

Stats 401: Analysis

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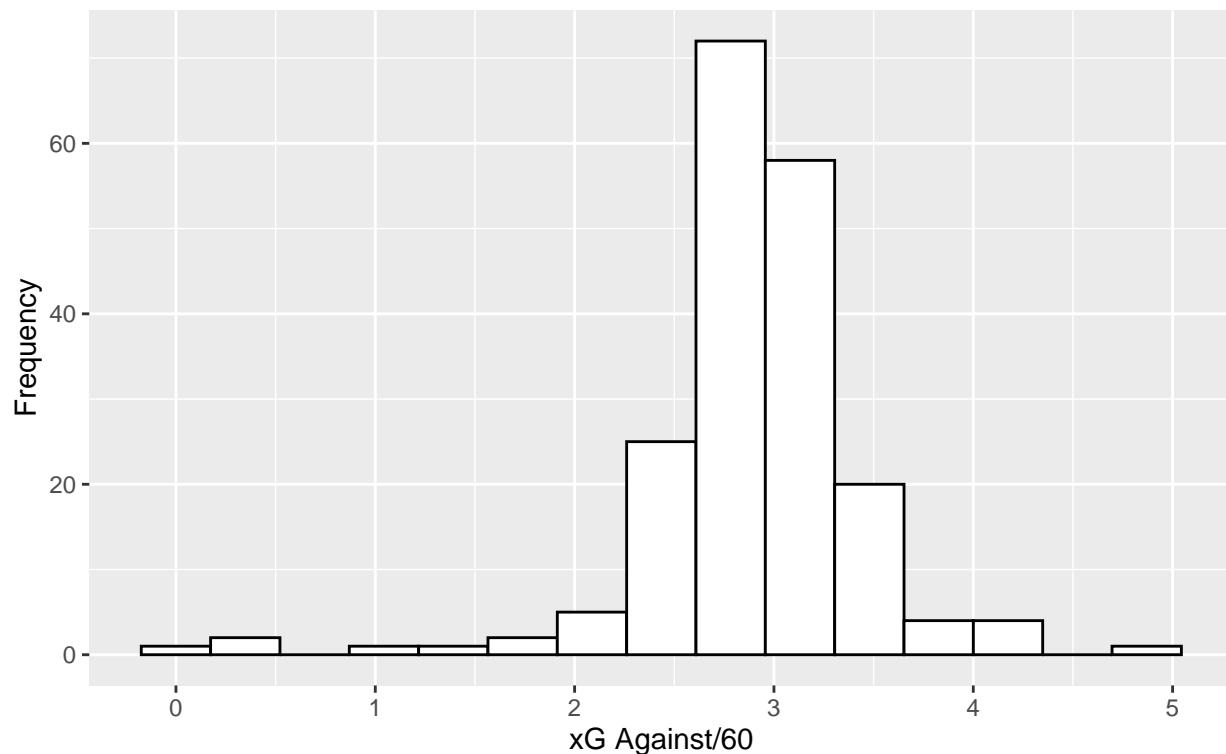
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Figure 1

Histogram of Expected Goals Against per 60 Minutes

Data from 2022–23 to 2024–25 seasons



```
##      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

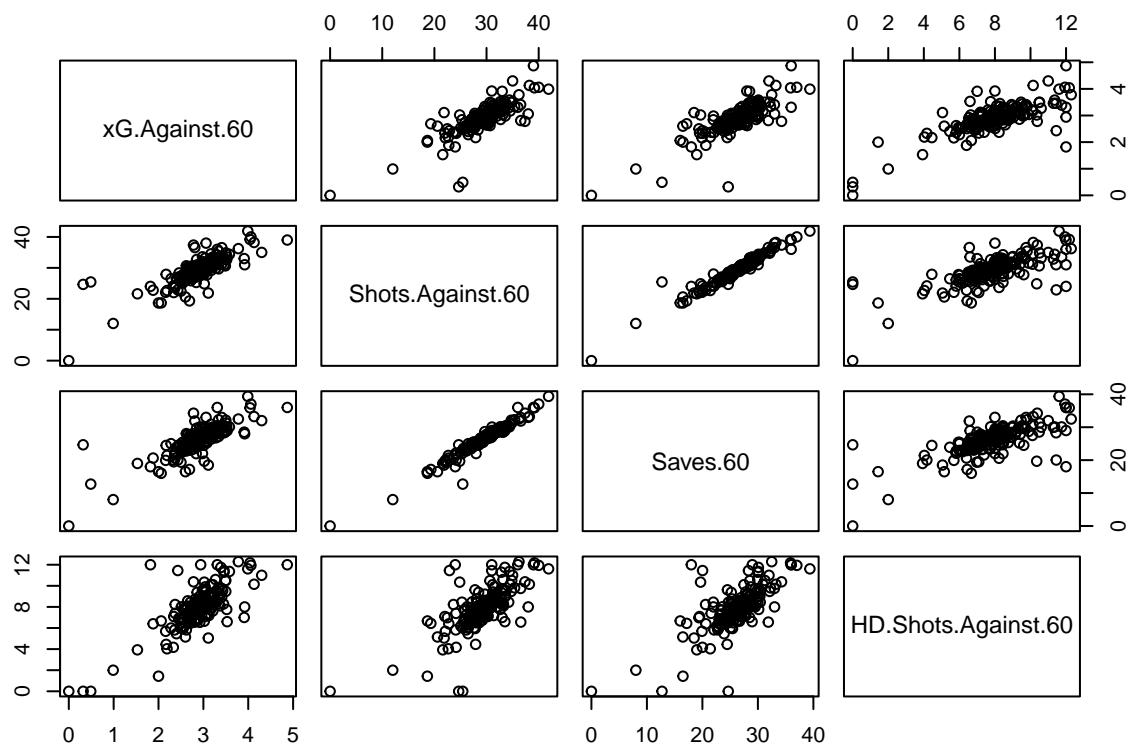


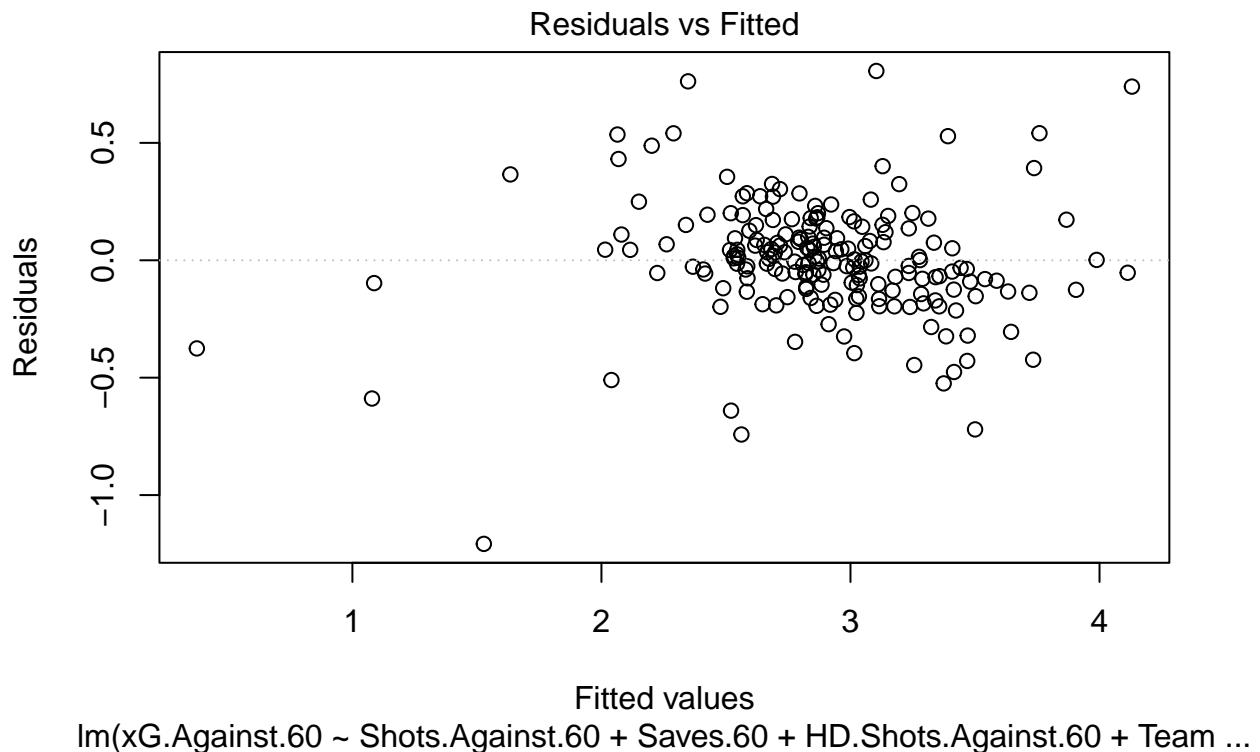
Figure 3

```

## 
## 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
```



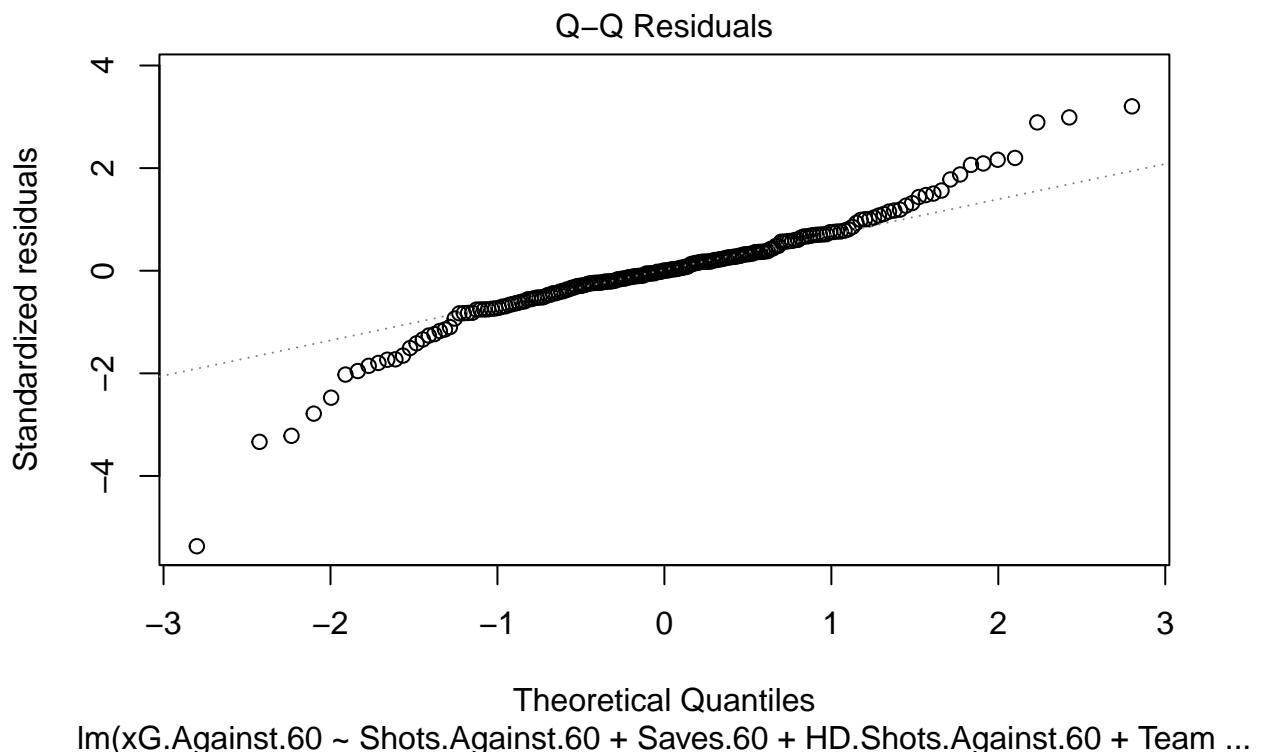


Figure 4

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

Figure 5

```

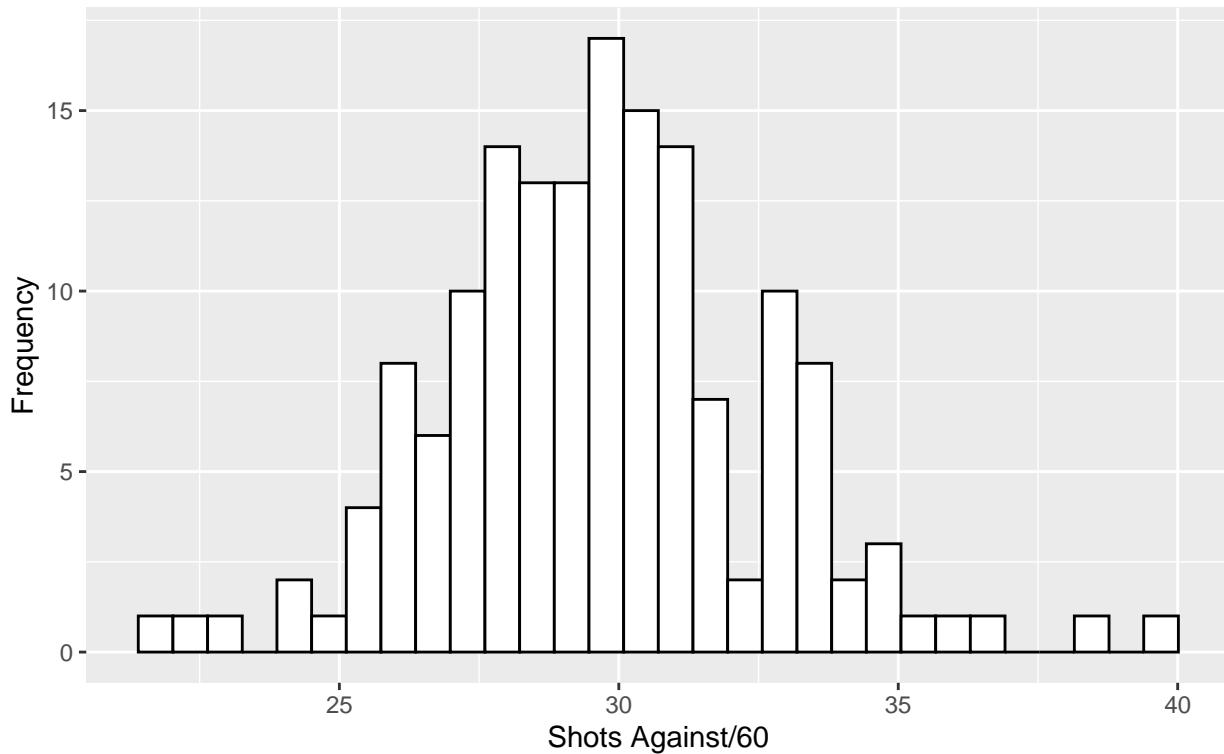
##      X          Player Team GP      TOI    TOI.GP Shots.Against.60 Saves.60
## 5  159     Akira Schmid  VGK  5 238.1000 47.62000           22.68   21.42
## 10 44 Laurent Brossoit  VGK 11 636.0333 57.82121           29.90   27.73
## 11 45 Laurent Brossoit  WPG 23 1351.3167 58.75290           27.53   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

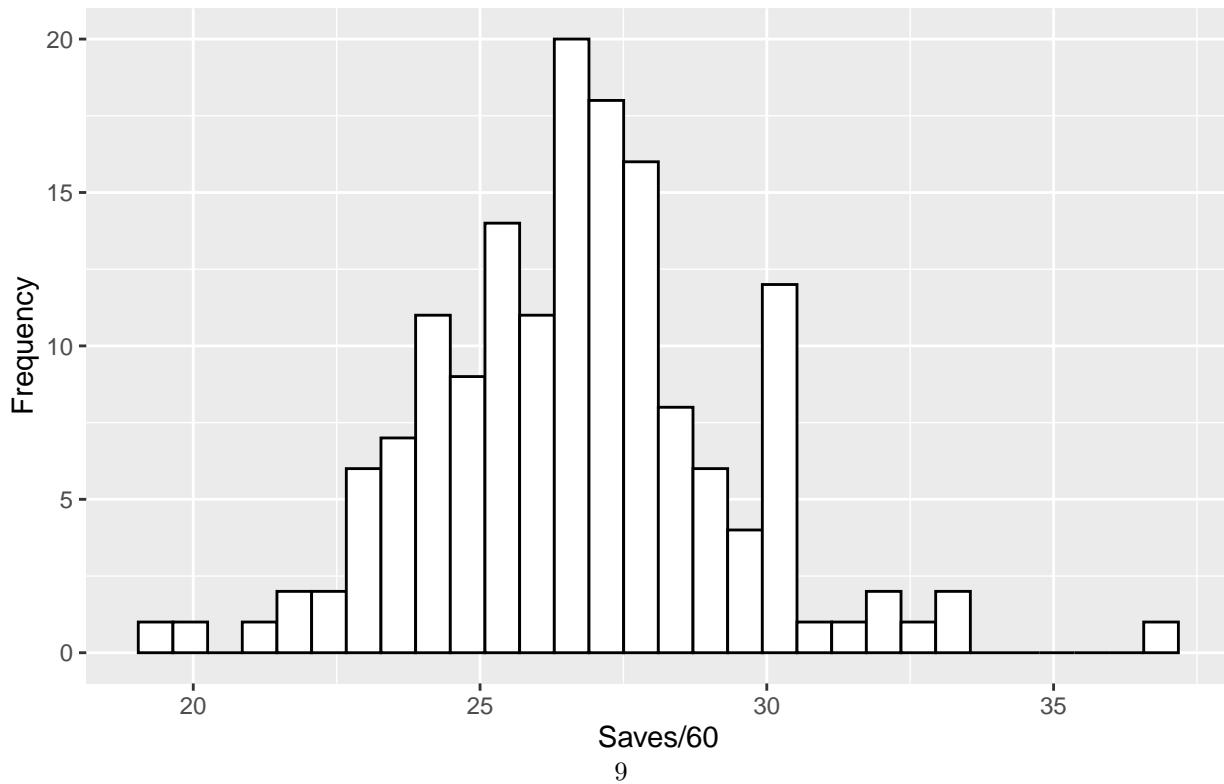
Histogram of Shots Against per 60 Minutes

Data from 2022–23 to 2024–25 seasons



Histogram of Saves per 60 Minutes

Data from 2022–23 to 2024–25 seasons



Histogram of High Danger Shots Against per 60 Minutes

Data from 2022–23 to 2024–25 seasons

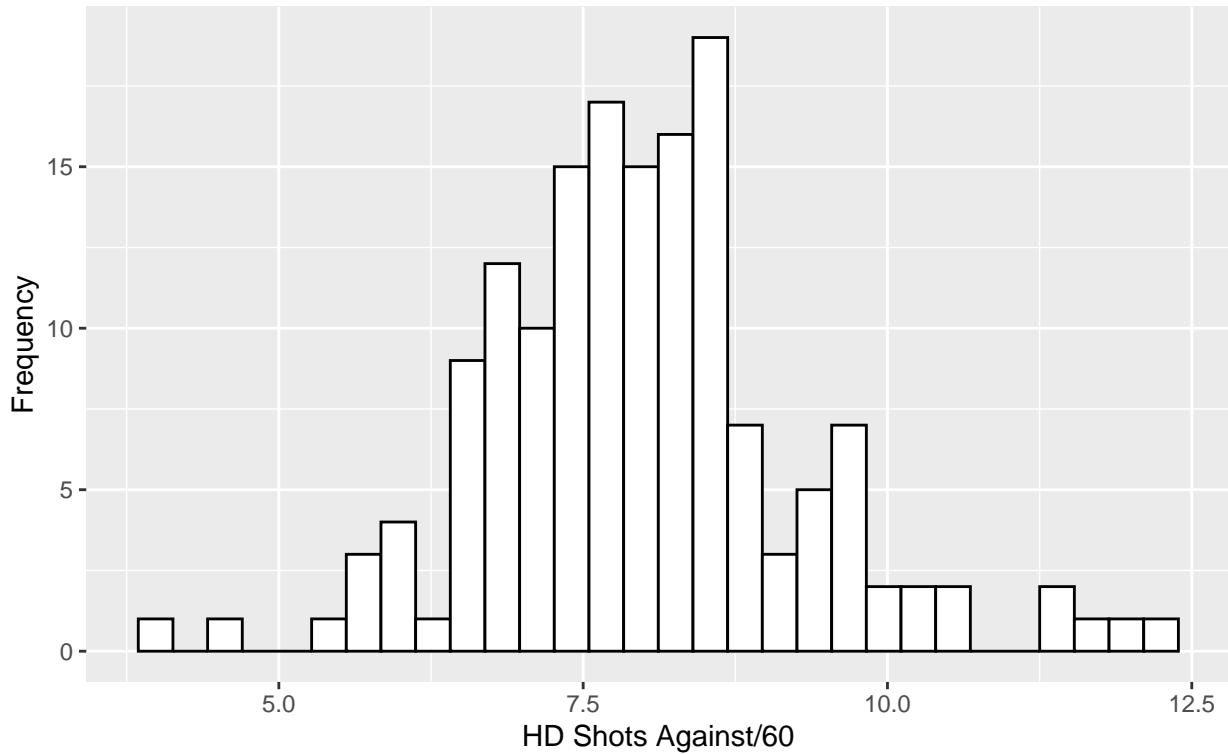


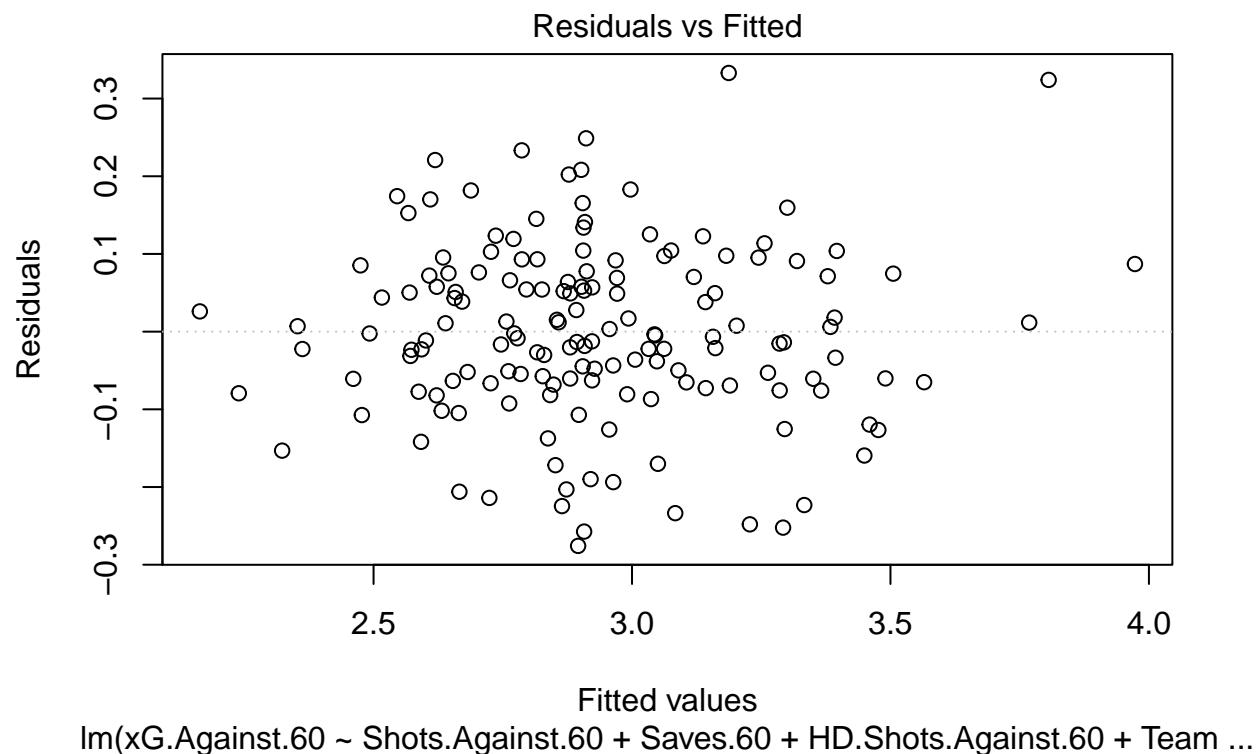
Figure 7

```

## 
## 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
```



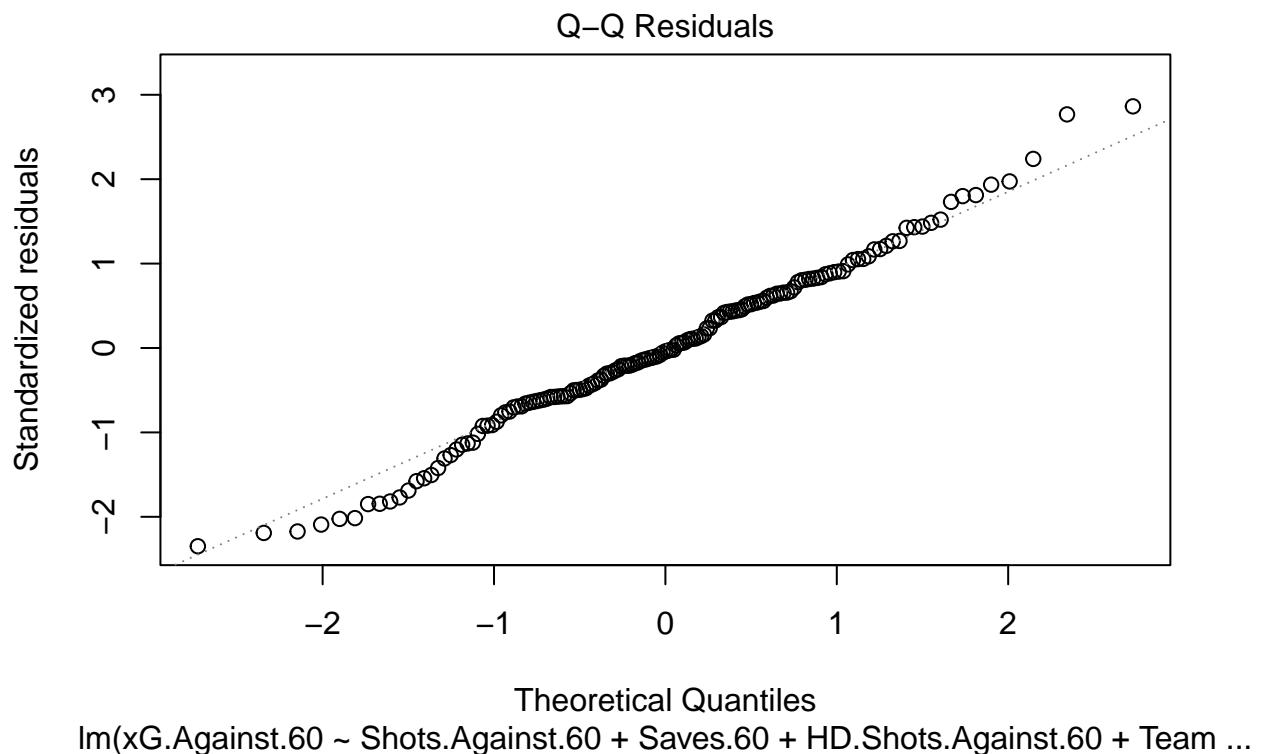


Figure 8

```
##      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

```

```

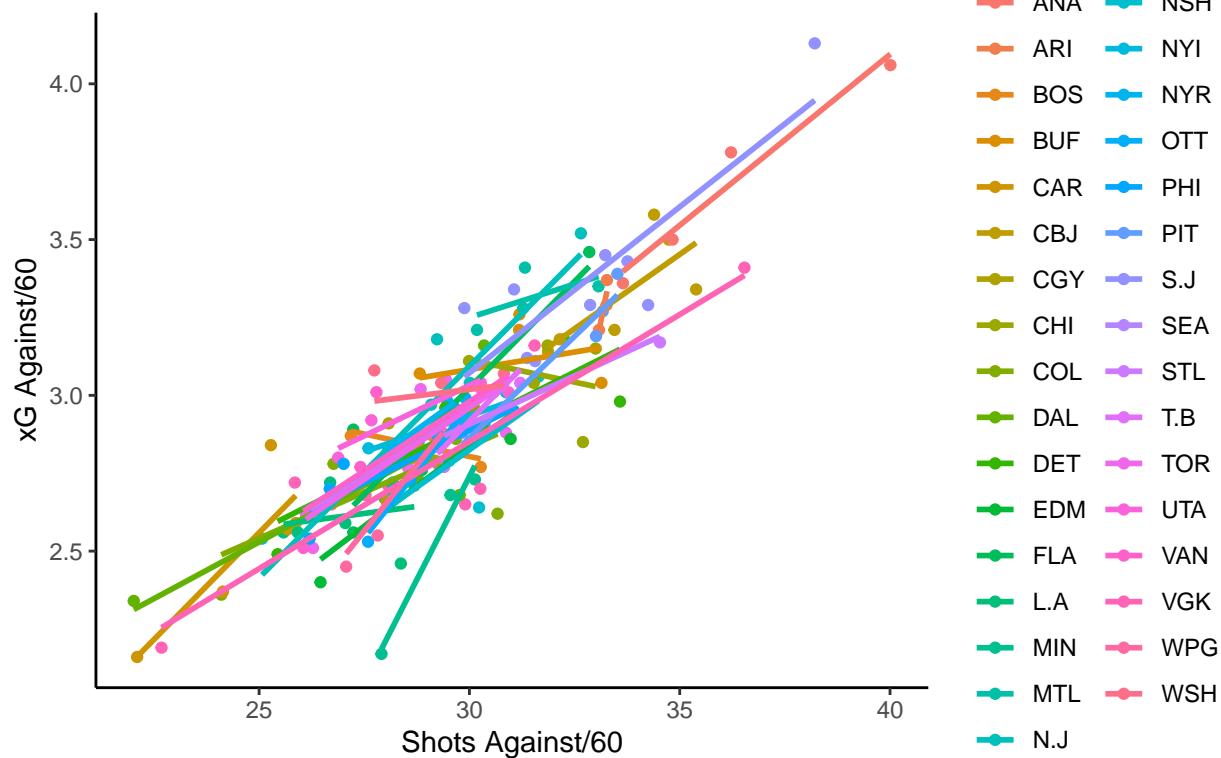
##
## Call:
## lm(formula = xG.Against.60 ~ Shots.Against.60 + HD.Shots.Against.60 +
##      Team, data = goalies_adjusted)
##
## Residuals:
##    Min      1Q  Median      3Q     Max 
## -0.27620 -0.06586 -0.00383  0.07578  0.33158
##
## Coefficients:
##                               Estimate Std. Error 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

Scatterplot of xGoals Against/60 vs Shots Against/60 by Team

Data from 2022–23 to 2024–25 seasons



```

## 
## 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 |
| ## | | | |
| ## 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 | 1.0000000000 |
| ## 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 | 1.000000000 |
| ## 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 |
| ## GP | 0.006048072 | 0.21212024 | -0.19939431 |
| ## TOI | 0.001450841 | 0.21589379 | -0.20414560 |
| ## TOI.GP | -0.164123187 | 0.10934400 | -0.14875409 |
| ## Shots.Against .60 | 0.768564863 | -0.04593618 | 0.36120250 |
| ## Saves .60 | 0.761541857 | 0.03999941 | 0.27328027 |
| ## SV. | 0.019930450 | 0.51940356 | -0.50077556 |
| ## GAA | 0.420769759 | -0.44885080 | 0.61698269 |
| ## GSAA .60 | -0.011963394 | 0.51568494 | -0.51522691 |
| ## xG.Against .60 | 0.618314808 | -0.06296963 | 0.32637934 |
| ## HD.Shots.Against .60 | 0.513376905 | 0.05431679 | 0.15145019 |
| ## HD.Saves .60 | 0.485745083 | 0.03246842 | 0.16280737 |
| ## HDSV. | 0.086980627 | -0.03559427 | 0.07879010 |
| ## HDGAA | 0.318119270 | 0.10047757 | 0.02501474 |
| ## 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 -2.600 0.010 -0.011 -0.0
## GAA 0.497 0.139 0.811 3.566 0.000 0.221 0.1
## HD.Shots.Against.60 0.033 0.027 0.133 1.239 0.217 -0.020 0.0
## HDSV. 4.050 1.115 0.451 3.632 0.000 1.846 6.1
## MD.Shots.Against.60 0.044 0.011 0.134 3.907 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    0.0
##          LDGAA   -0.471    0.142   -0.279   -3.319    0.001   -0.751   -0.1
## Rebound.Attempts.Against.60   0.139    0.011    0.382   13.226    0.000    0.119    0.0
## -----
```

Figure 14

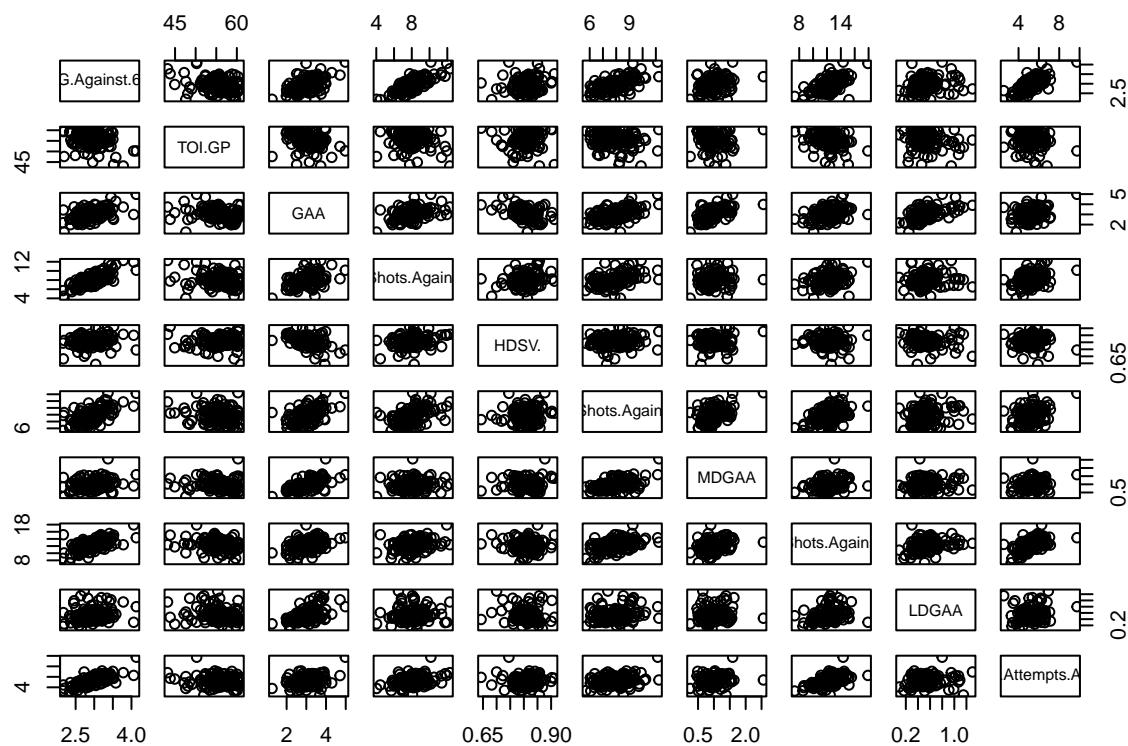
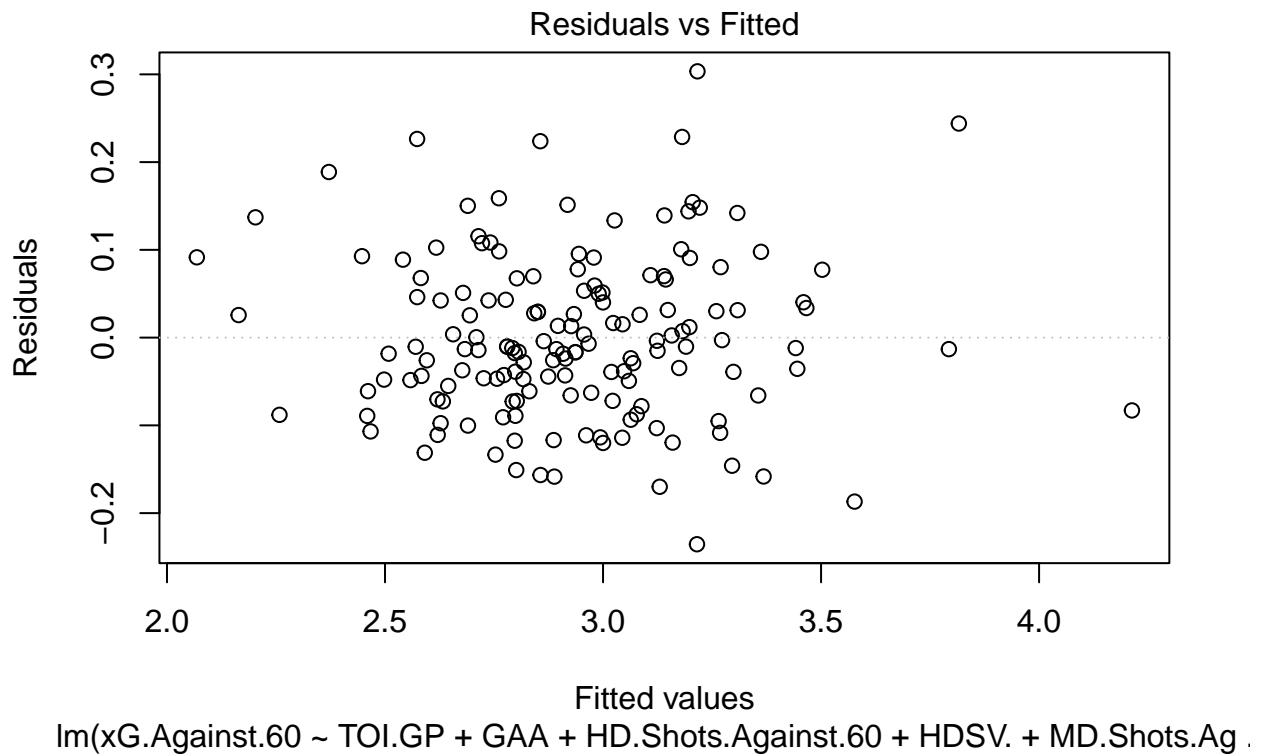


Figure 15

```
##  
## 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
```



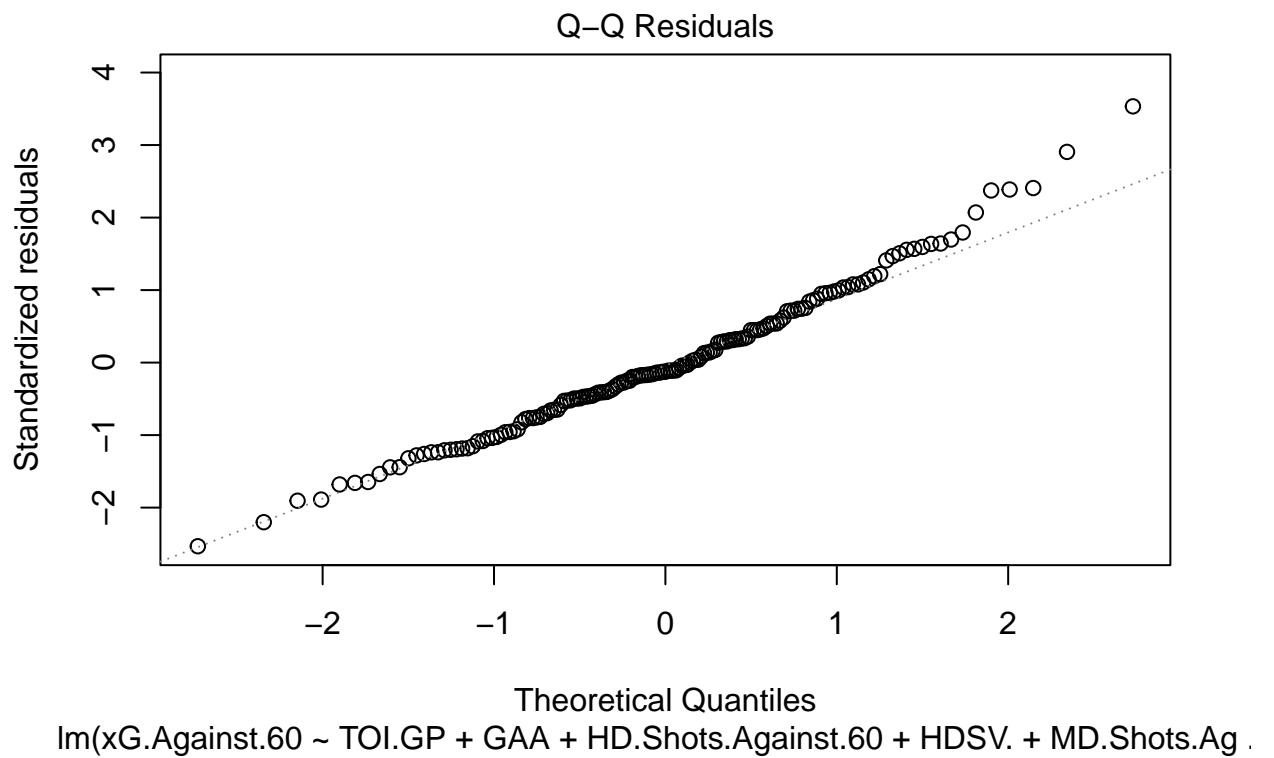


Figure 16

```
##                      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
```