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## Numbers game

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Everyone else has it wrong. The fans. The press. Even the league. They're blinded by box scores. Hamstrung by hype. Of this and more, Wayne Winston is certain. A single mouse click tells him so.

"Nobody should be talking about LeBron James and Carmelo Anthony," he says. "They should be talking about Dwyane Wade. It's a crime."

For Winston, Wade's superiority is not a matter of opinion. It's a fact, cold and hard, like an icicle. You can argue politics, and you can argue the best "Godfather" flick (well, excluding part III). But when it comes to the NBA Rookie of the Year race, you can't argue the data. At least not with Winston, a former "Jeopardy" champ who's good with math the way Eric Clapton is good with chords.

"James rates as an average NBA player," says Winston, a professor of decision sciences at Indiana University. "That's good since very few rookies rate that high. But Wade's a real impact player for Miami. He ranks 21st best in the league in terms of changing the chances of your team winning a game."

Like any MIT graduate worth his sodium chloride, Winston has the numbers to prove his point. More than 5,000 pages' worth, to be exact. Only you won't find his statistics in a newspaper. Together with fellow sports math guru Jeff Sagarin -- the brain behind USA Today's computer rankings -- Winston has created Winval, a sophisticated program that rates and ranks the value of every NBA player from Tariq Abdul-Wahad to Lorenzen Wright.

Used by the Dallas Mavericks, the system ignores traditional measures like assists and rebounds to answer a more basic question: Namely, does a team play better or worse when a particular player is on the floor?

"We don't care if you never score a point," Winston says. "If you make plays and help your team win, you don't have to score."

If it sounds a bit like the stats-centric, counterintuitive "Moneyball" revolution sweeping through baseball, that's no coincidence. The idea is the same: use the mathematical tools of quantitative analysis to go beyond the box score and discover the hidden factors that contribute to victory.

On the diamond, that means dumping sexy batting averages for dowdy on-base percentages; on the hardwood, it means focusing less on points per game and more on exotic measurements like the aforementioned "impact" rating.

"You couldn't run a team completely on statistics," Indiana Pacers general manager Donnie Walsh says. "But anybody from the old school who doesn't pay attention to them is probably in the wrong. Everyone's looking for an edge. And this kind of information can give you one."

Can it ever. In a recent Dallas-Miami contest, the Mavericks were outscored by a total of 17 points during the times a particular Mavericks player -- who won't be named here -- was on the floor. During the

times that same player sat on the bench, the Mavericks were a cumulative plus-16.

The Heat won the game by a point.

"That's important information, but you wouldn't know it because the guy came in and out eight or nine times," Winston says. "The game moves so fast that unless you have somebody tabulating this and analyzing it properly, you're just not going to know. A lot of coaches think they know more than they do."

Four years ago, Winston took his son on a spring break trip to Dallas. Sitting in some choice seats at a Pacers-Mavericks game, they ran into Dallas owner Mark Cuban, a former student in Winston's statistics class.

"We shook hands," Winston says. "He asked me, 'Do you have any way to make the Mavs better?' "

As he unwound in a hotel pool the next day, Winston had an epiphany: If entire teams could be rated and compared, then why not individual NBA players?

Winston ran the concept by Sagarin, a close friend since their days as fellow MIT undergraduate math majors. They settled on a variation of hockey's plus-minus system, in which players are judged by how well their team plays while they are in the game.

In the NHL, for instance, a player who is on the ice when his team tallies a goal earns a rating of +1; if the team yields a score, that same player would receive a -1 mark.

"Basketball's a team sport, and lots of things aren't tracked," Winston says. "Like taking the charge, going through a screen, tipping a ball to your teammate, saving a ball from going out of bounds. That's where our system comes in. All these little things should translate into points."

One problem: Traditional plus-minus systems tend to overrate average players on good teams and underrate good players on lousy ones. After all, a zero plus-minus rating on the Los Angeles Lakers is not the same as a zero rating on the Los Angeles Clippers, mostly because one team has Kobe Bryant and Shaquille O'Neal and the other has Marko Jaric and Chris Kaman.

To compensate, Winval's ratings are weighted to take into account every other player on the floor. For every time segment a player is in a game, the system tracks the other nine players on the floor, the length of the segment and the score at the start and end of the segment.

The result of all that math? Rankings that sometimes refute conventional NBA wisdom. High-scoring players like Vince Carter, Dirk Nowitzki and likely MVP winner Kevin Garnett are among Winval's top 10. But so is San Antonio's Bruce Bowen, an unsung defensive specialist who averages just 6.8 points a game.

On offense, Bowen makes the defending league champs less than a point a game better than an average NBA player. On defense, however, the Spurs are 10 points a game stingier with Bowen on the floor.

Sacramento's Brad Miller and Denver's Nene fare well for similar reasons, while the Nuggets' Anthony, the Kings' Mike Bibby and New York's Stephon Marbury rate lower than you might expect.

"Marbury's one of the top 10 players on offense," Winston says. "Everybody thinks this guy is a great player. But when he's on defense, he gives it all back."

Before every Dallas game, Winston and Sagarin sift through a 38,000-row spreadsheet of raw data, then send a customized scouting report to Mavericks assistant coach Brian Dameris. Each report contains a list of hot and cold players for each squad, drawn from individual Winval ratings over the previous five games.

Two weeks ago, for example, Golden State's Mickael Pietrus ranked as the league's third-hottest player; not coincidentally, the seldom-used rookie averaged 14.2 points and 30.3 minutes over a six-game stretch, far better than his season averages of 4.7 points and 13.3 minutes.

Had the Mavericks played the Warriors, the Mavericks would have known to give Pietrus extra defensive attention. Conversely, cold ratings can tip Dallas off to struggling or injured opponents.

A few years back, Winston couldn't figure out why Jason Kidd's normally stellar rating had taken an abrupt nosedive. It later came out the All-Star guard had been involved in a domestic altercation with his wife.

"DeShawn Stevenson, on Utah last year, his rating was really bad for two weeks," Winston says. "The next week, I found out he was suspended from the team. So we can spot these guys having problems. We don't know if they're marital, psychological, injuries. But if a guy starts playing [bad], we know it. And the Mavs go at him."

Of particular use to the Dallas coaching staff is Winval's "lineup calculator," a software tool that measures the effectiveness of various player combinations on a game-to-game, weekly and season-long basis.

According to the system, Nowitzki and Eduardo Najera make up one of the Mavericks' top frontcourt pairings, while an on-floor five of Nowitzki, Michael Finley, Steve Nash, Antoine Walker and Scott Williams is 25 points better than an average NBA lineup per 48 minutes.

During last year's playoffs, Winval indicated Shawn Bradley was more effective facing Portland than Sacramento. The Dallas center started six first-round games against the Blazers but played sparingly vs. the Kings in the conference semifinals.

"If you're a coach and you're watching the game, you might not pick all that up," says Seattle SuperSonics assistant general manager Rich Cho, a former Winval user. "After the game, you might look at the box score and see a player has good stats. But it's hard to correlate that with who he was on the floor with."

Last summer, Winston and Sagarin met with Walsh, whose Pacers were upset by Boston in the first round of the playoffs. In splitting the first two games of that series, Indiana fielded a particular lineup that had a plus rating of nearly 50.

Over the next three games, however, that lineup barely played.

"When we showed that to Donnie, his eyebrows nearly flew off his forehead," Sagarin says.

Though Walsh was intrigued, then-coach Isiah Thomas expressed little interest in the system. Cuban says he's often mocked for using Winval. Cho notes that veteran scouts and coaches aren't always comfortable with new school number-crunching.

"People see it as some kind of threat to the old school way of thinking," Walsh says. "I don't see it that way. I think one helps the other. It's a digital world."

Like any mathematical model rooted in human behavior, Winval has its limits. Highly rated players can suffer bad stretches (Winston calls it the "girlfriend" factor). Trades often produce significant rating fluctuations.

Winston says he can predict a player's future rating within four points but only about 60 percent of the time -- not good enough for Cuban, who has used the system to help evaluate roster moves.

"The information is a good reference point, but unlike 'Moneyball,' where there are definable variables that enable a team to select players wisely, there are no such variables identified yet in basketball," Cuban says. "Personally, I think it's because we don't collect the right data."

Still, Cuban is happy to pay for use of the system, which can cost up to \$30,000 a month. The Mavericks also track referee tendencies -- and not simply as part of the owner's ongoing effort to make league officials more consistent and accountable.

"Jermaine O'Neal leads the league in offensive fouls," Winston says. "If you have three refs on the

court who call lots of charges, then when Jermaine throws an elbow, fall down."

Meanwhile, Winston and Sagarin continue to tweak their brainchild. The latest stat? "Impact" rating. Basically a measure of clutch play, it compares a team's probability of victory when a player comes into a game vs. the team's odds of winning when the same player comes out.

According to Winval, Houston's Yao Ming leads the league in impact. Also in the top 10? Cleveland's Carlos Boozer, whose +29 rating is nearly three times higher than that of James.

"Cleveland is better this year because of Boozer," Winston says. "James is nice, but he's not the main reason."

Which again brings up the rookie of the year debate. On the floor, Miami is surging past Denver and Cleveland; on the screen, Wade has a +25 impact rating, tops among rookies and much better than either Anthony (-7) or James (+3).

Do the math, Winston says. The choice should be clear.

"Wade is a really solid player," he says. "But he probably won't win. He doesn't have the pedigree. There are 100 articles on LeBron to every one on Wade."

True enough. Even when everyone else is wrong, some numbers can't be argued with.

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