In this age of exhaustive statistical analysis, there still isn't much out there that quantifies the effectiveness of middle relievers, showing which teams are losing games in the middle innings because of the shortcomings of the 10th or 11th best pitcher on their team. In Paulie's latest, he tries to answer the question: how much impact does a middle reliever, often asked to pitch the team out of jams and to eat innings not located in the final third of the game, have on the outcome of a season?

In this age of exhaustive statistical analysis, the expectations for middle relievers have remained fairly elusive in terms of being able to quantify it with a simple formula, often leaving teams losing games in the middle innings because of the shortcomings of the 10th or 11th best pitcher on their team. Certainly, statistical measurements such as WXRL and WAR have been relied upon to gauge a reliever's effectiveness and they're proved to be effective in terms of quantifying the quality of a team's bullpen options; but how much impact does a middle reliever, often asked to pitch the team out of jams and to eat innings not located in the final third of the game, have on the outcome of a season?

These days, teams build their bullpens with a "top-down" approach, believing that the importance of a closer, followed in terms of emphasis by set-up men, are the path to building a successful bullpen with the rest of the bullpen being populated by moderately priced and moderately effective middle relievers. The thought process being that

dominant pitchers who can pitch from the 7th inning on essentially shorten a game, but the handling of a bullpen has also evolved to designated innings that certain pitchers enter a game with a lead. That is, for the White Sox, Scott Linebrink generally enters a game in the 8th inning with a lead to start off an inning with the idea that he'll hand that lead to Bobby Jenks to start (and finish) the 9th with the lead still intact.

But a wide gap of time often exists from a starter, perhaps getting into trouble with a lead, to the time that the progression of late-inning relievers takes over, often with the game in the balance. In effect, games can be won or lost in the 5th, 6th, or 7th innings by pitchers that are far from a team's best offering out of the bullpen, if only as a result of their effectiveness when being asked to do what relievers were originally designed to do... put out fires

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In the age of specialized bullpens and defined roles though, that "skill" of dousing the flames of an opponents' rally has fallen on lesser shoulders, generally to those who fill out the bullpen below the closers and the set-up men.

But, given the importance of that "skill", how is it measured?

That is, to come into a game with runners on and in need of an out to prevent a crooked number from being thrown up on the scoreboard can sometimes be the difference between a win and a loss on a given night. But a pure measurable doesn't exist for such a "skill" as ERA (long ago considered the basis for any pitcher's worth) simply falls short in terms of measuring the effectiveness of a middle reliever.

Forgive me for painting this out too much, but let's say that the Tigers' Fu-Te Ni relieves Edwin Jackson with two men on and two outs in the 6th inning, allows both to score via singles, then gets the final out with a fly out. He's credited with pitching a 1/3 inning with no earned runs while Jackson is charged for Ni's inability to get the third out. Sure, some of the onus lies at Jackson's feet for allowing the base runners in the first place, but if a primary function of a reliever is to get his team out of jams, Ni didn't perform his job...though you would never know it by simply looking at ERA, which obviously has its

limitations.

On the flip side, if Bobby Seay comes on in a similar situation, with the bases loaded and two outs, and is able to get out of the inning without giving up a run, proving himself to be far more effective than Ni in the previous example, while both will simply be credited with zero ER in 1/3 IP.

An enormous portion of being an effective relief pitcher is an ability to strand inherited runners, a measure that you can easily quantify by calculating the number of Inherited Runners that a pitcher strands on the bases against the number that he allows to score to determine the effectiveness of that pitcher when coming into a game with runners on base. Call it a Inherited Runners Scored % (or IRS%) with the obviousness that the lower the percentage, the more effective a reliever is in preventing inherited runners from scoring.

It's easy to look at a relief pitcher's WHIP, ERA, WXRL, or WAR and say that they are doing well or struggling, but the beauty of the IRS % is it quantifies a reliever's effectiveness (and usually a middle reliever's effectiveness as they most often find themselves in said situation) when thrown into a tough spot. The IRS% is often a factor in some of the advanced metrics for

measuring relievers, but how much of a role does IRS% play in the overall success of a team and its ability to win games?

Take a look at the IRS% for the teams in the AL Central, thought to be an underwhelming and wide open race at the beginning of the year with one of the teams thought to be contenders based on moves to their bullpen (Cleveland) falling by the wayside because of their bullpen and the top two teams finding what was generally unexpected success, again because of their bullpen.

Thus, as IR is Inherited Runners in the chart, the breakdown looks like this:

Player	Team	IR	IR Stranded	IR S
Brandon Lyon	Detroit	30	18	12
Bobby Seay	Detroit	29	21	8
Zach Miner	Detroit	25	15	10
Ryan Perry	Detroit	17	10	7
Nate Robertson	Detroit	15	8	7
Joel Zumaya				

	Detroit	15	13	2
Juan Rincon	Detroit	14	13	1
Fu Te-Ni	Detroit	14	13	1
Eddie Bonine	Detroit	5	2	3
Clay Rapada	Detroit	4	0	4
Freddy Dolsi	Detroit	4	2	2
Casey Fien	Detroit	3	3	0
Fernando Rodney	Detroit	1	1	0
Totals		**176**	**119**	**57**

Player	**Team**	**IR**	**IR Stranded**	**IR S**
Matt Thornton	Chicago	52	42	10
DJ Carrasco	Chicago	25	14	11
Tony Pena	Chicago	25	17	8
Octavio Dotel	Chicago	24	12	12
Clayton Richard	Chicago	12	7	5
Aaron Poreda	Chicago	8	4	4
Randy Williams	Chicago	7	5	2
Scott Linebrink	Chicago	6	5	1
Jimmy Gobble	Chicago	6	2	4
Bobby Jenks	Chicago	6	6	0
Lance Broadway	Chicago	5	4	1
Jack Egbert	Chicago	2	1	1
Jhonny Nunez	Chicago	2	2	0
Wes Whisler	Chicago	1	1	0
Totals		**181**	**122**	**59**

Player

	Team	IR	IR Stranded	IR S
Matt Guerrier	Minnesota	39	30	9
Craig Breslow	Minnesota	39	30	9
RA Dickey	Minnesota	27	10	17
Jose Mijares	Minnesota	26	19	7
Luis Ayala	Minnesota	22	15	7
Jesse Crain	Minnesota	17	9	8
Brian Duensing	Minnesota	12	3	9
Bobby Keppel	Minnesota	10	5	5
Joe Nathan	Minnesota	9	9	0
Sean Henn	Minnesota	6	4	2
Kevin Mulvey	Minnesota	1	1	0
Totals		**208**	**135**	**73**

Player	Team	IR	IR Stranded	IR S
Jensen Lewis	Cleveland	27	13	14
Rafael Perez	Cleveland	24	16	8
Tony Sipp	Cleveland	22	18	4
Chris Perez	Cleveland	22	15	7
Rafael Betancourt	Cleveland	21	18	3
Matt Herges	Cleveland	19	9	10
Joe Smith	Cleveland	19	12	7
Vinnie Chulk	Cleveland	8	2	6
Jose Veras	Cleveland	8	6	2
Mike Gosling	Cleveland	6	6	0
Greg Aquino	Cleveland	6	5	1
Masa Kobayashi	Cleveland	6	0	6
Kerry Wood				

	Cleveland	5	4	1
Luis Vizcaino	Cleveland	5	2	3
Aaron Laffey	Cleveland	3	3	0
Zach Jackson	Cleveland	2	0	2
Rich Rundles	Cleveland	2	0	2
Jess Todd	Cleveland	2	1	1
Winston Abreu	Cleveland	1	1	0
Totals		**208**	**131**	**77**

Player	**Team**	**IR**	**IR Stranded**	**IR S**
Jamey Wright	Kansas City	36	18	18
Ramon Colon	Kansas City	28	18	10
Ron Mahay	Kansas City	27	11	16
Robinson Tejeda	Kansas City	23	15	8
John Bale	Kansas City	21	7	14
Juan Cruz	Kansas City	18	11	7
Joel Peralta	Kansas City	13	10	3
Horacio Ramirez	Kansas City	11	9	2
Kyle Farnsworth	Kansas City	9	4	5
Joakim Soria	Kansas City	9	3	6
Sidney Ponson	Kansas City	7	5	2
Totals		**202**	**111**	**91**

When it's all said and done, the IRS% for the teams in the AL Central look like this:

Detroit - 32.39 IRS%

Chicago - 32.60 IRS%

Minnesota - 35.10 IRS%

Cleveland - 37.39 IRS%

Kansas City - 45.09%

If you're keeping score at home, the % of Inherited Runners that have scored against the AL Central teams, from most effective to least effective, in order may look a little familiar to something else:

Detroit - 59-53

Chicago - 58-56

Minnesota - 54-58

Cleveland - 49-63

Kansas City - 44-68

If you'll see, there are tight numbers among the top two teams, a bit of a drop off to the next two, and a huge drop-off to the fifth team in both IRS% and W-L record in the AL Central.

Certainly other factors come into play here, but as middle relievers are often passed over as afterthoughts on a roster (somewhere around 4th OF in the pecking order) isn't there something to a

team regularly using a pitcher who has found success with runners on base to serve as that bridge from a starter with a lead to a set-up man with a lead?

While there's no chance that this IRS% should be taken as the hard and fast gauge of a middle reliever, it certainly does bring up some questions in terms of how much of an effect inherited runners scoring on relievers has on a baseball season and a divisional race.