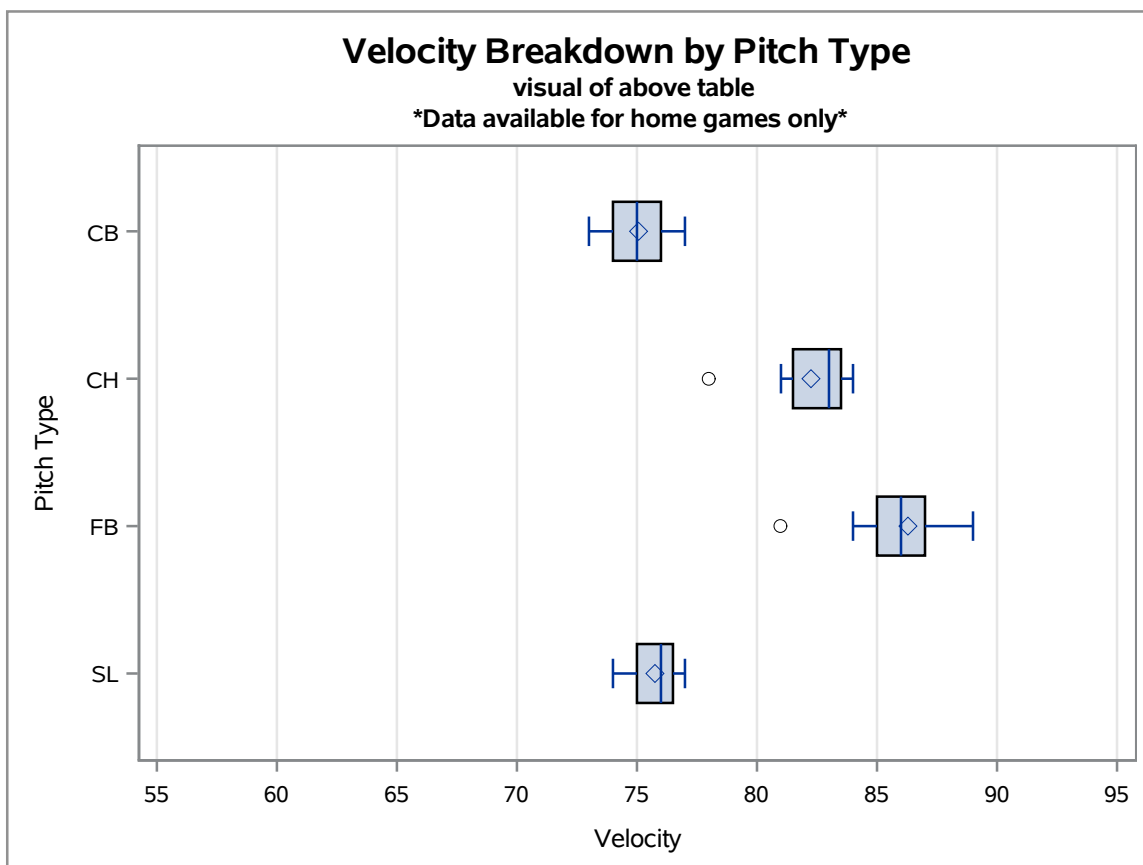


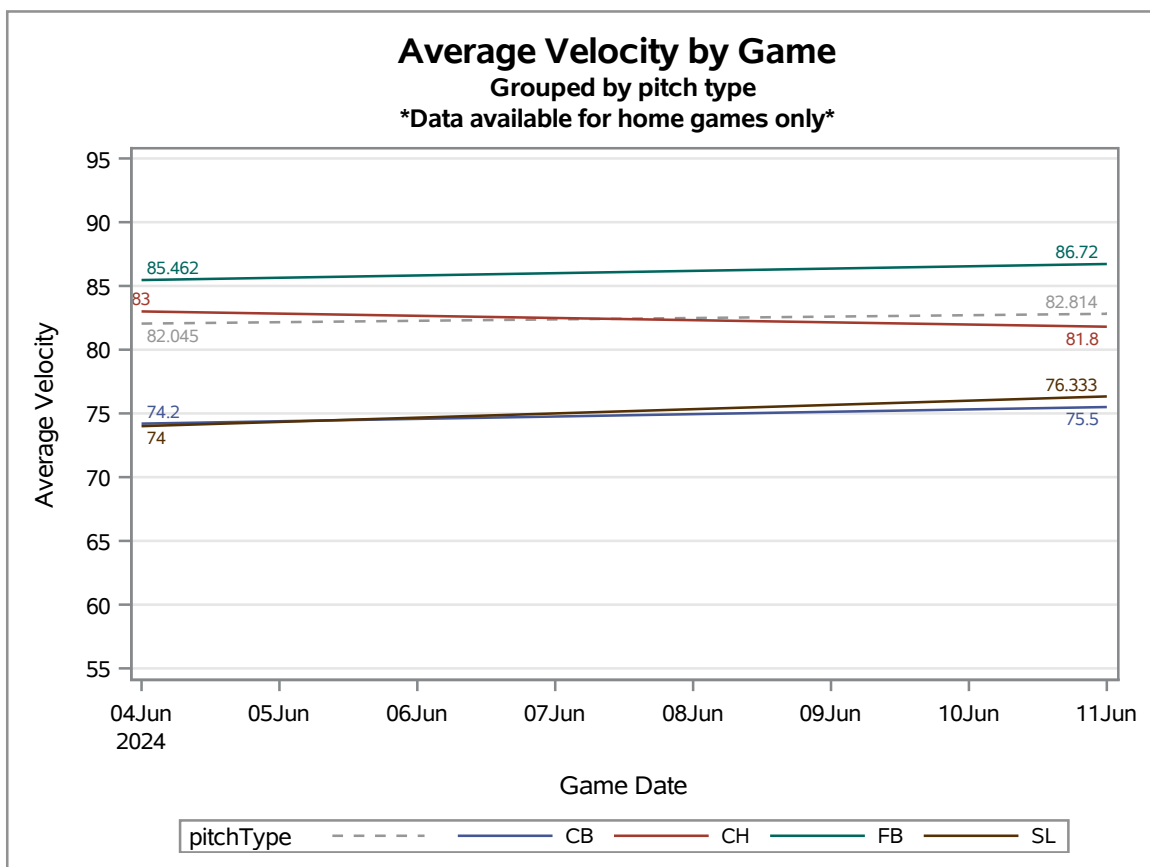
Velocity Breakdown by Pitch Type

Data available for home games only

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| Analysis Variable : velocity | | | | | |
|------------------------------|----------|----|---------|------|---------|
| pitchType | N Obs | N | Minimum | Mean | Maximum |
| CB | 15 | 15 | 73.0 | 75.1 | 77.0 |
| CH | 8 | 8 | 78.0 | 82.3 | 84.0 |
| FB | 38 | 38 | 81.0 | 86.3 | 89.0 |
| SL | 4 | 4 | 74.0 | 75.8 | 77.0 |





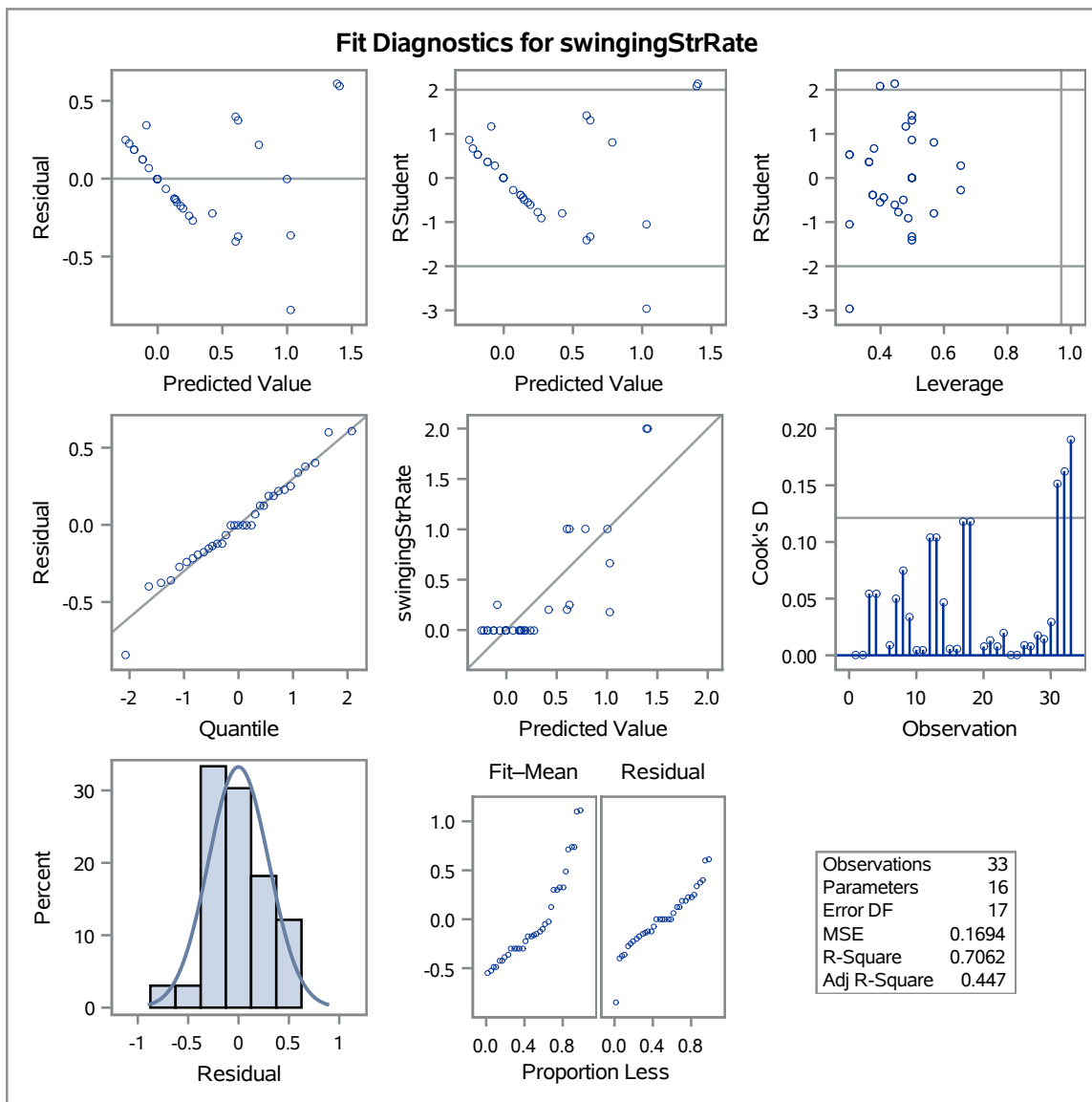
Dependent Variable: swingingStrRate

| Source | DF | Sum of Squares | Mean Square | F Value | Pr > F |
|-----------------|----|----------------|-------------|---------|--------|
| Model | 15 | 6.92288657 | 0.46152577 | 2.72 | 0.0249 |
| Error | 17 | 2.87982916 | 0.16940172 | | |
| Corrected Total | 32 | 9.80271572 | | | |

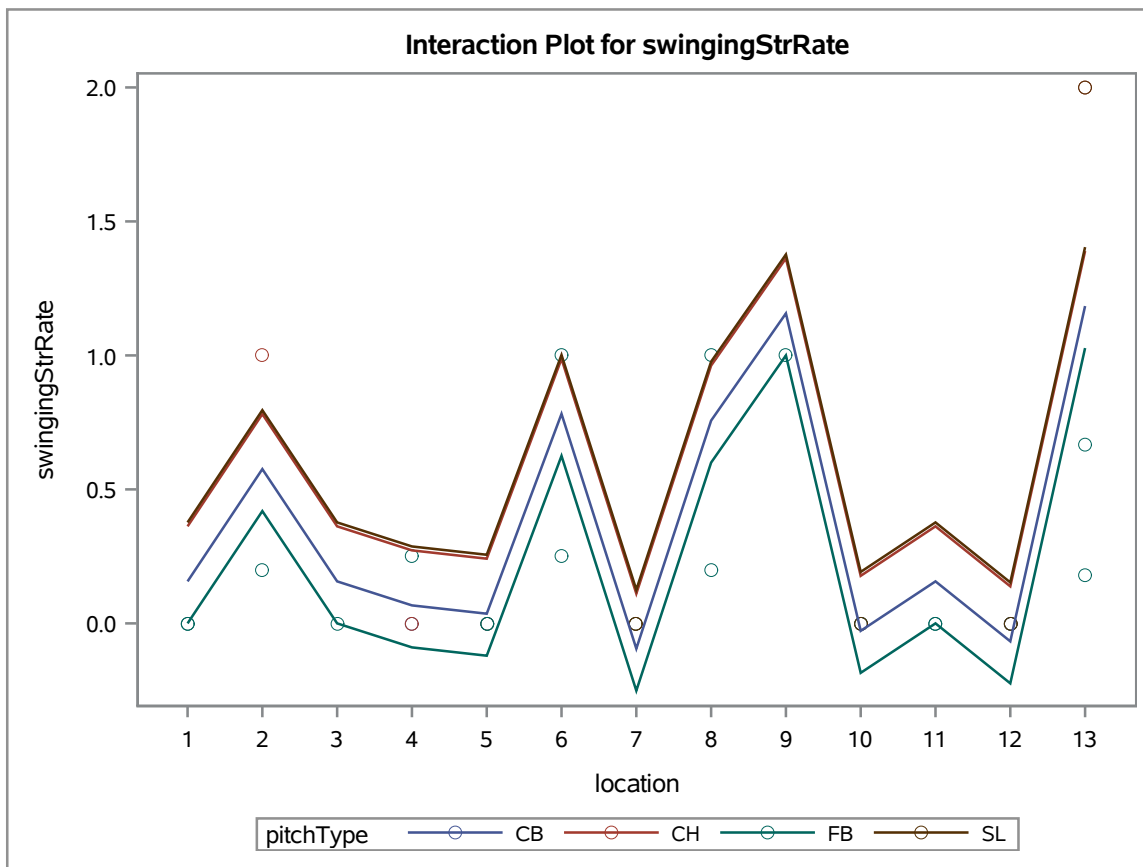
| R-Square | Coeff Var | Root MSE | swingingStrRate Mean |
|----------|-----------|----------|----------------------|
| 0.706221 | 139.3271 | 0.411584 | 0.295409 |

| Source | DF | Type III SS | Mean Square | F Value | Pr > F |
|-----------|----|-------------|-------------|---------|--------|
| location | 12 | 6.37526772 | 0.53127231 | 3.14 | 0.0157 |
| pitchType | 3 | 0.68363847 | 0.22787949 | 1.35 | 0.2930 |

Dependent Variable: swingingStrRate



Dependent Variable: swingingStrRate



Least Squares Means
Adjustment for Multiple Comparisons: Tukey-Kramer

| pitchType | swingingStrRate LSMEAN | LSMEAN Number |
|-----------|---------------------------|------------------|
| CB | 0.37223240 | 1 |
| CH | 0.57757084 | 2 |
| FB | 0.21549453 | 3 |
| SL | 0.59216441 | 4 |

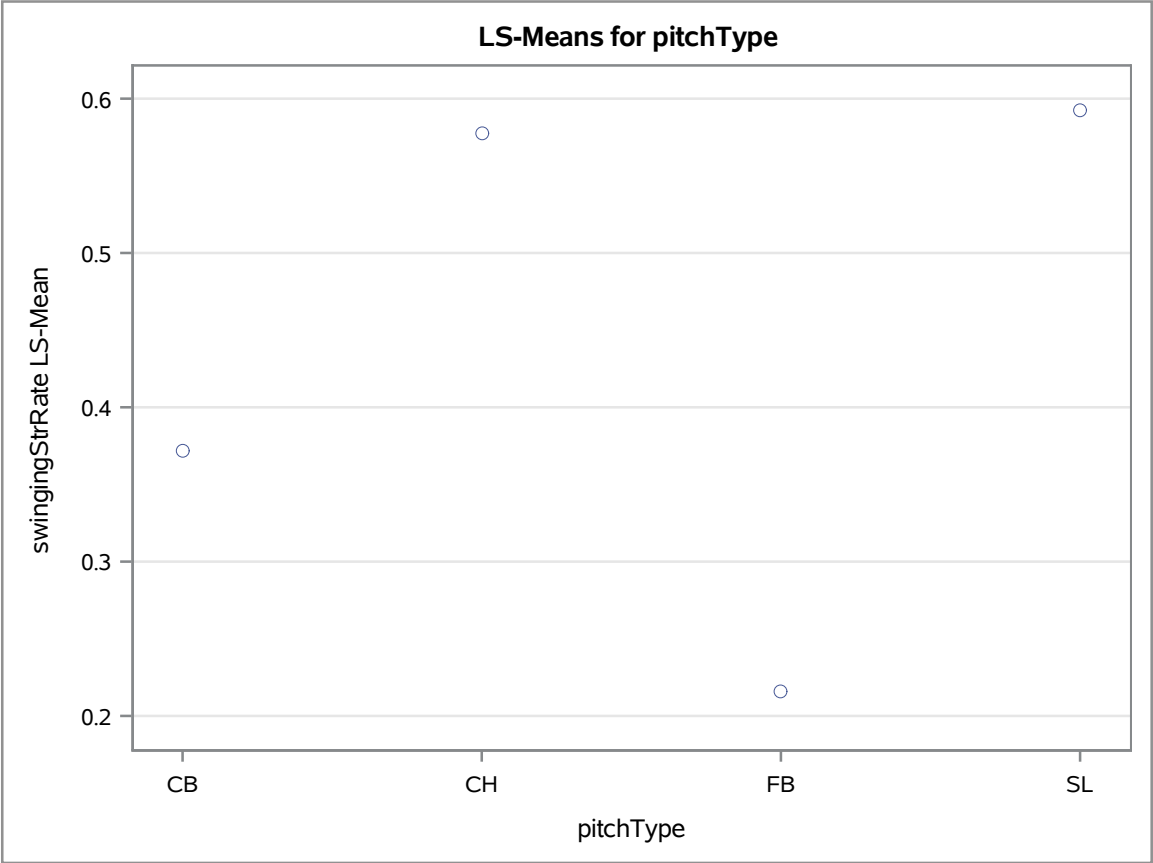
| Least Squares Means for effect pitchType Pr > t for H0: LSMean(i)=LSMean(j) Dependent Variable: swingingStrRate | | | | |
|---|--------|--------|--------|--------|
| i/j | 1 | 2 | 3 | 4 |
| 1 | | 0.9428 | 0.9721 | 0.9457 |
| 2 | 0.9428 | | 0.3704 | 1.0000 |
| 3 | 0.9721 | 0.3704 | | 0.4595 |
| 4 | 0.9457 | 1.0000 | 0.4595 | |

| pitchType | swingingStrRate LSMEAN | 95% Confidence Limits | |
|-----------|---------------------------|--------------------------|----------|
| CB | 0.372232 | -0.355084 | 1.099549 |
| CH | 0.577571 | 0.169196 | 0.985946 |
| FB | 0.215495 | 0.013010 | 0.417979 |
| SL | 0.592164 | 0.106747 | 1.077581 |

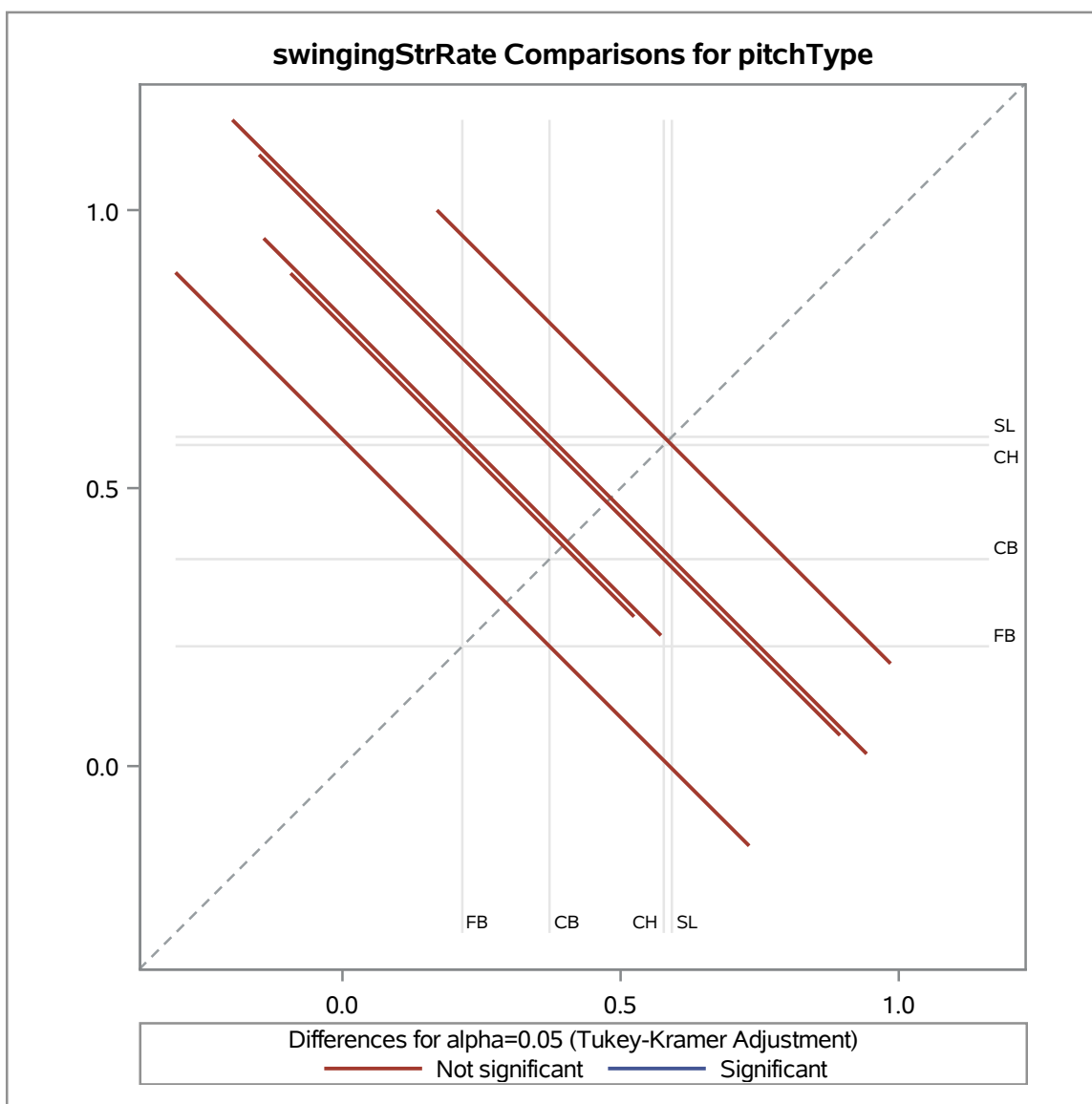
| Least Squares Means for Effect pitchType | | | | |
|--|---|--------------------------------|--|----------|
| i | j | Difference Between Means | Simultaneous 95% Confidence Limits for LSMean(i)-LSMean(j) | |
| 1 | 2 | -0.205338 | -1.249618 | 0.838941 |
| 1 | 3 | 0.156738 | -0.874374 | 1.187849 |
| 1 | 4 | -0.219932 | -1.360122 | 0.920258 |
| 2 | 3 | 0.362076 | -0.255412 | 0.979564 |

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 | -0.014594 | -0.830058 | 0.800871 |
| 3 | 4 | -0.376670 | -1.090899 | 0.337559 |



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 | 5 | 3 | 0 | 0.00% |
| 2 | 6 | 6 | 2 | 33.33% |
| 3 | 2 | 2 | 0 | 0.00% |
| 4 | 6 | 5 | 1 | 16.67% |
| 5 | 7 | 5 | 0 | 0.00% |
| 6 | 5 | 3 | 1 | 20.00% |
| 7 | 3 | 2 | 0 | 0.00% |
| 8 | 6 | 3 | 1 | 16.67% |
| 9 | 1 | 1 | 1 | 100.0% |
| 10 | 10 | 1 | 0 | 0.00% |
| 11 | 4 | 1 | 0 | 0.00% |
| 12 | 13 | 0 | 0 | 0.00% |
| 13 | 16 | 2 | 2 | 12.50% |

Swing and Miss Data by Pitch Type

| Pitch Type | Total Pitches | Total Swings | Total Misses | Swinging Strike Rate |
|------------|---------------|--------------|--------------|----------------------|
| CB | 19 | 1 | 0 | 0.00% |
| CH | 10 | 5 | 1 | 10.00% |
| FB | 50 | 27 | 7 | 14.00% |
| SL | 5 | 1 | 0 | 0.00% |

Data available for home games only

Dependent Variable: velocity

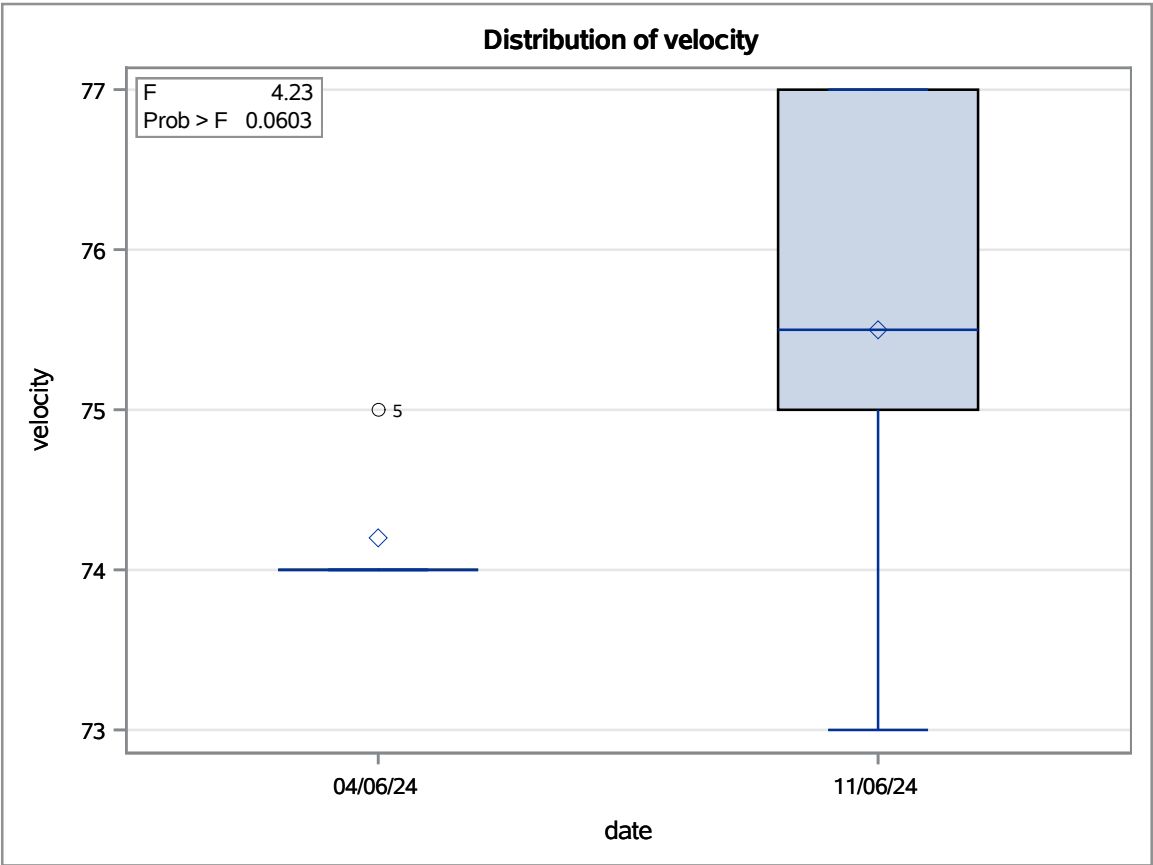
pitchType=CB

| Source | DF | Sum of Squares | Mean Square | F Value | Pr > F |
|-----------------|----|----------------|-------------|---------|--------|
| Model | 1 | 5.63333333 | 5.63333333 | 4.23 | 0.0603 |
| Error | 13 | 17.30000000 | 1.33076923 | | |
| Corrected Total | 14 | 22.93333333 | | | |

| R-Square | Coeff Var | Root MSE | velocity Mean |
|----------|-----------|----------|---------------|
| 0.245640 | 1.536754 | 1.153590 | 75.06667 |

| Source | DF | Type I SS | Mean Square | F Value | Pr > F |
|--------|----|------------|-------------|---------|--------|
| date | 1 | 5.63333333 | 5.63333333 | 4.23 | 0.0603 |

| Source | DF | Type III SS | Mean Square | F Value | Pr > F |
|--------|----|-------------|-------------|---------|--------|
| date | 1 | 5.63333333 | 5.63333333 | 4.23 | 0.0603 |



Data available for home games only

Dependent Variable: velocity

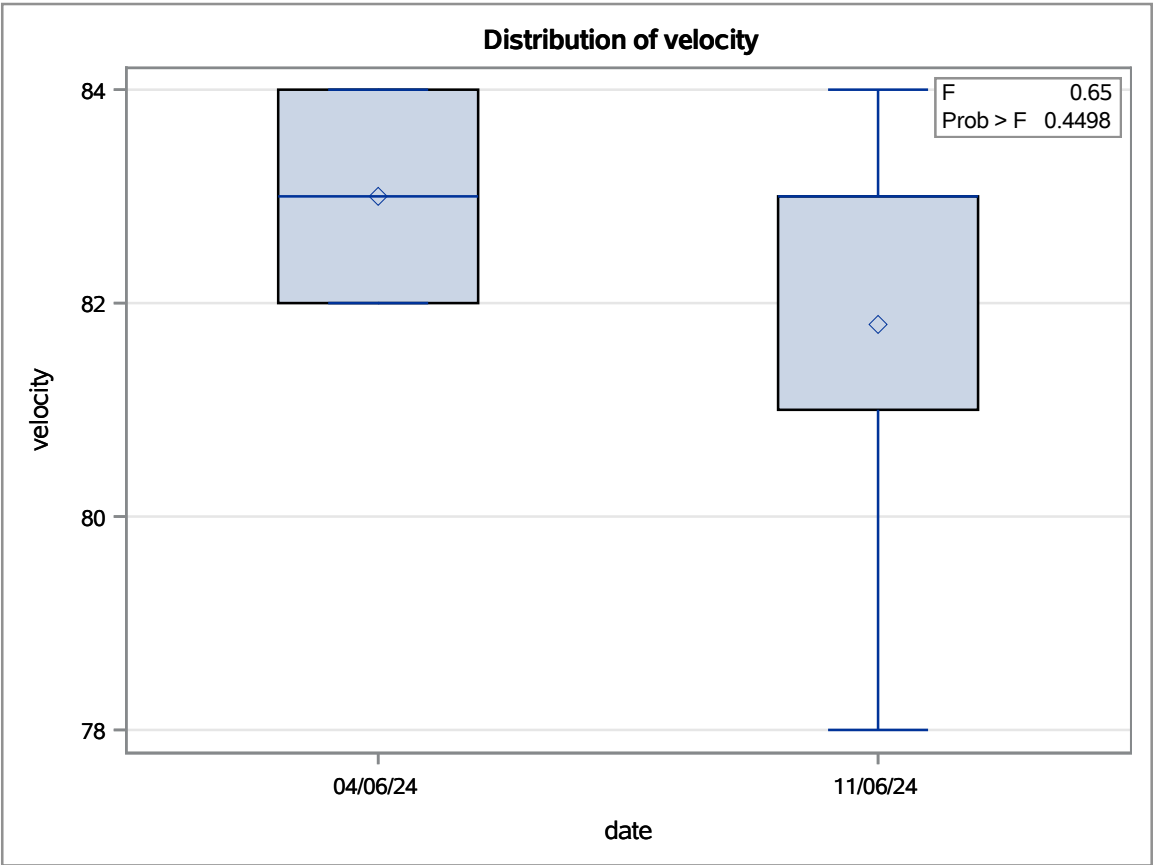
pitchType=CH

| Source | DF | Sum of Squares | Mean Square | F Value | Pr > F |
|-----------------|----|----------------|-------------|---------|--------|
| Model | 1 | 2.70000000 | 2.70000000 | 0.65 | 0.4498 |
| Error | 6 | 24.80000000 | 4.13333333 | | |
| Corrected Total | 7 | 27.50000000 | | | |

| R-Square | Coeff Var | Root MSE | velocity Mean |
|----------|-----------|----------|---------------|
| 0.098182 | 2.471806 | 2.033060 | 82.25000 |

| Source | DF | Type I SS | Mean Square | F Value | Pr > F |
|--------|----|------------|-------------|---------|--------|
| date | 1 | 2.70000000 | 2.70000000 | 0.65 | 0.4498 |

| Source | DF | Type III SS | Mean Square | F Value | Pr > F |
|--------|----|-------------|-------------|---------|--------|
| date | 1 | 2.70000000 | 2.70000000 | 0.65 | 0.4498 |



Data available for home games only

Dependent Variable: velocity

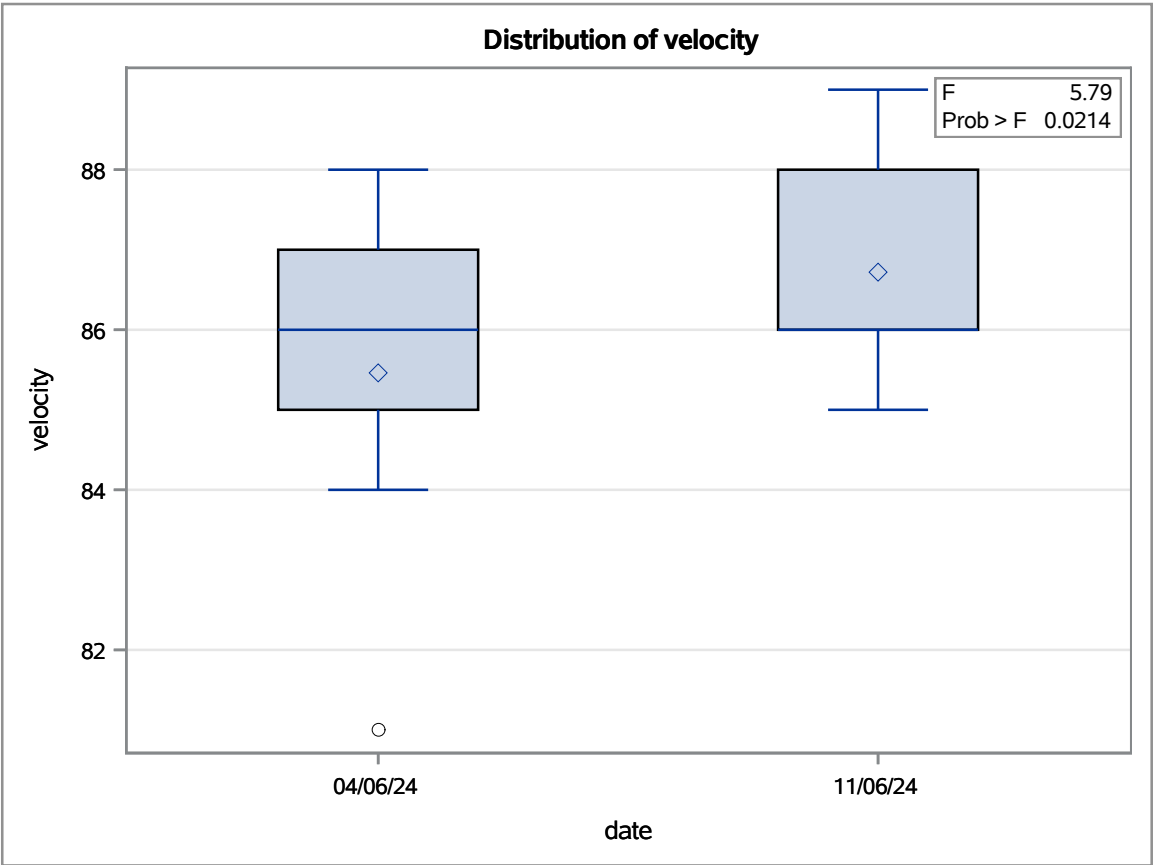
pitchType=FB

| Source | DF | Sum of Squares | Mean Square | F Value | Pr > F |
|-----------------|----|----------------|-------------|---------|--------|
| Model | 1 | 13.54502024 | 13.54502024 | 5.79 | 0.0214 |
| Error | 36 | 84.27076923 | 2.34085470 | | |
| Corrected Total | 37 | 97.81578947 | | | |

| R-Square | Coeff Var | Root MSE | velocity Mean |
|----------|-----------|----------|---------------|
| 0.138475 | 1.773084 | 1.529985 | 86.28947 |

| Source | DF | Type I SS | Mean Square | F Value | Pr > F |
|--------|----|-------------|-------------|---------|--------|
| date | 1 | 13.54502024 | 13.54502024 | 5.79 | 0.0214 |

| Source | DF | Type III SS | Mean Square | F Value | Pr > F |
|--------|----|-------------|-------------|---------|--------|
| date | 1 | 13.54502024 | 13.54502024 | 5.79 | 0.0214 |



Data available for home games only

Dependent Variable: velocity

pitchType=SL

| Source | DF | Sum of Squares | Mean Square | F Value | Pr > F |
|-----------------|----|----------------|-------------|---------|--------|
| Model | 1 | 4.08333333 | 4.08333333 | 12.25 | 0.0728 |
| Error | 2 | 0.66666667 | 0.33333333 | | |
| Corrected Total | 3 | 4.75000000 | | | |

| R-Square | Coeff Var | Root MSE | velocity Mean |
|----------|-----------|----------|---------------|
| 0.859649 | 0.762179 | 0.577350 | 75.75000 |

| Source | DF | Type I SS | Mean Square | F Value | Pr > F |
|--------|----|------------|-------------|---------|--------|
| date | 1 | 4.08333333 | 4.08333333 | 12.25 | 0.0728 |

| Source | DF | Type III SS | Mean Square | F Value | Pr > F |
|--------|----|-------------|-------------|---------|--------|
| date | 1 | 4.08333333 | 4.08333333 | 12.25 | 0.0728 |

