

## **“Stat One?” The Flat One! BAM? Buoyant, Flamboyant!**

The inverse relationship of popularity to truth received an affirmative jolt recently with the heralded publication of Stat One by Craig Messmer (McGraw-Hill). This simplistic attempt at simplification inadvertently sheds renewed light on both the creativity and correctness of Barry Codell’s nuanced numbers.

Evidently eminently unaware of statistical history, Messmer’s claims of clarity and originality quickly dissolve upon a cursory examination of his figure’s three foundational components.

His formula:

$$\frac{(\text{Net Runs}) + (\text{Net Runs}) + (\text{Complete Bases})}{(\text{Plate Appearances})} = \text{PEA (Production Efficiency Average)}$$

“Net Runs” is the rehashing of writer Joe Reichler’s 50-year-old, specious “Runs Produced,” which adds runs and runs batted in, and then subtracts homers, in an effort to avoid the so-called “homer double dipping” in the R and RBI columns: Net Runs = Runs Produced = (R+RBI) - HR.

The fatal flaw of the first component was revealed in 1988 when Codell unveiled his “Runs Tallied” discovery. Rather than artificially de-emphasizing the home run like Reichler, Codell simply expressed reality. “A home run is the only scoring unaided by teammates. All other runs are joint efforts,” he declared. Codell held this truth, hitherto unnoticed by diamond watchers, to be self-evident, and it became the stunning basis of Runs Tallied:  $\frac{1}{2}(R + RBI)$ . Its welcome consequence is that a player’s Runs Tallied total usually equals and can never surpass his team’s game or seasonal scoring, unlike Runs Produced (Messmer’s “Net Runs”) or Bill James’s later (all 30 steps!) Runs Created.

Codell’s premise was this: averaging runs scored and runs batted in perfectly describes run contribution. (See 1990 Baseball Research Journal.) Translating actual Runs Tallied to Tallied Bases (TaBa) became his next logical step. Runs and RBI’s doubled, i.e.,  $2(R+RBI)$ , assigning scoring bases Solomonically--half to hitter, half to scorer!--and formulaically (TaBa = RT x 4) overcomes the desultory combining of two “Net Bases” totals that tip Craig Messmer’s scales toward his own desired outcome!

Messmer’s counter-intuitive methods that lead to his net run hodgepodge seem themselves based on his half intuition that they somehow must be given equal weight to his second component: Complete Bases. Of course, baseball insiders have long credited Codell for that very number--rightfully called “Bases” in his breakthrough Base-Out Percentage 30 years ago!

And, in his yearly “BAM” Leaders Lists (dutifully distributed to “Individuals for Baseball’s Absolute Recounting” [IBAR] loyalists), Codell had already given mathematical credence to equalizing team contribution and individual accomplishment via the averaging of Batting Bases (BaBa, the Batting Total of his BOP bases) and the aforementioned Tallied Bases, to create the Batting Mean (BAM). Batting Bases and Tallied Bases as a numerator over his historic denominator Outs Batting (again, from the BOP, AB-H) create the One Stat—and it’s not “Stat One!” (Messmer’s misguided denominator of Plate Appearances, which, as Codell decades before demonstrated so succinctly in a June 1978 Sporting News missive, shields outs!)

Let us now bring those two stalwarts, Batter A and Batter B, with their shiny new stats into view, and see how they translate into that “one number” (although Messmer’s “for the first time” self-designation, ignoring Codell’s work, is patently bogus).

Batter A 600 PA, 510 AB, 140 H, 90 BB, 0 HBP, 38 2B, 22 3B, 20 HR, 280 TB, 100 RBI, 100 R

Batter B 600 PA, 500 AB, 150 H, 100 BB, 0 HBP, 10 2B, 0 3B, 40 HR, 280 TB, 100 RBI, 100 R

Batter A (perhaps a Curtis Granderson type) and Batter B ( a la Frank Thomas) show different results against each other when Messmer’s erring math (culminating in his PEA) is compared to Codell’s “real deal”--the BAM!

Messmer’s “Points” over Plate Appearances numbers are as follows:

$$\text{Batter A} = (180) + (180) + 372 = \frac{732 \text{ Pts.}}{600 \text{ PA}} = 1.220 \text{ PEA}$$

$$\text{Batter B} = (160) + (180) + 380 = \frac{700 \text{ Pts.}}{600 \text{ PA}} = 1.167 \text{ PEA}$$

Codell’s “Averaged Bases” over “At Bat Outs” are as follows:

$$\text{Batter A } \frac{1}{2}(400 + 372) = \frac{386 \text{ AvBa}}{370 \text{ ABO}} = 1.043 \text{ BAM}$$

$$\text{Batter B } \frac{1}{2}(400 + 380) = \frac{390 \text{ AvBa}}{350 \text{ ABO}} = 1.114 \text{ BAM}$$

In Messmer’s strained scenario, Batter A has bested Batter B, attaining (?) 1.22 points per plate appearance.

In Codell’s steadfast Base-Out ratio, Batter B comes out ahead with 1.11 bases batting per out batting.

Barry Codell's BAM, like all his progressions from the primal Base-Out dichotomy, make baseball sense. Even assuming Craig Messmer's bright intentions, the encouragement of both coach Bill Parcell and Craig's students (who may now undertake the invariably daunting and hopeless task of unlearning their teacher's concise mistakes before they are unwittingly spread), and the happy hubbub accompanying his attractive book, sadly the PEA may be, after all, another in the pod of pea-brained, baseless, baseball non-concepts. Yet our best to all involved, whether misleading, misinformed, or most likely, both.

*IBAR*