**Guidelines and Definitions for Positions & Batting**

* Since we are ranking by position, we look at the defensive stats first and then the offensive stats second.
* Players that are not pitchers, we use their Defensive and Hitting stats.

**\*\*\* DEFENSE [Infielders & Outfielders] \*\*\***

* Fielding % = ***#1*** ***most important stat considered, if they have had a quality number of TC in the field***
* TCs - ***#2*** ***most important stat considered***
* Assists - ***#3*** ***most important stat considered***
* POs -  ***#4*** ***most important stat considered***
* Arm Velo

**The TCs, Assists, and POs are compared against the FLD%**

**Example:**

Two people playing softball and both people have the same FLD%, but one person has had higher TCs, the person with more TCs is ranked better.

Assists + PO = Fielding %

Total Chances

**Note:** If the assists + POs are less than the TCs then the fielding % sent to us is correct.

**Note**: If the assists + PO = the same number of the TCs, then the player has a perfect fielding %.

**Fielding Percentage = FLD%**

* Number of attempts that resulted in an out compared to the number of total attempts.
* Formula: (Putouts + Assists) / (Putouts + Assists + Errors)
* Good = .990 and above

**Total Chances = TCs**

* Putouts plus assists plus errors; total chances offered; not total chances accepted.
* Formula: (Assist + Putouts + Errors)
* Ideally, the higher, the better because it shows us all the opportunities the player had.

**Assists**

* The number of times a defensive player assisted on an out. Not counted if the play results in an error.
* Example: Batter hits a ball to the shortstop who throws to first base, where the batter is out. The shortstop gets an assist.
* Ideally, the higher, the better because it shows us all the opportunities the player had.

**Put Outs = PO**

* The number of times a defensive player was the final player in a play, which resulted in an out.
* Ideally, the higher, the better because it shows us all the opportunities the player had.

**Arm Velo = throwing speed**

**\*\*\* PITCHERS \*\*\***

* IP (Innings Pitched) - ***#5*** ***most important stat considered***
* BB (walks) - ***#6*** ***most important stat considered***
* K (strikeouts) - ***#4*** ***most important stat considered***
* ERA - ***#1*** ***most important stat considered***
* WHIP - ***#2*** ***most important stat considered***
* BAA (batting avg against) - ***#3*** ***most important stat considered***
  + [Note: MaxPreps calls the BAA as OBA; offensive batting average against]
* Fastball speed – specific to only pitchers
* Change-up speed – specific to only pitchers

**SPEED:** Fastball speed should be 10mph higher than change-up speed. The more these speeds are different, the better.

**NOTE**: You want the strikes (K) to be higher than the walks (BB).

**The ERA and WHIPS = Most Important Stats & Equally Important**

Amazing = lots of innings pitched and a lot of K (strikeouts), and low ERA

**Earned Run Average = ERA [equally important to WHIP]**

* Represents the average number of runs given up by a pitcher during a game.
* Calculated with the innings pitched. Did the pitcher allow so many runs in the game on a per inning basis?
* Formula: (Earned Runs multiplied by Innings Per Game) / (Innings Pitched)
* Good = below 1.00 & below

**Batting Average Against = BAA**

* A statistic that measures a pitcher’s ability to prevent hits during official at-bats. It can be described as the league’s hitters’ combined batting average against the pitcher.
* Formula (Hits / AB (at-bats)
* Does not correlate to the ERA
* Good = lower, the better but if it’s high, rely more on the ERA.
* 0.00 is best

**Strikeouts = K**

* Strikeouts.
* The more strikeouts, the better

**Walks = BB**

* When a batter is awarded first base as a result of the balls being thrown outside the strike zone.
* The lower the walks, the better

**With Hitters In Scoring Position = WHIP [equally as important to ERA]**

* Average number of walks and hits allowed by the pitcher per inning.
* Formula (Hits + Walks) / Innings
* 0.00 is best score

**Innings Pitched**

* How many innings the pitcher has pitched throughout a game, season, or year.
* Gives a better idea of how much the pitcher is pitching which can allow us to evaluate the statistics fairly

**Arm Velo = throwing speed**

* Fastball speed
* Change-up speed. (single number)
  + Generally thrown 8-15 mph slower than the fastball speed
  + Fastball and change-up speed will be separated into their own columns
  + Teach the fastball and change-up columns to talk to each other.

**\*\*\* CATCHERS \*\*\***

* SB-ATT [stolen bases & attempts] - **whole number**
* ***#1*** ***most important stat considered***
* In the spreadsheet the SB (Stolen Bases) and (Attempts) are in two different rows
* Stolen Bases (SB)
* Attempts (ATT) is how many people tried to steal on the catch
  + Scenario Example: 9-6
    - This means that out of the 9 people that tried to steal on the catcher, that the catcher got 3 of them out.
    - Differential is 3 which is how many girls the catcher threw out
* **The closer the variance = bad. Example 2-6**
* **The bigger difference = excellent. Example 2-20**
* Attempts: The more attempts means that the catcher isn’t very good since people are trying to steal against her.
* Pop-Time ***#2*** ***most important stat considered***
* Arm Velo ***#3*** ***most important stat considered***
* Fielding Percentage
  + Good = .990 and above

**Pop-Time**

* The time elapsed from the moment the pitch hits the catcher’s mitt to the moment the intended fielder is projected to receive the throw at the center of the base.
* The lower the pop-time, the better.
* A sub 2 second pop time is optimal

**Arm Velo = overhand throwing speed**

**\*\*\* BATTING \*\*\***

* Plate Appearances (PA) [going up to plate. If you walk or get hit by a pitcher, it’s not considered an ‘at bat’
* At Bats ***4th most important stat considered***
* AVG *=* ***#1 most important stat considered*** *[sub 1 number]*
* OBP *[this is a percentage]* ***3rd most important stat considered***
* OPS *[this is a percentage]* ***2nd most important stat considered***
* Hits ***6th most important stat considered***
* Doubles
* Triples
* Homeruns
* RBI
* Strikeouts ***5th most important stat considered***

**The OBP, OPS, & QAB% is compared against the BA**

**OBP + Slugging = OPS**

**Example:**

Two people playing softball and both people have the same AVG%, but one person has had higher At-Bats, then the person with more At-Bats is ranked better.

**Batting Average [AVG]**

* Number of times a player has been up to bat. Not counting the times, the plate appearance resulted in a walk, hit by pitch, sacrifice bunt, or sacrifice fly. Determined by dividing a player's hits by her total AB (at-bats) for a number between zero .000 and one.
* Good BA = .280 and .300 [good]
* Good is above .300, for a high school athlete
* Exceptional BA = .500

**On Base Percentage [OBP]**

* OBP refers to how frequently a batter reaches base per plate appearance. Time on base includes hits, walks, and hit-by-pitches, but does not include the errors, times reached on a fielder’s choice or a dropped third strike.
* Good OBP = .300 or more

**On-Base Plus Slugging [OPS]**

* On-base percentage plus slugging percentage.
  + Slugging % = total number of bases a batter reaches divided by at-bats (AB)
* Good = .500 or more

**Quality At-Bat Percentage [QAB%]**

* An at-bat that makes a positive contribution towards the team goal. There are multiple ways to have a QAB% (hit & run, sac bunt, sac drag, squeeze) Executing a bunt for a hit, walk, HBP, or Catcher’s interference.

**At Bats / Plate Appearances (PA)**

* An official at-bat comes when a batter reaches base via a fielder's choice, hit or an error (not including catcher's interference) or when a batter gets out (not on a sacrifice bunt or sacrifice fly)
* At-bats are used as the denominator when determining batting average and slugging percentage. Players who bat higher in the order will typically finish the season with more at-bats than players who hit toward the bottom. Similarly, players who walk infrequently also typically record a higher-than-usual number of at-bats in a season, because walks do not count as at-bats.

**Catchers**

**[Pop-Time, Arm Velo]**

**Batting**

**[AVG, OBP, OPS, QAB%, At Bats]**

**Defense [OF & IF]**

**[Fielding %, Total Chances, Assists, POs, Arm Velo]**

**Pitching**

**[ERA, BAA, K/BB, Fastball/Change-up speed, WHIP, Innings Pitched]**