

2020 MLB REGULAR SEASON ANALYSIS

15,000+ VIZUAL EDGE SCOUTING ENTRIES



2020

Working with Major League Baseball teams for the last 15 years has enabled Vizual Edge to complete a detailed breakdown of various trends between the core visual system and on-field performance statistics.

Over 15,000 Vizual Edge evaluations have been completed since 2011 by current or former Major League Baseball players or prospects. The primary sample of players within the database consists of high school or college players entering the amateur draft. The players represented are position players or designated hitters only, not pitchers.

During the truncated 2020 MLB regular season, 310 players had at least 100 PAs. 130 of those 310 players (42%) had previously completed a Vizual Edge baseline evaluation. By digging deeper into our database of the 130 'qualified' players, we looked at a variety of statistics and correlations found between MLB standard and advanced metrics, and average Vizual Edge baseline evaluation data. MLB statistics provided by FanGraphs.

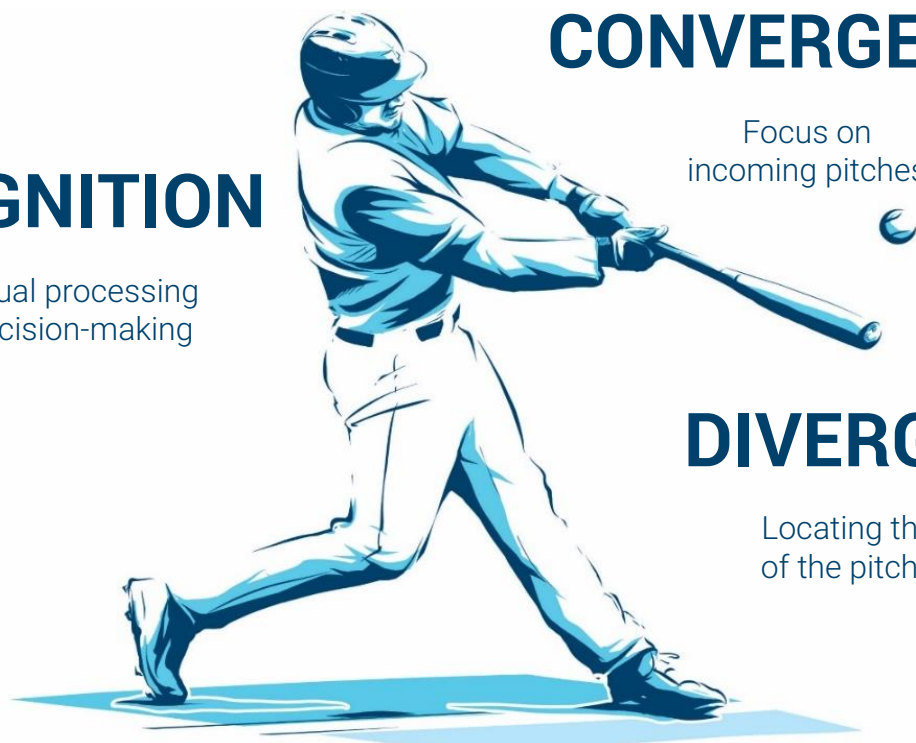


2020 MLB ANALYSIS

KEY MLB STATS

RECOGNITION

Overall visual processing skills & decision-making



CONVERGENCE

Focus on incoming pitches

DIVERGENCE

Locating the ball out of the pitcher's hand

The table below outlines the impact better visual skills had on MLB players during the 2020 regular season (min. 100 PA). The primary sample of players within the database consists of average Vizual Edge evaluation scores from high school or college players entering the amateur draft. The players represented are position players or designated hitters only, not pitchers.

MLB Stats*		Convergence	Divergence	Recognition (Speed & Accuracy)
Avg Exit Velocity Over 90.1 MPH	Above	37 (6% better)	23 (10% better)	0.90s (95%) (10% quicker)
	Below	35	21	1.00s (94%)
BB Rate Over 11.2%	Above	38 (12% better)	24 (14% better)	0.92s (96%) (7% quicker)
	Below	34	21	0.99s (94%)
OPS Over 0.740	Above	38 (15% better)	22 (5% better)	0.94s (95%) (6% quicker)
	Below	33	21	1.00s (94%)
SLG % Over 0.440	Above	37 (9% better)	22 (5% better)	0.94s (92%) (5% quicker)
	Below	34	21	0.99s (94%)
HR Rate Over 3.9%	Above	36 (3% better)	22 (5% better)	0.92s (95%) (10% quicker)
	Below	35	21	1.02s (93%)

*130 MLB players. 2020 MLB Stats provided by FanGraphs



2020 MLB ANALYSIS

EXIT VELOCITY

AVG EXIT VELOCITY

Exit velocity has gained increased validity over the years, and is arguably one of the 'hottest statistics' in baseball. That being said, teams are always looking forward to improve their players' exit velo, but finding players with better visual skills might be a good first step.

Here we can see that players who hit an average exit velo of 91.0 or above, had 11% better convergence scores, which helps make strong, consistent contact with the ball as it approaches the plate.

Having quicker processing skills, in this case 16% quicker recognition skills, clearly helps top hitters identify the incoming pitch type and be ready to turn on a pitch and make solid contact with the ball.

2020 League Avg: 88.4 MPH
Avg Exit Velocity \geq 91.0 MPH qualified for Top 50 in 2020

	Above 91.0	Below 91.0
# of Players	21	109
Edge Score	81.4 (3% better)	79.3
Convergence	39 (11% better)	35
Divergence	21	22
Recognition <small>(speed & accuracy)</small>	0.83s (97%) (16% quicker)	0.99s (94%)
Tracking <small>(speed & accuracy)</small>	0.52s (94%) (4% quicker)	0.54s (93%)



2020 MLB ANALYSIS

PLATE DISCIPLINE

WALK RATE (BB%)

Players with better plate discipline tend to draw more walks than the average hitter. When evaluating base on ball %, players were bucketed into two categories – greater than or equal to 11.20% and less than that mark.

A key visual skill that stands out with this analysis is convergence. Having a 12% better convergence skills allows a hitter to better focus on an incoming pitch. Additionally, having a quicker recognition speed allows the hitter to decide whether the pitch type will be a ball or strike.

2020 League Avg: 9.20%
BB% >= 11.20% qualified for Top 80 in 2020



STRIKEOUT RATE (K%)

Convergence & divergence player a key role in a hitter's ability to be ready for an incoming pitch. Divergence is first used to locate the ball out of the pitcher's hand, while convergence is used as the ball approaches the final 15 feet to the plate. Players who struck out less than 21.2% of the time had better scores in both of these categories.

2020 League Avg: 23.40%
K% <= 21.20% qualified for Top 125 in 2020

	Above 11.2%	Below 11.2%
# of Players	37	93
Edge Score	80.5 (2% better)	79.3
Depth Perception	80%	84%
Convergence	38 (12% better)	34
Divergence	24 (14% better)	21
Recognition (speed & accuracy)	0.92s (96%) (7% quicker)	0.99s (94%)
Tracking (speed & accuracy)	0.52s (93%) (4% quicker)	0.54s (93%)

	Below 21.2%	Above 21.2%
# of Players	47	83
Edge Score	80.5 (2% better)	79.1
Depth Perception	86% (5% better)	81%
Convergence	37 (6% better)	35
Divergence	23 (10% better)	21
Recognition (speed & accuracy)	0.99s (94%)	0.96s (94%)
Tracking (speed & accuracy)	0.54s (93%)	0.54s (93%)

2020 MLB ANALYSIS

ADVANCED PLATE DISCIPLINE

O-SWING %

Better plate discipline starts with a better ability to identify pitch type & quickly process an incoming pitch. Players with outside-swing % below 29.6% had better visual scores in nearly every category. Most notably, quicker recognition skills, needed for identifying pitch type, and better divergence skills, which are used to pick up a pitch early.

2020 League Avg: 30.60%
O-Swing % <= 29.60% qualified for Top 150 in 2020



Z-CONTACT %

Making contact with a pitch in the zone starts with having a strong ability to focus on an incoming pitch. Hitters who made contact with pitches in the zone more than 90% of the time had convergence scores 11% higher than their counterpart. This allows for better ability to focus on incoming pitches, especially high velocity pitches, and make better barrel contact

2020 League Avg: 84.20%
Z-Contact % >= 90.0% qualified for Top 60 in 2020

	Below 29.6%	Above 29.6%
# of Players	67	63
Edge Score	80.0 (1% better)	79.2
Depth Perception	81%	84%
Convergence	37 (9% better)	34
Divergence	23 (15% better)	20
Recognition (speed & accuracy)	0.91s (96%) (12% quicker)	1.03s (93%)
Tracking (speed & accuracy)	0.52s (93%) (5% quicker)	0.55s (93%)

	Above 90.0%	Below 90.0%
# of Players	26	104
Edge Score	80.6 (2% better)	79.4
Depth Perception	83%	83%
Convergence	39 (11% better)	35
Divergence	23 (10% better)	21
Recognition (speed & accuracy)	0.99s (95%)	0.96s (94%)
Tracking (speed & accuracy)	0.54s (93%)	0.54s (93%)

2020 MLB ANALYSIS

CONTACT QUALITY

HARD BALL %

Here the data shows us that in nearly every visual category, players had a hard ball % above 37.6%. Better convergence scores allow for better and more consistent barrel contact, along with a stronger depth perception that impacts the ability to make contact on off-speed pitches.

2020 League Avg: 33.3%
Hard Ball % >= 37.60% qualified for Top 75 in 2020



SOFT BALL %

Typically the higher the soft ball %, the weaker the barrel contact. Therefore, players with a lower soft ball % tend to make poor contact /ess frequently. The table on the right shows that across all the visual skills, lower soft ball % was correlated with better visual skills.

Similar to hard ball %, the better convergence and depth perception scores, the better the ability to consistently make solid contact with the ball and connect on off-speed pitches.

2020 League Avg: 16.5%
Soft Ball % <= 13.0% qualified for Top 68 in 2020

	Above 37.6%	Below 37.6%
# of Players	34	96
Edge Score	80.9 (2% better)	79.1
Depth Perception	85% (6% better)	82%
Convergence	37 (9% better)	35
Divergence	22 (5% better)	21
Recognition (speed & accuracy)	0.92s (95%) (7% quicker)	0.99s (94%)
Tracking (speed & accuracy)	0.54s (93%)	0.54s (93%)

	Below 13.0%	Above 13.0%
# of Players	31	99
Edge Score	81.1 (3% better)	79.1
Depth Perception	87% (6% better)	81%
Convergence	38 (9% better)	35
Divergence	24 (11% better)	21
Recognition (speed & accuracy)	0.93s (96%) (5% quicker)	0.98s (94%)
Tracking (speed & accuracy)	0.53s (94%) (2% quicker)	0.54s (93%)