -1.064 0.289581
## TeamCGY         -0.195644   0.108560  -1.802 0.074009 .
## TeamCHI         -0.216907   0.090816  -2.388 0.018467 *
## TeamCOL         -0.244589   0.094832  -2.579 0.011100 *
## TeamDAL         -0.195057   0.103426  -1.886 0.061699 .
## TeamDET         -0.199216   0.089403  -2.228 0.027709 *
## TeamEDM         -0.257584   0.109129  -2.360 0.019857 *
## TeamFLA         -0.194617   0.096388  -2.019 0.045688 *
## TeamL.A         -0.263331   0.095818  -2.748 0.006909 **
## TeamMIN         -0.418339   0.111291  -3.759 0.000264 ***
## TeamMTL         0.072811   0.096179   0.757 0.450497
## TeamN.J         -0.059780   0.091447  -0.654 0.514540
## TeamNSH         -0.260040   0.099060  -2.625 0.009780 **
## TeamNYI         -0.154445   0.106284  -1.453 0.148773
## TeamNYR         -0.154533   0.106943  -1.445 0.151044
## TeamOTT         -0.191483   0.093408  -2.050 0.042529 *
## TeamPHI         -0.174595   0.098237  -1.777 0.078035 .
## TeamPIT         -0.183923   0.090633  -2.029 0.044620 *
## TeamS.J         0.055972   0.085150   0.657 0.512214
## TeamSEA         -0.144253   0.110640  -1.304 0.194778
## TeamSTL         -0.226434   0.103431  -2.189 0.030500 *
## TeamT.B         -0.182639   0.097919  -1.865 0.064575 .
## TeamTOR         -0.153487   0.092058  -1.667 0.098045 .
## TeamUTA         0.002205   0.110778   0.020 0.984151
## TeamVAN         -0.172299   0.095975  -1.795 0.075110 .
## TeamVGK         -0.226323   0.091362  -2.477 0.014622 *
## TeamWPG         -0.259724   0.104176  -2.493 0.014014 *
## TeamWSH         -0.039854   0.100481  -0.397 0.692341
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 0.13 on 121 degrees of freedom
## Multiple R-squared:  0.8762, Adjusted R-squared:  0.8404
```

F-statistic: 24.46 on 35 and 121 DF, p-value: < 2.2e-16



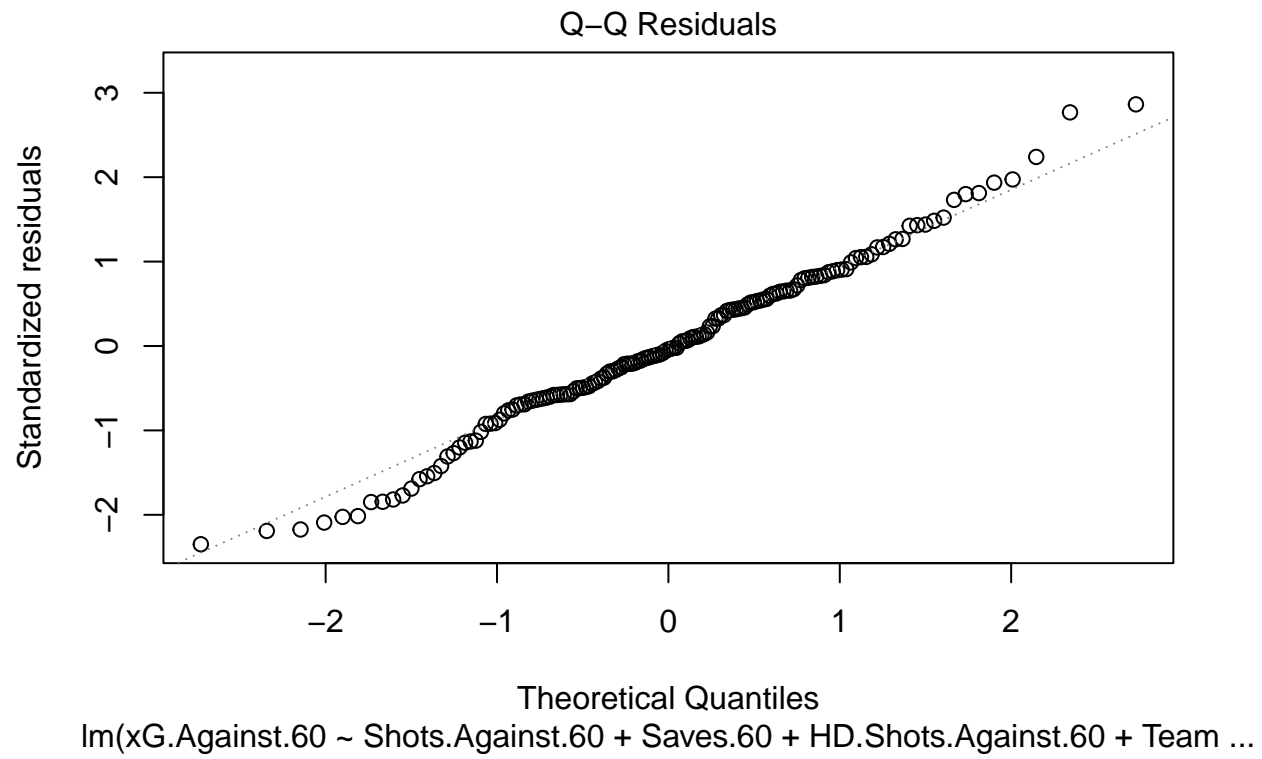


Figure 8

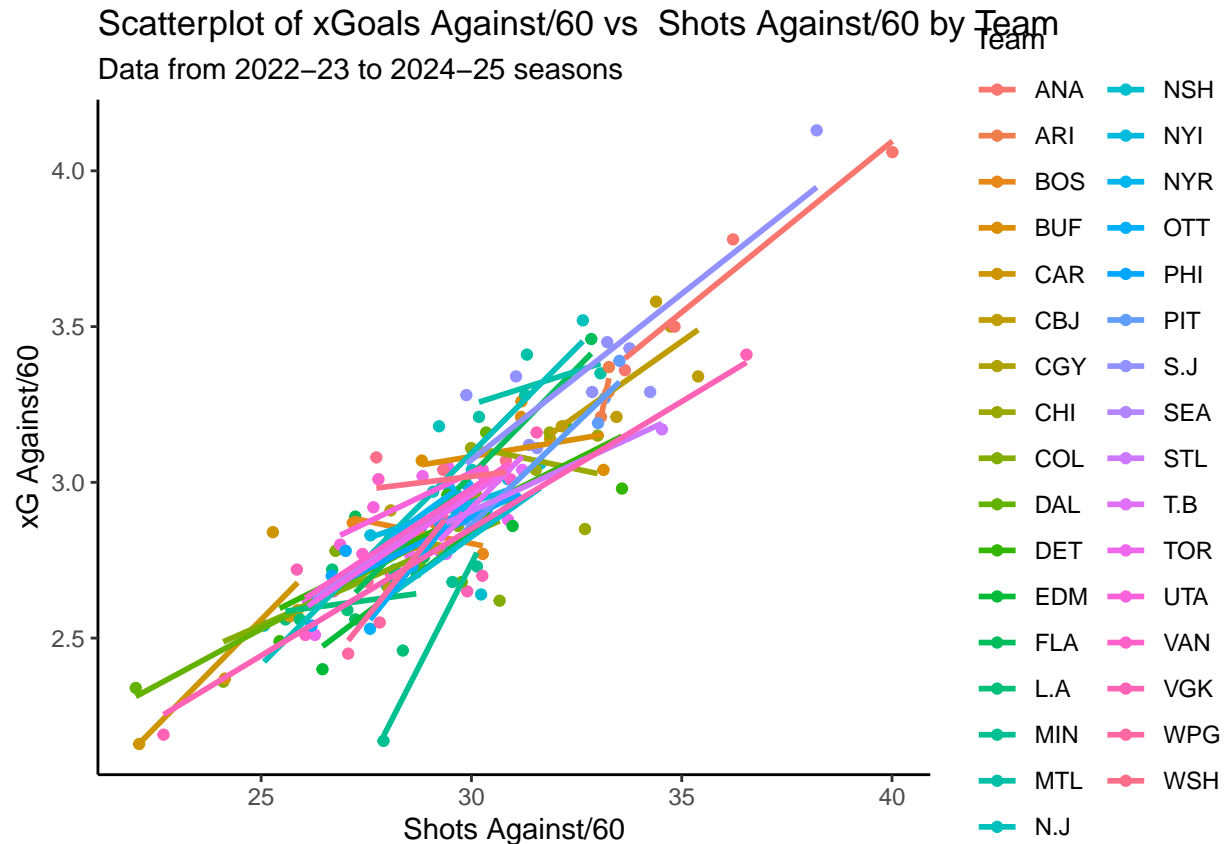
##	Shots.Against.60	Saves.60	HD.Shots.Against.60
##	38.504636	36.404027	2.547653

Figure 9

```
##
## Call:
## lm(formula = xG.Against.60 ~ Saves.60 + HD.Shots.Against.60 +
##     Team, data = goalies_adjusted)
##
## Residuals:
##      Min       1Q   Median       3Q      Max
## -0.29653 -0.06943 -0.00396  0.06898  0.38363
##
## Coefficients:
##              Estimate Std. Error t value Pr(>|t|)
## (Intercept)    0.878101   0.210805   4.165 5.83e-05 ***
## Saves.60        0.059296   0.008418   7.044 1.20e-10 ***
## HD.Shots.Against.60 0.077959  0.015156   5.144 1.04e-06 ***
## TeamARI        -0.027392   0.103919  -0.264 0.792542
## TeamBOS        -0.188506   0.109178  -1.727 0.086772 .
## TeamBUF        -0.112035   0.094123  -1.190 0.236237
## TeamCAR        -0.255070   0.110332  -2.312 0.022463 *
## TeamCBJ        -0.073690   0.087203  -0.845 0.399739
## TeamCGY        -0.200377   0.110330  -1.816 0.071803 .
## TeamCHI        -0.214424   0.092307  -2.323 0.021838 *
## TeamCOL        -0.267537   0.095836  -2.792 0.006090 **
## TeamDAL        -0.214189   0.104776  -2.044 0.043080 *
## TeamDET        -0.193655   0.090843  -2.132 0.035034 *
## TeamEDM        -0.252126   0.110902  -2.273 0.024750 *
## TeamFLA        -0.221718   0.097209  -2.281 0.024294 *
## TeamL.A        -0.273281   0.097294  -2.809 0.005793 **
## TeamMIN        -0.401482   0.112870  -3.557 0.000535 ***
## TeamMTL         0.080943   0.097696   0.829 0.408993
## TeamN.J        -0.071113   0.092814  -0.766 0.445046
## TeamNSH        -0.249559   0.100582  -2.481 0.014458 *
## TeamNYI        -0.158046   0.108024  -1.463 0.146023
## TeamNYR        -0.175973   0.108275  -1.625 0.106691
## TeamOTT        -0.188972   0.094942  -1.990 0.048784 *
## TeamPHI        -0.142155   0.098775  -1.439 0.152661
## TeamPIT        -0.176960   0.092074  -1.922 0.056946 .
## TeamS.J         0.105979   0.083552   1.268 0.207061
## TeamSEA        -0.143676   0.112465  -1.278 0.203846
## TeamSTL        -0.223549   0.105129  -2.126 0.035483 *
## TeamT.B        -0.177119   0.099503  -1.780 0.077560 .
## TeamTOR        -0.162349   0.093491  -1.737 0.084995 .
## TeamUTA         0.016835   0.112411   0.150 0.881199
## TeamVAN        -0.166435   0.097522  -1.707 0.090435 .
## TeamVGK        -0.244746   0.092494  -2.646 0.009217 **
## TeamWPG        -0.289621   0.105029  -2.758 0.006719 **
## TeamWSH        -0.035190   0.102117  -0.345 0.730985
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 0.1322 on 122 degrees of freedom
## Multiple R-squared:  0.871, Adjusted R-squared:  0.8351
## F-statistic: 24.23 on 34 and 122 DF, p-value: < 2.2e-16
```

```
##
## Call:
## lm(formula = xG.Against.60 ~ Shots.Against.60 + HD.Shots.Against.60 +
##     Team, data = goalies_adjusted)
##
## Residuals:
##      Min       1Q   Median       3Q      Max
## -0.27620 -0.06586 -0.00383  0.07578  0.33158
##
## Coefficients:
##              Estimate Std. Error t value Pr(>|t|)
## (Intercept)    0.743812   0.214730   3.464 0.000735 ***
## Shots.Against.60  0.060836   0.008073   7.535 9.46e-12 ***
## HD.Shots.Against.60 0.066755   0.015571   4.287 3.64e-05 ***
## TeamARI        -0.053643   0.101807  -0.527 0.599213
## TeamBOS        -0.168203   0.107308  -1.567 0.119595
## TeamBUF        -0.114268   0.091899  -1.243 0.216105
## TeamCAR        -0.228411   0.108659  -2.102 0.037603 *
## TeamCBJ        -0.090787   0.085338  -1.064 0.289494
## TeamCGY        -0.195139   0.107990  -1.807 0.073227 .
## TeamCHI        -0.216424   0.090306  -2.397 0.018068 *
## TeamCOL        -0.244820   0.094415  -2.593 0.010677 *
## TeamDAL        -0.195107   0.103004  -1.894 0.060570 .
## TeamDET        -0.198478   0.088706  -2.237 0.027070 *
## TeamEDM        -0.256877   0.108435  -2.369 0.019409 *
## TeamFLA        -0.194934   0.095939  -2.032 0.044340 *
## TeamL.A        -0.262915   0.095329  -2.758 0.006711 **
## TeamMIN        -0.417466   0.110463  -3.779 0.000245 ***
## TeamMTL         0.073538   0.095487   0.770 0.442704
## TeamN.J        -0.059702   0.091071  -0.656 0.513343
## TeamNSH        -0.259202   0.098269  -2.638 0.009434 **
## TeamNYI        -0.154079   0.105782  -1.457 0.147805
## TeamNYR        -0.154649   0.106501  -1.452 0.149046
## TeamOTT        -0.190861   0.092801  -2.057 0.041851 *
## TeamPHI        -0.172516   0.095405  -1.808 0.073030 .
## TeamPIT        -0.183200   0.089948  -2.037 0.043842 *
## TeamS.J         0.058205   0.081544   0.714 0.476727
## TeamSEA        -0.143514   0.109920  -1.306 0.194140
## TeamSTL        -0.225995   0.102909  -2.196 0.029977 *
## TeamT.B        -0.181883   0.097201  -1.871 0.063713 .
## TeamTOR        -0.153245   0.091649  -1.672 0.097069 .
## TeamUTA         0.003335   0.109697   0.030 0.975797
## TeamVAN        -0.171148   0.094827  -1.805 0.073567 .
## TeamVGK        -0.226688   0.090910  -2.494 0.013987 *
## TeamWPG        -0.260474   0.103457  -2.518 0.013108 *
## TeamWSH        -0.039011   0.099685  -0.391 0.696230
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 0.1295 on 122 degrees of freedom
## Multiple R-squared:  0.8762, Adjusted R-squared:  0.8417
## F-statistic: 25.39 on 34 and 122 DF, p-value: < 2.2e-16
```

Figure 10



```
##
## Call:
## lm(formula = xG.Against.60 ~ Shots.Against.60 + HD.Shots.Against.60 +
##       Team + Shots.Against.60 * Team, data = goalies_adjusted)
##
## Residuals:
##      Min       1Q   Median       3Q      Max
## -0.256498 -0.062718 -0.003488  0.063483  0.231577
##
## Coefficients:
##              Estimate Std. Error t value Pr(>|t|)
## (Intercept)   -0.035528   0.956183  -0.037  0.970443
## Shots.Against.60  0.081911   0.027318   2.998  0.003508 **
## HD.Shots.Against.60  0.068298   0.018099   3.774  0.000288 ***
## TeamARI       -14.981817  27.668051  -0.541  0.589512
## TeamBOS         4.041776   1.901869   2.125  0.036313 *
## TeamBUF         2.875853   1.495311   1.923  0.057610 .
## TeamCAR        -0.349640   1.380395  -0.253  0.800622
## TeamCBJ         0.869675   1.638259   0.531  0.596828
## TeamCGY         1.447061   3.990553   0.363  0.717738
## TeamCHI         3.810231   1.946833   1.957  0.053430 .
## TeamCOL         1.337394   1.150597   1.162  0.248167
## TeamDAL         0.348504   1.102831   0.316  0.752728
## TeamDET         1.062287   1.120493   0.948  0.345641
```

## TeamEDM	0.525195	1.486856	0.353	0.724746
## TeamFLA	-0.300916	1.239550	-0.243	0.808742
## TeamL.A	1.975343	1.487619	1.328	0.187584
## TeamMIN	-2.920652	2.507606	-1.165	0.247211
## TeamMTL	2.897141	2.145693	1.350	0.180334
## TeamN.J	-1.008785	1.160540	-0.869	0.387029
## TeamNSH	0.516101	1.773617	0.291	0.771730
## TeamNYI	2.073741	1.778311	1.166	0.246643
## TeamNYR	-1.044278	3.135941	-0.333	0.739906
## TeamOTT	-0.883371	2.082188	-0.424	0.672395
## TeamPHI	1.166597	1.282047	0.910	0.365280
## TeamPIT	0.172707	1.524259	0.113	0.910041
## TeamS.J	-0.153564	1.131256	-0.136	0.892325
## TeamSEA	-0.354074	1.928683	-0.184	0.854753
## TeamSTL	1.660964	1.396958	1.189	0.237573
## TeamT.B	-0.261117	2.764351	-0.094	0.924955
## TeamTOR	0.374008	1.233392	0.303	0.762411
## TeamUTA	0.924341	1.715346	0.539	0.591310
## TeamVAN	0.651312	1.281637	0.508	0.612565
## TeamVGK	0.734444	1.014343	0.724	0.470907
## TeamWPG	-1.620994	2.258563	-0.718	0.474795
## TeamWSH	2.807898	1.901134	1.477	0.143177
## Shots.Against.60:TeamARI	0.451591	0.833190	0.542	0.589156
## Shots.Against.60:TeamBOS	-0.140352	0.062738	-2.237	0.027748 *
## Shots.Against.60:TeamBUF	-0.093378	0.045718	-2.042	0.044028 *
## Shots.Against.60:TeamCAR	0.015049	0.048326	0.311	0.756211
## Shots.Against.60:TeamCBJ	-0.026884	0.047466	-0.566	0.572544
## Shots.Against.60:TeamCGY	-0.051835	0.138782	-0.374	0.709653
## Shots.Against.60:TeamCHI	-0.123576	0.059459	-2.078	0.040524 *
## Shots.Against.60:TeamCOL	-0.049887	0.034737	-1.436	0.154431
## Shots.Against.60:TeamDAL	-0.012985	0.032965	-0.394	0.694593
## Shots.Against.60:TeamDET	-0.037573	0.032803	-1.145	0.255082
## Shots.Against.60:TeamEDM	-0.021550	0.047506	-0.454	0.651194
## Shots.Against.60:TeamFLA	0.009148	0.037993	0.241	0.810279
## Shots.Against.60:TeamL.A	-0.075094	0.049494	-1.517	0.132711
## Shots.Against.60:TeamMIN	0.091017	0.083410	1.091	0.278097
## Shots.Against.60:TeamMTL	-0.086477	0.066469	-1.301	0.196578
## Shots.Against.60:TeamN.J	0.038234	0.034825	1.098	0.275188
## Shots.Against.60:TeamNSH	-0.021342	0.056003	-0.381	0.704042
## Shots.Against.60:TeamNYI	-0.070404	0.057048	-1.234	0.220369
## Shots.Against.60:TeamNYR	0.035902	0.106043	0.339	0.735728
## Shots.Against.60:TeamOTT	0.028891	0.068518	0.422	0.674280
## Shots.Against.60:TeamPHI	-0.041366	0.040201	-1.029	0.306247
## Shots.Against.60:TeamPIT	-0.008282	0.045506	-0.182	0.856002
## Shots.Against.60:TeamS.J	0.008634	0.032172	0.268	0.789027
## Shots.Against.60:TeamSEA	0.014249	0.065951	0.216	0.829439
## Shots.Against.60:TeamSTL	-0.056782	0.041745	-1.360	0.177166
## Shots.Against.60:TeamT.B	0.006755	0.089320	0.076	0.939881
## Shots.Against.60:TeamTOR	-0.012686	0.037871	-0.335	0.738410
## Shots.Against.60:TeamUTA	-0.026456	0.056867	-0.465	0.642893
## Shots.Against.60:TeamVAN	-0.023045	0.040219	-0.573	0.568078
## Shots.Against.60:TeamVGK	-0.027678	0.028784	-0.962	0.338845
## Shots.Against.60:TeamWPG	0.055121	0.077800	0.708	0.480471
## Shots.Against.60:TeamWSH	-0.092409	0.062204	-1.486	0.140881

```
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 0.1259 on 90 degrees of freedom
## Multiple R-squared:  0.9137, Adjusted R-squared:  0.8504
## F-statistic: 14.44 on 66 and 90 DF,  p-value: < 2.2e-16
```

Figure 11

```
## Analysis of Variance Table
##
## Model 1: xG.Against.60 ~ Shots.Against.60 + HD.Shots.Against.60 + Team
## Model 2: xG.Against.60 ~ Shots.Against.60 + HD.Shots.Against.60 + Team +
##       Shots.Against.60 * Team
##   Res.Df    RSS Df Sum of Sq    F Pr(>F)
## 1     122 2.0461
## 2      90 1.4257 32   0.62037 1.2238 0.2273
```

Figure 12

##	GP	TOI	TOI.GP
## GP	1.0000000000	0.999283018	0.31749574
## TOI	0.9992830179	1.000000000	0.33791663
## TOI.GP	0.3174957437	0.337916627	1.00000000
## Shots.Against.60	0.0111849234	0.004593210	-0.23881060
## Saves.60	0.0572391253	0.051904859	-0.20642960
## SV.	0.2792510848	0.286510035	0.16931827
## GAA	-0.2227451010	-0.232281472	-0.28022920
## GSAA.60	0.2775071472	0.284802325	0.18530123
## xG.Against.60	-0.0386298633	-0.044032360	-0.27232388
## HD.Shots.Against.60	-0.0183037276	-0.022410335	-0.17578310
## HD.Saves.60	-0.0003845613	-0.002512573	-0.14186386
## HDSV.	0.0958339036	0.102069729	0.06618202
## HDGAA	-0.0702661207	-0.078888035	-0.19397615
## HDGSAA.60	0.0644807750	0.070936806	0.07484247
## MD.Shots.Against.60	-0.0530661054	-0.058538369	-0.18872178
## MD.Saves.60	0.0060480715	0.001450841	-0.16412319
## MDSV.	0.2121202351	0.215893793	0.10934400
## MDGAA	-0.1993943080	-0.204145595	-0.14875409
## MDGSAA.60	0.2098835821	0.212904247	0.08839081
## LD.Shots.Against.60	0.0582062516	0.052422308	-0.21316788
## LD.Saves.60	0.0863168110	0.080949548	-0.18961518
## LDSV.	0.2180172648	0.220592900	0.15973433
## LDGAA	-0.1884563048	-0.192600417	-0.20960850
## LDGSAA.60	0.2119218089	0.214350778	0.14944095
## Rush.Attempts.Against.60	-0.0197742352	-0.016421981	0.07143186
## Rebound.Attempts.Against.60	-0.0379369447	-0.039159706	-0.10502423
## Avg..Shot.Distance	0.0122772236	0.016348384	0.14756154
## Avg..Goal.Distance	-0.1764019161	-0.174345184	-0.06741168
##	Shots.Against.60	Saves.60	SV.
## GP	0.01118492	0.05723913	0.27925108
## TOI	0.00459321	0.05190486	0.28651004
## TOI.GP	-0.23881060	-0.20642960	0.16931827
## Shots.Against.60	1.00000000	0.98614994	-0.02862462
## Saves.60	0.98614994	1.00000000	0.13634416
## SV.	-0.02862462	0.13634416	1.00000000
## GAA	0.57040997	0.42629076	-0.83119719
## GSAA.60	-0.04327776	0.12301267	0.99227266
## xG.Against.60	0.87569492	0.85190330	-0.09383336
## HD.Shots.Against.60	0.77905543	0.76435988	-0.05839313
## HD.Saves.60	0.74734319	0.75971506	0.10112099
## HDSV.	0.14711606	0.25071268	0.63022761
## HDGAA	0.44489961	0.34486340	-0.57724782
## HDGSAA.60	0.14519940	0.24791945	0.61506143
## MD.Shots.Against.60	0.78169733	0.74977950	-0.12901658
## MD.Saves.60	0.76856486	0.76154186	0.01993045
## MDSV.	-0.04593618	0.03999941	0.51940356
## MDGAA	0.36120250	0.27328027	-0.50077556
## MDGSAA.60	-0.05707004	0.03092181	0.52560476
## LD.Shots.Against.60	0.76106585	0.76768993	0.07828705
## LD.Saves.60	0.74526311	0.76467961	0.15430686
## LDSV.	-0.02760922	0.06852657	0.58488991

## LDGAA	0.25746575	0.16654952	-0.53330782
## LDGSAA.60	-0.03237240	0.06302399	0.57151906
## Rush.Attempts.Against.60	0.11726955	0.12406946	0.03096695
## Rebound.Attempts.Against.60	0.53371211	0.51931082	-0.04271268
## Avg..Shot.Distance	-0.38267066	-0.35490032	0.14657193
## Avg..Goal.Distance	-0.01820395	-0.03495511	-0.10985027
##	GAA	GSAA.60	xG.Against.60
## GP	-0.22274510	0.27750715	-0.03862986
## TOI	-0.23228147	0.28480232	-0.04403236
## TOI.GP	-0.28022920	0.18530123	-0.27232388
## Shots.Against.60	0.57040997	-0.04327776	0.87569492
## Saves.60	0.42629076	0.12301267	0.85190330
## SV.	-0.83119719	0.99227266	-0.09383336
## GAA	1.00000000	-0.84524010	0.55685979
## GSAA.60	-0.84524010	1.00000000	-0.10781548
## xG.Against.60	0.55685979	-0.10781548	1.00000000
## HD.Shots.Against.60	0.46380779	-0.05672628	0.79112522
## HD.Saves.60	0.31364254	0.10507383	0.75493826
## HDSV.	-0.43997626	0.63003255	0.15350505
## HDGAA	0.71942309	-0.58461410	0.46533970
## HDGSAA.60	-0.43664003	0.62488749	0.13112721
## MD.Shots.Against.60	0.55069005	-0.16136482	0.63923151
## MD.Saves.60	0.42076976	-0.01196339	0.61831481
## MDSV.	-0.44885080	0.51568494	-0.06296963
## MDGAA	0.61698269	-0.51522691	0.32637934
## MDGSAA.60	-0.46457353	0.52765006	-0.08310703
## LD.Shots.Against.60	0.34844172	0.07055592	0.60044450
## LD.Saves.60	0.27738657	0.14698335	0.58350812
## LDSV.	-0.48812715	0.57770383	-0.06630340
## LDGAA	0.57769002	-0.53734321	0.23488912
## LDGSAA.60	-0.48705905	0.57338998	-0.05703666
## Rush.Attempts.Against.60	0.02569097	0.04420330	0.10754964
## Rebound.Attempts.Against.60	0.33860811	-0.06495136	0.72187147
## Avg..Shot.Distance	-0.32889864	0.15101206	-0.45196892
## Avg..Goal.Distance	0.07211341	-0.10089234	-0.04330433
##	HD.Shots.Against.60	HD.Saves.60	HDSV.
## GP	-0.01830373	-0.0003845613	0.095833904
## TOI	-0.02241033	-0.0025125734	0.102069729
## TOI.GP	-0.17578310	-0.1418638559	0.066182015
## Shots.Against.60	0.77905543	0.7473431935	0.147116060
## Saves.60	0.76435988	0.7597150629	0.250712678
## SV.	-0.05839313	0.1011209936	0.630227613
## GAA	0.46380779	0.3136425396	-0.439976256
## GSAA.60	-0.05672628	0.1050738311	0.630032547
## xG.Against.60	0.79112522	0.7549382645	0.153505053
## HD.Shots.Against.60	1.00000000	0.9697576016	0.239311849
## HD.Saves.60	0.96975760	1.0000000000	0.464360864
## HDSV.	0.23931185	0.4643608643	1.000000000
## HDGAA	0.53396118	0.3114849596	-0.676925222
## HDGSAA.60	0.22725610	0.4580360495	0.980831852
## MD.Shots.Against.60	0.49535608	0.4744238168	0.099589855
## MD.Saves.60	0.51337690	0.4857450833	0.086980627
## MDSV.	0.05431679	0.0324684240	-0.035594270
## MDGAA	0.15145019	0.1628073671	0.078790103

## MDGSAA.60	0.05496131	0.0318492779	-0.045834798
## LD.Shots.Against.60	0.29579619	0.2762640815	0.002887762
## LD.Saves.60	0.28604394	0.2724176946	0.025365168
## LDSV.	-0.05266878	-0.0107006137	0.165704747
## LDGAA	0.12619178	0.0799848104	-0.161468544
## LDGSAA.60	-0.03884020	0.0027946929	0.167467151
## Rush.Attempts.Against.60	0.02654621	0.0690106249	0.169908551
## Rebound.Attempts.Against.60	0.36229936	0.3309837414	0.007741337
## Avg..Shot.Distance	-0.62573599	-0.6151410600	-0.188340020
## Avg..Goal.Distance	-0.23678212	-0.1498402530	0.226161665
##	HDGAA	HDGSAA.60	MD.Shots.Against.60
## GP	-0.07026612	0.064480775	-0.05306611
## TOI	-0.07888803	0.070936806	-0.05853837
## TOI.GP	-0.19397615	0.074842471	-0.18872178
## Shots.Against.60	0.44489961	0.145199405	0.78169733
## Saves.60	0.34486340	0.247919453	0.74977950
## SV.	-0.57724782	0.615061432	-0.12901658
## GAA	0.71942309	-0.436640028	0.55069005
## GSAA.60	-0.58461410	0.624887487	-0.16136482
## xG.Against.60	0.46533970	0.131127210	0.63923151
## HD.Shots.Against.60	0.53396118	0.227256103	0.49535608
## HD.Saves.60	0.31148496	0.458036049	0.47442382
## HDSV.	-0.67692522	0.980831852	0.09958985
## HDGAA	1.00000000	-0.701960697	0.28673020
## HDGSAA.60	-0.70196070	1.000000000	0.08952889
## MD.Shots.Against.60	0.28673020	0.089528889	1.00000000
## MD.Saves.60	0.31811927	0.068573048	0.95954781
## MDSV.	0.10047757	-0.069974507	-0.12041186
## MDGAA	0.02501474	0.099765953	0.53362536
## MDGSAA.60	0.10517541	-0.074830141	-0.15562717
## LD.Shots.Against.60	0.19502288	0.025853440	0.44919344
## LD.Saves.60	0.17021343	0.045958222	0.43102046
## LDSV.	-0.16905855	0.148687690	-0.07027539
## LDGAA	0.21545318	-0.139768191	0.21528533
## LDGSAA.60	-0.16208966	0.152202717	-0.08296744
## Rush.Attempts.Against.60	-0.13603769	0.177886416	0.10442575
## Rebound.Attempts.Against.60	0.26528455	0.001280937	0.32243194
## Avg..Shot.Distance	-0.30648319	-0.174715079	-0.41108757
## Avg..Goal.Distance	-0.40207402	0.265496895	0.12416989
##	MD.Saves.60	MDSV.	MDGAA MDGSAA.60
## GP	0.006048072	0.21212024	-0.19939431 0.20988358
## TOI	0.001450841	0.21589379	-0.20414560 0.21290425
## TOI.GP	-0.164123187	0.10934400	-0.14875409 0.08839081
## Shots.Against.60	0.768564863	-0.04593618	0.36120250 -0.05707004
## Saves.60	0.761541857	0.03999941	0.27328027 0.03092181
## SV.	0.019930450	0.51940356	-0.50077556 0.52560476
## GAA	0.420769759	-0.44885080	0.61698269 -0.46457353
## GSAA.60	-0.011963394	0.51568494	-0.51522691 0.52765006
## xG.Against.60	0.618314808	-0.06296963	0.32637934 -0.08310703
## HD.Shots.Against.60	0.513376905	0.05431679	0.15145019 0.05496131
## HD.Saves.60	0.485745083	0.03246842	0.16280737 0.03184928
## HDSV.	0.086980627	-0.03559427	0.07879010 -0.04583480
## HDGAA	0.318119270	0.10047757	0.02501474 0.10517541
## HDGSAA.60	0.068573048	-0.06997451	0.09976595 -0.07483014

## MD.Shots.Against.60	0.959547807	-0.12041186	0.53362536	-0.15562717
## MD.Saves.60	1.000000000	0.16095959	0.27397422	0.12873532
## MDSV.	0.160959586	1.00000000	-0.89483176	0.98900037
## MDGAA	0.273974216	-0.89483176	1.00000000	-0.91835747
## MDGSAA.60	0.128735317	0.98900037	-0.91835747	1.00000000
## LD.Shots.Against.60	0.428248673	-0.07681621	0.24588570	-0.07851296
## LD.Saves.60	0.412225907	-0.07103911	0.23225143	-0.07049875
## LDSV.	-0.055598790	0.03692384	-0.07091217	0.05376353
## LDGAA	0.195644906	-0.05677600	0.14504824	-0.07324075
## LDGSAA.60	-0.070435277	0.03057742	-0.06973578	0.04687230
## Rush.Attempts.Against.60	0.078530821	-0.08690924	0.12148621	-0.09198936
## Rebound.Attempts.Against.60	0.303491444	-0.05938043	0.18921801	-0.07220569
## Avg..Shot.Distance	-0.398734783	0.03734659	-0.20694475	0.04917564
## Avg..Goal.Distance	0.041382632	-0.26483472	0.29807974	-0.29245399
##	LD.Shots.Against.60	LD.Saves.60	LDSV.	
## GP	0.0582062516	0.08631681	0.21801726	
## TOI	0.0524223085	0.08094955	0.22059290	
## TOI.GP	-0.2131678847	-0.18961518	0.15973433	
## Shots.Against.60	0.7610658527	0.74526311	-0.02760922	
## Saves.60	0.7676899322	0.76467961	0.06852657	
## SV.	0.0782870514	0.15430686	0.58488991	
## GAA	0.3484417153	0.27738657	-0.48812715	
## GSAA.60	0.0705559224	0.14698335	0.57770383	
## xG.Against.60	0.6004445006	0.58350812	-0.06630340	
## HD.Shots.Against.60	0.2957961876	0.28604394	-0.05266878	
## HD.Saves.60	0.2762640815	0.27241769	-0.01070061	
## HDSV.	0.0028877621	0.02536517	0.16570475	
## HDGAA	0.1950228755	0.17021343	-0.16905855	
## HDGSAA.60	0.0258534401	0.04595822	0.14868769	
## MD.Shots.Against.60	0.4491934398	0.43102046	-0.07027539	
## MD.Saves.60	0.4282486725	0.41222591	-0.05559879	
## MDSV.	-0.0768162140	-0.07103911	0.03692384	
## MDGAA	0.2458856978	0.23225143	-0.07091217	
## MDGSAA.60	-0.0785129586	-0.07049875	0.05376353	
## LD.Shots.Against.60	1.0000000000	0.99093942	0.04893959	
## LD.Saves.60	0.9909394233	1.00000000	0.18134267	
## LDSV.	0.0489395936	0.18134267	1.00000000	
## LDGAA	0.2541557075	0.12199203	-0.94455198	
## LDGSAA.60	0.0423148666	0.17607831	0.99047106	
## Rush.Attempts.Against.60	0.1421181556	0.12942891	-0.07591085	
## Rebound.Attempts.Against.60	0.5114177608	0.49862430	-0.02543521	
## Avg..Shot.Distance	-0.0008205626	0.00803031	0.09430200	
## Avg..Goal.Distance	0.1189138761	0.06017630	-0.42744188	
##	LDGAA	LDGSAA.60	Rush.Attempts.Against.60	
## GP	-0.18845630	0.211921809	-0.01977424	
## TOI	-0.19260042	0.214350778	-0.01642198	
## TOI.GP	-0.20960850	0.149440949	0.07143186	
## Shots.Against.60	0.25746575	-0.032372395	0.11726955	
## Saves.60	0.16654952	0.063023995	0.12406946	
## SV.	-0.53330782	0.571519064	0.03096695	
## GAA	0.57769002	-0.487059052	0.02569097	
## GSAA.60	-0.53734321	0.573389975	0.04420330	
## xG.Against.60	0.23488912	-0.057036664	0.10754964	
## HD.Shots.Against.60	0.12619178	-0.038840203	0.02654621	

## HD.Saves.60	0.07998481	0.002794693	0.06901062
## HDSV.	-0.16146854	0.167467151	0.16990855
## HDGAA	0.21545318	-0.162089663	-0.13603769
## HDGSAA.60	-0.13976819	0.152202717	0.17788642
## MD.Shots.Against.60	0.21528533	-0.082967440	0.10442575
## MD.Saves.60	0.19564491	-0.070435277	0.07853082
## MDSV.	-0.05677600	0.030577424	-0.08690924
## MDGAA	0.14504824	-0.069735783	0.12148621
## MDGSAA.60	-0.07324075	0.046872304	-0.09198936
## LD.Shots.Against.60	0.25415571	0.042314867	0.14211816
## LD.Saves.60	0.12199203	0.176078313	0.12942891
## LDSV.	-0.94455198	0.990471062	-0.07591085
## LDGAA	1.00000000	-0.955332523	0.11917590
## LDGSAA.60	-0.95533252	1.000000000	-0.07967051
## Rush.Attempts.Against.60	0.11917590	-0.079670505	1.00000000
## Rebound.Attempts.Against.60	0.18646641	-0.036471419	0.12841491
## Avg..Shot.Distance	-0.06362913	0.065635450	0.11421896
## Avg..Goal.Distance	0.44452056	-0.421311672	0.12739378
##	Rebound.Attempts.Against.60	Avg..Shot.Distance	
## GP	-0.037936945	0.0122772236	
## TOI	-0.039159706	0.0163483842	
## TOI.GP	-0.105024228	0.1475615383	
## Shots.Against.60	0.533712115	-0.3826706635	
## Saves.60	0.519310819	-0.3549003186	
## SV.	-0.042712676	0.1465719252	
## GAA	0.338608106	-0.3288986428	
## GSAA.60	-0.064951360	0.1510120557	
## xG.Against.60	0.721871471	-0.4519689211	
## HD.Shots.Against.60	0.362299364	-0.6257359881	
## HD.Saves.60	0.330983741	-0.6151410600	
## HDSV.	0.007741337	-0.1883400200	
## HDGAA	0.265284550	-0.3064831869	
## HDGSAA.60	0.001280937	-0.1747150787	
## MD.Shots.Against.60	0.322431937	-0.4110875655	
## MD.Saves.60	0.303491444	-0.3987347828	
## MDSV.	-0.059380434	0.0373465916	
## MDGAA	0.189218007	-0.2069447488	
## MDGSAA.60	-0.072205686	0.0491756416	
## LD.Shots.Against.60	0.511417761	-0.0008205626	
## LD.Saves.60	0.498624298	0.0080303100	
## LDSV.	-0.025435206	0.0943020048	
## LDGAA	0.186466414	-0.0636291297	
## LDGSAA.60	-0.036471419	0.0656354501	
## Rush.Attempts.Against.60	0.128414913	0.1142189650	
## Rebound.Attempts.Against.60	1.000000000	-0.1098652899	
## Avg..Shot.Distance	-0.109865290	1.0000000000	
## Avg..Goal.Distance	0.036321633	0.1470171793	
##	Avg..Goal.Distance		
## GP	-0.17640192		
## TOI	-0.17434518		
## TOI.GP	-0.06741168		
## Shots.Against.60	-0.01820395		
## Saves.60	-0.03495511		
## SV.	-0.10985027		

## GAA	0.07211341
## GSAA.60	-0.10089234
## xG.Against.60	-0.04330433
## HD.Shots.Against.60	-0.23678212
## HD.Saves.60	-0.14984025
## HDSV.	0.22616167
## HDGAA	-0.40207402
## HDGSAA.60	0.26549689
## MD.Shots.Against.60	0.12416989
## MD.Saves.60	0.04138263
## MDSV.	-0.26483472
## MDGAA	0.29807974
## MDGSAA.60	-0.29245399
## LD.Shots.Against.60	0.11891388
## LD.Saves.60	0.06017630
## LDSV.	-0.42744188
## LDGAA	0.44452056
## LDGSAA.60	-0.42131167
## Rush.Attempts.Against.60	0.12739378
## Rebound.Attempts.Against.60	0.03632163
## Avg..Shot.Distance	0.14701718
## Avg..Goal.Distance	1.00000000

Figure 13

```

##
##
##                                     Stepwise Summary
## -----
## Step      Variable                AIC          SBC          SBIC          R2          Adj. R2
## -----
## 0          Full Model              -268.219     -216.263     -710.160     0.91884     0.91021
## 1          Rush.Attempts.Against.60 -270.196     -221.296     -712.596     0.91883     0.91083
## 2          HDGAA                   -272.138     -226.295     -714.963     0.91880     0.91142
## 3          Avg..Shot.Distance       -274.078     -231.291     -717.294     0.91877     0.91200
## 4          TOI                     -275.963     -236.232     -719.537     0.91871     0.91254
## 5          Avg..Goal.Distance       -277.497     -240.822     -721.397     0.91847     0.91289
## 6          Shots.Against.60        -278.628     -245.010     -722.824     0.91802     0.91300
## -----
##
## Final Model Output
## -----
##
##                                     Model Summary
## -----
## R                0.958          RMSE                0.093
## R-Squared        0.918          MSE                0.009
## Adj. R-Squared   0.913          Coef. Var        3.277
## Pred R-Squared   0.899          AIC              -278.628
## MAE              0.073          SBC              -245.010
## -----
## RMSE: Root Mean Square Error
## MSE: Mean Square Error
## MAE: Mean Absolute Error
## AIC: Akaike Information Criteria
## SBC: Schwarz Bayesian Criteria
##
##                                     ANOVA
## -----
##                Sum of
##                Squares      DF      Mean Square      F      Sig.
## -----
## Regression      15.169        9        1.685      182.896    0.0000
## Residual        1.355       147        0.009
## Total          16.524       156
## -----
##
##                                     Parameter Estimates
## -----
##                model      Beta      Std. Error      Std. Beta      t      Sig      lower      upper
## -----
##                (Intercept) -2.649      0.935      -2.834      0.005      -4.497      -0.8
##                TOI.GP      -0.006      0.002      -0.065      0.010      -0.011      -0.0
##                GAA          0.497      0.139      0.811      0.000      0.221      0.7
##                HD.Shots.Against.60 0.033      0.027      0.133      0.217      -0.020      0.0
##                HDSV.        4.050      1.115      0.451      0.000      1.846      6.2
##                MD.Shots.Against.60 0.044      0.011      0.134      0.000      0.022      0.0

```

##	MDGAA	-0.431	0.138	-0.385	-3.129	0.002	-0.703	-0.1
##	LD.Shots.Against.60	0.040	0.007	0.174	5.704	0.000	0.026	0.
##	LDGAA	-0.471	0.142	-0.279	-3.319	0.001	-0.751	-0.
##	Rebound.Attempts.Against.60	0.139	0.011	0.382	13.226	0.000	0.119	0.
##	-----							

Figure 14

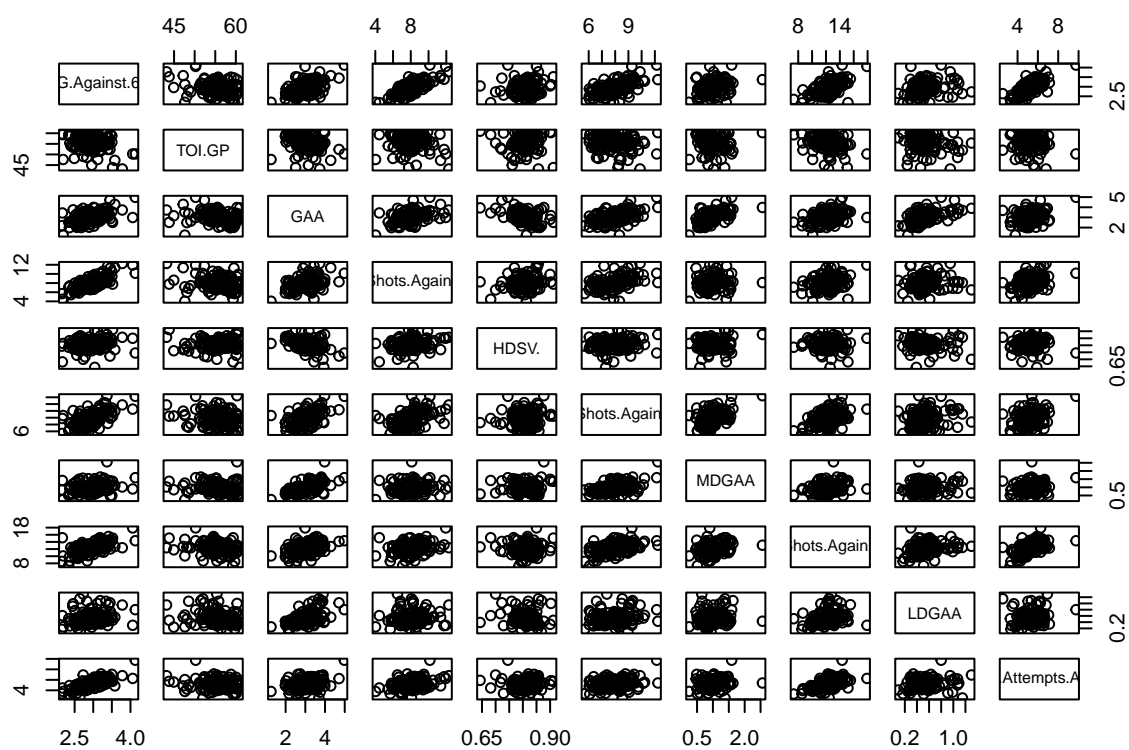


Figure 15

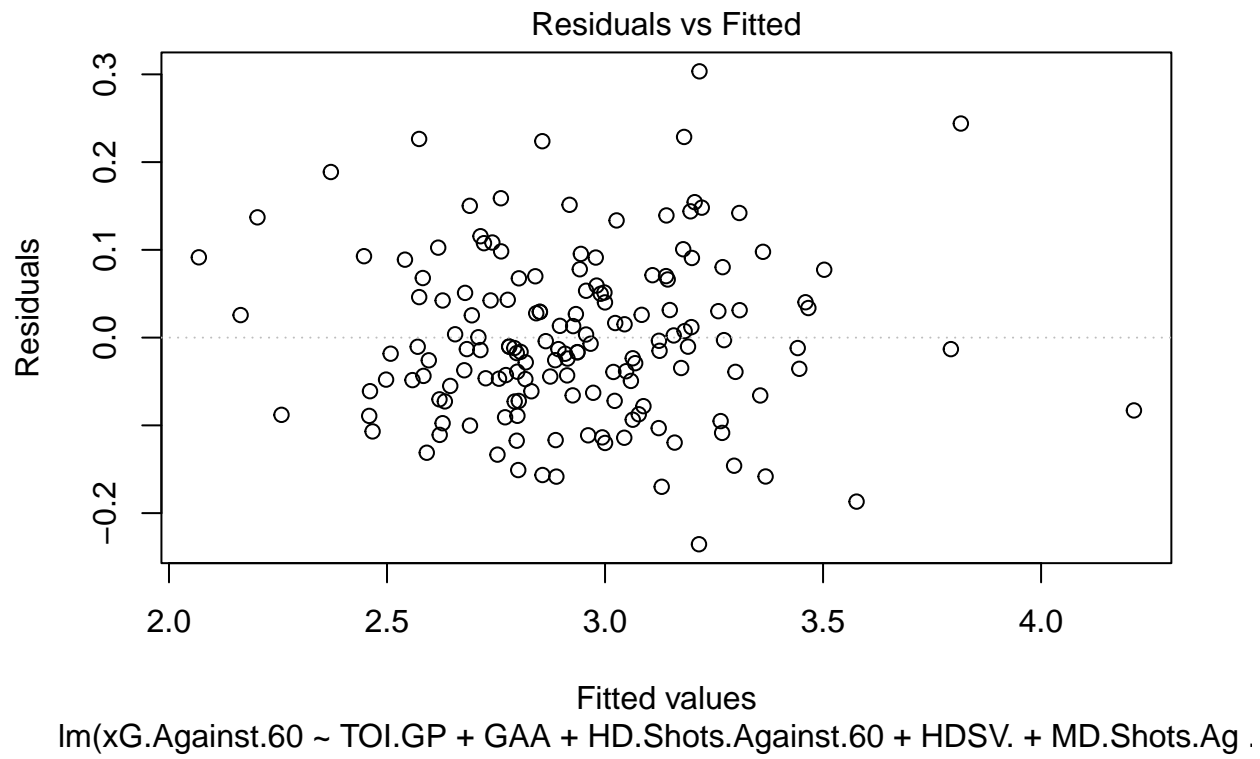
```
##
## Call:
## lm(formula = xG.Against.60 ~ TOI.GP + GAA + HD.Shots.Against.60 +
##      HDSV. + MD.Shots.Against.60 + MDGAA + LD.Shots.Against.60 +
##      LDGAA + Rebound.Attempts.Against.60, data = goalies_adjusted)
##
## Residuals:
```

	Min	1Q	Median	3Q	Max
	-0.23547	-0.06288	-0.01189	0.05340	0.30343

```
##
## Coefficients:
```

	Estimate	Std. Error	t value	Pr(> t)
(Intercept)	-2.649332	0.934988	-2.834	0.005251 **
TOI.GP	-0.006445	0.002479	-2.600	0.010281 *
GAA	0.496716	0.139278	3.566	0.000489 ***
HD.Shots.Against.60	0.033356	0.026930	1.239	0.217468
HDSV.	4.050052	1.115142	3.632	0.000388 ***
MD.Shots.Against.60	0.044001	0.011261	3.907	0.000142 ***
MDGAA	-0.430724	0.137636	-3.129	0.002113 **
LD.Shots.Against.60	0.039654	0.006952	5.704	6.23e-08 ***
LDGAA	-0.470641	0.141793	-3.319	0.001138 **
Rebound.Attempts.Against.60	0.139447	0.010543	13.226	< 2e-16 ***

```
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 0.096 on 147 degrees of freedom
## Multiple R-squared:  0.918, Adjusted R-squared:  0.913
## F-statistic: 182.9 on 9 and 147 DF, p-value: < 2.2e-16
```



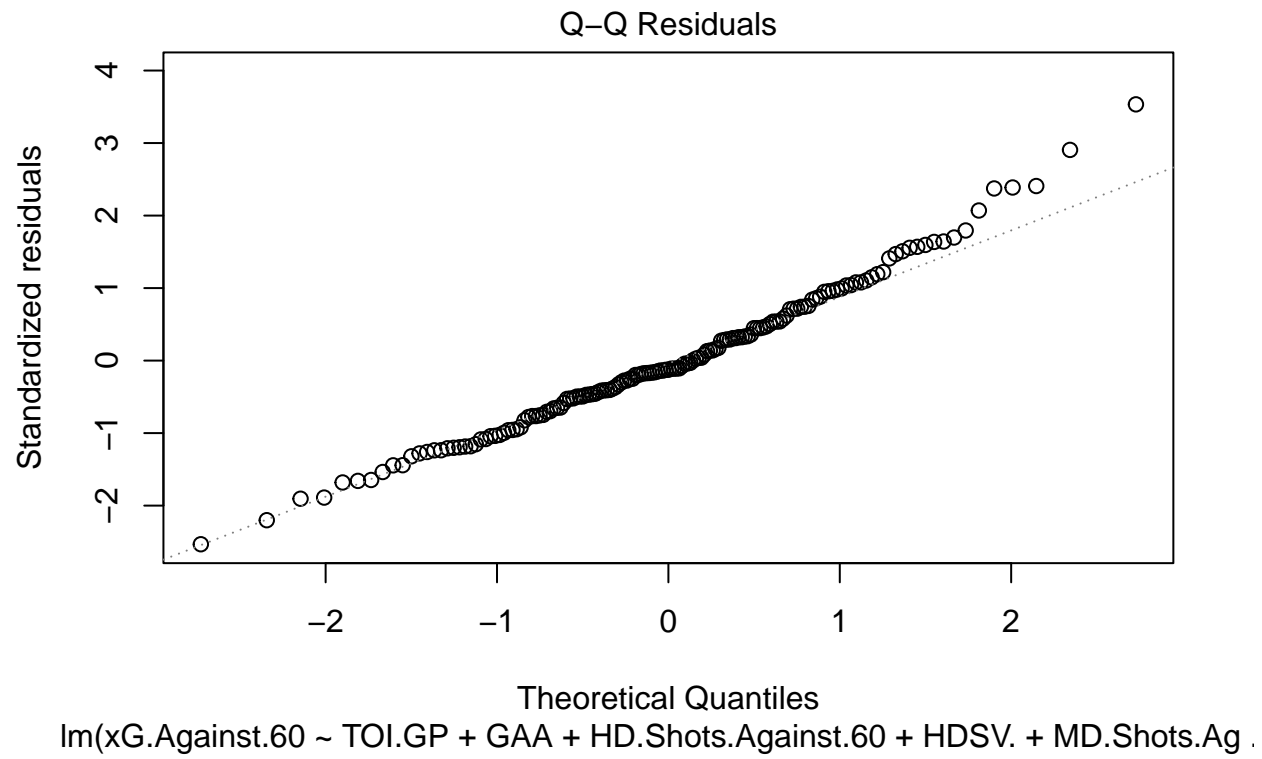


Figure 16

##	TOI.GP	GAA
##	1.121043	92.699073
##	HD.Shots.Against.60	HDSV.
##	20.706257	27.666614
##	MD.Shots.Against.60	MDGAA
##	2.117730	27.185690
##	LD.Shots.Against.60	LDGAA
##	1.661409	12.709602
##	Rebound.Attempts.Against.60	
##	1.493294	