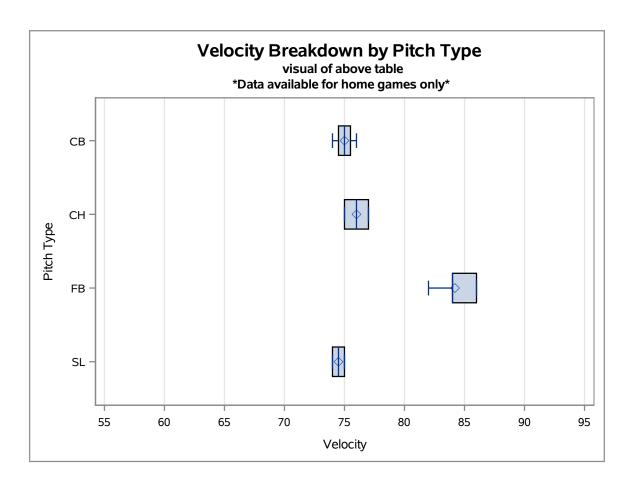
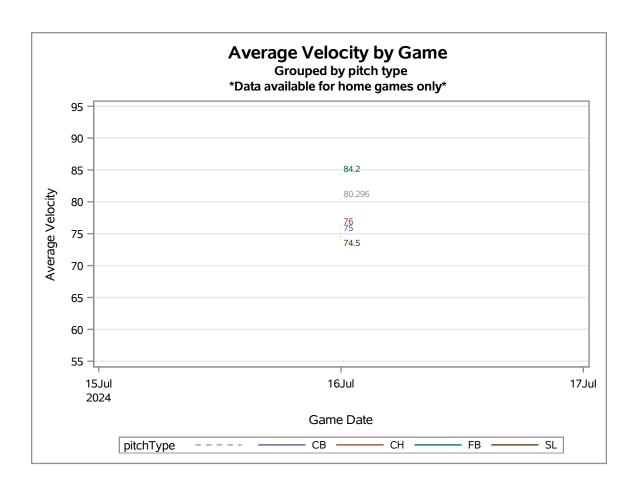
# **Velocity Breakdown by Pitch Type**\*Data available for home games only\*

Analysis Variable : velocity							
pitchType	Maximum						
СВ	4	4	74.0	75.0	76.0		
СН	6	6	75.0	76.0	77.0		
FB	15	15	82.0	84.2	86.0		
SL	2	2	74.0	74.5	75.0		





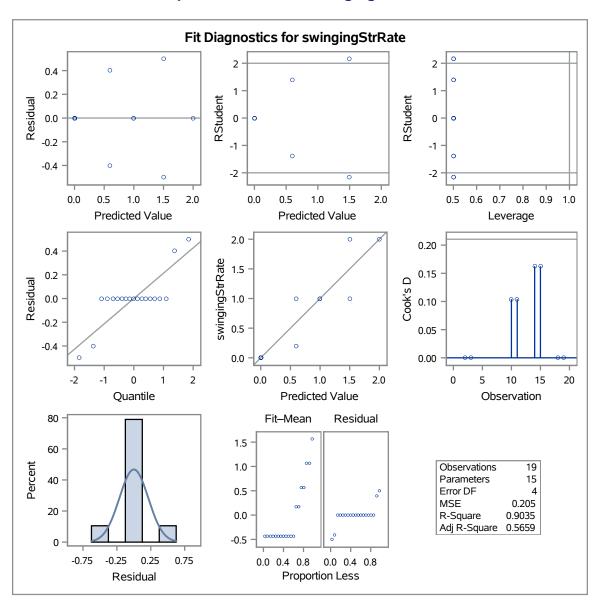
### Dependent Variable: swingingStrRate

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	14	7.68105263	0.54864662	2.68	0.1764
Error	4	0.82000000	0.20500000		
<b>Corrected Total</b>	18	8.50105263			

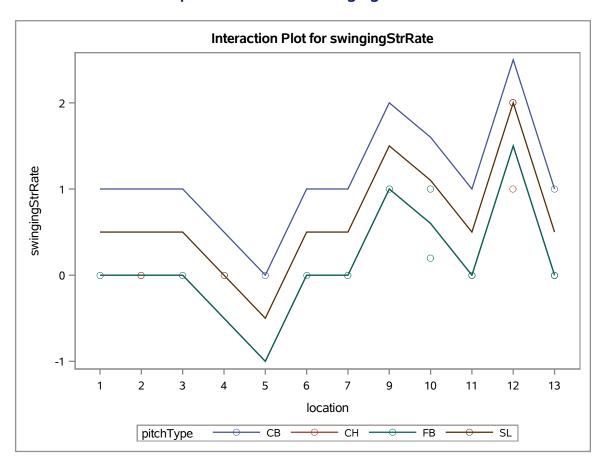
R-Square	Coeff Var	Root MSE	swingingStrRate Mean
0.903541	104.9099	0.452769	0.431579

Source	DF	Type III SS	Mean Square	F Value	Pr > F
location	11	6.43600000	0.58509091	2.85	0.1615
pitchType	3	0.83333333	0.2777778	1.36	0.3759

#### **Dependent Variable: swingingStrRate**



#### **Dependent Variable: swingingStrRate**



Least Squares Means Adjustment for Multiple Comparisons: Tukey-Kramer

pitchType	swingingStrRate LSMEAN	LSMEAN Number
СВ	1.13333333	1
СН	0.13333333	2
FB	0.13333333	3
SL	0.63333333	4

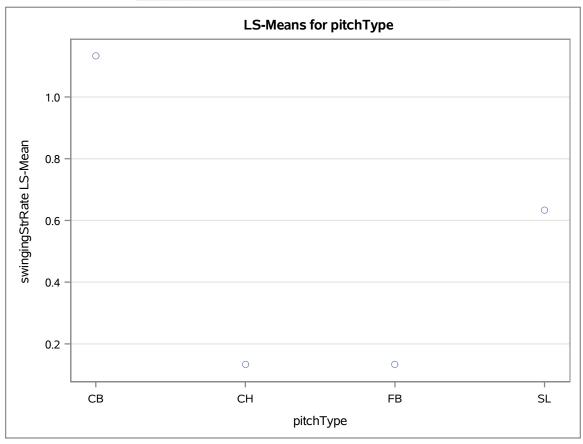
Least Squares Means for effect pitchType Pr >  t  for H0: LSMean(i)=LSMean(j)  Dependent Variable: swingingStrRate							
i/j	1 2 3 4						
1		0.6679	0.3884	0.9564			
2	0.6679		1.0000	0.8060			
3	0.3884	1.0000		0.9300			
4	0.9564	0.8060	0.9300				

pitchType	swingingStrRate LSMEAN	95% Confidence Limits	
СВ	1.133333	-0.373863	2.640530
СН	0.133333	-1.187607	1.454274
FB	0.133333	-0.520877	0.787543
SL	0.633333	-1.261010	2.527676

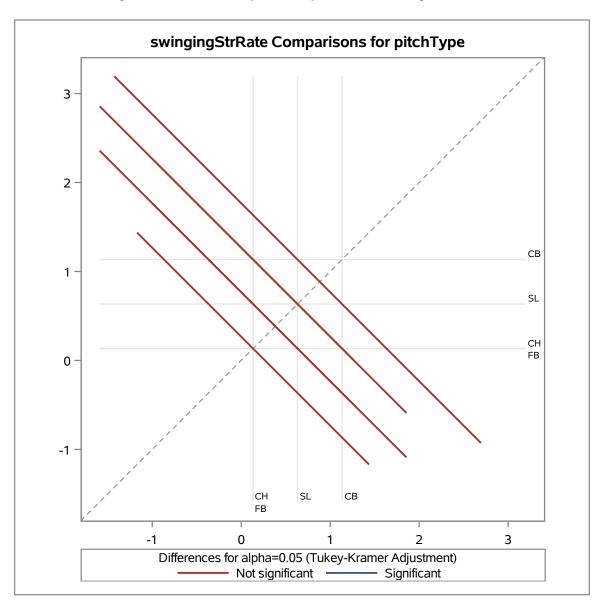
Least Squares Means for Effect pitchType							
i	j	Difference Between Means	Simultaneous 95% Confidence Limits for LSMean(i)-LSMean(j)				
1	2	1.000000	-2.448224	4.448224			
1	3	1.000000	-1.257393	3.257393			
1	4	0.500000	-3.621416	4.621416			
2	3	0	-2.606613	2.606613			

Least Squares Means Adjustment for Multiple Comparisons: Tukey-Kramer

Least Squares Means for Effect pitchType							
i	j	Difference Between Means	Simultaneous 95% Confidence Limits for LSMean(i)-LSMean(j)				
2	4	-0.500000	-2.757393	1.757393			
3	4	-0.500000	-3.948224	2.948224			



#### Least Squares Means Adjustment for Multiple Comparisons: Tukey-Kramer



## Swinging Strike Rate by Zone Zones 1-9 are inside strikezone, 10-13 are outside of zone

Pitch Location	Total Pitches	Total Swings	Total Misses	Swinging Strike Rate
1	1	1	0	0.00%
2	2	1	0	0.00%
3	1	1	0	0.00%
4	1	0	0	0.00%
5	1	1	0	0.00%
6	3	3	0	0.00%
7	2	0	0	0.00%
9	1	1	1	100.0%
10	6	2	1	16.67%
11	2	0	0	0.00%
12	4	2	2	50.00%
13	3	2	1	33.33%

### **Swing and Miss Data by Pitch Type**

Pitch Type	Total Pitches	Total Swings	Total Misses	Swinging Strike Rate
СВ	4	2	1	25.00%
СН	6	3	2	33.33%
FB	15	9	2	13.33%
SL	2	0	0	0.00%

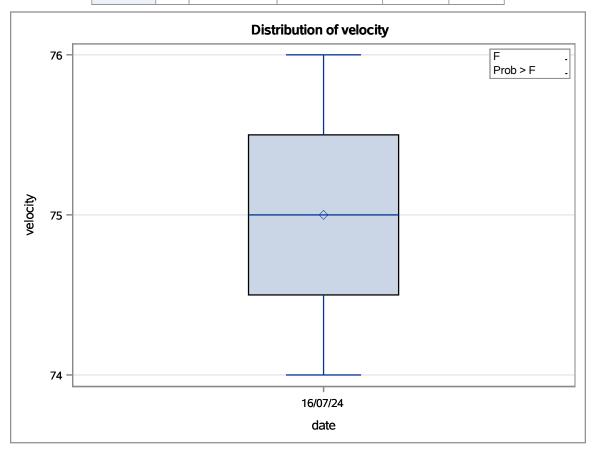
#### pitchType=CB

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	0	0.00000000			
Error	3	2.00000000	0.66666667		
Corrected Total	3	2.00000000			

R-Square	Coeff Var	Root MSE	velocity Mean
0.000000	1.088662	0.816497	75.00000

5	Source	DF	Type I SS	Mean Square	F Value	Pr > F
d	late	0	0			

Source	DF	Type III SS	Mean Square	F Value	Pr > F
date	0	0			



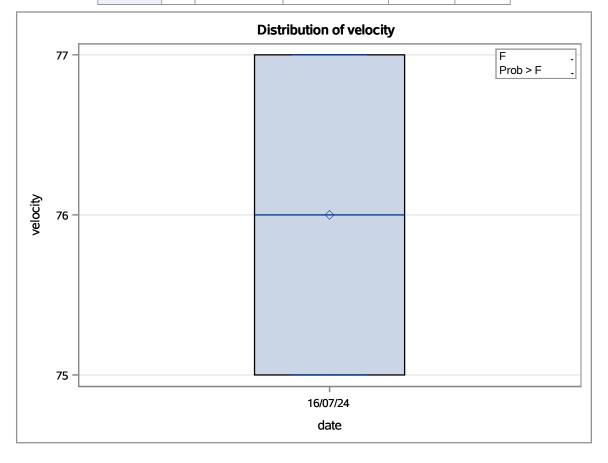
#### pitchType=CH

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	0	0.00000000		•	
Error	5	4.00000000	0.80000000		
Corrected Total	5	4.00000000			

R-Square	Coeff Var	Root MSE	velocity Mean	
0.000000	1.176878	0.894427	76.00000	

5	Source	DF	Type I SS	Mean Square	F Value	Pr > F
d	late	0	0			

Source	DF	Type III SS	Mean Square	F Value	Pr > F
date	0	0			



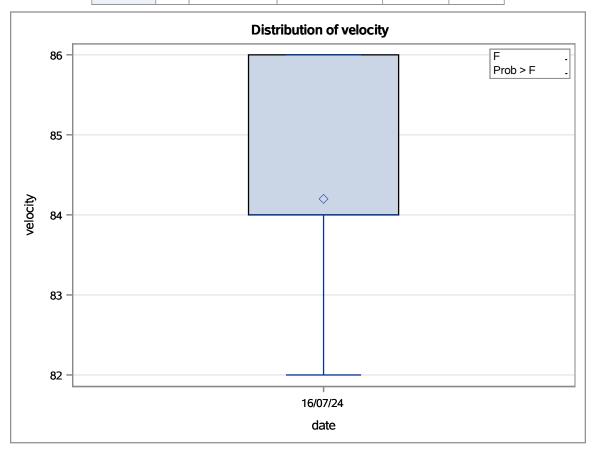
#### pitchType=FB

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	0	0.00000000			
Error	14	28.40000000	2.02857143		
Corrected Total	14	28.40000000			

R-Square	Coeff Var	Root MSE	velocity Mean	
0.000000	1.691543	1.424279	84.20000	

Source	DF	Type I SS	Mean Square	F Value	Pr > F
date	0	0			

Source	DF	Type III SS	Mean Square	F Value	Pr > F
date	0	0			



#### pitchType=SL

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	0	0.00000000			
Error	1	0.50000000	0.50000000		
Corrected Total	1	0.50000000			

R-Square	Coeff Var	Root MSE	velocity Mean	
0.000000	0.949137	0.707107	74.50000	

5	Source	DF	Type I SS	Mean Square	F Value	Pr > F
C	late	0	0			

Source	DF	Type III SS	Mean Square	F Value	Pr > F
date	0	0			

