

Effect of the "Double Jumps" decree on playoff seeding

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ABSTRACT We analyze the potential impact of the Season 8 decree "Double Jumps" by retroactively applying it to seasons 1 through 7. The rule change had a substantial impact on past playoff arrangements, causing changes to seeding in every prior season and making changes to the playoffs roster in 5 previous seasons. While the majority of these changes affected low-seeded teams, making them perhaps less likely to affect the final outcome of the Internet Series, they were nonetheless quite prevalent, and similar effects can be expected in future seasons if the "Double Jumps" decree passes.

KEYWORDS

Decrees
Double Jumps
Playoffs

INTRODUCTION

The Season 8 decrees focus on mechanical changes to the game. The "Wild Cards" decree would put a random eliminated team into the playoffs via some sort of wild card series. The "Relief" decree would introduce relief pitchers, rotating starters into The Shadows when they give up 5 runs in a game. The "Double Jumps" decree would give teams a bonus win for defeating their own division leader. All three have interesting potential statistical consequences, but the Double Jumps decree is perhaps the most unusual. If it were to pass, teams' win-loss records will no longer match with the number of games played. However, it is not immediately clear how significant an effect it would have on the playoff picture. In order to help inform the voting populace, we decided to analyze how this decree would have affected the previous seven seasons if it had been in effect.

THE DECREE

The Double Jumps decree reads as follows:

Whenever a team defeats the team currently leading their Division, they'll earn an extra win. Permanent effect.

This does not affect the outcome of any particular scheduled game, ⁴ just the standings. It is also only operative during the regular season, as the postseason does not update the standings. It

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can, however, change playoff seeding, potentially changing postseason matchups or even who makes the playoffs at all. For teams at the very top or the very bottom of the standings, this decree will likely be of little immediate interest, but it has the potential to shake up the middle of the pack. Teams near the playoff cutoff have the most to gain (or lose) from this decree, in particular. Therefore, a good way to judge the effect of this decree is to determine how it would change playoff seeding.

METHODOLOGY

Our approach in simulating the effect of this decree is to progress through each season one day at a time and recalculate the standings as we go using this rule, in order to get the new final "records" and resultant playoff seedings. It is not yet clear exactly when this rule would be applied. Blaseball games do not all take the same amount of time to play, and it is quite possible to encounter a situation where the application of this rule depends on which games finish first on a particular day. To simplify our analysis, we recalculate records for all of each day's games at once, and only update the standings once per day, after all the games are accounted for.

For each prior season (Seasons 1-7), the win-loss records were used as an initial starting point for this historic modeling. On each day, before play, the current divisional leader is determined. Then once games are completed, winners are determined (from the historical record), and it is determined if a team has beaten their current division leader. If they have, then the winning team is assigned two wins in their standings and the losing team is assigned one loss. Otherwise, the normal one-win, one-loss stand-



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¹This author wrote the Python code to simulate this data, and carried out the calculations.

²This author compiled information and analysis to write most of the paper.

³ This would add yet another entry to SIBR's ever-expanding list of falsehoods programmers believe about blaseball.

⁴ Unless some future decree does something like giving teams performance boosts based on standings, but that's a problem for future SIBR.

⁵ As the specifics of the real implementation are unknown, game 1 of the season has been included with division leaders identified via tiebreakers. It is unknown if the real implementation will include this or if day 1 will play out "normally."

■ Table 1 Playoff seeding changes under Double Jumps rules.

	Good League	Evil League
Season 1	Shoe Thieves in at 4, Flowers out	Spies from 4 to 2, Jazz Hands and Pies down to 3 and 4
Season 2	Magic in at 4, Shoe Thieves out	Pies from 2 to 1, Tigers from 1 to 2, Jazz Hands up one to 3, Dale in at 4 , Moist Talkers out
Season 3	Steaks from 4 to 3, Lovers from 3 to 4	Moist Talkers from 3 to 2, Pies from 2 to 3, Garages in at 4, Jazz Hands out
Season 4	Steaks from 3 to 1, Fire- fighters and Millenni- als down to 2 and 3	Moist Talkers from 4 to 2, Jazz Hands from 2 to 3, Crabs in at 4, Pies out
Season 5	Firefighters from 3 to 2, Millennials from 2 to 3	Moist Talkers from 4 to 3, Tigers from 3 to 4
	Wild League	Mild League
Season 6	Millennials in at 4, Flowers out	Moist Talkers in at 4, Garages out
Season 7	Lovers from 3 to 2, Jazz Hands from 2 to 3	Garages from 3 to 2, Shoe Thieves from 2 to 3

ings changes are assigned normally. After this has been completed for all 10 games of the day, the new standings in each division are determined, including any changes in division leaders. This is then repeated for the entirety of the season.

This process was modeled for all games in the Season 1-7 regular seasons, using data collected from the gamestatsheet API endpoint provided by Blaseball. The tiebreaker data is based on the historical data from a variety of sources including the Wiki for seasons 1-5 and data collected via the Blaseball API for seasons 6 and 7.

RESULTS

Table 1 summarizes the changes to playoff seeding that result from applying Double Jumps rules to the past seven seasons. In five of the seasons, different teams would have made it to the playoffs. In both Season 2 and Season 7, there would have been different teams in both leagues' fourth seed. Remarkably, of the seven "new teams," four of them had *losing records* in the normal sense: the Season 2 Magic (who got 6 bonus wins), the Season 2 Dale (13 bonus wins), the Season 3 Garages (7 bonus wins), and the Season 6 Moist Talkers (11 bonus wins). The Season 2 Dale and Season 6 Moist Talkers were actually at the bottoms of their respective divisions under the original rules!

The full original records of all teams and the records under the decree are listed for each Season in Tables 3 through 8; these tables also indicate which teams make the postseason at what seeds under both sets of rules.

ANALYSIS

The effect we have found here is somewhat larger than we expected, or indeed that we initially realized. In all, seven out of the 56 playoff teams to date would change (12.5%), an occurrence which seems to happen about once per season on average. On top of this, the playoff seeding often changes in a meaningful way as well.⁶ Furthermore, the newly-qualifying teams are sometimes "bubble" teams that narrowly missed the playoffs originally, but surprisingly often come from far down in the standings.

While the Double Jumps decree is expected to influence most every team to some degree, the impact of the decree will be greatly affected by the unbalanced schedules most teams play. As has previously been explored by SIBR, the ILB schedule is anything but regular (Chick 2020). As such, when teams face the division leader an unequal amount of times, they end up having uneven opportunities to even potentially benefit from the Double Jumps decree. This is almost certainly how the Season 2 Dale, who only won 45 games, got 13 bonus wins under the decree rules, qualifying them for the playoffs despite being the second worst team in their league.

FUTURE WORK

As described in the Methodology section, we simplified our analysis by assuming that the Double Jumps decree "happens" after all games for a given day are complete. If it were instead implemented in the instantaneous way, these results might change to some extent. We have not attempted this analysis; one would want the end time of each game in order to do so. This would only be possible in a limited form for games from seasons 3-7 and would not be possible at all for seasons 1 and 2.

Another question is the impact that this decree would have on when teams reach Party Time, but such an analysis was outside of the scope of this effort. In general, this decree has the potential to make Party Time calculations more complicated, as they would probably have to account for the schedule of each team.

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REFERENCES

Chick, T., 2020 Correlation between a team's subleague/division and the series they play. SIBR Research Article, available at https://research.blaseball-reference.com/schedule-balance.pdf.

⁷ Or as they say in reality league baseball, when they are mathematically eliminated from the playoffs.



⁶ The non-meaningful way is when the 2 and 3 seeds switch, since they play each other in the first round anyway.

■ **Table 2 Season 1 standings, sorted according to original standings.** Superscripts indicate when a team got a playoff berth under each set of rules, with the number corresponding to the seed.

Team	Original Record	New Record	Team	Original Record	New Record	
Law	Lawful Good			0		
Steaks	56-43 ²	61-43 ²	Magic	63-36 ¹	65-36 ¹	
Firefighters	56-43 ³	61-43 ³	Flowers	53-46 ⁴	55-46	
Breath Mints	47-52	49-52	Shoe Thieves	51-48	$56\text{-}48^{\ 4}$	
Lovers	39-60	41-60	Fridays	48-51	53-51	
Tacos	35-64	37-64	Millennials	46-53	54-53	
Lav	wful Evil		Chaotic Evil			
Tigers	63-36 ¹	67-36 ¹	Jazz Hands	58-41 ²	62-41 ³	
Pies	53-46 ³	$59-46^{\ 4}$	Spies	53-46 ⁴	62-46 ²	
Wild Wings	47-52	49-52	Dale	51-48	58-48	
Sunbeams	40-59	47-59	Moist Talkers	50-49	57-49	
Crabs	38-61	44-61	Garages	43-56	46-56	

■ Table 3 Season 2 standings, sorted according to original standings. Superscripts indicate when a team got a playoff berth under each set of rules, with the number corresponding to the seed.

Name	Original Record	New Record	Name	Original Record	New Record
Law	Lawful Good			otic Good	
Steaks	72-27 ¹	73-27 ¹	Flowers	51-48 ³	55-48 ³
Firefighters	60-39 ²	65-39 ²	Shoe Thieves	50-49 ⁴	53-49
Tacos	45-54	54-54	Magic	49-50	$55-50^{4}$
Breath Mints	41-58	42-58	Fridays	45-54	55-54
Lovers	29-70	32-70	Millennials	44-55	48-55
La	wful Evil		Chaotic Evil		
Tigers	63-36 ¹	68-36 ²	Moist Talkers	55-44 ³	57-44
Pies	61-38 ²	72-38 ¹	Jazz Hands	55-44 ⁴	$60-44^{3}$
Crabs	49-50	51-50	Spies	46-53	50-53
Wild Wings	47-52	50-52	Garages	46-53	48-53
Sunbeams	37-62	38-62	Dale	45-54	58-54 ⁴



■ Table 4 Season 3 standings, sorted according to original standings. Superscripts indicate when a team got a playoff berth under each set of rules, with the number corresponding to the seed.

Name	Original Record	New Record	Name	Original Record	New Record	
Law	Lawful Good			otic Good		
Lovers	59-40 ³	63-40 ⁴	Millennials	65-34 ¹	69-34 ¹	
Steaks	55-44 ⁴	64-44 ³	Shoe Thieves	59-40 ²	$65-40^{\ 2}$	
Breath Mints	49-50	53-50	Magic	53-46	59-46	
Tacos	38-61	49-61	Fridays	48-51	61-51	
Firefighters	35-64	37-64	Flowers	42-57	43-57	
Lav	wful Evil		Chaotic Evil			
Tigers	70-29 ¹	70-29 ¹	Moist Talkers	53-46 ³	60-46 ²	
Pies	53-46 ²	57-46 ³	Jazz Hands	50-49 ⁴	54-49	
Crabs	44-55	48-55	Spies	49-50	53-50	
Wild Wings	42-57	44-57	Garages	48-51	55-51 ⁴	
Sunbeams	38-61	42-61	Dale	40-59	42-59	

■ Table 5 Season 4 standings, sorted according to original standings. Superscripts indicate when a team got a playoff berth under each set of rules, with the number corresponding to the seed.

Name	Original	New	Name	Original	New
	Record	Record	1 (0.110	Record	Record
Lav	vful Good		Cha	otic Good	
Firefighters	61-38 ¹	62-38 ²	Millennials	58-41 ²	59-41 ³
Steaks	56-43 ³	$65-43^{\ 1}$	Shoe Thieves	$51\text{-}48$ 4	$57-48^{4}$
Lovers	49-50	56-50	Magic	49-50	54-50
Breath Mints	48-51	49-51	Flowers	44-55	49-55
Tacos	30-69	36-69	Fridays	44-55	46-55
La	wful Evil		Chaotic Evil		
Tigers	68-31 ¹	69-31 ¹	Jazz Hands	58-41 ²	60-41 ³
Pies	53-46 ³	56-46	Moist Talkers	$53-46$ 4	60-46 ²
Crabs	52-47	$57-47^{\ 4}$	Garages	49-50	52-50
Wild Wings	43-56	45-56	Dale	47-52	53-52
Sunbeams	40-59	45-59	Spies	37-62	39-62



■ Table 6 Season 5 standings, sorted according to original standings. Superscripts indicate when a team got a playoff berth under each set of rules, with the number corresponding to the seed.

Name	Original Record	New Record	Name	Original Record	New Record
Lawful Good			Cha	otic Good	
Lovers	65-34 ¹	65-34 ¹	Millennials	64-35 ²	65-35 ³
Firefighters	60-39 ³	65-39 ²	Fridays	48-51	51-51
Steaks	51-48 4	57-48 4	Shoe Thieves	46-53	56-53
Breath Mints	51-48	54-48	Magic	45-54	49-54
Tacos	23-76	24-76	Flowers	40-59	48-59
La	wful Evil		Chaotic Evil		
Crabs	65-34 ¹	68-34 ¹	Jazz Hands	58-41 ²	64-41 ²
Tigers	55-44 ³	$62\text{-}44$ 4	Moist Talkers	55-44 ⁴	$63-44^{\ 3}$
Wild Wings	49-50	55-50	Garages	52-47	57-47
Pies	46-53	50-53	Spies	43-56	47-56
Sunbeams	35-64	38-64	Dale	39-60	41-60

■ **Table 7 Season 6 standings, sorted according to original standings.** Superscripts indicate when a team got a playoff berth under each set of rules, with the number corresponding to the seed.

Name	Original Record	New Record	Name	Original Record	New Record
Wi	Wild High			ild Low	
Crabs	80-19 ¹	80-19 ¹	Flowers	51-48 ⁴	55-48
Jazz Hands	59-40 ²	60-40 ²	Sunbeams	47-52	49-52
Lovers	53-46 ³	59-46 ³	Spies	42-57	45-57
Millennials	51-48	57-48 4	Dale	37-62	42-62
Firefighters	50-49	52-49	Tacos	32-67	39-67
Mi	ild High		M	ild Low	
Tigers	57-42 ²	60-42 ²	Pies	60-39 ¹	61-39 ¹
Breath Mints	55-44 ³	$60-44^{\ 3}$	Shoe Thieves	48-51	54-51
Garages	53-46 4	56-46	Wild Wings	45-54	54-54
Steaks	48-51	54-51	Magic	43-56	48-56
Moist Talkers	48-51	59-51 ⁴	Fridays	31-68	34-68



■ Table 8 Season 7 standings, sorted according to original standings. Superscripts indicate when a team got a playoff berth under each set of rules, with the number corresponding to the seed.

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Name	Original Record	New Record	Name	Original Record	New Record
Wild High		W	ild Low	riccoru	
Crabs	67-32 ¹	69-32 ¹	Sunbeams	54-45	57-45
Jazz Hands	55-44 ²	59-44 ³	Spies	49-50	53-50
Lovers	55-44 ³	60-44 ²	Dale	46-53	52-53
Millennials	55-44 ⁴	$58\text{-}44$ 4	Tacos	40-59	46-59
Firefighters	50-49	52-49	Flowers	28-71	30-71
M	ild High		Mild Low		
Breath Mints	60-39 ¹	62-39 ¹	Shoe Thieves	56-43 ²	59-43 ³
Garages	55-44 ³	61 -44 2	Wild Wings	55-44 ⁴	59-44 ⁴
Tigers	51-48	55-48	Magic	46-53	51-53
Steaks	46-53	49-53	Pies	41-58	42-58
Moist Talkers	42-57	47-57	Fridays	39-60	49-60

