

## A Numbers Game? Assessing Boxing's Place In The Statistical Revolution

Written by Eric Raskin

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Canobbio (forefront) told Raskin, "We don't want to be thinking while we're working." Amen, sir, you've made a mega fan at TSS. In baseball, they use DIPS, FIP, VORP, WAR, and PECOTA. In football, it's YACO, ANYPA, DVOA, and DYAR. In basketball, there are fewer acronyms, but we have PER, usage rate, and win shares.

Measuring a player by his batting average, receptions, or rebounds is soooo 2005. The sports world has changed—or at the very least, is changing—and knowing how to crunch numbers is as important to scouting and expert analysis as knowing talent when you see it.

Felix Hernandez was the best pitcher in the American League in 2010, but his 13-12 record would likely have kept him out of the running for the Cy Young award just a few years ago. However, because wins and losses are stats that are grossly skewed by factors beyond a pitcher's control, 21 of 28 voters made the Mariners' ace the runaway winner of the award.

The sabermetricians laugh at wins. They prefer wins above replacement—WAR—a stat in which Hernandez led the league. Hernandez's Cy Young triumph was the latest overwhelming sign of how the statistical revolution is impacting sports.

Boxing, however, is not one of those sports.

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On February 16, 1985, the fight game took a major leap forward in the statistical department when CompuBox co-founders Bob Canobbio and Logan Hobson were hired to count punches for the first time, and worked the Livingstone Bramble-Ray Mancini rematch for HBO. Tracking each fighter's jabs thrown and landed and non-jabs thrown and landed, CompuBox injected never-before-measured numbers into televised boxing.

In the 26 years since, however, there have been minor twists and tweaks here and there, but nothing revolutionary. For myriad reasons, boxing remains a sport judged primarily by the naked eye, not by a calculator.

Because boxing is an individual sport, wins and losses are the ultimate statistical measurement. However, all win-loss numbers in boxing require qualification. We have to ask, "When did he fight?" and "Against whom did he fight?"

In the year in which he first won the world featherweight title, Willie Pep fought 24 times—an average of twice a month. Nowadays, most elite fighters enter the ring twice a year. The way activity has changed across eras detracts from the significance of win and loss totals. We can make legitimate arguments about the greatness of Manny Pacquiao vs. the greatness of Pep, but the reality is that "Pac-Man" might not make it one-quarter of the way to Pep's 229 career victories.

Even within a given era, levels of opposition can vary so wildly as to render won-loss records borderline irrelevant. This isn't the NBA, where every team plays against the same other 29 teams, just with slight variations in how often they play each opponent. In May, Evander Holyfield, with his increasingly mediocre looking 43-10-2 record, is scheduled to take on 64-2 Brian Nielsen. Holyfield is probably an all-time top-10 heavyweight, whereas Nielsen shouldn't be in anyone's top 300. One guy spent his entire career facing elite opposition, while the other's career couldn't look any more manufactured even if it had "MADE IN DENMARK" stamped across it in giant block letters.

Sure, there are some numbers that mean something in the fight fraternity and always will. Rocky Marciano's 49-0 dossier. Joe Louis' 25 consecutive heavyweight title defenses. Archie Moore's 141 knockouts.

But don't throw Pacquiao's eight divisions with a "world" title in there. So-called championships have become so watered down, so easy to claim by beating non-contenders for recently stripped straps, that there's no point counting them anymore.

If baseball expanded from a 162-game season to a 262-game season and somebody broke the single-season home run record, even if they did so steroid-free, would it matter to anyone? That's essentially where we are now with Pacquiao claiming to be an eight-division "champion." And don't put any stock in the rhetoric regarding Pacquiao's eight titles that "if it was so easy, everyone would do it." Obviously, it's not easy. But it's far easier than it was even 10 years ago. Maybe Henry Armstrong or Ray Leonard could have done it if they were fighting today. And if things continue this way, in another decade or two, a fighter who isn't as brilliant as Pacquiao might find himself winning titles in nine divisions.

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Frankly, with titles becoming afterthoughts and with sample sets getting smaller and smaller in terms of how often guys fight, statistics are actually less integral to boxing now than they ever were before.

The only area in which this isn't true is with regard to CompuBox and other punch-measuring stats.

Though progress in that realm has been slow and steady rather than dramatic since the initial impact in '85, the movement continues to be of the forward variety.

"Over the years, we've enhanced the program, and our database has, of course, increased as we've done more fights," explained Canobbio, who says the standard margin of error with CompuBox stats is in the neighborhood of two percent. "We've been able to build a database and determine what a weight class average is, what our record is for a weight class for punches thrown in a round and in a fight, one fighter, both fighters. So the stats have evolved as we've collected more data over the years. We've also added stuff to our live program, like being able to break down the punches landed minute by minute. And we do the Punch Zone now, which shows where the punches landed. That's an addition.

"From my standpoint, I could probably add more categories, but I don't want to sacrifice accuracy. We could do left hand and right hand if we wanted. But too many keys leads to too much thinking, and we don't want to be thinking while we're working. I don't want to sacrifice accuracy."

Other companies have tried to come up with their own advanced pugilistic metrics. For example, Showtime experimented last year with a chart showing where in the ring a fighter was standing when he landed his punches. That lasted all of two broadcasts.

HBO is currently looking into methods for measuring the force of punches landed, though the production team there is unable to comment on that because they're still in the trial-and-error stage and have no timetable in place yet. But Canobbio shared what he knows about the endeavor.

"I think HBO is working on something where there's a band around the wrist of a glove," Canobbio revealed. "It's an accelerometer, and with calculations, there's a way they can infer force. That's what I was told. I know that they're working on it. I've seen them at ringside testing it.

"Force is the missing link in punch stats. I've had several meetings with individuals who have had technology that they say could directly measure the force, but it requires putting a device in the glove. And that's a major red flag. Still, I would love to incorporate that into CompuBox if everything can be ironed out."

Even if we are able to start measuring the force of a punch during a fight, one catch is that we won't be able to compare modern stats in that regard with fighters from past generations. CompuBox can go back and watch the Sugar Ray Robinson fight films and count his punches

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thrown and landed; CompuBox can't go back and measure his power.

Ultimately, there's only so much you can do with statistical data in boxing. The sport just doesn't lend itself conveniently to numbers or acronyms.

And to a large extent, that's what we love about the fight game. In boxing, it's not about what the math geeks tell you is happening. It's about what you see happening with your own eyes.

Sure, we put three letters together sometimes as a barometer of fistic achievement. But when we do, it's to spell Ali, Pep, Ray, or Joe.

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### **FighterforJC says:**

Wow we're getting into videogame territory here. They probably won't ever bother perfecting the technology that measures force of punches during a bout, but even if they did, there's one thing that they won't be able to measure, and that is the damage caused by the punch. They won't be able to tell if one fighter got really hurt by a punch or how close a fighter got to getting KO'd. In real life, there are no health meters that get depleted with each punch taken.

### **Radam G says:**

The CompuBox is often wrong in most boxers' and trainers' opinions. The guys who are doing that keyboard either don't know what a scoring punch is, or are bias, or distracted by surrounding. Holla!