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The New Ballparks— Is stadium design really improving?

by John Pastier

James Tackach on bad first-place teams
Tony Kissel on history's best singles hitters
Jamie Selko on baseball's all-time worst hitter
Jay Feldman on the real first night game at Wrigley
John White and Charles Prevo on "The Perfect Swing"
Jack Kavanagh on the Dizzy Dean-Carl Hubbell matchups
Michael Soivenski on what the new expansion teams can expect

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Baseball (21) Research

JOURNAL

A question is an itch. Research is scratching. Many SABR members and friends of the Society are tormented (or exhilarated) by a perpetual tickle they just can't ignore. Fortunately, this metaphorical condition leads not to an unsightly rash, but to the annual publication of *The Baseball Research Journal*.

BRJ is baseball's premier research periodical. Over its two decades of life it has corrected records, clarified assumptions and contradicted long-held beliefs. It has presented dozens of articles that have changed the way

many of us look at, think about and measure success in our favorite sport. And it has printed hundreds of the plain, old-fashioned, fascinating itch-scratchers that give us so much pleasure every year.

This is the biggest issue of *BRJ* we've ever published, and one of the meatiest. It's full of great stuff, both from some of SABR's longtime stars and standbys, and from writers dipping their toes into SABR waters for the first time. I hope you enjoy it.

—Mark Alvarez



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The Seductions of Nostalgia and the Elusiveness of Intimacy

Recent trends in ballpark design

John Pastier

With the triumphal opening of Orioles Park at Camden Yards, the oxymoron of a modern old-fashioned ballpark has gained credence, as though Euclid had managed to square the circle. Judging from media coverage of new stadia, we are emerging from a dark age of several decades standing. The SkyDome's space-age roof hovers over corporate amenities and yuppie diversions. Lowertech stadia such as Buffalo's Pilot Field, Chicago's New Comiskey Park, and Camden Yards, as well as future ones in Cleveland, Arlington, Denver, Milwaukee, Durham, Atlanta, and possibly Cincinnati and Pittsburgh, are touted as a collective return to the good old days of ballpark design. Even Joe Robbie Stadium, Miami's 75,000-seat football palace, has been lauded as a baseball site by Tommy Lasorda.

Looking beyond the hoopla that surrounds sports construction, is stadium design truly improving? Yes, since previous standards were so low, and facilities specialists and their clients are steadily setting their sights higher and learning from collective experience. This promises to be the most interesting ballpark era in seven decades. But are we entering a second Golden Age, and are the new stadia actually "traditional ballparks" as claimed? The verdict will depend in part on how well Denver's and Milwaukee's final designs develop, but at this point the answer ranges between a pessimistic "not really," and an optimistic "not yet."

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Many characteristics made the classic parks successful. The most important were:

- Seats as close to the field as possible and for the most part protected from sun and rain.
- Playing fields whose configuration challenged hitters, pitchers, and fielders alike, and induced a degree of unpredictable play.
- Honest architectural and structural character.
- Urban sensitivity and integration with their surroundings, contributing to a civilized and vibrant communal environment.

These are the best yardsticks of ballpark design. How well do today's "traditional parks" measure up?

Buffalo and Chicago—The earliest, Pilot Field (1988) and new Comiskey (1991), were designed by the Kansas City-based HOK Sport Facilities Group, the current stadium market-share leader. Their seating patterns are basically those of Royals Stadium, as is Pilot's outfield configuration. (Comiskey's outfield is a cross between Royals and the old park.) This means that the upper deck is far from the field at Comiskey (see Table), and will be if Pilot is expanded to its ultimate 40,000 seat capacity. Upper deck proximity is the real test of ballpark intimacy, since the lower deck is inherently close to the field. Both parks' safe and symmetrical field dimensions do little to promote interesting game action, and Comiskey's inner fences make matters worse. Buffalo's facade of concrete and decorative steel tubing has been compared to Ebbets Field's arched brickwork, but it is more like a shopping mall. Its cosmetic nostalgia is put to shame by real historic buildings nearby, and the structure does not really respect the boundaries of its site; this is a suburban ballpark plopped downtown with minor adjustments. New Comiskey's exterior is more ponderous than Buffalo's; its heavy pinkish concrete facade and huge arched false windows of mirror glass mock the human scale and fine proportions of its predecessor. Six immense and unsightly switchback ramps deface the facade. Comiskey is a suburban artifact that obliterates urban context to create a sea of 7000 parking spaces in the midst of Chicago's South Side.

Orioles Park at Camden Yards—Thanks to a persistent Orioles management, Camden Yards (1992) is a major advance over its predecessors. HOK first planned to demolish the old B&O warehouse that is now the park's trademark; when this was vetoed, it suggested razing half of it while proposing a stadium closely resembling New Comiskey. The O's wanted an old-style park, and, realizing it wasn't materializing, hired consultants and a full time vice-president of design and planning to oversee the architectural process.

What emerged was a park whose seating geometry, field dimensions, contribution to street life, and somewhat quirky overall character are far closer in spirit to the old parks than anything else built in the last forty to seventy years. Since I was a consultant on the project, this opinion could be seen as self-interested, but it is one shared (if not exceeded) by nearly everyone who has written on the subject. Architecture critic Paul Goldberger called it "a building capable of wiping out in a single gesture 50 years of wretched stadium design." Jonathan Yardley deemed it "a gift ... of almost indescribable value and consequence," and Philip Lowry declared that there was "not a bad seat in the house!"

In truth, there are some bad seats, such as those at the bleachers' right edge with no view of first base, or the terrace boxes under the club deck overhang that lose sight of fly balls and part of the scoreboard. The bleacher situation is clearly a design gaffe, while the rear boxes seem more a marketing problem.

The upper deck is also a concern; it is closer to the field than New Comiskey's, but farther than Memorial Stadium's. HOK and the Orioles struggled with this problem, making design changes and financial concessions to improve a situation that was unsatisfactory in earlier plans. This problem haunts all new parks, for its root is economic. Today's stadiums aren't built because older ones are inferior or structurally unsafe, but because team costs and expectations have risen sharply. New parks can boost revenues in many ways, mainly through premium seating sections that can't be retrofitted into

existing venues. Private suites can fetch as much as \$874,000, prepaid, for a ten year lease, and loge or clubsection seating can cost up to \$80 per seat per game, sold by the season in minimum blocks of four. Suites and club levels claim the zone between the lower and upper deck, and thus push the top deck away from the field. Even after the O's combined the club and suite levels, squeezing and trimming the structure could do only so much to bring the upper deck closer.

Two Ballpark Frontiers—In pursuing intimacy, the Orioles weren't willing to break the post-1955 taboo on columns in the seating areas. Conventional wisdom decrees that remote seats with clear views of the field are always preferable to closer ones, some of which are obstructed by columns in varying degrees. This is the single greatest difference between classic parks and new ones, and, unless clubs are willing either to experiment with seating-area columns or cut seating capacities to the 30,000 range, it means that we may never see an intimate new park outside of the minor leagues, and that we won't get stadiums with most seats protected from sun and rain.

Proximity is one of two unconquered frontiers in stadium design, the other being architectural quality. Camden Yards is a great advance over Pilot and Comiskey in that it avoids their stylistic crassness and unconvincing materials and attains a measure of dignity and seriousness. It is clad in brick, detailed with reasonable competence, and free of awkward exterior ramps. Equally important, it has a nicely scaled steel structural system like the classic parks, rather than a heavy concrete one like Pilot, Comiskey, and most of the behemoths built in the 60s and 70s.

This gives a more authentic ballpark form, and in principle could supply the basis for an honest and rich baseball style that needn't resort to nostalgia. But Camden Yards' steelwork doesn't have the visual impact that it might, since it is largely screened by a decorative brick veneer, and its dark color is hard to see where it is exposed. The steel bones of Camden Yards have the power and poetry of a great bridge, but those virtues are largely obscured by its paint job and nostalgic cladding.

The New Standard—Despite any misgivings, Camden Yards is a milestone in ballpark evolution. It is the best park in at least four decades, and its success has led HOK to abandon its obsolete Royals Stadium prototype in favor of a more baseball-friendly and fan-friendly paradigm. In 1989, baseball commissioner Bart Giamatti told Orioles management that once this park was built, everyone would want one like it.

Time has proven him right. Cleveland's new park,

now under construction, is clearly a Camden Yards descendant. The Rangers, Giants, Rockies and Brewers are planning "traditional parks", and there can be little doubt that Orioles Park is the prime source of their commitment. What was once an opportunistic marketing buzzword has now taken on some legitimacy and tangible form, even if the concept is not yet fully evolved.

Cleveland's Gateway Project—HOK's Cleveland park, anonymous until its naming rights are sold, will have a less nostalgic and more structurally adventurous exterior than the firm's three earlier stadia. Here, the designers have astutely taken inspiration from the city's rich stock of steel bridges and skylit Victorian shopping arcades. But inside, the stadium will be highly untraditional, with suites stacked three-high in places, and club decks protruding deeply from separated locations rather than arranged in a connected tier of moderate depth. The interior will resemble a collision between a stadium and a curtain-wall office building.

A gap was opened in the left-field corner to allow skyline views from some locations. This precluded potential seats 340 feet from the plate, yet pricey club seats as distant as 518 feet and grandstand seats as far away as 576 feet are being built in right-center. Is this is a good trade for views that are otherwise readily available inside and outside the park? Like Buffalo's, this downtown stadium will not be fully built to the street lines; like Comiskey, it will have inner fences and be less intimate than the park it replaces. Once it's built, Clevelanders may be chagrined to find that they spent several hundred million dollars to build an "intimate and traditional" stadium with upper deck seats nearly 50 feet farther from the field than in their 78,000-seat old park.

The Biggest Little Ballyard in Texas—The Rangers induced 16 design firms to prepare detailed stadium complex proposals at their own expense (estimated as ranging from \$40,000 to \$400,000 each) in hopes of gaining a partial commission for a new facility at the present suburban site. Twenty-six firms were asked to compete, including such stars as Robert Venturi, Frank Gehry, and Robert Stern (who all declined), and Charles Moore, Michael Graves, Kohn Pederson Fox, and Antoine Predock. The three Kansas City sports firms (HOK, HNTB, and Ellerbe-Becket) also took part in a process that one professional journal termed "exploitation." The ballpark designs ranged from cautious to inventive to bizarre, and the site plans included several imaginative proposals for averting the usual banality of suburban parking lots. When the dust settled, the winner of this national talent hunt turned out to be David M. Schwarz, a Washington D.C. architect with a branch office in the same building as the Rangers executive who made the choice. The convincing factor was a pink granite-trimmed exterior containing Texas state outlines, lone stars, block-letter T's, and longhorn steer heads. This facade led one of the team's owners to compare the stadium to the Texas state capitol.

Schwarz's plans have some arresting features. One block of seats, called a home-run porch, is based on Tiger Stadium's right field stands, complete with columns in the seating area and a deep roof. But it lacks the fabled top-deck overhang that makes the Detroit structure distinctive and justifies its name. It also raises a question of intent: If this is really a good arrangement, why consign it to the cheap seats in right field? Shouldn't it also be used by the infield, where its shading and field proximity effects would be even more useful? The main stands make more cautious use of columns, placing them four rows into the seating area. This would normally merit celebration, since it should aid upper-deck proximity, yet paradoxically the front of that tier is 176 feet from home, far more than any of the other recent parks. Arlington may be wrapped in Texas nostalgia, but it's intimacy deficit is pure future shock.

Farther Down the Pike—Other neo-traditional parks are yet to be designed. The Braves will inherit a stadium from the 1996 Olympics, built to a high seating capacity for track and field events, then partly demolished and rebuilt for baseball with fewer seats. This intriguing scenario may be a recipe for trouble, or it may be just the sort of architectural challenge that made the classic parks so interesting. So far the project's sponsors have not revealed many details, and no architect is on board yet.

The Brewers and HNTB have been planning a new park for about four years, producing at least three different exterior treatments of highly dissimilar appearance. Like Arlington's, it will be built a 5-iron shot away from the present suburban stadium. Unlike any other park since Dodger Stadium in 1962, full stadium construction will be privately funded through suite income. (Taxes will cover access improvements, parking, and land.) This will be an "old-fashioned design;" the Brewers' owner has declared Ebbets Field his favorite ballpark, and in 1990 HNTB drew up a metal panel version of Brooklyn's ornate masonry exterior.

The Colorado Rockies will soon break ground on an HOK-designed stadium at the edge of downtown Denver. This is also meant to be a traditional park, but there is talk of such antitraditional "signature elements" such as a waterfall and a boulder-studded landscape beyond the outfield fence. At the same time, there are plans to

demolish six or seven of the old brick warehouses on the site, buildings that could give Denver an authentic signature comparable to Baltimore's warehouse.

Durham Athletic Park, the minors' best-known digs thanks to the movie "Bull Durham", is up for replacement. Here is a classic bush-league park, with a short right field, adjacent buildings within easy home-run reach, intimacy, funky character, mid-city location, and a loyal fan base. It is falling victim to regional competitiveness over franchise location, and to the new minor-league facilities standards imposed by the majors. The new park is meant to be traditional, will have 7500 green seats (expandable to 15,000) and better parking, but the architect is yet to be chosen. Durham is just one of many cases of likely turnover in minor-league parks, since the facilities standards are strict and often don't encourage renovation.

What Remains to be Done—This is a time of great opportunity in ballpark design. Business is booming, and the definition of a good ballpark is in healthy flux. But if this process is to succeed, several present constraints and tendencies must change.

First is architectural quality. Ballparks are major public buildings; they are funded almost entirely by public money, are used by much of the citizenry, and are physically and symbolically prominent in the metropolitan landscape. As such, they deserve the attention of the nation's best architects, not just technical specialists. In other countries, major stadium commissions have gone to the most respected architects, but here the use of proven design architects is rare.

The only baseball venue to ever win a national design award from the American Institute of Architects is Jack Murphy Stadium; tellingly, it was one of the few not designed by specialists. Its designer, Gary Allen, knew little about the game when he began work on it. Still, it is the friendliest of the large multi-purpose stadia to baseball, as well as the best example of pure architecture in the sport. A top designer can learn about stadiums quickly, but a technician cannot suddenly gain in talent. The road to great ballpark design is through high architectural aspirations, with technical specialists serving recognized designers rather than controlling the process. Choosing those architects could best be done through professionally sanctioned design competitions, where firms are systematically screened down to a manageable number, given a coherent set of requirements, compensated for their services, and the best design selected with the assistance of professionals. Architectural competitions are a proven way to commission important public projects. They would foster not just better design, but also design of our time rather than commercial nostalgia.

Ballpark character and excitement come not just from structural architecture, but also from the shape and dimensions of the playing field. Here, major league baseball could help matters greatly by relaxing its minimum requirements of 60 feet to the backstop, 325 feet for foul lines and 400 feet for center field. All but four of the eighteen 1909-54 era ballparks would flunk these tests; their non-standard dimensions are one reason that they are considered the best of their breed. These rules have now been imposed on the minors, where they make even less sense.

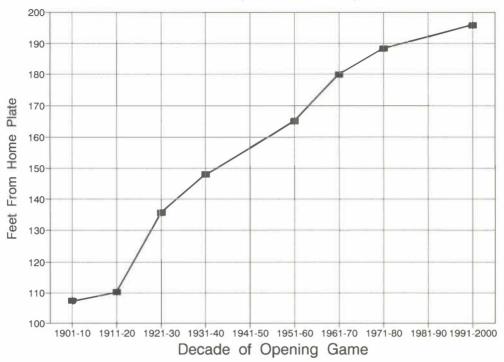
Intimacy and field proximity are the final requisites for ballpark excellence. It was no surprise that the concrete megastadiums of 1960-73 put fans further from the field than the classic parks they replaced, but when Cleveland's modest 46,000 seat "traditional ballpark" places its customers much higher up and further out than its cavernous 78,000 seat predecessor, and Arlington's new park is even less intimate, then it is time to sound the alarm. Why are we building such alienating venues in the name of old-fashioned ballpark values?

Just as clubs are expected to reveal if a seat has an obstructed view, all tickets should accurately state the viewing distance from the seat to a standard reference point such as the plate, the pitcher's rubber, or second base. Given a choice between a club seat 463 feet from the mound, a reserved seat 521 feet distant, or a bleacher seat 320 feet away (as will be the case in Cleveland,) most fans would choose to sit closer at lower cost. And when a new park replaces an old one, season ticket holders should be given a distance comparison between their old and new seats before being asked to renew their subscription.

It's not far-fetched to think that a truth-in-seating-distance requirement would motivate management to provide better seats. How to bring those seats closer would be left up to them. Skyhooks? Fewer than three floors of suites between the upper and lower decks? A club level less than 18 rows deep? Perhaps even ... columns? Well, whatever it takes.

But if this pursuit of intimacy proves too onerous, I'd drop the distance disclosure rule in return for one concession—just stop calling these vast new stadiums traditional ballparks. Instead, label them what they really are: nostalgically packaged revenue machines geared to business entertainment. I've seen a few ball games in Ebbets Field, and believe me, most of what we're being offered in the name of tradition bears little resemblance to that almost-perfect and sorely missed park.

Growth of Upper Deck Viewing Distance Based on 13 Representative Ballparks



Intimacy Factors for New Stadiums and Their Predecessors

		Opening	Top Deck	Top Row	Maximum Seating
City	Stadium	Year	Distance*	Height	Capacity**
Arlington	New Stadium***	1994	200'	117'	48,100
Baltimore	Memorial Stadium	1954	161'	104'	54,076
	Camden Yards	1992	182'	104'	48,000
Chicago	Comiskey Park	1910	119'	67'	52,000
	New Comiskey Park	1991	192'	125'	44,702
Cleveland	League Park	1910	96'	58'	22,500
	Cleveland Stadium	1932	148'	97'	78,189
	Gateway Project	1994	195'	115'	46,000

^{*} Diagonal viewing distance straight back from home plate to a point in the upper deck 1/3 of the way back from the front row. This approximates a typical seat in the best upper-deck section with the park reasonably full.

^{**} The older parks' capacity fluctuated over their lifetimes.

^{***} Accurate information on the current park is unavailable.

Quirks in First Place Finishes

Sometimes better is worse—sometimes worse is better

Ken Bruck

The swing of a team's success almost always has a direct correlation in the standings. If a team finished first one year and then came up with a better record the next year, it has usually repeated as champion. There have been rare occasions when a championship team plays better ball the next year but somehow comes up short:

1926 St. Louis Cardinals - 89 and 65 (.578) World Champs 1927 St. Louis Cardinals - 92 and 61 (.601) Second Place

On the other side of the championship year, there have also been occasions in which the team plays *worse* percentage baseball *after* a good season, yet still manages to come up with the title that eluded the team the year before:

1937 Chicago Cubs - 93 and 61 (.604) Second Place 1938 Chicago Cubs - 89 and 63 (.586) Pennant

I have discounted strike-shortened seasons and seasons abbreviated by war, because these situations make a direct, even comparison impossible. A team might have been able to improve its record if it had been allowed to play out the normal schedule. Although in some in-

stances the difference is only a game, an improvement or a decline in performance substantiates the comparison as long as the schedule was played out in its entirety.

The 1988 Minnesota Twins hold the record for the largest improvement in games won—six—after a championship year as they failed to win their division by a wide margin to the A's.

The 1955 New York Yankees gained the distinction of declining the most from one year to the next while managing to win the pennant in the face of the previous year's superior effort. They fell seven games off of their 1954 chase of the Cleveland Indians, yet managed to finish in first place by three.

The 1961 Reds are the only team ever to win at least the pennant, *improve* upon their record of the previous year, and fall as far as third place.

The 1963 Los Angeles Dodgers are the only team in the history of the game to finish in second place one year, then come back to win a World Championship with a worse record.

There have been only 13 legitimate (full schedule played) occurrences when there has been this odd, non-correlation between the final record and actual standings. They are detailed on the following page.

Ken Bruck is an English teacher and a freelance writer who is working on a book about Yankee-Red Sox trades in the '20s.

Better is Worse

1908 Chicago Cubs - 99 and 55 (.643) World Champs 1909 Chicago Cubs - 104 and 49 (.680) Second Place

1926 St. Louis Cardinals - 89 and 65 (.578) World Champs 1927 St. Louis Cardinals - 92 and 61 (.601) Second Place

1941 Brooklyn Dodgers - 100 and 54 (.649) N.L. Champs 1942 Brooklyn Dodgers - 104 and 50 (.675) Second Place

1945 Detroit Tigers - 88 and 65 (.575) World Champs 1946 Detroit Tigers - 92 and 62 (.597) Second Place

1953 New York Yankees - 99 and 52 (.656) World Champs 1954 New York Yankees - 103 and 51 (.669) Second Place

1961 Cincinnati Reds - 93 and 61 (.604) N.L. Champs 1962 Cincinnati Reds - 98 and 64 (.605) Third Place

1987 Minnesota Twins - 85 and 77 (.525) World Champs 1988 Minnesota Twins - 91 and 71 (.562) Second Place

Worse is Better

1937 Chicago Cubs - 93 and 61 (.604) Second Place 1938 Chicago Cubs - 89 and 63 (.586) N.L. Champs

1946 Brooklyn Dodgers - 96 and 60 (.615) Second Place 1947 Brooklyn Dodgers - 94 and 60 (.610) N.L. Champs

1954 New York Yankees - 103 and 51 (.669) Second Place 1955 New York Yankees - 96 and 58 (.623) A.L. Champs

1962 Los Angeles Dodgers - 102 and 63 (.618) Second Place 1963 Los Angeles Dodgers - 99 and 63 (.611) World Champs

1975 Kansas City Royals - 91 and 71 (.562) Second Place 1976 Kansas City Royals - 90 and 72 (.556) A.L. West Champs

1978 Cincinnati Reds - 92 and 69 (.571) Second Place 1979 Cincinnati Reds - 90 and 71 (.559) N.L. West Champs

Ten "Bad" First-Place Teams

Weak teams sometimes go all the way

James Tackach

Anyone following the American League's Eastern Division during the past few years realizes that the circuit is lacking a powerhouse team. Indeed, the division's first-place clubs in 1988, 1989, and 1990 won fewer than 90 games, a victory total that hardly suggests greatness. The division winners during those three seasons—Boston in 1988 and 1990, Toronto in 1989—were not very strong teams; they were simply better than the rest of the clubs in the division.

Yes, mediocre teams, weak teams, even "bad" teams do occasionally finish in first place; and although the phenomenon has been more frequent in recent seasons, it is by no means a characteristic of only the last several years. In fact, weak teams have been winning pennants for decades.

In this article, I propose to present the ten worst firstplace teams in baseball history. My selections are based on the following four criteria:

Record/Winning Percentage: We have always assumed that the best teams in baseball history—the 1927 Yankees, the 1954 Indians, the 1961 Yankees—are teams that win lots of games and that the worst teams—the 1889 Louisville Colonels, the 1962 New York Mets—lose with great frequency. It stands to reason, then, that first-place teams with low winning percentages are not very strong.

Run Differential: Great teams are near the top of their leagues in runs scored and near the bottom in runs al-

lowed. The 1927 Yankees, for example, scored a league-leading 975 runs and allowed a league-low 599; that is, they outscored their opponents by an astounding 376 runs. The 1962 Mets, the club we associate with contemporary baseball futility, scored a league-low 617 runs and allowed a league-high 948. Most pennant-winning teams outscore their opponents by 150 or more runs. A first-place team that outscores its opponents by less than 100 runs is not a very strong club.

Previous/Next Two Seasons: Most great teams remain in contention for several seasons; they do not come from sixth place to capture a flag and fall back to fourth or fifth the following season. Rising from obscurity to win a pennant then falling to mediocrity the following summer is not the mark of a dynasty.

Intangibles: When we judge a team from the past, we do not concentrate solely on its record, its team statistics, and its performance over several seasons. We examine its lineup, its pitching rotation, its bullpen. Does the team have six hitters in the lineup who would strike fear into opposing moundsmen? Does it have four top-notch starters who could shut an opponent down in a weekend series? These judgments are often subjective, but baseball fans have been making them since the game's salad days.

Based on these criteria, here is my list of baseball's ten worst first-place teams. The accompanying table provides statistical data at a glance.

1915 Chicago Whales: A Federal League team had to appear somewhere on the list. This team finished with a respectable record (86-66) and outscored its opponents by more than 100 runs, but most of baseball's best play-

James Tackach, a co-author of Fields of Summer: America's Great Ballparks and the Players Who Triumphed in Them, teaches at Roger Williams University, Bristol, Rhode Island.

ers were playing in the National and American Leagues. Federal League talent was thin; indeed, the first-place Whales had three regulars who batted below .235.

1944 St. Louis Browns: Any list of bad teams must include the Browns. The team did win 89 games (playing a 154-game schedule), but the talent in the American League in 1944 had been thinned by the wartime draft. The Browns won with a .252 team average, second lowest in the league. Vern Stevens was the club's only solid hitter. In 1946, when the player-soldiers returned from the war, the Browns finished seventh.

1945 Detroit Tigers: This team was similar to the 1944 Browns. It won only 88 games, and its lineup featured not one feared hitter. One regular batted higher than .277. Hal Newhouser carried the team with a 25-9 record and a 1.81 ERA. Surprisingly, these Tigers beat a pretty good Chicago Cub team in the World Series.

1959 Los Angeles Dodgers: Although this team won the World Series, it played mediocre baseball for most of the season. It won 88 games, and it outscored its opponents by only 35 runs. Only three players on the team had 500 at bats, which suggests an absence of solid everyday players. Don Drysdale was the club's best pitcher with an uninspiring 17-13 record and a 3.45 ERA.

1966 Los Angeles Dodgers: This is my most controversial choice. The team won 95 games, a healthy pennant-winning total. But aside from Sandy Koufax (27-9, 1.73) and Phil Regan (14-1), the team was mediocre. Although World Series performance must not be taken too seriously when we rate a club's seasonal performance, we have to wonder about a team that scored in the second and third innings of game one then stopped scoring for the rest of the Series. In 1967, after Koufax retired, this team finished in eighth place.

1972 Detroit Tigers: Billy Martin got 86 wins out of these Tigers in a strike-shortened season, but its best players, leftovers from the World Championship 1968 club, were aging. Norm Cash was the team's top RBI man with 61 and the only player with more than 15 homers.

The team outscored its opponents by only 44 runs.

1973 New York Mets: This team was basically a .500 club, winning only 82 games. The rest of the division was awful, and Tom Seaver (19-10, 2.08) was the team's only standout.

1982 Atlanta Braves: These Braves won only 89 games and outscored their opponents by only 37 runs. Phil Niekro (17-4) was the only solid starting pitcher, and Dale Murphy and Bob Horner were its only feared hitters.

1984 Kansas City Royals: Although these Royals were contenders for several seasons, the 1984 team played lackluster baseball. Its record was only slightly better than that of the 1973 Mets, and it was the first first-place team to be outscored by its opponents. George Brett was injured, and Steve Balboni (.244, 28 homers, 77 RBIs) was the Royals' best hitter. Bud Black (17-12) was the team's only decent starting pitcher.

1987 Minnesota Twins: This team was also outscored by its opponents, and it won only 85 games. Nonetheless, it sailed to a World Championship with superb performances in its home park and on the strength of four pitchers who got hot at the right time: Frank Viola, Bert Blyleven, Juan Berenguer, and Jeff Reardon.

Half the entries on my list are teams of the past 20 seasons. That phenomenon is easy enough to explain. In 1969, the two major leagues were divided into four divisions, doubling the number of first-place teams and doubling the chance that one of them would be "bad". Indeed, on my original list of 17 "bad" first-place teams, 11 were from 1969 to the present. Furthermore, expansion has diluted talent, making it less likely that dynasties would be built and more likely that a mediocre team would come to the forefront for one season and grab a pennant.

Indeed, with further expansion on the horizon, it seems quite likely in the coming seasons that some bad teams will finish in first place.

		Te	en "Bad"	First-P	lace Team	IS				
Year	League	Team	Record	Pct.	Run Dif.	Prev.	2 Seas.	Next	2 Seas.	
1915	FL	Chi	86-66	.566	+102		2			
1944	AL	StL	89-65	.578	+97	3	6	3	7	
1945	AL	Det*	88-65	.575	+68	5	2	2	2	
1959	NL	LA*	88-68	.564	+35	3	7	4	2	
1966	NL	LA	95-67	.586	+116	6	1	8	7	
1972	AL East	Det	86-70	.551	+44	4	2	3	6	
1973	NL East	NY	82-79	.509	+20	3	4	5	3	
1982	NL West	Atl	89-73	.549	+37	4	5	2	2	
1984	AL West	KC	84-78	.519	-13	2	2	1	3	
1987	AL West	Minn*	85-77	.525	-20	4	6	2	5	
	* = Won \	World Series								

Milt Gaston

A solid pitcher on some very bad teams

James Oscar Lindberg

The oldest living player for both the Chicago White Sox and the Washington Senators, the American League pitcher with the most hits surrendered in a shutout, and the pitching half of the first American League brother battery to work a complete game have one thing in common: they are the same man, Nathaniel Milton Gaston.

There is, however, something else that must be said about Milt Gaston by way of introduction, and that is that his 97-164 won-lost log spanning 1924-1934 resulted in a .372 percentage, the lowest of any twentieth century hurler with at least 250 decisions. Milt Gaston was a good pitcher who played nine years out of eleven on teams that failed to reach the .500 level of performance. In five of those seasons, his American League clubs were shy even of the .400 victory standard.

Tom Wicker, the political columnist, would say that Milt Gaston is "One of Us"; to use a term more associated with college football, he was the quintessential "walk-on." Following his pitching activities with the United States Navy during World War I, Milt Gaston pitched for the sharp semi-pro nine, the Paterson Silk Sox, and defeated the New York Yankees in an exhibition game about 1923. At the age of 28, and without an inning of college or Organized Baseball experience, he was offered a contract by the Bronx Bombers for 1924. He rewarded the tandem of Ed Barrow and Miller Huggins with a 5-3 record, appearing mainly in relief.

The New Jersey native looked set for a fine career with the "nearly hometown" Yankees, but he soon became one of the players in the Yankees-Browns trade that brought Urban Shocker, the Browns' greatest hurler, to New York in 1925. With St. Louis from 1925-1927, Gaston paced the Browns' pitching staff with fifteen wins in 1925 and thirteen wins in 1927, after which he (just as your author's father) took a St. Louis girl as his bride, who would be the nonagenarian's wife for nearly sixty years.

Both Gaston and George Sisler began the 1928 season with the Washington Senators, although the two Brown expatriates would serve Clark Griffith only a short time before moving on. Three of Milt's six wins for Washington were shutouts, including the July 10, 1928, whitewash of the Cleveland Indians in which the right-hander surrendered fourteen hits and two walks but nary a run, to set the American League record and tie the National League mark (Larry Cheney of the Cubs, in 1913) for most hits given up in a shutout.

As depression days settled upon the land, Milt Gaston toiled for the Boston Red Sox from 1929-1931. With the Bosox, he and his brother, Alex, formed a battery in 1929, Alex's final major league season. To continue talking family ties, Milt and Crimson Hose mound mate Danny MacFayden were brothers-in-law by virtue of the Deacon being the husband of Mrs. Gaston's sister.

During the 1930 campaign, Gaston held American League batters to the fifth lowest batting average against an A.L. pitcher, with a .259 mark. But this fine pitching for a last place team with a .338 winning percentage resulted in a Gaston log of 13-20, which enabled Milt to achieve the distinction of leading his team in victories while tying for league leadership in losses.

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Yet the Milt Gaston story is one of perseverance in the face of disheartening circumstances. Even though his final three seasons of play, with the second division Chicago White Sox, yielded a 1932-1934 harvest of 21 victories and 48 defeats, the veteran moundsman had some memorable games along the way, both in the final chapter of his career, with the Pale Hose, and as a younger man. As we examine some games in his career, we can gain an appreciation of Milt Gaston's pitching and hitting ability, and competitiveness.

In discussing his two-hit shutout of the Indians on May

23, 1932, Mr. Gaston told me on the telephone, "Jimmy, you found one of my good ones." How good was it? Only Joe Vosmik and Bill Cissell hit safely, for singles, and Milt singled home the only run he would need in the fourth inning. Later that 1932 season, on June 21, Gaston stopped Connie Mack's "Bull Elephants" by a 3-1 score on a six-hit performance at Comiskey Park. The White Sox scored all their runs off Rube Walberg in the eighth stanza, with Milt Gaston doubling home his favorite catcher, Charlie Berry, and scoring the final run a moment later on Jackie Hayes's single.

One of Mr. Gaston's finest mound efforts was at Sportsman's Park, St.

Louis, on September 12, 1926. He outdueled Red Ruffing in a 1-0 shutout over the Red Sox. Brother Alex broke up Milt's no-hit attempt by singling in the seventh inning (that's keeping it in the family!), and Wally Shaner got the only other Boston hit—an eighth inning pinch-hit single. A significant feature of this game, the nightcap of a twin bill, is that the nine innings were completed in just one hour and thirteen minutes.

As September 11, 1927, dawned in the Bronx, the Yankees had defeated the Browns in *all* of the twenty-one games the two teams had played that epic Ruthian summer. St. Louis manager Dan Howley gave Milt Gaston the ball for the final contest between the two teams that season, and riding George Sisler's two-run triple in the fourth, Milt beat the Yankees 6-2 on a five-hitter—one of which was Babe Ruth's fiftieth home run en route to his epochal sixty. After the game the Browns carried on "like schoolboys," said Mr. Gaston.

Foes of the designated hitter, take note: Milt Gaston compiled a .200 lifetime batting average in his eleven American League seasons. In July of 1927 he put on an

amazing hitting performance: in eight complete games that month (three victories, four defeats, and one tie), Gaston pounded A.L. pitchers for a .419 batting average (13 hits in 31 at bats) with four singles, a pair of home runs, and seven doubles to account for an astounding .839 slugging percentage. A little later that 1927 season, on September 2, the tall Bradenton, Florida, resident defeated the Detroit Tigers in St. Louis in a six-hit, 3-2 come-from-behind victory, punctuated by a blow from the Gaston bludgeon. Ken Williams, in his final month with the Browns, tripled in the ninth inning and scored

the tying run on Steve O'Neill's double; "Stout Steve" was singled home with the winning run by Milt Gaston on the final play of the game, as Gaston became the winning pitcher by virtue of his bat as well as his arm.

What about Milt Gaston, the man? Since our initial correspondence in 1983, followed by various letters and telephone calls and visits in 1989 and 1990, I have found him to be a gracious gentleman who exudes not only friendliness, but genuine warmth. As we first met, at the beginning of our March 1989 visit, Mr. Gaston told me, in the presence of my wife and two sons, "Jimmy, I feel like I've known you for a long time." In a brief Florida foray

that included Disney World and a Grapefruit League baseball game, the Milt Gaston visit was the highlight of our trip. In answer to my question about his greatest thrill as a St. Louis Brown, Mr. Gaston's 1984 written response was to say, "...just being in the big leagues and having the privilege of playing for and against the best in the business." I am grateful to say that Milt Gaston, aged ninety-six, is the oldest friend I have ever had.

So what if he lost a lot of ball games! Milt Gaston lived the dream that all of us have had, the dream of putting on the uniform, "playing for and against the best in the business," and leaving a permanent record of one's performance between the foul lines. While he didn't make his O.B. debut until he was nearly thirty, once he arrived he kept making box scores through age thirty-eight, and, among his losses, he compiled some memorable victories along the way, teaching all of us some lessons in perseverance. One of my mother's favorite expressions, "He's in there pitchin'," is used to signify that a person is not giving up even in difficult situations. Milt Gaston, a man who, indeed, is one of us, was "in there pitchin'."



The First All-Asian Pitching Duel in Organized Baseball

Japan vs. China in the PCL

Yoichi Nagata

hen the Sacramento Senators of the Pacific Coast League picked up a Japanese-American Nisei pitcher halfway through the 1932 season, Kenso Nushida became the PCL's first Japanese player.

Nushida was born and brought up in Hawaii, where he was dubbed "boy wonder" because of his "brains, speed, control and a cool head." He was mainly a pitcher, but also played second base and shortstop. When he came to California after he finished high school in Honolulu, he played baseball for Japanese-American club teams for nine years.

So when Solon's owner Lew Moreing, a contracting magnate, signed Nushida, the pitcher had long been a big name in California Japanese baseball circles. But his reputation was the only thing about him that was large. The Sporting News said he was "slightly less than five feet and weighs under 100 pounds," although he was really 5'1", 109 pounds. He was 31 or 32 when he became a Senator, but the club announced his age as 24. When he wasn't playing ball, he was a salesman at a hardware store in Stockton, married and the father of two daughters.

Nushida's first job with the Senators was to have a uniform tailored to fit him.

On August 10, 1932, Nushida made his PCL debut, starting against the Missions in Sacramento. He pitched eight innings, allowing five runs on six hits (two earned runs), and four bases on balls, and striking out three before being lifted in the bottom of the eighth for a pinch-hitter. Sacramento lost, 6-4, on an infield error.

There were many Japanese faces in the stands of Moreing Field that day. Nushida had been signed to attract Japanese-Americans to the ballpark during these tough Depression days. The minor leagues had been hard hit, and even the relatively solid PCL, with its big markets in San Francisco and Los Angeles, was looking for players who could draw more fans through the turnstiles. There were Japanese-American communities in most of the league's cities, and owners were eager to encourage their attendance..

Nushida was a big attraction not only because of his background, but because of his size. Fans went to the ballparks to watch him strike out 6-foot batters. Everybody loves to see David win over Goliath. Sacramento owner Moreing admitted that when Nushida pitched, attendance doubled.

Nushida was popular with his teammates, too. He liked to entertain them by playing his ukulele and singing Hawaiian and Japanese songs in the locker room and on the team bus.

Nushida had great control, but, not surprisingly, he didn't have a 90 mph fastball. He tried to bewilder batters by pitching sidearm, sometimes even using a submarine delivery. But he tended to run out of gas in the middle of the game. In some games he took himself off the mound. In this 1932 season, he started 11 games and finished only one. On August 24, he took a no-hitter into the eighth against the Seattle Indians, but then gave up three runs on two hits. He lost the game, 3-1.

The PCL played seven-game series during the season. Monday was a traveling day. From Tuesday to Saturday teams played one game a day, and on Sunday they played a doubleheader. Sacramento played its season-ending seven game series against the Oakland Oaks at Oakland.

September 28, in New York, was the opening day of the World Series between the Chicago Cubs and Joe McCarthy's Yankees, who would win in a sweep. But in California, it was the day of the second game of the season ending seven-game series between two teams that were out of the pennant race. Sacramento was third in the standings, and Oakland was seventh. But three thousand people were at Oaks Park, because this was the day of "the Sino-Japan War."

Before the series, the Oakland team recruited a local Chinese-American pitcher, Lee Gum Hong, to oppose Nushida. Lee, 21 years old, was a second-generation Chinese-American. He was 5'11", 168 pounds. The Oakland club had heard about Lee whiffing twelve to fifteen batters in semi-pro games, and went to sign him.

This Japanese against Chinese stunt was calculated to raise strong feelings. Japan had invaded China and established a puppet government in Manchuria in March 1932. So Chinese people and Japanese people, even in California, were not good friends at all. Lee declared, "This is a battle of nations. I represent China, Nushida represents Japan. And China shall win"

Before the game, the two pitchers received flowers

from their respective boosters, and then shook hands.

The score, after four innings, was Oakland 3, Sacramento 2. It looked like a fine pitching duel was developing, but with one out in the fifth Nushida was lifted because his strength, as often happened, simply gave out. Lee had one-hitter going until the sixth, when he gave up five runs (largely due to a crucial shortstop error) and was sent to the showers. The highly promoted pitching duel was over. Sacramento won the game, 7-5. Nushida was not involved in the decision, but Lee took the loss.

Four days later, in the last game of the season for both teams, the two Asians had a rematch. This time Oakland rallied in the fifth with seven hits for seven runs, and knocked Nushida out of the box. Lee completed the seven-inning game for a 7-1 win. This time, Lee got the win, and Nushida was saddled with the loss.

After the game, Chinese supporters celebrated Lee's victory with firecrackers at the stadium. The Japanese couldn't do Banzai.

Nushida never returned to Organized Baseball, although the Senators several times offered him another contract. In later years, he proudly talked about being the first Japanese player in the PCL. But he never referred to his duels with Lee. Kenso Nushida passed away in Hawaii in 1983 at age 83.

932 Startia Name	G	W	L	IP	Н	ER	R	BB	SO	W	HP	AB	ERA
(Sporting News poxscores)	11	2	5	58	63	÷.	37	20	9	-	_	-	_
Spalding & Reach Guides	11	2	4	58	63	32	36	21	10	-	-	224	4.97
									(Cor	npiled	by Fran	nk V. Pl	nelps)
LEE GUM H	ONG	, TR E	BR										
1932 Spalding Guid	le	G 2	W 1	L 1	IP 12								

A Few Thoughts on Expansion

What can fans in Florida and Colorado expect?

Mitchell S. Soivenski

As the National League prepares for its first expansion in 24 years in 1993, baseball fans in general and those in Florida and Colorado in particular might be curious as to what to expect from the new teams. This essay will examine the historical record—the American League expansions of 1961, 1969, and 1977 and those in the National League in 1962 and 1969—and present some data about how expansion clubs have performed in the past, and how long an expansion club remains an "expansion club".

However, even if the environment of baseball were identical to that of the last pre-expansion season of 1960, this analysis could in no way pretend to make any predictions regarding the new 1993 entries. Given the tremendous changes in the game over the last 30 years —the designated hitter, artificial surfaces, free agency, new pitches, the refined use of relief pitchers, and the salary structure, among others—any real comparisons are next to impossible. Even in the context of this essay, yearto-year comparisons are complicated by such changes as the shrinking of the strike zone and the lowering of the mound after the 1968 season, and the apparent increase in the ball's liveliness for the 1977 season. In the end, though, there's nothing really new in baseball, according to the sport's pre-eminent philosopher, and so, despite all these caveats, it would hardly be a surprise if the fledgling 1993 expansion teams performed very similarly to their expansion forebears.

There is no escaping the reality that first-year baseball teams are usually abysmal. Of the ten first-year clubs, half lost 100 or more games, topped by the infamous 1962 Mets with their 40-120 mark. Only two—the 1961 Angels and the 1969 Royals—had a winning percentage in excess of .400 and lost fewer than 96 games. The cumulative percentage for Year One is .366, which equates to a record of about 59-103.

As bad as these teams were, not all of them finished far behind all of the established clubs; the A's finished behind the Angels and tied with the Senators in 1961. The Colt .45's beat out the Cubs in 1962. The Royals finished ahead of the White Sox in 1969. And the Mariners edged out the A's in 1977. To finish ahead of an established club is perhaps the one achievable goal for a first-year team.

The 1962 Angels set a standard for expansion teams which will be difficult to match. In their second year of existence, they finished with a respectable 86-76 record, the earliest that an expansion club has reached .500, and climbed to third place in a 10-team league, only 10 games behind the pennant-winning Yankees. In 1971, in their third year, the Royals finished a surprising second to the A's, and registered the second-earliest .500 record at 85-76. In general, though, Years Two, Three, and Four still produced some pretty bad clubs—more than one-third lost 100 or more games and the Mets managed only a .309 percentage (50-112) in their fourth year. These years saw a cumulative winning percentage of .404, or a record of 65-97—a marked improvement, but still pretty poor.

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	Table	1.	
Expansion Y	lear One	Won-Lost	Records

	W	L	Pct.	Pos.
1961 Angels	70	91	.435	8/10
1969 Royals	69	93	.426	4/6
1962 Colt 45's	64	96	.400	8/10
1977 Mariners	64	98	.395	6/7
1969 Pilots	64	98	.395	6/6
1961 Senators	61	100	.379	9/10 (tied)
1977 Blue Jays	54	107	.335	7/7
1969 Expos	52	110	.321	6/6
1969 Padres	52	110	.321	6/6
1962 Mets	40	120	.250	10/10

Years Five and Six brought still more improvement, with a winning percentage of .445 (72-90), although only the Royals provided a winning record with their 88-74 second-place finish in 1973. With half of the teams under .450, these years were still pretty lean, and we're obviously still dealing with expansion teams, but the trend toward respectability is unmistakable.

The next two years are the turning point, with the first championships achieved by expansion teams. Year Seven had the 1975 Royals (91-71) and the 1983 Blue Jays (89-73) with solid seasons, and Year Eight produced the World Champion Mets of 1969 (100-62, .617), the AL West Champion Royals of 1976 (90-72, .556), and another 89-win year for the Javs in 1984. On the down side, the Mariners lost 102 games in their seventh season, and the Expos, 107 in their eighth. The cumulative percentage for these years is .469 (76-86), but Year Eight appears to be, on the whole, the last year that expansion teams can be distinguished from established teams. Expansion teams achieved winning percentages of .497 in Year Nine and .504 in Year Ten and were three games over .500 for the two-year span, and the Royals (1977-78) and Blue Jays (1985) won Division Championships.

One point is evident from a glance at the expansion team standings through 1991—there is little chance that most of these clubs will see a cumulative .500 winning percentage, especially now that the baseball dynasty has gone the way of the mastodon, repeat winners are discussed in hushed tones, and parity is king. The Jays (51 games under) may well reach that mark in 1993 or 1994, but the other expansion franchises have a long way to go;

Table 5 lists the number of years at 90 and 100 wins per year for each franchise to reach .500.

By way of comparison, for the period 1901-1991, the best in each league are the Yankees (+1770) and the Giants (+1115), and the worst are the Phils (-1225) and the Browns/Orioles (-702)—it would take the Phils 69 years of 90 wins to reach .500, and the Yankees, 99 years of 90 losses to drop below .500!

Another aspect of expansion which can be examined is its effect on scoring. Although, as previously mentioned, there are other factors at work here, expansion does in fact have an impact on scoring—pitchers who would otherwise be toiling for Triple A clubs masquerade as major-leaguers and are generally so much cannon-fodder for veteran batsmen. In all but one instance—the NL expansion in 1962—runs, home runs, and batting average all increased from the pre-expansion to the expansion year (see Table 6). That one exception might be explained by the overall dilution of 1961 talent caused by the AL's expansion in the previous year.

Obviously, the attempts to boost scoring in 1969 by adjusting the mound and the strike zone had a significant impact on the high percentages for those expansions, while the livelier ball had a dramatic effect in 1977, particularly with home runs, so these increases cannot be attributed solely to expansion. It may be useful to compare the figures for the years when only one league expanded (see Table 7), although, again, the 1960-62 situation is complicated by the proximity of the two expansions in those years.

Curiously, the non-expanding National League in-

Table 2.
Winning Percentage by Expansion Year

Year	W	L	Pct.
1	590	1023	.366
2	644	972	.399
3	651	964	.403
4	654	937	.411
5	665	845	.440
6	727	889	.450
7	759	859	.469
8	760	858	.470
9	805	814	.497
10	816	804	.504
11	823	775	.515
12	794	809	.495
13	663	739	.473
14	813	804	.503
15	820	799	.506

Table 3. Expansion Team Standings through Year Fifteen

	W	L	Pct.
Royals	1236	1126	.523
Blue Jays	1160	1211	.489
Brewers	1132	1236	.478
Expos	1118	1248	.473
Angels	1141	1278	.472
Astros	1104	1314	.457
Mets	1064	1356	.440
Mariners	1020	1354	.430
Rangers	1014	1396	.421
Padres	995	1372	.420
TOTALS	10984	12891	.460

creased its offensive production by a greater percentage than the American League in 1961, while the 1962 figures were comparable. Only in 1977 are the effects of expansion apparent in the American League's substantially greater increases in these categories. Conclusion? With all else equal, an increase in scoring can probably be expected in an expansion year, although, given the exceptional conditions in 1968 and 1977, certainly some-

thing less than the 11% indicated in Table 6. However, if the baseball powers decide to coincidentally tinker with the game, there's no telling what will happen when the 1993 National League season unfolds.

One final topic which may provide some interest for next year's Marlins and Rockies fans (as their teams play .366 ball) is team and individual records for first-year teams. Table 8 lists some records.

		Table 4.		
Expansion	Team	Standings	through	1991

	W	L	Pct.
Royals	1903	1753	.521
Blue Jays	1160	1211	.489
Angels	2410	2547	.486
Expos	1767	1891	.483
Brewers	1763	1898	.482
Astros	2307	2490	.481
Mets	2241	2547	.468
Rangers	2242	2699	.454
Padres	1640	2022	.448
Mariners	1020	1354	.430
TOTALS	18453	20412	.475

Table 5.
Years to Reach .500

	g under .500	yrs @ 90 W	yrs @ 100 W
Blue Jays	51	3	2
Expos	124	7	4
Brewers	135	8	4
Angels	137	8	4
Astros	183	11	5
Mets	306	17	9
Mariners	334	19	9
Padres	382	22	11
Rangers	457	26	13

Table 6.
Increase in Offense in Expansion Years

	BA	R/G	HR/G
1960-61 AL	+0.1%	+3.2%	+7.5%
1961-62 NL	-0.4%	-0.9%	-7.6%
1968-69 AL	+6.9%	+20.1%	+24.7%
1968-69 NL	+3.0%	+18.2%	+37.9%
1976-77 AL	+4.0%	+13.0%	+53.4%
TOTALS	+2.9%	+11.0%	+22.4%

Table 7.

Increase in Offense in Single-League Expansion Years

	BA	R/G	HR/G
1960-61 AL	+0.1%	+3.2%	+7.5%
1960-61 NL	+2.7%	+6.7%	+14.8%
1961-62 NL	-0.4%	-0.9%	-7.6%
1961-62 AL	-0.4%	-1.9%	+1.4%
1976-77 AL	+4.0%	+13.0%	+53.4%
1976-77 NL	+2.7%	+10.6%	+46.5%

Table 8.

Team and Individual Records for First-Year Teams

	Avg	Best		Worst	
Runs	608	61 Angels	744	69 Padres	468
Opp Ru	ins 793	69 Royals	688	62 Mets	948
BA	.242	77 Mariners	.256	69 Padres	.225
HR	123	61 Angels	189	69 Royals	98
SB	79	69 Pilots	167	61 Angels	37
ERA	4.35	69 Royals	3.72	62 Mets	5.04
HR	Thomas	62 Mets	34		
RBI's	Thomas	62 Mets	94		
BA	Bailor	77 Blue Jays	.310		
SB	Harper	69 Pilots	73		
Wins	Brabender	69 Pilots	13		
	Lemanczyk	77 Blue Jays	13		
ERA	Donovan	61 Senators	2.40		
SO	Farrell	62 Colt 45's	203		
Saves	Romo	77 Mariners	16		

Henderson Runs Past Cobb and Bernier

Within 100 days, Rickey Henderson broke both the American League and the Puerto Rican Winter League single-season stolen-base marks

Thomas E. Van Hyning

In October, 1980, Pedro Carlos Lugo, a Ponce, Puerto Rico sportswriter and baseball commentator, wrote his assessment of the Ponce Lions for their upcoming season:

Rickey Henderson, the man who took Ty Cobb out of the American League record books for most stolen bases in a season, will return to Ponce...and destroy Carlos Bernier's single-season mark in the Puerto Rico League.

Henderson began his second season with the Ponce Lions on October 23, 1980. He had played for fifth place Ponce the previous season and stole 19 bases in 39 contests. At the time, the Puerto Rico League had six teams, each played a 60-game season. The top four teams qualified for the best-of-seven semi-final series.

The 1980-81 Lions featured an outfield of Henderson in left, Gil Flores—a New York Met farmhand with Tidewater—in center, and Cirilo "Tommy" Cruz—brother of Jose and Hector Cruz—in right. A young infielder named Danilo Tartabull turned 18 one week into the season; he was a reserve on this Ponce team.

Ponce was destined to finish in last place at 24-36. The team underwent a managerial change with Sandy Alomar, Sr. replacing Stan Williams. Alomar, a 37-year old veteran who had led the Puerto Rico League six times in stolen bases, also played in seven games for Ponce. He remembers Henderson in Puerto Rico as "A talented player who was difficult to manage...he might

take a shower in the seventh inning. There were times he didn't feel like playing...other times, he would go all out."

Henderson's big night came on Friday, January 2, 1981 before a sparse crowd of 664 fans at Ponce's Paquito Montaner Stadium who witnessed his 41st and 42nd steals against the Santurce Crabbers managed by Cookie Rojas. He led off the bottom of the fifth with a single and stole second on Bob Owchinko's second pitch to Jose "Pepe" Mangual, barely beating Gary Allenson's throw.

Henderson stood on second as Mangual was called out on strikes. He erased Carlos Bernier's record of 41 steals set for Mayaguez 31 years earlier when he stole third with a 1-2 count on Gil Flores. Henderson was left stranded when Flores went down looking and Ponce catcher Butch Benton grounded to third.

Santurce won the game, 11-4. Henderson was busy in the field as he nearly made a shoestring catch on Rudy Law's sinking liner which turned into an inside-the-park homer. Sandy Alomar made a pinch hitting appearance, coming to bat for designated hitter Cirilo Cruz.

Cruz, on Henderson:

He did play for himself...but look at what he's done in the big leagues...he's been a valuable player in his career. With Ponce, he would steal bases with the team way ahead or way behind. It was Rickey Henderson for Rickey Henderson. He had a lot of ability. I'll take my cap off to him...a future Hall of Famer.

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Gil Flores remembers, "I hit after Rickey in the batting order much of the season [in the record-breaking game, Flores hit third]...I helped him a lot by taking pitches so he could steal more bases."

Flores told me Henderson's difficulties with manager Alomar stemmed from disagreements with the team's front office over incentive clauses in his contract. Flores himself had a cordial relationship with Henderson."We had some good times together in Puerto Rico. We might go to a disco, have a beer, a bite to eat. Rickey and I traveled to different parts of the Island...sometimes we drove together to the road games."

Rickey Henderson put up consistent numbers in Puerto Rico. His 63 stolen bases in back-to-back Puerto Rico seasons are second to Bernier's 69 steals over 1949-50 and 1950-51.

Rickey told me years later that Jose Pagan, his coach at Ogden in 1979, recommended that he play in Puerto Rico. Pagan was Henderson's manager at Ponce in the 1979-80 season. "Winter ball," he said, "it kept you sharp, kept you learning about pitchers' moves...I went down there and stole a lot of bases. In my career, it helped a lot."

Carlos Bernier, a native of Juana Diaz, Puerto Rico, still holds the all-time career stolen base mark (285) in League play. His 19-year Puerto Rico career included stints with the Mayaguez Indians, Ponce, the San Juan Senators and Arecibo Wolves. He only played one major league season, 1953, with Pittsburgh.

Vic Power, who starred with Caguas, remembers that "Bernier always hustled and played with a lot of pep."

Like Cobb, Bernier was very temperamental. He received several suspensions for incidents in his minor league career. Ronnie Samford, who played with Bernier at San Juan in the 1960-61 Puerto Rico League and Hawaii in 1963, thinks Bernier's temper affected his career. "Bernier," says Samford, "had the ability to have a 10-15 year major league career. His temper got the best of him."

Ozzie Virgil, Sr., Bernier's Mayaguez teammate during three seasons—1952-53, 1953-54 and 1954-55, remembers the 5'9", 180 lb. Bernier at the plate. "He had a good "inside-out" stroke to right field. Bernier was a great minor league hitter."

Jackie Brandt, outfielder with the 1958-59 Santurce Crabbers called Bernier an Aparicio-type player and a "thorn in your side."

Rogers Hornsby, the manager of the 1950-51 Ponce Lions, tried to acquire Bernier in a trade with Mayaguez according to their manager, Wayne Blackburn. Hornsby was impressed with Bernier's speed.

Henderson and Bernier will always be respected by Puerto Rico's baseball fans for their talent. The all-time major league stolen base king has his name engraved in Puerto Rico baseball lore as does the combative Bernier.



Rickey Henderson receiving an award for his record-breaking stolen base championship in 1981 from Angel Colon (1.) and Luis Rodriguez Mayoral.

Stolen Base Leaders, Puerto Rico Winter League 1949–50 to 1991–92

Season	Player	Team	SB	Season	Player	Team	SB
1949-50	C. Bernier	Mayaguez	41	1974-75	Ken Griffey, Sr.	Bayamon	15
1950-51	C. Bernier	Mayaguez	28	1975-76	Sandy Alomar, Sr.	Santurce	14
1951-52	C. Bernier	Mayaguez	19		Ellis Valentine	Ponce	14
1952-53	C. Bernier	Mayaguez	26	1976-77	Tony Scott	Caguas	25
1953-54	Luis Marquez	Mayaguez	32	1977-78	Ron LeFlore	Mayaguez	34
1954-55	Jim Rivera	Caguas	14	1978-79	Jose "Cheo" Cruz	Caguas	21
1955-56	C. Bernier	Ponce	18	1979-80	Mookie Wilson	Arecibo	28
1956-57	N. Escalera	San Juan	15	1980-81	Rickey Henderson	Ponce	44*
1957-58	Maury Wills	Mayaguez	25	1981-82	Jesus Vega	Caguas	22
1958-59	Joe Christopher	Mayaguez	17	1982-83	Al Wiggins	Ponce	26
1959-60	Felix Mantilla	Caguas	23	1983-84	Henry Cotto	Caguas	24
1960-61	Joe Christopher	Mayaguez	11	1984-85	Vince Coleman	Mayaguez	30
1961-62	Joe Gaines	San Juan	15	1985-86	Skeeter Barnes	San Juan	23
1962-63	Joe Christopher	Mayaguez	20	1986-87	Joey Cora	Ponce	20
1963-64	Joe Christopher	Mayaguez	16	1987-88	John Cangelosi	Mayaguez	19
1964-65	Sandy Alomar, Sr.	Ponce	12	1988-89	Lonnie Smith	San Juan	28
1965-66	Sandy Alomar, Sr.	Ponce	18	1989-90	Albert Hall	Santurce	22
1966-67	Jimmy Rosario	Arecibo	17	1990-91	Alex Diaz	Mayaguez	17
1967-68	Ed Stroud	Mayaguez	14		Pedro Munoz	Mayaguez	17
1968-69	Sandy Alomar, Sr.	Arecibo	26	1991-92	Paul Faries	Mayaguez	20
1969-70	Sandy Alomar, Sr.	Arecibo	14				
1970-71	Freddie Patek	San Juan	14	* Single-se	eason record		
1971-72	Sandy Alomar, Sr.	Ponce	10	Sources: P	once Lions Baseball En	cyclopedia, R	afael
1972-73	Jose Mangual	Arecibo	17	Costas, 19	89. Puerto Rico League	e Records.	
1973-74	Larry Lintz	Ponce	25				

Henderson's Career Totals for the Ponce Lions

Season	G	AB	R	H	2B	3B	HR	RBI	BB	SO	BA	SB	CS	PCT.
1979-80	39	145	26	43	0	2	1	8	25	13	.297	19	7	78.1
1980-81	48	168	33	50	8	4	1	16	39	19	.298	44	9	83.0
Total	87	313	59	93	10	4	2	24	64	32	.297	63	16	79.7

Search for the Perfect Swing

Finding it is easier than selling it

John W. White and Charles T. Prevo

In 1983, one of us was working with a Little League baseball team populated with 10-year-old youngsters. As a physicist, he observed that when a batter is rotating, the principle of gyroscopic stability helps him maintain his balance. This set off a research project that has resulted in a scientific basis for understanding batting mechanics. By the end of 1991, when this article was written, this new knowledge had worked its way into Major League Baseball.

The story breaks down into two parts. The first (and easiest!) was the basic technical research and development. Then came the publication and dissemination of our findings. Little did we realize the enormity of the task we were undertaking when we began a thorough examination of batting mechanics.

The technical findings of our research have been published in both book and video under the title *Batting Basics*. Only a glimpse of these results will be presented in this article. The primary goal of this article is to record the development and dissemination of our research in an historical sense.

Early Research (1983 & 1984)—After discovering that gyroscopic stability was important, we recognized that its importance came from the assumption that balance was a key issue. In physics, many problems are most easily

solved when the fundamental constants can be identified. For a batter, balance needs to be constantly good from the beginning of the stance to the follow-through. We identified four more constants, and used them to expose the science (physics, geometry and anatomy) of crucial importance to hitters.

These five constants assumed that the batter will want to:

- 1) use the large muscles of the body to generate power
- 2) maintain good balance
- 3) maintain a stable and binocular view of the ball
- 4) retain flexibility and range of motion for hands and bat
- 5) maintain bat control via the small muscles (hands and arms).

Of course timing (how and when things change) is also important. But if we start with the five constants, understanding timing turns out to be relatively easy.

Our basic approach is the one used by systems analysts. As each of the five fundamentals revealed pieces of relevant science, we would examine each of these pieces to see how they fit together in a *system*. The process is like putting a puzzle together. We applied this methodology to both the weight shift system and to the body rotation system of batting mechanics. By 1984, we were ready to conduct on-the-field experiments. Thereafter, it was a matter of technical refinements and adjustments.

There are only two ways to generate body power. One is with "weight shift" as advocated by the late Charley Lau. The other is with "body rotation" as recommended by Ted Williams. It has long been known that body rota-

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tion generates more power. Some simple physics also shows that balance is optimal if the batter has a wide stance with his weight centered, and this is only possible with body rotation. This good balance is further enhanced by lowering the body's center of gravity via a deep knee flex. But some of the applicable physics is fairly subtle. For example, a rotating object is in its most stable configuration when it is vertical because of the principle of gyroscopic stability. Thus, the rotating batter wants his torso to be vertical. This "locks in" the good balance produced by a weight-centered wide stance with a deep knee flex. The vertical torso is compatible with the weight-centered wide stance. The pieces "fit."

Another somewhat subtle piece of physics has to do with precession. This is the phenomenon that causes a rotating object to wobble if it is not perfectly vertical. For a batter whose torso is tilted, this means his head will wobble and his vision will be impaired. So a vertical torso is desirable for good vision, too.

A general conclusion we reached was that when examining the five fundamental constants, body rotation was significantly better than weight shift. However, the Ted Williams version of body rotation had flaws; he missed the need for a vertical torso and the advantages of a deep knee flex among other things. Another finding was that the batting mechanics system we discovered could be adapted to fit any style suitable for different individuals. One of the main benefits of our analysis was that coaching players became easier because it was easy to provide reasons to justify the mechanics being taught. It is not necessary to say: "Do it because I say so."

This partial discussion of our research results is only meant to capture the spirit of a scientific approach to batting mechanics. We have only discussed the science associated with one of the five fundamentals (balance) in any detail. Many other details (such as timing) have been omitted in the above discussion, and we have completely omitted any discussion of the science relevant to the weight shift system.

The Characteristic Signature (1985)—When you watch a hitter in action, there are certain characteristic signs that indicate a batter has been influenced by our analysis. The batter has his weight centered over a wide stance with a vertical torso and the knees deeply flexed. After a short stride (and the weight remaining centered with the head still and eyes level), a strong rotation of the shoulders is driven by the muscles in the legs, hips and torso. The action is completed with a compact swing.

The summer of 1985 saw the first full implementation of our research results with a team comprised mostly of twelve-year-olds. They all displayed the characteristic

signature described above. Incredible results were achieved by these young players. Our opponents averaged one hit per inning for the entire season (sixteen games), and so did our players for the first six games. One hit per inning is very nearly a universal constant for baseball teams everywhere. But during the last ten games our team averaged three hits per inning! They easily won the league title after losing five of their first six games. It took these youngsters a while to master the mechanics we had developed, but once that was accomplished, they were unstoppable. This provided the final proof test.

Publishing & Publicity (1988+)—As scientists, we felt an obligation to publish and disseminate our discoveries. This is where the real work began. It turned out that writing the book and producing the video was a lot easier than disseminating the information.

We used the Christmas-New Year vacation of 1985-1986 to write the first draft of the book. We sent the manuscript to ten people (all of them batting coaches) in the baseball community—five in the major leagues and five at colleges. We asked them to review the text and provide constructive criticism. None of the major league coaches ever responded! One college coach wished us well in a brief phone call. One responded with a few helpful comments, and two did not reply. Our really good fortune was that Alan Regier at the University of California in Berkeley replied enthusiastically, making many suggestions on every page of the manuscript and correcting some serious errors. He has been a source of information and encouragement ever since. We completed a second draft, and sent it to publishers and literary agents across the country. The result was a deafening silence.

At the same time, we got some local publicity in the San Francisco *Chronicle* that had been stimulated by an article in the Lawrence Livermore Lab Newspaper. *The Sporting News* picked up the tale and published another article about our research. The result was phone calls expressing interest from all parts of the country.

Having been ignored by the publishing community, we decided to publish the book (and a video) ourselves. Our ultimate goal was to reach youth coaches and players, but our financial resources made this impossible at first. Our strategy was to target the colleges and the professionals in the beginning. Success at the major league level would inevitably lead to coverage of the youth game, or so we thought. It's been a struggle!

One difficult aspect of our early notoriety was the reaction of many of the Charley Lau supporters. Our work owed a significant debt to the writings of both Lau and Williams, which provided a foundation upon which we

were able to build. Unfortunately, several Lau advocates interpreted our work as a personal attack on the man and his ideas. Some of these individuals were unable to view our work objectively. Others were able to set their initial concerns aside and exchange ideas with us in a productive manner. We had one particularly useful discussion with Walt Hriniak.

The college part of the equation has in fact gone smoothly. UC-Berkeley has enjoyed success using our mechanics, as have other colleges. Many collegiate coaches have endorsed our work, and a number of their players have worked their way to the majors. Even a number of college softball teams have benefitted from our material.

But major league teams are large, complex organizations. To get a team endorsement can mean that the GM, the manager, the hitting coach, the player development rep and the owner's favorite niece all have to agree on the matter. An enormous amount of time is required to reach consensus in such an organization. We got a similar bureaucratic response when we approached the Major League Players Association.

Another problem is the enormous amount of money tied up in pro ball. Even if a team believes that *Batting Basics* helps them, they are tempted to keep quiet about its benefits. Their "secret" gives them an edge. This holds true in spades for individual players and their agents. They are even more reluctant to acknowledge a debt that might give away an edge. Of course, there are exceptions like Kevin Maas, who has given us an endorsement. Likewise, a GM acknowledged in a recent phone conversation that his copy of our book has been useful, and we are hopeful that a useful collaboration will grow out of this fact.

This "secret" of our analysis is impossible to keep. By the end of the 1991 season, we estimated that well over 15 percent of major league players were significantly influenced by our research findings. This estimate is based on observing our characteristic signature in major league games. Not only single player displayed these actions prior to the 1988 season. The characteristic signature of our recommended batting mechanics was particularly conspicuous in the home-run contest at the 1991 All-Star game.

We conducted a very intense information campaign for nearly five years to get to this point. We have participated in ABCA conventions, written articles for publications such as *Collegiate Baseball*, given clinics widely, and even briefly published a small magazine.

By mid-summer of 1991 our book sales had topped 2,000 copies and video sales have exceeded 600 tapes. More than half of the major league teams have ordered our book or video; or have received a clinic directly from us. We have ordered a second printing of 2,000 books, and are sending mailers to high school coaches.

New Directions (The Future)—Recently, we completed some research that addresses the follow-through (one-hand vs. two-hands). The results indicate that the one-hand method is better for weight shift hitters and that two hands are preferable for body rotation and hybrid hitters. Next we plan to study the "scaling" of mechanics. This will examine how mechanical adjustments differ between small players and large players.

Baseball, Science & Tradition—Baseball is rich in tradition, and change comes slowly to this grand old game. With science, the opposite is true: change is the tradition. Still, our research has made inroads at a faster rate than might have been anticipated. The real driver here is the competitive nature of baseball. If it works, a player will use it! For many years, pitching was advancing faster than hitting, and the strike zone was shrunk by the umpires in order to keep the battle between pitcher and batter in balance. Now the strike zone is expanding again as offensive technique is improving.

Another improvement that comes from the new mechanics is that hitters display better balance. This is especially evident by the fact that batters are diving across the plate much more rarely now than they did during the 80's. Hitters now find it easier to protect themselves from wild pitches.

An interesting item from baseball history is the academy that was set up by Kansas City. It never really succeeded, and it is likely that baseball people would be reluctant to try it today. Yet it may have been one of those ideas that failed because it was ahead of its time. The technology applicable to baseball is much more mature, and our understanding of technique in all phases of the game is developed to a much greater degree than it was then. Baseball indeed does appear to be entering a "high-tech" era.



The Equalizer

A nearly perfect tie

Joe Dittmar

Brooklyn, Aug. 13, 1910: Since the turn of the century almost 800 major league games have ended in ties. Most of these occurred in the first two decades, when runs were scarce and contests were low scoring affairs. The live ball era of the 1920's with its wide-open games made the likelihood of ties more remote. By the 1930's, stadium lights began to render "game called on account of darkness" even less commonplace. That left ties mostly in the hands of the "Sunday Blue Laws," and community curfews which gradually faded in the 1960's. But of all the games that ended deadlocked, there's never been one quite like that played in Brooklyn's Washington Park on August 13, 1910.

Brooklyn's Superbas (later Dodgers) were hosting the Pittsburg (the "h" was often omitted earlier in the century) Pirates. The Pirates were still in the pennant race, only six games behind the Cubs, but the Superbas were languishing in sixth, playing less than .500 ball. After Pittsburg took the first game of a doubleheader, 3-2 in thirteen innings, the two teams battled back and forth in the second game. The lead switched hands several times, but when darkness fell, the two were deadlocked 8-8. The newspapers of the day made no special mention of

this tie. Only years later, after statistical gurus had time to survey years of boxscores, did this one stand out.

Given all the parameters and variables in a major league game, this was as close to a perfect tie that any statistician could hope for. Not only did each team score 8 runs, each had 38 at bats, 13 hits, 27 put-outs, 13 assists, two errors, one double, three walks, five strikeouts and a passed ball. Each squad designated two pitchers, who each gave up a total of five earned runs. Until the bottom of the ninth when Brooklyn commissioned a pinchrunner, each team had used ten players. The New York *Herald* even commented on four hair-raising catches, by Leach and Clarke of the Pirates, and by Wheat and Dalton of the Superbas.

If the reader would like to stretch his/her imagination, even more obscure similarities could be made. The second baseman, shortstop and right fielder from each team got two hits. Both second basemen scored two runs. Each catcher had four at bats, no runs, scored one hit and one assist. Each third baseman scored one run. Each center fielder had two put-outs. Each first baseman scored one run. Each side even made two great catches.

Pirates vs. Superbas August 13, 1910

Second Gan	ne										
Pirates 8						Superbas 8					
Pittsburg	ab	r	h	po	a	Brooklyn	ab	r	h	po	a
Byrne 3b	4	1	0	1	0	Davidson cf	5	1	0	2	0
Leach cf	5	2	2	2	1	Daubert1b	4	1	3	10	0
Clarke If	4	1	2	5	0	Wheat If	5	0	1	2	0
Wagner ss	5	0	2	4	2	Hummel 2b	3	2	2	3	2
Miller 2b	4	2	2	0	3	Dalton rf	5	2	2	1	1
Flynn 1b	4	1	2	8	1	Lennox 3b	4	1	1	2	2
Wilson rf	5	1	2	1	1	*Burch 0	0	0	0	0	
Gibson c	4	0	1	5	1	McElveen ss	4	0	2	1	4
Camnitz p	3	0	0	1	0	Erwin c 4	0	1	6	1	
Leever p	0	0	0	0	4	Rucker p	2	0	0	0	1
						Dessau p	2	1	1	0	2
Total	38	8	13	27	13	Total 38	8	13	27	13	
*Ran for Le	nnox ir	n ninth i	nning								
Errors: Leac	h, Wils	on, Dau	bert (2).								
Pittsburg	0	1	1	0	5	1 0	0	0	25	8	
Brooklyn	0	0	0	3	3	0 0	2	0	545	8	

Double plays: Leever, Wagner & Flynn. Left on base: Pittsburg 9, Brooklyn 8. Two base hits: Clarke, Dalton. Three base hits: Miller (2), Dalton. Home run: Wilson. Stolen bases: Hummel, Daubert. Sacrifices: Clarke, Miller. Sacrifice fly: McElveen. Bases on balls: Off Rucker 1, off Camnitz 2, off Dassau 2, off Leever 1. Struck out: By Rucker 3, by Camnitz 5, by Dassau 2. Hits: Off Camnitz 7 in 4 1/3, off Leever 6 in 4 2/3, off Rucker 11 in 5, off Dassau 2 in 4. Hit by pitch: By Camnitz (Hummel), by Rucker (Gibson). Passed balls: Gibson 1, Erwin 1. Umpires: Brennan and O'Day.



Charles William "Sandy" Piez was the first player to be kept on a major league roster for an entire season primarily as a pinch runner. He appeared in 37 games with the 1914 Giants, 33 of them as a pinch runner. His official record says 35 games, but he played in two games, July 8 and 10, which were not credited to him.

— John Schwartz

Measuring Management's Personnel Judgement

MVP Team Award Share

Matthew Lieff

To help understand why some clubs succeed while others do not, an objective method to evaluate the effect of player personnel moves made by management would be useful. Front office decisions on whom to trade, retain, or try to obtain have major impact on teams. Some players achieve such spectacular success after being traded that one has to wonder why their original owners could not recognize or bring out their talent.

During the Eighties, Phillies fans complained that the Phillies made bad trades. In 1984, the MVP from each league was a former Phil: Ryne Sandberg in the NL, Willie Hernandez in the AL. To add insult to injury, Hernandez garnered the Cy Young, as well. But the overall effect of the Phils' personnel judgement cannot be assessed from 1984 alone. They did draft Mike Schmidt and held him for his entire career, and they traded for Steve Carlton.

What follows is an attempt to objectively evaluate and rank the personnel judgement of the 26 teams, by studying the aggregate results of such decisions.

Measuring the Results of Transactions—Any such study must start with a scheme to measure the results of player transactions. To rate every trade, based on relative performance of players involved before and after, would present enormous difficulties. How can one individual objectively rate the value to each team of the players

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involved? Even if a ranking system could be developed, the volume of data needed would be overwhelming.

The approach I took was more selective. I concentrated only on highly successful players, checking which teams recognized their incipient talent and held onto or acquired them, and which teams traded them away before they bloomed. I needed two things to do this. First, some way to select which players are "highly successful." Second, a method to quantify both the selected players' contributions to their clubs, and what was lost by the teams that gave them up before they achieved success.

It would be presumptuous to assume that I could arbitrarily divide all players into "most successful" and "other" categories. Although mathematical systems can be devised to rate and rank players, the choice of which system to use is a matter of opinion. Most Valuable Player voting records, however, are admirably suited to these purposes. If we are forced to use opinion, that of the MVP panels are as authoritative and official as any.

Bill James makes this argument better than I can:

The two basic advantages of . . . MVP balloting, which (as I've said many times) is the best-designed voting structure in the game, and thus the best award in the game. . . are: one, the vote is under control, and two, the vote is regionally balanced. . . I believe that, in evaluating players, much respect should be given to the opinions of the player's contemporaries, both afield and in the press box. . . . That is why I have tried, in writing this book, to pay careful attention to how

players were regarded, not after the fact, but in their own time. . . . One thing that is very helpful in this respect is award votes. . . the value of awards has been too often understated. The value of awards is that they form an objective record of subjective opinions. [The Bill James Historical Baseball Abstract, Villard Books, 1985, pp.228, 305-6]

MVP Award Share—The MVP Award Share is a good way to identify the brightest stars, and to quantify their contributions. Introduced as early as 1912 in *The Reach Official American League Guide*, this stat allows results of MVP voting over a number of years to be combined into a single measure.

Award share is the percent of the maximum possible vote that is attained by a player in award balloting. A player receiving the maximum possible vote in a given year has an Award Share of 100 that year. A player's career Award Share is the sum of the annual Award Share achieved in all years he played.

Let's take an example to see how this works. Ken Singleton's MVP voting record is shown in Table 1. The columns in this table show, for each year of his career: the year, club, number of votes awarded by the MVP panel, maximum votes attainable by any player, Singleton's rank in the balloting, and his MVP Award Share for the year. Singleton's career Award Share is totaled at the bottom. Although never voted MVP, he nonetheless garnered a very respectable career Award Share of 142.5. In like manner, Award Shares can be calculated for any other player. According to Bill James, the highest career Award Share ever attained is 697, by Stan Musial.

Tabla	1.	Kon	Sina	loton	20	AVI	Voting	History

Year Club	Votes	Max.	Rank	Share
1970 NY Mets	0	336	-	0
1971 NY Mets	0	336	-	0
1972 Montreal	0	336	-	0
1973 Montreal	52	336	9th	15
1974 Montreal	0	336	-	0
1975 Baltimore	44	336	10th	13
1976 Baltimore	0	336	-	0
1977 Baltimore	200	392	3rd	51
1978 Baltimore	2	392	34th	0.5
1979 Baltimore	241	392	2nd	61
1980 Baltimore	4	392	21st	1
1981 Baltimore	3	392	23rd	1
Career A	ward Share	e		142.5

A few words on the maximum attainable MVP vote is in order here. There are two voters for each team. A first place vote is worth 14 points. Since 1969, the maximum vote in the NL thus has been 336 points ($14 \times 2 \times 12 = 336$). The maximum was also 336 in the AL from 1969 to 1976. Since 1977, the maximum vote in the AL has been 392 ($14 \times 14 \times 2$).

Team Award Share—Team Total Award Share can be defined as the sum of all Award Shares earned by a team's players. If a player has earned Award Shares with several clubs, each team gets credit only for those shares earned while the player was on it. This stat gives an idea of how good a club has been at obtaining and keeping exceptionally talented, highly successful players.

To calculate how much exceptional talent slipped through a team's fingers, we can sum the total Award Shares achieved by its *former* players. This stat, which we call the Team Award Share Lost, represents a failure of management to recognize or facilitate emerging success. Presumably, the lower the Team Award Share Lost, the smarter the management.

Let's look at our Ken Singleton example again in Table 1. Singleton won zero Award Share with New York, 15 with Montreal, and 127.5 with Baltimore. Thus, New York gained no Award Share from Singleton, but rather lost 142.5 (what he won at Montreal and Baltimore after leaving the Mets). Montreal kept 15 points and lost 127. Baltimore kept 127 and lost zero.

Some may argue that since MVP voting reflects subjective opinion, the points awarded in any one year do not necessarily reflect the true relative values of the players. For example, Bill Deane, author of SABR's *Award Voting*, commented while reviewing an earlier draft of this paper, that this scheme "sounds interesting, but dangerous in that it assumes that (in 1990) Bobby Bonilla was 21 times as good as Ron Gant."

However, over time, players who are exceptional will show up in the voting time and again, outweighing the value of the players who are mentioned only once or twice. In judging Singleton's career, is it not important to note that, although he never won the MVP, he was among the top ten players in the American League three times in a five year period?

Details about the Calculations—The calculation of MVP Award Share points "kept" and "lost" by the 26 teams was performed as follows.

Only the years 1969-1990 were included in the calculations done for this paper. For players active before or after this period, as well as during it, only Award Shares during the studied period were included. This study thus

reflects only personnel decisions made after 1968 and before 1991.

If a player changed teams during a season, his points kept for that season are arbitrarily assigned to the later team. The team that dealt him away is assigned points lost for that year.

If a player returns to a team that earlier traded him, only the points earned in the interim are assigned as "lost" to that team.

Minor league transactions were not considered. For the purpose of this paper, a player's career begins when he breaks into the majors.

Award shares of less than 2 were disregarded as insignificant in order to expedite the calculations. Thus Singleton's MVP Award Shares in 1978, 1980 and 1981 were not included in this study.

The Award Share kept by each team over the study period is shown in Table 2. Table 3 shows Award Share kept and lost by each team, in ascending order of points lost.

A Note on the Phillies—An interesting sidelight on the Phillies emerges from Table 3. Philadelphia is twenty-fifth out of twenty-six in points lost. Several years ago, recognizing the dismal state of their farm system, they brought in a new general manager, Lee Thomas, to rebuild the team, presumably because he would be better at recognizing young talent. What organization did he come from? St. Louis, which is dead last on the same list.

Costliest Trades—In preparing this paper, I developed lists, for each team, of the points kept and lost for each individual player included in the totals. From this, a list of the eighteen costliest trades, in terms of Award Share points "lost," was extracted as Table 4. Joe Morgan, George Foster, and Ryne Sandberg top the list. Three players appear twice: Ken Singleton, Don Baylor, and Reggie Jackson. Dennis Eckersley appears three times. (These lists are available from the SABR Research Library as an appendix to the paper I presented at SABR 21 entitled "Which Teams Make the Best Trades?")

Normalized Team Total Award Share—A proper understanding of team total Award Share requires applying a correction factor to the raw data represented in the points kept column in Table 2, for two reasons. First, from 1969 to 1990 Toronto and Seattle had eight fewer years than the other teams to accumulate Award Share.

Second, since 1977, the AL has had two more teams than the NL. Because of this, NL teams have, on average, accumulated more Award Share than AL teams have. Here's why:

Each MVP voter casts fifty-nine votes: fourteen for first place, nine for second, eight for third, seven for fourth, down to one for tenth. There are two voters for each team, so the total number of MVP votes per year per league is 118 times the number of teams. The average number of votes per team in either league is thus 118.

Tabl	e 2: Teams in O	rder	of Award	Share Lost	
			Kept	Lost	
1	Kansas City	A	925	38	
2	Milwaukee	Α	583	85	
3	Seattle	Α	22	88	
4	Toronto	Α	346	100	
5	Minnesota	A	772	116	
6	Atlanta	N	454	152	
7	California	A	339	162	
8	Cincinnati	N	1,444	173	
9	Detroit	Α	551	194	
10	Chicago	Α	315	201	
11	New York	Α	1,153	222	
12	Texas	Α	288	232	
13	Los Angeles	N	1,100	284	
14	Cleveland	Α	81	375	
15	Baltimore	A	1,211	376	
16	Chicago	N	725	419	
17	Montreal	N	439	421	
18	Pittsburgh	N	1,032	438	
19	New York	N	764	448	
20	Oakland	Α	1,242	481	
21	San Diego	N	297	516	
22	Boston	Α	1,187	526	
23	Houston	N	492	533	
24	San Francisco	N	563	556	
25	Philadelphia	N	970	612	
26	St. Louis	N	929	692	

Award share is MVP votes divided by maximum vote possible for a single player. In a twelve-team league, the maximum vote for a player is 336, so the average MVP Award Share achieved by each team is [(118/336) x 100] or 35.119. In a fourteen team league, the maximum vote for a player is 392, so the average Award Share given to each team is [(118/392) x 100] or 30.102.

To correct for these biases in the raw data, we can express the team total Award Share in terms of what the average team would have achieved in the same period of time. If a value were 50% higher than average, we would express it as 1.50; if 30% lower than average, 0.70. The values would cluster around 1, and we could see at a glance which teams were better or worse than average.

Player	Points Lost	By team
Joe Morgan	304	Houston
George Foster	237	San Francisco
Ryne Sandberg	193	Philadelphia
Ken Singleton	140	New York (NL
Steve Carlton	136	St. Louis
Cecil Cooper	135	Boston
Keith Hernander	129	St. Louis
Dave Winfield	127	San Diego
Ken Singleton	125	Montreal
Dave Parker	122	Pittsburgh
Reggie Jackson	114	Oakland
Don Baylor	112	Oakland
Don Baylor	112	Baltimore
Reggie Jackson	109	Baltimore
Dennis Eckersley	y 99	Boston
Dennis Eckersley	y 99	Cleveland
Dennis Eckersle		Chicago (NL)
Kevin Mitchell	99	New York (NL

This is called normalizing the data.

An average NL team over the twenty-two years of this study would have garnered a team total Award Share of 772.6 (22 x 35.119). An average AL team (other than Toronto and Seattle) would have achieved a 702.4 Award Share [(8 x 35.119) + (14 x 30.102)]. For Toronto and Seattle, the average value would be 421.4 (14 x 30.102). Table 2 shows the teams in order of normalized team total Award Share.

There are three main differences in the ranking of teams' Total Share between raw and normalized data. Normalizing data causes Toronto to move up five places, from twenty to fifteen (although Seattle stays in the cellar in both lists); Kansas City moves up to eight from ten; and San Francisco drops from fifteen to seventeen. Other teams stay in the same order relative to each other.

Normalized Award Share Retention—Suppose Team A trades away a player who later achieves Award Share on Team B. This would be included in Team A's Award Share Lost. Now, if that trade had not taken place, presumably Team A would have enjoyed the Award Share instead of Team B. So Award Share Lost represents potential Award Share not converted to a team's own use.

The total Award Share theoretically "available" to a team is thus the sum of the team total Award Share kept, and Award Share Lost (representing players traded away). Dividing team total Award Share by the amount

Table 4: Total Team Award Share Kept Club Normalized Lg Pts. Kpt. Avg* 1 Cincinnati N 1,444 772.6 1.87 Oakland 1,242 702.4 1.77 A 702.4 3 Baltimore A 1,211 1.72 702.4 4 Boston A 1,187 1.69 702.4 5 New York 1,153 A 1.64 6 Los Angeles N 1.100 772.6 1.42 7 Pittsburgh N 1,032 772.6 1.34 8 Kansas City A 925 702.4 1.32 9 Philadelphia N 970 772.6 1.26 10 St. Louis N 929 772.6 1.20 11 Minnesota A 772 702.4 1.10 12 New York N 764 772.6 0.99 725 772.6 13 Chicago N 0.94 14 Milwaukee 583 702.4 A 0.83 15 Toronto 421.4 0.82 A 346 16 Detroit A 551 702.4 0.78 17 San Francisco N 563 772.6 0.73 18 Houston N 492 772.6 0.64 19 Atlanta 454 772.6 0.59 N 20 Montreal N 439 772.6 0.57 21 California 339 702.4 A 0.48 22 Chicago A 315 702.4 0.45 23 Texas 702.4 A 288 0.41 24 San Diego N 297 772.6 0.38

of Award Share theoretically "available" shows what proportion of "available" Award Share was actually converted to the team's use. Let's call this Team Award Share Retention. The formula would be: Award Share Retention – (Award Share x 100)/(Award Share Lost).

81

22

702.4

421.4

0.12

0.05

A

A

*See text for explanation

25 Cleveland

26 Seattle

Since this is a percentage variable to begin with, the number of years or teams in the league does not affect the values. So normalizing this value is easy. We just divide each team's Award Share Retention by the average retention of all twenty-six teams.

The advantage of normalizing retention value is to measure it on the same scale used to report team total Award Share. Then the two variables can be contrasted, or combined into a single statistic. Table 5 shows teams' Award Share Retention values, both raw and normalized.

Conclusion—How can all this be refined to come up with a definitive ranking of the personnel expertise of the 26 teams? A few thoughts follow.

	Club	Lg	Raw	Normalized
1	Kansas City	A	96.1	1.48
2	Cincinnati	N	89.3	1.37
3	Milwaukee	A	87.3	1.34
4	Minnesota	A	86.9	1.34
5	New York	A	83.9	1.29
6	Los Angeles	N	79.5	1.22
7	Toronto	A	77.6	1.19
8	Baltimore	A	76.3	1.17
9	Atlanta	N	74.9	1.15
10	Detroit	A	74.0	1.14
11	Oakland	Α	72.1	1.11
12	Pittsburgh	N	70.2	1.08
13	Boston	A	69.3	1.06
14	California	A	67.7	1.04
15	Chicago	N	63.4	0.97
16	New York	N	63.0	0.97
17	Philadelphia	N	61.3	0.94
18	Chicago	A	61.0	0.94
19	St. Louis	N	57.3	0.88
20	Texas	A	55.4	0.85
21	Montreal	N	51.0	0.78
22	San Francisco	N	50.3	0.77
23	Houston	N	48.0	0.74
24	San Diego	N	36.5	0.56
25	Seattle	A	20.0	0.31
26	Cleveland	A	17.8	0.27
	Average		65.1	

Baseball stats come in two main types: "prolific" measures of total output such as home runs, stolen bases, wins, strikeouts; and "efficient", or percentage, measures such as batting average, win-loss percentage, and ERA. Combinations of the two make a third type, usually of interest only to SABRmetricians. Team total Award Share is a prolific measurement. Award Share Retention is an efficient measurement.

By adding or multiplying team total Award Share with team Award Share Retention, we can arrive at a combined statistic that gives an overall rating of the trading acumen of the twenty-six major league teams. Such a statistic would: (1) penalize teams for trading away later award winners, (2) reward teams that trade for later award winners, and (3) reward teams that retain award winners they brought up from the minors.

I chose to add team total Award Share and team Award Share Retention, to produce an overall combined rating. Table 6 shows the teams in order of this statistic. Not surprisingly, in the final analysis, the best trading team in baseball between 1969 and 1990 was none other than the 1990 World Champions and former Big Red Machine, the Cincinnati Reds. The worst team was the Seattle Mariners. The worst team that existed over the entire study period, and a close second to worst overall, was the Cleveland Indians.

If the overall combined statistic had been developed by multiplying Normalized Total Team Award Share and Normalized Award Share Retention, the results would have been very similar, except for the following. Detroit and the Chicago Cubs would trade places on Table 6. California and San Francisco would also trade places. And the Chicago White Sox, Houston and Montreal would place twenty-second, twentieth, and twenty-first, respectively (instead of twentieth, twenty-first, and twenty-second, respectively).

Table 6: Overall Team Rating					
			Norm. Total Team Award	Norm. Award Share	Overall Team
	Club	Lg	Share	Retent.	Rating*
1	Cincinnati	N	1.87	1.37	3.24
2	New York	A	1.64	1.29	2.93
3	Baltimore	A	1.72	1.17	2.90
4	Oakland	A	1.77	1.11	2.88
5	Kansas City	A	1.32	1.48	2.79
6	Boston	Α	1.69	1.06	2.75
7	Los Angeles	N	1.42	1.22	2.64
8	Minnesota	A	1.10	1.34	2.43
9	Pittsburgh	N	1.34	1.08	2.41
10	Philadelphia	N	1.26	0.94	2.20
11	Milwaukee	A	0.83	1.34	2.17
12	St. Louis	N	1.20	0.88	2.08
13	Toronto	A	0.82	1.19	2.01
14	New York	N	0.99	0.97	1.96
15	Detroit	A	0.78	1.14	1.92
16	Chicago	N	0.94	0.97	1.91
17	Atlanta	N	0.59	1.15	1.74
18	California	A	0.48	1.04	1.52
19	San Francisco	N	0.73	0.77	1.50
20	Chicago	A	0.45	0.94	1.39
21	Houston	N	0.64	0.74	1.37
22	Montreal	N	0.57	0.78	1.35
23	Texas	A	0.41	0.85	1.26
24	San Diego	N	0.38	0.56	0.95
25	Cleveland	A	0.12	0.27	0.39
26	Seattle	A	0.05	0.31	0.36
* Sum of previous two columns					

Dizzy Dean vs. Carl Hubbell

Duels to remember

Jack Kavanagh

From 1932 through 1937, the National League had two superlative pitchers, the right-handed fireballer Dizzy Dean and the left-handed master of the screwball, Carl Hubbell. Dean was the stopper for the Cardinals and Hubbell was the "Meal Ticket" of the Giants staff. They were far more than mere rivals for stardom. They were each other's nemesis, the ominous opponent to be overcome if either was to achieve his still-standing individual record.

Hubbell led New York to pennants in 1933, 1936 and 1937. Dean was the 30-game winner of the St. Louis Gas House Gang champions in 1934. Both pitchers dominated NL statistics during the six seasons they were at their best. With his blinding fast ball, Dean led in strikeouts from 1932 through 1935, while Hubbell topped the league in 1937. Dean led twice in victories, 30 in 1934 and 28 in 1935. Hubbell was the league's leading winner with 23 in 1933, 26 in 1936 and 22 in 1937. In 1936 and 1937 he had the best winning percentage while Dean had led in that category in 1934.

Dizzy Dean never won an ERA title, being more inclined to coast behind early leads, while Hubbell's 1.66, 2.30 and 2.31 marks were the best in 1933, 1934 and 1936. A characteristic both shared was innings pitched, a harbinger of the arm problems that eventually plagued them and ended their era of league dominance. Hubbell topped 300 innings pitched from 1933 through 1936. Dean, whose 286 led the league in his rookie year of

1932, pitched more than 300 innings a season from 1934 through 1936. Dean's totals were due in large part to his ability to pitch complete games—he was the league leader in that category from 1933 through 1936. Both pitchers were used often in relief, Hubbell leading the league in saves in 1934 and Dean in 1936.

There were no Cy Young awards then, but Hubbell won the Most Valuable Player trophy in 1933 and 1936 and Dean was MVP in 1934. Clearly, Dizzy Dean and Carl Hubbell were tops in their time and a special prestige was on the line whenever they faced each other.

Hubbell was a well-established winner before baseball first heard about the pitching phenomenon the Cardinals had down in the Texas League. He had come up in 1928, had pitched a no-hitter for the Giants in 1929 and always won more than he lost, but in the early '30s, he was not yet the dominant pitcher he would become. Dean, after a spectacular 3-hit debut on the final day of the 1930 season, talked himself back to the minors for the 1931 season. He returned in 1932, still trumpeting his greatness and now given a chance to live up to his boasts. The contrast in the two pitchers was marked by more than Hubbell being lefthanded and Dizzy throwing righty. Although his screwball was his best pitch, the quietly efficient Hubbell was not the sort of eccentric player who is dubbed a "screwball". The flamboyant Dean fitted that description and boasted of his invincibility. However, he insisted, "it ain't bragging when you can go out and do it."

Individually, Dean and Hubbell achieved great feats while establishing themselves as mound aces. Dean set

Jack Kavanagh reported on the 1930s for The Baseball Chronology. Jack was ten when the decade began and nineteen when it ended. Are there any better years in a man's life, he asks.

a record of 17 strikeouts on July 30, 1933 and Hubbell fanned five future Hall-of-Famers in a row in the 1934 All Star Game.

The first head-to-head meeting between the two titans evoked no particular excitement. When Hubbell and Dean paired off for the first time, on August 26, 1932, both were pitching for second division teams. Each pitcher was headed for an 18-game-winning season; good but not spectacular. The game at Sportsmans Park in St. Louis was not viewed as a portent of things to come, and no pennant race was at stake. Dean went the route for a 4-2 victory, with Hubbell leaving for a pinch-hitter in the eighth inning.

All of 1933 passed without a Dean-Hubbell matchup. The Giants had suddenly jelled under Bill Terry, who had succeeded the legendary John McGraw as manager the year before. Hubbell earned the nickname, "The Meal Ticket", by reliably preventing losing streaks. Dean had his first 20-game-winning season but not even as wily a promoter as Branch Rickey, the St. Louis general manager, thought to rearrange the pitching rotation to match Hubbell and Dean to fill a ball park as they would in the future.

Even in 1934 the Dean vs Hubbell matchups were a byproduct of pitching rotation. They were not yet conceived as duels between two mound aces who were as much determined to prevent the other from gaining honors as they were to win them for themselves. On May 20 the resurgent Cardinals, pennant winners in 1930 and 1931, rode into New York to challenge the Giants, 1933 champs. The Cardinals now had two Deans. Dizzy's younger brother Paul, alliteratively, but inappropriately, dubbed "Daffy" by newspaper writers, had reached the majors. Dizzy had predicted, "me and Paul will win 45 games between us." When Diz had what has proved to be the last 30-game-winning season in the National League and Paul won 19, they exceeded Dizzy's boast.

With Paul on the staff, the Cardinals had traded ace pitcher, Paul Derringer, to the Cincinnati Reds for the slick-fielding Leo Durocher, the shortstop they had lacked. With Joe Medwick, Pepper Martin and Ripper Collins, the Cardinals, led by playing manager Frank Frisch, became the tough, scrappy Gas House Gang. The troop was led by Dizzy Dean, who more than lived up to his own extravagant expectations.

The 1934 Giants were out to repeat as World Champions, but as the season wore on, the Giants wore out. Worse, Bill Terry's gloating pre-season remark, "Is Brooklyn still in the league?" would come back to haunt him. The schedule brought the simmering second division Dodgers to the Polo Grounds. Vengeance was theirs as, led by a Casey Stengel who had yet to demonstrate his

managerial genius, Brooklyn proved it was still in the league by toppling the Giants twice in the final two days.

Dizzy Dean won his only 1934 confrontation with Hubbell 9-5 in a May 20 matchup, Hubbell leaving for a pinch-hitter in the fifth inning. When the teams met in a doubleheader in St. Louis on July 26, it was Paul Dean—who would beat the Giants four times that season—who defeated Hubbell. Big brother Diz got the victory in the nightcap game, relieving in the eighth inning. The idea of pairing the two aces in scheduled match games, strangely, did not occur until the next season. Then games between the Cards and Giants were billed as "Diz meets Hubbell."

In 1935, the Cardinals and Giants battled each other all season only to both be bowled over by the Chicago Cubs in the final weeks of the schedule. The first 1935 meeting between Dean and Hubbell was in St. Louis on July 24. Both went the distance with Hubbell a 4-2 winner. In September there were two critical meetings between the pair. The Giants came to St. Louis for a crucial series and Dizzy won the opener on September 12, beating Hubbell 5-2. Three days later the roles were reversed with the Meal Ticket halting the Giants slide, 7-3. However, while the Cardinals and Giants were see-sawing along, the Chicago Cubs went on a 21-game winning streak and passed both in the closing days of the season. The exhausted Dean brothers failed to stop the Cubs in a final five game set in St. Louis and the Cubs took the pennant.

Hubbell's year was 1936. After a slow start, the Giants—and King Carl in particular—won with amazing consistency. On July 17 Hubbell shut out Pittsburgh, 6-0. The Giants were in fifth place. From then until the end of the season, Hubbell never lost. He finished the season with 16 straight victories as the Giants coasted to the pennant.

Along the way, Dean twice tried to stop Hubbell's march. Both went the distance in New York on July 21, but Hubbell went it better, winning 2-1 in ten innings. On September 3 in St. Louis, they both tossed complete games again, with Hubbell repeating as a 2-1 winner. Their final meeting of the year was on September 14 at the Polo Grounds, but neither was a starter. Hubbell was the winner in relief of a 7-5 game. Dean had no decision.

1937 was a fateful year. It was highlighted by Hubbell extending his consecutive victories to the all-time record of 24 by winning his first eight games, while Dean twice tried his best to halt the string. On May 19 in St. Louis, Dean's frustration reached the breaking point. Angered by umpire George Barr's third balk call against him, an irate Dizzy Dean resorted to bean balls, sending Giants batters diving into the dirt. Jimmy Ripple, a Giant out-

fielder with less tolerance for this sort of tactic than his teammates, charged Dean on the mound. Dizzy disappeared under a pile of outraged Giant players with the Cardinals peeling off the stacked up belligerents to wage individual battles. It was one of the rare baseball free-foralls that produced real fights, with dozens of one-on-one matchups taking place simultaneously. Dizzy was in the middle of the fracas, but Hubbell retreated and sat quietly in the dugout until the carnage subsided a half hour later. When play resumed, Hubbell methodically added another game to his winning streak.

Carl Hubbell's unbroken string was ended, not by Dizzy Dean, but by a more ancient nemesis, the Brooklyn Dodgers, on May 21 at the Polo Grounds. Dean finally beat Hubbell on June 9, in New York, 8-1. Dizzy's three-hitter was to mark the last time the rivals would meet. A month later Dizzy was named to start the 1937 All Star Game. In the third inning Earl Averill smashed a line drive back at the box and the ball hit Dean's foot, fracturing a toe. When he tried to pitch too soon, favoring the injury, he damaged his arm and the blazing fast ball was gone.

Sold during the winter to the Chicago Cubs, Dean was a lame-armed pitcher with a fading career. However, he was the decisive pitcher for the Cubs 1938 champion-ship, with a 7-0 season, chipping in enough spot victories to put Chicago in the World Series. Here he almost slow balled his way to a win over the New York Yankees, craftily holding them to two runs until the ninth inning before the Bronx Bombers finally solved his off-speed curves. However, as his career ended, used only against second division opponents in his rare appearances, Dizzy Dean never again locked horns with King Carl Hubbell.

Hubbell completed 1937 in fine fashion, with the Giants again winning a pennant. However, in 1938 the arm miseries which beset almost all pitchers who risk the strain of pitching 300 innings too many seasons, caught up with him. He had arm surgery before the year ended. The two great pitchers faded at almost the same pace. Dean got his last decision in 1940, posting a 3-3 season and Hubbell ended with a 4-4 record in 1943. In their peak years, Hubbell won five and Dean four of their nine head-to-head battles.

	Hubbell vs. D	ean Matchups	
Aug. 26, 1932 (at St. L.) Dean WP, Hubbell LP	Cardinals 4, Giants 2	July 21, 1936 (at N.Y.) Hubbell WP, Dean LP	Giants 2, Cardinals 1 (10 innings)
May 20, 1934 (at N.Y.) Dean WP, Hubbell LP	Cardinals 9, Giants 5	Sept. 3, 1936 (at St. L.) Hubbell WP, Dean LP	Giants 2, Cardinals 1
July 24, 1935 (at St. L.) Hubbell WP, Dean LP	Giants 4, Cardinals 3	May 19, 1937 (at St. L.)	Giants 4, Cardinals 1
Sept. 12, 1935 (at St. L.) Dean WP, Hubbell LP	Cardinals 5, Giants 2	June 9, 1937 (at N.Y.) Card	linals 8, Giants 1
Sept. 15, 1935 (at St. L.) Hubbell WP, Dean LP	Giants 7, Cardinals 3	Dean WP, Hubbell LP	
		Hubbell: 5 won, 4 lost Dean: 4 won, 5 lost	

Doublets

Pitchers with the most wins in two consecutive years

Alan S. Kaufman, Ph.D. James C. Kaufman

Spalding paced the Boston Red Stockings to the National Association pennant in 1875, its last year of existence, with a 57-5 mark. When added to his pacesetting 52-18 record the previous season, Spalding's combined 109-23 record (.826 winning percentage) ranks as the most dominating pitching effort ever over two consecutive seasons. At that time, pitchers stood in a box, threw underhanded from a 45-foot distance, and were considered among the least important players on the team. Still, the goal of the pitcher was to win, and Spalding's innovative use of changing speeds helped Boston do just that. Despite dramatic changes in pitching rules over time, the pitcher's main goal has remained unchanged. Although no one has ever dominated the pitching scene for two straight seasons the way Spalding did, some pitchers, like Old Hoss Radbourn, came close. Radbourn is most known to students of the game for his 60-win season in 1884 but his 109-37 mark (.747) in 1883-84 is equally remarkable.

By the turn of the century, pitchers who toiled day after day were long gone, and no one would ever challenge the 109 wins in two consecutive seasons accomplished by Spalding or Old Hoss. But what is the modern record for most wins in two straight seasons? Like Radbourn's 60-12

record or the 40-win seasons turned in by Jack Chesbro and Ed Walsh, fans are attuned to single season records. They also focus on career marks such as Cy Young's magical 511, and the 300-victory milestone that virtually guarantees hurlers a berth in Cooperstown. As a change of pace, let's put the focus on "Doublets"—the number of wins compiled by major league pitchers over two straight seasons.

Decade Leaders—Table 1 presents the decade leaders for Doublets, starting with the 1870s, using *The Baseball Encyclopedia* (8th ed.) as the official source. The best Doublets for each decade showed a striking dip in the offense-minded 1920s, and have been on a fairly steady downswing since the 1930s. Not one pitcher won as many as 45 games in two straight seasons since 1980, a likely result of the proliferation of different types of relief specialists, the disappearance of pitchers who take the mound every fourth day and guaranteed contracts. Even Cy Young winner Bob Welch, with a 27-6 mark in 1990, totaled only 44 wins in 1989-90.

Some of the decade leaders may be a bit surprising. Wild Bill Hutchinson led the decade of the 1890s with 86 wins in 1890 and '91, but was never the same pitcher after the pitching distance was moved back to 60 feet 6 inches in 1893. Whether he was unable to adjust to the longer distance or whether Chicago manager Cap Anson blew out Hutchinson's arm by overpitching him is a matter of debate; however, his record from 1893 to the end of his career was a poor 44-65. Kid Nichols was the real pitching star of the 1890s, winning 297 times during the

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decade, but fireballer Amos Rusie had the best Doublet between 1893 and 1899 (69-34 in 1893-94), topping Nichols (66-27) and Cy Young (63-25).

Submariner Carl Mays, best known for throwing the pitch that killed Ray Chapman, is the surprise decade leader for the 1920s (53-20 in 1920-21). He surpassed the career-best Doublets of Hall-of-Fame hurlers of that era such as Dazzy Vance (50-15), Red Faber (48-28), Burleigh Grimes (45-24), Waite Hoyt (45-14), and Herb Pennock (42-19).

Wilbur Wood, who tied Catfish Hunter for the most wins in two straight seasons during the 1970s with 48, is unexpected in view of the numerous 300-game winners and Hall-of-Fame pitchers who received more glory than the knuckleballing White Sox workhorse. The former relief pitcher won 24 games in both 1972 and '73, largely because he took the mound nearly once out of every three games. Whatever the reason, Wood outranked contemporaries like Steve Carlton, Jim Palmer, Bob Gibson, Tom Seaver, Phil Niekro, Fergie Jenkins, and Gaylord Perry.

Doublet leaders since 1900—Before 1893, ten different hurlers won 80 or more games in two consecutive seasons. Hall-of-Famer John Clarkson did it twice, in 1885-86 (88-33) and in 1888-89 (82-39). Rusie's 69-win Doublet is the best from the 60 foot 6 inch distance, while Walter Johnson's 68 wins in 1912-13 represents the most wins in two straight seasons since 1900. (According to Thorn and Palmer's Total Baseball, 2nd ed., Johnson won 33 games in 1912, not 32, tying Rusie's 69 wins.) Table 2 shows Doublet leaders from 1900 through 1991. (We chose to use the 1900 date instead of 1893 because of continued modifications in the won-lost records of pitchers from the 1890s. For example, the 7th edition of The Baseball Encyclopedia listed Rusie's 1893 record as 29-18, while the 8th edition and Total Baseball, 2nd ed., credited him with a 33-21 mark.)

Table 2 presents all pitchers who won 50 or more games in two consecutive years since 1900. This feat has been accomplished 35 times: three times each by Walter Johnson and Christy Mathewson, and twice each by Cy Young, Joe McGinnity and Ed Walsh. (A pitcher could be listed in the table more than once if one condition was met: No season could be included in more than one Doublet.) Young had four Doublets of fifty-plus wins during the 1890s for an unparalleled career total of six, while Nichols had five such Doublets.

Table 2 is dominated by old-timers, as only five hurlers won at least 50 games in two straight seasons during the last half century: Bob Feller, Hal Newhouser, Robin Roberts, Sandy Koufax, and Denny McLain. No one has

averaged 25 or more wins in two consecutive seasons since McLain did it in 1968-69. Conspicuously absent from Table 2 are renowned Hall-of-Famers like Carl Hubbell, Warren Spahn, Bob Gibson, and Jim Palmer (Hubbell came close with a 49-18 record in 1935-36), and all seven hurlers, Spahn included, who won 300 games since Lefty Grove did so in 1941. Babe Ruth (47-25 in 1916-17) came closer to making the table than did many Cooperstown pitchers.

The most surprising table entry is Tom Seaton. The righthander is one of only two pitchers since 1900 to win 50 or more games in two straight seasons while pitching for two different teams. (McGinnity, in 1900-01, is the other.) Seaton was 27-12 in 1913, his second season in the majors, for the Philadelphia Phillies, and then compiled a 25-13 mark the next year while pitching for Brooklyn in the Federal League. He edged Mathewson for NL wins in '13, but his career was short-lived; he won a total of only 94 games. No one else in Table 2 won fewer than 100 major league games, and only McLain (131) and Smokey Joe Wood (116) won fewer than Dizzy Dean's 150.

Koufax is the only pitcher in Table 2 to win 50 or more games in his last two seasons. The Dodger ace chose to retire just before his 31st birthday rather than risk either mediocrity or permanent injury to his arthritic left arm. No one has won fifty-plus games in his first two seasons during the 20th century, but that feat was accomplished between 1893 and 1900 by Bill Hoffer, Jim Hughes, Vic Willis, and Joe McGinnity. Despite their quick starts, Hoffer and Hughes had fewer than 100 lifetime wins. Every hurler listed in Table 2 had a winning career record, although the mid-1890s turns up an exception: Pink Hawley, 53-43 in '95-'96, had a career mark of 167-178.

Grove's .868 winning percentage during 1930-31 is easily the best of all time for pitchers with forty-plus wins, surpassing even Spalding's .826 in the NA. Others with winning percentages of .800 or above for two consecutive seasons, since 1876, are Wood in 1912-13 (45-10, .818), Koufax in 1963-64 (44-10, .815), Hoffer in 1895-96 (56-13, .812), Sal Maglie in 1950-51 (41-10, .804), Dwight Gooden in 1985-86 (41-10, .804), and Chief Bender in 1910-11 (40-10, .800). Ease the 40-win requirement, and Preacher Roe, 33-5 in '51-'52, actually outranks Grove, .8684 to .8676.

Doublet leaders since 1961—The list of All-Time Doublet leaders since 1900 doesn't include modern pitching stars, so we developed a third table to cover the game from 1961 (major league expansion) to 1991. Topping the list of 1961-1991 Doublet aces are McLain, Koufax,

Hunter, and Wood, all of whom averaged 24 or more wins over a two-year span. Table 3 includes everyone who averaged 21 or more wins in two straight seasons.

Juan Marichal and four-time Cy Young winner Carlton are the only pitchers to appear on the list three times. The hard-luck Marichal, who came close but never won the Cy Young award, continued his runner-up performance in Doublet competition. He had three of the 10 best Doublets in the table, but fell just short of the 48 or more games won by the leaders. And, as usual, his timing was bad. His 47-19 mark in 1965-66 could not compete with Koufax's 53-17 Doublet, and the Dominican righthander's 47-20 Doublet in 1968-69 was a distant second to McLain's 55-15 record.

Welch and Dave Stewart—the present-day Marichal—are the most recent hurlers to make the list. However, several other well-known names are missing—notably 300-game winners Phil Niekro and Don Sutton, plus Bert Blyleven, Jim Bunning and Vida Blue. Niekro's best two-year win total was 40, in '78-'79, but he lost nearly as many as he won (38). In fact, brother Joe had the best Doublet for a Niekro, 41-23 in 1979-80.

Only two pitchers in the table failed to win 100 games in their careers, Joey Jay (99-91) and LaMarr Hoyt (98-68); Hoyt, one of a handful of 1980s hurlers to make the table, saw a promising future ended by drug dependency. 1976 Cy Young winner Randy Jones (100-123), a modern-day Pink Hawley, is the only hurler in Tables 2 or 3 to have a losing career record.

Doublet leaders since 1980—Because of the dearth of very recent pitchers in Table 3, we present a final table limited to Doublets accomplished from 1980 to 1991. Table 4 lists all hurlers with 35 or more wins in two consecutive seasons. Roger Clemens tops the modern group based on his 44-13 mark during his back-to-back Cy Young seasons in 1986-87. However, his niche was given a strong challenge in 1989-90 by Oakland righthanders Welch (44-14) and Stewart (43-20).

Five pitchers appear in the table twice: Carlton, Stewart, Clemens, Frank Viola, and Jack Morris (the 1980s decade win leader with 162). Carlton (37-13 in 1980-81) would surely have ranked among the elite in Table 4 if not for the 1981 strike that wiped out one-third of the season.

As of the end of the 1991 season, everyone in Table 4 except Richard Dotson (111-113) had a winning record. Despite the frequent changing of teams brought about by free agency and contract disputes, only one pitcher accomplished his Doublet for two teams: Bert Blyleven, 36-23 in 1984-85, was traded to Minnesota by Cleveland in August, 1985. Absent from the list are 1980s Cy Young

winners Rick Sutcliffe, John Denny, Pete Vuckovich, and Steve Stone; ageless Nolan Ryan; 220-game winner Jerry Reuss; and multi-millionaires Bruce Hurst, Mark Langston, Tom Browning, Danny Jackson and Bud Black. Dave Stieb, winner of Thorn and Holway's Jim Creighton Award four times from 1981 to '85, managed to squeeze into the table by finally winning 35 games over two straight seasons in 1989-90. Chuck Finley is the only one in the table with identical seasons, 18-9 in both 1990 and '91.

The best Doublets of all time—So far the focus has been on the number of wins in two straight years, without considering other factors such as winning percentage (except to break ties among Doublets), ERA, or overall effectiveness. But who was the most *dominant* pitcher in the majors for a period of two straight years? There is no definitive answer, although the question can be approached in different ways. One way is to determine which pitcher in the accompanying tables outdistanced the hurler with the *second-best* Doublet during the same two-year period.

For example, Joe McGinnity had a 66-28 record in 1903-04 for one of the best Doublets in the 20th century (see Table 2). However, Jack Chesbro had a 62-27 Doublet during those same two years, and Christy Mathewson won 63 games in '03 and '04. Therefore, the Iron Man did not dominate his competitors, despite his 66 victories.

In contrast, Johnson's 68-19 Doublet in 1912-13 not only represented the most wins in two straight seasons in this century, but no other pitcher won as many as 50 games during those two years. The second-best Doublet was Rube Marquard's 49-21 record; Matty was 48-23 and Larry Cheney was 47-24. Johnson won 19 games more than his nearest competitor (or 20, if your prefer *Total Baseball* as your source of information), a margin that even Old Hoss Radbourn couldn't match when he preceded his 60-12 record in 1884 with a 49-25 campaign. Radbourn won 17 games more than Pud Galvin (92-51), who posted back-to-back 46 win seasons. Galvin, the first 300-game winner, was the original Marichal/Stewart hard-luck hurler.

You have to go back to 1877-78, when Tommy Bond (80-36) won 22 more games than runner-up Terry Larkin (58-51), to surpass Johnson's mark. (Spalding won 32 more games than Dick McBride in 1874-75.) Since 1900, the following pitchers rank just behind Johnson in this two-season comparison.

A second approach to determining pitching domination for a two-year period is to see how many games a pitcher finished ahead of his nearest rival in the major leagues, using the same method used to compute the number of games that one team is behind another in league standing. That approach is illustrated below for Johnson's 68-19 Doublet in 1912–13.

was therefore 16. Based on this criterion, Alexander compiled the best Doublet of all time in 1915-16 when he led the majors 13 times and led the National League once. His near-perfect performance was marred only in

1901-02	W	1915-16	W	1930-31	W	1940-41	W
C. Young	65	G. Alexander	64	L. Grove	59	B. Feller	52
J. Chesbro	49	W. Johnson	52	W. Ferrell	47	B. Walters	41
	+16		+12		+12		+11

Unlike Johnson's +19 margin when comparing just his win total to the 49 wins achieved by Marquard, his 7-game advantage over Wood is only the fifth best margin since 1900. Using the games ahead approach, the best Doublet of this century is the 13.5 margin achieved by Grove when he posted a 59-9 mark in 1930-31; runners-

Pitcher	Wins	Losses	Behind
1. W. Johnson	68	19	
2. J. Wood	45	10	7
3t. R. Marquard	49	21	10.5
3t. E Plank	44	16	10.5

up are Alexander, Dean, Newhouser, and Johnson. (Bond, 80-36 in 1877-78, finished 18.5 games ahead of Larkin.) Pitching standings for the four widest margins of this century are shown at the right.

A third way to evaluate the degree to which a pitcher dominated his peers for two consecutive years is to determine the number of times he led the league or the majors in the most key categories during those two seasons. Although there is no absolute set of categories on which to evaluate a pitcher's effectiveness, we decided to compare pitchers in eight areas, six that are traditional (wins, winning percentage, ERA, strikeouts, complete games, shutouts) plus two from the Thorn-Palmer system. The Thorn-Palmer categories selected are Opponents' On Base Percentage (OOBP) and Wins Above Team (WAT). The OOBP statistic, which provides an index of the batters put on base, accentuates a pitcher's control as part of his general effectiveness. WAT puts wins in perspective by considering the number of wins that the pitcher generated over and above the number expected for an average pitcher for his team.

The criterion for ranking the best Doublets since 1900 was the number of times during the two seasons that the pitcher led the majors or his own league (or tied for the lead) in the eight categories; the highest possible number

1916 when Boston's Tom Hughes (16-3, .842) led the NL in winning percentage (Alex's .733 was second best in the majors), and Boston's Dick Rudolph nipped Alex .261 to .262 for the OOBP crown. Grove (1930-31) finished a close second, leading the majors 12 times, tying for the ML lead once, and leading the AL once. However, the nod goes to Alex for ranking first or second in virtually everything in 1915-16. Seven ML hurlers had

	102	2.21	
Pitcher	Wins	0-31 Losses	Behind
1. L. Grove	59	9	Denina
2. G. Earnshaw	43	20	13.5
3t. W. Ferrell	47	25	14
3t. F. Marberry	31	9	
Jt. r. Marberry	31	9	14
	191	5-16	
Pitcher	Wins	Losses	Behind
1. G. Alexander	64	22	_
2. B. Ruth	41	20	10.5
3t. W. Johnson	52	33	11.5
3t. J. Pfeffer	44	25	11.5
3t. H. Coveleski	43	24	11.5
3t. A. Mamaux	42	23	11.5
	193	4-35	
Pitcher	Wins	Losses	Behind
1. D. Dean	58	19	
2. H. Schumacher	42	19	8
3t. T. Bridges	43	21	8.5
3t. S. Rowe	43	21	8.5
	194	4-45	
Pitcher	Wins	Losses	Behind
1. H. Newhouser	54	18	_
2. H. Brecheen	30	9	7.5
3. M. Cooper	31	11	8

more shutouts than Grove in 1930, and four had more complete games.

Following Alexander and Grove are Koufax (1965-66) and Johnson (1912-13). Newhouser (1944-45) and Clemens (1986-87) tied for the fifth spot, with honorable mention going to Dazzy Vance (1924-25), Hubbell (1936-37), Young (1901-02), and Dean (1934-35). The top six are presented here in more detail. League-leading values are denoted by a single asterisk (*), while majors-leading figures are shown with a double asterisk (**). Ties are indicated with $^{\circ}$ or $^{\infty}$.

The three methods of evaluating the pitcher with the best Doublet since 1900 produced three different champions: Johnson, Grove, and Alexander. All three finished among the top five regardless of the method used. The

SABR members (Spatz, *Baseball Research Journal*) awarded the retroactive Cy Young trophy to Smokey Joe Wood (34-5 for pennant-winning Boston). Ironically, Johnson outranked Wood in the Chalmers Award (MVP) voting, but both trailed a 27-17 Ed Walsh. However, Johnson was the 1913 MVP, and had impressive streaks both in '12 (16 straight wins) and '13 (55-2/3 consecutive shutout innings). His 14.7 WAT in '13 is the highest value since 1887, and his .217 OOBP is the lowest percentage since 1884. He compiled the second-lowest two-year ERA in history (1.24), trailing only Three-Finger Brown's 1.20 in 1906-07.

Alexander's domination of the mound in 1915 and '16 was total. He won more than 30 games each season while no other National Leaguer won more than 25 and only

Year	W	L	Pct.	ERA	K	CG	ShO	OOBP	WAT
1915	**31	10	**.756	**1.22	**241	**36	**12	**.234	**9.8
1916	**33	12	.733	**1.55	*167	**38	**16	.262	**9.5
2. Lefty	Grove, P	hiladelph	nia Athletics	(59-9)					
Year	W	L	Pct.	ERA	K	CG	ShO	OOBP	WAT
1930	**28	5	**.848	**2.54	**209	22	2	**.288	**10.1
1931	**31	4	**.886	**2.06	**175	∞27	*4	**.271	**11.8
3. Sand	y Koufax,	Los Ang	eles Dodgers	(53-17)					
Year	W	L	Pct.	ERA	K	CG	ShO	OOBP	WAT
1965	**26	8	**.765	**2.04	**382	**27	8	**.228	**8.0
1966	**27	9	.750	**1.73	**317	**27	5	.253	8.2
4. Walt	er Johnson	n, Washi	ngton Senato	rs (68-19)					
Year	W	L	Pct.	ERA	K	CG	ShO	OOBP	WAT
1912	32	12	.727	**1.39	**303	34	7	**.248	9.4
1913	**36	7	**.837	**1.09	**243	**29	**11	**.217	**14.7
5t. Hal	Newhouse	er, Detro	it Tigers (54-	18)					
Year	W	L	Pct.	ERA	K	CG	ShO	OOBP	WAT
1944	**29	9	.763	2.22	**187	25	6	.293	**9.8
1945	**25	9	**.735	**1.81	**212	**29	**8	.281	**7.4
5t. Rog	er Clemen	s, Bosto	n Red Sox (4	4-13)					
Year	W	L	Pct.	ERA	K	CG	ShO	OOBP	WAT
1986	**24	4	.857	*2.48	238	10	1	*.253	**9.7
1987	∞20	9	**.690	2.97	256	**18	**7	.296	**6.5

best conclusion is that the three legendary Hall-of-Famers share the honor of producing the best Doublet of the twentieth century.

Interestingly, Johnson might not have won the AL Cy Young election in 1912 if such elections were held. Thorn and Holway (*The Pitcher*) gave Johnson their Jim Creighton Award in 1912, but Deane (*Total Baseball*) and

Johnson won as many as 27. Pete pitched four one-hitters and brought the Phillies their first pennant in 1915, and he set the all-time standard with 16 shutouts in 1916.

Despite the hitting binge that marked the onset of the 1930s, Grove was nearly unbeatable in 1930 and '31. He led the Athletics to two pennants, won 16 straight games in '31 and won the first modern MVP Award that year.

His ERA both seasons was more than two runs less than the ERA for the American League. During '30 and '31, the only other AL pitcher to record an ERA below 3.20 was Lefty Gomez with 2.63 in 1931.

More recently, we believe that Newhouser and Koufax edge Feller and McLain for the best Doublet in the last half-century, and Clemens bests Guidry and Hunter for the outstanding Doublet since the majors expanded to divisional play in 1969. Newhouser led the Tigers to a World Series triumph in 1945 (winning two Series games

including the clincher), and was the MVP in both '44 and '45. Koufax led the Dodgers to two pennants in '65 and '66, and won two unanimous Cy Young Awards. His .228 OOBP in '65 (when he also fanned 382 batters and pitched a perfect game) is the fifth best since 1900. Clemens won the AL Cy Young Award in both '86 and '87, led the Red Sox to the '86 pennant, and was the '86 MVP. Ironically, the Rocket, who fanned a single game record of 20 against Seattle in '86, failed to lead the league in strikeouts during either season.

Table 1							
Pitchers with the Most Wins in Two Straight Seasons, By Decade							

Decade	Pitcher	Years	W-L	Pct.
1870s	A. Spalding (NA)	1874-75	109-23	.826
	T. Bond (NL)	1878-79	83-38	.686
1880s	C. Radbourn	1883-84	109-37	.747
1890s	B. Hutchinson	1890-91	86-44	.662
1900s	J. McGinnity	1903-04	66-28	.702
1910s	W. Johnson	1912-13	68-19	.782
1920s	C. Mays	1920-21	53-20	.726
1930s	L. Grove	1930-31	59-9	.868
1940s	H. Newhouser	1944-45	54-18	.750
1950s	R. Roberts	1952-53	51-23	.689
1960s	D. McLain	1968-69	55-15	.786
1970s	C. Hunter	1974-75	48-26	.649
	W. Wood	1972-73	48-37	.565
1980-91	R. Clemens	1986-87	44-13	.772
	B. Welch	1989-90	44-14	.759

Table 2

Pitchers with the Most Wins in Two Straight Seasons, 1900-1991 (50 or More Wins)

Pi	tcher	Years	W-L	Pct.					
1.	W. Johnson	1912-13	68-19	.782	19.	E. Walsh	1911-12	54-35	.607
2.	J. McGinnity	1903-04	66-28	.702	20.	S. Koufax	1965-66	53-17	.757
3.	C. Young	1901-02	65-21	.756	21.	C. Mays	1920-21	53-20	.726
4.	C. Mathewson	1904-05	64-20	.762	22.	C. Mathewson	1910-11	53-22	.707
5.	G. Alexander	1915-16	64-22	.744	23.	B. Feller	1940-41	52-24	.684
6.	E. Walsh	1907-08	64-33	.660	24.	T. Seaton	1913-14	52-25	.675
7.	C. Mathewson	1908-09	62-17	.785	25.	A. Joss	1907-08	51-22	.699
8.	J. Chesbro	1903-04	62-27	.697	26.	R. Roberts	1952-53	51-23	.689
9.	L. Grove	1930-31	59-9	.868	27.	E. Plank	1904-05	51-28	.646
10.	J. Coombs	1910-11	59-21	.738	28.	U. Shocker	1921-22	51-29	.638
11.	D. Dean	1934-35	58-19	.753	29.	R. Waddell	1904-05	51-30	.630
12.	J. Wood	1911-12	57-22	.722	30.	D. Vance	1924-25	50-15	.769
13.	M. Brown	1908-09	56-18	.757	31.	E. Cicotte	1919-20	50-17	.746
14.	D. McLain	1968-69	55-15	.786	32.	R. Marquard	1911-12	50-18	.735
15.	J. McGinnity	1900-01	55-29	.655	33.	G. Mullin	1909-10	50-20	.714
16.	W. Johnson	1914-15	55-31	.640	34.	G. Crowder	1932-33	50-28	.641
17.	H. Newhouser	1944-45	54-18	.750	35.	W. Johnson	1910-11	50-30	.625
18.	C. Young	1903-04	54-25	.684					

Table 3

Pitchers with the Most Wins in Two Straight Seasons Since Expansion, 1961-1991 (42 or More Wins)

	Pitcher	Years	W-L	Pct.					
1.	D. McLain	1968-69	55-15	.786	22t.	J. Palmer	1972-73	43-19	.694
2.	S. Koufax	1965-66	53-17	.757	22t.	T. Seaver	1969-70	43-19	.694
3.	C. Hunter	1974-75	48-26	.649	24t.	B. Gibson	1969-70	43-20	.683
4.	W. Wood	1972-73	48-37	.565	24t.	D. Stewart	1989-90	43-20	.683
5t.	S. Carlton	1971-72	47-19	.712	26.	J. Kaat	1965-66	43-24	.642
5t.	M. Cuellar	1969-70	47-19	.712	27t.	T. Cloninger	1964-65	43-25	.632
5t.	J. Marichal	1965-66	47-19	.712	27t.	L. Hoyt	1982-83	43-25	.632
	J. Marichal	1968-69	47-20	.701	29.	N. Ryan	1973-74	43-32	.573
	M. Lolich	1971-72	47-28	.627	30.	G. Perry	1972-73	43-35	.551
10.	J. Marichal	1963-64	46-16	.742	31t.	W. Ford	1961-62	42-12	.778
11.	F. Jenkins	1970-71	46-29	.613	31t.	C. Hunter	1972-73	42-12	.778
12.	D. McNally	1970-71	45-14	.763	33.	D. McNally	1968-69	42-17	.712
13.	J. Palmer	1975-76	45-24	.652	34.	S. Carlton	1979-80	42-20	.677
	S. Koufax	1963-64	44-10	.815	35t.	M. Flanagan	1978-79	42-24	.636
15.	R. Clemens	1986-87	44-13	.772	35t.	J. Jay	1961-62	42-24	.636
16.	B. Welch	1989-90	44-14	.759	37t.	R. Jones	1975-76	42-26	.618
17.	J. Perry	1969-70	44-18	.710	37t.	L. Tiant	1973-74	42-26	.618
18.	D. Drysdale	1962-63	44-26	.629	39.	G. Perry	1969-70	42-27	.609
19.	R. Guidry	1978-79	43-11	.796	40.	J. Coleman	1972-73	42-29	.592
	S. Carlton	1976-77	43-17	.717	41.	F. Jenkins	1974-75	42-30	.583
21.	T. John	1979-80	43-18	.705					

Table 4

Pitchers with the Most Wins in Two Straight Seasons, 1980-1991 (35 or More Wins)

	Pitcher	Years	W-L	Pct.					
1.	R. Clemens	1986-87	44-13	.772	17t.	R. Martinez	1990-91	37-19	.661
2.	B. Welch	1989-90	44-14	.759	19t.	G. Maddux	1988-89	37-20	.649
3.	D. Stewart	1989-90	43-20	.683	19t.	D. Drabek	1990-91	37-20	.649
4.	L. Hoyt	1982-83	43-25	.632	21.	B. Saberhagen	1988-89	37-22	.627
5.	D. Gooden	1985-86	41-10	.804	22t.	M. Scott	1985-86	36-18	.667
6.	F. Viola	1987-88	41-17	.707	22t.	C. Finley	1990-91	36-18	.667
7.	D. Stewart	1987-88	41-25	.621	24t.	R. Reuschel	1988-89	36-19	.655
8.	J. Andujar	1984-85	41-26	.612	24t.	M. Boddicker	1983-84	36-19	.655
9.	R. Clemens	1990-91	39-16	.709	26.	S. Rogers	1982-83	36-20	.643
10.	J. Morris	1986-87	39-19	.672	27.	R. Dotson	1983-84	36-22	.621
11t.	O. Hershiser	1987-88	39-24	.619	28.	B. Blyleven	1984-85	36-23	.610
11t.	J. Morris	1983-84	39-24	.619	29.	F. Viola	1984-85	36-26	.581
13t.	T. Higuera	1986-87	38-21	.644	30t.	S. Davis	1988-89	35-14	.714
13t.	F. Valenzuela	1985-86	38-21	.644	30t.	D. Stieb	1989-90	35-14	.714
15.	S. Carlton	1982-83	38-27	.585	32.	R. Guidry	1982-83	35-17	.673
16.	S. Carlton	1980-81	37-13	.740	33.	M. Soto	1983-84	35-20	.636
17t.	D. Petry	1983-84	37-19	.661	34.	C. Hough	1986-87	35-23	.603

New York's Big Sweep

The Big Apple's best day

Lyle Spatz

In the long and celebrated history of baseball in New York City there have been days of glory too numerous to count. Most of them involved a World Series, an exciting pennant race, or an outstanding individual feat. Yet, if one were to pick the most glorious day of all, a case could be made for a long-ago Labor Day that featured none of these.

The date was Monday, September 6, 1915. On that day eight major league games were played by teams representing New York City, and all eight games resulted in New York victories. The Yankees, Dodgers, Giants, and Brookfeds (the Federal League was in its second and final year) each played morning-afternoon doubleheaders and each team swept.

Headlines in the New York City newspapers on Monday evening September 6, and Tuesday morning September 7, were somber. They concerned the sinking of a U.S. liner by a German submarine. The one in the New York American was typical: "Torpedoed Liner Hesperian Sinks; 26 Lost", it read. Stories of the Great War in Europe dominated the news, but for most Americans in the late summer of 1915 the war was far away and of little concern.

The sports pages held news much more gratifying to those readers who were baseball fans. "Extra!-Four Greater City Big League Clubs Win Two Games Each-Extra!" said the American. "Clean Sweep for Giants, Yankees, Dodgers and Brookfeds", blared the Herald. And in the usually staid New York Sun the headline read,

"All Four of Greater New York's Baseball Clubs Gain Dual Victories, A Record Never Equalled Before". Not only never before, also never since, and most probably never again, will teams representing one major league city win eight games in one day. The following is a brief description of those four doubleheaders.

The Yankees were in Boston to play the first-place Red Sox. The Sox started the day with a slim two game lead over Detroit. They had to that point played eight fewer games than had the Tigers, who were idle. The Yankees, in fifth place and 26-1/2 games behind Boston, had lost seven of their last eight games, and fifteen of their last twenty. On this day, however, complete game victories by two stalwarts of the Yankee staff, disappointed the combined crowd of 39,000 Sox rooters.

In the first game Yankee pitcher Ray Fisher defeated Boston ace Rube Foster 4-0, allowing only three singles and one walk while striking out no one. Thanks to some sloppy play by the Boston infield, the Yankees reached Foster for two runs in the sixth inning. Doc Cook, on first base after singling, scored the first run by coming all the way home as a result of a wild throw by third baseman Larry Gardner. Gardner had cleanly fielded a ground ball hit by New York left fielder, Hugh High, but his throw across the diamond ended up in right field. Paddy Bauman's two-out double brought home the second run. The Yankees then added two more runs in the ninth; with Wally Pipp on first Gardner fielded Bauman's attempted sacrifice and again threw it into right field allowing Pipp to score. It was Gardner's second wild throw of the game, each one allowing a Yankee runner to

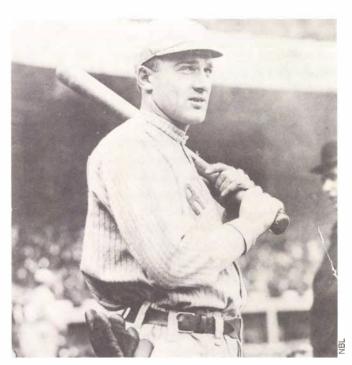
Lyle Spatz is a regional economist for the U.S. Department of Commerce.

score all the way from first base. Although Gardner was charged with an error on both occasions, it should be mentioned that in each case Boston fielders failed to cover first base. Les Nunamaker's double with two outs scored Bauman with New York's final run.

In the afternoon game Boston started their sensational rookie left-hander, Babe Ruth, against New York's Ray Caldwell. After seven innings, Ruth had yet to allow the Yankees a hit, and the Red Sox led 2-0, having scored two first inning runs. Poor baserunning in the second cost Boston another run. Jack Barry led off the inning with a single to left but was out trying for second on a fine throw by left fielder High. One out later Ruth electrified the crowd by doubling against the scoreboard in center field, but he was left stranded.

Shortstop Luke Boone broke up Ruth's no-hit bid with a double to lead off the eighth inning. An infield hit by Nunamaker and a run scoring single by Caldwell caused Manager Bill Carrigan to replace Babe with Dutch Leonard. Leonard allowed the Yanks to score twice more to take a 3-2 lead. Against Carl Mays in the ninth the Yankees added two more runs for the 5-2 victory.

The Red Sox recovered from that double defeat by winning 18 of their last 27 games and taking the American League pennant by 2-1/2 games over Detroit. They went on to defeat Grover Cleveland Alexander and the Phillies four games to one in the World Series. The Yankees were 11-18 the rest of the year and finished in fifth place, 32-1/2 games behind Boston.



Larry Gardner

Excellent pitching was also the key in the Brookfeds' sweep of Newark. In the morning game, played at Brooklyn's Washington Park, Tip-Top's right-hander Jim Bluejacket scattered six hits in setting down the Peppers 5-1. Harry Moran was the starting and losing pitcher for Newark. Center fielder Benny Kauff with three hits, and second baseman Lee Magee with two, led the way for the Brooklyn club.

The fans at Newark's Harrison Park, the site of the afternoon game, witnessed a first-rate pitching duel as the Tip-Top's Cy Falkenberg defeated the Pepper's Tom Seaton 1-0. Falkenberg, who limited Newark to only three singles and a walk, was the beneficiary of excellent defensive play by his teammates. In particular, outstanding catches by right fielder George Anderson in the second inning and left fielder Claude Cooper in the seventh inning helped to preserve the shutout.

The lone run of the game was scored in the sixth inning. Andy Anderson drew a walk to start the inning, moving to second base on a sacrifice bunt laid down by Hap Myers. Anderson then reached third as Magee was grounding out and came home on a Kauf single to right.

Newark had started the day in second place, only three games behind Pittsburgh. They would finish fifth, but only six games behind the pennant-winning Chicago Whales. When the day began Brooklyn occupied seventh place. There they would remain when the season and the short life of the Federal League ended several weeks later.

At the Polo Grounds, it was the struggling Giants taking on the second place Boston Braves. The Braves were the reigning world champions, but this day was to belong to New York. In the afternoon game Jeff Tesreau pitched a brilliant two-hit shutout to win 2-0. This followed a 5-2 victory in the morning game. The two wins moved New York into a virtual tie for fifth place with Chicago, losers of a doubleheader in St. Louis.

The first game featured a splendid relief effort by Rube Benton. Coming in at the start of the sixth inning, to take over for starter Sailor Stroud, Benton held the Braves without a hit or a walk the rest of the way. The Giants, trailing 2-1 when Stroud departed, scored two runs off Boston starter Tom Hughes in the bottom of the sixth. They came as a result of a two run homer by Fred Merkle with Dave Robertson aboard. In the eighth inning, with Lefty Tyler on the mound, the Giants added two more runs on two out singles by catcher Red Dooin and Benton.

Tesreau was in complete control in the second game. He had been the Giant's leader in victories in 1914, with 26, and would be again this year. Singles by Rabbit Maranville in the second inning and Hank Gowdy in the

eighth were the Braves' only hits. Big Jeff walked two and hit Butch Schmidt, but the Boston baserunners were well spaced and Tesreau was never in trouble.

Schmidt, the big Boston first baseman, precipitated a near brawl when, after grounding out in the seventh inning, he charged toward the home team bench apparently intent on mayhem. He was obviously upset with remarks coming from the New York side concerning his lack of speed. Umpires Mal Eason and Bill Byron alertly intercepted him, calmed him down, and the game proceeded without further incident.

The Giants scored all the runs that they would need in the fourth inning. Singles by Eddie Grant and Merkle put runners at first and third with two away when Art Fletcher came to the plate. Boston pitcher Dick Rudolph induced Fletcher to lift an easy fly ball to short center field where it was dropped by ex-Giant Fred Snodgrass, allowing both runners to score. Snodgrass had been released by manager John McGraw only a few days before, and had been playing well for Boston until his unfortunate muff. Seeing Snodgrass drop this easy fly must have brought back to the crowd of eighteen-thousand-plus unpleasant memories of the 1912 World Series.

In the fifth inning a home run into the left field bleachers by Chief Meyers increased the New York lead to 3-0. They added a final run in the eighth inning. Former Olympic star Jim Thorpe, just back from a minor league stint at Harrisburg, tripled to the center field wall and came in to score on a single by Tesreau.

By losing the two games, Boston slipped behind the Dodgers into third place, still four games behind Philadelphia. They finished second, seven games back. For the Giants, the rest of the season was all downhill. They lost nineteen of their remaining twenty-nine games, and although they were only 3-1/2 games behind the fourth place Cubs, they finished last. This would be the only time that they would finish last with McGraw at the helm for a full year.

The biggest story of the day was at Ebbets Field, where the Dodgers trounced the Phillies twice, 6-3 and 7-3. The wins moved Brooklyn past the Braves into second place, only two games behind the Phils.

In the first game the Dodgers beat Grover Cleveland Alexander, the best pitcher in the National League. Pitcher Larry Cheney was given a first inning run and made it stand up through the first six innings, during which he held Philadelphia hitless. After striking out Bill Killefer to start the seventh, Cheney suffered a kink in his pitching arm and asked to be removed. Manager Wilbert Robinson called on Jack Coombs, who got through the inning unharmed. However, in the eighth

the Phillies used a walk, a double by Fred Luderus, and a single by Possum Whitted to tie the score. Red Smyth, playing left field in place of the injured Zack Wheat, threw Luderus out at home keeping the score temporarily tied. Robby replaced Coombs with Rube Marquard, who gave up a single to Bert Niehoff, threw a wild pitch and made an errant pick-off throw to first. This added up to two Philadelphia runs and a 3-1 lead for the visitors.

With Alexander on the mound, things did not look promising for the home team. But, as they had done all year, the Dodgers thrilled their fans, ten thousand of whom were in attendance, by coming back to win the game. After Daubert was retired to begin the home eighth, Casey Stengel and George Cutshaw drew free passes. Walking two men in a row may have been an indication that all was not well with Alexander, but Manager Pat Moran chose to stay with his ace. It seemed the right decision when Hy Myers hit what looked like an inning ending double-play ground ball. But it was booted by second baseman Niehoff, so instead of being retired the Dodgers had the bases loaded. Off the Brooklyn bench, hobbling on a sore ankle, came Wheat to bat for Gus Getz. Zack ripped a line drive that caromed off the glove of shortstop Dave Bancroft into short left field scoring Stengel and Cutshaw to tie the score. Smyth followed with a single to score Myers with the go ahead run. Two more runs soon scored, aided by some sloppy Philadelphia fielding, giving the Dodgers a five run inning and a 6-3 victory.

In the afternoon game it was Brooklyn all the way. They ran up a 7-0 lead against Eppa Rixey and Stan Baumgartner en route to a 7-3 win. Jeff Pfeffer allowed five hits and four walks in pitching a complete game. The Dodger attack consisted of thirteen singles; including three by first baseman Jake Daubert, and two each by third baseman Gus Getz, catcher Lew McCarty, and left fielder Al Nixon.

The Phillies bounced back from this double defeat to win the National League pennant by seven games over Boston. Alexander finished with a record of 31-10 and beat the Red Sox 3-1 in the opening game of the World Series. It was Philadelphia's only win.

The Dodgers were unable to sustain the momentum of that marvelous Labor Day sweep. They won only eleven of their remaining twenty-four games and finished in third place, ten games behind the Phils.

Sadly, of the five parks in which the four doubleheaders were played that day, only Fenway Park in Boston remains. Infinitely sadder was the eventual departure of the Dodgers and Giants from New York and the demise of that city as the baseball capital of America.

Nolan Ryan: The Toughest Luck of All

Overrated or the most unfortunate great?

Joe Mangano

The baseball world is wild over Nolan Ryan. We are barraged by a statistical parade of Ryan's achievements and running totals; seven no-hitters, 300+ wins, 5000+ strikeouts, and a lifetime opponent BA of .202. For many, the quiet, 45-year-old Texan with thinning hair is the very model of pitching greatness.

But there are some fans who resent Ryan's elevation to immortal status. There is the issue of wildness (he leads all pitchers in walks and wild pitches); he has pitched in only one World Series game—in relief; he is within thirty of Cy Young's record for losses; and most of all, his record is not much better than .500. Some take offense at comparisons between Ryan and stalwarts like Walter Johnson, Bob Feller, and Tom Seaver, and question whether he deserves to be elected to the Hall of Fame on his first opportunity.

So which is it: is Ryan one of the greatest ever, or is he overrated? One set of statistics that might help decide the matter is the amount of support Ryan has received from his teammates, and how that support—or the lack of it—has affected his won—lost record.

Ryan, now in his 25th full year in the majors, has pitched for four teams (Mets, Angels, Astros, and Rangers). After his brief stint with the Mets, he has pitched relatively injury-free, but has not amassed the win totals of some others who didn't last as long. None of Ryan's teams were big run producers; in only 5 of his 25 full seasons did Ryan's club rank in the top half of the league in runs per game.

Ryan's lifetime ERA is 57 points below the league average (3.15 vs. 3.72), a 15.3% difference. His won-lost percentage of .531, however, is only 6.2% above the league average of .500. The eleven other 20th century pitchers with over 300 wins carry both winning percentage and ERAs about 20% better than the league average. Are Ryan's ERA and won-lost gaps the effect of the home parks he pitched in, or has lack of support held down his won-lost record?

Baseball statisticians spend a lot of time figuring the numerical effects of "pitchers parks" or "hitters parks". While it is impossible to precisely quantify this effect, it is clear that more runs are scored in Fenway Park than in Dodger Stadium. Ryan has pitched most of his career in pitchers parks (i.e. California and Houston), which has had some impact on his record.

One way to remove the pitchers park issue is to show how he has fared compared to his teammates. Ryan's fellow pitchers played in the same parks as he, with the same hitters in the lineup to support them. Again, the percent difference between Ryan's ERA and won-lost percentage and those of his teammates are used. For comparative purposes, Ryan's record is contrasted with those 11 post-1900 pitchers with more than 300 wins (see Table 1). Only years with ninety or more innings pitched are included.

Although Ryan's ERA was not as superior as the other eleven, it is clear that his won-lost split was less than expected. Ryan's W–L difference (5.5% better than his teammates) was well below his ERA difference (13.3% better), compared to the nearly dual numbers of the

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eleven immortals (18.4% vs. 21.3%). If Ryan's ratio of W–L difference to ERA difference had equalled Perry's (the least fortunate of the group), his percentage would be .538; applied to Ryan's 602 lifetime decisions, this percentage works out to 323 wins. Duplicating Sutton's (the most fortunate) ratio produces a .623 and 374 wins. Matching the eleven-man average ratio would have given Ryan 336 wins, seventeen above his total of 319.

This method is a bit narrow, as Ryan's "hard luck" quotient is derived only from a comparison with his teammates, not all major league pitchers. Still, there can be no "pitchers park" rebuttal. It is also interesting to note that the comparison with teammates is roughly similar to the earlier crude measure of Ryan against his league, which may further dampen the pitchers park contention.

Table 2 shows that Ryan's won-lost percentage has fallen short of what his ERA merited for each team he pitched for, with the exception of the 500-plus innings he threw with the Mets.

Evidence of Ryan's hard luck can also be found in anecdotes. There are many instances in Ryan's long career in which he wound up on the short end of a 2-1 or 3-2 ballgame, or was relieved with the score 1-1. The frustration level was especially high in the years 1977 and 1987. In the former, a suspected lively ball was helping set hitting records. The Red Sox belted 213 home runs, one of the highest team totals ever. Rod Carew hit .388, falling only five hits short of .400.

None of this bothered Ryan. He was by then a 30-year-old flamethrower at the peak of his power pitching skills. He was starting every fourth day, and more often than not went the full nine innings. Ryan overpowered the AL in 1977. His 2.77 ERA was third best in the league, 130 points under the league standard. He won the strikeout title by ninety-seven, finishing with 341. He tied Jim

Palmer for most complete games with 22. Yet his record was a very ordinary 19–16.

In 1987, virtually the same thing happened. Ryan was 40 and an Astro by then, and had added a nasty changeup to his repertoire. He had one of his best seasons ever, leading the NL in strikeouts and ERA. He did this despite another alleged rabbit ball, and a record total of home runs in the majors. Unbelievable as it may seem, his record was a horrible 8–16. Table 3 shows how Ryan pitched in 1977 and 1987, illustrating just how poor his support was:

It is not inconceivable that, with better support, Ryan could have won 30 and 20 games in those years, instead of 19 and 8.

Even in 1991 and 1992, the old familiar patterns of bad luck were evident. Ryan went through one streak of nine consecutive starts from May to July 1991 that would have tried any pitchers' patience. For the nine games, Ryan had a 2.17 ERA, chalking up 64 strikeouts in 58 innings, but was only given credit for two wins against one loss and six no-decisions. To win the two games, he had to pitch a shutout and a near 8th no-hitter.

In May and June 1992, over a seven-start stretch, Ryan left four games after the 5th inning with Texas ahead; the Ranger bullpen blew all four leads, costing him the win each time. In August, Texas scored a total of three runs in four consecutive Ryan starts.

It is doubtful that the disagreement on how exalted Ryan should be will ever stop. The record is open to many interpretations. Ryan himself doesn't seem to care about any such discussion: "I go out there and do the best I can; I'm not responsible for how many runs the teams scores for me," he once said. Still, if the issue of support is thrown into the equation, coupled with his peerless power and amazing longevity, Ryan may be viewed more favorably as one of the greatest ever.



George Bush, who saw an Eastern League game at Hagerstown, Maryland, on June 22, 1990, and a Carolina League game at Frederick, Maryland, June 8, 1991, was not the first U.S. President to attend a minor league game. One earlier visitor was President William Howard Taft, who made a brief stop at the Denver ballpark on October 3, 1911. Actually, the game with Sioux City was interrupted in the second inning so the Chief Executive's open touring car could be driven on the field. His primary purpose was to congratulate the Denver team, which had clinched the Western League pennant. He had warm words for manager Jack Hendricks, watch fobs for the players, and presented a loving cup to James McGill, the club president. A short time later the Presidential party departed. Denver lost 13-2.

— Al Kermisch

Table 1
W/L Percentage and Earned Run Average Differentials

Pitcher	Years	His %	Mates %	%Diff	His ERA	Mates ERA	%Diff
Young	90-11	.620	.476	30.2	2.63	3.46	24.1
Johnson	07-27	.599	.462	29.5	2.17	3.44	37.0
Mathewson	01-15	.671	.555	20.9	2.10	2.82	25.5
Alexander	11-29*	.645	.503	28.3	2.54	3.64	30.2
Spahn	46-65	.597	.529	13.0	3.08	3.73	17.4
Carlton	67-87	.576	.521	10.6	3.19	3.74	14.7
Plank	01-17	.629	.558	12.7	2.34	2.85	17.9
Sutton	66-87	.562	.527	6.6	3.25	3.37	3.6
Niekro	67-87	.538	.473	13.8	3.35	4.06	17.6
Perry	64-83	.546	.504	8.4	3.07	3.66	15.9
Seaver	67-86	.603	.482	25.1	2.86	3.67	22.0
TOTAL		.599	.506	18.4	2.78	3.53	21.3
Ryan	68-92**	.531	.503	5.5	3.15	3.64	13.3
* E 1 1: 1	010						

^{*} Excluding 1918

Table 2
Ryan's Team-by-Team Records and Differentials

Team	Years	His %	Mates %	%Diff	His ERA	Mates ERA	%Diff
Mets	68-71	.439	.533	-17.5	3.51	2.95	-19.2
Angels	72-79	.533	.468	13.8	3.06	3.92	21.9
Astros	80-88	.530	.519	2.0	3.13	3.44	9.2
Rangers	89-92	.605	.500	21.1	3.23	4.30	24.9
Totals	68-92	.531	.503	5.5	3.15	3.64	13.3

Table 3 Ryan in 1977 and 1987

		1977			1987			
	G	IP	ERA	G	IP	ERA		
Wins	19	159.1	1.64	8	57.0	1.11		
Losses	16	122.1	4.49	16	88.0	3.99		
No Decisions	2	17.1	1.04	10	66.2	2.57		
Total	37	299.0	2.77	34	211.2	2.76		

^{**}Includes games through August 6, 1992

Nolan Ryan Could Probably Pitch for Me

(But he'd be in the bullpen)

Brent Kelley

would like a nickel for every graphic I saw last season on TV showing us that Nolan Ryan has given up the fewest hits per nine innings of anyone in history.

Another nickel would be nice for each excuse given for Ryan's low winning percentage, i.e., he's performed for poor teams. Look at his ERA, we're told.

One more nickel would about do it. This one would be for each time I've heard or read that Ryan is the greatest pitcher in history.

With these three nickels multiplied by the several jillion times those three points have bombarded us, I could retire to Jamaica and have my copies of *Sport* Federal Expressed to me. I might even buy the publishing company and move it down there with me for the sake of convenience.

At the risk of raising the dander of those who selected Nolan Ryan as Man of the Year a year or so ago, herewith I'll debunk the pro-Ryan propaganda with which we've been inundated.

(Let me say before we start that I have nothing against Nolan Ryan. I understand that he is a fine man, a loving husband, a good father. There are a lot of little "Nolans" and "Ryans" running around out there, as many of his teammates have named their issue after him. He's cleancut and clean-living and an excellent role model and I'd love to be able to throw a baseball half as successfully as he has. Make that one-tenth as successfully.)

This is going to be a fair comparison. It will be only among Ryan and his contemporaries. There will be no cross-era, pre-integration, pre-free swinging, pre-expansion, pre-population growth, pre-night games, pre-chartered flight pitchers: no Johnsons, Youngs, Groves, Fellers, et al.

Ryan's career began in the 1960's, so we'll limit comparisons to pitchers who have performed from the '60's onward. But let's make this *real* fair, let's eliminate the flash-in-the-pans whose careers didn't last. Let's limit it to only those pitchers who have hurled 4,000 innings or more, as has Ryan, since 1960. That wipes out a lot of talent. Not considered, therefore, are such short-timers as Koufax, Gibson, Palmer (52 innings shy), Hunter, Bunning, Marichal, Messersmith and Drysdale.

What we are left with are ten pitchers—one mighty fine pitching staff (Table 1). These are heavyweights. And Nolan is not even close to the best of them. Clearly, therefore, he's not among the best of all time.

Table 2 lists these guys ranked by years in the majors. In parentheses are the number of full years. Table 3 ranks them by wins.

Okay, the introductory stuff is over. It shows us that we're dealing with sound arms that were able to stay that way for a long time with extreme success.

Now let's get into the meat of the subject.

Table 4 is hits per nine inning. Table 5 is walks per nine. All of us are aware, but occasionally a reminder is needed, that runs score as a result of baserunners. A run really doesn't care if it was created via a home run, two doubles, or a bunch of walks—or any combination

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thereof. So baserunners per nine is more important than either of those figures in Tables 4 and 5. Hence Table 6.

Now we'll address the career winning percentages of these ten. The constant excuse for Ryan's low percentage is that he has toiled for poor teams. Table 7 gives us the winning percentages of our ten notables. Table 8 shows the winning percentages of the teams for which these guys worked during the years in which they were employed by them and the winning percentages without these pitchers' records. It's true that Ryan's teams have not set the world on fire, but it's equally true for five of these hurlers—one, in fact suffered with teams winning less than half their games. So we progress to Table 9.

This table gives us two bits of information: (1) The percentage by which each pitcher's winning percentage is better than his teams', and (2) the percentage by which each pitcher betters the rest of the pitchers on his teams.

A noted, nationally-syndicated baseball writer did not vote for Ferguson Jenkins for the Hall of Fame a few years back because his winning percentage was *only* .060 better than his teams'. This same journalist has since said that Steve Carlton is a shoo-in on the first ballot. Lefty's winning percentage is the exact same .060. (But look at Tom Seaver!)

Further, and inexplicably, this literary marvel has said that when the time comes, he will vote for Nolan Ryan. He undoubtedly will, but I hope someone shows him Table 9.

Moving right along, Table 10 ranks our boys according to ERA, Table 11 according to team ERA, and Table 12 according to improvement over team ERA. This is a more valid comparison than rating them versus league ERA because it reflects what each man has to work with. A pitcher on a team with a great bullpen has a decided advantage over a team without a reliable stopper.

Now, is Nolan Ryan the best pitcher in baseball history? If he were, he would be the best on his own team(s). This may be an arbitrary evaluation, but I tried to make it less so by assigning points to various pitching statistics.

Winning is what the game is all about (I'll take a 20-14, 3.85 any day over a 15-13, 2.75), so I give seasonal wins two points. If a pitcher led his team in wins in a season, I've given him two points; if he shares leadership with someone else, each gets one point; if he shares the load with two others, they each get two thirds of a point, and so forth.

We're dealing with starting pitchers, so starts are important, because they indicate the guy is healthy and sound and takes his regular turn on the mound. I award one point for leading the team in starts.

Innings pitched indicate whether we're dealing with someone who can carry the mail. Forty starts and 200 innings is not as impressive as 35 and 240. One more point for leading the team in innings.

And ERA is important (although I'll still take wins), because it is supposed to be the true measure of a pitcher's ability (wins, however, show effectiveness and I'll take effectiveness). I've given one more point for a team-leading ERA, based on league-qualifying standards.

Total these numbers for all members of a team's staff, and you arrive at a clear picture of that club's best pitcher for a given season. In the case of a tie, we give them both "best" labels.

All of this leads us to Table 13, which shows how often each of our ten stalwarts was actually the number-one man on his own pitching staff. In parentheses are the number of full seasons each performed.

Another measure of how good a pitcher is is the number of Cy Young awards he's won, as shown in Table 14.

To be fair, maybe a pitcher never won a Cy, but finished second or third several times. Let's assign more points. Five for a Cy, three for finishing second, one for a third. Lo and behold, Table 15 is generated.

I think that about does it for tables—and also for Ryan. We might make a good case for Seaver being the greatest pitcher of all time (he certainly was for the past three decades), but we can see clearly that Ryan falls far short.

If I managed a major league team and these ten showed up in spring training, I probably wouldn't send Ryan to the minor league camp for reassignment. However, I'd have to think long and hard before I put him in my rotation. My Big Three would be Seaver, Niekro, and Carlton; I guess number four would be Jenkins, with Blyleven and Perry duking it out for number five.

This would leave Ryan and Kaat competing for the closer's job with John, Sutton, and either Perry or Blyleven as the set-up men.

I'd take my chances with this staff.

Nolan Ryan will be elected to the Hall of Fame, almost certainly on the first ballot with an astronomical percentage of the votes. And I agree that he belongs, but I don't agree that he's an overwhelming automatic choice. Alas, however, I don't get to vote (or not vote), and in a society which equates quantity with quality and with a voting body that on the whole often seems only slightly more intelligent than algae, all Nolan Ryan has to do is wait five years after he throws his last pitch.

I'm glad Fergie Jenkins will be there to greet him.

(Note: On all tables, figures for Ryan and Blyleven are through 1991.)

Table 1: Pitchers with 4,000 IP since 1960		Table 5: Bases on balls per 9 innings				
Pitcher		Innings	Jenkins	1.99		
Phil Niekro		5,403.1	Kaat	2.15		
Gaylord Per	-	5,351	Sutton	2.29		
Don Suttor		5,280.1	G. Perry	2.32		
Steve Carlt	on	5,216.2	Blyleven	2.406		
Nolan Ryar	1	5,163.2	John	2.407		
Bert Blyleve	en	4,836.2	Seaver	2.62		
Tom Seaver	r	4,782.2	P. Niekro	3.10		
Jim Kaat		4,528	Carlton	3.16		
Ferguson Je	nkins	4,499.2	Ryan	4.68		
Table 2: To	tal year	s and (full) years pitched	Table 6: Ba	aserunne	rs per 9	innings
John	26	(24)	Seaver	10.09		Ü
Ryan	25	(24)	Jenkins	10.28		
Kaat	25	(23)	Sutton	10.29		
P. Niekro	24	(23)	G. Perry	10.62		
Carlton	24	(21)	Blyleven	10.75		
Sutton	23	(23)	Ryan	11.19		
G. Perry	22	(21)	Carlton	11.22		
Blyleven	21	(21)	Kaat	11.34		
Seaver	20	(20)	P. Niekro	11.41		
Jenkins	19	(18)	John	11.55		
CHKIHS	1)	(10)	John	11.77		
Table 3: W		e 1960	Table 7: W		ercenta	ge
Carlton	329		Seaver	.603		
Sutton	324		Carlton	.574		
? Niekro	318		Sutton	.559		
G. Perry	314		Jenkins	.557		
Ryan	314		John	.555		
Seaver	311		Kaat	.544		
John	288		G. Perry	.542		
Jenkins	284		Blyleven	.540		
Kaat	283		P. Niekro	.537		
Blyleven	279		Ryan	.530		
Table 4: H	its per 9	Innings				
Ryan	6.50		Table 8: Te	am winr	ing per	centage
Seaver	7.47			with	w/o	% diff.
Sutton	8.00		Seaver	.504	.485	+.019
Carlton	8.06		Jenkins	.507	.497	+.010
Jenkins	8.29		Carlton	.524	.514	+.010
G. Perry	8.31		P. Niekro	.488	.479	+.009
Blyleven	8.34		Blyleven	.505	.499	+.009
P. Niekro	8.40		G. Perry	.510	.504	+.006
			Ryan	.508	.504	+.004
John	9.14					
Kaat	9.18		John	.527	.523	+.004
			Sutton Kaat	.536 .537	.532	+.004

Table 9: Winning	percentage	over	rest	of team	
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	% diff.	actual diff.
Seaver	+24.3	+.118
P. Niekro	+12.11	+.058
Jenkins	+12.07	+.060
Carlton	+11.7	+.060
Blyleven	+8.2	+.041
G. Perry	+7.5	+.038
John	+6.1	+.032
Ryan	+5.2	+.026
Sutton	+5.1	+.027
Kaat	+1.5	+.008

Table 10: ERA

Seaver	2.86
G. Perry	3.10
Ryan	3.15
Carlton	3.22
Blyleven	3.25
Sutton	3.26
Jenkins	3.34
John	3.34
P. Niekro	3.35
Kaat	3 45

Table 11: Team ERA

Icam Liv
3.33
3.48
3.50
3.51
3.53
3.54
3.66
3.71
3.85
3.90

Table 12: Pitchers' ERA over teams'

Seaver	+19.0%
Blyleven	+15.6%
P. Niekro	+14.1%
G. Perry	+12.4%
Carlton	+12.0%
Jenkins	+10.0%
Ryan	+09.5%
John	+04.6%
Sutton	+02.1%
Kaat	+01.7%

Table 13: Best pitcher on team (full years)

Seaver	14	(20)
Blyleven	11	(21)
Jenkins	10	(18)
Carlton	10	(21)
P. Niekro	10	(23)
G. Perry	9	(21)
John	7	(24)
Sutton	5	(23)
Kaat	5	(23)
Rvan	4	(24)

Table 14: Cy Young Awards

Table 11. Cy	-
Carlton	4
Seaver	3
G. Perry	2
Jenkins	1
Blyleven	0
John	0
Kaat	0
P. Niekro	0
Ryan	0
Sutton	0

Table 15: Cy Young Award points

	1st	2nd	3rd	Pts
Seaver	3	2	1	22
Carlton	4	0	1	21
G. Perry	2	1	0	13
Jenkins	1	2	2	13
John	0	2	0	6
Ryan	0	1	2	5
P. Niekro	0	1	1	4
Blyleven	0	0	2	2
Sutton	0	0	1	1
Kaat	0	0	0	0

The Worst Hitter of All Time

Ineptitude unmatched

Jamie Selko

You can talk all you want about your Maxvills and your Oylers, about your Tracewskis and your Mendoza line, but no one who got to the plate 250 times ever had a worse year with the bat than Luke Lutenberg, first baseman for Louisville in 1894.

Now, at first glance, you'd think, "Hey, wait a sec! Sure, .192 is nothing to write home about, but there have been worse years." But in the context of the times, no one has approached that for ineptitude. Two major factors are to be considered in reaching this judgment. First, Mr. Lutenberg was a first baseman, traditionally home to good hitters. A shortstop or a catcher hitting below .200 is uncommon enough, if not quite rare, but a first baseman hitting below .200 is almost unique. In fact, since the peace of 1892, only five first basemen with at least 200 AB's have hit less than .210 (2 in 1968) and only 2 have hit below .200—Chick Gandil in 1910 (.193, only -47 against the league) and George Scott in 1968 (even at .171, only -59, and a "mere" -73 against first basemen).* Second, and more important, as most readers of this article will know, 1894 was the year of the hitter, approached only by 1930 in the annals of major league history.

The chart at the top of the next column shows how Lutenberg fared against the league (a reverse of the fine SABR studies which have shown the dominance vs. the league of the likes of Cobb, Carew and Boggs).

Category	Average	HowLuke Fared
Next lowest regular	.248	-56
League pitchers	.253	-61
Next lowest first basem	an .264	-72**
League	.304	-112
League, minus pitchers	.310	-118
League firstbasemen	.330	-138

To put this in perspective, let us compare Luke's .192 against a few other years. In 1930, in the NL, he would have had to hit .192 again to finish so far below the league average, but the lowest regular batted .231, and the first basemen averaged .331. In 1961, he would have had to hit .150 in the NL and .144 AL—and this includes pitchers. In 1968, the year of the pitcher, he would have had to hit .131 in the NL and .118 in the AL to equal his 1894 feat.

Any challenger to Luke Lutenberg in the future—there have really been none in the past—will have to be a first baseman or an outfielder (also in the lineup for his bat), will have to hit in the .140-.150 range—and will still have to be a regular. Even with expansion, I don't see that happening.

*Before 1991, only three other players at "hitting" positions have hit even 80 points below the league average: Roger Repoz, OF/1B hit for -82 in 219 AB in 1969 with his .164, DH/1B Devon Johnson who was -87 with his .171 in 1974, and Dave Roberts, -88 also in 1974 when he was primarily a third baseman.

**This was 35 year old Charlie Comisky, who would not have been playing were he not the manager. The next lowest firstbaseman hit .294, .102 points more than Luke.

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League Errors Per Game

A new measurement of relative league strength

Bill Rubinstein

Throughout nearly all of baseball history, there have been two (occasionally three) major leagues, the only exceptions being 1876–81 and 1893–1900, when only the National League existed. Over the years, the leagues have drawn from the same pool of talent, and given that each league employs hundreds of players a year, you'd figure that talent *on average* should be pretty evenly distributed, with neither major league being notably stronger than the other.

Nevertheless, throughout the history of major league baseball, there has been a widespread feeling among both fans and experts that at certain times one league has been notably stronger than the other. So far as I can determine, there have been five times in major league history when this strong impression has existed.

1. There is a general impression that the National League was stronger than the American Association. The impression that the NL was mainstream while the AA was borderline during their competition from 1882 to 1892. Hall of Fame electors have never elected a *single* player whose best years came in the AA, thus slighting Peter Browning, Harry Stovey, Tip O'Neill, Tony Mullane, Bob Carruthers and others. (The most successful AA *manager*, Charles Comiskey, was elected to Cooperstown in 1939, chiefly because of his long—and controversial—association with the White Sox.)

2. There is a widespread feeling that, during its first few years of the existence, the American League was weaker than the established NL. The most extreme version of this viewpoint appears in the discussion of Cy Young's career in Thorn and Holway's *The Pitcher*. Noting that Cy Young's victory total was down to only twenty in 1900, Thorn and Palmer claim

The next year baseball expanded, from eight teams in the 1900 NL to sixteen in the new two-league lineup. The talent was diluted by a factor of half [and] to improve matters further Cy wound up in the junior league, which did not have half the talent the older NL had, in spite of the raids on it. It made Cy young again. In 1901 he suddenly zoomed up to thirty-three wins, his best season in five years ... Eventually the AL did catch up to the NL in talent, but it took about two decades to occur. In the meantime, Young basked in the fountain of youth.

Thorn and Palmer also cite the example of Nap Lajoie's fabulous year in 1901, when he hit .426. Although Thorn and Palmer may have a point, it should be said that no one else has ever argued that the AL "took about two decades" to catch up to the NL in talent. Surely, after about five years at most, both leagues would be dipping into exactly the same pool of talent. Certainly no sportswriter at the time thought that when he went from covering, say, a Giants game where Wagner faced Mathewson to a Highlanders game where Lajoie was batting against Chesbro, that he was descending from major league baseball to a cheap imitation.

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- 3. Most baseball historians and fans seem to believe that the AL was markedly stronger than the NL from about 1910 to about 1950, peaking in the 1930s. On the basis of superstar talent, the AL had Lajoie, Cobb, Speaker, Eddie Collins, Jackson, Sisler, Heilmann, Ruth, Gehrig, Foxx, Simmons, Greenberg, DiMaggio, Williams, Johnson, Grove, and Feller—to name only the absolute peaks—while in the NL only Wagner, Hornsby, Ott, Paul Waner, Musial, Mathewson, Alexander, Dean, and Hubbell could be put in the same class. Overall, the AL appeared to be clearly dominant in this period, a dominance symbolized by the Bambino. The lead of the AL in the early All-Star games tends to justify this impression.
- 4. Most observers would also agree that the pendulum swung just as strongly in favor of the NL from the early 1950s until the late 1970s, as the senior circuit reaped the benefit of its greater commitment to finding black and Latin talent after integration. This shift was reflected in the AL's woeful All-Star game record after about 1960, and it was not until the 1980s that the two leagues have become roughly equal in strength—for the first time, some might argue, in the twentieth century.
- 5. Most historians would agree that on two of the three occasions that there was a recognized third major league in operation—the Union Association in 1884 and the Federal League in 1914-15—these were clearly inferior to the established leagues. The Players' League in 1890 was probably superior to both the NL and the AA, because most of the game's best players moved to the Brotherhood League.

Although most informed baseball historians probably would agree with the pattern of relative league strength outlined here, *proving* that it was correct is remarkably difficult. World Series involve only one club from each league; All-Star game results may show something (from 1933 on, of course) but they are exhibition games of the best players only, many players appearing for only a brief period of time. Few real conclusions can be drawn from these about the *overall* comparative quality of league play.

Simple and obvious inter-league comparisons prove nothing., because it is impossible to pinpoint whether the differences are due to superior batting or inferior pitching and defense, or some other factor. In 1936—to take one example which is similar for every year—the NL hit .278 with 607 home runs and 5837 runs, while the AL hit .289 with 758 home runs and 7009 runs. Not surprisingly, the NL's ERA was 4.02 while in the AL it was 5.04. But just consider why these differences occurred. Why did the AL produce more than one extra earned run per game than the NL? Was it the genuinely superior hitting of the AL, or the AL's inferior pitching (1.02 higher ERA per game) and possibly inferior defense? Or was it some

other factor like ballpark dimensions? Would the AL's leading hitters that year—Luke Appling with his .388 BA, Lou Gehrig with 49 home runs, Hal Trosky with 162 RBIs—have done just as well in the NL against that league's average pitching and defense (where Mel Ott led the league with 33 home runs and Joe Medwick with 138 RBIs)? There is no way to tell.

Some researchers have also approached this question by seeing how players traded from one league to another have done in the new league. This approach is also full of obvious holes: only a small number of players, and not necessarily typical or average ones, are traded between leagues; trades are sometimes said to produce a psychological boost in the player concerned, with the new surroundings removing the personality or other problems he had on the former team; there are ballpark distortions to consider. Most of all, this approach does not compare like with like, since a traded player is, by definition, a year older, playing in leagues which are a year apart in time. Thus, if you are trying to draw conclusions about the NL and AL from, say, Frank Robinson's trade between 1965 and 1966, you would be comparing the NL of 1965 with the AL of 1966.

But there is a way of approaching this matter that meets most of these objections. This is a comparison of *errors per game* between the two leagues in the same year.

Errors, in my opinion, are an objective test of incompetence and, hence, of the relative replacement levels of players in a particular league—the minimum cut-off point for acceptable defensive play in a league. If a league is drawing its players from a notably worse group of players than its rival league at the same time, this will quickly show up as these incompetent players make relatively more poor plays than those in the other league. More important, errors depend upon the incompetence of a particular player alone, and not on the impossible questions about responsibility raised by other offensive or defensive statistics.

If the AL hit 151 more home runs than the NL in 1936, as it did, this could be either because its sluggers were actually better, or because their pitchers were worse, and it is impossible to tell which is the case. If AL fielders made only 94 percent as many errors per game as did fielders in the NL in 1936 (as was the case), I think that this is good evidence that the defensive replacement level of play in the AL was higher than in the NL. From this, it seems reasonable to infer that the average level of defensive skill in the AL was higher, too, and that—in defense, at any rate—the AL was at the time a more talented league than the NL. Most important, perhaps, errors are the *only* objective occurrences in baseball that are solely the responsibility of the player concerned, and

not dependent upon an insoluble reciprocal relationship between offense and defense.

There are obviously a number of objections to this line of reasoning, of which I am well aware, but which I believe, on reflection, are erroneous:

1. An outstanding fielder may well commit more errors than a mediocre fielder because his range factor is higher: a Nap Lajoie, a Mike Schmidt, or an Ozzie Smith may be involved in far more chances than an ordinary fielder. In exchange for committing a few more errors, he may well be involved in literally hundreds of additional putouts and assists that a run-of-the-mill player had no chance whatever of making.

This is a powerful argument about which two things may be said: in the first place, I am using errors per game (the reverse of the normal way of calculating range factor, putouts and assists per game) to take this into account. A Lajoie or a Schmidt will make many fewer errors per game than an incompetent fielder, and it is the level of incompetence that we are measuring. At the same time that Lajoie was giving Cleveland superlative hitting and fielding, for instance, his teammate at shortstop, John Gochnaur, was playing both offensively and defensively at a level so awful that many baseball historians consider him the worst player in history. In 1903, when Lajoie hit .355 and Gochnaur .185, Nap the Great committed 36 errors in 126 games (0.29 errors per game) while Gochnaur committed 98 in 134, or 0.73 per game. (John wasn't asked back.)

Figuring errors-per-game also makes this approach easy to understand. A figure like 2.28 errors per game (the figure for the AL in 1936) tells you something, whereas the AL's fielding average in 1936, .971, tells you not a thing.

2. Errors are determined by the official scorer, who was often a local sportswriter and so was probably biased toward the home team; in any case, an error is often a matter of opinion.

True, but over hundreds of games these tendencies will cancel out, with home scorers biased everywhere and scorers over-eager to credit errors canceled by those reluctant to.

3. Games are of unequal length, with unequal numbers of chances in every game in every league in every season.

The same answer: over hundreds of games and tens of thousands of chances and potential chances in a season, these will cancel out. Also, as we are dealing with chances per game, unequal numbers of games per league will be relevant.

Still, potential chances in the two leagues in the same season will never be exactly the same, and the figures probably have a small margin of error in them—differences below 1-3 per cent are probably irrelevant.

4. These figures will be affected by differential strikeout totals in the two leagues.

This is true, although in general strikeout totals rise pretty similarly overall in both leagues in different historical periods—they were high in both leagues in the Dead Ball Era and since 1960, low in both leagues in the interwar period. Also, catchers can (at least theoretically) be charged with an error on a strikeout. Remember, too, we are comparing leagues, not teams, and a high strikeout team will be part of a larger picture.

5. The figures will be affected by differing ballpark geometries and dimensions.

Again, true, although many more errors are committed by infielders—where dimensions are virtually irrelevant—than by outfielders. Also, we know that range factor is a good test of fielding ability regardless of park dimensions or other factors, as Bill James has shown. Finally, it will be apparent from the figures when we discuss them that changes in errors per game totals have occurred without alterations in ballpark dimensions.

6. Great hitters are hired by a team regardless of their fielding abilities—Babe Ruth would still have played if he committed 300 errors per season.

Once again, this is true, but it is only true for a limited number of cases, perhaps only for hitters of Hall of Fame ability, and even here, great hitters, like Ruth, have tended to be (like Ruth), at least passably good fielders as well. One can name a long list of great hitters who were also great fielders—Lajoie, Wagner, Sisler, Klein, Speaker, DiMaggio, Mays, Clemente, Kaline, Schmidt—but how many truly great hitters were dreadfully bad fielders? Not many at all—Babe Herman, by repute; ditto Hack Wilson. Among good, not great hitters, Dick Stuart, of course. In practice, virtually every great hitter in history was at least a tolerably good fielder.

In fact, there are many more examples in baseball history of great fielders who were poor hitters—dozens of middle infielders and catchers fall into this class, and even at heavy-hitting positions, many players —from Tommy McCarthy and Harry Hooper to Paul Blair—have made their reputations with the glove rather than with the bat. For the great majority of players, fielding incompetence above a certain level of unacceptability will bring about a swift return to the minors.

7. The figures will be heavily affected by very poor fielding teams with high error totals.

Exactly. This shows that they are drawing their players from a lower level of defensive talent, which is what we are trying to measure.

Before turning to the conclusions, one final point: we are not looking at long-term changes in the number of errors per game, which—as most readers will know—has

declined drastically and continuously since the nineteenth century. Most of this improvement is due to better and larger gloves, better-maintained fields, and the fact that, since about 1920, balls have been replaced with fresh ones the minute they become dirtied. Put Mike Schmidt or Ozzie Smith back to the playing conditions that prevailed in 1910, and their fielding performances would decline accordingly.

The accompanying table sets out the number of errors, games and errors per game for each league, for years when there were two or more major leagues. It also charts the ratio of errors per game in the second (or third) league compared with the NL. In years when the ratio is higher than 100, the NL had relatively fewer errors per game than the second league; when the ratio is lower than 100, the other league is better. A difference of less than, say, three per cent is probably due to happenstance factors. However, I think that a difference greater than this, especially if it persists for several years, indicates a real difference in the average defensive replacement levels of the two leagues, and is not illusory. Looking at the five points of contention we mentioned at the start, we find the following:

- 1. The NL was consistently much better than the AA, with much lower errors-per-game totals in every year but one. There can be little doubt that—as most contemporaries believed—the NL was playing ball at a consistently higher level of quality. I believe that the overlooked stars of the AA, like Pete Browning, Harry Stovey, Tip O'Neill, and Tony Mullane, should be in the Hall of Fame, but the weakness of their league should be taken into account.
- 2. The AL was significantly weaker than the NL in 1901, its first year of operation, casting some doubts on the achievements that year of Lajoie, Young, and other AL stars. However, beginning in 1902 and continuing through 1905, there was an amazing turnabout, so that the AL was much stronger than the NL until about 1913, when the National League again moves ahead, followed by rough equality.

It is difficult to account for this, but one might offer some suggestions: after a year of experimentation (1901), the much higher salaries in the AL lured better players to the new league. The NL responded to this during the nadir of the Deadball era, by going more aggressively after defensive stars who could save every run. The Cubs are a prime example. Their great early dynasty resulted from uniquely errorless defensive play as much as from strong pitching.

There is absolutely no evidence here to support the view put forward by Thorn and Holway that the NL remained stronger than the AL for twenty years. Taking the period 1901-19 as a whole, the two leagues evened

out almost exactly.

3. The next twenty years or so, baseball's "golden age," also saw a seesaw battle in which the AL was the better league defensively ten of the twenty-three seasons from 1920 through 1942 (the last year before most of the stars were drafted). The NL's lead was mainly clustered between 1927 and 1934. Although there is a small but distinct lead to the NL over the whole period, in general the leagues were much more evenly matched than earlier in baseball history.

Most fans will probably be surprised by the NL's relatively strong showing, given the fact that the AL had most of the game's superstars of the time and won most of the early All-Star games. What accounts for this? Some AL teams such as the Yankees and A's, built tremendous dynasties, but some, like the Red Sox and White Sox, were consistently weak. The NL was often stronger *on average*. Also, the AL scouts may well have gone after the tremendous power-hitters of the day, between 1927 and 1934. Although there is a small but distinct lead to the NL over the whole period, in general the leagues were much more evenly matched than earlier in baseball history.

One of the most interesting facts concerning the number of errors per game is the situation (or rather the non-situation) during the three wartime years of 1943-45. The number of errors per game actually declined slightly, compared to the last peacetime years, even in 1945, the worst year of all. Furthermore, the number of errors per game in 1945 was about 0.25 below the major league total in 1930, when there were nearly 50 active Hall of Famers! This seems truly incredible, if not incomprehensible: in 1945, according to most observers, the major leagues consisted mainly of minor leaguers, substitutes, and semi-pros who would not have stood the slightest chance of playing if the regulars had not been drafted. Surely, it would seem, these borderline players would commit many more errors per game than the regulars. Nor is this due to a fielder with a lower range factor allowing many more balls through, since batting averages also declined markedly. Perhaps batting skill declined more rapidly than fielding ability; perhaps the semi-dead ball of the war years made for more easy outs. Perhaps, however, the wartime players were just as good (as some recent studies have hinted)—America's minor leagues, independent, and semi-pro teams of the 1930s contained so many good players that they could just step into the ex-major leaguer's shoes with no loss of talent.

4. During the post-war years, there is no evidence whatever of NL predominance, despite, once again, what one might expect. Since 1945, the NL has committed fewer errors per game than the AL in only five widely-

spaced years, and only once (in 1956) by a substantial margin. In contrast, the AL has scored consistently lower ratios in virtually every year with monotonous regularity, albeit by very small margins in some seasons. This gap seemed to be at its greatest in the 1960s, when popular opinion held that the NL was much stronger than the AL. This is a complete contrast to the popular wisdom, and several good explanations might be offered.

First, popular wisdom might simply be wrong, the hitting predominance of the NL simply an illusion due to weaker defense. (If this is so, Mantle, Kaline, and possibly Yastrzemski would probably have been .300-plus hitters in the NL.) Second, it seems at least possible that (as with the inter-war period) the two leagues were scouting different types of players—this time in reverse—

with the NL going after Mays, Aaron, Matthews, and Frank Howard, the AL signing Brooks Robinson, Nellie Fox, and Luis Aparicio.

In any case, the evidence here simply does not support the view that the NL has been the superior league in the post-war era. In fact, the evidence suggests that the AL was and is the stronger league.

5. Both the dreadful Union Association of 1884, and—perhaps strangely—the Player's League of 1890 were markedly inferior to either the NL or the AA, despite the fact that the PL had many of the game's great stars. In contrast, the Federal League was actually the strongest of the three leagues in 1914, its first year of operation. Perhaps this, too, is due to an enormous reservoir of talent in the minors and semi-pros.

	Natio	onal Lea	gue		Amer	rican A	ssociatio	n
	E	G	E/G		Е	G	E/G	% NL
1882	3030	338	8-96		2411	234	10.30	115
1883	3782	395	9.57		3952	390	10.13	106
1884	3950	456	8.66		5811	659	8.82	102
				(Union Association)	4800	428	11.21	129
1885	3536	445	7,95		3500	445	7.87	99
1886	3449	492	7.01		4492	557	8.06	115
1887	3677	508	7-24		4432	550	8.06	111
1888	3589	542	6.62		3941	548	7.19	109
1889	3468	531	6.53		3992	559	7.14	109
1890	3264	539	6.06		3459	540	6.41	106
				(Players' League)	3979	529	7.52	124
1891	3383	552	6.13		3683	557	6.61	108
					An	nerican	League	
1901	2456	561	4.38		2875	548	5.25	120
1902	2382	562	4.24		2356	553	4.26	100
1903	2531	560	4,52		2148	554	3.88	86
1904	2590	623	4.16		2114	626	3.38	81
1905	2353	620	3.80		2175	617	3.53	93
1906	2080	615	3.38		2162	613	3.53	104
1907	2033	616	3.30		2205	617	3.57	108
1908	2022	622	3.25		2212	622	3.56	110
1909	2275	620	3.67		2210	620	3.56	97

	Natio	nal Leag	gue	American League				
	Е	G	E/G		E	G	E/G	% N
1910	2116	621	3.41		2313	628	3.68	108
1911	2123	623	3.41		2411	614	3.93	115
1912	2004	613	3.27		2466	619	3.98	122
1913	1940	620	3.13		2101	614	3.42	109
1914	2158	625	3.45		2149	631	3.41	99
				(Federal League)	2102	624	3.37	98
1915	1862	624	2.9		2107	621	3.39	114
				(Federal League)	1908	619	3.08	103
1916	1939	622	3.12		1844	625	2.95	95
1917	1875	625	3.00		1871	622	3.01	100
1918	1519	508	2.99		1545	508	3.04	102
1919	1572	558	2.82		1614	560	2.88	102
1920	1774	617	2.88		1719	617	2.79	97
1921	1663	613	2.71		1748	616	2.84	105
1922	1677	620	2.70		1541	618	2.49	92
1923	1737	617	2.82		1600	616	2.60	92
1924	1531	614	2.49		1521	617	2.47	99
1925	1670	612	2.73		1621	616	2.63	96
1926	1610	618	2.61		1524	616	2.47	95
1927	1570	617	2.54		1641	619	2.65	104
1928	1448	614	2.36		1545	617	2.5	106
1929	1416	616	2.30		1521	613	2.48	108
1930	1485	618	2.40		1557	616	2.53	105
1931	1414	618	2.29		1569	618	2.54	111
1932	1431	618	2.32		1500	615	2.44	105
1933	1349	618	2.18		1372	608	2.26	104
1934	1354	608	2.23		1428	615	2.32	104
1935	1531	617	2.48		1344	611	2.20	89
1936	1509	620	2.43		1406	618	2.28	94
1937	1421	617	2.30		1368	622	2.20	96
1938	1368	610	2.24		1384	613	2.26	101
1939	1374	616	2.23		1465	615	2.38	107
1940	1394	617	2.26		1443	619	2.33	103
1941	1400	622	2.25		1383	622	2.22	99
1942	1312	613	2.14		1406	611	2.30	107
1943	1313	621	2.11		1306	617	2.12	100
1944	1361	623	2.18		1430	619	2.31	106
1945	1405	618	2.27		1302	612	2.13	94
1946	1259	621	2.03		1303	621	2.10	10
1947	1154	620	1.86		1080	623	1.73	9
1948	1256	619	2.03		1100	618	1.78	88
1949	1189	623	1.91		1100	618	1.78	9:
1950	1204	618	1.95		1137	620	1.83	94
1951	1199	622	1.93		1201	617	1.95	10
1952	1144	618	1.85		1129	621	1.82	98
1953	1182	622	1.90		1070	618	1.73	9

	Nation	nal Leag	ue	American League				
	E	G	E/G	E	G	E/G	% N	
1954	1154	616	1.87	1120	621	1.80	96	
1955	1135	616	1.84	1089	618	1.76	96	
1956	1082	621	1.74	1170	618	1.89	109	
1957	1101	619	1.78	1018	616	1.65	95	
1958	1083	616	1.76	1002	619	1.62	92	
959	1113	620	1.80	1111	618	1.80	100	
960	1124	619	1.82	1045	617	1.69	93	
1961	1167	619	1.89	1506	811	1.86	98	
962	1555	812	1.92	1364	809	1.69	88	
1963	1577	811	1.94	1347	808	1.67	86	
964	1586	812	1.95	1261	814	1.55	79	
965	1486	813	1.83	1359	810	1.68	92	
966	1475	809	1.82	1385	806	1.72	95	
967	1408	810	1.74	1325	810	1.64	94	
1968	1389	813	1.71	1373	812	1.69	99	
1969	1758	973	1.81	1672	973	1.72	95	
970	1698	971	1.75	1629	973	1.67	95	
1971	1613	972	1.66	1512	966	1.57	95	
1972	1619	930	1.74	1535	929	1.65	95	
1973	1745	971	1.80	1702	972	1.75	97	
1974	1848	972	1.90	1747	973	1.80	95	
1975	1859	971	1.91	1851	963	1.92	101	
1976	1742	972	1.79	1717	967	1.78	99	
1977	1724	972	1.77	1986	1131	1.76	99	
978	1683	971	1.73	1935	1131	1.71	99	
1979	1669	971	1.72	1962	1128	1.74	101	
1980	1689	973	1.74	1920	1132	1.70	98	
1981	1138	644	1.77	1166	750	1.55	91	
982	1684	972	1.73	1768	1135	1.57	91	
1983	1758	974	1.80	1831	1135	1.61	89	
1984	1674	971	1.72	1853	1134	1.63	95	
1985	1621	971	1.67	1803	1132	1.59	95	
1986	1670	969	1.72	1780	1134	1.57	91	
1987	1567	971	1.61	1731	1134	1.53	95	
1988	1578		1.62	1665		1.47	(+	
1989	1610	973	1.65	1742	1133	1.54	93	
1990	1516	972	1.56	1664	1133	1.47	94	
1991	1504	960	1.55	1627	1134	1.43	93	



John Stone's Batting Streak

A bookkeeping error only recently corrected

John Thom

If you look closely at the list of longest consecutive game batting streaks, you'll see that three new ones have been added to the list in recent years. Ty Cobb, with 34 straight in 1912, Hal Chase, 33 in 1907, and Nap Lajoie, 31 in 1906, are now properly recorded.

Look more closely and you will see that one streak no longer appears. John Stone did *not* bat safely in 34 consecutive games for the Detroit Tigers in 1930 as baseball record books reflected for more than sixty years. His streak was only 26 games. Through a bookkeeping oversight, a hitless game on July 12 did not appear on Stone's official day-by-day data sheet for that year. The record showed his streak beginning seven days earlier, on July 5, and continuing through August 9. The streak ended on August 10 when he failed to hit in five at bats.

News reports indicate clearly that Stone went hitless against Alvin Crowder of the Washington Senators in the first game of a doubleheader on July 12. He singled in the second game of the day, the first of a long hit streak, but not one of 34 games.

The source of the error regarding the July 12 game is uncertain. It appears, however, that in tabulating game reports for the season, a statistician recorded Stone's July 12 activity as only one game, the one with the hit, and not two games. Satisfied when he noted that Stone played a game on that date, the statistician moved on to July 13. Stone's hitless game was not entered into the record and a review after the season therefore showed he had hit in 34 games in a row.

Contemporary reporting made no mention of Stone's streak passing 30 games or reaching 34 as might be expected. In a curious twist to the story, coverage at the time was also mistaken about his real streak. When it came to an end on August 10, Stone was credited with hitting in 27 straight games. In fact, he hit in only 26 consecutive games. It is unclear why the one-game difference appears in the baseball coverage.

It is surprising that no one seemed bothered by the discrepancy between a 27-game hit streak, as reported during the season, and a 34-game hit streak credited to Stone after the official averages were in. The Howe News Bureau of Chicago (official statistician for the American League) was probably satisfied that the records were accurate, because it clearly did no cross-checking against reports from the season.

Baseball researchers today know that official records from the past are sometimes defective. That same year official American League averages showed Lefty Grove leading all pitchers in earned run average with a mark of 3.00. Not so. His correct ERA was 2.54. A simple error in tabulating earned runs for Grove raised his total incorrectly from 82 to 97. The same thing happened to his strikeout total for that year. The official record shows 214; his correct total is 209. Many years passed before these errors were discovered and corrected. The same carelessness afflicted the official records of John Stone.

The July 12 mistake was not the only error in Stone's 1930 record. His official day-by-day data sheet reveals that the same mistake was also made for a Tiger double-header played on May 19. In that twin bill, Stone pinch

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hit in the first game and singled. His appearance is duly noted on his sheets.

He also played in the second game, going 0-4. That appearance, however, is not shown in chronological sequence in his official record, but rather as an addendum at the end of the record. Only when his official record was completed and his second appearance of May 19 was detected did it get added to the end of the sheet.

Because American League record keepers didn't catch their similar error with the July 12 twinbill, Stone's hit streak was inaccurately carried in the record book for decades at 34 games.

No unusual attention was paid to the streak while it was underway. There were several hitting streaks in excess of 20 games early in the "Year of the Hitter," so one more would not have been particularly noteworthy. Moreover, the Tigers themselves had the guy who had already rung up the season's longest streak. First baseman Dale Alexander had hit in 29 straight games before his string ended on July 19, obscuring Stone's lesser mark.

There is no telling why *The Sporting News* called Stone's hitting streak a 27-game skein rather than 26. One explanation is that in reviewing games beginning with the nightcap of the July 12 doubleheader, when Stone's streak actually began, someone mistakenly counted one of two games that Stone sat out. Bucky Harris, Detroit manager, twice put Stone on the bench against tough pitchers. On July 20, Stone was rested against Lefty Grove of the A's, and then again on July 28 he sat out against Clint Brown of the Indians.

When Stone's streak finally ended and note had been taken of his hot hitting, Sam Greene, writing in *The Sporting News*, said, "One of the principal factors in the recent spurt of the Tigers has been the bat of Jonathan T. Stone, slender outfielder from Mulberry Bend, Tenn. He hit safely in 27 successive games and his batting average jumped more than 30 points before he was held hitless in Boston Sunday (August 10)."

In the same August 14, 1930, issue of *TSN*, in the game coverage and box score columns, the paper said, in reference to the August 9 games, "Stone has now hit safely in twenty-seven consecutive games."

Elsewhere in the same paper, in the "Caught on the Fly" feature, it said, "When Jonathan Stone of the Detroit Tigers doubled to score two runs in the sixth inning against Boston, August 9, he practically cinched the game for the Tigers, who won by a score of 3-0. At the same time, he also prolonged his streak of consecutive hitting to 27 games."

The source for these three distinct mentions in *The Sporting News* may have been one writer who made a mistake of one game. But it is important to note that nowhere at the time was any mention made of a streak longer than 27 games—certainly not 34. A streak of 34 straight games would have made for some juicy headlines, because the American League record at that time was George Sisler's 1922 41-game streak. In any event, the record book is now corrected for an important table of baseball achievements.



On May 11, 1923 Pete Schneider hit five home runs and a double, driving in 14 runs, as Vermon (PCL) defeated Salt Lake City, 35-11. The home run and RBI totals are organized baseball records. Schneider, a lame-armed ex-pitcher for the Reds, was 6 for 8. Six other players hit home runs in the game, including Vermon outfielders Ping Bodie and Andy High, and first baseman Sam Leslie and outfielder Paul Strand for the home team.

Did the rarified Utah atmosphere have anything to do with Schneider's record? Anecdotal evidence is impressive. Five days later the two teams again hit a total of 11 home runs in a 14-11 Vernon victory. This time Schneider was on a schneid. Salt Lake third baseman hit two, but shortstop Tony Lazzeri was 0 for 4.

Al Kermisch

The Day Phil Marchildon Didn't Pitch

Mr. Mack's sense of fair play caused a tempest in a teacup at the end of the 1949 season

Ed "Dutch" Doyle

The year 1949 was not a good year for Phil Marchildon: a bare sixteen innings of pitching, an ERA of 11.81, and an 0-3 record.

Yet, Phil was notably involved in the pennant race between Boston and New York. Connie Mack put Phil in the spotlight when he pitched him against Boston early in September, and Phil got shelled in the first inning. This prompted Mr. Mack to say, "Since we started Phil against Boston, we are bound to pitch him against New York."

This appeared to be of little concern, as the Yankees had a comfortable three-game lead on September 21st. But Joe DiMaggio was ill with pneumonia, and even though New York had great pitchers in Ed Lopat, Vic Rashi, and Allie Reynolds, they went into a tailspin and dropped four straight, three of them to Boston, which put the Red Sox in first place by one game. Boston had nine straight wins and twenty-one in a row at home.

Each team had five games to play. The Yanks had three games with the A's and two with Boston, all at home.

Mack announced his starting pitchers for the Yankee series. He would start Art Fowler, Joe Coleman and—true to his word—Marchildon, in that order. This did not set right with Boston fans, who knew that A's rookie Alex Kellner was a twenty-game winner with good success against New York. They thought he should pitch.

The A's didn't play dead. Fowler failed in the first game, but Bobby Shantz pitched 5-2/3 innings of shutout ball in relief as the Yanks won, 3-1. The Red Sox remained one game up.

In the second game, Coleman was losing 4-0 when the A's exploded for five runs in the seventh to go ahead. Mack brought in Kellner, who lost the game, 7-5. Meanwhile, Boston lost to Washington in the ninth, 2-1. The pennant race was tied.

Thursday, September 29th would be Marchildon's showdown game, but it rained, and the game was switched to Friday. Mr. Mack became ill and had to return to Philadelphia, which put his son, Earle Mack, in charge of the team.

There are two versions of what happened next. The first appeared in Art Morrow's column in the Philadelphia *Inquirer* on Friday morning. Morrow revealed the A's would be switching starting pitchers from Marchildon to Fowler, because Earle Mack claimed the club was being inundated with mail, letters and telegrams, charging that the A's were throwing the pennant to the Yankees by pitching Marchildon.

The other was slightly different. It was rumored that one of the A's players sent a ball to the Yankee clubhouse for autographs. The ball supposedly returned with everyone's signature—except DiMaggio's. This supposedly angered the A's, who vowed to win this game, and switched pitchers to give themselves a better chance. Whichever version is right, Art Fowler beat the Yanks 4-1 on a four-hitter, backed by homers by Sam Chapman and Ferris Fain. Boston defeated Washington, and the Red Sox moved back into first place.

It didn't last. DiMaggio returned to the lineup, the Yanks swept their final two games with Boston, and New York headed to the World Series against Brooklyn.

A Home Run by Any Measure

The Baseball Players' Pension Plan

Charles W. Bevis

As your father shaved each morning with a Gillette safety razor and you watched the World Series in black & white on NBC-TV back in the 1950's, you probably never thought you were making it all possible for your favorite player to collect a pension check when he retired from baseball. But you were!

The Major League Baseball Players Benefit Plan might appear to be a less lively topic than the \$23.5 million contract for Jose Canseco's services with the Oakland A's (and now the Texas Rangers). However, the intertwining of TV revenue with baseball operations was pioneered through the development of the players pension plan. To a large degree the genealogy of escalating TV revenue to make possible Canseco's multi-million dollar contract begins with the establishment of the pension plan back in 1946.

The seemingly dull and boring pension plan has helped to shape this phenomenon and other events which have changed the face of baseball history. Without the pension plan we also wouldn't have witnessed the ill-fated experiment of two All-Star Games each year from 1959-62. In addition, pension plan negotiations had a direct relationship to the players' 1969 boycott of

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spring training and 1972 season-opening strike, with a minor role in the 1985 in-season strike.

Negotiations in 1972 regarding the pension plan actually had an impact on who won the American League Eastern Division title. Stalled talks cased the first widespread work stoppage during a baseball season, as the spring training strike drifted into the regular season. As a result, the Boston Red Sox lost the American League East title by half a game to the Detroit Tigers, even though both teams had the same number of losses.

Red Sox shortstop Luis Aparicio has been labeled the "goat" of this Boston shortcoming, for his two stumbles rounding third base in the crucial final series with the Tigers. However, the real "goat" was the owners' decision to cancel enough games once the pension negotiations were concluded so that the Red Sox wound up playing one less game than the Tigers!

The current plan—Today, it is an understatement to say that the Major League Players Association has been very successful in its collective bargaining endeavors for pension benefits with the owners of the major league baseball teams. The pension plan has an extremely generous benefit formula by pension industry standards, providing the maximum benefit permissible under federal law of \$90,000 per year (or 100 percent of the last season's pay, if less) to a member with ten or more years of major league service. This sum is payable to the player for his lifetime, and there are various contingencies for continuation of benefits to spouse and beneficiary after death.

Unlike most corporate pension programs, which typi-

cally gear pension levels to a member's pay, baseball's plan is based strictly on service. If you've got ten years of service, you get the maximum whether you're a superstar, a utility infielder or a bullpen coach. This averages out to an expected pension of \$7500 per month for today's tenyear player still in the game.

Like all baseball facts and statistics, the \$90,000 maximum pension does need to be put into perspective. For a player to receive this sum at retirement, he must have had active service during or after the 1970 season, have had ten years of playing time, and wait to draw his pension at age 62. Also, the salary in his highest three consecutive years of service must have averaged \$90,000 a year.

While attainable for the current player, the \$90,000 maximum benefit has been received by few players to date. The average pension payment in 1987 was just \$13,593. Many players begin receiving their pension before age 62, and many left the majors before 1970, when benefit levels were lower than today's program.

Regular payment begins under the plan at age 62, but payments can be received as early as age 45 at a reduced level to account for the longer period that benefits will be received. A member with ten years of service would still get about \$35,000 annually at age 50 or about \$2875 per month. Vesting is extremely rapid, as a player with as little as forty-four days of major league service can now qualify for a pension payment.

To fund these benefit levels, the owners contribute substantial sums each year. The settlement of the 1990 spring training lockout involved an increase in the owners' annual pension contribution from \$39 million to \$55 million. These sums are tax-deductible by the owners as long as the pension plan continues to conform to a complex set of federal pension laws and regulations.

As with many labor-management negotiations, though, it wasn't always this way.

A pension plan for any group of professional athletes has its own special challenges. Athletes today are highly paid, creating a need for deferred compensation programs with high benefit levels. But the working career of an athlete is usually quite short, compared to other occupations, creating a need for shorter vesting schedules and earlier distribution dates. This contribution forces a shorter funding period than would be typical for a normal corporate pension plan, creating higher costs for the plan sponsor.

Baseball players create an even bigger administration challenge—keeping track of major league service. As anyone who follows the New York Yankees' exploits with its Columbus, Ohio minor league team can appreciate, keeping track of major league service can be a major league headache!

Baseball lives by the Law of the Survival of the Fittest. As a player's physical skills deteriorate in his later playing days, younger players will replace him. There is no implied contract of perpetual employment. However, with no preparation for another career, players often drifted from one job to another or tried to make money off their former stardom, a situation that many found hard to cope with.

The beginnings of the plan—Baseball's pension plan was established in 1946 to take effect on April 1, 1947. Business Week magazine heralded the new program by writing, "Tear-jerkers in the Sunday supplements about once-great baseball players going to the poorhouse will be scarcer and scarcer from now on. Hereafter, there will be pensions for the tired wheelhorses that the big leagues turn out to pasture."

There may have been a twinge of sentiment to take care of aging players, but the real reason the owners agreed to establish a formal pension plan was to avoid a players union, a topic then being trumpeted by Robert Francis Murphy as he attempted to make his American Baseball Guild a success.

A "special joint committee" was established in July 1946 to discuss the first changes in the player contract in several decades. Larry MacPhail, president of the Yankees, was the key participant on the committee, along with team owners Phil Wrigley of the Cubs, Tom Yawkey of the Red Sox and Sam Breadon of the Cardinals. Player representatives were also chosen by the committee to meet with it.

Johnny Murphy was the American League spokesman and Dixie Walker represented the National League, while the committee also asked Marty Marion to join the pension discussions. The choice of Murphy and Walker could be construed as meeting the committee's needs. Both players were ten year veterans nearing the end of their careers who might be expected to "go along" with the owners to obtain a pension.

In August 1946 the committee issued its report to the Commissioner of Baseball Happy Chandler. The report's recommendations included establishing the pension plan, as well as the first minimum annual salary of \$5000 and the first spring training expenses of \$25 per week. This seemed to quell player discontent and Murphy vanished as a baseball labor organizer. As noted, though, in Tony Lupien and Lee Lowenfish's book *The Imperfect Diamond*, "because the pension was established by the owners as a sop to forestall player unionization, it would

regularly become an area of great controversy every five years when it came up for renewal."

The pension plan was established on a five-year trial basis and was funded initially with insurance contracts through The Equitable Life Assurance Society. While no longer the sole source of funding for the plan, now over \$475 million in size, Equitable in the 1980's sponsored a series of Old Timer Baseball Games, using the marketing strength of its initial association with the plan. Equitable's sponsorship was dropped in 1990 to save the financially troubled insurer a \$5 million annual expense.

Initially, the benefit formula was set at \$10 per month per year of service, payable at age 50. Five years minimum service was required to be eligible for a pension, and—as now—a maximum of ten years was to be taken into account for calculating the pension amount. A tenyear player therefore would receive \$100 per month at age 50, in stark contrast to today's \$2875 monthly level for a similarly situated player.

The graph on the final page of this article illustrates the dramatic increase in pension benefit levels since the plan's inception in 1947.

As a "defined benefit" plan under the law, funds are set aside on an unallocated basis and used to provide the promised benefit levels to the plan members. This is in contrast to a "defined contribution" plan where funds are set aside according to some formula and segregated in individual member accounts, but without any promise as to level of monthly benefit that might be obtainable from that account.

Where the money came from—Players were required to contribute \$250 per year to be included in the plan. Each team matched its players' contributions, but in an unusual move by pension industry standards, the employers did not provide the majority of the additional funding required to support the benefit levels in the plan—customers and vendors would directly contribute to the players' pension fund.

Proceeds from the annual All-Star Game and receipts from the sale of broadcast rights for the World Series also were designated to go towards the pension plan. This is akin to having factory tours and suppliers fund employee pensions rather than the employer. Initial funding for the plan was estimated to be \$675,000, including a three-year deal for the pension plan that Commissioner Chandler negotiated which paid \$150,000 for World Series radio rights.

Actually, the idea of using gate receipts from the All-Star Game to go towards player needs was not exactly new in 1947. When the All-Star Game was first con-

ceived back in 1933 by Chicago Tribune sports editor Arch Ward, it was primarily as an attraction for the Chicago World's Fair. However, the game's net proceeds of \$46,000—including \$5,000 in radio rights paid by CBS—went to the Association of Baseball Players of America to help indigent players who had found themselves without resources in those trying days of the Great Depression. The ABPA was a purely charitable group, though, collecting dues for use in emergencies for former players who were aged or needy.

Using the sale of broadcasting rights to the World Series to fund the pension plan was an easy way out for the owners, as the money didn't come directly out of their pockets. However, the owners failed to anticipate the impact that the media would have on baseball in the future, and the vast amount of revenue it would represent.

Eligibility problems—To be eligible for the original plan, you had to be a player or coach on a major league roster as of April 1, 1947 (managers weren't included until later). This cutoff date created a number of inequities for those long-service ballplayers lucky enough to procure a roster position.

One example of such a beneficiary was reported by *The Sporting News* to be Joe Judge, who had played from 1915 to 1934 but returned from private business to be a coach for the Washington Senators for 16 months in 1945 and 1946. This got him on the April 1, 1947 roster even though he didn't coach in 1947. Judge was therefore eligible for a pension and following the pension improvements negotiated in 1957 began collecting \$510 per month at age 63 until he died in March 1963.

In his autobiography Hank Greenberg: The Story of My Life, Greenberg recounted a story of another such beneficiary, 36-year-old catcher Billy Sullivan. Greenberg says he advised Sullivan that for \$250 he could cash in on the pension plan. When Sullivan told Greenberg that he didn't think any team would want him at that stage of his career, star Greenberg persuaded the Pirates, who had just acquired him from the Tigers, to sign Sullivan as a third string catcher for the 1947 season. Appearing in 38 games, 25 as a pinch hitter, Sullivan batted .255 for the last place Pirates backing up Dixie Howell and Clyde Kluttz at catcher. More importantly, he was afforded the opportunity to apply his previous 11 years of major league service going back to 1931 towards a pension.

Many other veteran players during the playing days of Sullivan and Judge, such as Babe Ruth, weren't eligible for a pension because they weren't in the right spot when the plan was instituted.

In 1950, Commissioner Chandler sold the TV-radio rights for the World Series and All-Star Game to the Gillette Safety Razor Company for \$1,000,000 per year over the next five years to increase funding in the pension plan. This was partly in response to the need to fund the benefit for the widow of ten-year veteran Ernie Bonham, who had died at age 36. It turned out there wasn't yet enough money in the program to fund this benefit!

"Good faith"—Growth of pension plans was spurred by the 1949 Supreme Court decision in *Inland Steel vs. National Labor Relations Board* which mandated that employers bargain in good faith with unions over pension benefits. With baseball owners having established the pension plan prior to the Supreme Court decision and putting in other compensation reforms, the players had no pressing need to establish a union to help them. They were negotiating with team owners on the pension issues without the benefit of a formal bargaining agent. They had only the assistance of the Baseball Commissioner.

As a result, the players were repeatedly rebuffed by the owners when they inquired about the pension plan, if only to get a simple accounting of the fund.

Whose money is this, anyway?—Fred Hutchinson and Marty Marion appeared at an owners meeting during the 1950 World Series to make some inquiries about the pension plan. They met with no success. Contributing to the players' predicament was the 1951 resignation (or firing) of Commissioner Chandler, who was known to be sympathetic to the players' interest in maintaining a good pension. (Chandler's negotiating skills apparently could have used some strengthening, though, as Gillette reportedly turned around and cut deals with the Mutual Broadcasting System and NBC for the TV and radio broadcasts to garner it a profit on the \$1 million it had paid Chandler.)

Allie Reynolds and Ralph Kiner, who succeeded Murphy and Walker as league reps, appealed again to the owners at a meeting at the 1953 All-Star Game for an accounting of the pension fund. Again to no avail. The players then decided to get some professional assistance, and hired J. Norman Lewis to serve as a liaison between players and owners. There was only one problem with this tactic—the owners refused to talk to Lewis!

In November 1953 when the U.S. Supreme Court ruled in *Toolson vs. New York Yankees* to uphold baseball's 1922 anti-trust exemption as a legal monopoly, successful bargaining with the owners was no longer assured. A continuing troublesome relationship over the pension plan was probably also guaranteed.

With its monopoly reaffirmed, the owners dug in.

Lewis did get in to a December 1953 owners meeting in Atlanta, but reported the owners' response on the pension accounting issue as "what business is it of the players? It's not their money."

This was in fact a true statement—it wasn't the players' money. At the time, there was a misunderstanding among the players that there was actually a "pension fund" that the contributions went to. It's a requirement today that there be a trust to hold the pension money, but there was no such requirement then. The pension money was in reality part of the Commissioner's "central fund" which paid for expenses of the office among other things as well as pension costs.

Ford Frick, who succeeded Chandler as Commissioner, finally broached the issue publicly in 1954. "It's not a pension fund", *The New York Times* reported Frick saying. "In 1951 it was agreed to continue the pension plan for a second five-year period ... upon the definite understanding that all proceeds from radio and television and gate receipts would belong to the clubs and be paid into the central fund."

To forestall further player inquiries, the Commissioner sent a booklet to each player explaining the plan provisions and the status of the plan's funding. A true pension fund would shortly be established.

The players organize—Not surprisingly, the Major League Baseball Players Association was then formed in 1954 to represent the players. Bob Feller was chosen as its first president.

Facing a \$2.3 million past-service cost in 1954 (the cost to fund pre-1947 service) the owners threatened to terminate the pension plan in an attempt to gain some leverage in negotiations with the newly-formed players' union. A new owners' pension committee was formed in 1954 with John Galbreath, owner of the Pirates, and Greenberg, now general manager of the Indians.

Lewis was able to negotiate a compromise to have 60 percent of the national radio-TV revenue from both the World Series and All-Star Game go towards the pension plan with the past-service costs being paid by the end of 1955. A five-year contract was negotiated in 1956 for \$3.25 million annually for these telecommunications rights.

With this increased funding, the benefit formula was increased in 1957 so that a five-year player would receive \$88 per month at age 50 (up from \$50) and a ten-year player \$175 per month (up from \$100). Additional credits were provided for ten to twenty years of service such that a twenty-year player would receive \$275 per month at age 50. Changes were retroactive for all past service under the plan.

To illustrate the pension increase, *The Sporting News* used catcher Rollie Hemsley as an example of the windfall that some former players enjoyed. Hemsley played 1593 games over 19 seasons in the majors with seven teams, including two games in 1947 with the Phillies, which qualified him for the pension plan. Under the former formula, Hemsley would get \$100 a month at age 50, which would be that coming June. With the improved formula, he'd now get \$265 a month. Those two games in 1947 really paid off!

The extra All-Star Games—In 1959 rather than tinker with the 60 percent figure, it was decided that a second All-Star Game would be added that year to generate additional revenue for the pension fund.

A second All-Star Game was approved in early May of 1959 and was hastily arranged to take place in Los Angeles in August, following the already scheduled July exhibition at Forbes Field in Pittsburgh. The 1959 All-Star contest in Los Angeles was the only such non-July game until the strike-rescheduled 1981 game.

In 1960 the games were played two days apart in the traditional early July time slot, as players played first in Kansas City and then trekked east to Yankee Stadium for the second game. This proved unpopular with the players, so in 1961 the two games were scheduled three weeks apart, in early and late July.

The games started to appear snakebit, as high winds at San Francisco's Candlestick Park in 1961 blew Stu Miller off the mound. Then the only tie in All-Star history occurred when rain canceled 1961's second game at Boston's Fenway Park after nine innings with the score knotted 1-1. The All-Star Game has never returned to Boston in the 30 years since.

After a fourth year of two-a-season All-Star Games the concept proved unpopular with the fans as the second contest served to dilute the impact and exclusivity of the mid-season classic. By mutual consent, the second game was shelved after the 1962 season, with the owners agreeing to devote to the pension fund 95 percent instead of 60 percent of the gate and TV revenue from the All-Star Game.

The beginning of the Miller era—There were substantial benefit improvements negotiated in 1962 by Lewis successor Robert Cannon, such that a five-year player would receive \$125 monthly at age 50 and a ten-year player \$250 monthly at age 50.

The plan was getting pretty good now. As Jim Brosnan wrote in his 1962 book *The Pennant Race*, the plan helped ease the frustrations of defeat as a player could now say "Well, at least it's one more day in the pension

plan." It also spurred the challenge as "we all went out to see if we could play well enough to merit the privilege of staying around to collect."

Not everyone was happy with the improvements, though. This was the first time that benefit improvements weren't extended to service back to the 1947 inception of the plan. Frank Crosetti and John Schulte filed suit on behalf of some 300 old-time players not fully included in the increases. Norman Lewis was their attorney.

But the big turning point for the pension fund came in December 1966 when newly hired MLBPA executive director Marvin Miller negotiated new concepts and a large funding increase for the players' pension fund.

Miller was an experienced labor negotiator, particularly in pensions, and he was the first permanent head of the MLPA. When he started, there was virtually no money in the union treasury to pay him. The owners had informally (and illegally) been paying a stipend to the former union advisors out of the remaining proceeds from the All-Star Game. They balked at funding an implacable adversary like Miller.

Miller got the owners to guarantee 100 percent of the pension benefits without any player contributions (then \$2 per day of the season, or \$344 per year) in exchange for the right to a voluntary check-off for union dues to fund his office in the amount of \$344 per year per player. The owners apparently believed the players wouldn't fund Miller if their pension was fully guaranteed, but they were quite wrong—only one player didn't go along at the beginning of the 1967 season.

Benefits doubled over their previous levels. Now a ten-year player received roughly \$500 per month at age 50, or just under \$1300 per month if he waited until age 65 to collect.

The second conceptual change that Miller brought into play was the scrapping of the 60/40 split of the radio-TV revenue from the World Series and All-Star Games. In replacement, the pension contribution would be a flat lump sum of \$4.1 million per year over the term of the labor contract. Miller suspected that perhaps owners were monkeying with the allocation of revenue in the total radio-TV contract, slanting it towards Game of the Week telecasts, which went straight to the owners' accounts, and shorting the share allocated to World Series and All-Star games, which went to the pension fund.

The stakes were getting bigger now. NBC and Gillette would pay \$6.1 million in 1967 and \$6.5 million in 1968 for these radio-TV rights. From here it would only escalate. And the negotiations would get more dicey.

While the pension fund may not have been receiving its "fair share" of the TV revenue, Miller's tactic to ne-

gotiate a flat pension contribution in 1967 posed a long-term risk, as it severed the direct linkage to the TV revenue. Future contribution increases might be tougher to negotiate. And other issues would cloud the pension discussions, such as testing the mettle of the MLBPA and its members.

Labor strife begins—The boycott of the spring training camps by the players in February 1969 eventually resulted in an agreement whereby the annual pension contribution was increased to \$5.45 million and players would be eligible for a pension after four years rather than five. (Miller had calculated that 59 percent of all players never qualified for a pension under the five-year rule.) Benefits were increased so a ten-year player would receive \$600 monthly at age 50. Changes were made retroactive only to the 1959 season, which spurred Allie Reynolds to file suit to have improved pension amounts given equally to active and retired players. This action was dismissed in court the same day as the conclusion of the 1969 pension negotiations.

The pension contribution was about one-third of the \$16.5 million the owners received in 1969 from NBC in TV revenue for the Game of the Week, All-Star Game and the World Series. Income rose dramatically, though, to \$70 million with the 1971 TV contract, and the owners balked at funding pension increases commensurate with this rise in TV money.

With no success at the bargaining table, the players voted 663-10 to authorize a strike. Miller offered to have the impasse submitted to binding arbitration to reach a settlement before the start of the regular season, but was rebuffed by the owners. On April 1 players walked out of spring training camps and the strike spilled over into the regular season—a baseball first—to demonstrate dissatisfaction with the owners' unwillingness to add fair cost-of-living increases to pension benefits.

Roger Angell in his book *Five Seasons* aptly described the sense of the times. "The owners declared any accommodation to be an absolute impossibility until a total of eighty-six games and several million dollars in revenue had drained away, whereupon they compromised, exactly as they could have done before the deadlock set in. A last-minute modicum of patience on both sides might have averted the whole thing, but not everyone wanted peace."

The owners eventually agreed to fund these increases from \$500,000 of investment gains in the fund's securities, after a thirteen-day strike by the players which ended on April 13. The agreement was held up by a discussion over paying players for made-up games or just resuming the season at its point with no back-pay. Sadly,

the owners' frugality won over, with the players indifferent to the "sanctity of the season".

It was "an unpleasant, but relatively insignificant affair, caused by the owners' refusal to arbitrate a minor pension issue," as Angell put it. Some twenty years later it seems an odd issue for the owners to take a strike over. But there was the solidarity of the MLBPA to test.

The alleged Curse of the Bambino struck the Boston Red Sox once again that season as the Sox lost the American League Eastern Division title by a half game due to the uneven number of games played by each team. At least ten-year player Luis Aparicio would get a higher monthly pension under the new agreement to assuage his "goat" label and the memories of titles lost.

The 1972 strike did not even occur during the regular pension negotiations, which took place in 1973, when the owners agreed to kick in higher annual contributions of \$6.15 million in 1973-74 and \$6.45 million in 1975. A ten-year player would now receive a \$710 monthly pension at age 50. But the negotiations now centered almost exclusively around money—contribution levels, not benefit levels. After the contribution was worked out, benefit increases were computed later.

The renegotiation of the pension agreement in 1976 was marred by the owners' seventeen-day spring training lockout over the issue of free agency following the Messersmith Decision. The owners eventually agreed to an \$8.3 million annual funding level, which produced more increases in benefit levels.

Contributions increased to \$15.5 million in the 1980 pension agreement, although free agency was left unresolved, and led to the 1981 in-season strike. Players received in-service credit for time lost during the strike to count towards pension benefits.

This contribution level jumped dramatically with the 1985 pension negotiation following a brief two-day inseason strike primarily over the salary arbitration issue. Owners would pay \$25 million retroactive for 1984, \$33 million during 1985-1988 and \$39 million in 1990. Current benefit levels were established retroactive to the 1975 season and pre-1975 retirees got a 40 to 50 percent increase in their benefit levels.

Revenue from television was now jumping to incredible heights and continued linkage with the pension fund contribution levels was hard to justify. Baseball's television package for six years from 1984-89 with NBC and ABC generated \$1.1 billion. CBS will be paying baseball just a shade under this for four years from 1990-1993.

A \$55 million annual pension contribution level resulted from the 1990 pension talks.

Although apparently well-funded, the players' pension plan is not perfect. Minor league playing time is still not

covered, for example. There is also the continuing issue of improved benefits to retired players. Hall of Fame pitcher Early Wynn has been outspoken on this issue. After the 1985 pension negotiations, *Sports Illustrated* reported that Wynn boycotted the induction ceremonies at Cooperstown because he was so disgusted with how the old-timers were treated in the pension increases.

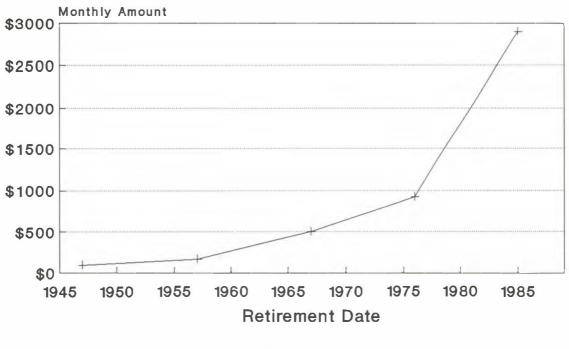
"Modern ballplayers tell us, 'Too bad, you should have invested better,'" fumed Wynn. "But on salaries of 10 thousand to 15 thousand dollars a year, how many investments could you make? They could at least triple the pension for the old guys and give us hospitalization."

The argument from the MLBPA perspective is that earlier players paid little or no union dues and did not have to endure the emotional and economic hardships of the strikes that resulted in pension improvements.

The issues get touchier as the federal maximum on benefit levels increases with the cost-of-living. The maximum is up to \$102,582 from the highly publicized \$90,000 level of 1985.

And how are all these generous benefits financed? The pension fund now totals \$475 million and is largely invested in the stock market. An article in *The Wall Street Journal* during 1986 entitled "Plump Pensions in Baseball Are Source of Envy", discussed how the pension committee left the stock picking to seven money managers. Providing some sound advice on two fronts, the article quoted one pension committee member as saying "We aren't like Mr. Steinbrenner. We pick the managers and let them play."

MAJOR LEAGUE BASEBALL PLAYERS BENEFIT PLAN



Diamond Ditty

A Tribute to Eddie Gold, Baseball Bard

Stew Thornley

Swat McCabe, Loren Babe, Jack Lamabe
Dick Pole, Fenton Mole, Baker Bowl
Cal McVey, Pea Ridge Day, Buckshot May
Bronx Cheer, Bottle Beer, Let's Take Two
and Get OuttaHere

Horace Clarke, Alvin Dark, Nicollet Park, Dutch Reagan, Bobby Bragan, Everette Fagan, Tim Foli, Gino Cimoli, Chris Codoroli Bing Miller, Chuck Hiller, Harry Coveleski the Giant Killer

Stew Bolen, Bobby Tolan, The Only Nolan Hank Bauer, Vic Power, Jaime Cocanower Bobby Lowe, Pongo Joe, Lou Boudreau Bob Bailey, Bill Dailey, The Duke of Tralee

Tommy Leach, Peek-a-Boo Veach, The Georgia Peach Jim Fairey, Ralph Terry, Marvelous Throneberry Jim Perry, Larry Sherry, Tony Lazzeri Eddie Bane, Ferris Fain, Called by Rain

Pine Tar Rag, Keystone Bag, Missed the Tag Bill Voss, Harley Boss, Bruno Haas Joe Torre, The Stratton Story, Frank Secory Bob Dill, Johnny Gill, Still Bill Hill

Les Moss, Lave Cross, Addie Joss Spaceman Lee, Diego Segui, Willie McGee for MVP Carmen Fanzone, Frank Malzone, Joe Pepitone John Henry Lloyd, Oil Can Boyd, Ken, Clete, and Cloyd Safe at Home, The Astrodome, Cannonball Titcomb Holy Cow! Charley Lau, Eric Show Clete Boyer, Charlie Moyer, Huck Sawyer Can of Corn, Around the Horn to Larry Milbourne

Rube Schauer, Fred Bruckbauer, Elmer Sexauer Norm Larker, Len Barker, Cobra Parker Heity Cruz, Long Tom Hughes, The Sporting News Big Klu, Little Stu, It's a Great Day to Play Two

Morganna, Texarkana, Preston Hanna Tom Seaver, Earl Weaver, Jim Lefebvre Charlie Hough, Dip of Snuff, Coogan's Bluff Harry the Hat, Eddie the Brat, Casey at the Bat

Steve Braun, Rocky Rhawn, Hippo Vaughn Yogi Вепа, Toby Harrah, Bernice Gera King Kelly, K. Y. Jelly, Joe Altobelli John Romano, Sixto Lezcano, Joe Pignatano

Gene Freese, Junior Ortiz, Chico Ruiz Rich Chiles, Warren Giles, Nelson Briles Bud Black, Stan Hack, Shane Mack Jesse Levan, Game Seven, Bert Blyleven

Bruce Hurst and Who's on First? Walter Bond and Ducks on the Pond Uncouth Babe Ruth and The Dukes of Duluth Jewel Ens and The Toledo Mud Hens

Stew Thornley (who says poetry is his life) found inspiration for this ballad from Eddie Gold's Baseball Rhyme Time, which appeared in the 1975 Baseball Research Journal. An author of several baseball books, Stew received the SABR-Macmillan Baseball Research Award in 1988 for On To Nicollet: The Glory and Fame of the Minneapolis Millers.

Cecil Cooper and Harry Hooper Dick Bartell and Enos Cabell Mark Grace and ElRoy Face Dave Pagan and Saberhagen

Hobe Ferris and Roger Maris Lou Brock and Joe Adcock Old Hoss and Hooks Dauss Boardwalk Brown and Cooperstown

Bill Virdon and Perry Werden Ron Reed and Horace Speed Jim Hardin and Greenberg's Garden Bob Horner and Kiner's Korner

Fred Lynn and Tony Gwynn Ozzie Guillen and Neon Deion Fred Lieb and Dave Stieb Mike Aldrete and Dave Righetti

Larry Gura and Robin Ventura Bill Dickey and Ed Halicki Pop Haines and Harold Baines Billy Sunday and Rick Monday

Homer Peel and Todd Zeile Rick Wrona and Tito Francona Frank Funk and Eric Plunk Neal Heaton and Jerry Don Gleaton

Bill Maz and Carl Yaz Emerson Dickman and Piano Legs Hickman Lawrence Ritter and Clean-Up Hitter Lee Elia and Frank Eufemia

When Steve Brye lost a Pop Fly in a Blue Sky George Brett won the batting crown Say Hey, Hal McRae Then muttered an unprintable noun

Tommy John, Noodles Hahn, Going going gone Grand Slam, Pete Hamm, Willie Kamm Penguin Cey, Spec Shea, Bama Ray Max Carey, Lyn Lary, Dan Quisenberry

Reb Russell, Barney Mussill, Charley Hustle Phil Mankowski, Ron Klimkowski, Moe Drabowsky David Clyde, Bake McBride, Pete Burnside Chubby Dean, Harvey Kuenn, Bill Dineen Bad News Hale, Larry MacPhail, Don Drysdale Johnny Keane, Lenny Green, Al McBean George Kell, Buddy Bell, Sulpher Dell Bob Veale, Jim Gentile, Monk Dubiel

Pop Dillon, Twin Killin', Joe Cantillon Eddie Dyer, Chris Speier, Stottlemyre Jim Kaat, Eddie Watt, Deacon Scott Hap Morse, Davey Force, The Iron Horse

Fred Stem, Arbiter Klem, Flint Rhem Paul Schaal, Halsey Hall, Camilo Pascual John Denny, Fred Tenney, Mike Kilkenny Grounds Crew, Vida Blue, Larripin' Lou

George Brett, Tom Poquette, Lew Burdette Don Lock, Wes Stock, Pete LaCock Lee Stange, Moustache Gang, Little Eva Lange Indy Clowns, Jerry Downs, Even the Browns

Rod Carew, Hub Perdue, Sam not Spiro Agnew Billy Cox, Nellie Fox, Toledo Sox Joe Foy, Dummy Hoy, Larry McCoy Del Crandall, Lenny Randle, Too Hot to Handle

Eddie Gaedel, Mel Parnell, Rube Waddell Don Wert, Tookie Gilbert, Figger Filbert Roberto Kelly, Lolich's Belly, Johnny Antonelli On Deck, Bill Veeck, Boom Boom Beck

Stan Hack, Connie Mack, Nestor Chylak Hugh Casey, Bob Lacey, Phil Masi John Boccabella, Roy Campanella, Joe Papparella Bones Ely, Bob Maneely, Egyptian Healy

Flatbush, Heinie Manush, Donie Bush Lee Maye, Hank O'Day, Commissioner Fay Prince Hal, Iron Man Cal, Barber Sal Brylcreem, The Winning Team, The Impossible Dream

Ken Penner, Bob Fenner, A Banned Steinbrenner Jim Frey, Andy High, Garland Buckeye Dick Sharon, Hank Aaron, Jerry Narron Burleigh Grimes, Glory of Their Times, End of the Rhymes



Control Pitching— A Learned Behavior

A mathematical equation models the process

Charles H. and Howard C. Stagg

Thorn and Holway have established the parameter Bases on Balls per Nine Innings, BB/9 Inn., as the unit by which to measure a pitcher's control. In their book *The Pitcher*, BB/9 Inn. is used to develop ranked listings of the best control pitchers in a single year (Christy Mathewson in 1913 and Babe Adams in 1920 are tied with 0.62 BB/9 Inn.), best control pitchers over a career (Pud Galvin is first with a 1.10 BB/9 Inn.), and control leaders for each year of the period 1901-1986 (this list includes Cy Young, Grover Cleveland Alexander, and Jim Bunning).

Thorn and Holway ask the question "How do you learn control?" and point out that learning certainly occurred in Jerry Reuss's case: in a nine-year period Reuss improved from worst control pitcher in the National League (3.80 BB/9 Inn.) in 1973 to second best in 1982 (1.60 BB/9 Inn.). It is safe to assume that Thorn and Holway were not seeking a physiological description of the various perceptual-motor skills that must be mastered so that a pitcher can throw the baseball where he wishes it to go. That type of answer is beyond the purview of statistical treatments. But, their question is a fair one; and, a thought provoking one. Indeed, what evidence is available and what can be inferred from baseball statistics that would indicate that control pitching is a learned behavior?

Psychologists and educators have investigated the phenomena associated with learned behavior. As a result of

ment then slowly approaches some limiting value, termed the assymptote, beyond which increased practice does not result in skill improvement.

Mathewson—Career control data for Christy Mathewson are displayed in Table 1. A plot of BB/9 Inn., calculated for each season, as a function of the cumulative seasons of play for Mathewson appears in Figure 1. If the number of errors committed is analogous to BB/9 Inn. and the time of practice is equated to the sum of the seasons of experience, then the appearance of this graph is similar to that of the psychologist's learning curves. This is Mathewson's learning-control curve. It is appar-

laboratory and field work, theories of learning have been

developed and various types of learned skills such as

speech and communication by Morse code have been

modeled by mathematical methods. In addition to the

generalization and extension of the concepts that the

mathematical modeling offers, evidences of causal relationships that would have been overlooked are

sometimes brought to light by the mathematical treat-

ments. Graphical displays of measures of success in

performing skills versus the time spent or effort expended

in practicing those skills are known as "learning curves."

The graph of the number of errors committed in perform-

ing some repetitious, but complicated, task will usually

appear as a downward sloping, exponential curve when

plotted against the amount of time spent practicing the

task. Early in the learning process the number of errors

and the rate at which errors are committed are greater

than in later periods. The value of the error measure-

Charles and Howard Stagg prepared this study as a father and son project. Charles is an environmental scientist who was never able to control his pitches. Howard is a pitcher—infielder on his high school baseball team. He enjoys science and mathematics.

that ent Mathewson made a conscious effort to reduce the errors, or bases on balls, he committed; and, it is obvious that he continued to improve as control pitcher throughout most of his career. There are three excursions from a smoothly curving line: the first in his seventh season, the second in his eleventh season. and the third represented by

lack of further improvement in his last three seasons. There is a plausible cause for Mathewson's loss of control

during his seventh season, the 1906 season. He was

taken out of the rotation after contracting diphtheria, a

Table 1. Career Control Data for Christy Mathewson

Season	Sum: Years	Innings	G(9inn.)	Sum:G(9 Inn.)	BB	BB/9 inn.	Log(BB/9 inn.)
1900	1	30	3.3	3.3	14	4.20	0.62
1901	2	336	37.3	40.6	97	2.60	0.41
1902	3	277	30.8	71.4	73	2.37	0.37
1903	4	366	40.7	112.1	100	2.46	0.39
1904	5	368	40.9	153.0	78	1.91	0.28
1905	6	339	37.7	190.7	64	1.70	0.23
1906	7	267	29.7	220.3	77	2.60	0.41
1907	8	315	35.0	255.3	53	1.51	0.18
1908	9	391	43.4	298.8	42	0.97	-0.01
1909	10	275	30.6	329.3	36	1.18	0.07
1910	11	318	35.3	364.7	60	1.70	0.23
1911	12	307	34.1	398.8	38	1.11	0.05
1912	13	310	34.4	433.2	34	0.99	0.00
1913	14	306	34.0	467.2	21	0.62	-0.21
1914	15	312	34.6	501.8	23	0.66	-0.18
1915	16	186	20.7	522.5	20	0.97	-0.01
1916	17	75	8.3	530.8	8	0.96	-0.02

previous two years. His control improved during the next three years, and in 1913 he equalled baseball's alltime best with 0.62 BB/9 Inn. The leveling of the learning-control curve during his last three seasons may be an

tion of the upper respiratract. tory Critically ill, Mathewson was judged by his physician to be near death. Although antibiotics were not available, Mathewson made a miraculous recovery and rejoined his team. The following season he seems to have displayed a level of control that would have been ex-

pected from an

bacterial infec-

BB 3 9 10 11 12 13 14 15 16 17 SUM: YEARS

Figure 1. Learning -control curve for Christy Mathewson

indication of the effects of father time; but this is the assymptotic portion of the curve and further improvement may not have been possible for Matty regardless of additional practice.

extension of the

from the data

points plotted for his fourth, fifth,

and sixth seasons.

record of illness

can be be found

as the cause for the slippage in

control during his

eleventh season.

Perhaps the intro-

duction of the new corked cen-

ter ball in 1910

was a contribut-

Mathewson did

throw 8 wild pitches in 1910,

two more than

the total of the

ing

factor.

historical

curve

learning

Koufax— Sandy Koufax's learning-control curve is shown in Figure 2. Rather than counting practice effort in seasons years, practice is counted in terms of games (9 Inn.) pitched. This substitution is preferable because a pitcher's season may be interrupted by injury, military service, or labor disputes. There are three phases to Koufax's learning curve: first, an initial phase covering 77 games over 6 seasons in which no real improvement in control was evident; second, a phase of rapid improvement with successive lowering of the

control parameter starting in 1961 and lasting through 1963 (a period of 83 games); and third, a phase characterized by a stable, or slightly increasing, value of the control parameter. In the spring of 1961 Norm Sherry suggested to Koufax that he should let up a little on the fastball to achieve better control. That Sherry's advice was followed is evident from the threefold reduction in Koufax's control parameter over the next 83 games.

Hidden relationships between dependent and independent variables are sometimes brought to light by selecting different or transformed expressions for the variables, by replotting the transformed variables so that a linear graph is derived from the data, and by conjecturing the meaning of the linear plot. In this case, because the control parameter BB/9 Inn. is a function of game (9 Inn.) experience, the dependent variable was renamed BB/G; and, the independent variable SUM: Games was changed to the Sum of Games, SG. The exponential portion of Mathewson's learning-control curve was linearized by transforming the dependent variable BB/G to Logarithm (BB/G), and then plotting these values against the Sum of Games, SG. The resultant straight line in Figure 3 was best fit using the methods of linear regression analysis. The fit of the line is good (the Rsquared value is 0.80), the estimated standard error of Log (BB/G) is 0.10, the slope of the line is -0.0013 and the vertical intercept is 0.53. The equation that represents this line is

$$Log (BB/G) = 0.53 - 0.0013 (SG).$$
 (1)

The general equation for lines of this type is

$$Log (BB/G) = Log (BB/Gi) - K(SG),$$
 (2)

Table 2. Linear regression values for best-fit transformed learning-control curve

Pitcher	Career Years	Log (BB/Gi)	Slope, K	Curve Fit, R2
Alexander	1-8	0.58	-0.0020	0.93
Bunning	1-12	0.59	-0.0015	0.75
Burdette	2-12	0.67	-0.0027	0.73
Koufax	4-7	0.80	-0.0049	0.96
Mathewson	1-14	0.53	-0.0013	0.80
Reuss	3-8	0.67	-0.0021	0.89
Roberts	1-5	0.63	-0.0036	0.99
Wilhelm	1-14	0.65	-0.0019	0.71
Young	2-15	0.48	-0.0010	0.83

where BB/Gi represents the initial control value and K represents the slope or rate constant.

How to make comparisons—Several interesting relationships come to light from this linear plot. First, given the goodness of fit, there appears to be a real dependence of the control parameter for any season upon the sum of games pitched prior to and including that season. Second, the straight line logarithmic

function indicates that learning control proceeds at a rate that is proportional to the current level of control attained. This type of kinetic behavior is known as first order or exponential law behavior. Third, the value of the vertical intercept must fairly approximate Mathewson's initial or rookie control capability. Fourth, the rate of improvement displayed by Mathewson is measurable by the numerical value of the slope of the best-fit line. In this case, the rate of improvement (K or rate constant) has an absolute value of (0.0013).

Using this analytical approach, it should be possible to objectively compare the rates of improvement among control pitchers. The approach toward this comparison is as follows: first, display career control data as shown in Figure 2 for Sandy Koufax; second, transform the exponential portion of the learning-control curve; third, calculate the slope of the best-fit line using regression analysis; and, fourth, compare the rate constants. Results of this approach for nine control pitchers with good fitting (R2 > 0.70) regression lines are displayed in Table 2. Among these pitchers Koufax has the largest K, -0.0049; and, Young has the smallest K, -0.0010. Koufax's K produces a steeply sloping line of short duration. Young's K generates a shallow curve of gentle slope over a large number of games pitched.

A plot of the negative rate constants, -K, versus the logarithms of the initial control values, Log (BB/Gi) for the pitchers of Table 2 appears in Figure 4. It is especially interesting to note that the value of the rate constant K for each pitcher is apparently dependent upon the logarithm of his initial control value BB/Gi at the point in his career where he consciously began to improve control. The rate constant K is, in fact, independent of the identity of the pitcher and is dependent only upon the values

of BB/Gi and (SG). This is an unexpected finding. Linear regression curve fit for K yields this general equation:

$$K = 0.0048 - 0.011 \text{ Log(BB/Gi)}.$$
 (3)

Recall that the general transformed equation for a particular pitcher was

$$Log (BB/G) = Log (BB/Gi) - K(SG).$$
 (2)

Substituting this general expression for K results in a logarithmic equation for the control parameter which is a function of the initial control value and the sum of games pitched. This expression

$$Log (BB/G) = Log (BB/Gi) - (0.011 Log (BB/Gi) - 0.0048) (SG)$$
 (4)

is independent of the identity of the pitcher and holds for the "composite" pitcher represented by the nine control artists.

The process of learning control pitching can be mathematically modeled as a first order kinetic reaction: the control parameter, bases on balls per nine innings, decreases exponentially when plotted as a function of the sum of games pitched. Graphical representation of this

functional relationship is called a learningcontrol curve. This exponential curve can be linearized by logarithmically transforming the control parameter. The slope of the resultant straight line is termed the rate constant. Based upon career data from a limited number of baseball's best control pitchers, a general equation for Log (BB/G) was derived as a function of the initial control value BB/Gi and the sum of games pitched.

This mathematical model suggests that every pitcher displays a characteristic kinetic rate constant that represents how rapidly he is capable of improving his control. This kinetic rate constant can now be measured mathematically and may be of value in assessing the control potential of young pitchers. Careers of former pitchers can be illuminated in a different light using this mathematical approach: preliminary studies indicate that former pitchers can be grouped according to the shapes exhibited by their learning curves.

From a more general standpoint, this mathematical model should be applicable to analyses of other baseball skills that require honing over long periods of time. Critical skills such as recognition of the strike zone, success-to-failure ratio in base stealing, and ability to sacrifice may be amenable to this type of mathematical analysis.

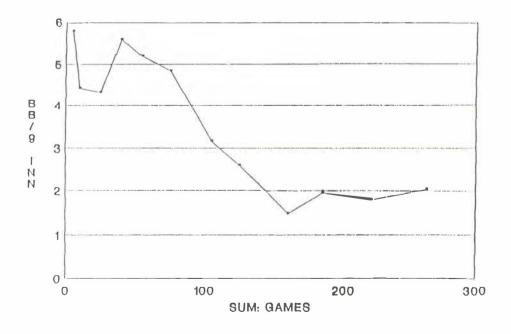


Figure 2. Learning -control curve for Sandy Koufax

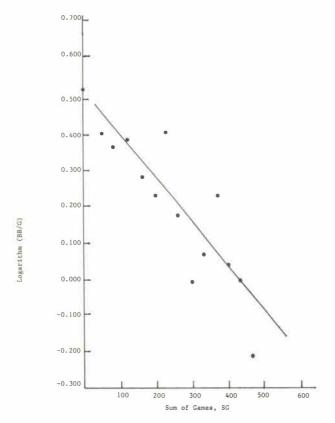


Figure 3. Transformed Learning -control curve for Christy Mathewson.

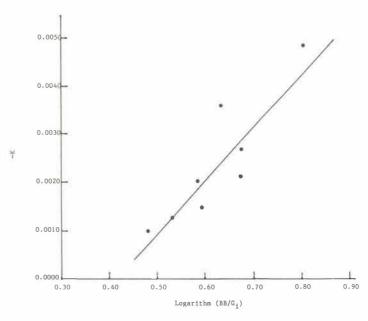


Figure 4. Negative slope or regression line for the rate constant versus logarithm of the initial control value for the none control pitchers of Table 2.

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The Cardinals in the Forties

A great team that could have been even greater

Alden Mead

By any reasonable measure, the performance of the St. Louis Cardinals in the ten-year period 1940-49 was the most successful in the history of the franchise, and one of the best decades experienced by any major league team. After a third-place finish in 1940, the Redbirds during the rest of the decade were always in the pennant race into the last weeks, never finished lower than second, and won four pennants. It may seem greedy for fans to ask for more, but in fact the Cardinals were handicapped in the forties by some misfortunes and bad personnel moves without which they might conceivably have won nine straight pennants!

In contemplating what might have been, one always tends to fantasize away the mistakes and misfortunes of one's own team while leaving in place those of the competition, so anything in this area belongs definitely in the realm of speculation; but the Cardinals of the 40s provide one of the more intriguing of these speculations.

In this era, the farm system founded by Branch Rickey was producing more major-league quality players than were needed to man the team. It was thus natural that some players would be sent to rival teams, and the Cards' policy was often to trade or sell stars instead of second-stringers, thus obtaining needed cash and unloading high salaries. Among the players unloaded during the forties were outfielder Joe Medwick, pitcher Curt Davis, and catcher Mickey Owen, all sent to the Dodgers between June and December, 1940; first baseman Johnny Mize, to the Giants in December 1941; catcher Walker Cooper, to

the Giants in February 1946; and outfielder-first baseman Johnny Hopp, to the Braves in February 1946. In all of these deals—as well as a number of others involving lesser players—the Cardinals received cash, but the players obtained were nearly all insignificant. The only players obtained in the above-mentioned deals who contributed importantly to the Cardinal cause were two catchers: Gus Mancuso, obtained in the Owen deal, who helped the team in 1941 when Cooper was injured for much of the season, and Ken O'Dea, part of the Mize trade, who became Cooper's backup in 1942-44, and the regular in 1945 when Cooper was in service.

As if these one-sided deals weren't enough, promising Redbird farmhand Pete Reiser was declared a free agent by Commissioner Landis in 1938 and signed with the Dodgers; and pitcher Max Lanier jumped to the Mexican League early in the 1946 season, was suspended, and did not return until midseason of 1949.

Of course, not every deal was a disaster: The swap of outfielders with the Phillies—Harry Walker for Ron Northey—early in the 1947 season was at least fairly equitable, while the pitching trades of Bill McGee for Harry Gumbert in '41 and Mort Cooper for Red Barrett in '45 were downright beneficial. Overwhelmingly, though, the trades tended to weaken the Cardinals (on the field, not financially) while strengthening their rivals.

Let's take a look at the Redbirds' five second-place finishes during the decade:

1941: This near miss was discussed at length in *The National Pastime*, No. 11. Despite a devastating series of injuries, the Cardinals finished just 2-1/2 games behind

Alden Mead is a recently-retired chemistry professor at the University of Minnesota, and a lifetime Cardinals fan.

Brooklyn. Reiser, Medwick, Davis, and Owen were all mainstays for the victorious Dodgers. Transfer of any one of them to the Cardinals would almost certainly have been enough to reverse the outcome.

1945: With many stars in the armed forces, the Cards finished three games behind the Cubs. Medwick played 92 games for the Giants and Braves, hitting .292 with 37 RBI, while Davis was 10-10, 3.25 in 150 innings pitched with the Dodgers. If both had worn Cardinal uniforms, it probably would have produced a pennant.

1947: With Stan Musial slumping because of appendicitis, the Cards got off to a horrible start, but recovered to make a strong run at the Dodgers, finally finishing five games back. Mize hit .302 for the Giants with 51 homers and 138 RBI, while Cooper chipped in with .305, 35, and 122. If Mize had been on the team, Musial would have played the outfield instead of Erv Dusak, whose offensive numbers were .284, 6, 28. The Cards' catchers combined for 17 HR and 81 RBI. With Mize, Cooper, and perhaps Lanier, the Cards would have started more strongly and probably won easily.

1948: In contention throughout the season, the Cards couldn't keep up with the Braves in September and finished 6-1/2 games out. Mize had another big year (.289, 40 HR, 125 RBI), which can be compared with the figures of Redbird first baseman Nippy Jones (.254, 10, 81). Cooper was hampered by injuries, but in 91 games still managed 54 RBI, not far short of the total of 66 by the Cards' catching quartet of Del Rice, Joe Garagiola, Del Wilber, and Bill Baker. The pitching was less effective than in previous years, and Lanier would have helped.

1949: The Cards trailed the Dodgers at the finish by only one game. Alumni Mize and Cooper both fell off, but Mize's 18 HR and 62 RBI in 106 games would, along with an earlier return by Lanier, certainly have been enough to make up the small margin of defeat.

There you have it. While speculation like this can never produce certainty, it is at least plausible that we would have seen nine straight Cardinal pennants during the forties if the Redbirds had been less generous in supplying their rivals with star talent.



Long Service Hurlers Who Never Gave Up A Grand Slam Homer

	IP	HR	Period
Hoss Radbourn	4535	117	1881-91
Eddie Plank	4497	41	1901-17
Jim McCormick	4276	86	1878-87
Jim Palmer	3948	303	1965-84
George Mullin	3686	42	1902-15
Herb Pennock	3571	128	1912-34
Joe McGinnity	3441	51	1899-08
Eddie Cicotte	3223	32	1905-20
Lee Meadows	3280	84	1915-29
Tom Zachary	3128	119	1918-36
George Uhle	3120	119	1919-36
Stan Coveleski	3081	66	1912-28

—Bob Davids

A New Way to Rate Pitchers

The Relative Performance System

Ralph L. Horton

Roger Clemens has been the dominant pitcher in baseball the past five years, accumulating 918 points based on the Relative Performance System (RPS). During this period Clemens was the RPS winner in the American League in 1987, 1988, 1990 and 1991. Considerably lower at 526 points were Mark Langston and Frank Viola, both of whom pitched in both leagues during the five-year period. Among relief pitchers Dennis Eckersley was the leader with 664 points, followed by Tom Henke (547) and Lee Smith (534).

RPS measures how well a pitcher performs in various statistical classifications compared to other hurlers in his league. Starters are measured in 13 separate categories while relievers are scored in 11. Each category is weighted in regard to its relative importance, and RPS points are awarded on the basis of relative performance. For example, the starting pitcher in each league who has the lowest ERA receives 20 points, the next lowest 19 points... and the 20th best, one point. Relief pitchers are measured separately in each league and points are given in the same manner. In a 25-point category the top 25 are rated, while in a ten point classification only the top ten receive points (see Table 1).

A starting pitcher is defined as one who starts at least ten games and pitches at least 108 innings (two thirds of

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162). To qualify as a reliever, a pitcher must have fewer than ten starts, his starts must be less than one third of games pitched, and he must have a minimum of 54 innings or ten saves. A perfect record for a starting pitcher is 235 points, and for a reliever, 205 points.

The RPS formula for relievers is such that, while closers generally get the most points, middle relievers are also well represented in the top ten in each league every year. Although the system was first used in 1980, it appears to work well when applied to earlier years. In 1913, in what may have been the greatest year for any pitcher, Walter Johnson scored 232 points, leading all pitchers in the American League in every category except games started (tied for second) and strikeout average (second to Joe Wood). In Bob Gibson's great year in 1968, he gathered 202 RPS points to lead all National League starters by a wide margin.

While the Cy Young Award frequently goes to the pitcher who won the most games (or had the most saves), RPS goes well beyond these single measurements. In 1990, for example, RPS rated Roger Clemens and Ramon Martinez as the top starters. The Cy Young winners, Bob Welch and Doug Drabek, rated fifth and third, respectively, in RPS. On the other hand, in 1991 both Cy Young winners also were first in RPS. Since 1980 Cy Young and RPS have agreed on Fingers (1981), Hernandez (1984), Clemens (1987, 1988 and 1991), and Saberhagen (1989) in the American League, and Carlton (1980 and 1982), Gooden (1985), Scott (1986), Hershiser (1988), Davis (1989) and Glavine (1991) in the National League.

RPS Leaders

Table 1: RPS Points

Table 2: Top Pitchers 1987-91

Starters		Relievers		Starters		Relievers	
Games Started	15	Games Pitched	20	Clemens	918	Eckersley	664
Complete Games	15	Innings Pitched	10	Langston	526	Henke	547
Innings Pitched	15	Saves	20	Viola	526	Smith, L.	534
Games Won	20	Games Won	10	Stewart	521	Williams, M.	442
Winning Percentage	20	Winning Percentage	15	Saberhagen	503	Franco	425
Earned Run Average	20	Earned Run Average	20	Hershiser	441	Dibble	419
Hits per 9 Innings	20	Hits per 9 Innings	20	Ryan	438	Jones, D.	414
Bases on Balls "	20	Bases on Balls "	20	Gooden	436	Burke	393
Strikeouts "	20	Strikeouts "	20	Maddux, G.	427	Myers	389
Wins plus Saves/TGW	25	Wins plus Saves/TGW	25	Martinez, D.	413	Howell, J.	386
ERA Differential	25	ERA Differential	25				
Strikeouts	10						

The ERA Differential is the difference between a pitcher's ERA and his team's ERA.

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Table 3: Yearly Leaders, 1980-1991

American League

Shutouts

National League

Starters				Relievers			Starters				Relievers		
Norris	Oak	175	1980	Corbett	Minn	149	Carlton	Phil	200	1980	Sambito	Hou	137
McCatty	Oak	147	1981	Fingers	Mil	173	Carlton	Phil	185	1981	Camp	Atl	146
Stieb	Tor	143	1982	Caudill	Sea	146	Carlton	Phil	186	1982	Minton	SF	138
Stieb	Tor	158	1983	Quisenberry	KC	132	Soto	Cin	165	1983	Smith, L.	Chi	130
Blyleven	Clev	166	1984	Hernandez	Det	173	Gooden	NY	161	1984	Sutter	StL	135
Blyleven	Cl/Mn	181	1985	James	Chi	142	Gooden	NY	210	1985	Carman	Phil	132
Clemens	Bos	185	1986	Eichhorn	Tor	157	Scott	Hou	191	1986	Worrell	StL	120
Clemens	Bos	193	1987	Henke	Tor	154	Scott	Hou	156	1987	Burke	Mont	128
Clemens	Bos	190	1988	Eckersley	Oak	139	Hershiser	LA	170	1988	Myers	NY	139
Saberhagen	KC	215	1989	Eckersley	Oak	136	Scott	Hou	114	1989	Davis, M.	SD	129
Clemens	Bos	193	1990	Eckersley	Oak	157	Martinez, R.	LA	176	1990	Dibble	Cin	135
Clemens	Bos	193	1991	Harvey	Cal	147	Glavine	Atl	168	1991	Williams	Phil	149

Table 4: Leading Pitchers, 1991

American League

National League

Starters			Relievers			Starters			Relievers		
Clemens	Bos	193	Harvey	Cal	147	Glavine	Atl	168	Williams	Phil	149
Langston	Cal	142	Eckersley	Oak	114	Rijo	Cin	144	Smith, L.	StL	132
McDowell	Chi	128	Henke	Tor	98	Maddux, G.	Chi	137	McElroy	Chi	109
Gullickson	Det	106	Aguilera	Minn	88	Martinez, D.	Mont	113	Assenmacher	Chi	97
Moore	Oak	105	Ward	Tor	88	Harnisch	Hou	108	Brantley	SF	95
Ryan	Tex	102	Henry	Mil	86	Benes	SD	100	Dibble	Cin	94
Abbott	Cal	100	Farr	NY	83	Mulholland	Phil	93	Pena	NY/Atl	91
Wegman	Mil	98	Olson	Balt	82	Smith, Z.	Pitt	91	Berenguer	Atl	83
Candiotti	Cl/Tor	94	Frohwirth	Balt	80	Cone	NY	88	Maddux, M.	SD	78
Tapani	Minn	89	Eichhorn	Cal	79	Harris, G.W.	SD	88	Andersen	SD	71

The Pitching Efficiency Rating

A new look at pitching statistics

Les Jackson

The flood of baseball statistics in recent years has led to more and more ways of analyzing individual player performance, with the emphasis being on hitters. Few new approaches at analyzing pitching performance have been developed recently.

Some of the readily available new statistics for pitchers provide an heretofore unavailable opportunity to cast a new light on pitching performance. We call this new system the Pitching Efficiency Rating (PER).

Before getting into the details of the system, let's look at the foundation on which it is built. Pitching performance is, in its simplest form, the opposite of batting performance. A home run hit by a batter is a home run given up by a pitcher; an out made by a batter is an out pitched by a pitcher, etc.

In 1985 John Thorn and Pete Palmer wrote "The Hidden Game of Baseball A Revolutionary Approach to Baseball and its Statistics" published by Double Day & Company, Inc. In it they discuss the correlation of various analytical approaches to hitting and the relationship with runs produced. In their analysis 19 different statistics or ratios were reviewed from batting average (the lowest correlation of any of the 19) to the Linear Weights system which Thorn and Palmer developed and which had the best correlation. Some of the others were "Isolated Power", slugging percentage, "Total Average", "Runs Created", and on base average plus slugging percentage (which had the second best correlation).

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The Linear Weights system assigns a specific mathematical value to each action by a batter. The value is based on empirical research of the probabilities of one run or more resulting from a given action. For example a home run is worth 1.4 as it clearly scores one run and the probability is that each home run will score .4 additional runs. (The Thorn–Palmer book is great reading for the fan interested in baseball statistics.)

The rest of the formula (in its basic form):

Runs =
$$(.46 \text{ x singles}) + (.8 \text{ x doubles}) + (1.02 \text{ x triples}) + (1.4 \text{ x homers}) + (.33 \text{ x (BB + HB)}) + (.3 \text{ x SB}) - (.6 \text{ x CS}) - (.27 \text{ x (AB - H)}).$$

This formula in theory produces the number of runs above or below average a given player generates in a season compared with the average batter.

But this article is about pitchers, not batters! What we have done is to take the basic Linear Weights formula which produces a positive number for the good or great hitters and turn it around to apply it to pitchers so that a negative number means the pitcher has permitted that many fewer runs than the average. A positive number means the pitcher has permitted that many more theoretical runs than average.

It has not been until recently that the statistics of exactly what a pitcher has given up have been readily available, and thus this statistical analysis has only been possible for a short time.

The "Stats Major League Handbook" provides data on doubles, triples and homers allowed by each pitcher as

well as the traditional statistics, thus we can apply the formula to pitchers with a slight variation. The difference is that the stolen bases and caught stealing numbers are not readily available so we have to ignore that part of the formula.

We have entered into our database the pitching results of all of the pitchers in the 1992 edition of the Stats Handbook and applied the formula.

The results show that Roger Clemens, the runaway American League Cy Young winner for 1991, had the best record in the Pitcher Efficiency Rating with a score of -50.92. In the Cy Young voting he was followed by Scott Erickson, Jim Abbott, Jack Morris and Bryan Harvey.

In the Pitcher Efficiency Rating in the AL, Clemens was followed by Nolan Ryan (-39.05), Tom Candiotti (-35.14), Bret Saberhagen (-34.17) and Jack McDowell (-32.34). Jim Abbott was fifth with -33.16. Where were the other Cy Young leading vote getters? Erickson got -14.08, well down the list; Jack Morris was at -22.15 and Bryan Harvey -26.03.

In the National League the results were, in a way, even more surprising. The Cy Young winner by a large margin was Tom Glavine, followed by Lee Smith, John Smiley, Jose Rijo and Dennis Martinez.

In the Pitcher Efficiency Rating, the leading National Leaguer was Mike Morgan (Dodgers in 1991, Cubs in 1992) with -48.12. He was followed in order by Rijo (-43.28), Glavine (-42.95), Dennis Martinez (-42.84) and Greg Maddux (-37.69). The other Cy Young contenders: Lee Smith (-11.38). Smiley (-19.59).

Because in the PER the number of At Bats minus Hits is of great value, efficient starting pitchers that pitch many innings and obtain a large number of outs tend to score much better in the system than do relief pitchers who just don't pitch the number of innings and thus the number of outs that starters do.

Previously we have had a limited number of ways of evaluating pitchers:

- Games Won and Lost which has the obvious flaw of favoring the pitchers who receive strong hitting and fielding support.
- Earned Run Average has probably been the best measurement till now. One major weakness in ERA is that anything given up by the pitcher after an error which would have retired the side does not affect his ERA.
- The Weighted Rating System devised and published by Ted Oliver in 1944 comparing the

individual pitcher's Won-Lost record to that of the team without that pitcher. This system, while interesting and of some value over long periods of time, would have penalized a Don Drysdale because he was on the same pitching staff with Sandy Koufax (and vice-versa). Oliver compared the pitcher's won and lost percentage to that of his team without that pitcher and multiplied the difference by the number of decisions to arrive at a point total. (I always thought since I first saw the Oliver book in 1945 that a better approach would have been to compare the team's percentage of games won and lost with and without the individual pitcher, with the pitcher getting a plus or minus accordingly. Such an approach would not have necessitated adjusting for the number of decisions of the pitcher.)

• Thorn and Palmer's own pitching "Linear Weights" which compares the league average earned runs allowed to the individual pitcher's earned runs allowed, adjusted for innings pitched. A good approach, but with all the built in problems of the ERA itself.

The Pitcher Efficiency Rating. is a new way to evaluate the efficiency of pitchers for those years for which more or less complete statistics are available.

There are obvious refinements which can be made to the method. One of the first would be to include stolen bases and caught stealing as provided in the Linear Weights. Another would be to add a factor for wild pitches and balks as these are actions by the pitcher which are favorable to the batting team. Another possibility would be to add a park factor.

The conceptual framework of the Linear Weights formula is that the total for the league will be zero as the negatives and positives will balance out to the league average. This was developed in the research covering a number of years and helped Thorn and Palmer determine the values to apply to each of the actions. As no one year is exactly "average," the total results will be somewhat different each individual year. The totals of the Pitching Efficiency Ratings for the American League pitchers for 1991 was -196.75, an average of -0.77. For the National League it was -1017.37, an average of -5.06. This implies that the 1991 NL pitchers were better compared to history than were the 1991 AL pitchers, but at least part of the difference is that NL pitchers get to pitch against other pitchers whereas AL pitchers pitch against DH's.

The tables that follow shows the Pitching Efficiency Ratings for the top twenty pitchers in each league for 1991. If readers are interested in PERs for all pitchers who had 250 or more AB's against them in 1991, I would

be happy to supply my information in return for a few dollars to cover photocopying and postage.

Data Discrepancies

In developing our database for this project we input data for all the pitchers included in *The Stats ML Handbook*. We then ran the totals and compared them with *The Sporting News Baseball Guide*. We found a number of

differences. After rechecking our data (and correcting a couple of errors), we still found the following differences for the two leagues combined.

	Stats Totals	Sporting News Totals
At Bats	142,910	142,968
Hits	36,498	36,558
Doubles	6,491	6,499
Triples	892	894
Homers	3,383	3,383
Bases on Balls	13,972	13,984

Pitchers Efficiency Rating 1991 American League Top 20 (Includes those who pitched in both majors)

Pitcher/ Throws	Team(s)	AB	Hits	2B	3B	HR	BB	НВ	Effic.	Won Lost	ERA	Opponent On-base PCT. plus Slugging
Clemens (R)	BOS	993	219	46	8	15	65	5	-50.92	18-10	2.62	0.600
Ryan (R)	TEX	594	102	25	3	12	72	5	-39.05	12-6	2.91	0.551
Candiotti(R)	CL/TOR	887	202	41	10	12	73	6	-35.14	13-13	2.65	0.628
Saberhagen(R)	KC	724	165	28	4	12	45	9	-34.17	13-8	3.07	0.609
McDowell (R)	CHA	930	212	44	5	19	82	4	-32.34	17-10	3.41	0.641
Abbot(L)	CAL	910	222	35	3	14	73	5	-31.16	18-11	2.89	0.639
Tapani(R)	MIN	917	225	48	4	23	40	2	-29.30	16-9	2.99	0.660
Key(L)	TOR	815	207	36	2	12	44	3	-28.79	16-12	3.05	0.642
Guzman(R)	TOR	497	98	13	2	6	66	4	-28.37	10-3	2.99	0.564
Ward(R)	TOR	386	80	10	1	3	33	2	-27.49	7-6	2.77	0.535
Langston(L)	CAL	884	190	34	2	30	96	2	-26.76	19-8	3.00	0.653
Frohwirth.(R)	BAL	337	64	14	3	2	29	1	-26.05	7-3	1.87	0.523
Harvey(R)	CAL	286	51	7	0	6	17	i -	-26.03	2-4	2.60	0.493
Wegman(R)	MIL	728	176	29	3	16	40	7	-25.99	15-7	2.84	0.644
Bosio(R)	MIL	766	187	28	4	15	58	8	-22.67	14-10	3.25	0.654
Morris(R)	MIN	922	226	28	6	18	92	5	-22.15	18-12	3.43	0.664
Swindell(L)	CLE	916	241	48	= 4	21	31	3	-21.87	9-16	3.48	0.68
Stottlemyer. (R)	TOR	826	194	27	5	21	75	12	-20.97	15-8	3.78	0.664
Swift(R)	SEA	330	74	6	1	3	26	1	-20.75	1-2	1.99	0.55
Moore(R)	OAK	768	176	35	0	11	105	5	-20.34	17-8	2.96	0.643

Pitchers Efficiency Rating 1991 National League Top 20

Pitcher/									Effic.	Won		Opponent On-base PCT. plus
Throws	Team(s)	AB	Hits	2B	3B	HR	BB	НВ	Rating	Lost	ERA	Slugging
Morgan(R)	LA	871	197	22	6	12	61	3	-48-12	14-10	2.78	0.586
Rijo(R)	CIN	755	165	33	4	8	55	3	-43.28	15-6	3.51	0.579
Glavine(L)	ATL	905	201	35	6	17	69	2	-42.95	20-11	2.55	0.609
Martinez, D.(R)	MON	829	187	32	6	9	62	4	-42.84	14-11	2.39	0.594
Maddux, G.(R)	CHN	979	232	34	9	18	66	6	-37.69	15-11	3.35	0.634
Harnisch (R)	HOU	796	169	28	5	14	83	5	-37.03	12-9	2.70	0.604
Cone(R)	NYN	868	204	29	7	13	73	5	-33.70	14-14	3.29	0.628
Hurst(L)	SD	835	201	30	1	17	59	3	-31.52	15-8	3.29	0.633
Martinez, R.(R)	LA	828	190	33	.1	18	69	7	-31.08	17-13	3.27	0.631
Benes(R)	SD	836	194	24	6	23	59	4	-30.17	15-11	3.03	0.644
Belcher(R)	LA	789	189	26	3	10	75	2	-29.73	10-9	2.62	0.625
Liebrandt(L)	ATL	864	212	38	5	18	56	4	-26.08	15-13	3.49	0.658
Smith, Z.(L)	PIT	873	234	36	4	15	29	2	-26.08	16-10	3.20	0.663
Greene (R)	PHI	768	177	35	4	19	66	3	-23.38	13-7	3.38	0.655
Mulholland.(L)	PHI	887	231	42	7	15	49	3	-21.40	16-13	3.61	0.676
Schilling(R)	HOU	291	49	15	3	2	39	0	-21.27	3-5	3.81	0.528
Smoltz(R)	ATL	849	206	38	7	16	77	3	-20.57	14-13	3.80	0.668
Wilson(L)	SFO	740	173	32	5	13	77	5	-20.55	13-11	3.56	0.653
Hill(R)	STL	656	147	23	6	15	67	6	-20.44	11-10	3.57	0.648



Harry Heilmann, one time American League slugging star with the Detroit Tigers and later a popular Tiger broadcaster, was recalling incidents of his early baseball career during an interview a few years before his sudden death in 1951.

He signed with Portland of the Pacific Coast League for \$275 a month. "Money was practically non-existent around our home at the time," related Harry, "so I decided to bear down and surprise Ma by sending her the greater part of my salary. In the first two months I pinched pennies so hard I was able to send her \$500.00. You can imagine my surprise when I got a wire right back from her saying: "Come home at once—you must be in bad company."

— Tom Knight

Who Would be the Highest-Paid Baseball Player?

One way to answer the question, "How much would the Babe be worth today?"

Lawrence Hadley Elizabeth Gustafson Mary Jo Thierry

ho was the greatest baseball player of all time? This simple question can generate hours of fascinating discussion amongst baseball fans, and part of the fascination is that the question cannot be answered. The problem is that all of the great players cannot get on the same field in the prime of their careers and "play it out" for an answer.

Would the greatest ball player also be the highest paid player? Baseball economists find this second question as intriguing as the first. In a competitive market, compensation depends upon productivity. One definition of baseball productivity is the ability of a player to bring fans out to the ballpark. "You measure the value of a ballplayer by how many fannies he puts in the seats" (attributed to George Steinbrenner). Loosely speaking, economists agree.

The mix of factors that bring fans to the ballpark is complex. Is the team winning? What is the team's style of play? Is there controversy surrounding the team? What is the ballpark ambiance? Where is the ballpark located? How favorable is the local sports environment

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for baseball? But intuitively, the most important factor is this: how good are the players?

Assuming good players attract more fans to the ballpark than mediocre players, then owners are willing to pay higher salaries for good players. By the same logic, if the best players attract the greatest number of fans, they will be the highest paid.

Just as the all-time great baseball players cannot compete on the same field in the prime of their careers, they are also unable to compete in the same labor market. It is not possible for all the great players to be free agents this year in order to determine which one would receive the highest bid from the owners.

However, it is possible to model the current labor market for baseball players to identify the variables that determine salaries. In turn, the model can be used to estimate the salaries of the all-time great players on the assumption that they are all free agents in the prime of their careers competing in today's baseball labor market.

Salary equations and predicted salaries—We have used regression analysis to estimate two earnings equations, one for hitters and one for pitchers. Regression analysis

is a commonly used statistical technique for modeling the effects of explanatory variables on a dependent variable. In this case the dependent variable which we want to predict is the logarithm of the player's salary. A prediction of log(salary) can then be converted to a prediction of salary. The explanatory variables used to predict log(salary) include career performance statistics, player and team characteristics, and years of major league service and its square. The two equations are based upon the 1989 salary data of 349 hitters and 247 pitchers.

The performance variables in our salary equations include a wide range of career statistics measured relative to career at bats or innings pitched. These include hits, runs, RBIs, home runs, stolen bases, strike outs, and base on balls for hitters as well as at bats per year. They include wins, losses, ERA, saves, strike outs, base on balls, and complete games for pitchers as well as innings pitched per year.

The player characteristics include race, length of contract, and eligibility for arbitration and free agency. The team characteristics are the team's winning percent, average home attendance, city size and league.

The salary equations model log(salary) as a linear function of the explanatory variables. The hitters' equation explains 89 percent of the variation in hitters' salaries and the pitchers equation explains 85 percent of the variation in pitchers' salaries. The most important explanatory variables are years of service and performance on the field.

Our salary equations can be used to generate a predicted salary for any player—current or historical. This predicted salary is the amount that the player would be paid if he played today and was rewarded for his years of service and performance at the same rate as today's Major League players. Therefore, applying our salary equations to the all-time great players simulates predicted salaries for these players as if they were selling their baseball abilities in today's labor market. These predicted salaries are the basis for comparing the market value of the historical players.

We have selected 250 of the greatest and best-known players from baseball history and have estimated their predicted salaries. These players include 150 hitters and 100 pitchers. Their predicted salaries are presented in Tables 1 and 2. Although our labor market equations reflect the market structure in 1989, we have updated these predicted salaries to 1992. Our procedure for updating is to increment the predicted salaries by 34.0 percent annually which is the average compound growth rate of baseball salaries between 1989 and 1992. This facilitates comparisons of the predicted salaries in Tables 1 and 2 with the 1992 salaries of today's players.

The predicted salaries in Tables 1 and 2 are based upon the first 11 years of a hitter's career and the first 13 years of a pitcher's career. Our salary equations indicate that the career salary profile of a typical player initially increases at a decreasing rate, reaches a peak, and finally declines in his latter playing years. The peak earnings years for an average hitter and pitcher are the eleventh and thirteenth years respectively.

The player characteristic variables in our equations identify the length of a player's contract and his eligibility for arbitration and free agency. All predicted salaries in Tables 1 and 2 are based upon values that simulate a contemporary player who has been eligible for both arbitration and free agency at some time during his career and is currently playing on a long-term contract of two or more years. The player performance variables are assigned values that are specific to the individual old-timers in Tables 1-2 measured over the first full 11 years of the hitters' careers and the first full 13 years of the pitchers' careers.²

The selection of all old-time players in Tables 1 and 2 is based strictly upon our judgment. We have included most of the twentieth-century Hall of Fame players, and we have attempted to include all other quality players as well as the more commonly recognized players. The Tables rank the players on the basis of their predicted salaries. We believe that we have not overlooked any hitters or pitchers who might be ranked in the top 50 of each Table, and therefore we believe that the upper portions of our Tables are an accurate ranking of all-time players by their 1992 predicted salaries.

The Salaries of the All-Time Great Players—To a large degree, the results in Tables 1 and 2 stand on their own. All baseball fans will naturally have their own subjective view of the validity of the rankings. We simply point out that the rankings have been generated by an objective process based upon an accurate statistical description of the current baseball labor market.

One interesting comparison can be made between our predicted salaries and the inflation-adjusted actual salaries of two old-timers. Babe Ruth drew much attention for his \$80,000 salary in 1930 because it exceeded President Hoover's salary. In today's prices, that salary is worth approximately \$755,500. This is \$9,305,479 less than his 1992 predicted salary as estimated by our salary equation. In 1969, Curt Flood was paid \$69,000 which is approximately worth \$346,000 today. Our equation predicts a 1992 salary of \$2,561,536. This \$2,215,536 gap provides a good explanation for his legal challenge of baseball's reserve clause. This clause tied a player to one team for his entire career prior to 1976.³

Our equation can predict salaries for current players as well as historical players. A list of 25 of the star hitters in the Major Leagues today in order of their predicted salary is as follows:

1. Cal Ripken, Jr.	\$6,972,642
2. Kirby Puckett	5,830,705
3. Will Clark	5,749,903
4. Eddie Murray	5,743,776
5. Ruben Sierra	5,499,996
6. Wade Boggs	5,487,915
7. Jose Canseco	5,389,590
8. Barry Larkin	5,052,805
9. Ryne Sandberg	4,961,956
10. George Brett	4,956,837
11. Joe Carter	4,865,386
12. Ken Griffey, Jr.	4,831,854
13. Fred McGriff	4,783,769
14. Andre Dawson	4,734,643
15. Mark McGwire	4,669,120
16. Barry Bonds	4,643,413
17. Darryl Strawberry	4,621,450
18. Bobby Bonilla	4,620,581
19. Dave Winfield	4,614,950
20. Tony Gwynn	4,602,765
21. Ozzie Smith	4,460,375
22. Robin Yount	4,418,934
23. Carlton Fisk	4,176,513
24. Kevin Mitchell	3,837,343
25. Cecil Fielder	3,702,543
Cal Dimlon's salamino	1.1

Cal Ripken's salary would rank #13 behind Stan Musial when combined with the old-timers. (These 25 hitters are subjectively selected and do not necessarily represent the top 25 predicted salaries of all current Major League hitters.)

Similarly, a list of 15 of the star pitchers in the Major Leagues today is as follows:

Nolan Ryan	\$7,141,296
2. Roger Clemens	6,511,475
3. Jack Morris	5,104,495
4. John Franco	5,044,739
5. Rob Dibble	4,927,295
6. Dwight Gooden	4,863,926
7. Bob Welch	4,744,633
8. Greg Maddux	4,657,615
9. Lee Smith	4,537,029
10. Doug Drabek	4,400,212
11. Bret Saberhagen	4,352,293
12. Dennis Eckersley	4,328,606
13. Goose Gossage	4,160,265
14. Tom Glavine	3,873,678
15. Dave Stewart	3,580,790

Nolan Ryan's salary would rank #8 on the all-time list behind Tom Seaver. (These 15 pitchers are also subjectively selected and are not necessarily the top 15 predicted salaries among current Major League pitchers.)

Rather than estimate the above salaries with the players' actual years of Major League service, we hold service constant at eleven years and thirteen years for all hitters and pitchers respectively. This procedure is consistent with the method used to generate the predicted salaries in Tables 1 and 2, and allows comparisons based only on performance.

What do these salary rankings mean? Undoubtedly, it is too ambitious to claim that they rank the players on the basis of their pure baseball athletic skills. Indeed, it is probably impossible to ever objectively rank the all-time players on the basis of their pure basebal skills.

This issue has been covered by many writers, and two points dominate the discussion. First, in those sports where performance is measured against a totally objective standard (e.g. track and field and swimming), athletic performance has continually improved over time. There is no reason to believe that the same does not hold true for baseball. However, baseball sets hitters against pitchers in such a manner that their improvements over time may cancel each other.

The second important point is that the game of base-ball has changed greatly over the past 90 years adding to the difficulty of objective comparisons. Rules have changed. The designated hitter rule in the American League is one recent example. The equipment has changed. The ball may or may not be more lively, but certainly contemporary gloves are superior. Strategies have changed. Players are more specialized and the use of relief pitching is much more extensive. New pitches have been refined. The slider is the most frequently cited example. Baseball is frequently played on astroturf today, and it is almost always played at night. All of these changes defy the development of completely objective standards for comparing players over time.

What our rankings do provide is a good way to compare the economic value of players on the basis of their career performance. In other words, we maintain that if a player with Lou Gehrig's or Walter Johnson's statistical capabilities had emerged in the 1992 baseball labor market, he would have indeed been worth about \$10 million plus. It may well be that the changes in the game prevent such players from emerging. But if there were such players, our analysis can determine their market value.

Since experience is controlled in our analysis, our salary rankings also provide an objective basis for comparing players' performance statistics across time. Granted there are insurmountable problems in achieving a perfectly objective intertemporal ranking of players on the basis of pure baseball ability. Nonetheless, our rankings do compare the career performance statistics of players as reflected in their expected 1992 market values. Since our salary equations simulate a common labor market for all players, our predicted salaries are superior to pure performance statistics for comparative purposes. The reason is that our salaries allow for the direct comparison of hitters and pitchers, starters and relievers, sluggers, batting champions, good fielders, base-stealing specialists, et al. Despite the problems of intertemporal comparisons, we believe our salary rankings are the best available basis for a comprehensive comparison of *all* players across time.

Since Lou Gehrig has the highest predicted salary, was he the greatest player of all time? Given the problems discussed above, we prefer to restate the conclusion as follows: If Gehrig could perform today as he did in the 1920's, he should be the highest paid player in 1992. This reflects the fact that by our analysis, his career statistics make him the most valuable (in economic terms) of all players.

What accounts for the difference in the predicted salaries of Lou Gehrig and Cal Ripken (the highest predicted salary for any active hitter)? First, Ripken is a shortstop, and this one factor adds to his predicted salary. In order to explain the importance of Ripken's fielding position as a factor in predicting his \$6.97 million salary, we have computed Lou Gehrig's predicted salary to be \$12,920,003 had he been a shortstop instead of a first baseman. Therefore, after controlling for fielding position, the gap between Gehrig and Ripken is approximately \$5.95 million.

The differences between Gehrig and Ripken in four performance variables account for 95.2 percent of this \$5.95 million gap. These four variables are batting average (.342 for Gehrig versus .280 for Ripken), home runs per at bat (.0607 for Gehrig versus .0411 for Ripken), RBIs per at bat (.2496 for Gehrig versus .1494 for Ripken), and runs scored per at bat (.2347 for Gehrig versus .1538 for Ripken). Could a contemporary hitter compile Gehrig's batting statistics? Ripken's (as well as all other contemporary hitters') career batting statistics are a very, very long distance behind Gehrig's statistics. Indeed, the batting statistics of today's hitters are so far behind Gehrig's that it seems highly unlikely to us that any hitter could emerge in today's game with performance statistics comparable to Gehrig.

What accounts for the difference in the predicted salaries of Walter Johnson and Nolan Ryan (the highest predicted salary for any active pitcher)? This case is very different from the Gehrig/Ripken case because Ryan's

performance statistics are superior to Johnson's. The gap between Johnson and Ryan is completely explained by the fact that Johnson averaged 318 innings per year while Ryan averaged only 225. If Ryan had averaged 318 innings per year of service, his predicted salary would be \$11,225,773. (If Roger Clemens averaged 318 innings per year of service, he also would rank ahead of Walter Johnson with a predicted salary of \$10,246,285.) Alternatively, if Johnson had only pitched 225 innings per year of service, his predicted salary would be only \$6,412,807. Thus, the difference between Johnson's and Ryan's predicted salaries primarily reflects the increased use of relief pitching. Of course, one must consider the possibility that Ryan would not have lasted so long in the Major Leagues if he had pitched over 300 innings per year early in his career.

Conclusions—In addition to simulating players' salaries in a common labor market, the analysis in this paper provides an objective and comprehensive basis for comparing all baseball players over time. An important current issue related to the problem of player comparisons across time is the process of selecting players to the Baseball Hall of Fame. Our results suggest some unevenness in this process.

Looking at the top third of our sample of hitters, 44 of the 50 are in the Hall of Fame. Many baseball purists would agree that Shoeless Joe Jackson (#42) also belongs. Steve Garvey (#39) and Tony Perez (#41) may be elected in the near future, but support seems greater for Mike Schmidt (#67), Reggie Jackson (#69), and Pete Rose (#72). Indeed, these three players belong, but our results indicate that Orlando Cepeda (#43), Minnie Minoso (#47), and Gil Hodges (#49) along with Garvey and Perez deserve equally serious consideration. A good case may also be made for Dick Allen (#51), Ted Simmons (#52), and Joe Torre (#55).

Looking at the top third of our sample of pitchers, 24 of the 33 are in the Hall. Steve Carlton (#12) and Phil Niekro (#13) will probably be elected in the near future as will Nolan Ryan should he ever retire. The greatest injustice would appear to be the case of Jim Bunning (#14). Eddie Cicotte (#21) suffers from the same stigma that bars the door for Shoeless Joe. Sam McDowell (#22), Mel Stottlemyre (#25), and J. R. Richard (#31) probably had careers that were too brief, but Mickey Lolich (#23) and Don Sutton (#27) deserve serious consideration. Also, Billy Pierce (#34) is a forgotten pitcher of the 1950's, but his record compares favorably with many Hall of Famers on the basis of our analysis.

Notes

¹For a detailed discussion of our model, data, and analytical conclusions see Hadley and Gustafson, "Major League Baseball Salaries: The Impacts of Arbitration and Free Agency," *Journal of Sport Management*, 5:2 (July, 1991), 111-127.

²Sources of the baseball data used to estimate our hitters' and pitchers' salary equations include Joseph L. Reichler, *The Baseball Encyclopedia*, 7th edition, MacMillan, 1988, *The 1989 Baseball Encyclopedia Update*, MacMillan, 1989, *The 1989 American League Red Book*, and *The 1989 National League Green Book*. Salary data

were obtained from the Associated Press Service in April, 1989. The data on the individual performances of the players in Tables 1-2 were also obtained from *The Baseball Encyclopedia* and its Update. For some players, the career years analyzed in Tables 1-2 may not exactly equal 11 and 13 for hitters and pitchers. The reasons include shortened careers or careers interrupted by military service and prolonged injuries.

³The source of these historical salary data is Gerald Scully, *The Business of Major League Baseball*, University of Chicago Press, 1989.

Table 1	
Predicted 1992 Salaries for Great Historical F	Hitters

Player	Years Analyzed	1992 Predicted \$			
1 Lou Gehrig*	1925-1935	10,513,984	32 Harry Heilmann*	1916-1926	6,049,68
2 Babe Ruth*	1919-1929	10,060,979	33 Luke Appling*	1932-1942	5,879,578
3 Jimmie Foxx*	1928-1938	9,755,982	34 Pie Traynor*	1922-1932	5,844,780
4 Honus Wagner*	1898-1908	9,422,786	35 Tris Speaker*	1909-1919	5,819,92
5 Ted Williams*	1939-1954	8,650,532	36 Mickey Cochrane*	1925-1935	5,798,76
6 Ty Cobb*	1907-1917	8,479,242	37 Johnny Bench*	1968-1978	5,795,13
7 Al Simmons*	1924-1934	8,103,325	38 Duke Snider*	1949-1959	5,795,04
8 Hank Greenberg*	1933-1947	7,617,236	39 Steve Garvey	1974-1984	5,786,85
9 Joe DiMaggio*	1936-1949	7,450,310	40 Heinie Manush*	1924-1934	5,718,73
10 Joe Cronin*	1929-1939	7,350,123	41 Tony Perez	1967-1977	5,700,69
11 George Sisler*	1916-1927	7,177,103	42 Shoeless Joe Jackson	1911-1920	5,689,93
12 Stan Musial*	1942-1953	6,998,052	43 Orlando Cepeda	1958-1968	5,675,62
13 Ernie Banks*	1954-1964	6,971,646	44 Billy Williams*	1961-1971	5,663,68
14 Joe Sewell*	1921-1931	6,908,619	45 Eddie Collins*	1909-1919	5,642,45
15 Hank Aaron*	1954-1964	6,797,164	46 Sam Rice*	1919-1929	5,639,23
16 Mel Ott*	1928-1938	6,753,086	47 Minnie Minoso	1951-1961	5,600,65
17 Rogers Hornsby*	1916-1926	6,653,325	48 Frankie Frisch*	1920-1930	5,576,70
18 Johnny Mize*	1936-1949	6,602,213	49 Gil Hodges	1948-1958	5,545,60
19 Bill Terry*	1925-1935	6,589,982	50 Harmon Killebrew*	1959-1969	5,533,74
20 Mickey Mantle*	1952-1962	6,489,661	51 Dick Allen	1964-1974	5,504,45
21 Earl Averill*	1929-1939	6,439,250	52 Ted Simmons	1971-1981	5,493,27
22 Goose Goslin*	1922-1932	6,409,097	53 Eddie Mathews*	1952-1962	5,470,15
23 Yogi Berra*	1948-1958	6,356,023	54 Al Rosen	1950-1956	5,468,94
24 Frank Robinson*	1956-1966	6,318,735	55 Joe Torre	1961-1971	5,386,05
25 Paul Waner*	1926-1936	6,272,968	56 Rod Carew*	1967-1977	5,333,46
26 Joe Medwick*	1933-1943	6,237,349	57 Al Kaline*	1954-1964	5,262,08
27 Bill Dickey*	1929-1939	6,230,106	58 Cecil Cooper	1974-1984	5,248,91
28 Willie Mays*	1951-1962	6,224,756	59 Ralph Kiner*	1946-1955	5,241,43
29 Jim Bottomley*	1923-1933	6,200,932	60 Home Run Baker*	1909-1921	5,237,56
30 Charlie Gehringer		6,181,590	61 Ken Boyer	1955-1965	5,214,67
31 Chuck Klein*	1929-1939	6,162,354	62 Carl Yastrzemski*	1961-1971	5,183,53
			63 Ron Santo	1961-1971	5,179,30

Table 1 (cont.) 107 Bert Campaneris 1965-1975 3,766,973 64 Roy Campanella* 1949-1957 5,157,778 108 Hal McRae 1974-1984 3,732,431 65 Del Ennis 1946-1956 5,108,103 109 Dick Stuart 1959-1969 3,721,413 66 Hack Wilson* 1924-1934 5,099,039 110 Mickey Vernon 1941-1953 3,715,228 67 Mike Schmidt 1973-1983 5,090,139 1959-1969 3,698,317 111 Vada Pinson 68 Bobby Doerr* 1938-1949 4,975,826 112 Willie Horton 1965-1975 3,679,796 69 Reggie Jackson 1968-1978 4,963,621 113 Dick Groat 1955-1965 3,674,534 70 Ted Kluszewski 1948-1958 4,895,853 114 Thurman Munson 1970-1979 3,662,580 71 Lee May 1967-1977 4,856,238 115 Roger Maris 1957-1967 3,648,196 72 Pete Rose 1963-1973 4,850,698 116 loe Adcock 1950-1960 3,645,752 73 Tony Oliva 1964-1974 4,811,556 117 Dave Concepcion 1972-1982 3,632,100 74 Rocky Colavito 1957-1967 4,804,971 118 Bob Allison 1959-1969 3,624,978 75 Jackie Robinson* 1947-1956 4,796,480 119 Hank Sauer 1948-1958 3,573,452 76 Enos Slaughter* 1938-1951 4,787,676 120 Lou Brock* 1962-1972 3,517,216 77 Willie McCovey* 1963-1973 4,775,119 121 Roy Sievers 1949-1959 3,433,111 78 Willie Stargell* 1964-1974 4,673,814 122 Rabbit Maranville* 1913-1924 3,425,907 79 Bobby Murcer 1969-1979 4,671,876 123 Rico Carty 1964-1976 3,388,406 80 Norm Cash 1960-1970 4,641,491 124 Phil Rizzuto 1941-1954 3,364,622 81 Larry Doby 1948-1958 4,618,686 125 George Scott 1966-1976 3,330,444 82 Boog Powell 1962-1972 4,525,032 126 Gus Zernial 1949-1959 3,324,503 83 Al Oliver 1969-1979 4,479,737 127 Joe Tinker* 1902-1912 3,274,418 84 Reggie Smith 1967-1977 4,448,119 128 Dave Kingman 1972-1982 3,264,383 85 Carl Furillo 1947-1957 4,438,460 129 Nelson Fox 1950-1960 3,212,996 86 Bob Watson 1971-1981 4,433,502 1970-1980 130 Larry Bowa 3,192,968 87 Edd Roush* 1916-1926 4,372,550 131 Brooks Robinson* 1958-1968 3,114,708 88 Billy Herman* 1932-1942 4,364,813 132 Willie Davis 1962-1972 3,065,164 89 Richie Ashburn 4,333,200 1948-1958 133 Wally Post 1954-1964 2,989,289 90 Don Baylor 1973-1983 4,295,009 134 Graig Nettles 1970-1980 2,979,047 91 Greg Luzinski 1972-1982 4,221,935 135 Dusty Baker 1972-1982 2,971,080 92 Roberto Clemente* 1955-1965 4,220,524 136 Felipe Alou 1961-1971 2,931,187 93 Harvey Kuenn 1953-1963 4,188,665 137 Red Schoendienst* 1945-1955 2,911,826 94 Frank Howard 1960-1970 4,186,959 138 Joe Morgan* 1965-1975 2,903,727 95 Ron Cey 1973-1983 4,104,667 139 Buddy Bell 1972-1982 2,824,369 96 Alvin Dark 1948-1958 4,099,037 140 Bill Buckner 1971-1981 2,778,332 97 George Kell* 1944-1954 4,090,808 141 Frank Chance* 1901-1911 2,751,389 98 Bill Madlock 1974-1984 4,037,391 142 Rusty Staub 1963-1973 2,656,683 99 Pee Wee Reese* 1941-1954 3,989,185 143 Harry Hooper* 1910-1920 2,656,332 100 Maury Wills 1960-1970 3,966,808 144 Rick Ferrell* 1931-1941 2,628,942 101 Zack Wheat* 1910-1920 3,943,517 145 Max Carey* 1911-1921 2,600,154 102 Lou Boudreau* 1940-1950 3,916,529 146 Curt Flood 1958-1968 2,561,536 103 Moose Skowron 1956-1966 3,894,990 1957-1967 147 Bill Mazeroski 2,536,823 104 George Foster 1971-1981 3,886,799 148 Ray Schalk* 1913-1923 2,255,697 105 Bobby Bonds 1969-1979 3,814,269 149 Leo Durocher 2,231,275 1930-1940 106 Luis Aparicio* 3,769,184 1956-1966 150 Johnny Evers* 1903-1913 2,165,527

Table 2
Predicted 1992 Salaries for Great Historical Pitchers

	ears Analyzed	1992 Predicted \$			
1 Walter Johnson*	1908-1920	10,080,622	51 Red Faber*	1914-1926	4,764,501
2 Cy Young*	1890-1902	9,479,088	52 Tommy John	1965-1978	4,730,865
3 Christy Mathewson*	1901-1913	8,798,855	53 Bruce Sutter	1976-1986	4,672,271
4 Rube Waddell*	1900-1910	7,693,640	54 Early Wynn*	1942-1955	4,612,784
5 Gaylord Perry*	1964-1976	7,379,321	55 Vida Blue	1971-1983	4,532,539
6 Eddie Plank*	1901-1913	7,298,576	56 Jim Maloney	1962-1971	4,523,230
7 Tom Seaver*	1967-1979	7,142,128	57 Larry Jackson	1955-1967	4,503,172
8 Grover Alexander*	1911-1923	7,090,046	58 Smokey Joe Wood	1909-1920	4,498,699
9 Bob Feller*	1937-1952	6,705,749	59 Jim Kaat	1961-1973	4,468,954
10 Sandy Koufax*	1957-1966	6,573,201	60 Steve Rogers	1973-1985	4,422,502
11 Lefty Grove*	1925-1937	6,385,731	61 Rube Marquard*	1909-1921	4,404,283
12 Steve Carlton	1967-1979	6,383,632	62 Rollie Fingers*	1969-1981	4,403,187
13 Phil Niekro	1967-1979	6,350,290	63 Eppa Rixey*	1912-1925	4,397,397
14 Jim Bunning	1957-1969	6,266,094	64 Virgil Trucks	1942-1956	4,387,025
15 Ed Walsh*	1904-1916	6,172,811	65 Burleigh Grimes*	1917-1929	4,364,473
16 Jack Chesbro*	1899-1909	6,000,884	66 Milt Pappas	1958-1970	4,288,727
17 Don Drysdale*	1957-1969	5,959,135	67 Red Ruffing*	1925-1937	4,124,320
18 Jim Palmer*	1966-1979	5,939,171	68 Ed Lopat	1944-1955	4,009,728
19 Bob Gibson*	1961-1973	5,885,911	69 Ken Holtzman	1966-1978	3,992,941
20 Warren Spahn*	1946-1958	5,816,005	70 Hoyt Wilhelm*	1952-1964	3,895,007
21 Eddie Cicotte	1908-1920	5,804,874	71 Herb Score	1955-1962	3,881,179
22 Sam McDowell	1964-1975	5,744,616	72 Herb Pennock*	1914-1928	3,875,842
23 Mickey Lolich	1963-1975	5,721,379	73 Sal Maglie	1950-1958	3,819,242
24 Mordecai Brown*	1903-1915	5,699,434	74 Camilo Pascual	1954-1966	3,818,387
25 Mel Stottlemyre	1965-1974	5,664,083	75 Bob Friend	1951-1963	3,802,110
26 Juan Marichal*	1961-1973	5,629,585	76 Sparky Lyle	1968-1980	3,786,866
27 Don Sutton	1966-1978	5,627,516	77 Mike Garcia	1949-1961	3,746,495
28 Jim Catfish Hunter*	1965-1977	5,584,738	78 Jim Perry	1959-1971	3,680,922
29 Ferguson Jenkins*	1966-1978	5,570,382	79 Charlie Root	1926-1938	3,668,557
30 Whitey Ford*	1950-1964	5,563,388	80 Waite Hoyt*	1919-1931	3,637,071
31 J. R. Richard	1975-1980	5,546,886	81 Ted Lyons*	1924-1936	3,621,783
32 Hal Newhouser*	1940-1952	5,520,552	82 Mike Marshall	1967-1980	3,569,258
33 Chief Bender*	1903-1915	5,340,060	83 Al Downing	1963-1975	3,536,379
34 Billy Pierce	1949-1961	5,224,681	84 Don Newcombe	1949-1960	3,497,000
35 Bob Lemon*	1947-1958	5,214,069	85 Mike Torrez	1969-1981	3,481,247
36 Allie Reynolds	1943-1954	5,179,960	86 Ron Perranoski	1961-1973	3,469,538
37 Claude Osteen	1962-1974	5,122,060	87 Johnny Sain	1946-1955	3,450,687
38 Ron Guidry	1977-1987	5,117,462	88 Jim Lonborg	1965-1977	3,383,221
39 Carl Hubbell*	1928-1940	5,067,365	89 Lew Burdette	1952-1964	3,382,689
40 Bobo Newsom	1934-1946	5,002,746	90 Kent Tekulve	1975-1987	3,198,283
41 Andy Messersmith	1969-1979	4,990,051	91 Jesse Haines*	1920-1932	3,166,168
42 Jerry Koosman	1968-1980	4,988,559	92 Freddie Fitzsimmon		3,158,734
43 Wilbur Wood	1968-1978	4,974,626	93 Johnny Podres	1953-1967	3,151,495
44 Robin Roberts*	1948-1960	4,936,049	94 Bobby Shantz	1949-1961	3,148,843
45 Dazzy Vance*	1922-1934	4,876,036	95 Tug McGraw	1965-1978	3,076,711
46 Lefty Gomez*	1931-1942	4,867,229	96 Lindy McDaniel	1956-1968	3,068,194
47 Dizzy Dean*	1932-1940	4,833,724	97 Preacher Roe	1944-1954	3,032,033
48 Mike Cuellar	1966-1977	4,807,124	98 Roy Face	1953-1966	2,887,110
49 Luis Tiant	1964-1976	4,776,970	99 Gene Garber	1973-1985	2,614,674
,	1964-1972	4,776,170	100 Joe Niekro	1967-1979	2,589,663

The Real History of Night Ball at Wrigley Field

Credit where credit is due

Jay Feldman

uestion: What was the date of the first night game ever played at Chicago's Wrigley Field?

Answer (choose one):

a. August 8, 1988

b. August 9, 1988

c. July 1, 1943

If you answered (a), you're wrong—and not because that night's ballgame was rained out after three and a half innings. And if you answered (b), you're still wrong.

Contrary to popular opinion, when the Chicago Cubs took the field against the Philadelphia Phillies under the lights in August '88, it was not the first time Wrigley Field had been illuminated for a night contest. That distinction belongs to a game played there by the All American Girls Professional Ball League, which, almost half a century ago, occupied the Friendly Confines for a night all-star game played before 7,000 fans for benefit of the Women's Army Air Corps.

The AAGPBL—which millions now know of through the feature film A League of Their Own—was in its inaugural season at the time. It had been created the previous autumn by Chicago Cubs owner P. K. Wrigley as a hedge against the possibility that major league baseball could be canceled for the duration of World War II. "He did it to continue some form of baseball during the war," recalled Arthur Meyerhoff, the Wrigley Company's principal advertising agent, before his death in August, 1986.

The league consisted of four teams the first year: the Rockford (Ill.) Peaches, South Bend (Ind.) Blue Sox, Kenosha (Wis.) Comets, and Racine (Wis.) Belles. They played a modified version of softball, with an expanded diamond (65-foot basepaths, 40-foot pitching distance), only three outfielders, leading before the pitch and base-stealing.

The concept proved popular with the public (attendance figures would hit nearly 200,000 for the season), and the last week of June, about a third of the way through the campaign, local newspapers in the four AAGPBL home cities invited fans to vote for two all-star teams, one comprised of players from the Wisconsin clubs and the other of Indiana and Illinois players.

The two squads, it was noted, would compete in an all-star game to be played in Wrigley Field on the night of July 1, as part of a WAAC rally capping a day-long, Chicago-area recruiting drive. The ballgame, which would be preceded by a contest between two WAAC teams from Fort Sheridan and Camp Grant, would be played under temporary lights installed for the occasion.

At that point in the season, the Blue Sox were leading the circuit with a 22-16 won-lost record, compiled on the strength of the pitching of Margaret "Sunny" Berger (8-2) and southpaw Doris Barr (7-2). The Belles, a game back, were led by Mary Nesbitt (8-6), another southpaw who, after a slow start, had won four in a row.

The Comets, with perhaps the best overall talent in the AAGPBL, resided in third place, paced by pitcher Helen Nicol (7-4), and leadoff batter Shirley Jameson, the diminutive outfielder who, at .349 was the league's

Jay Feldman's 1985 article on the AAGPBL for Sports Illustrated gave the league its first national exposure, and helped create the interest that resulted in the "Women in Baseball" display at the Hall of Fame.

second leading hitter and, in the week preceding the all-star game, was wreaking havoc on the rest of the league, batting .387 (12-for-31) with two home runs, three RBIs, eight runs scored and eight stolen bases.

The Peaches, at 15-24 occupied the cellar, despite the offensive efforts of shortstop Gladys "Terrie" Davis (whose .387 BA and 43 hits led the league, and 24 RBIs tied for the league lead with Kenosha's Darlene Mickelsen) and her partner at third base, Mildred Warwick (at .315, the circuit's third highest average).

AAGPBL fans sent in their all-star selections, inspired no doubt at least partly by the offer of a free ticket to any regular season game in exchange for every ballot accompanied by a self-addressed, stamped, return envelope. While the teams chosen included most of the leading players in the league, there were also several notable omissions, including co-RBI leader Mickelsen, and Kenosha's Pauline Pirok, who would win a spot on the post-season, all-league team as utility infielder. Equally incomprehensible was the exclusion of Rockford star Dorothy Kamenshek, who would make the all-league team at first base that year and go on to be regarded by many as the league's best all-around player. (In 1950, she was recruited by a Florida minor league team after former N. Y. Yankee first baseman Wally Pipp described her as "the fanciest-fielding first baseman I've ever seen, man or woman.")

Led by Kenosha manager and former major leaguer Josh Billings and Rockford skipper Eddie Stumpf, the all-star teams invaded Wrigley Field on July 1. The admission-free program opened with the WAAC ballgame, won by Fort Sheridan, 11-5. The game was followed by a WAAC demonstration of precision drilling, calisthenics and a "fashion show" of WAAC uniforms, after which the All-Americans took the field.

Three banks of temporary lights, on poles, were situated behind home plate, first and third bases. "The lights weren't all that great," recalls Jameson, "but we were used to that—we had to play with whatever we had. Besides, just the fact that we were playing in Wrigley Field was enough. We'd have done it whether it was light or dark, because we were all on Cloud Nine."

Rockford's Warwick concurs: "All of a sudden I'd landed in Wrigley Field. I was overwhelmed by the size of it, and I thought, 'Oh my goodness, I'm playing in Wrigley Field.' I was thrilled."

South Bend leftfielder Betsy Jochum was similarly excited, but unaware that history was being made. "I didn't realize at the time that they didn't have lights at Wrigley Field," she says, laughing at her own innocence. "I just thought those lights were there all the time. We showed up for the game, the lights were on, and we played."

The game itself was a massacre, as the Illinois-Indiana pitching staff had nothing that night and their Wisconsin counterparts were unhittable. Wisconsin touched Illinois-Indiana starter Berger for two runs in the bottom of the first, and jumped all over Rockford hurler Marjorie Peters for five more in the third, the big blow being a bases-loaded triple by Racine outfielder Eleanor Dapkus, who missed a grand slam only because of a bad ankle suffered the night before. After limping into third, Dapkus left the game.

Meanwhile, Wisconsin starter Nicol, who had retired 24 straight batters in a game on June 25 and thrown a five-hitter on June 28, pitched three hitless innings. Her Comets' teammate Lee Harney kept the hitless string going, and by the time she was tapped for a single by Blue Sox centerfielder Jo D'Angelo with two out in the seventh, the score was 13-0, Wisconsin having roughed up South Bend's Barr for six more runs in the sixth.

The final score was a humiliating 16-0, as Wisconsin added three in the seventh against Peaches' hurler Olive Little, who also had the only other hit for her side, a scratch single to open the ninth.

Leading the offensive attack for Wisconsin were Racine's keystone combination, second sacker Sophie Kurys (3-for-4, three runs scored), who would go on in subsequent years to establish staggering single-season and lifetime stolen-base records (201 and 1,097), and shortstop Dorothy Wind (1-for-2, three runs scored). Jameson continued her rampage, with two hits, three runs and two stolen bases, and also sparkled in the out-field—no mean feat considering the poor lighting. "The shadows would come up and all of a sudden you wouldn't be able to decipher where the ball was," remembers Nicol, whose season marks of 31-8 and 1.81 ERA would both be league bests. "It was pretty hard for the outfielders to see, especially if the ball got up high."

The inadequate lighting and lopsided score notwithstanding, Wrigley Field's first night game was history.

uestion: What was the date of the second night game played at Wrigley Field?

Answer (choose one):

- a. August 8, 1988
- b. August 9, 1988
- c. July 18, 1944

That's right, the AAGPBL did it again the following year, this time scheduling an admission-free double-header, with box seats for Red Cross workers in uniform, members of the Armed Forces, and anyone showing a blood donor button, Red Cross pin or card. Attendance topped 16,000.

The lighting was somewhat better this time. "The lights were rigged up just for our game on the lower part of the upper stands," recalls Racine pitcher Joanne Winter. "They were not bad—better than some of the softball fields in Chicago."

In the opener, the Milwaukee Chicks, one of two new teams that season—the other was the Minneapolis Orphans—outslugged the Blue Sox, 20-11. Due to the length of the game, the nightcap, which pitted the first-half champion Comets against the '43 crown-winning Belles, was called at 6-6 after three and a half innings so the players could make train connections.

Despite the historic nature of these games many former AAGPBL players feel their milestones have been swept under the carpet. Kenosha's Janice O'Hara, who played first base for the Wisconsin team in '43 and appeared in the shortened second game of the '44 twin-bill, expresses these frustrations: "When they were talking about the historic first night game at Wrigley last season,

I said to my niece, 'Heck, we played under lights there forty years ago.'"

"They would never give women the credit," says Sophie Kurys. "They would never even look into it because, let's face it, baseball is a man's domain. But if P. K. Wrigley were alive today, these games would not have been forgotten, because he started our league, and it was only because of him that we were ever there."

The All American Girls Professional Baseball League (that name was adopted in 1945) continued until 1954. By then, its game was almost identical to men's baseball, with a near-regulation hardball, overhand pitching, 85-foot basepaths and a 60-foot pitching distance.

On November 5, 1988, the National Baseball Hall of Fame unveiled an exhibit honoring women in baseball, the centerpiece of which is a tribute to the AAGPBL, including uniforms, gloves, balls, photos, programs, and other memorabilia, as well as a roster of all the women who played in the league.



Henry "Hi" Myers enjoyed a 14-year major league career, twice leading the National League in triples. In the second game of the 1916 World Series, his first-inning homer was Brooklyn's only run as Babe Ruth pitched the Red Sox to a 14-inning, 2-1 victory.

The next winter, Myers devised a plan to get a bigger salary than was being offered by Brooklyn owner Charlie Ebbets. Myers lived on a small Ohio farm whose livestock consisted of one horse and a few chickens.

Myers had a printer make up some letterheads reading "Myers' Stock and Farm," and on this stationery wrote Ebbets saying he was returning his contract unsigned because he could make more money operating his successful farm.

Ebbets knew that Giants manager John McGraw, who handled contract signings for that club, had considerable success with holdouts by visiting them at their homes. Ebbets decided to try that approach with Myers.

Fortunately for Myers, someone tipped him off that Ebbets was coming to see him, so he borrowed all the cows, bulls, pigs, horses and chickens he could from his neighbors. When Ebbets arrived, he was much impressed with "Myers' Stock and Farm" and gave Myers the raise he was seeking.

Just in case Ebbets should return for a second visit, Myers waited several days before returning the livestock, then threw a big barn dance to thank his helpful neighbors.

— Tom Knight

Winning Big for the Hall of Fame

Not that many players have won 85 percent of the vote, but most of those who have are moderns.

Ted Di Tullio

As every baseball fan knows, on January 7, 1992, Tom Seaver was voted into the Hall of Fame with the highest percentage of votes in history. He received 98.84 percent, passing Ty Cobb's 98.23 percent in 1936.

The big three—Cobb, Ruth, and Wagner—remain prominent as strong vote-getters, but relatively modern players dominate the list of high-percentage winners. Perhaps there are fewer obvious choices than there were in the early days of the Hall, when players like Arky Vaughn and Ernie Lombardi—probable first-time winners to-day—couldn't crack the lineup. The writers in the 30's

and 40's were still trying to honor the greats and neargreats of the earlier part of the century, as well as nominate recent retirees.

A nominee must receive 75 percent of the votes cast to win election to the Hall. Since 1945, the rules have sometimes provided for a runoff election between the top vote-getters if no player wins that number. In runoffs in 1949 and 1967, Charlie Gehringer nipped Mel Ott and Red Ruffing bumped Ducky Medwick. Would any of these men be left off 25 percent of current writers' ballots?

Players V	Who Hav	e Received 85	Percent of the	Hall of Fame	Vote
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	Total Vote	Yes Votes	No Votes	League	Year	%	
1 Tom Seaver	430	425	5	N	1992	98.84	
2 Ty Cobb	226	222	4	Α	1936	98.23	
3 Hank Aaron	415	406	9	N	1982	97.83	
4 Johnny Bench	447	431	16	N	1989	96.42	
5 Babe Ruth	226	215	11	А	1936	95.13	
6 Hans Wagner	226	215	11	N	1936	95.13	
7 Willie Mays	432	409	23	N	1979	94.68	
8 Carl Yastrzemski	447	423	24	Α	1989	94.63	
9 Bob Feller	160	150	10	A	1962	93.75	
10 Ted Williams	302	282	20	A	1966	93.38	
11 Stan Musial	340	317	23	N	1969	93.24	
12 Roberto Clemente	424	393	31	N	1973	92.69	

Ted DiTullio is SABR's only fur designer.

13 Jim Palmer	444	411	33	A	1990	92.57
14 Brooks Robinson	374	344	30	A	1983	91.99
15 Christy Mathewson	226	205	21	N	1936	90.71
16 Rod Carew	443	401	42	A	1991	90.52
17 Frank Robinson	415	370	45	N	1982	89.16
18 Joe DiMaggio	251	223	28	A	1955	88.84
19 Al Kaline	385	340	45	A	1980	88.31
20 Mickey Mantle	365	322	43	A	1974	88.22
21 Mel Ott	226	197	29	N	1951	87.17
22 Carl Hubbell	161	140	21	N	1947	86.96
23 Red Ruffing	306	266	40	A	1967	86.93
24 Sandy Koufax	396	344	52	N	1972	86.87
25 Robin Roberts	388	337	51	N	1976	86.86
26 Harry Heilmann	234	203	31	Q	1952	86.75
27 Duke Snider	385	333	52	N	1980	86.49
28 Ted Lyons	251	217	31	A	1955	86.45
29 George Sisler	274	235	39	A	1939	85.77
30 Yogi Berra	396	339	57	A	1972	85.61
31 Charlie Gehringer	187	159	28	A	1949	85.03
32 Hank Greenberg	193	164	29	A	1956	84.97
33 Joe Medwick	283	240	43	N	1968	84.81
34 Louis Aparicio	403	341	62	A	1984	84.62

Oscar Azocar of the Yankees came to bat 214 times officially in 1990 and drew only two walks. Here is a list of American Leaguers who lead in this statistic:

			AB	BB	BB/AB
Osse Schreckengost	Phi	1905	416	3	139
Rob Picciolo	Oak	1980	271	2	135
Rob Picciolo	Oak	1979	348	3	116
Oscar Azocar	NY	1990	214	2	107
Alfredo Griffin	Tor	1984	419	4	105

A Single Issue

Baseball's best one-base hit men

Tony Kissel

he first table, accurate through the end of the 1991 season, lists players with the greatest percentage of singles among all their hits lifetime. The second, also

accurate through 1991, lists those with the most singles per game. Both lists include only those players with a minimum of 1,000 singles.

	Dlavian	1B	Ulto	Pct.		Player	1B	Games	Pct.
	Player		Hits			,			
1	Roy Thomas	1377	1537	89.59	1	Willie Keeler	2511	2123	1.183
2	Maury Wills	1866	2 13 4	87.44	2	Billy Hamilton	1782	1591	1.120
3	Patsy Donovan	1955	2253	86.77	3	Jesse Burkett	2273	2066	1.100
4	Sandy Alomar Sr.	1010	1168	86.47	4	Patsy Donovan	1955	1821	1.074
5	Jimmy Slagle	1158	1340	86.42	5	George Sisler	2122	2055	1.033
6	Miller Huggins	1269	1474	86.09	6	Pete Browning	1219	1183	1.030
7	Willie Keeler	2511	2932	85.64	7	Lloyd Waner	2033	1993	1.020
8	Donie Bush	1534	1803	85.08	8	George Van Haltren	2017	1984	1.017
9	Jerry Remy	1041	1226	84.91	9	Deacon White	1311	1299	1.009
10	John McGraw	1105	1309	84.42	10	Ty Cobb	3054	3034	1.007
11	Fielder Jones	1619	1920	84.32	11	John McGraw	1105	1099	1.005
12	Kid Gleason	1633	1944	84.00	12	Hugh Duffy	1734	1737	.998
13	George McBride	1009	1203	83.87	13	Ginger Beaumont	1457	1463	.996
14	Horace Clarke	1030	1230	83.74	14	Tony Gwynn	1326	13 35	.993
15	Fred Tenney	1862	2231	83.46	15	Steve Brodie	1421	1437	.989
16	Monte Ward	1752	2105	83.23	16	Cap Anson	2246	2276	.987
17	Charlie Hemphill	1023	1230	83.17	17	Ed Delahanty	1789	1835	.975
18	Glenn Beckert	1224	1473	83.10	18	Wade Boggs	1444	1482	.974
19	Burt Shotton	1110	1338	82.96	19	Rod Carew	2404	2469	.974
20	Larry Bowa	1815	2191	82.84	20	Richie Ashburn	2119	2189	.968

Tony Kissel is a sales rep whose ambition is to sell baseball-related items.

The 1925 Seals' Place in History

How good were they?

Scott Mackey

hile Jack Dunn was building his celebrated minor-league dynasty in Baltimore during the early 1920s, three men in San Francisco were doing a little dynasty building of their own.

"The Vanderbilts of Valencia Street," as they were called—Alfie Putnam, Dr. Charles Strub and Charlie Graham—provided San Francisco with the best baseball west of the Mississippi. Their San Francisco Seals dominated the Pacific Coast League during the 1920s, winning four pennants and compiling a .567 winning percentage. This minor league dynasty ranks with Dunn's Orioles of 1919 through 1925, and an honest case can be made for the 1925 Seals being the best minor league team of all time.

In 1925, Putnam, Strub and Graham shored up a pitching staff whose 1924 collapse had destroyed the team's hope for a third consecutive pennant. The additions of ex-major league pitchers Doug Mcweeny and Jeff Pfeffer (not to be confused with his older brother, "Big Jeff") created one of the most experienced staffs on the Coast.

In all, 17 of the Seals played or would go on to play in the major leagues. The team included two future Hall of Famers including one—Lloyd Waner—who couldn't crack the lineup even though he was just two years away from hitting .355 for the National League champion Pittsburgh Pirates. The younger Waner's lack of playing time is understandable considering that the Seals featured a club of exceptional ability, experience and depth.

Here's how they lined up:

Infield. Bert Ellison (1b), Pete Kilduff (2b), Hal Rhyne (ss) and Eddie Mulligan (3b) averaged 29.5 years of age and had played together for 3 years. They were considered the best in the league individually and collectively; The Sporting News wrote: "It is a better infield than Boston or Philadelphia in the National and one or two clubs in the American."

Outfield. Paul Waner (lf), Gene Valla (cf), and Frank Brower (rf). Neither Waner nor Valla had seen the underside of a .300 average, and both were coming off torrid years at the plate. Brower had played for Cleveland the year before; for \$7,500 the Seals received a lifetime .284 major leaguer with a cannon arm. Young Smead Jolley joined the club in August to hit .447, 12 home runs and 16 doubles in just 132 at bats.

Catching. With the possible exception of Mervin Shea of Sacramento, Sam Agnew and Archie Yelle were the two best catchers on the Coast. Pete Ritchie rounded out a catching corps that would hit .305 for the year, with 23 home runs.

Pitching. The basic five-man core—Guy Williams, Doug McWeeny, Ollie Mitchell, Bob Geary and Marty Griffin—was expected to win a hundred games. Young Doug Moudy, was counted on for added depth.

The team didn't exactly set a land-speed record coming out of the gate. Their 5-4 start trailed both Salt Lake and Los Angeles. But once they got rolling, nobody in the PCL could stop them. After winning 14 consecutive games the last two weeks of April, the Seals never looked back. When their exhausting 199-game season had

ended in October, the team had lost only three of the 27 series they played in 1925; and, their winning percentage of .641 was the highest PCL mark in 19 years.

They finished the season winning five of nine games from American Association champion Louisiville in the Junior World Series. While the Series was little more than an exhibition (thanks largely to Dunn's Orioles beating Louisville and then opting not to come west to play the Seals), it did solidify San Francisco's claims that it was the best minor league club of 1925.

Though Dunn might have argued the Seals' claim, it is difficult to ignore a team that featured a little bit of everything:

Hitting. They batted .315 for the season; seven of eight regulars averaged over .300.

Fielding. A league-leading fielding percentage of .968 tells the story.

Pitching. McWeeny, Williams, Mitchell and Geary each won 20 games; three others (Griffin, Bill Crocket and Pfeffer) won 12 or more. McWeeny (20-5) and Griffin (16-4) led the league with a .800 winning percentage; McWeeny's 2.70 earned run average also topped the Pacific Coast League.

Stars. The all-Pacific Coast League all star team announced in *The Sporting News* listed six Seals on the first team (Kilduff, Mulligan, Rhyne, Waner, Yelle and McWeeny) and four on the second (Ellison, Valla, Agnew and Geary). No doubt the team dominated 1925 and was the strongest of the four pennant-winning Seals teams of the 1920s. Further, they were clearly the best



Pete Kilduff

team of the decade in the PCL. But where do they rank in minor league history?

An article by Joseph M. Overfield in the 1977 Baseball Research Journal says, "In the modern era of baseball there have been many great minor league clubs. Those that come immediately to mind are the 1937 Newark Bears, the 1934 Los Angeles Angels, the 1925 San Francisco Seals..." Writing about the 1934 Angels, which he calls one of the best minor league teams of the 30s, baseball historian Bill James says, "The Angels probably were not as good as the Baltimore Orioles of a decade earlier, and quite possibly not even as good as the San Francisco Seals of 1922-1925... By 1934 some of the structures were already in place to take all of the best players out of the minors and concentrate them in the majors."

Bob Hoie, of the Society for American Baseball Research's Minor League History Committee, ranks the '25 Seals in the same class with the '34 Angels—with some reservations—and attributes much of their success to their "tremendous continuity, at least as much as the Baltimore Orioles of the same era."

Consistently, the 1937 Newark Bears, the 1934 Los Angeles Angels and, especially, the 1920 Baltimore Orioles are mentioned as the best minor league clubs of all time. All merit such respect.

The Bears, a Yankee farm club, featured future major leaguers Joe Gordon, Charley Keller, Babe Dahlgren, Steve Sundra, Atley Donald and Buddy Rosar. Their 121-46 record included playoff victories against I-League runners-up Syracuse and Baltimore. The 1934 Angels set a PCL record with their 137-50 season. This was a team without flaw and with a pitching staff that was likely the best in Coast League history. Led by Harry Frank, Johnny Ogden and Jack Bently (and with help from Lefty Grove), the 1920 Orioles achieved a 110-43 record, crowning the year with a Junior World Series championship over St. Paul.

Comparing records and personnel, the Seals clearly rank with this company. However, gauging a minor league team's place in history is more difficult than similar comparisons between major league ballclubs. The structure of the minors has changed dramatically, if not year to year, then definitely decade to decade. Among the high minors it's hard to compare teams even during the same season because they seldom play one another or even common opponents. The infrequent Junior World Series between champions of the American Association, International League and Pacfic Coast League never quite caught on as a serious arbiter of "who's the best?"

James' assertion that more top minor league players began joining major league clubs in the 1930s supports

the argument that the 1920s were a stronger decade for minor league ball. With the proliferation of structured farm systems in later decades, the depletion of talent during the war years, and the later major-league expansion, the high minors featured fewer and fewer top players as the 20th century wore on.

Those who argue against the Seals ranking among the best of all time point to the team's performance in 1926 when it crashed to 84 and 116 to finish dead last in the PCL. Does this mean that the 1925 team was a fluke? Had it lucked out the year before? No, no, no. The 1926 team was not the same as the 1925 model; McWeeny, Rhyne and Waner had all gone on to the majors. And injuries and age were beginning to catch up with Ellison, Kilduff, Valla and Geary in particular.

Yes, the 1925 team caught a lot of breaks, scoring an

average of only 1.3 runs per game more than their opponents during the 1925 season. To put that in perspective, the 1920 Orioles, 1934 Angels and 1937 Bears scored 2.6 runs more runs per game than they allowed. Maybe the Seals didn't romp over their competition as much as the other alltime great teams, but that should not exclude them from this elite company.

Man for man, the Seals were as good as any minor league club before or since. Their near wire-to-wire championship dominated a tough league, a feat that is particularly impressive considering the PCL's marathon schedule.

Clearly, their talent and performance during the season puts the Seals in the minors all time upper crust, alongside the '20 Orioles, '34 Angels and '37 Bears.

The 1925	Seals	at a Gla	ance
Starters	AVG.	HR	RBI
Gene Valla, cf	.333	6	72
Eddie Mulligan, 3b	.286	10	77
Paul Waner, If	.401	11	130
Frank Brower, rf	.362	36	163
Bert Ellison, 1b	.325	22	160
Pete Kilduff, 2b	.306	20	126
Hal Rhyne, ss	.315	3	97
Sam Agnew, C	.325	20	85
Pitchers	W-L	ERA	
Guy Williams	21-10	3.79	
Doug McWeeny	20-5	2.70	
Ollie Mitchell	20-8	4.29	
Bob Geary	20-12	4.01	
Marty Griffin	16-4	4.26	
Jeff Pfeffer	15-15	5.27	
Bill Crockett	12-11	4.38	
Doug Moudy	3-5	4.83	

Finding Better Batting Orders

The traditional criteria don't really hold water

Mark D. Pankin

Kent Hrbek batting leadoff for the Twins? The idea is not as stupid as it sounds; at least according to my research on finding high-scoring batting orders.

Traditional guidelines such as "the leadoff man should be a good base stealer," "number two should be a contact hitter who can hit behind the runner," and "bat your best hitter third" abound. Due to computational complexities, there have been few studies that analyze the batting order question from a quantitative viewpoint. This article summarizes what I believe is the most comprehensive mathematical and statistical approach to lineup determination. I will describe the models I developed, and the principles of batting order construction that I think managers should use. Finally, I will apply the models to the 1991 American League division winners and compare them to the batting orders employed by the teams' managers.

The study uses two mathematical/statistical models: first, a "Markov process" model that calculates the long-term average (often called expected) runs per game that a given lineup will score, and second, a statistically derived model that quantitatively evaluates the suitability of each of the nine players in each of the nine batting order positions. Data for the second model were generated by numerous runs of the Markov model, which underlies the entire analysis.

The Markov process model is based on the probabilities of moving from one runners and outs situation to

another—possibly the same—situation. These probabilities, which depend on who is batting, are called *transition probabilities*. For example, one such transition is from no one on and no outs to a runner on first and no outs; and the transition probability is that of a single, walk, hit batsman, safe at first on an error, catcher interference, or striking out and reaching first on a wild pitch or passed ball. The Markov model employs matrix algebra to perform the complex calculations. However, once all the requisite probabilities have been determined, the matrix formulation enables the remaining calculations to be carried out without much difficulty.

It is important to note that assumptions made in determining the transition probabilities have an enormous influence on the batting order results. The goal is to choose a realistic set of assumptions, but, as always, some simplifying assumptions are quite helpful. Moreover, some of the assumptions are open to alternatives, the particular ones employed being a matter of judgment or study objectives. The key assumptions for the current analysis are:

- 1. Players but the same in all situations. For this study, I used each player's 1990 full season data.
- 2. All base advancement, outs on the bases (including double plays), wild pitches, passed balls, balks, etc. occur according to major league average probabilities.
- 3. Stolen base attempts are permitted with a runner on first only.
 - 4. Only pitchers attempt sacrifice bunts.
 - 5. Overall 1990 pitcher batting is used for all pitchers. The first assumption is the most critical and most con-

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troversial. One of its consequences is that the differences in expected runs between batting orders tend to be relatively small. A previous, less extensive, study that incorporated situational performance assumptions (e.g. certain players hit better with runners on) showed much larger differences in expected scoring. I plan to explore various alternative assumptions about performance levels in future batting order studies.

Base advancement on hits certainly is not uniform since it depends on runner speed and where the particular batter tends to get his hits (e.g. the percentage of singles to left, center, or right). However, I did not have the data needed to incorporate such effects. Nor did I have the data to do batter-specific double play modeling.

The stolen base try restriction does not have a large effect because over 80 percent of steal attempts occur with a runner on first only. This restriction greatly simplifies the computations and is not likely to affect comparisons between batting orders. Sacrifice bunt tries are not included for non-pitchers because they are situation-specific and because they *reduce* overall scoring, which is contrary to my objective of finding the high scoring lineups.

I use the Markov model for two primary purposes. One purpose is to evaluate a specific batting order by calculating its expected runs per game. In this way, I can compare alternative lineups. The second purpose is the generation of data for use in the statistical model. For each of the twenty-six major league teams in 1990, I used the Markov model to compute the expected runs per game for 1800 randomly generated batting orders incorporating the nine most frequent players, one for each position. I chose to compute 1800 so that I could see the results of each player batting in each position 200 times.

From these 1800 batting orders, I selected the 200 with the highest expected scoring. I also tabulated how often each player hit in each position in these 200 best lineups. For example, Wade Boggs leads off in 21 percent of Boston's highest scoring lineups. (This value, the highest on the team, means that Boggs is a good first hitter, since the average is 100 percent/9 = 11.1 percent.) In this way, I develop a rating for each player's suitability for each position in the order.

For each player, I computed scores in twenty-one offensive measures relative to the group of nine starting players on his team. The offensive measures included such standards as batting and slugging averages, and others such as the frequency of walks and of each type of hit, as well as measures of base stealing and ability to put the ball in play. I don't claim that the set of measures I chose is complete or perfect, just that it covers all the significant aspects of offensive performance.

The statistical technique of regression analysis can be employed to derive quantitative relationships among the players' batting position ratings (e.g. Wade Boggs 21 percent batting first) and their relative scores for the various offensive measures. Doing so and analyzing the results, I derived equations that give each player a value for each lineup position. These values are *relative*—they depend on the other players on the team. The equations can be interpreted to characterize the desirable abilities for each batting order position. Here is what they indicate, for each position in the order:

- 1. Getting on base is everything. To much lesser extent, home run hitters should not lead off. Stolen base ability is irrelevant.
- 2. Similar to the leadoff hitter, but on-base percentage is not quite as crucial; some power is also desirable.
- 3. Should have fair power, be able to draw walks, and should not strike out much.
- 4. Highest slugging average; also a good on base percentage. Need not be the team's best home run hitter.
- 5. Good power; secondarily puts ball in play (i.e. does not walk or strike out a lot).
- 6. Hardest spot to characterize and probably least important. Probably want to use player who doesn't fit well in other positions. Base stealing ability is a small plus.
- 7-9. Decreasing overall abilities as hitters as characterized by on-base percentage and measures of power hitting.

One clear result from this and prior studies is the importance of having the right batters at the top of the order. This follows from the finding that most of the differences in expected runs between high and low scoring lineups occur in the first imning. In particular, the leadoff batter must have a high on-base percentage. Also, the second hitter must be a good hitter. The practice of leading off a fast runner who can steal bases and putting a weak hitter "with good bat control who can bunt or hit behind the runner" second is a perfect prescription for a lower-scoring batting order.

Consider what these models say about the 1991 ALCS teams, Toronto and Minnesota. Batter performance is based on full season 1991 data, and no righty-lefty splits are used. The lineups used by the teams were against right handed starting pitchers. Before Joe Carter was hurt in game three, Cito Gaston used the batting order:

1) D. White, 2) R. Alomar, 3) J. Carter, 4) J. Olerud, 5) K. Gruber, 6) C. Maldonado, 7) L. Mulliniks, 8) P. Borders, 9) M. Lee.

The highest scoring lineup found by the models is:

1) Mulliniks, 2) Olerud, 3) Maldonado, 4) White, 5) Alomar, 6) Carter, 7) Gruber, 8) Borders, 9) Lee.

According to the Markov process calculations, the

model batting order averages about 9 runs per 162 game season more than Gaston's, a difference that should be worth one extra win. (Differences in expected runs between lineups are small due to the assumption that each player's batting is the same in all situations.)

Mulliniks should lead off because he has an on-base percentage (OBP) of .364, the highest in this group, and little power. White, in contrast, has an OBP of .342 and the second best slugging average (.455, to Carter's .503), so he should not lead off despite his stolen base ability. The major surprise is that Carter bats sixth. The model actually values him as best on the team in the third, fourth, and fifth spots, but Maldonado, White, and Alomar rate so low as sixth-place hitters, that Carter is put there instead. Tests using the Markov model showed it makes virtually no difference if Carter bats fourth and White and Alomar fill the five and six slots in either order.

Minnesota's Tom Kelly employed the following order in the four games against right-handed starters:

1) D. Gladden, 2) C. Knoblauch, 3) K. Puckett, 4) K. Hrbek, 5) C. Davis, 6) B. Harper, 7) S. Mack, 8) M. Pagliarulo, 9) G. Gagne.

The best model generated lineup is:

1) Hrbek, 2) Davis, 3) Mack, 4) Puckett, 5) Harper, 6) Gagne, 7) Gladden, 8) Pagliarulo, 9) Knoblauch.

The expected scoring over a season of the model lineup is about 8 runs higher than Kelly's, which might yield one more victory. Clearly, the model result flies in the face of conventional wisdom, but one reason for building models is to gain new knowledge.

Gladden's 1991 OBP of .306 is by far the worst among the nine players. I never cease to be amazed by managers who are so fascinated by speed that they forget players can't steal first base! Davis and Hrbek have the two highest OBP's, and the model takes advantage of this by loading the top part of the order. One reason Davis, with a slugging average of .507, can bat second is that Mack, at .529 is even better. Knoblauch is an interesting case because the model values him highest at either the top or bottom of the order. However, on this team, he is best pencilled in at the bottom because his OBP is far from the best.

One important factor this study cannot consider is what assumptions, if any, managers make about batting performance by their players. If this information could be added to the models, we could better judge how well the managers constructed their batting orders.

Although I believe this study is a major advance in our knowledge about batting orders, these models are not by any means the final word on this subject. In particular, incorporation of some situational batting effects is worth additional study. One, of particular interest, is how the strength or weakness of the next hitter(s) affects a player's batting performance—for example, the effect of any tendency to "pitch around" a good hitter who is followed by a weaker one. The primary problem is obtaining relevant data. Also, there is room for improvement in the statistical (regression) modeling process.

I hope that this article has persuaded readers that mathematical and statistical techniques can be useful tools for designing higher-scoring batting orders. For those who are interested in actually using the models described, they are now part of the APBA computer baseball game. (Contact the publisher, Miller Associates, 11 Burtis Avenue, New Canaan, CT 06840 for details.)



Johnny Gill had the unusual distinction of twice collecting six hits in a game for the Baltimore Orioles in 1931. At Buffalo on August 29 he hit a homer, triple, and four singles and knocked in nine runs in a 20-7 blow-out. On September 7, his half-dozen hits included two homers and a double. He scored six runs and knocked in seven in the 23-6 slaughter at Reading. Both contests were opening games of twinbills. How did Gill do in the second encounters? Both times he was hitless in four at bats.

— Al Kermisch

Cy of Relief

Who else? The man with the 'stache

Barry L. Mednick

"The saves were a little bit tougher to get when I was pitching."—Rollie Fingers.

The man with the waxed handlebar compiled a career record of 341 saves, but no save was tougher than in the seventh game of the 1972 "Hairs versus Squares" World Series. After two quick ninth-inning outs, Fingers hit Cincinnati Reds Darrel Chaney. Pete Rose, already two for four, came to the plate. With Vida Blue in the bullpen, manager Dick Williams strode toward the mound, but catcher Dave Duncan intercepted him. "I know what you're going to do," Duncan said. "Don't do it. Rollie is throwing as good as I've ever seen. He can get Rose." Rose promptly hit a line drive to the warning track, but to the opposite field, caught by Joe Rudi.

The A's had won the first of three consecutive World Championships, and Fingers was the majors' premier relief pitcher. Earlier in that Series, Fingers saved Game Two by getting Julian Javier to hit a soft foul popout with Hal McRae on base. The next game he whiffed Johnny Bench with a fake intentional walk. Rollie called it "the best slider I've ever thrown." He won Game Four, picking Tony Perez off first for the initial out in the ninth inning, and keeping the bases empty. Despite being burdened with the loss in Game Five, Fingers finished with an ERA of 1.74, striking out a batter an inning.

Rollie began his work in the 1973 Series against the Mets with three and a third scoreless innings in Game

One. He was victimized by bad fielding and three unearned runs in Game Two. Then Rollie saved Games Three and Six by retiring all seven batters he faced.

Rollie entered the ninth inning of game three with Wayne Garrett on first and no outs. Felix Millan sacrificed, and Rusty Staub flied out to Angel Manguel in centerfield. Fingers ended the game with Cleon Jones grounding out to shortstop Bert Campaneris.

After being used in the first three games, was he ready to repeat his six-game performance from the previous year? "Once I get warmed up, the adrenalin starts flowing. I only faced three batters tonight, so I'll be ready to come back tomorrow. As a matter of fact, I can go all seven if necessary. This is the World Series, you know."

Game Six presented a more perilous situation with the A's down three games to two and facing elimination. With two outs in the eighth and Oakland leading by a run, Fingers found Felix Millan on first and Garrett on third. Cleon Jones flied to center on Fingers' first pitch. In the ninth, Fingers blew away John Milner, Jerry Grote, and Ed Kranepool.

In the Series finale, he brought the A's to within one out of the championship before yielding the mound to Darold Knowles. Rollie bettered his 1972 World Series stats by more than a run with a nifty 0.66 ERA.

The next autumn, Fingers beat the Dodgers in Game One, relieving Ken Holtzman in the fifth with runners on first and second and only one out. He struck out Steve Garvey and hit Joe Ferguson to load the bases. Ron Cey flied out to end the inning. Catfish Hunter finished the game. "I was getting tired," Rollie said afterwards. "My

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legs started feeling weak in the eighth. I knew Catfish was warming up. I didn't mind coming out at all. But that was the first time I saw Catfish relieve *me*." Did he resent Alvin Dark's decision to take him out? "I stopped arguing with Alvin at the beginning of the season."

In four and a third innings, Fingers' only run was a Jim Wynn home run. "I hung a curve ball to Wynn. It was a bad pitch."

Rollie closed out the last three games, finishing with two more saves and a 1.93 ERA.

Fingers entered Game Four with two on and two outs in the eighth, and struck out Joe Ferguson. Ron Cey led off the ninth with a single. But after striking out Bill Russell, Fingers got Von Joshua to hit into a double play.

Rollie won the 1974 Series Most Valuable Player award (the first relief pitcher in 15 years to do so) with his second Series save by pitching the final two innings of the last game. Bill Buckner greeted Rollie in the eighth with a single and ran to second on Bill North's error. But Buckner continued to third and was thrown out by Reggie Jackson. After Wynn and Garvey reached base that inning, Joe Ferguson hit a pitch into the second deck, but a few feet foul. "I was tired and couldn't throw the breaking stuff, just the fast ball. I threw a breaking one to Ferguson, and he hit it seven miles. So, I decided to do away with that pitch." Fingers closed out the game with an assist on the last out. "Your mind just goes blank. I felt the same way both times, tonight and when Pete Rose flied out and we'd beaten Cincinnati."

Appearing in sixteen of the A's nineteen Series games, Rollie racked up two wins, six saves, and a 1.35 ERA.

Rollie did not begin as a reliever. Born in Steubenville, Ohio, in 1946, the son of minor-leaguer George Fingers, 18-year-old Rollie signed with the Athletics. In Leesburg and Modesto, the tall, trim righthander averaged seven innings per game. He led the Southern League in shutouts in 1968.

Rollie arrived in Oakland in 1969 and started 35 games in his first three years. But his 31 saves in that period indicated his true value. "I started relief pitching when manager Dick Williams ran out of pitching. He called me in to pitch in the eighth inning with a two run lead. The next night, I did it again. That's how it started." When not leading the league, he was among the top four in saves from 1971-1982 (except for 1979, when he had an elbow injury), the first pitcher ever to dominate the reliever role for such a long period.

"Most of the time I wasn't starting the inning," said Fingers. "I was walking in with a couple guys on or the bases loaded. The situations I came into were the oneon, one-out situations with a one-run lead where you are hoping to get the double-play ball. When I was pitching, the starters wanted to get complete games. When Catfish Hunter was ahead 3-1 going into the ninth, you knew he was going to finish. Pitchers like Hunter, Ken Holtzman, and Vida Blue were paid to pitch nine innings. And the managers stuck with them as long as they could or until they created a problem. That's when I came in."

In 1976, Commissioner Bowie Kuhn vetoed Charlie Finley's sale of Fingers and Joe Rudi to Boston and Vida Blue to the Yankees. But Fingers did go to San Diego as a free agent at the end of that season.

In San Diego, Rollie mastered a forkball, which broke down and in to righthanders, to accompany his slider and fastball. He could also throw a curve and a screwball, and he continued to throw that first-pitch strike.

Fingers landed in Milwaukee in 1981 for his best year, when he won both the American League Most Valuable Player and Cy Young awards. Leading the league with saves, he held opposing batters to a .198 average and surrendered only 1.04 earned runs per nine innings.

Rollie won or saved 55 percent of the Brewers' victories. In the second half of the split season, he was involved in 21 of Milwaukee's 31 wins, including 13 of their last 15. His ERA in the second season was a minute 0.72. At the time he said, "This is the best year of my career, but I should have been doing this when I was 25, not 35. Maybe I get better with age. Maybe I'll be better next year. But I doubt it."

A year later, on September 2, 1982, Fingers took himself out of a game. "It wasn't any one pitch that did it," he said. "It was 20 years of pitching. I felt this light burning sensation in my arm, and the umpire, Russ Goetz, was telling me I was losing velocity." Unable to pitch the following spring, Rollie submitted to surgery. Dr. Frank Jobe found that some of the flexor muscles had become detached at the elbow, and scar tissue was causing pain. After missing all of 1983, Rollie returned with his normal effectiveness, saving 40 games in his last two seasons. A free agent in 1986, Fingers negotiated with Cincinnati. But the Reds—old adversaries—still enforced their no facial hair policy, and Rollie preferred retirement to shaving, retaining the trademark mustache.

Fingers posted a career 2.90 ERA. He played 944 games, the fourth highest total of all time.

In 17 seasons, Rollie established career records with 341 regular-season saves and six saves in the World Series. As of the end of the 1992 season, his 107 relief wins are fourth on the career list, and he is the leader in relief points with 795. (RP = $2 \times (wins + saves) - losses$). (795 = $2 \times (107 + 341) - 101$.)

His résumé includes seven All-Star appearances, three times leading his league in saves, the MVP and Cy Young awards, and Hall of Fame membership.

Early Black Batteries in the Major Leagues

By no means an overnight phenomenon

Stephen D. Boren and Thomas Boren

After Moses Fleetwood and Welday Wilberforce Walker of the 1884 Toledo club of the American Association, there were no recognized black baseball players in the major leagues until Jackie Robinson's debut April 15, 1947. However, even after Robinson's breakthrough, the evolution of black batteries was a slow process.

Although Johnny Wright was signed by the Brooklyn Dodgers shortly after Robinson, he never made the major leagues. Dan Bankhead became organized baseball's first recognized black pitcher on August 26, 1947. However, when Roy Campanella debuted with the Dodgers April 20, 1948, Bankhead no longer was with the major league team. It wasn't until May 20, 1949 that Campanella and Don Newcombe formed the first black battery. Newcombe entered the game to start the seventh inning against the St. Louis Cardinals. He relieved Rex Barney who had relieved starter Morrie Martin, gave up four hits and struck out one batter in a third of an inning.

Two days later, for the first time in baseball history, Newcombe and Campanella teamed up to form the first black battery to start a major league game. Newcombe pitched a five-hit shutout against the Cincinnati Redlegs, winning the first game of a doubleheader 3-0. Fittingly, Jackie Robinson drove in Duke Snider and Newcombe drove in both Carl Furillo and Roy Campanella.

Subsequently, Bankhead was called back up, and he and Campanella formed the game's second black battery on April 22, 1950. Bankhead started against the New

York Giants and lasted four innings. He was relieved by Ralph Branca and then Jack Banta. Banta subsequently won the game 7-6. Campanella caught the entire game.

On July 9, 1948, Leroy "Satchel" Paige became the first recognized black pitcher in the American League when he pitched for the Cleveland Indians. However, the American League did not have any black catchers until July 21, 1951 when Sam Hairston squatted behind the plate for the Chicago White Sox. Despite popular belief, Hairston was not the first black man to play for the White Sox. Minnie Minoso was traded to the Windy City on the 30th of April and began his stellar Chicago career by hitting a home run in his first at bat as a White Sox on May 1, 1951. Interestingly, Minoso's home run was off Vic Raschi: three years later Raschi was to serve up Hank Aaron's first major league home run. Hairston does have one claim to fame. His son John played for the 1969 Chicago Cubs. Thus the Hairstons formed the major league's first black father and son combination. When his other son Jerry debuted with the 1973 Chicago White Sox, the Hairstons also formed the second.

The White Sox did not have any black pitchers until Connie Johnson took the box on April 17, 1953. Hairston was long gone by then, his four-game career beginning and ending in 1951.

On September 22, 1951, the Cleveland Indians, who'd lost Paige after the 1949 season, introduced black pitcher Sam Jones. On April 30 of the next season, 39-year-old rookie catcher Quincy Troupe debuted for the Indians, and on May 3 he and Jones formed the first American League's black battery. George "Birdie" Tebbets started

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behind the plate for Cleveland, Barnev McCosky pinch-hit for him in the top of the seventh inning and Troupe finished up. Bob Feller had started the game, and gave up eight hits and five runs in 5-1/3 innings. Steve Gromek relieved him, and finished the sixth. Lou Brissie pitched the first third of the seventh inning, then Jones was called in. He walked one batter. struck out none. and did not allow hits. Bob anv Lemon pinch-hit for Jones in the top of the eighth inning and Bob Chakales finished the game. Unfortunately, Chakales gave up a run with two outs in the

Roy Campanella and Don Newcombe

ninth inning and thus the Indians lost 7-6. The Indians tied the American League record for players used in a game: twenty-three.

The next day, Troupe was the starting catcher. Pete Reiser pinch-hit for him in the top of the seventh inning. Early Wynn was the Cleveland starting pitcher and lasted 2-2/3 innings. Steve Gromek finished off the third inning and completed the fourth inning. Johnny Berardino pinch-hit for Gromek in the top of the fifth inning and Jones pitched the fifth and sixth innings to Troupe. Larry Doby pinch-hit for Jones in the seventh inning as the Indians rallied for five runs. Thus, Jones was the winning pitcher in this 9-6-victory over the Boston Red Sox.

The Jones-Troupe combination was short-lived in Cleveland. Troupe batted only 1-for-10 in six games. Soon he was back in Indianapolis of the American Association. He never returned to the majors. Jones was 2-3 with a 7.25 ERA in fourteen games and soon formed a

battery with Troupe in Indianapolis. He subsequently became twenty-game winner with the San Francisco Giants, and led the National League in strikeouts three times and ERA once.

The 1952 Cleveland catching staff was experienced, and Troupe faced stiff competition. Jim Hegan was just short of his 32nd birthday when Troupe joined the club. Secondstringer Birdie Tebbets was 39. The Indians had also purchased 29year-old Joe Tipton on waivers from the Philadelphia Athletics on the 23rd of April. Hal Naragon, who was

to have a ten-year major league career as a back-up catcher, was in the military service.

When Satchel Paige returned to the majors with the 1951 St. Louis Browns, there were no black catchers in the majors. Troupe was gone when David Hoskins joined the Tribe on April 18, 1953. Nor did the Philadelphia Athletics have a black catcher to form a battery with Bob Trice in 1953.

Another black battery took the field on May 1, 1952, the day after Quincy Troupe's major league debut. Brooklyn's Joe Black entered the game against the Chicago Cubs in the seventh inning after relieving Johnny Schmitz who had previously relieved starter Ralph Branca. He pitched one inning and gave up no hits and no walks. George "Shotgun" Shuba pinch-hit for him in the top of the eighth inning. Roy Campanella, of course, was the catcher.

An international black battery took the field on June

5, 1953. Cuban black Ray Noble caught Puerto Rican black Ruben Gomez. Noble had played with the 1951 pennant-winning New York Giants. He spent almost all of 1952 with the Oakland Oaks of the Pacific Coast League and got into only six major league games. He started the 1953 season with Minneapolis of the American Association. Wes Westrum was New York's regular catcher and Sam Caldarone was the back-up. Third-stringer Sal Yvars was in manager Leo Durocher's dog house, and Durocher brought Noble up in late May 1953, starting a chain reaction. The unwanted Yvars was sold to the St. Louis Cardinals June 15, and the Cardinals immediately sent Les Fusselman, their third string catcher, to the minors.

Gomez pitched a complete game and beat the Chicago Cubs 11-1. Noble scored two runs. Gomez had two hits in four at bats and drove in a pair of runs.

The next black battery went to work on May 25, 1955, when Charlie White caught Humberto Robinson of the Milwaukee Braves. White caught the entire game. Warren Spahn pitched the first two innings. Ernie Johnson pitched the third and fourth innings and Dave Jolly pitched the fifth and sixth innings. Robinson pitched the seventh and eighth innings after George Crowe pinch-hit for Jolly. Jim Pendleton pinch-hit for Robinson in the bottom of the eighth inning. The Braves lost 13-2. White caught in only ten major league games that year. (Don't confuse him with Red Soxer Sammy White, who caught twenty games for the 1961 Braves.

The second black battery in American League history consisted of Connie Johnson pitching to Earl Battey of the Chicago White Sox on April 21, 1956. They had almost formed a battery on September 11 of the previous year: Battey had caught the first game of a doubleheader and Johnson had pitched in the second. The game they played together was an early blowout and both of them were in mop-up roles. The Kansas City Athletics jumped on Sandy Consuegra, Bill Fischer, and Harry Byrd for thirteen runs in the second inning. The Sox replaced Sherman Lollar with Battey. Johnson was the fifth pitcher used, and pitched the seventh, eighth and ninth innings. He gave up only one hit. Battey ironically got the only Chicago hit and scored their only run thanks to two errors by Athletics' second baseman Spook Jacobs.

On April 30, 1956, Johnson was scheduled to pitch a double header with Dick Donovan against the Kansas

City Athletics. This would have been the first time in American League history that a black pitcher started a game with a black catcher behind the plate. Unfortunately, the games were rained out. On the May 15th cut-down date, the Sox sent Battey to Toronto. Six days later, they traded Johnson to the Baltimore Orioles with Bob Nieman, George Kell and Mike Fornieles to obtain Dave Philley and Jim Wilson. Charlie Beamon joined Johnson on September 26, as a second black pitcher for the Orioles, but Baltimore had no black catchers.

The Dodgers had one more black battery during the 1950's. John Roseboro caught Don Newcombe on August 21, 1957. Newcombe pitched a five-hitter and defeated the Cincinnati Redlegs 6-0. Roseboro had a single and a double and scored a run.

Elston Howard joined the New York Yankees April 14, 1955, but it wasn't until July 19, 1961 that he and Al Downing became the first starting black battery in American League history. Downing lost 12-2 to the lowly Washington Senators. He lasted only one full inning and failed to retire any of the five batters he faced in the second inning. After that outing, the Yankees did not let Downing start another game until 1963! Jesse Gonder, who came up in September, 1960 and gave New York the distinction of having two black catchers, never caught him. Unfortunately, Gonder was behind Yogi Berra, Elston Howard and Johnny Blanchard. On December 14, 1961, Gonder was traded to the Cincinnati Redlegs for black pitcher Marshall Bridges who was caught by Howard in 1962 and 1963. Gonder was traded by the Redlegs to the New York Mets on July 1, 1963. There, he was a teammate of Clarence "Choo Choo" Coleman, forming another rare black catcher combination in New York! (The 1961 and 1964 Minnesota Twins with Battey and Ronald Henry also had two black catchers. However, Henry only played in 22 games and spent most of the year with Charlotte (Double A).)

Earl Wilson became the first black pitcher in Boston history on July 28, 1959. He was traded to the Detroit Tigers on June 14, 1966, so he missed being caught by Elston Howard when the Yankees traded him to the Red Sox August 3, 1967.

Dave and Dick Ricketts almost formed a black brother battery for the St. Louis Cardinals. Unfortunately, Dick Ricketts pitched for them only in 1959 while Dave did not make the majors until 1963.



From a Researcher's Notebook

SABR's oldest and most popular feature

Al Kermisch

Centenarians Made Debuts Against Senators

All four known ex-major leaguers who lived to be one hundred years old—Ralph Miller, John Daley, Paul Otis and Chet Hoff—made their debuts against Washington clubs—three in the AL and one in the NL.

Hoff, the latest to reach the 100 mark (on May 8, 1991), made his debut for the Yankees at New York on September 6, 1911, in a relief role against the Senators. He pitched the ninth inning in a 6-2 Washington victory and retired all three batters he faced, striking out one batter, the veteran Wid Connoy. Hoff, a stocky left-hander, pitched in parts of four seasons in the American League and posted a record of two wins and four losses.

Otis and Daley made their debuts in Washington within 15 days of each other in 1912. Otis played center field for the New York Yankees on July 4, and was 0 for 8 in the two games. On his 100th birthday, Otis recalled his one major league hit off Walter Johnson as a drive over second, a clean single to center. Actually, Otis needed the help of a sympathetic scorer to get that lone hit. Of the four Washington papers, the reporters for the Post, Evening Star and the Times called it an error for shortstop George McBride, but the Herald called it a hit and the reporter for that paper probably was the official scorer. That game was played in Washington on July 5 and it went 16 innings with the Senators winning by a

score of 6-5. The questionable hit came in the fourth inning. With a run home, two on and only one out, Johnson replaced starter Joe Engel. Walter fanned Jack Warhop and then hit Bert Daniels in the back of the head to load the bases. Otis hit a pop fly in back of third which McBride dropped and two runs scored. That was the play that the Herald called a hit. Johnson pitched brilliantly the rest of the way in gaining the victory. Since the two runs that scored were charged to Engel, Johnson allowed four hits and no runs in 12 and 2/3 innings.

Daley's first game for the St. Louis Browns came on July 19, 1912 in Washington. In the first game of a double header, Daley got a chance to play when Derrell Pratt was hit by a Bob Groom pitch which resulted in a broken finger. Daley participated in 17 games for St. Louis and hit only .173, but he had one memorable game at Fenway Park in Boston on August 15. Even though the Red Sox trounced the Browns 13-5, Daley played a great game. On one occasion he made an exceptional play on Tris Speaker's sharp grounder over second, falling flat on his stomach in doing so and while in that position threw the ball to Pratt for a force play at second. He was cheered all the way to the bench and the cheering was renewed when he led off with a drive to center, the ball taking a bad hop just as Speaker was about to nip it, the ball bounding over his shoulder for a home run. That was one of the 20 home runs hit in Fenway Park in the first year of operation for that historic park.

Miller made his debut for Brooklyn in that city on May 6, 1898, in a relief role against Washington. Jack Dunn started for Brooklyn and was hit freely, giving up eight

runs in seven innings. Miller gave up one run in two innings but became the winner when Brooklyn rallied for six runs in the bottom of the ninth. Miller won only six games in the majors with Brooklyn and Baltimore, but one of the victories—over Cincinnati—furnished him with the biggest thrill of his short career. It was the first time he had pitched in his hometown of Cincinnati. The date was May 24, 1898, and a crowd of 5000 turned out to honor the local boy who had made good.

Miller received a tremendous welcome from a special contingent of his hometown fans. There were 500 in the party and they all sat together in the grandstand, all wearing white bands inscribed "Miller Rooters." As soon as Miller appeared on the diamond they began to cheer and applaud, but the most impressive scene came when the fair friends of Miller arose and sang "The Star Spangled Banner". With this sendoff Miller pitched the game of his life, and before the game had ended every spectator in the park was rooting for him. When he came to bat for the first time in the second inning he was presented with a handsome diamond stud, a silver-headed cane and a bouquet of roses. He showed his appreciation by lining out a single. Miller could do no wrong that day. He set the Reds down with eight hits in winning 6 to 3 over a club that was leading the league at that time. It also broke a 10-game losing streak for Brooklyn.

Mathews Threw Curve Balls in First Pro Game

Bobby Mathews was the only pitcher to win over 100 games in both the National Association—132—and in the NL—166. Mathews was one of the early curve ball pitchers along with Candy Cummings, who is enshrined in the Hall of Fame. Cummings won 124 games in the National Association but only 20 more in the NL.

Mathews was the first to throw the curve ball in a professional league game. He earned that honor pitching in the very first pro league game for the Kekiongas of Fort Wayne in that city on May 4, 1871, blanking the Forest City club of Cleveland 2-0 on six hits. In an interview that appeared in the Philadelphia *Press* on February 3, 1889, "Billy" Lennon, who caught that game, verified that Mathews had thrown the curve in the first victory.

"That was the best game on record up to that time," said Lennon. "People who did not see the game would not believe for some time that it was played. The shutout before that occurred in '70, when the Mutuals of New York defeated the Chicagos by a score of 9 to 0. That is where the word 'Chicagoed' came from. Well, to go back

to that 2-0 game of ours, Mathews was pitching, and it was during that game that I noticed 'Bob' every once in a while would throw a ball that appeared to curve away from the plate. The little fellow really had the curve, but he did not know it. I went to him in the fourth inning and I said: 'Bob, keep throwing that ball that shoots away from the plate and they cannot hit you with a board.' He did it and the only man who sized him up was Jim White. Every time that fellow would come up to the plate my heart came up in my mouth."

Roy Joiner Floored Joe DiMaggio in PCL Fracas

On August 16, 1933, in a game at Oakland, the Oaks defeated the San Francisco Seals 9-5. The game was enlivened by a fight between 26-year-old Oakland southpaw Roy Joiner and 18-year-old Joe DiMaggio, the sensational young Seals' outfielder who earlier in the season had hit in 61 consecutive games. The fracas happened in the first inning, when DiMaggio was thrown out at the plate. While Joe argued loudly with umpire Harry Fanning, Joiner came down from the mound and said something to DiMaggio that made the youngster challenge the pitcher and make a pass at him. Joiner responded with a left that floored DiMaggio while players from both teams rushed to the plate and began pushing each other.

DiMaggio arose and made another pass but Joiner put him down again. Some of the players pulled Joiner off DiMaggio. By this time a policeman came out of the stands and the fight stopped. Flushed with his fistic success, Joiner, who had given up 5 runs and 8 hits in the first three innings, held the Seals hitless for the last six innings. DiMaggio had two hits in four times at bat, including two RBI's.

Umpire Used Hand Signals in 1883

On August 11, 1883, Robert I. McNichol, American Association umpire, in a game between St. Louis and Columbus in the latter city, was hit in the throat by a foul ball and lost his powers of speech. It happened in the seventh inning, and since only one umpire was used in those days, he courageously continued to umpire. He finished the game by making use of the deaf alphabet system. Columbus manager Horace Phillips assisted McNichol by acting as a mouthpiece.

Babe Ruth's Truly Stupid Play Never Happened

In 1975 the late Marshall Smelser, a SABR member, wrote a book entitled "The Life That Ruth Built". On page 422 of the book Smelser told an interesting story about "the only truly stupid play of his life". Following is the way Smelser described the event:

"Ruth made the only stupid play of his life on May 21 (1930) in Shibe Park, Philadelphia. For the first time in a regular season game he hit three home runs in one game. The third cleared the fence, crossed the street, and two back yards, and landed on the roof of the next house. And he still had one more time at bat on a day when he was as hot as hydrogen fusion. Nobody had hit four home runs in one game since Ed Delehanty in 1896. When Ruth came up in the ninth he faced the righthanded spitball pitcher Jack Quinn. Outraging reason, Ruth decided to bat right-handed against a right-hander. He took two called strikes in this unfamiliar batter's box. then crossed over to bat left-handed—and struck out. A case can be made for the attempt to steal which made the last out of the 1926 World Series, but not for throwing away a chance to hit four home runs in one game. It was his dumbest hour."

The above makes great reading but the situation never happened, even though it was recounted as fact once again by former AP newsman Dan Schlossberg in Volume 4, Issue No. 1 of the Oldtyme Baseball News.

The contest in question was the first game of a double header played at Philadelphia on May 21, 1930. The game was won by the Athletics by a score of 15-7. The Yanks had led 6-4 after six and one-half innings but the A's exploded for nine runs in their half of the seventh to break the game wide open.

This is the way the Babe batted in that game: 1st inning—Ruth walloped the ball far over the right-field fence for a home run off George Earnshaw, Lyn Lary scoring ahead of him, as the crowd roared.

3rd inning—With Earle Combs and Lary on the bases, Ruth hit a titanic home run that set the crowd crazy. The ball actually flew over the house top on 20th St. Observers said it was the longest home run ever seen at Shibe Park, surpassing the mighty blow by Roy Carlyle, Red Sox sub in 1925. Earnshaw also gave up this homer.

5th inning—Ruth flied to Bing Miller against the offer-

ings of Quinn, who had come in to pitch after Doc Cramer batted for Earnshaw in the fourth inning.

8th inning—With Grove pitching, Ruth hit his third home run among the spectators on top of 20th St. houses and the Shibe Park Stadium fairly rocked as the crowd stood and paid the great man his due.

Successful "Pinch-Hitters" in the 1880's

There were successful "pinch-hitters" in the majors before unlimited substitutions were allowed in 1891, but attempting to determine who was the first would be a herculean task. However, there are a few instances of successful emergency batters in the 1880's that I have run across.

On July 4, 1885, in a morning game played at Detroit, Joe Horning, of Boston, entered the contest after Ezra Sutton, the first batter in the game, got hit with his own foul ball and had to leave the game. Horning replaced him at the bat and promptly singled. Horning stayed in the game, going to right field while Pat Deasley came in from the outfield to play third base. In the eighth inning when Boston catcher Mert Hackett injured a finger, Deasley came in to catch and Sutton reentered the game, taking over third base.

Two others who were successful as "pinch-hitters" in 1889 were Al Maul, of Pittsburgh, and Kid Gleason of the Phillies. On April 24, 1889, in the opening game of the season at Pittsburgh, outfielder Billy Sunday, of Pittsburgh, was injured in the sixth inning when he injured his wrist going after a ball hit by Fred Pfeffer. Billy finished the inning in the field, but when Pittsburgh came in for its top of the seventh, Sunday asked to be excused. Maul batted in his place and made a scratch hit along the line in left. Pittsburgh rallied for five runs in that inning to defeat Chicago 8-5.

On July 27, 1889, in a game at Philadelphia, Dan Casey, the starting pitcher for the Phils, was batted hard by Boston, giving up four runs in the first inning. In the top of the second Sid Farrar led off for the Phils by drawing a base on balls. Gleason batted in Casey's place and singled to left field. Gleason then went into pitch and blanked Boston the rest of the way to earn a 5 to 4 victory.







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