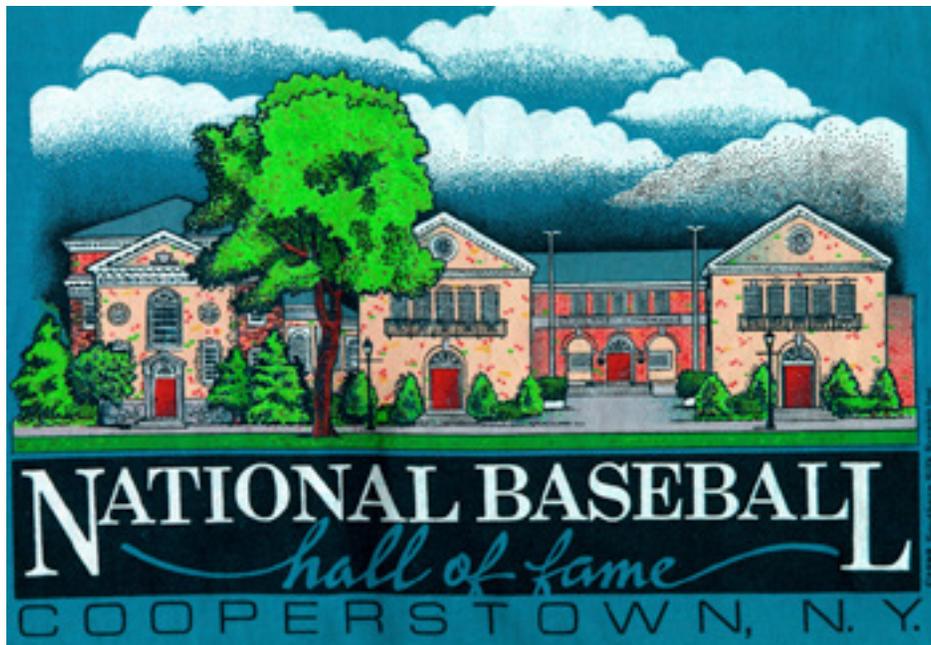# 2013 Baseball Hall of Fame

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Abstract The purpose of this paper is to outline potential reasons why the 2013 election vote into the Baseball Hall of Game failed to elect a new player. The paper compares various voting rules, and analyzes specific statistics of players.

When a player is elected into the Baseball Hall of Fame, he enters the club of the "immortals" (New York Times). The Hall of Fame in Cooperstown, New York, is a museum that honors and preserves the legacy of outstanding baseball players throughout the decades. A player receives a great honor by being voted in, and his career is stamped with a seal of approval by the fans of the game. As such, there is a strict voting procedure to induct a player into the Hall of Fame. The big question is, how strict is too strict?

The current voting procedure in the Hall of Fame, also known as the Hall, is bifurcated into two separate systems, each with its own ballot. The Players Ballot is run by the Baseball Writer's Association of America (BBWAA), and the Composite Ballot is run by the Veterans Committee (Baseballhall.org).

The voters of the Players Ballot consist of over 550 distinguished sports journalists who have been members of the BBWAA for at least 10 consecutive years. The exact number of voters is subject to slight change from year to year. The writers can remain part of the vote even if they are not active members of the BBWAA. This branch of the system holds elections annually (baseballhall.org).

The eligible candidate pool for the players ballot each year consists of all players who were part of Major League Baseball (the MLB) for at least 10 consecutive years and have been retired for at least five[1]. Another committee narrows down this pool to 200 players, and then the 60-person BBWAA screening committee compiles the top 25 players to go on the final ballot. A committee of six current Hall of Famers can then add players to the list from the group of all first time eligible players (baseballprospectus.com). In this supplementary process, each voter ranks their top five preferred candidates, and if a player appears on two of the six lists of top 5 players, he is added to the ballot (baseball-reference.com).

A player is disqualified from the pool if he has appeared on the official players ballot for 15 times without being elected, or if he did not receive the required minimum vote in the previous year's election. Otherwise, most players from the previous year's ballot advance to the next cycle of voting (baseball-reference.com).

The final Players Ballot each year is usually comprised of 25 to 40 candidates, and the final voting procedure is as follows:

Each voter from the BBWAA submits his or her top 10 preferred candidates that he or she feels is worthy to be inducted into the Hall from the list on the ballot (bbwaa.com). The listed order is not relevant to the voting; each player in the group of 10 is treated equally in the count. In addition, a voter is only restricted to nominating 10 candidates, but he or she can choose as few as zero candidates from the ballot if this is what he or she prefers (baseballhall.org).

In order to be elected, a player must appear in a minimum of 75 percent of the voters' top 10 picks. If he is listed on fewer than 5 percent of these lists, he is disqualified for all future voting cycles on the Players Ballot. There is no maximum or minimum number of candidates who must be elected each year. There can be as little as zero elected, or as many as can earn 75 percent of the voting share (baseballhall.org). This has been the voting procedure for the Players Ballot since 1967, although there has been controversy surrounding changes to the voting procedure in the past.

The second branch of the voting system is the Composite Ballot, which is run by the Veterans Committee. This ballot is designed for electing

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[1]Rare exceptions have been made in the past for recently deceased players or other extenuating circumstances

all players who are disqualified from the Players Ballot or who are not players on the field. This pool includes players who have been unelected on the ballot for 15 cycles, as well as managers, umpires, owners, and executives (New York Times). This is significant because it still allows any player who is no longer eligible for the Players Ballot a chance to be enshrined in the Hall of Fame through the Composite Ballot. Recent changes to this voting system have increased the number of voters in the Veterans Committee from 15 to close to 80 in order to allow members of the Hall of Fame to participate in the process. The Veteran's committee has very different voting rules and qualifications than the BBWAA and will not be included within the scope of this study. This analysis will focus on the elections by the BBWAA from the Players Ballot and the controversial results from this vote in the 2013 election.

The 2013 vote by the BBWAA did not elect a single player to the Hall of Fame for the first time since 1996 (ESPN). The only people inducted this year were those elected through the Veteran's Committee, and none had been members of a team in the MLB on the field in the last century (baseball-reference.com). This result was in-

credibly disappointing and left many baseball fans wondering: Why was no one elected?

One possible reason for the enigma is that the voting system is flawed. Perhaps the voting procedure needs to be changed so that this issue will not arise in the future. Previous alterations to the voting system throughout history can reveal some of the motivations behind the current system and why the system is not flawed. When the vote began in 1936, any member of the BBWAA was eligible to vote. In order to increase the level of 'expertise' in the voting body, a new rule was instated in 1958 that limited the voting body to only those who had been with the BBWAA for at least 10 years. It became a privilege to be able to vote in the election, and voters took the responsibility more seriously (New York Times). This also decreased the size of the voting population, which allowed for a less stratified vote. In addition, the voting changes in 1958 stated that each voter could nominate no more than 10 players from the final ballot (baseballhall.org). This allowed voters the ability to select less than 10 nominees, which made the process more competitive.

Elections were initially held once every three years, and after numerous alterations the rule was settled with an annual vot-

ing schedule. By having more frequent voting cycles, more players had the ability for consideration and were less likely to be passed over for superior players in proximate years. Other changes to the voting rules served to narrow down the pool of players. On the one hand, these changes made it easier for qualified players to be inducted; however, they also raised the qualifications and made the process more selective. For example, changes in subsequent years added the limitation that the initial pool of players would only include those who had been retired for at least 5 years. Other changes added the use of a pre-screened ballot so that the selection of the final ballot would only include the most skilled and respected players. Lastly, later modifications added the condition that any player who had been unelected on the ballot for 15 cycles, or had received less than 5 percent of the vote share in a given year, was automatically eliminated by the BBWAA from all future votes (baseballhall.org). This rule served to clear out the obvious "non-winners" in order to unclog the ballot and make room for stronger candidates. Meanwhile, throughout the years, there are two rules that have never changed from the initial procedure. One is the

rule limiting the pool to include only players with 10 years of consecutive MLB play, and the second is the 75 percent of voting nominations minimum in order to be inducted into the Hall.

The evolution of the voting procedure rules proved that in fact each aspect of the process was created deliberately for a specified purpose. The Hall was trying to create a balance that would allow players to stand out from their peers, while also maintaining the honor and prestige associated with being enshrined into the Hall. The consistency of the 75 percent minimum displays that the Hall intended to make it very difficult to be inducted and did not want to let undeserving players slip through the cracks. They wanted membership to the Hall to be perceived with the necessary glory, reserved only for the exceptionally elite. As a result, the solution cannot be that the voting system is flawed because each stringency satisfies this designated purpose.

Another possibility might be that this year's cycle was stricter than in the past, and therefore, it was particularly challenging to receive 427/569 votes. This claim has some validity given that this voting cycle saw an increase of 10 more candidates than the 2012 ballot, or a total of 37 candidates[2]. However, 19 of the 2013 candidates were not nominated by even 5 percent of the voters. Although an increase in candidates means a lesser likelihood of any individual being nominated, over 50 percent of the candidates received so little voting share that they cannot individually be seen as detracting from the voting share of others. Alternatively, in total they gathered a sum of 12.6 percent of the vote, so perhaps the increase in the number of 'outliers' filling voters' ballots had an effect on the overall vote share distribution. On the other hand, it is important to note that the 2013 vote saw a 30 percent uptick in the average number of nominees submitted per ballot, and the highest individual votes per ballot in 10 years (baseball-reference.com). This indicates a possibility for more players to receive more votes than prior years, making it easier to receive a higher vote share, although if these additional votes were allocated to the outlier players rather than the skilled players, there would be a lesser possibility of obtaining a winner. An analysis of the average number of total "outlier players" appearing on a given voter's ballot may clarify this issue further. However, without this data it remains unclear whether the increase in players on the ballot resulted in a 'stricter' voting cycle than prior years.

The absence of any sufficiently qualified candidates may also be a factor contributing to the absence of a winner. It is perfectly feasible that the batch of candidates on the 2013 ballot were simply not perceived overall by the voters as containing an obvious player with the skill set of a Hall of Famer. One might conclude that the presence of five players who were on the ballot for the first time and received among the top 10 vote shares might explain why a strong enough player was not elected. Ballot history indicates that it is very rare for a player to ever be elected when it is his first time on the ballot; 2013 was the first time in at least over 30 years that there were five first-time candidates, or "rookies," in the ballot results' top 10.

However, an analysis of the candidates reveals that in fact, these rookies were perhaps more qualified than any other players on the ballot if the steroid controversy were not an issue. The most talented of all were Roger Clemens and Barry Bonds (Forbes). According to the Hall of Fame standard, which

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[2]Thus, the probability of any one candidate being chosen is smaller than in the previous year: $10/37 < 10/27$.

measures how likely it is for a player on the ballot to be elected, these two players were more likely than any other of the 37 candidates. The standard also revealed that Clemens' and Bonds' credentials were a better physical match for the Hall than any other single candidate's. Furthermore, within the top 10 for vote share, the rookie pitchers had more strikeouts than the non-rookies, and 2/3 of the rookie hitters had more hits than the non-rookies. This career data, as well as other statistics, prove that not only were these five rookies more qualified than older players on the ballot, but some more than any others throughout history! (ESPN)[3] However, still none of these rookies appeared on at least 75 percent of the voters' top 10 lists. Therefore, there is one more possibility to explore in order to determine why the 2013 election failed to elect a winner.

The last, and most likely, explanation for why no winner was elected in 2013 is because of the political controversy around the use of steroids by players who appeared on the 2013 ballot[4]. This year marked the first voting cycle where six of th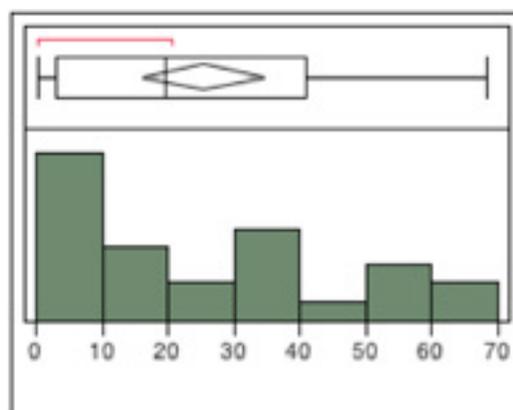e 18 candidates who appeared on over 5 percent of the voters' nominee lists were explicitly linked to the use of performance enhancing drugs during their career [5]. This number was higher than in any other previous cycle; the 2013 ballot listed the highest number of players from the "Steroid Era" (bleacherreport.com). As a result, voters of the BBWAA are significantly biased against voting for these players and highly likely to nominate less qualified players instead. Evidence of this strategic voting can be seen in the above histogram showing a heavy concentration of players who received minimal vote share [See Figure 1]. The number of votes acquired by candidates who received below 5 percent increased by almost 70 percent from 2012 to 2013. The increase implies that

Distribution of Vote Shares in the 2013 Player's Ballot (excluding 0 values)

Figure 1, see Appendix Table 1 for Data

[3]See Table 1 for some facts. Bonds is a seven-time MVP winner, and is one of three members of the 700 Home-Run club; he has more career home runs, in his career and in a single season, than any other single player in history. Moreover, over 80% of players listed on the ballot with over 500 career home runs were elected to the Hall on their first try, and 100% of those with over 600. Clemens is a pitcher who has the 3rd most strikeouts, and the most Cy Yung awards for best pitcher, in MLB history. Any pitcher with over two Cy Yungs has been elected to the Hall on their first attempt. Craig Biggio, who led the voting share with 68.2%, was the only player in the top 10 who was a member of the prestigious "3,000 hit club", and one of only two such players on the 2013 ballot. Over 95% of the players in this club who have been listed on the ballot have been elected to the Hall, and over 60% elected on their first try. Another example is Mike Piazza, who won 10 consecutive Louiseville Slugger awards for best catcher in the league. Curt Schilling was another player in the top 10; a pitcher in the 3,000 Strikeout club whose eligible members are all part of the Hall.

[4]The use of Steroid or other performance-enhancing drugs has been illegal in baseball since 1991.

the unqualified candidates were chosen on more ballots than the previous year. This biased voting also explains why Clemens and Bonds, players who were the most obvious fit for the Hall of Fame in the last few decades, did not appear on even close to half the voters' top 10 nominee lists. With steroid users banished from the ballot in many voters' minds, voters were left to choose from only a handful of players who were marginally qualified and could not reach a consensus. The results display a distribution of votes weighted among less qualified, rather than more qualified, players. It is shockingly clear to any sports writer that without the steroid controversy, Clemens and Bonds would have been a landslide vote into the Hall, regardless of their rookie status (bleacherreport.com). Similarly, many other superior players were ranked far lower than many inferior players because of their affiliation with steroid use[6].

The biased voting that resulted from the steroid controversy perhaps caused a Condorcet Paradox that can also explain the absence of a winner in 2013. Single-peaked preferences would have guaranteed a Condorcet winner in the elections, but biased preferences make it essentially impossible to arrange the candidates on a logical spectrum that would cause this outcome. For example, if the candidates were arranged by years out of retirement, the rookies would align on one end, and the preferences would peak at that point because they were more qualified. However, because some rookies were involved with steroids, this distorted the preferences so that there would not be a single peak[7]. Thus, there was no guarantee of a Condorcet winner, as displayed by the election results.

Many critics are asking whether it is again time for the Hall to change its voting procedure in order to guarantee that a player

be elected in subsequent years of voter bias. There are two ways to approach this question; one is to compare the results of changes to the voting body, holding constant the voting rule and current level of stringency for election. Another way is to examine other voting rules, including those that lessen the stringency level, while keeping the voting body constant. In evaluating the current system, the analysis will only look at the elections from the final Players Ballot and exclude discussion of the pre-screening process.

Possible changes to the voting body may include a decrease in size. An initial look at the voting body of the Players Ballot reveals that it is very different than Hall of Fame voters in other sports. In football, there are only 24 voters for the final ballot, and in basketball, only 46. The number of baseball Hall of Fame voters is over seven times as large as these voting bodies combined (The Boston

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[5]Roger Clemens, Barry Bonds, Mike Piazza, Marc Mcgwire, Sammy Sosa, Rafael Palmeiro. See Table 1 for voting percentages.
[6]See Table 1 for data. Pitchers such as Curt Schilling and Lee Smith, who have never even received a Cy Yung award were ranked higher than Roger Clemens, who has received seven. Similarly, Craig Biggio, a hitter who has never even received an MVP, ranked first above Barry Bonds, who has also received seven. The player with the second highest vote share, Jack Morris, was a pitcher who has never received a Cy Yung, or even reached 3,000 strikeouts. Jeff Bagwell, who placed above Bonds and Clemens, had never even won a world series with his team. Lee Smith also placed above the duo, a player whose statistics are the 4th worst match for the Hall of Fame of all 37 candidates, according to the Hall Standard. This is lower than the candidates who received less than 5% of the vote. Marc McGwire, a hitter with the 2nd most Home runs in a given season right behind Bonds, and numerous other accolades, failed to receive even 25% of the vote, for the 7th year in a row. It should also be noted that rookie Sammy Sosa, member of the 600 Home Run Club, whose Hall standard places him as 4th likely to be elected, was ranked only 2 spots above those who did not receive a minimum. Similarly, Rafael Palmeiro, member of the 500 Home Run and 3,000 Hit Clubs, hardly scraped past the minimum, and received less vote share than his prior years on the ballot.
[7]There would be one peak with non-steroid rookies such as Curt Schilling, and another peak towards the other end of the spectrum with the relatively talented non-rookies such as Jeff Bagwell.

Globe). As such, the number of strategic voters is certainly larger, so there is a potential for stronger bias towards a candidate. A group of voters can form a coalition and distort the voting in a way that takes credit from a deserving candidate, making it less likely for any player to be elected with 75 percent of voters' votes. As was the case in 2013, two very qualified players ended up in the lower ranks because of the widespread steroid bias. Furthermore, more voters also means more biased voters who support weak candidates because of a personal connection. On the other hand, a single voter is less likely to see their vote as pivotal when there are so many other voters and may not treat the decision seriously. Lastly, with 37 candidates and 569 voters, there are $(37!)^{569}$ possible preference profiles. It would be much more likely to have two candidates with the same preferences if there were 60 voters[8]. The number of voters has increased by 146 in the last two decades, only worsening the current dilemma (baseball-reference.com). One solution could be to decrease the number of voters to 60 while maintaining the 75 percent rule, meaning a required 45 votes in order to be elected.

The voting body can also be changed to represent more perspectives on the players. An ongoing problem is that some of the current voters in the BBWAA are retired journalists who no longer cover the sport or are knowledgeable of its star players. One change can be to require that all BBWAA voters be active as well as hold 10 years of membership (New York Times). In addition, the voting population can be more diverse. For example, if the voting body consisted equally of journalists, current Hall members, and broadcasters, the voting bias may not be as strong as it was in the past election.

Another possible change to the voting is to require a different voting rule. The current system contains properties from a few different voting rules that may not be the most ideal for selecting a winner. For example, the 75 percent minimum is an extreme of the Simply Majority voting rule; in this case, however, the voters nominate more than one winner. The ability to nominate up to 10 candidates borrows from the Approval voting rule, but limits the number of votes to only 10 rather than 37. Additionally, the winner is decided here based on the 75 per-

cent rule rather than plurality. The elimination of candidates with fewer than 5 percent vote share also borrows from the Instant-Runoff voting rule. However, using any form of Simple Majority or Approval voting rules may not be ideal given that preferences are not Independent of Irrelevant Alternatives. This is the case because the presence of weak candidates who were not steroid users detracted from the vote share of stronger candidates and caused them to fall behind players who they would have been ahead of. In this way, non-IIA preferences led to voting that was not monotonistic, because negligible candidates weakened the scores of leading candidates.

Another alternative might be negative voting, where voters nominate the top 10 players who they do not want to be elected   into the Hall. In this case, less than 25 percent of the voters' votes would mean a player is elected, because 75 percent of voters would like them to be elected. However this voting rule would still run into the same issues because of the violation of IIA. In this case, the presence of a candidate connected to steroids would surely detract voters from other candidates who would receive a high number of

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[8]Formula from lecture: with "k" alternatives, and "n" voters, there are $(k!)^n$ possible preference profiles.

negative votes. In addition, 10 spots would not be enough for a voter to list all the unqualified candidates from the ballot[9]. As a result, less than 25 percent of voters' votes would not be difficult to achieve. The 75 percent barrier would have to be increased in order for negative voting to work efficiently.

The contradictions associated with some voting procedures point to the validity of Arrow's Impossibility Theorem. This is because preferences are not IIA, and a Pareto efficient outcome will be impossible given the variety of voters' preferences. A dictatorship would seemingly be the only solution, but this would most certainly lead to overwhelming dissatisfaction from baseball fans as well as players.

Voting rules that do not require IIA, such as the Borda Count, Instant Runoff Voting, or Plurality voting, could present possible solutions if the Hall were willing to lower the 75 percent rule or eliminate the rule altogether[10]. By lowering the minimum to 65 percent, the current system would have elected Craig

Biggio and Jack Morris into the Hall. Alternatively, the plurality rule for vote share would have elected only Craig Biggio, and each future cycle would guarantee at least one winner elected into the Hall[11]. The plurality rule would solve the problem of voter bias without requiring voters to delineate their exact preferences within the top 10.

Other voting rules would also guarantee the election of a winner, and some could even elect a winner who had previously lost because of a connection to steroids. This scenario would be possible if voters were able to express their preferences within their 10 nominees, and the winner was not chosen by the 75 percent rule. One possible method of such a voting procedure would be the Borda Count. In this scenario, each voter will assign their top preference a score of 10, and each lower preference with a respectively lower score until the player at the bottom of the list, who is given a score of 1[12]. Each voter would be required to vote for exactly 10 nominees, unlike the previous

2013 system. A player who is not included in a given voter's nominee list will receive a score of 0 from that voter. The final result will list all the candidates in decreasing order by total Borda Score1[13]. In this scenario, the 5 percent rule will be tweaked to now eliminate all players who receive a score of 0 on over 95 percent of all ballots. This is consistent with the prior voting motivations because it still eliminates those who appear on less than 5 percent of voters' top 10 lists. However, the 75 percent rule will no longer hold to elect a winner. Instead, the final winner will be the player who receives the highest Borda Score by plurality. This voting rule will also guarantee at least one winner and potentially decrease the impact of voter bias. A Borda Count would be able to reveal all of a voter's preferences and therefore award additional votes to players who previously had a lower score. After determining how many biased and non-biased voters exist, it is possible to have a Borda count where Clemens winner, without changing

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[9]In 2013, there were 19 candidates who were nominated by less than 5% of voters, and 19 already exceeds 10. See Table 1.

[10]If the 75% rule was increased, and the unanimity rule instated, this would only make it more difficult for the BBWAA to elect a candidate in future years. Therefore, the possible solutions must include a lowering of this rule.

[11]In the case of a tie, all the players who tie for the most vote share will be elected.

[12]In the current voting system, each candidate is treated equally, so every player on the 10 nominees list receives a score of 1.

[13]The highest score that any player could receive is $[10*n]$, which would occur if they were unanimously chosen by all voters as the most preferred candidate.

voters' respective preferences[14].

A second possible voting system that incorporates preferences within the nominees is instant runoff voting. Again, the 75 percent rule will be eliminated in order to elect a winner in this case. Each voter will choose an order for the 10 players, and only his or her top choice will contribute to the players' scores. The player with over half of the first place votes will be elected a winner. According to the 2013 results, only five players even appeared on over 50 percent of the ballots, and only one of those was linked with steroids. If any of those five were ranked as a first choice in at least 285 of their nominations, he would have been elected as winner. Thus, if Piazza were ranked as a first choice on at least 86.5 percent of the ballots where he appeared, then instant runoff voting would have counteracted his connection to steroids and elected him into the Hall[15,16]. In the old system, if Piazza were ranked as a first choice by 329 voters, he would not have been elected. However, in the new system, he would be elected into the Hall since he exceeded 285 first place votes. Therefore, instant runoff voting also opens up the opportunity for a winner, even a winner who is connected to steroid use, without a change in voter preferences.

In conclusion, this analysis reveals that alternate voting methods could have counteracted the results of the steroid bias by electing a winner. Some could have even gone a step further and enshrined a controversial candidate. In all cases, the 75 percent rule had to be altered in order for a winner to be chosen. The answer to the initial question of "How strict is too strict?" is therefore that 75 percent of voters' votes was too strict for 2013. In future years, this answer may not be the case. The decision is ultimately up to the Hall of Fame and whether it is willing to open up its doors to allow in candidates who may have violated the rules of baseball.

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[14]In this system, a biased voter prefers a 'clean' player such as Biggio as a first choice, and lowers Clemens on the nominee list below the 6th place. All non-biased voters prefer the reverse, with Clemens as a first choice, and Biggio below the 6th place but still on the list. These limitations hold because the average voter only nominated 6 candidates according to the results (by rounding down to the previous whole number), so an unbiased voter had Clemens as one of these 6, and a biased voter did not. [The result was rounded down because although it is larger than 6, no number can be rounded up because a voter who nominated under 7 candidates cannot be said to have nominated 7.]Therefore, if 37.6% of the 569 voters had Clemens on their nominee list, then exactly 214 voters were unbiased, and 355 were biased (by rounding to the nearest whole number). In the previous system, where any top 6 player on the average nominee list received a score of 1, Clemens received a score of 214, and Biggio was elected with a score of 355. See Tables 1 and 3 for some facts. In the proposed system, where a player must now score all of his top 10 preferences, Clemens could receive up to a score of 5 from every biased voter who now must include him on the ballot. Clemens also now receives a vote of 10 from every non-biased voter who ranks him as 1st. In contrast, Biggio now receives a score of 10 from every biased voter, and could receive as low as 1 from every non–biased voter. With the new system, Clemens' total score would be 355*5 + 214*10= 3,905. Biggio's total score would be 355*10+214*1= 3,764. Under these circumstances, Clemens will now beat Biggio even though preferences have not changed. Although it may be rare that non-biased voters will rank Biggio as last when biased voters will rank Clemens as 5th, it is still possible. Therefore, there is a possibility for the Borda Count to eliminate the effects of voter bias. This is just one of possibly a number of cases where a supposed steroid user can be elected. If a biased voter was defined as one who demoted Clemens below 10th place, the new Borda count would not elect Clemens as a winner.

[15].5/.578= 86.5%. See Table 1. Even if he were present on more ballots below the 6th place, this would not contribute to his vote share because only 1st choices are counted.

[16]It is almost impossible to estimate how the votes of the weakest candidates would have been reallocated if no player achieved a majority, in order to make Clemens a winner. It is possible that he appears below number 6 on up to an additional 62.4% of the vote, but it is undecided whether a reallocation of votes would have placed him in 1st place for those nominations.

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Appendix:

Table 1: Players Ballot: 2013 Hall of Fame vote data

2013

Rank	Player	Year on Ballot	Votes	%vote	Bill James Hall of Fame Monitor: This standard attempts to determine how likely a player is to be elected. It is a rough scale with over 100 likely and under 100 less likely	Bill James Hall of career Standards: This standard (0-100) determines how well a player's career statistics match up to the typical standards of the HOF. 50 is and average Hall of Famer	Hits/Hits Allowed	Home Runs Hit/Allowed
1	Craig Biggio	1st	388	68.20%	169	57	3060	291
2	Jack Morris	14th	385	67.70%	122	39	0	0
3	Jeff Bagwell	3rd	339	59.60%	150	59	2314	449
4	Mike Piazza	1st	329	57.80%	207	62	2127	427
5	Tim Raines	6th	297	52.20%	90	47	2605	170
6	Lee Smith	11th	272	47.80%	135	13	3	1
7	Curt Schilling	1st	221	38.80%	171	46	117	0
8	Roger Clemens	1st	214	37.60%	332	73	31	0
9	Barry Bonds	1st	206	36.20%	340	76	2935	762
10	Edgar Martinez	4th	204	35.90%	132	50	2247	309
11	Alan Trammell	12th	191	33.60%	118	40	2365	185
12	Larry Walker	3rd	123	21.60%	148	58	2160	383
13	Fred McGriff	4th	118	20.70%	100	48	2490	493
14	X-Dale Murphy	15th	106	18.60%	116	34	2111	398
15	Mark McGwire	7th	96	16.90%	170	42	1626	583
16	Don Mattingly	13th	75	13.20%	134	34	2153	222
17	Sammy Sosa	1st	71	12.50%	202	52	2408	609
18	Rafael Palmeiro	3rd	50	8.80%	178	57	3020	569
19	X-Bernie Williams	2nd	19	3.30%	134	48	2336	287
20	X-Kenny Lofton	1st	18	3.20%	91	42	2428	130
21	X-Sandy Alomar	1st	16	2.80%	48	24	1236	112
22	X-Julio Franco	1st	6	1.10%	58	42	2586	173
23	X-David Wells	1st	5	0.90%	88	40	23	0
24	X-Steve Finley	1st	4	0.70%	72	36	2548	304
25	X-Shawn Green	1st	2	0.40%	62	33	2003	328
26	X-Aaron Sele	1st	1	0.20%	21	15	9	0
27	X-Rondell White	1st	0	0.00%	6	17	1519	198
28	X-Jose Mesa	1st	0	0.00%	113	1	0	0
29	X-Woody Williams	1st	0	0.00%	17	14	105	4
30	X-Mike Stanton	1st	0	0.00%	66	7	8	0
31	X-Jeff Cirillo	1st	0	0.00%	37	23	1598	112
32	X-Jeff Conine	1st	0	0.00%	22	23	1982	214
33	X-Reggie Sanders	1st	0	0.00%	18	27	1666	305
34	X-Royce Clayton	1st	0	0.00%	24	23	1904	110
35	X-Roberto Hernandez	1st	0	0.00%	93	7	1	0
36	X-Ryan Klesko	1st	0	0.00%	24	26	1564	278
37	X-Todd Walker	1st	0	0.00%	10	22	1316	107

Note: Jack Morris, Lee Smith, Curt Schilling, Roger Clemens, David Wells, Aaron Sele, Jose Mesa, Woody Williams, Mike Stanton, and Roberto Hernandez are pitchers and therefore do not hit. This is why they have so few home runs.

"2013 Hall of Fame Voting." Baseball-Reference.com. N.p., n.d. Web. 01 May 2013. <http://www.baseball-reference.com/awards/hof_2013.shtml>

Table 2: Players Ballot: 2012 Hall of Fame vote data

2012

Rank	Player	Year on Ballot	Votes	%Vote	Bill James Hall of Fame Monitor: This standard attempts to determine how likely a player is to be elected. It is a rough scale with over 100 likely and under 100 less likely	Bill James Hall of career Standards: This standard (0-100) determines how well a player's career statistics match up to the typical standards of the HOF. 50 is and average Hall of Famer		Hits/Hits Allowed	Home Runs Hit/Allowed	
1	Barry Larkin	3rd	495	86.40%	120	47		2340		198
2	Jack Morris	13th	382	66.70%	122	39		0		0
3	Jeff Bagwell	2nd	321	56.00%	150	59		2314		449
4	Lee Smith	10th	290	50.60%	135	13		3		1
5	Tim Raines	5th	279	48.70%	90	47		2605		170
6	Alan Trammell	11th	211	36.80%	118	40		2365		185
7	Edgar Martinez	3rd	209	36.50%	132	50		2247		309
8	Fred McGriff	3rd	137	23.90%	100	48		2490		493
9	Larry Walker	2nd	131	22.90%	148	58		2160		383
10	Mark McGwire	6th	112	19.50%	170	42		1626		583
11	Don Mattingly	12th	102	17.80%	134	34		2153		222
12	Dale Murphy	14th	83	14.50%	116	34		2111		398
13	Rafael Palmeiro	2nd	72	12.60%	178	57		3020		569
14	Bernie Williams	1st	55	9.60%	134	48		2336		287
15	X-Juan Gonzalez	2nd	23	4.00%	123	40		1936		434
16	X-Vinny Castilla	1st	6	1.00%	69	25		1884		320
17	X-Tim Salmon	1st	5	0.90%	34	32		1674		299
18	X-Bill Mueller	1st	4	0.70%	16	23		1229		85
19	X-Brad Radke	1st	2	0.30%	13	15		3		0
20	X-Javy Lopez	1st	1	0.20%	66	34		1527		260
21	X-Eric Young	1st	1	0.20%	19	25		1731		79
22	X-Tony Womack	1st	0	0.00%	27	17		1353		36
23	X-Phil Nevin	1st	0	0.00%	23	19		1131		208
24	X-Brian Jordan	1st	0	0.00%	24	17		1454		184
25	X-Ruben Sierra	1st	0	0.00%	58	28		2152		306
26	X-Jeromy Burnitz	1st	0	0.00%	34	23		1447		315
27	X-Terry Mulholland	1st	0	0.00%	14	9		69		2

Note: Jack Morris, Lee Smith, Brad Radke, and Terry Mulholland are pitchers.

"2012 Hall of Fame Voting." Baseball-Reference.com. N.p., n.d. Web. 01 May 2013. <http://www.baseball-reference.com/awards/hof_2012.shtml>

Table 3: Players Ballot: Hall of fame vote data: 1980-2013

Year	Number of Voters	Votes per Ballot
2013	569	6.6
2012	573	5.1
2011	581	5.98
2010	539	5.67
2009	539	5.38
2008	543	5.35
2007	545	6.58
2006	520	5.64
2005	516	6.32
2004	506	6.55
2003	496	6.6
2002	472	5.95
2001	515	6.33
2000	499	5.64
1999	497	6.74
1998	473	5.41
1997	473	5.59
1996	470	5.72
1995	460	6.15
1994	456	6.37
1993	423	5.79
1992	430	6.07
1991	443	6.65
1990	444	6.87
1989	447	6.75
1988	427	6.6
1987	413	6.61
1986	425	7.04
1985	395	7.39
1984	403	7.21
1983	374	8.36
1982	415	8.06
1981	401	7.8
1980	385	7.7

"Hall of Fame Ballot History." Baseball-Reference.com. N.p., n.d. Web. 01 May 2013. <http://www.baseball-reference.com/awards/hall-of-fame-ballot-history.shtml>