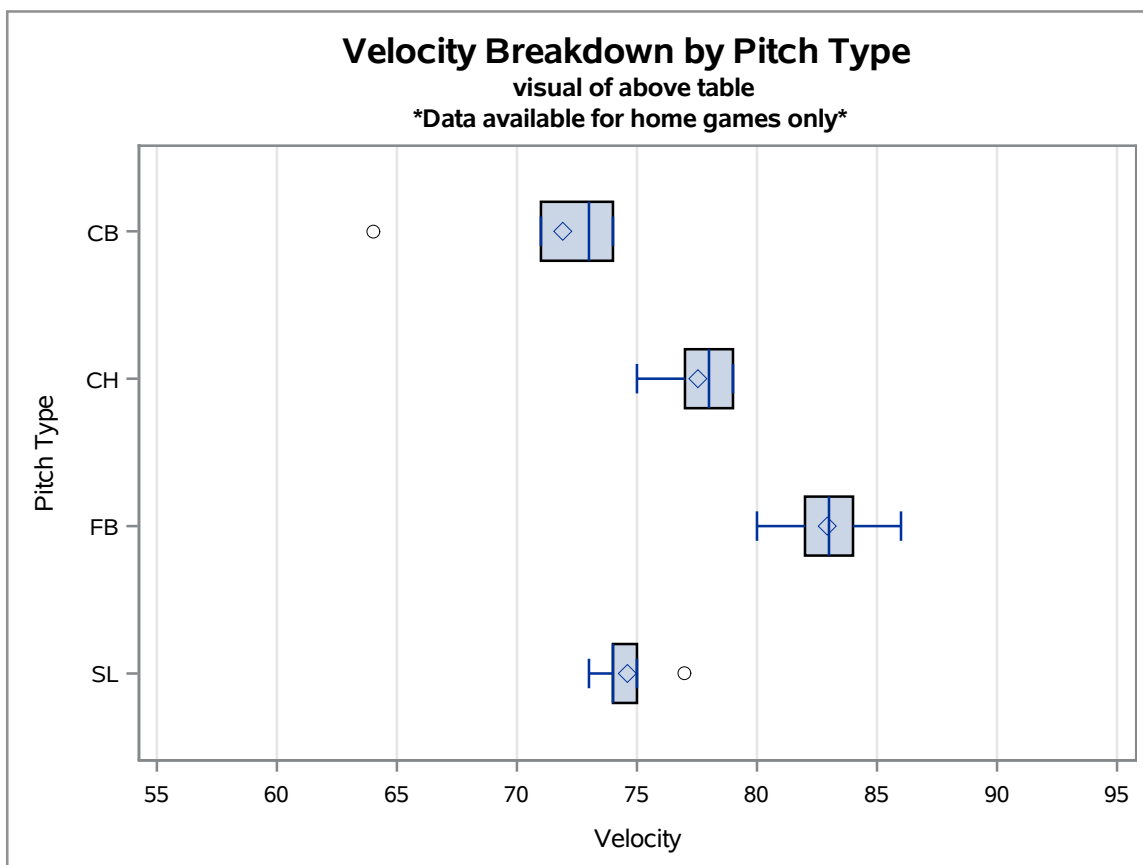


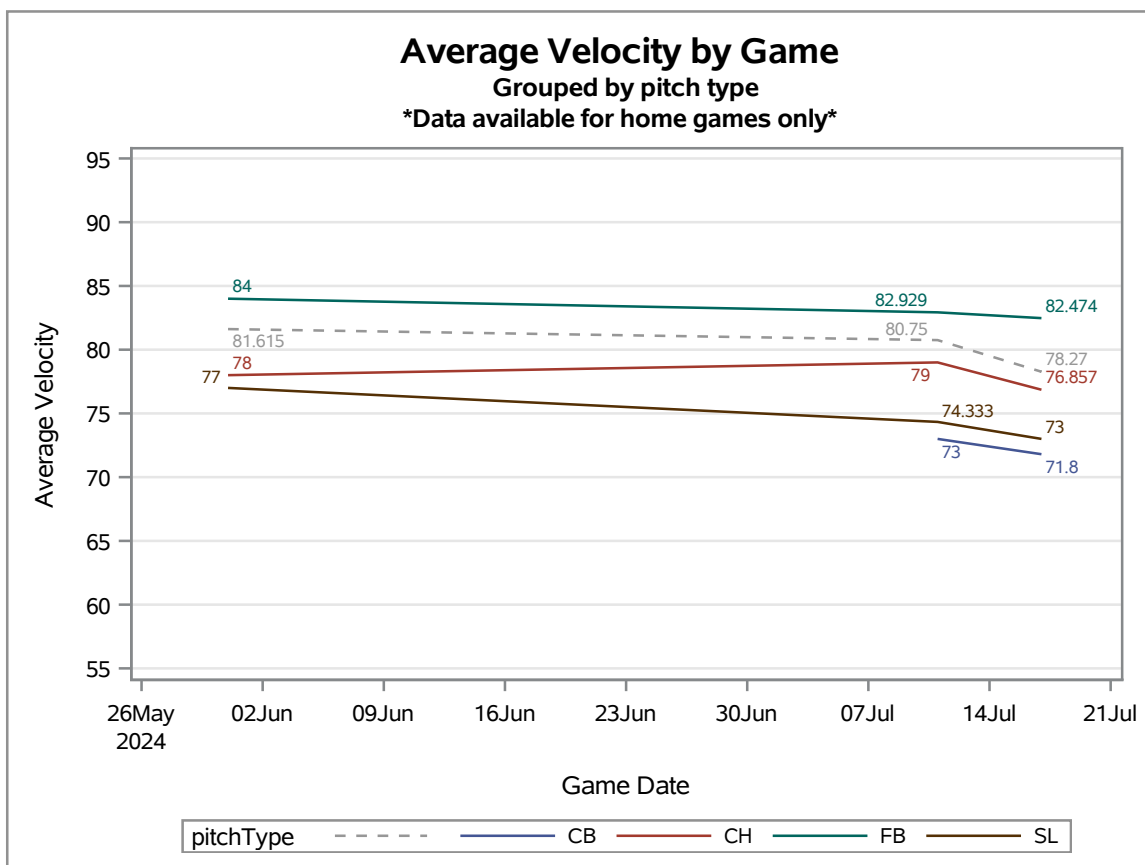
Velocity Breakdown by Pitch Type

Data available for home games only

1

Analysis Variable : velocity					
pitchType	N Obs	N	Minimum	Mean	Maximum
CB	11	11	64.0	71.9	74.0
CH	13	13	75.0	77.5	79.0
FB	41	41	80.0	82.9	86.0
SL	5	5	73.0	74.6	77.0





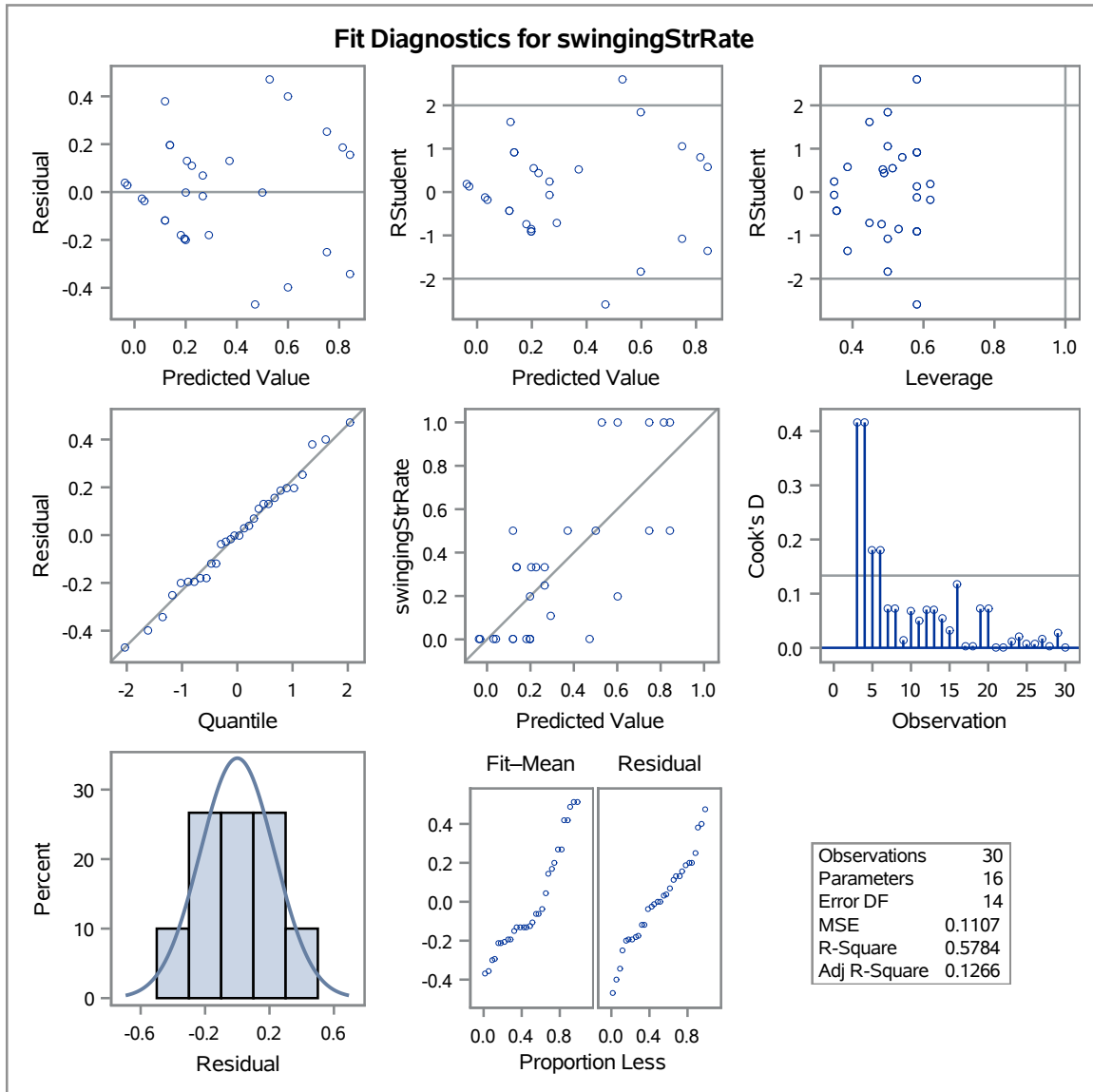
Dependent Variable: swingingStrRate

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	15	2.12554352	0.14170290	1.28	0.3246
Error	14	1.54949866	0.11067848		
Corrected Total	29	3.67504218			

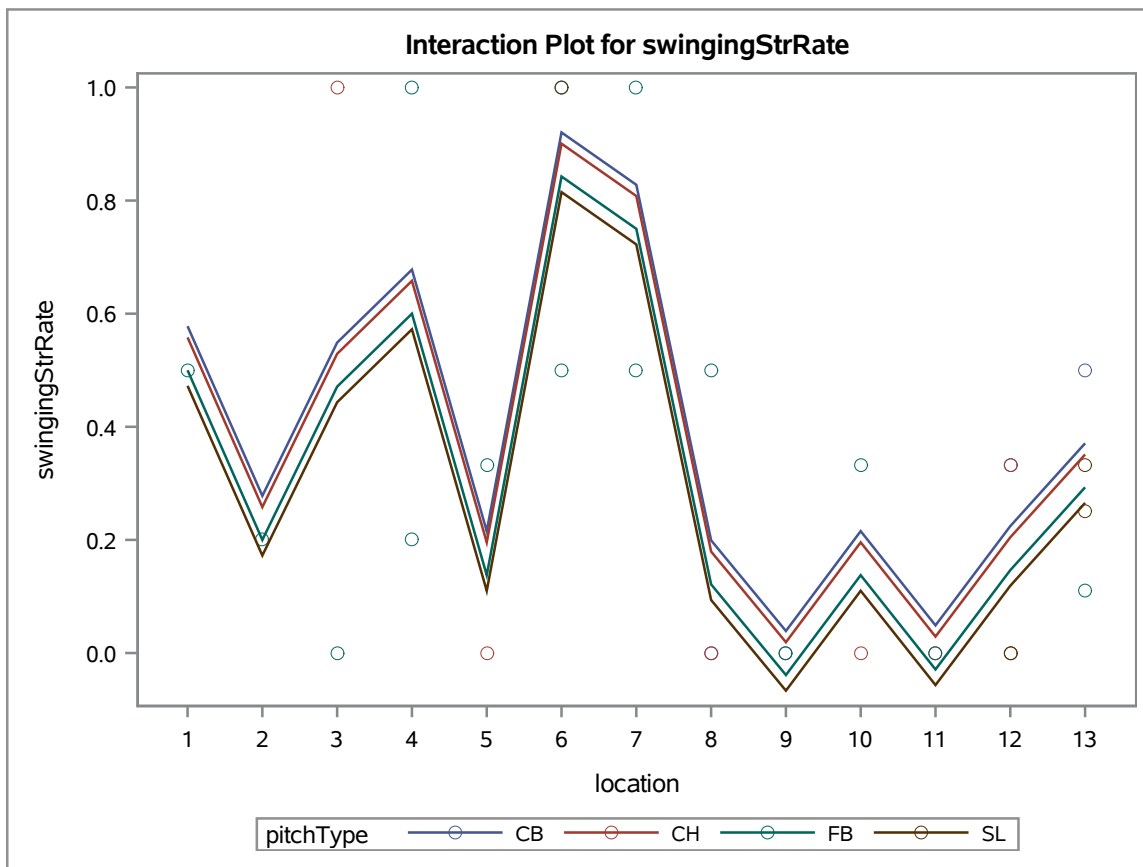
R-Square	Coeff Var	Root MSE	swingingStrRate Mean
0.578373	100.5312	0.332684	0.330926

Source	DF	Type III SS	Mean Square	F Value	Pr > F
location	12	1.89527706	0.15793975	1.43	0.2602
pitchType	3	0.03033930	0.01011310	0.09	0.9636

Dependent Variable: swingingStrRate



Dependent Variable: swingingStrRate



Least Squares Means
Adjustment for Multiple Comparisons: Tukey-Kramer

pitchType	swingingStrRate LSMEAN	LSMEAN Number
CB	0.39567862	1
CH	0.37585502	2
FB	0.31782666	3
SL	0.29019313	4

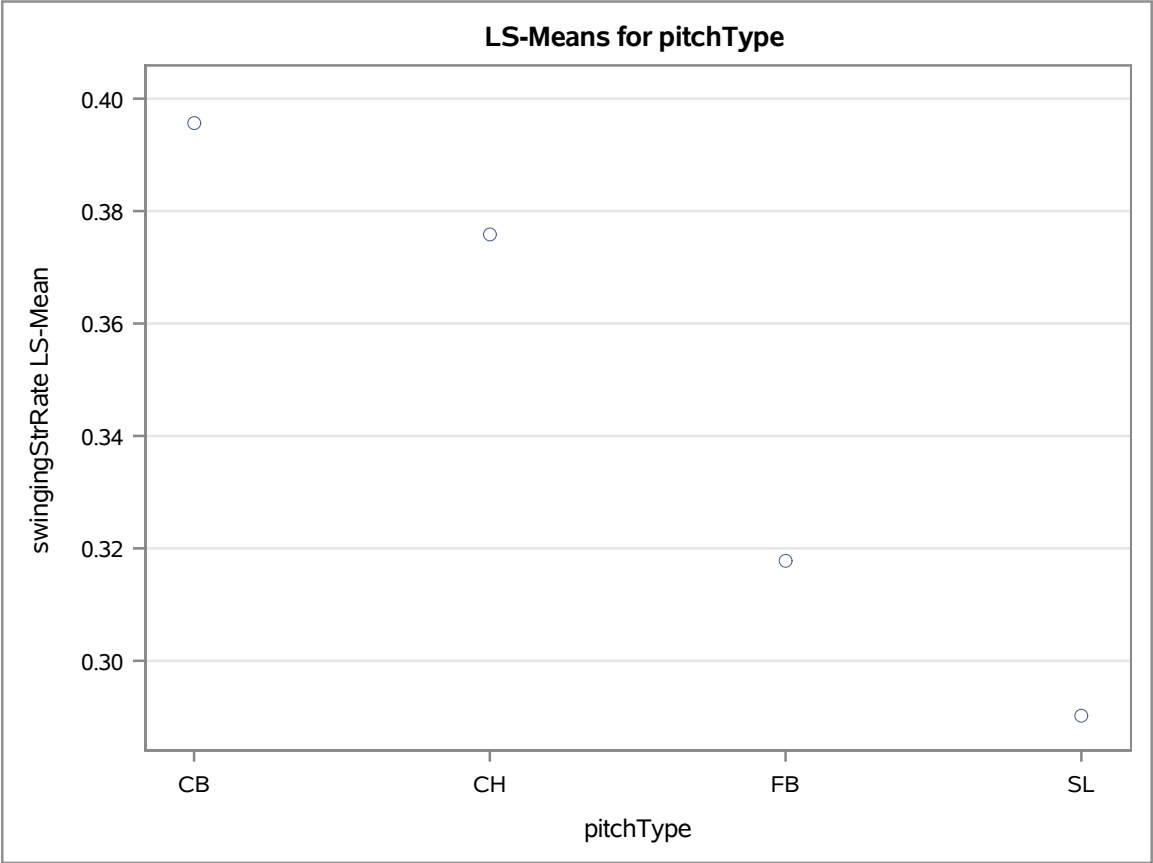
Least Squares Means for effect pitchType Pr > t for H0: LSMean(i)=LSMean(j) Dependent Variable: swingingStrRate				
i/j	1	2	3	4
1		0.9998	0.9859	0.9725
2	0.9998		0.9897	0.9865
3	0.9859	0.9897		0.9993
4	0.9725	0.9865	0.9993	

pitchType	swingingStrRate LSMEAN	95% Confidence Limits	
CB	0.395679	-0.036586	0.827944
CH	0.375855	0.034981	0.716729
FB	0.317827	0.122339	0.513314
SL	0.290193	-0.141551	0.721937

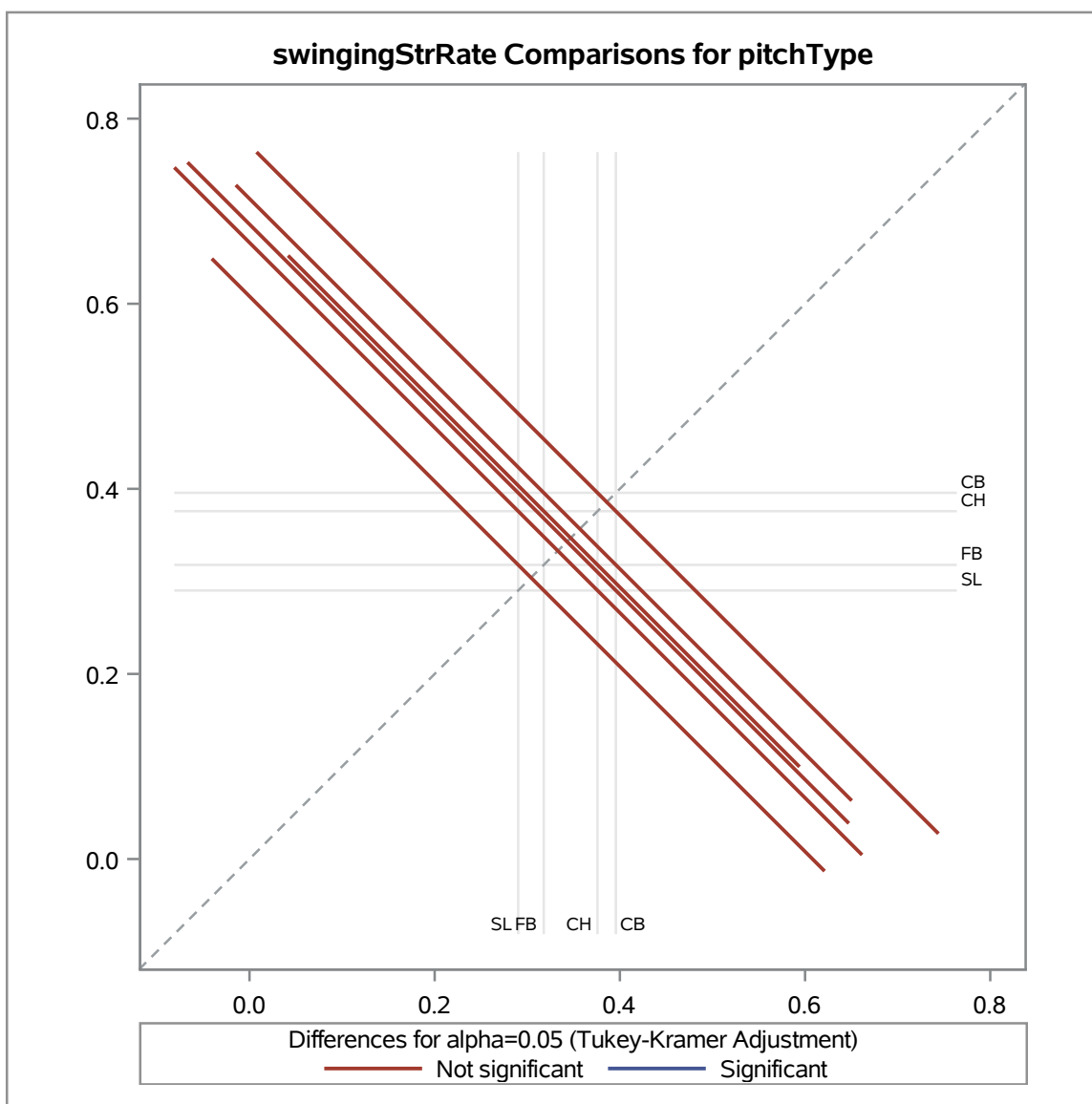
Least Squares Means for Effect pitchType				
i	j	Difference Between Means	Simultaneous 95% Confidence Limits for LSMean(i)-LSMean(j)	
1	2	0.019824	-0.716647	0.756294
1	3	0.077852	-0.587364	0.743067
1	4	0.105485	-0.608753	0.819724
2	3	0.058028	-0.494403	0.610460

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	0.085662	-0.657138	0.828462
3	4	0.027634	-0.634185	0.689452



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

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Pitch Location	Total Pitches	Total Swings	Total Misses	Swinging Strike Rate
1	4	2	2	50.00%
2	5	5	1	20.00%
3	3	2	1	33.33%
4	6	4	1	16.67%
5	7	5	2	28.57%
6	4	2	1	25.00%
7	3	2	1	33.33%
8	6	5	2	33.33%
9	5	5	0	0.00%
10	5	2	1	20.00%
11	2	1	0	0.00%
12	11	3	2	18.18%
13	22	4	4	18.18%

Swing and Miss Data by Pitch Type

Pitch Type	Total Pitches	Total Swings	Total Misses	Swinging Strike Rate
CB	13	7	4	30.77%
CH	14	6	2	14.29%
FB	50	27	11	22.00%
SL	6	2	1	16.67%

Data available for home games only

Dependent Variable: velocity

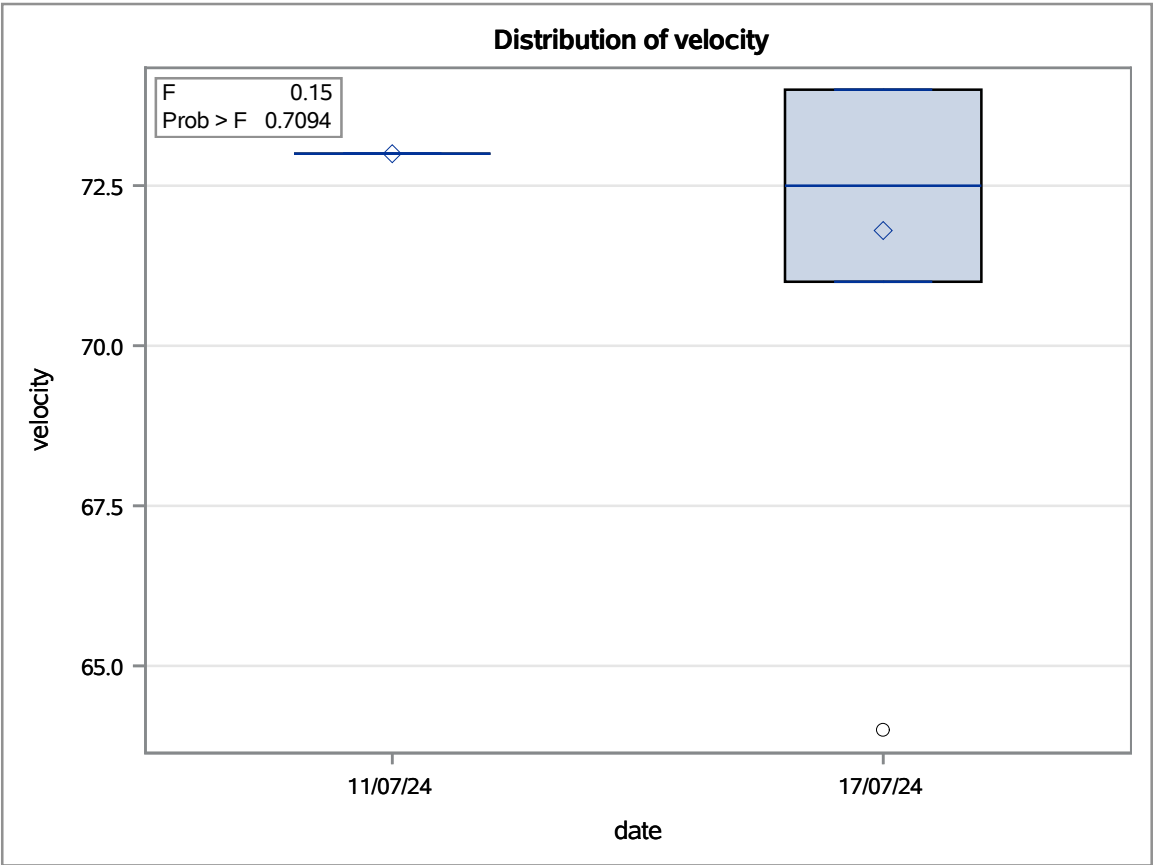
pitchType=CB

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	1	1.30909091	1.30909091	0.15	0.7094
Error	9	79.60000000	8.84444444		
Corrected Total	10	80.90909091			

R-Square	Coeff Var	Root MSE	velocity Mean
0.016180	4.135723	2.973961	71.90909

Source	DF	Type I SS	Mean Square	F Value	Pr > F
date	1	1.30909091	1.30909091	0.15	0.7094

Source	DF	Type III SS	Mean Square	F Value	Pr > F
date	1	1.30909091	1.30909091	0.15	0.7094



Data available for home games only

Dependent Variable: velocity

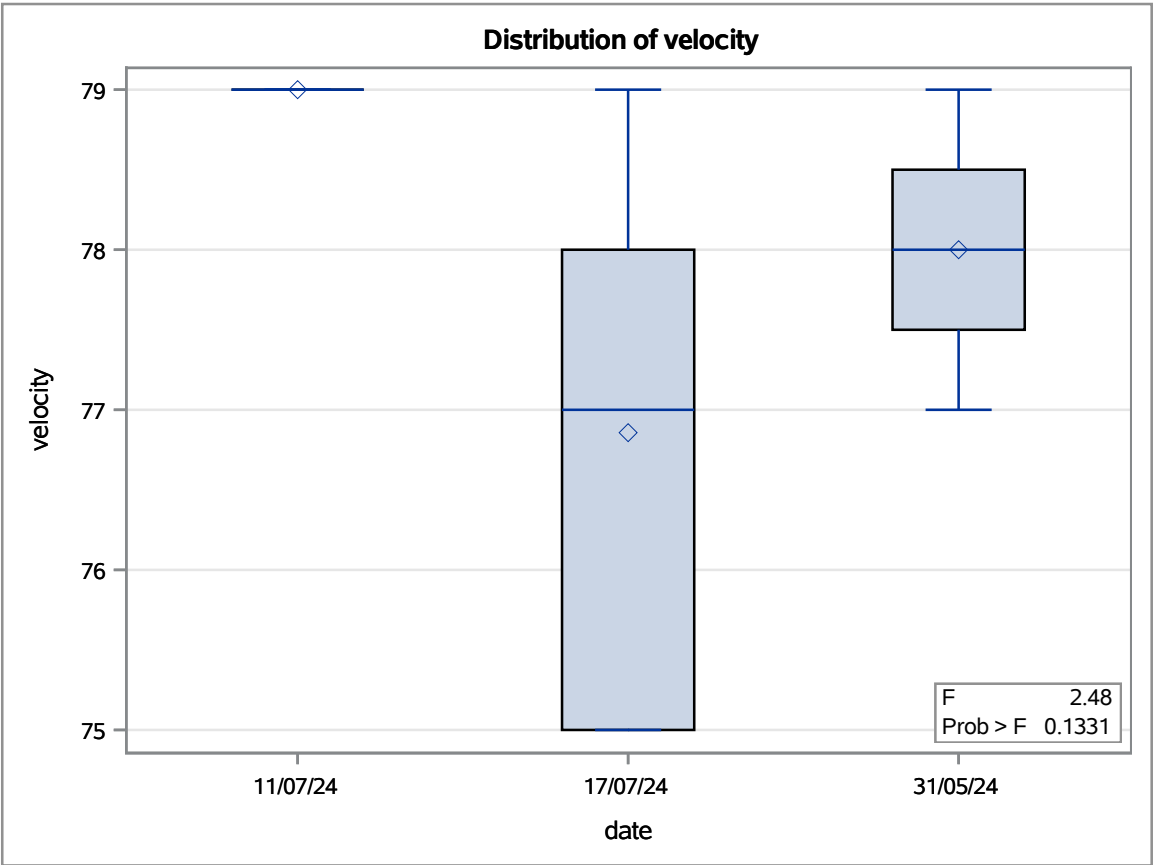
pitchType=CH

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	2	8.37362637	4.18681319	2.48	0.1331
Error	10	16.85714286	1.68571429		
Corrected Total	12	25.23076923			

R-Square	Coeff Var	Root MSE	velocity Mean
0.331882	1.674460	1.298351	77.53846

Source	DF	Type I SS	Mean Square	F Value	Pr > F
date	2	8.37362637	4.18681319	2.48	0.1331

Source	DF	Type III SS	Mean Square	F Value	Pr > F
date	2	8.37362637	4.18681319	2.48	0.1331



Regression Analysis of Velocity by Pitch Type

Data available for home games only

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Dependent Variable: velocity

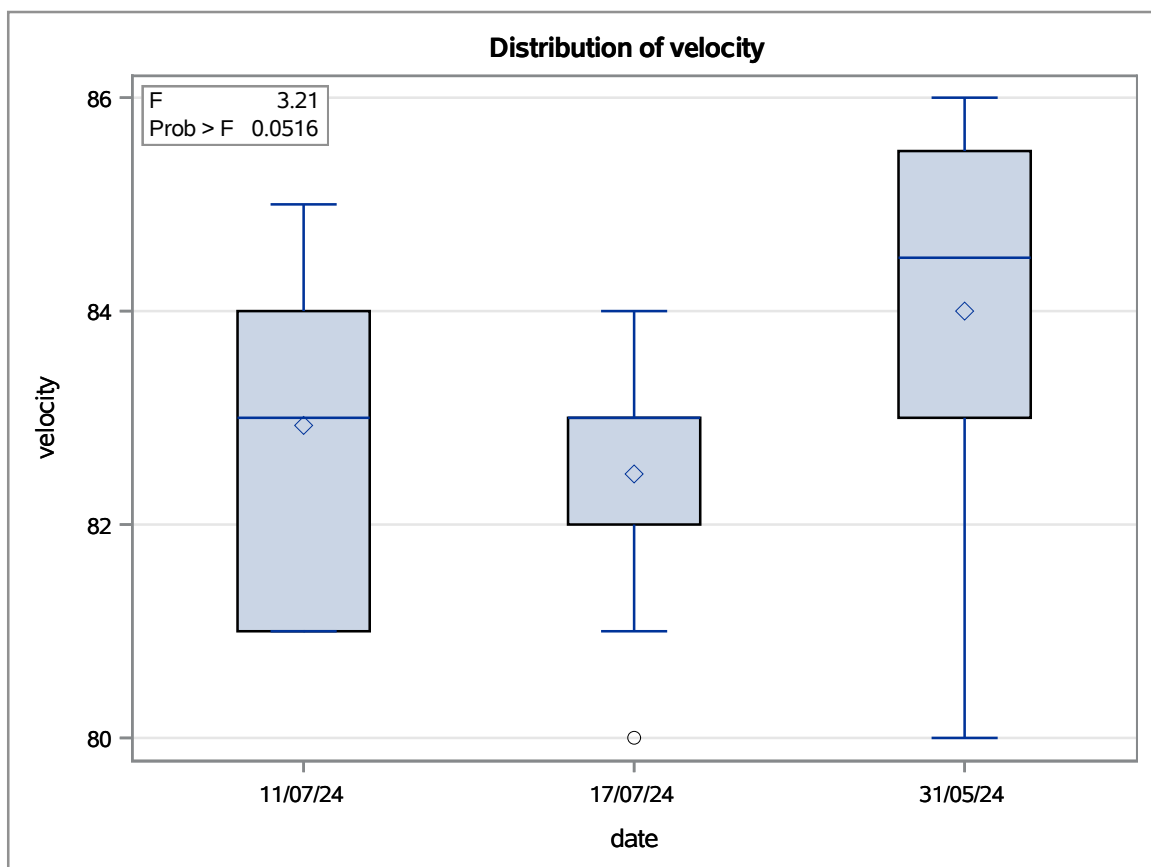
pitchType=FB

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	2	13.11507427	6.55753714	3.21	0.0516
Error	38	77.66541353	2.04382667		
Corrected Total	40	90.78048780			

R-Square	Coeff Var	Root MSE	velocity Mean
0.144470	1.723959	1.429625	82.92683

Source	DF	Type I SS	Mean Square	F Value	Pr > F
date	2	13.11507427	6.55753714	3.21	0.0516

Source	DF	Type III SS	Mean Square	F Value	Pr > F
date	2	13.11507427	6.55753714	3.21	0.0516



Data available for home games only

Dependent Variable: velocity

pitchType=SL

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	2	8.53333333	4.26666667	12.80	0.0725
Error	2	0.66666667	0.33333333		
Corrected Total	4	9.20000000			

R-Square	Coeff Var	Root MSE	velocity Mean
0.927536	0.773928	0.577350	74.60000

Source	DF	Type I SS	Mean Square	F Value	Pr > F
date	2	8.53333333	4.26666667	12.80	0.0725

Source	DF	Type III SS	Mean Square	F Value	Pr > F
date	2	8.53333333	4.26666667	12.80	0.0725

