The Devolution of Derek Jeter

By Gary Sparago and Michael Agne

March 27, 2013

"You don't get better when you get older."

– Harold Conrad, former boxing agent, 1988

Introduction

By conventional measures, 2012 was quite a season for Derek Sanderson Jeter. The 38-year old shortstop led the majors in hits (216), was fifth-best in the American League in batting average (.316), and scored 99 runs (9th best in AL). He was widely hailed as having a "comeback" season while confounding his critics. Some called it a "renaissance" while others described the man as "ageless." Even the highbrow periodical, *The New Yorker*, jumped on the bandwagon, declaring that Jeter, after breaking his left ankle while fielding a ground ball in the first game of the ALCS, was "almost sure to come back, and likely to return to similar form." One of our favorite pieces of hyperbole — courtesy of the *New York Times* — claimed that Jeter had "found his inner rookie."

In this comprehensive report, we systematically refute the notion that Jeter tapped into his "inner rookie" in 2012 to elude Father Time. Based on a wide array of statistics that we will use to support our conclusions, we think nothing could be further from the truth. What we will show — aided by both standard and advanced metrics (better known as **sabermetrics**) — is that the supposedly rejuvenated shortstop is badly worn down. He's so worn down, in fact, that when viewed in the context of his own career history, his AL shortstop contemporaries, and some elite historical peers, the Yankees should be seriously planning his exit strategy.

Jeter's current measurable value to the Yankees is far less positive than widely perceived. His broader skill set is rapidly eroding. Metaphorically, we'd liken the Yankee Icon to a scenic — yet crumbling bridge — whose most serious structural defects have long evaded careful examination. It is curious to us that no one in the mainstream world of baseball media seems to have had the inclination, or nerve, to undertake a thorough study of the bridge in question. Pro bono, we have.

Our study uncovered three "core defects" – all of which are a product of age. They would be:

1. Atrophying offensive power
2. Badly diminished athleticism on the base paths
3. Defensive immobility

This report is divided into three parts: (I) "Jeter vs. Jeter" — an examination of his own personal career history; (II) Jeter vs. his AL Contemporaries; and (III) Jeter vs. his Historical Baseline — or his Hall of Fame-caliber peer group. In telling the story of a baseball immortal's "*formal descent to a lower or worse state,*" we have tried to be as visual as possible.[1] Accordingly, the report contains many graphs with virtually all of them using *three-year moving averages* to quiet statistical noise.

The primary source for the data used in this report was *Baseball-Reference.com*, an online baseball encyclopedia. We also found *FanGraphs.com* to be an invaluable source of statistical information. As we recognize that not all readers are well-versed with many of the more advanced metric terms used in the report, a Glossary is included on page 28.

1 *Oxford Dictionaries Online:* second of two definitions for the word, *devolution*.

Layout Design: Kim Chinh

Part I. Facts Hiding in Plain Sight: Jeter vs. Jeter

In this section, we will analyze how the man in question fared, in 2012, relative to his own personal history.[2] The data that we've examined encompasses both *standard* and *advanced metrics*. In looking at a <u>wider</u> array of data, including batting, base-running and fielding, we can best illustrate our central thesis that Jeter's demise is *already* quite advanced. As noted, most of the charts that we will be displaying are *three-year moving averages* of a particular data set. This, we believe, helps minimize "statistical noise" associated with smaller sample sizes and randomness, and enables the reader to more clearly view the <u>worsening performance trends</u> that have mainly gone unnoticed.

FIGURE 1.1	Wins above Replacement (WAR) by Age, Jeter

Player Value Metrics.[3]

Among the many places where we could have started, we have chosen to depict the following three bellwether sabermetrics — WAR, oWAR, and dWAR — as they constitute excellent "takeaways" for this report:

1. ***Wins above Replacement*** (WAR) is regarded by sabermetricians as an "all-inclusive" metric (**graphed above**) given that it presents the number of wins a player has added to his team above what a "replacement player" would have added via <u>batting</u>, <u>base-running</u> *and* <u>fielding</u>.

2. ***Offensive Wins above Replacement*** (oWAR) is an advanced metric (**Figure 1.2**) that presents the number of wins a player added to his team above what a "replacement player" would have added via <u>batting</u> and <u>base-running</u>, but excludes fielding value.

3. ***Defensive Wins above Replacement*** (dWAR) is an advanced metric (**Figure 1.3**) that measures the number of wins a player added to his team above what a "replacement player" would have added only through <u>fielding value</u>.

---

2 For our purposes, Jeter's career spans 17 seasons; we exclude the 1995 season in which he recorded just 51 plate appearances.
3 For greater detail on how these metrics are calculated, and how the measures that go into them are weighed, refer to the glossary.

While not perfect by any means, these metrics have been described by Sean Forman, the creator of *Baseball-Reference.com*, as "end-all value measures" since they convert a player's contribution into "wins added."[4] The reader will observe that Jeter's WAR has been in sharp decline since he turned 35. His oWAR has shown a steady descent since the age of 33. Entering a 2013 season in which he will turn 39, both metrics are rolling down ominously closer to "replacement level." Meanwhile, his dWAR (the defensive player value metric), while worsening, has been below that of replacement level for much of Jeter's career. In fact, as detailed in Part 3, Jeter's cumulative career dWAR is a negative 8.7, in comparison to his Hall of Fame-caliber peer group average of 22.6.

| FIGURE 1.2 | Offensive Wins above Replacement (oWAR) by Age, Jeter |

oWAR — oWAR 3-Yr Moving Avg.
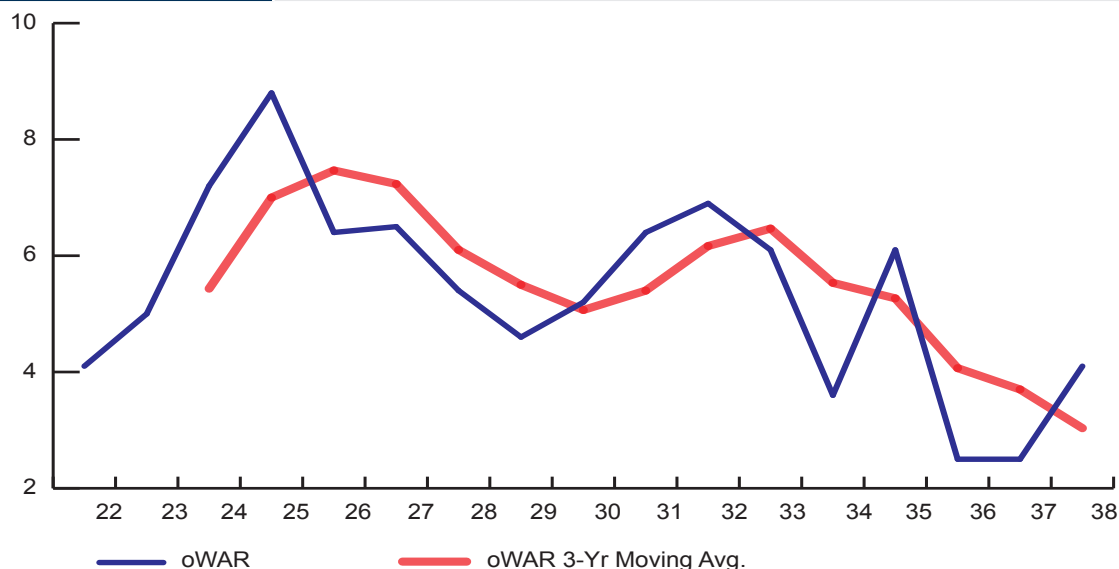
| FIGURE 1.3 | Defensive Wins above Replacement (dWAR) by Age, Jeter |

dWAR — dWAR 3 -Yr Moving Avg.
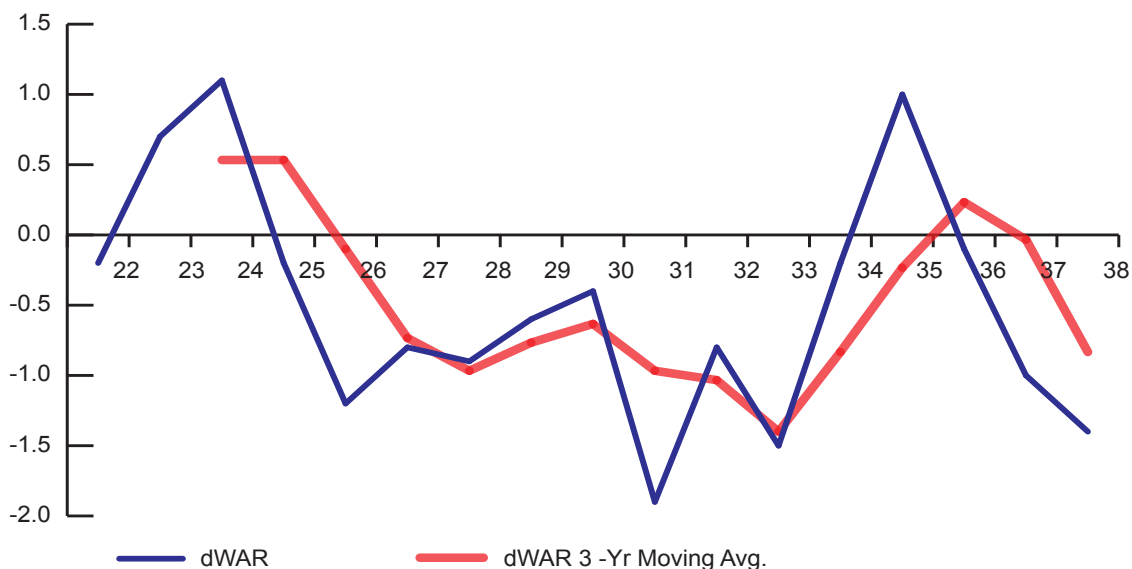
4 The blue line in each graph depicts the actual raw data for a single season, accounting for its more volatile trend line; the red line, the smoother trend line, is simply the 3-year moving average of his current and prior two years.

Jeter Sans the Makeup.

In **Table 1.1** we detail eight advanced batting stats along with two aforementioned player value metrics — oWAR and WAR. Unlike standard batting statistics (shown in **Table 1.2**) which tend to *brush out* Jeter's creeping decrepitude, sabermetrics *highlight* them. When one looks at the data in the context of both Jeter's career history and among his 82 qualifying American League peers, it seems far-fetched that he has tapped into his "inner rookie."

TABLE 1.1	2012 Advanced Batting Stats								
Player	**wOBA**	**GB/FB**	**LD%**	**Sec. Avg.**	**ISO**	**Bt Runs**	**BT Wins**	**Rbat**	**oWAR**	**WAR**
Jeter	.347	1.75	18%	.186	.113	13.2	1.3	14	4.1	2.1
Career rank	14	17	T15	17	15	8	T10	T12	T14	15
AL rank*	26	81**	50	73	69	35	33	32	15	61

Notes: *AL ranks are for batters with a minimum of 503 PA (82 qualifying)
**For purposes of this report, we will consider a higher GB/FB ratio to represent a poorer performance.

Of the eight advanced metrics, we would highlight two: Line Drive Percentage (% of all balls put into play that are line drives) and Isolated Power (gauges a hitters raw power by isolating extra base hits). Jeter, in 2012, neared career lows (Tied/15th and 15th, respectively, out of 17 seasons) and was considerably below average in terms of AL rank (50th and 69th, respectively, out of 82 qualifying players with a minimum of 503 plate appearances). With respect to two other metrics, Ground Ball/ Fly Ball ratio and Secondary Average (Total Bases – Hits + BB + SB – CS) / AB), he actually reached personal career lows and was a rather dismal 81st and 73rd, respectively, in AL rank.

Below, and on the following pages, we have charted these four sabermetrics — none of which paint a pretty picture — to illustrate Jeter's atrophying offensive power.

FIGURE 1.4	Line Drive % by Age, Jeter
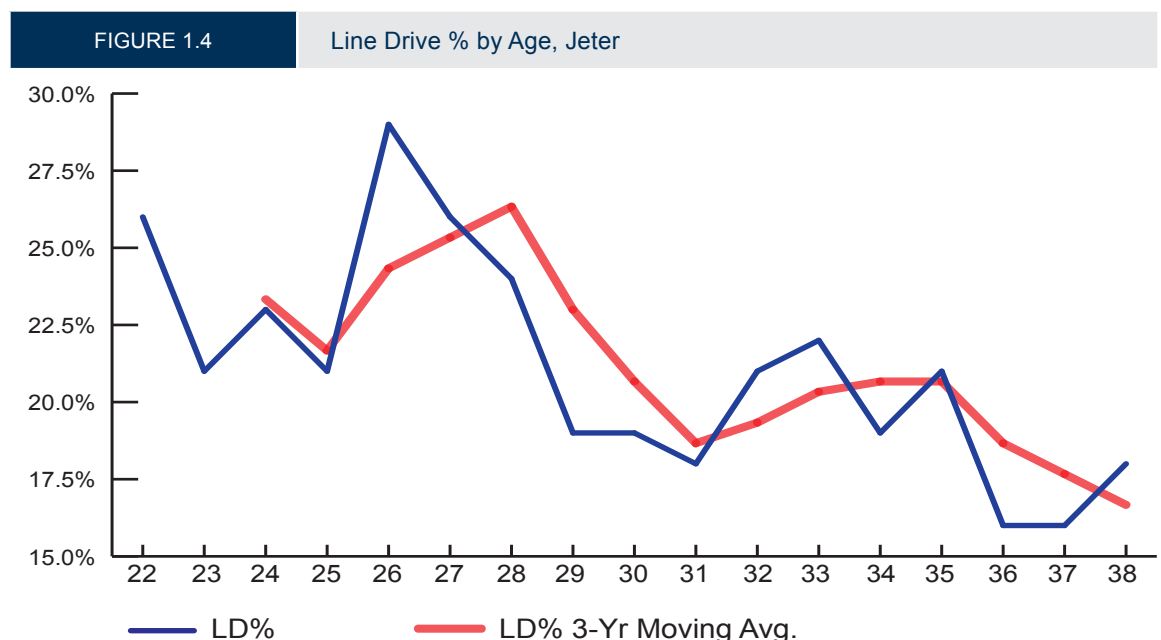
FIGURE 1.5	Isolated Power by Age, Jeter

Legend: ISO — ISO 3-Yr Moving Avg.
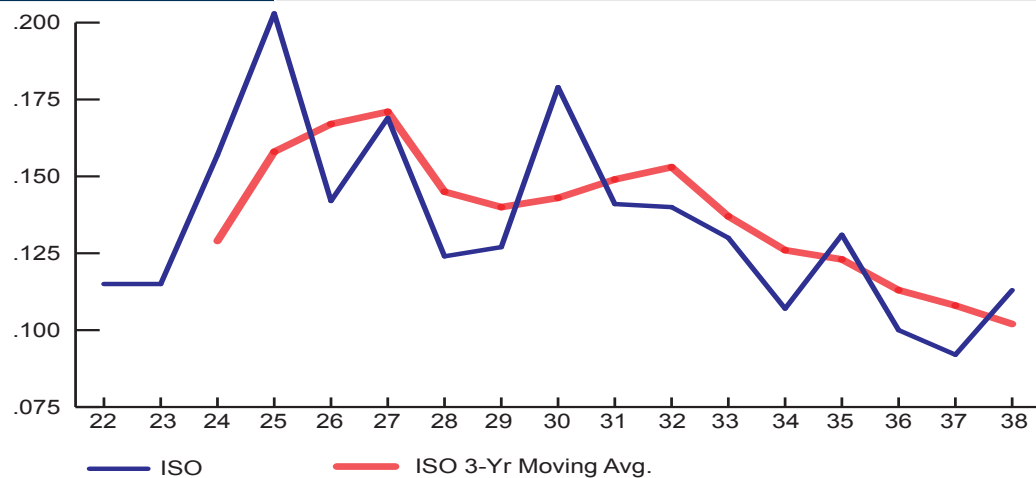
FIGURE 1.6	Ground Ball/Fly Ball Ratio by Age, Jeter

Legend: GB/FB% — GB/FB% 3-Yr Moving Avg.
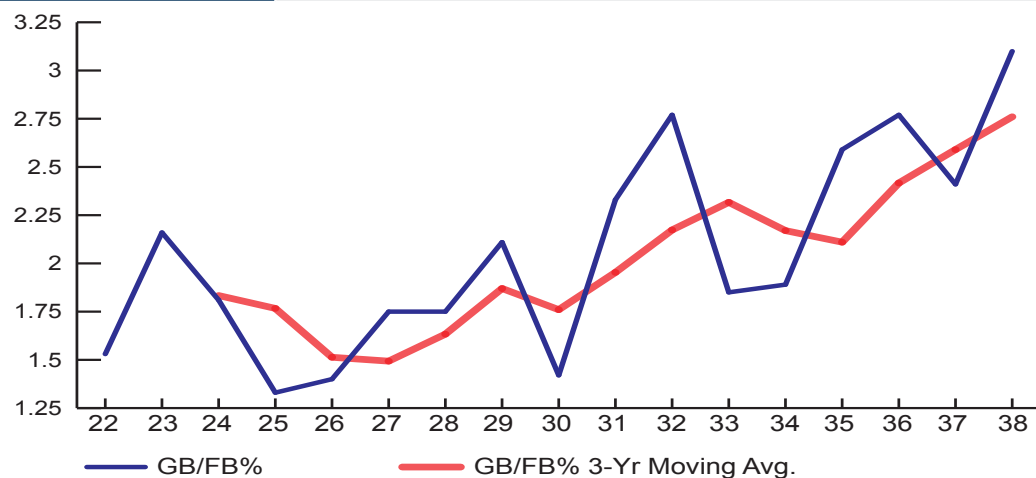
FIGURE 1.7	Weighted On-base Avg. by Age, Jeter

Legend: wOBA — wOBA 3-Yr Moving Avg.
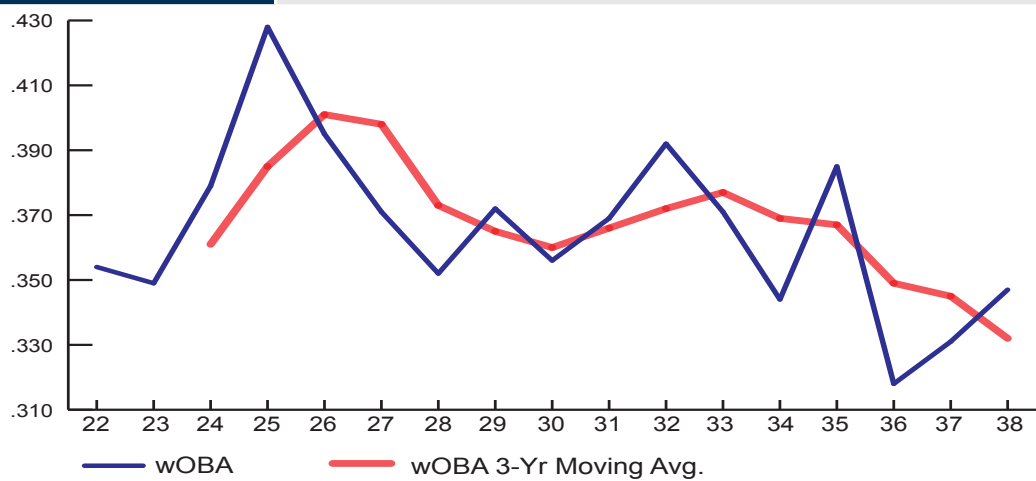
Punch and Judy Hitter?

We think it is worth expounding on **SecA**[5] – an advanced batting metric that we regard as an acid test for what fundamentally ails Jeter offensively. As noted, SecA looks to gauge a player's ability to produce extra bases *independent* of batting average. Few metrics, in our opinion, are more emblematic of our thesis than this one. In 2012, Jeter's SecA dropped to an abysmal .186, or 130 points below his batting average. For some context, consider that the gap between these two measures over his career has averaged 56 points; and that as recently as 2006, the difference between the two was only 46 points. As previously noted, among 82 qualifying players in the AL, Jeter ranked 73rd in SecA last year, compared with 5th in BA. What SecA captures (unlike conventional BA) is that in more recent years Jeter has sadly devolved into a "Punch and Judy hitter" (baseball slang for a hitter with "very little power") – or more kindly, a "volume singles hitter." Of his major-league leading 216 hits last year, only 22% were for extra bases, equating to an X/H% ranking of 80th out of 82 qualifying players, and well below the LgAvg ratio of 34%. Curious as to the two players behind Jeter? Jamey Carroll and Ben Revere, who, in 14 seasons, have a combined 13 career homers.

FIGURE 1.8	Secondary Avg. vs. Batting Avg. by Year, Jeter
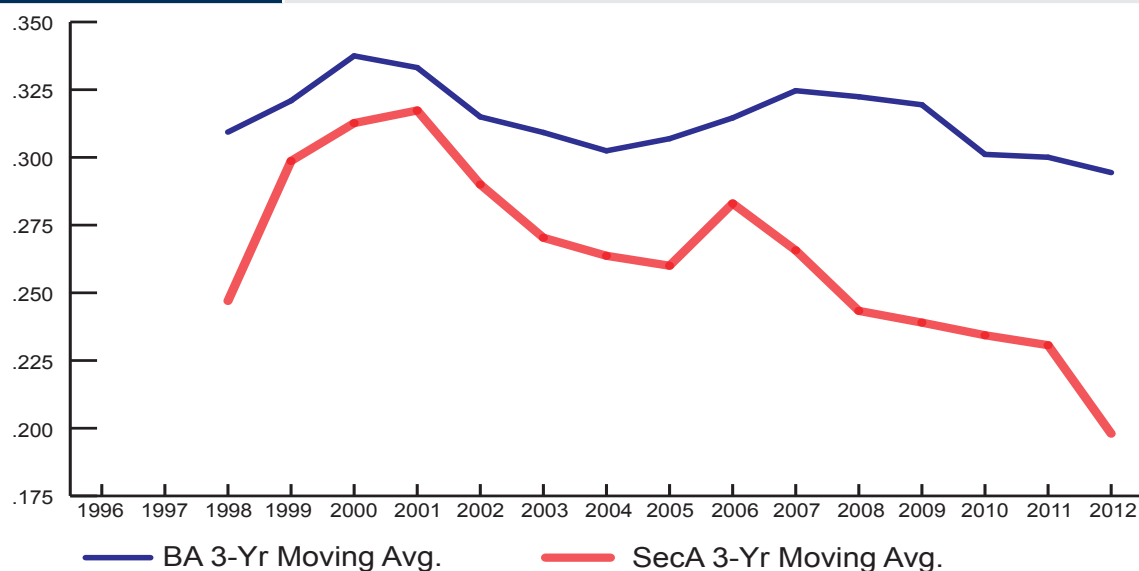
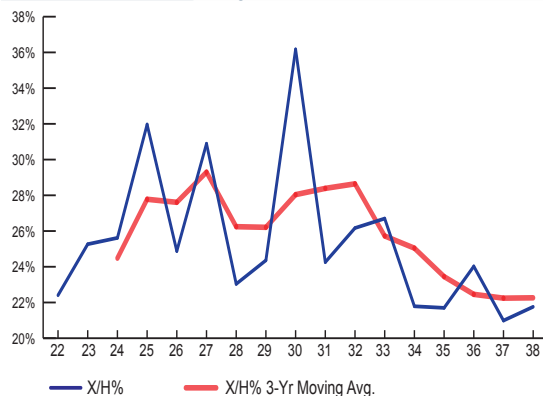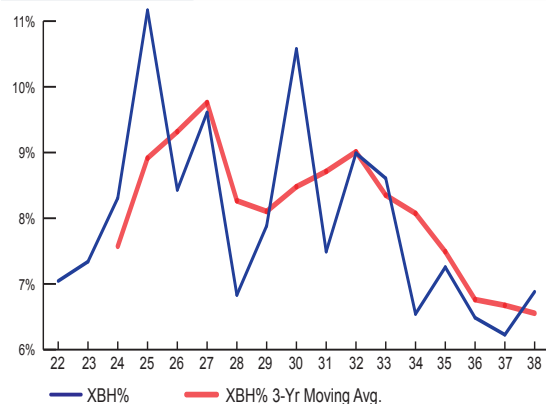| FIGURE 1.9	% of Hits for Extra Bases by Age, Jeter

FIGURE 1.10	Extra Base Hit % by Age, Jeter

5 According to Baseball.Reference.com, a secondary average higher than about .500 is considered outstanding, and one below .200 is considered very poor. The league average secondary average is typically similar to the league average batting average, in the range of .250-.280.

Player	G	GS	PA	AB	BA	H	1B	1B/ Hits	X/H%	2B	3B	HR	TBR	R	RBI	OBP	SLG	OPS	OPS+	BB	SO	SB	CS	GDP
Jeter	159	133	740	683	.316	216	169	78%	22%	32	0	15	293	99	58	.362	.429	.791	114	45	90	9	4	24
Career rank	T1	15	3	1	8	2	1	4	14	6	17	9	8	14	16	14	12	13	T10	16	4	17	--	17
AL rank	T10	T39	1	1	5	1	1	3	80	T23	T67	T52	T12	9	62	22	T42	32	T32	49	56	T38	T30	4
Lg Avg per 600 PA	---	---	---	---	.255	137	91	66%	34%	26	3	17	221	70	67	.319	.409	.728	100	48	116	11	3	12

TABLE 1.2 — 2012 Standard Batting Stats

Note: AL ranks are for batters with a minimum of 503 PA (82 qualifying)

Standard Batting Stats.

Table 1.2 presents conventional batting metrics that should be familiar to many casual fans. To provide context, we show the data not only relative to Jeter's personal history and to AL peers, but also to the league average (LgAvg) per 600 plate appearances (PA). Conventional numbers, we acknowledge, generally present a favorable picture of his offensive capabilities. Examples would be batting average and total hits, two conventional metrics where Jeter had strong career ranks of 8th and 2nd, respectively. However, when one examines the numbers in the table more closely, there are subtle clues of Jeter's diminished athleticism. Three stats, for instance, marked career worsts: triples (0), stolen bases (9), and double plays grounded into (24). In terms of the latter metric, Jeter accounted for more than one in every six GDP's his team amassed in 2012, while only three players in the AL had more: Michael Young (25), Howie Kendrick (26), and Miguel Cabrera (28). Notably, players with fewer GDPs included Robinson Cano (22), J.J. Hardy (21), and Prince Fielder (19). How slow is Hardy? He did not have a stolen base in 2012.

Yet another foreboding trend that seldom goes mentioned is Jeter's eroding ability to reach base via base on balls (**Figure 1.10**). Last year, he walked a meager 45 times (AL rank 49th), marking the second worst showing of his career. This was four walks short of the LgAvg per 600 PA. Why is this significant? As we chart in Part 3 ("Jeter vs. Historical Baseline"), a declining BB/PA ratio is a classic hallmark of an aging player. On the following page, we will elaborate on this topic in much greater detail when we introduce two advanced metrics that measure plate discipline – "Z-Swing" and "O-Swing."

FIGURE 1.11 — BB/PA% by Age, Jeter

BB/PA% — BB/PA% 3-Yr Moving Avg.
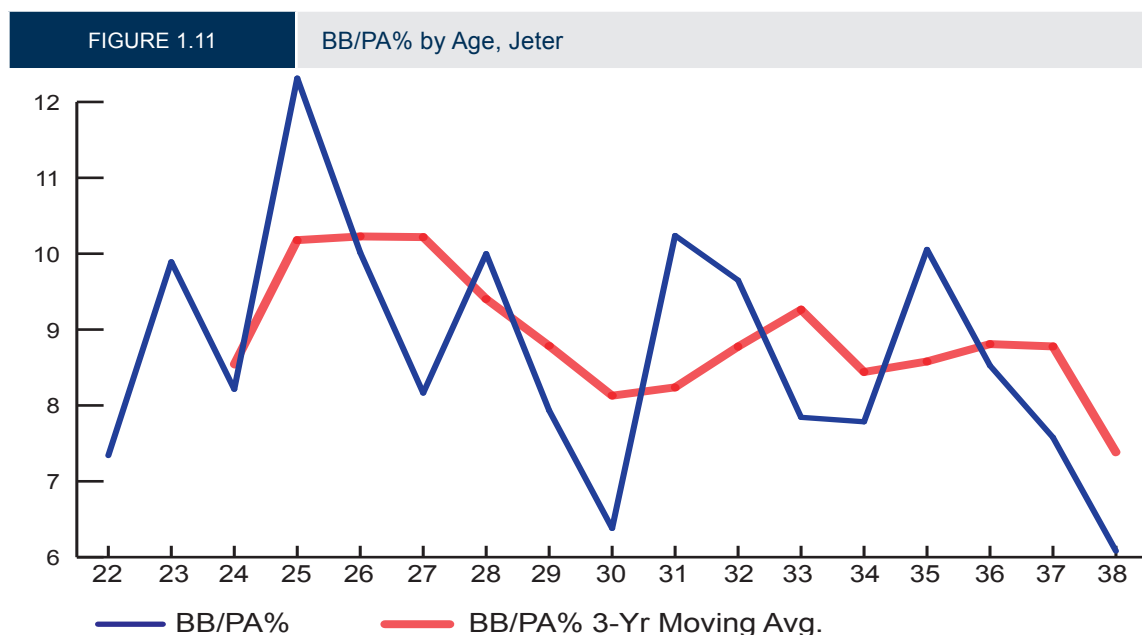
Plate Discipline.

As part of a natural aging curve, a veteran player will begin to experience slower bat speed in the latter stage of his career. To compensate – whether consciously or not – a veteran player will frequently begin to "cheat" at the plate, which is to say, he will initiate his swing a split-second earlier than he would have in his prime years. While OBP and other hitting metrics might have indirectly captured a player's ability to process "strike-zone discipline" in the old days, there is now a more direct way to evaluate a player's ability to differentiate balls from strikes: **O-Swing %** which measures the proportion of pitches thrown outside the strike zone that a batter swings at; and **Z-Swing %** which measures the proportion of pitches thrown inside the strike zone that a batter swings at. **Figure 1.12** below charts the data for these two metrics.

Unless we are to believe that Jeter has enigmatically morphed into an undisciplined free-swinger in his elder years – which we do not – the results provide further evidence of his largely invisible struggle with Father Time, in our opinion. During his prime, Jeter swung at a comparatively low number of pitches delivered _outside_ the strike zone (~20%). Last year, however, that figure rose to above 30%. While some observers might argue he's become more aggressive at the plate, we would question then why is he actually swinging at fewer pitches _inside_ the strike zone? Jeter is forgoing pitches in his "wheel house" in exchange for cuts at pitches that are comparatively harder to reach. We believe this revamped approach to hitting is a byproduct of age, manifesting in a pronounced "inside-out swing." In our opinion, his more recent approach to hitting -- swinging at more balls _outside_ of the strike zone while looking at more balls _inside_ the strike zone -- is consistent with the fact that Jeter's absolute level of strike outs has been rising in recent years at the same time his OBP has been declining (charted in **Figure 1.13**).

| FIGURE 1.12 | In-Strikezone (Z-) Swing % vs. Out-of-Strikezone (O-) Swing % |
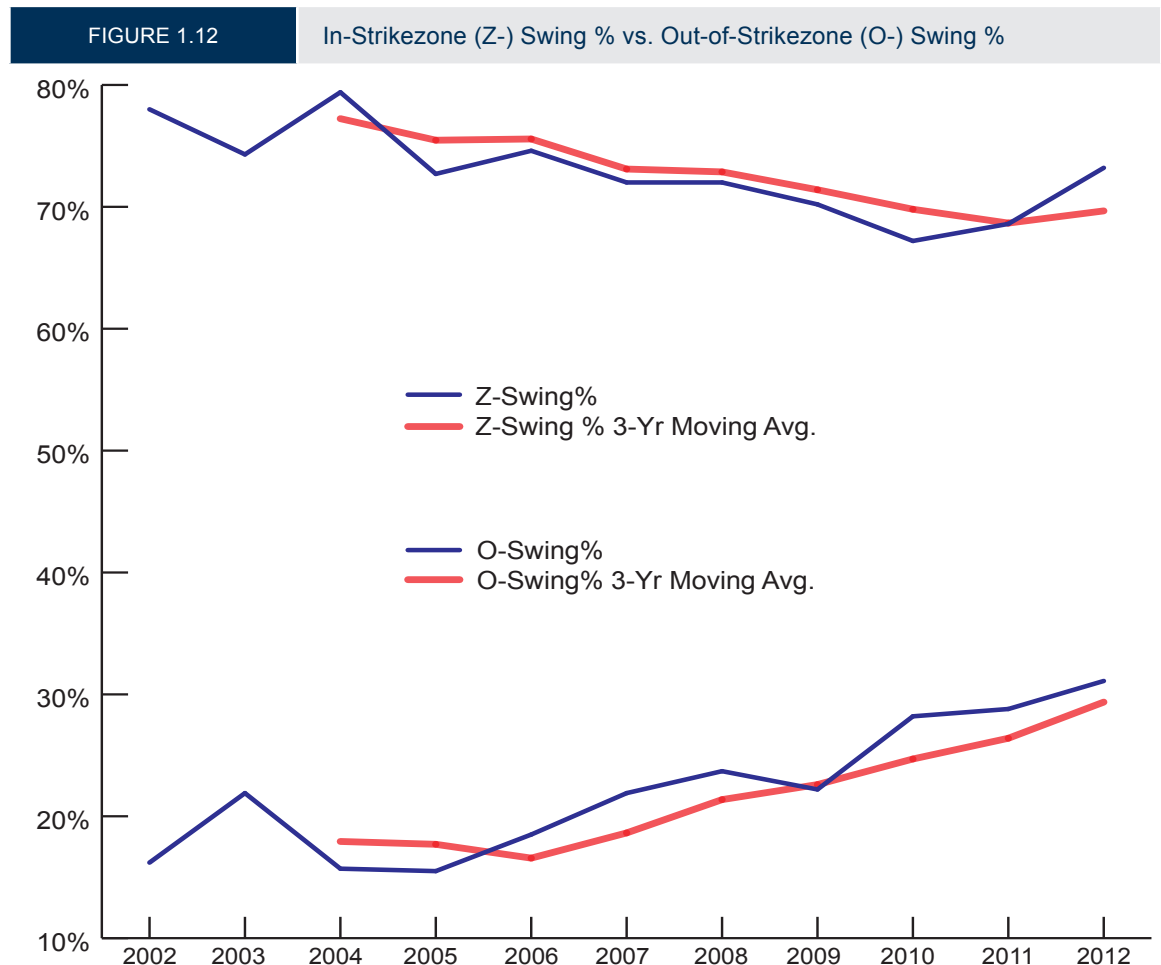
Lastly, it is worth mentioning the "plate discipline" issues could partially explain Jeter's recent struggles with his post-season strikeout rate, which has spiked (see **Figure 1.13**) over the past three years.[6] Over his last 97 PA's in the post-season dating back to 2010, Jeter has fanned 28 times, roughly a rate of 30%. This is almost double his pre-2010 career K/PA rate of 17%. Concurrently, we are not seeing an increase in the number of times Jeter is walking or getting extra base hits. (***Please refer to a detailed post-season statistical analysis presented in the Appendix - Table 2.***)

| FIGURE 1.13 | Inverse Relationship Between Strikeouts and OBP, Jeter |

— OBP Moving Avg.   — SO/PA 3-Yr Moving Avg.
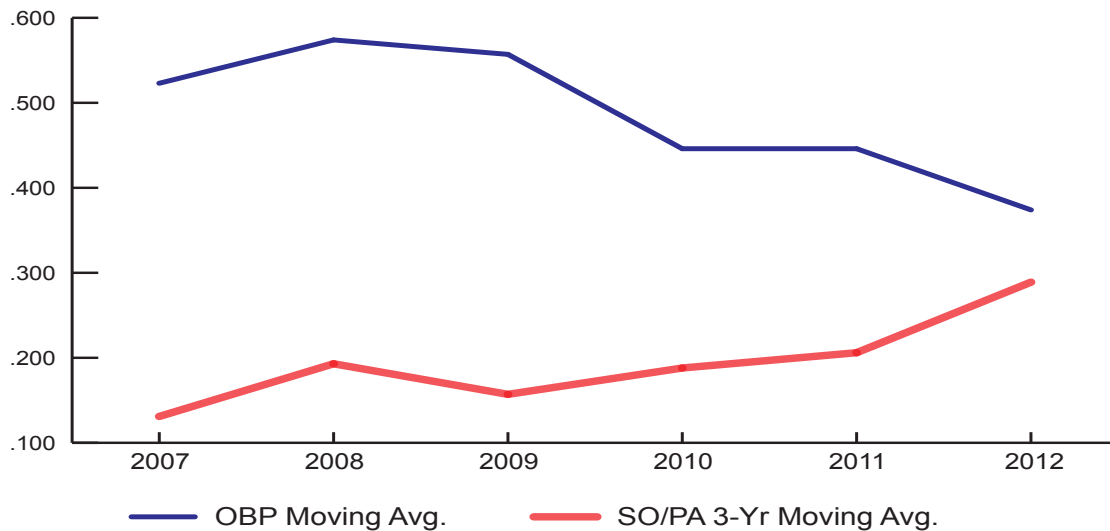
| FIGURE 1.14 | SO/PA in Postseason by Year, Jeter |

— SO/PA   — SO/PA 3-Yr Moving Avg.

---
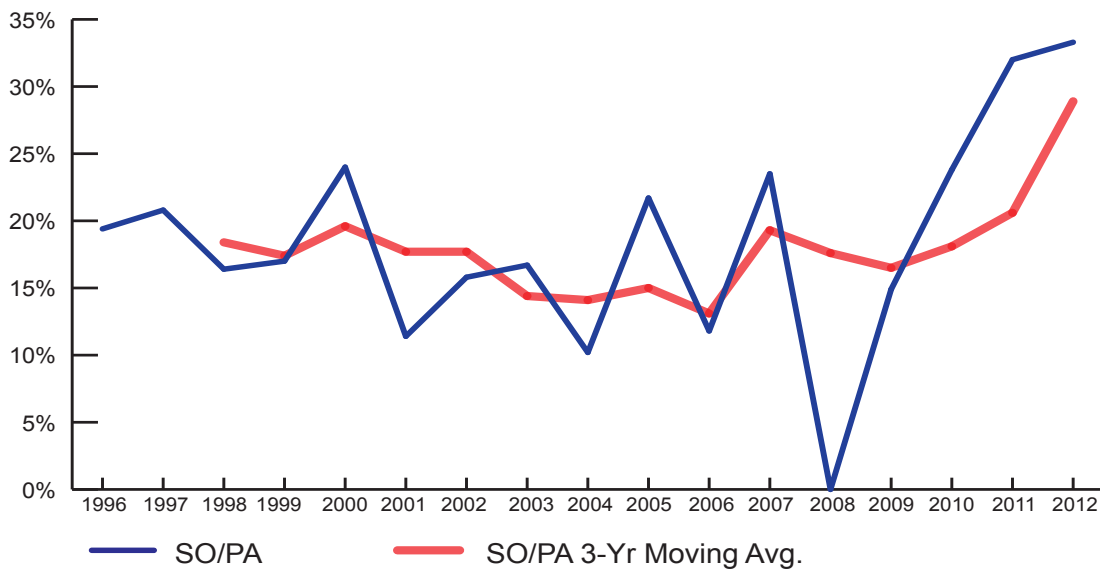
6 We recognize that the sample size offered of Jeter's post-season is statistically too small to draw definitive conclusions; however, we think in the context of being hailed as **"Mr. November,"** it seems fair to examine the issue.

Bald Tires on the Bases.

As noted in the introduction, a core defect is diminishing athleticism on the base paths – or more specifically, an inability to self-advance after reaching base. As we showed with his batting woes, this particular flaw is best highlighted by sabermetrics. Five such metrics, detailed in **Table 1.3**, raise the question: Why would any team – let alone the Yankees with all their resources – settle for such a languid base-runner at the top of its lineup?

TABLE 1.3	2012 Advanced Base Running Stats						
	R-baser	**RS %**	**SBA**	**SBO**	**SBA/SBO**	**XBT%**	**2nd SH**	**2nd SH%**
Jeter	-1	34%	13	381	3.4%	31%	11	45.8%
Career rank	17	14	17	2	17	17	14	16
AL rank	T48	T20	37	1	52	T64	T31	68

Note: AL ranks are for batters with a minimum of 503 PA (82 qualifying)

Base Running Runs Contributed ("R-baser") is defined as the number of runs better-or-worse-than average a player was for all base running events, including stolen bases (SB), caught stealing (CS), passed balls (PB), wild pitches (WP), and Defensive Interference. Last year, Jeter attained his worst career mark, a figure of -1. His career average is a little better than +3. For context, teammates Ichiro Suziki, Alex Rodriguez, and Mark Teixeira had respective figures of 3, 1, and -2.

FIGURE 1.15 — Baserunning Runs Contributed by Age, Jeter

Stolen Base Attempts/ Stolen Base Opportunities (SBA/SBO) – Despite handily leading the majors last year in stolen base opportunities with 381– the next closest in the AL was Alex Gordon with 324 – Jeter was largely sedentary on the bases. He generated just 13 stolen base attempts, equating to a rate of 3.4%, a career worst and a sharp drop from 7% the prior year. The LgAvg was 6.5%. Among qualifying players, plodders Joe Mauer (4.0%), Albert Pujols (4.2%) and Edwin Encarnacion (6.7%) all recorded higher SBA/SBO rates, while 38-year-old utility infielder Jamey Carroll, was 5.5%.

FIGURE 1.16 — SBA/SBO by Age, Jeter
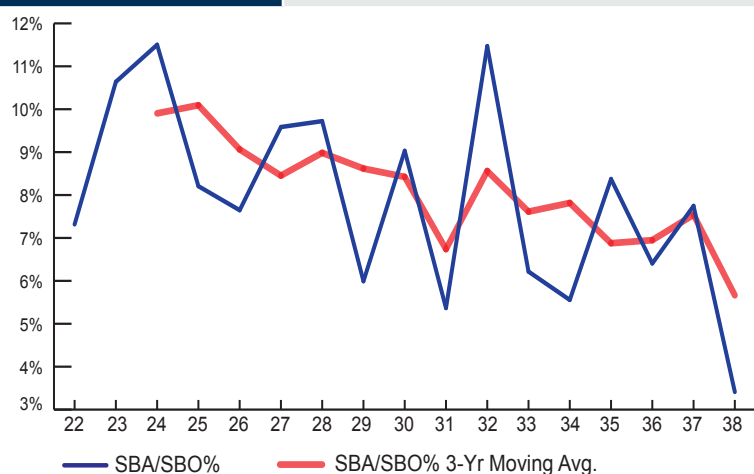
Extra Bases Taken % by Age, Jeter
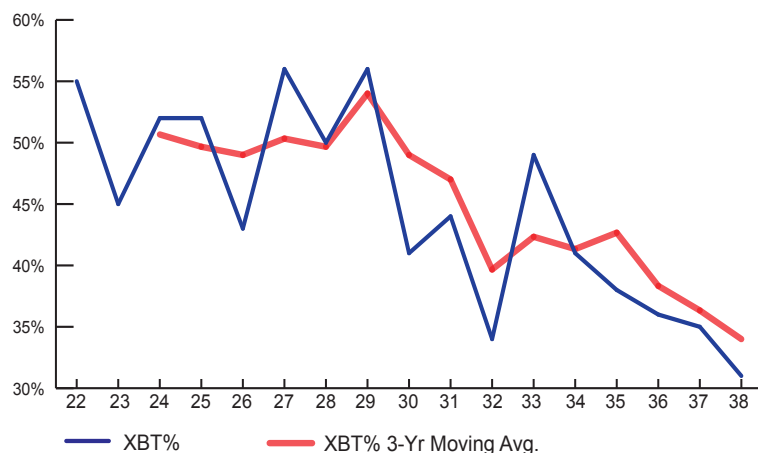
Extra Bases Taken Percentage (XBT%) is a statistic that records runner advancement, specifically the percentage of times a base-runner advances more than one base on a single, or more than two bases on a double, when possible. Last year, Jeter's XBT% of 31% was tied for 64th out of 82 players, down from 35% the prior year and well below his career average of 45%. In his best years (1996, 2001 and 2003), his XBT% was 56%. Context? Adam Dunn (42%), never-in-a- hurry Robinson Cano (42%), Delmon Young and Russell Martin (35%) all bested Jeter, while lead-footed Mark Teixeira and Kevin Youkilis were slightly worse, at 30% and 29%, respectively.

FIGURE 1.18

Scoring From Second on Single % by Age, Jeter
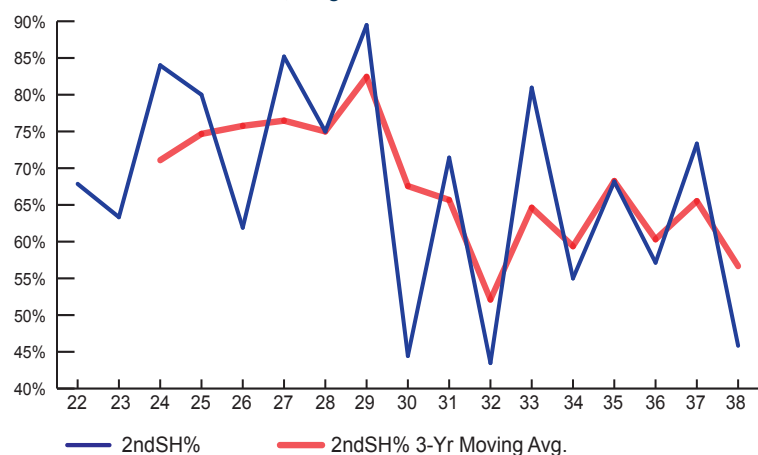
On Second when a Single is Hit, and Runner Scores (2nd SH%) – Last year, Jeter scored from second on a single only 46% of the time, significantly inferior to the LgAvg of about 62%. There were only 14 players in the AL who ranked lower and the figure marked his second worst career rank.

Run Scoring Percentage (RS%) is simply the percentage of times a base runner eventually scores a run. [Formula: (R – HR) / (H + HBP + BB - HR)]. Last year, Jeter's rate was 34%, below his career average of 38% and well below his peak rate of 44%, recorded in 1998. While some might argue that a rate of 34% is still comparatively good, given he ranked 20th among his 82 qualifying peers, we would point out his RS% was significantly boosted by having batted leadoff for a team that led the Majors in home runs (245). In fact, 41% of the 99 runs that Jeter scored in 2012 were the product of a homer. (These trends are depicted in the figures below.) With the Yankees' offense far less likely to be fueled by the long ball in 2013 -- due to injuries, roster turnover, and general regression -- Jeter's badly diminished effectiveness on the base paths will likely become even more pernicious. *(Please refer to **Table 1** in the Appendix for a detailed breakdown/analysis of Jeter's runs scoring.)*

FIGURE 1.19	Run Scoring Analysis by Age, Jeter

RS% 3-Yr Moving Avg.   RS-Adjusted% 3-Yr Moving Avg.

FIGURE 1.20	Runs Scored as a Result of Home Runs by Age, Jeter

Runs by All HRs 3-Yr Moving Avg.
Runs by Teammates' HRs 3-Yr Moving Avg.

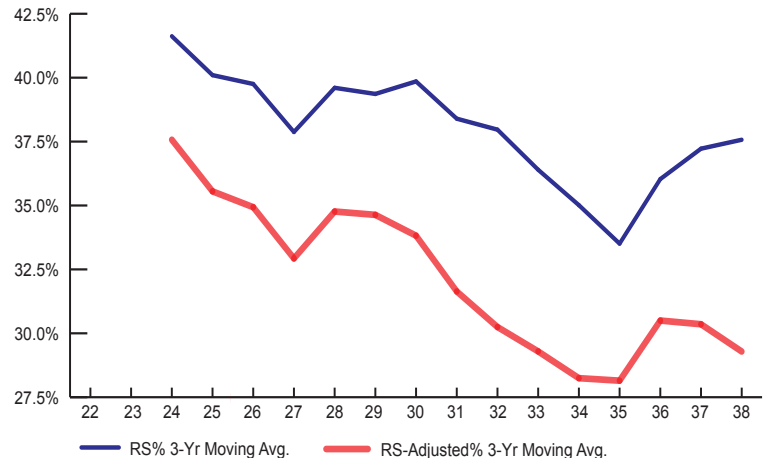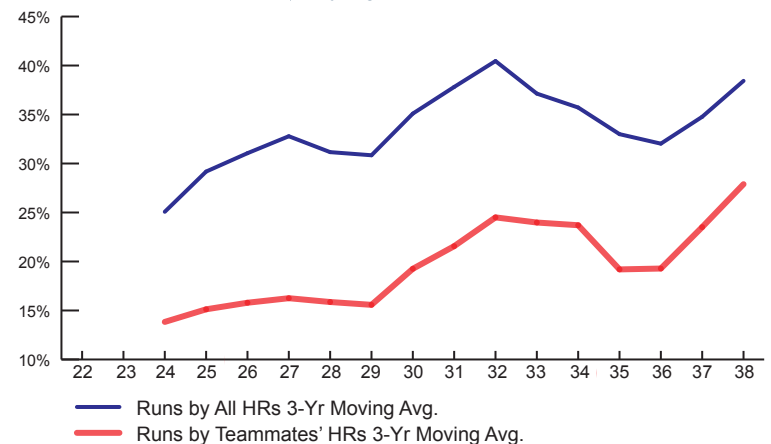| TABLE 1.4			2012 Fielding Stats												

											Sabermetrics				
Player	GS	Ch	PO	A	A/1B	E	DP	Fld%	Fld	F20%	Rtot	Rtz	Rdp	dWar	Flding +/-	Agg. 3 yrs +/-
Jeter	133	506	172	324	253	10	67	.980	432	87%	-10	-8	-2	-1.4	-26	-54
Career rank	15	15	15	15	15	14	15	5	14	15	10	9	T11	16	n/a	n/a
Rank to AL shortstops	T9	11	11	11	11	4	11	6	11	T8	10	10	11	11	11	11

Notes: GS (games started) of 133 excludes 25 games started as DH

The Defense Rests.

From a defensive perspective, the good news is that 2012 was not Jeter's worst year with the glove. He had a fielding percentage (.980) that was 5th best among peers, committing just 10 errors (4th lowest) in 506 chances, and he registered no career worsts. The bad news, however, is that his metrics continue to reflect absolute weakness relative not only to his own career history, but also to his 10 AL peers who had at least 120 Game Starts. Of the 11 shortstops, he ranked last in 10 out of 15 fielding metrics, while his dWAR of -1.4 was the second worst in his 17-year career. At the same time, his *innings played at shortstop* in 2012 was 1186. For context, Jeter's pre-2012 career average for innings played – adjusted for his two injury seasons of 2003 and 2011 – was 1327 innings. Underscoring his increasing frailty, this trend is presented below in **Figure 1.22**. It is interesting to add that last season Jeter registered 25 *games played* at the designated hitter (DH) spot. While this might not seem like a lot, the figure constitutes just four fewer DH appearances than he had made throughout his entire career prior to 2012. Even more disconcerting was last year's "fielding plus/minus" of -26 (-54 over the past three seasons) as depicted in **Figure 1.21**. Statistically, he was hands down the worst defensive shortstop in the AL in 2012. In Part 2, we will more thoroughly investigate Jeter's inferior defensive attributes – principally his lack of mobility. In doing so, we will illustrate the hidden tax he imposes on his ball club.

FIGURE 1.21	Fielding +/- by Age, Jeter

FIGURE 1.22	Innings Played at SS by Age, Jeter

Part II. Peer Pressure: Jeter vs. his AL Contemporaries

In this section of our report, we assess how Jeter stacked up against his AL contemporaries at the shortstop position in 2012 (identified 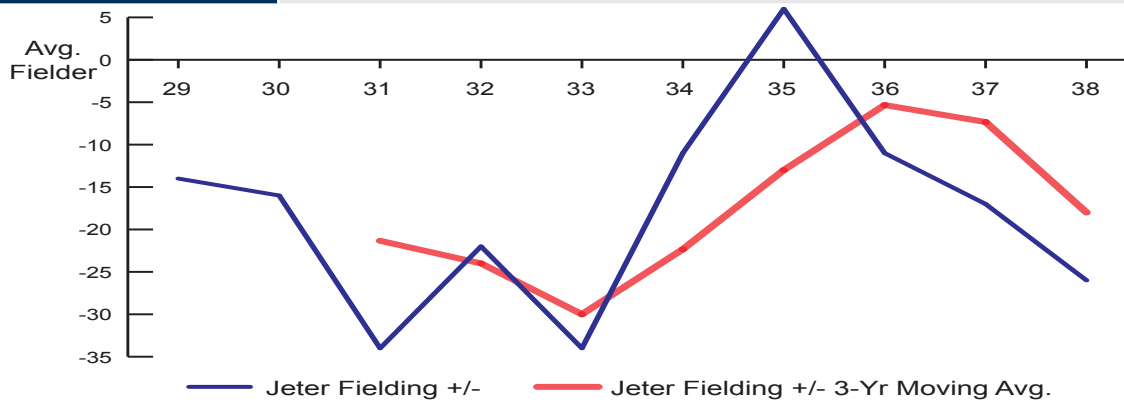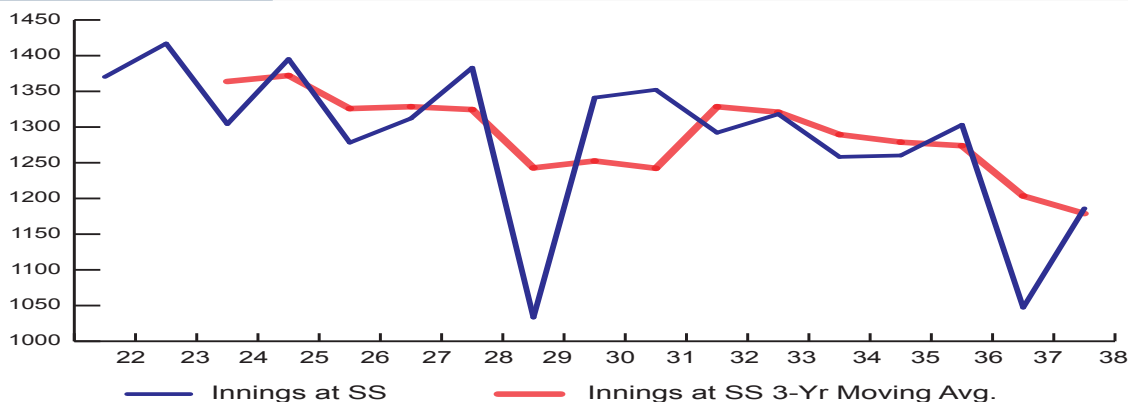in **Table 2.1**). There are 10 players who met our sole criterion of having started at least 120 games at shortstop. The overall group average was 143 Game Starts in 2012 versus 133 for Jeter (T9 rank). In sharp contrast to Jeter's 38, the average age was a full decade younger, with Elvis Andrus (23) being the youngest, and Mike Aviles (31) the second oldest. A peer comparison will help magnify two of his three core defects: base-running and fielding.

TABLE 2.1	2012 AL Contemporaries			

(listed 10 players, in alphabetical order)

Player	Team	Age	G	GS
Elvis Andrus	Rangers	23	158	150
Mike Aviles	Red Sox	31	136	123
Erick Aybar	Angels	28	141	137
Asdrubal Cabrera	Indians	26	143	133
Alcides Escobar	Royals	25	155	155
Yunel Escobar	Blue Jays	29	145	140
JJ Hardy	Orioles	29	158	158
Jhonny Peralta	Tigers	30	150	145
Alexei Ramirez	White Sox	30	158	157
Brendan Ryan	Mariners	30	141	134
Peer Average	---	28	149	143
Jeter	NYY	38	159	133*
rank out of 11			1	T9

Note: * Jeter started 25 games as a DH (most among peers)

TABLE 2.2	2012 Standard Offensive Stats vs. AL Contemporaries																						

Player	PA	AB	BA	H	1B	2B	3B	HR	TB	R	RBI	OBP	SLG	OPS	OPS+	BB	SO	SO/BB	SB	CS	GDP	XBH%	X/H%	1B Hits
Elvis Andrus	711	629	.286	180	137	31	9	3	238	85	62	.349	.378	.727	91	57	96	1.7	21	10	15	6.1%	24%	76.1%
Mike Aviles	546	512	.250	128	87	28	0	13	195	57	60	.282	.381	.663	76	23	77	3.3	14	6	6	7.5%	32%	68.0%
Erick Aybar	554	517	.290	150	106	31	5	8	215	67	45	.324	.416	.740	109	22	61	2.8	20	4	11	7.9%	29%	70.7%
A. Cabrera	616	555	.270	150	98	35	1	16	235	70	68	.338	.423	.762	108	52	99	1.9	9	4	18	8.4%	35%	65.3%
Alcides Escobar	648	605	.293	177	135	30	7	5	236	68	52	.331	.390	.721	98	27	100	3.7	35	5	14	6.5%	24%	76.3%
Yunel Escobar	608	558	.253	141	109	22	1	9	192	58	51	.300	.344	.644	75	35	70	2.0	5	1	21	5.3%	23%	77.3%
JJ Hardy	713	663	.238	158	104	30	2	22	258	85	68	.282	.389	.671	81	38	106	2.8	0	0	21	7.6%	34%	65.8%
Jhonny Peralta	585	531	.239	127	79	32	3	13	204	58	63	.305	.384	.689	85	49	105	2.1	1	2	20	8.2%	38%	62.2%
Alexei Ramirez	621	593	.265	157	120	24	4	9	216	59	73	.287	.364	.651	74	16	77	4.8	20	7	15	6.0%	24%	76.4%
Brendan Ryan	470	407	.194	79	54	19	3	3	113	42	31	.277	.278	.555	61	44	98	2.2	11	5	4	5.3%	32%	68.4%
Peer Average	607	557	.258	145	103	28	4	10	210	65	57	.308	.375	.682	85.8	36	89	2.7	14	4	15	6.9%	29.5%	70.6%
Jeter	740	683	.316	216	169	32	0	15	293	99	58	.362	.429	.791	114	45	90	2.0	9	4	24	6.4%	22%	78.2%
rank out of 11	1	1	1	1	1	T2	11	3	1	1	7	1	1	1	1	4	5	T3	T8	--	11	7	11	11

Batting Statistics vs. Peers.

From a conventional perspective, Jeter performed well relative to his peers last season. As detailed in **Table 2.2**, he attained No. 1 ranks in the following categories: PA, AB, BA, Hits, TB, Runs, OBP, SLG, OPS and OPS+, while his BA/OBP/SLG of .316/.362/.429 were meaningfully better than the respective peer averages of .258/.308/.375. But aside from the obvious reality of his age being a full decade more than the peer group average, we hasten to add this is not a particularly formidable group of hitters, notwithstanding Andrus, Aybar, Cabrera, and Alcides Escobar. Moreover, as pointed out in Part 1, the foregoing traditional metrics generally lack nuance, helping to mask one of the three structural problems with Jeter: <u>diminishing power</u>. Still, conventional metrics serve up a few clues, namely that Jeter ranked last in triples (0) and last in X/H%.

TABLE 2.3	2012 Advanced Stats vs. AL Contemporaries										
Player	**wOBA**	**GB/FB**	**GO/AO**	**LD%**	**Sec. Avg.**	**ISO**	**Bt Runs**	**Bt Wins**	**Rbat**	**oWAR**	**WAR**
Elvis Andrus	.322	1.36	1.89	19%	.200	.092	-8.0	-0.8	-5	2.8	3.5
Mike Aviles	.288	0.71	0.82	15%	.191	.131	-18.1	-1.8	-17	0.7	2.0
Erick Aybar	.321	1.09	1.57	14%	.199	.126	6.4	0.6	7	3.8	4.0
Asdrubal Cabrera	.332	0.69	1.02	22%	.256	.153	12.7	1.2	10	3.7	3.0
Alcides Escobar	.316	1.10	1.63	20%	.192	.098	-2.9	-0.3	-2	3.5	3.2
Yunel Escobar	.284	1.31	1.65	17%	.161	.091	-20.3	-2.0	-17	1.0	2.5
JJ Hardy	.290	0.79	0.95	14%	.208	.151	-19.7	-2.0	-19	1.2	3.0
Jhonny Peralta	.301	0.74	1.01	18%	.235	.145	-11.3	-1.1	-11	1.1	0.8
Alexei Ramirez	.282	0.85	1.01	19%	.148	.099	-23.9	-2.4	-21	0.8	2.3
Brendan Ryan	.252	0.71	0.86	18%	.206	.084	-18.8	-1.9	-18	0.5	3.3
Peer Average	.299	0.94	1.24	17.6%	.200	.117	-10.4	-1.1	-9	1.9	2.8
Jeter	.347	1.75	3.10	18%	.186	.113	13.2	1.3	14	4.1	2.1
rank out of 11	1	11	11	T5	9	6	1	1	1	1	9

From **Table 2.3**, here are some of the main metrics and ranks that are illustrative of Jeter's atrophying offensive power. By now, none of them should come as a surprise.

- Highest ratio of GB/FB (ground balls to fly balls) and GO/AO (ground outs to air outs)

- T5th in LD%

- 9th in SecA

- 6th in ISO

- 9th in WAR

TABLE 2.4		Advanced Base-running Stats vs. AL Contemporaries						
Player	R-baser	RS %	SBA	SBO	SBA/SBO	XBT%	2nd SH	2nd SH%
Elvis Andrus	2	34%	31	266	11.7%	45%	13	65.0%
Mike Aviles	0	31%	20	187	10.7%	50%	12	70.6%
Erick Aybar	3	35%	24	213	11.3%	61%	19	82.6%
Asdrubal Cabrera	1	28%	13	230	5.7%	52%	14	70.0%
Alcides Escobar	5	30%	40	245	16.3%	50%	14	60.9%
Yunel Escobar	2	29%	6	221	2.7%	37%	10	62.5%
JJ Hardy	1	36%	0	218	0.0%	44%	10	62.5%
Jhonny Peralta	-2	27%	3	171	1.8%	31%	9	45.0%
Alexei Ramirez	3	30%	27	204	13.2%	55%	15	78.9%
Brendan Ryan	0	31%	16	144	11.1%	43%	2	25.0%
Peer Average	2	31%	18	210	8.4%	47%	12	62.3%
Jeter	-1	34%	13	381	3.4%	31%	11	45.8%
rank out of 11	10	T3	T7	1	8	T10	7	9

From **Table 2.4**, here are some of the key metric and ranks that are illustrative of Jeter's diminished athleticism on the base paths.

- 10th in R-baser
- 8th in SBA/SBO
- T10[th] in XBT % (extra bases taken percentage)
- 9th in scoring from second on a single

Fielding Follies.

The going wisdom has it that while not an elite fielder, the Yankee icon is at least a proficient one. This largely rests on the fact that Jeter, who has won five Gold Glove Awards, has over the years consistently posted semi-respectable <u>fielding percentages</u> (.980 in 2012, 6th best among peers). Fielding Percentage – or FLD% [7] – is a stat that measures how adept a fielder is at successfully fielding balls that he can reach. The key words being: *"that he can reach."* Last year, Jeter recorded 506 chances, <u>146 fewer</u> than our AL peer average of 651. Lest you think we are being unfair to Jeter, as he had 10 fewer game starts versus the peer average of 143, consider that Mike Aviles, who had 10 fewer game starts than Jeter, recorded 591 chances.

Accordingly, the key flaw with FLD% is that it effectively ignores ***defensive range***, failing to incorporate a fielder's ability to track down balls within his fielding zone. To be a value-added fielder, one must possess *range* as well -- something Jeter sorely lacks. The defect was on full display during last year's limited postseason. Thanks to the advent of sabermetrics, defensive range can now be better measured. One such metric is "**Fielding Plus/Minus**" – which was developed about 10 years ago by Baseball Info Solution's *The Fielding Bible* and endorsed by Bill James, the father of Sabermetrics. With respect to Jeter, the evidence is indisputable: He is, at least in terms of this metric, as poor a shortstop as there is in the game right now. The figures that we present in **Table 2.5** clearly bear this out.
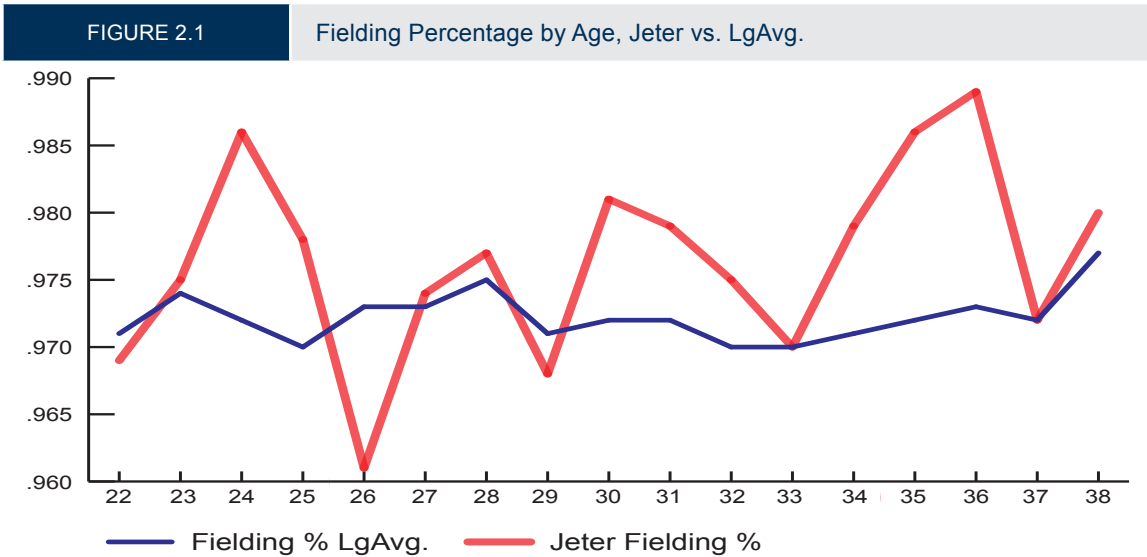
FIGURE 2.1	Fielding Percentage by Age, Jeter vs. LgAvg.

TABLE 2.5	2012 All-Fielding Metrics vs. AL Contemporaries

Player	GS	Ch	PO	A	A/1B	E	DP	Fld%	Fld	F20%	Sabermetrics					
											Rtot	Rtz	Rdp	dWar	Flding +/-	Agg. last 3 yrs +/-
E. Andrus	150	663	223	414	329	16	91	.976	540	89%	3	4	0	1.6	12	13
M. Aviles	123	591	207	369	293	15	89	.975	479	87%	8	4	4	2.0	19	22
E. Aybar	137	606	232	359	291	15	86	.975	494	87%	0	-1	1	1.0	-2	1
A. Cabrera	133	650	223	408	337	19	99	.971	494	88%	9	6	3	0.1	-10	-7
A. Escobar	155	669	242	408	304	19	97	.972	531	89%	-17	-17	-1	0.6	-3	19
Y. Escobar	140	683	240	431	341	12	100	.982	532	92%	16	15	1	2.3	22	42
JJ Hardy	158	779	244	529	408	6	113	.992	619	92%	21	20	1	2.8	19	24
J. Peralta	145	595	229	359	300	7	75	.988	481	91%	3	3	0	0.6	0	8
A. Ramirez	157	673	227	434	340	12	93	.982	546	92%	12	9	2	2.2	17	46
B. Ryan	134	601	196	396	327	9	104	.985	487	87%	9	3	6	1.9	27	73
Peer Average	*143*	*651*	*226*	*411*	*327*	*13*	*95*	*.980*	*520*	*89%*	*6*	*5*	*2*	*1.5*	*10*	*24*
*Jeter**	133	506	172	324	253	10	67	.980	432	87%	-10	-8	-2	-1.4	-26	-54
rank out of 11	T9	11	11	11	11	4	11	6	11	T8	10	10	11	11	11	11

7 Ratio of the number of plays a fielder makes (putouts and assists) out of the total number of plays he theoretically could have made.

FIGURE 2.2	Fielding Plus/Minus - Jeter vs. AL Contemporaries
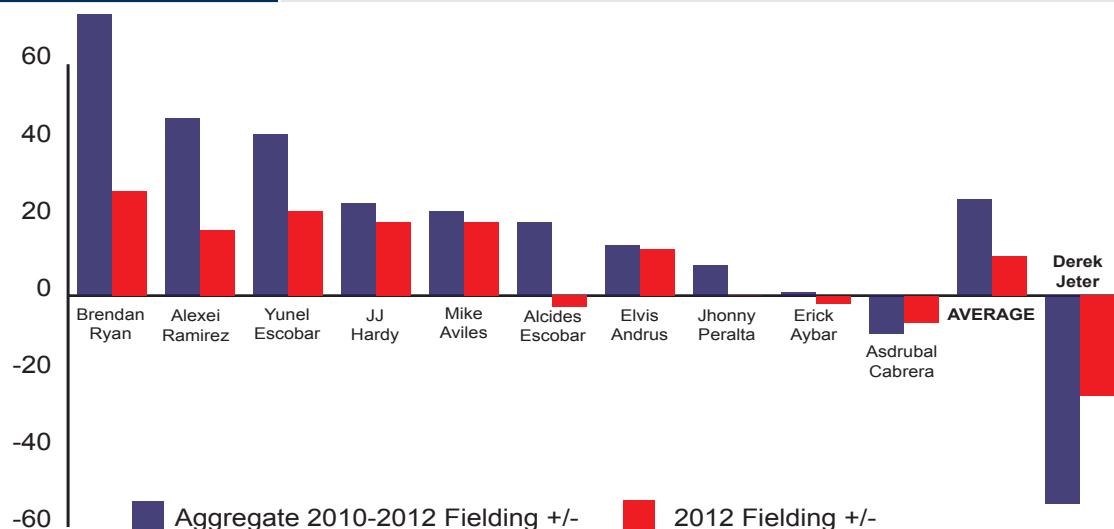
*Fielding Plus/Minus is courtesy of Baseball Info Solution's *Fielding Bible* and BillJamesOnline.com

Stealth Tax.

In **Table 2.6,** we attempt to quantify the number of hits Jeter "gifts" to his opponents as a result of his immobility. Strikingly, by our calculation, his lack of range, as depicted in **Figure 2.5**, cost his team the equivalent of 26 hits last year. Translation: When taking this into account, his vaunted .316 batting average drops to a more pedestrian .278 (rank of 7th out of 11 among AL peers at shortstop). On the flip side, Brendan Ryan's below-the-Mendoza Line batting average of .194 climbs to .260 because his superior range netted a "plus/minus" of +27. Even for those who might rightly say this type of measure generates a fair amount of variance from year to year, Jeter over the last three years has accumulated a "plus/minus" of -54, compared to +73 for Seattle's Ryan. That means Jeter made 127 fewer plays in the field versus his more defensive-minded peer.

Consider BA: In a 600 AB season, losing 25 hits would cause a swing of more than 40 points of average. The point is not necessarily to show that every play made on defense is equivalent to a play made on offense; rather it is to show that defense matters. Certainly, we are not the first researchers to point out Jeter's shortcomings in the field. But we might be the first to actually calculate directly the punitive levy that he imposes on the Yankees pitching staff. In effect, what the lottery imposes on the working poor, Jeter imposes on the Yankee pitching staff: a ***stealth tax***.

TABLE 2.6	"Effective" Batting Averages* (adjusted for fielding)				
Player	**AB**	**H**	**Flding +/-**	**"Net Hits"**	**BA**	**Effective BA***
Elvis Andrus	629	180	12	192	.286	.305
Mike Aviles	512	128	19	147	.250	.287
Erick Aybar	517	150	-2	148	.290	.286
Asdrubal Cabrera	555	150	-7	143	.270	.258
Alcides Escobar	605	177	-3	174	.293	.288
Yunel Escobar	558	141	22	163	.253	.292
JJ Hardy	663	158	19	177	.238	.267
Jhonny Peralta	531	127	0	127	.239	.239
Alexei Ramirez	593	157	17	174	.265	.293
Brendan Ryan	407	79	27	106	.194	.260
Jeter	683	216	-26	190	.316	.278
rank out of 11	1	1	11	2	1	7

* Method of calculation: (Hits + "Fielding +/-")/AB

Part III. What's Past is Prologue: Jeter vs. Historical Baseline

The Devolution is in the Details!
We further augment our analysis with a third component: a group of elite retired shortstops (shown in **Table 3.1**) to serve as a de facto benchmark for comparison. While "base rate information" is frequently ignored in all walks of life, here an examination of historical statistical data has provided us invaluable insight into the looming career *mortality* of our "baseball immortal."

TABLE 3.1	Historical Baseline - Career Stats				
(listed in alphabetical order)					
Player	**HOF**	**Yrs**	**Pk Season**	**Career Span**	**Age Ret.**
Luis Aparacio	yes	18	5	1956-1973	39
Ernie Banks	yes	19	6	1953-1971	40
Bert Campaneris	no	19	5	1964-1983	41
Davey Concepcion	no	19	9	1970-1988	40
Barry Larkin	yes	19	11	1986-2004	40
Cal Ripken, Jr.	yes	21	3	1981-2001	40
Ozzie Smith	yes	19	10	1978-1996	41
Alan Trammel	no	20	11	1977-1996	38
Omar Vizquel	no	24	11	1989-2012	45
Robin Yount	yes	20	9	1974-1993	37
Peer Average		20	8	---	40

Three important assumptions:

1. All players feel the effects of aging, which is to say that an *aging curve* of player performance exists.[8]

2. Base-rates don't lie -- we can use historical precedent to establish evidence for how an aging curve trends.

3. His iconic status notwithstanding, Jeter is hardly immune to the "hand of time."

As to Assumption No. 3, we are aware that many will argue -- speciously, in our opinion – that "*Jeter is different*" – that he somehow transcends his Hall of Fame-caliber peer group. Based on the evidence we've compiled, however, we think it is untenable to make this point, particularly after examining the individual and collective achievements presented in **Table 3.2**.

TABLE 3.2	Comparison with HoF-caliber Shortstops - Career Stats												*Cumulative*		
(162 game average/players listed in alphabetical order)															
Player	**PA**	**AB**	**Runs**	**Hits**	**RBI**	**B.A.**	**OBP**	**SLG**	**OPS**	**OPS+**	**BB**	**SO**	**oWAR**	**dWAR**	**WAR**
L. Aparacio	700	638	83	167	49	.262	.311	.343	.653	82	46	46	37.8	31.6	51.7
E. Banks	547	496	69	136	86	.274	.330	.500	.830	122	40	65	57.2	5.0	62.5
B. Campaneris	670	604	82	157	45	.259	.311	.342	.653	89	43	79	43.6	20.8	49.2
D. Concepcion	628	568	65	151	62	.267	.322	.357	.679	88	48	77	29.5	20.9	36.5
B. Larkin	673	590	99	174	71	.295	.371	.444	.815	116	70	61	64.6	13.8	67.3
C. Ripken, Jr.	695	624	89	172	91	.276	.340	.477	.788	112	61	70	72.8	34.5	90.9
O. Smith	679	592	79	155	50	.262	.337	.328	.666	87	67	37	44.5	43.4	73.0
A. Trammel	662	586	87	167	71	.285	.352	.415	.767	110	60	62	59.3	22.0	67.1
O. Vizquel	656	578	79	157	52	.272	.336	.352	.688	82	56	59	27.8	28.4	40.8
R. Yount	695	624	93	178	80	.285	.342	.430	.772	115	55	77	78.2	5.8	72.4
Peer Average	661	590	82	161	66	.274	.335	.399	.731	100	55	63	51.5	22.6	61.1
Jeter	745	661	117	207	79	.313	.382	.448	.829	117	65	109	91.5	-8.7	69.3
rank vs peers	1	1	1	1	4	1	1	3	2	2	3	11	1	11	4

Note: oWAR, dWAR and WAR stats are cumulative stats

---

[8] We've identified four stages that elite player with roughly 20 years in the Big Leagues tracks to: 1. Initial Growth; 2. Peak; 3. Extended Plateau; and 4. Onset of Final Decline.

TABLE 3.3	Wins Above Replacement (WAR) - Baseline Comparison							
HOF-caliber peers	Pk WAR	YR	WAR 5yrs before retirement	YR	% Chg vs Peak	Final Yr WAR	YR	% Chg vs. - 5yrs
Luis Aparacio	5.4	1960	4.2	1969	-22%	2.3	1973	-45%
Ernie Banks	9.9	1959	2.2	1967	-78%	-0.5	1971	-123%
Bert Campaneris	6.3	1968	4.1	1977	-35%	0.0	1981	-100%
Davey Concepcion	5.3	1974	-1.5	1984	-128%	-0.6	1988	-60%
Barry Larkin	6.9	1996	2.4	2000	-65%	0.5	2004	-79%
Cal Ripken, Jr.	11.3	1991	1.6	1997	-86%	-0.9	2001	-156%
Ozzie Smith	7.1	1989	5.0	1992	-30%	1.5	1996	-70%
Alan Trammel	8.0	1987	0.9	1992	-89%	-1.1	1996	-222%
Omar Vizquel	5.8	1999	2.7	2002	-53%	0.5	2007*	-81%
Robin Yount	10.4	1982	5.4	1989	-48%	1.8	1993	-67%
AVERAGES	7.6	---	2.7	---	-65%	0.4	---	-87%
Jeter*	7.8	1999	1.6	2010	-79%	0.2	2014	-87%

Note: *for this table, assumption made Jeter's last season is 2014

WAR – Something It's Good For!

Comparing an individual player such as Jeter to an "averaged curve" of peers often raises the question: "Isn't every player different?" Indeed, no matter the metric, some players in a designated peer group will be superior to the averaged curve while others will be inferior. Previously, we indicated that "WAR" paints a one-size-fits-all picture, enabling comparison of different types of players who add value through different skill sets. Taking an even more general approach in comparing trajectories of similar players, we can simply look at each in relation to his *own* personal baseline skill level. To that extent, we can analyze "WAR Trajectory" for Jeter's elite peer group, accounting for each player's individual baseline value. We do this by evaluating each player's season as a percentage of his peak season. When compared to peak years, the HoF peers contribute, on average, slightly more than 30% of their peak value 5-years before career's end, dropping below 10% in their final season.

For the analysis, we have hypothetically treated 2014 as Jeter's last season. Though our report does not make specific predictions regarding his future, it is interesting to note that if the Yankee Captain followed the same pattern as his HoF peers in 2014, we might expect him to post a WAR of less than 10% of his peak year. This would put him below a WAR of 1, meaning he would barely be performing above "replacement level" – this even before factoring in his high contract costs. **While some might contend he's aging more gracefully than his elite peers, at the five-year "warning bell," he was actually doing worse**.

FIGURE 3.1	Wins Above Replacement Progression - Jeter vs. HoF Peers
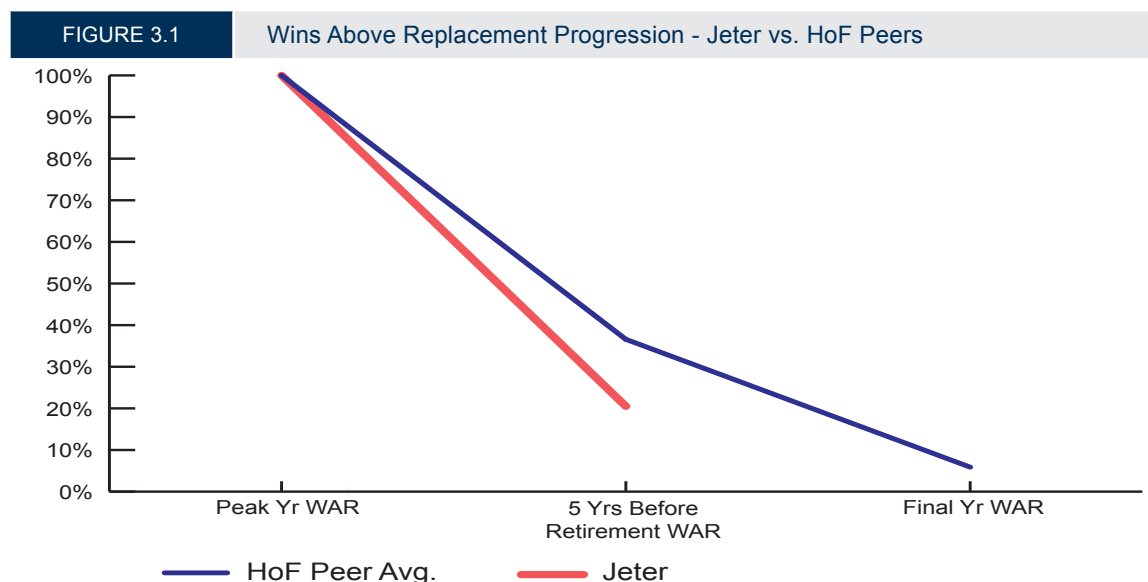
For a Baseball Immortal, The Bell Tolls.

We believe the rest of our findings are best illustrated in chart form (13 graphs in all). Using three-year moving averages, again to moderate statistical noise and better discern trends, the data depicted herein presents a rather ominous state of affairs: <u>our supposedly ageless shortstop, with some degrees of variance, is essentially marching toward the same fate as his predecessors.</u> While holding up somewhat better in some standard metrics like BA, OBP, and SLG, sabermetrics tell a completely different story. In player value metrics, such as WAR, he's worse than his historical peers, descending to an even steeper rate of decline.

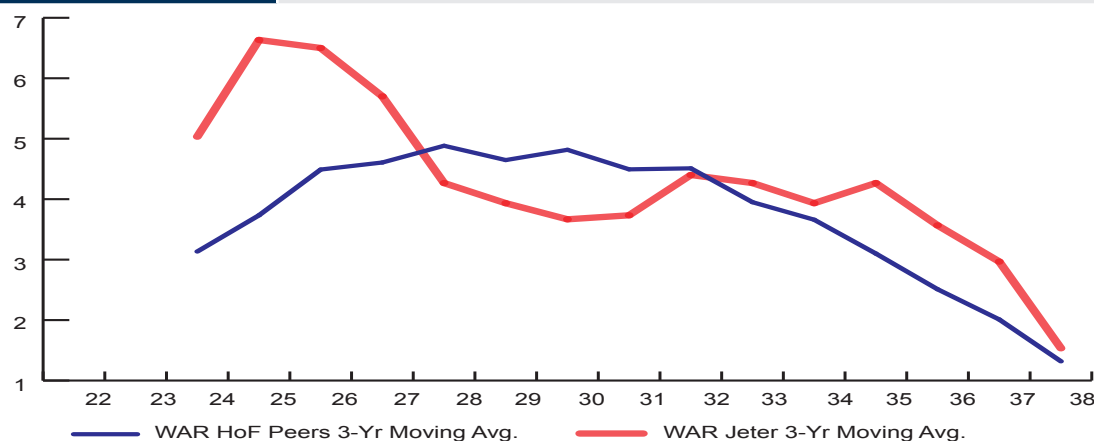| FIGURE 3.2	Wins Above Replacement - Jeter vs. HoF Peers

WAR HoF Peers 3-Yr Moving Avg.   WAR Jeter 3-Yr Moving Avg.

FIGURE 3.3	Offensive Wins Above Replacement - Jeter vs. HoF Peers

oWAR HoF Peers 3-Yr Moving Avg.   oWAR Jeter 3-Yr Moving Avg.
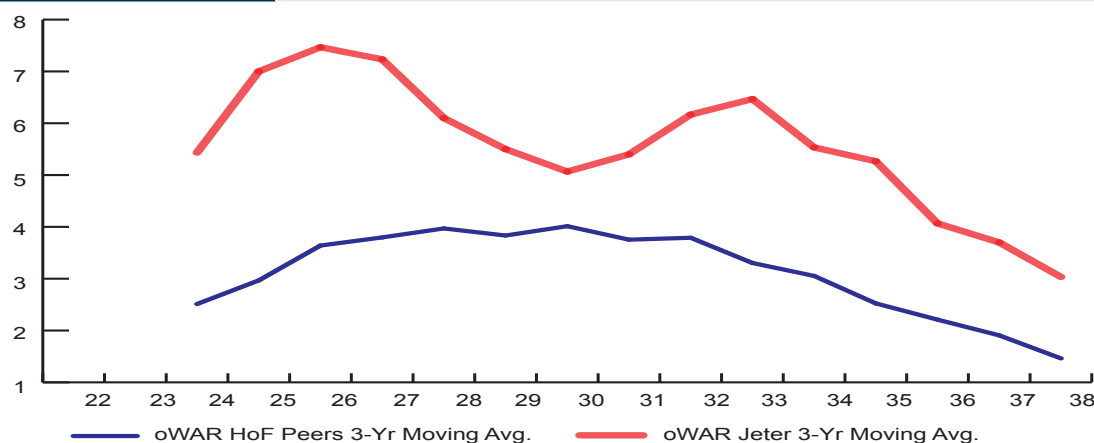
FIGURE 3.4	Defensive Wins Above Replacement - Jeter vs. HoF Peers

dWAR HoF Peers 3-Yr Moving Avg.   dWAR Jeter 3-Yr Moving Avg.
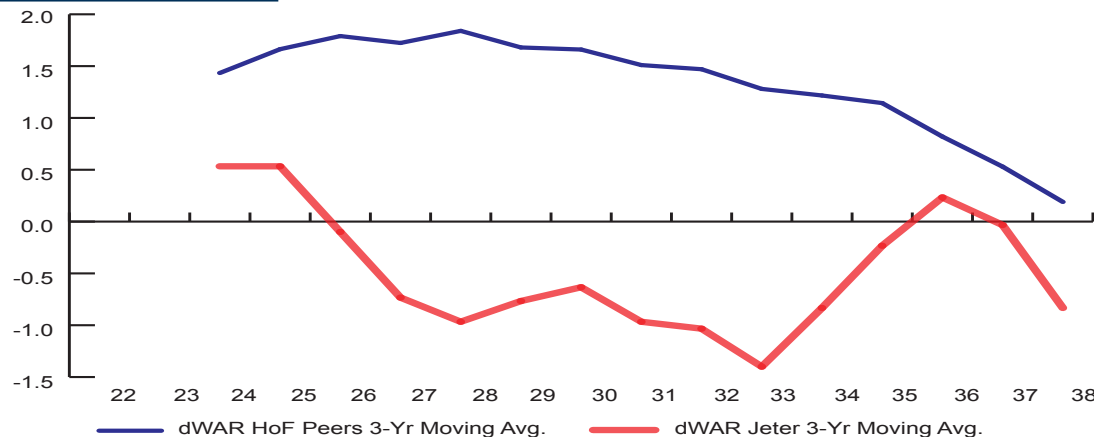
Jeter vs. Historical Baseline: Every Picture Tells a Story

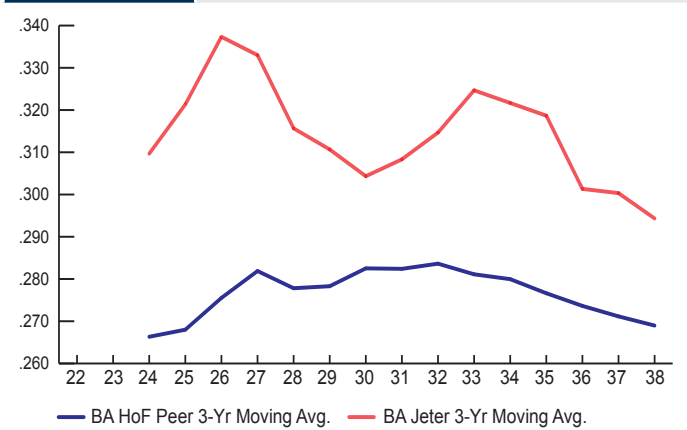| FIGURE 3.5	Batting Avg - Jeter vs. HoF Peers

BA HoF Peer 3-Yr Moving Avg. — BA Jeter 3-Yr Moving Avg.

FIGURE 3.6	On-base Percentage - Jeter vs. HoF Peers

OBP HoF Peer 3-Yr Moving Avg. — OBP Jeter 3-Yr Moving Avg.
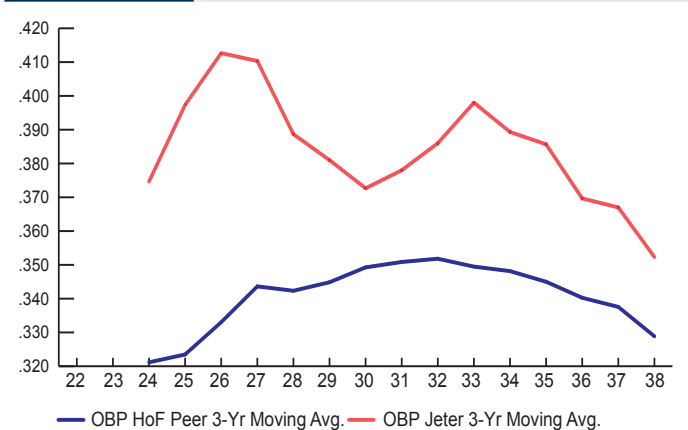
FIGURE 3.7	Slugging Percentage - Jeter vs. HoF Peers

SLG HoF Peer 3-Yr Moving Avg. — SLG Jeter 3-Yr Moving Avg.

FIGURE 3.8	OPS+ - Jeter vs. HoF Peers
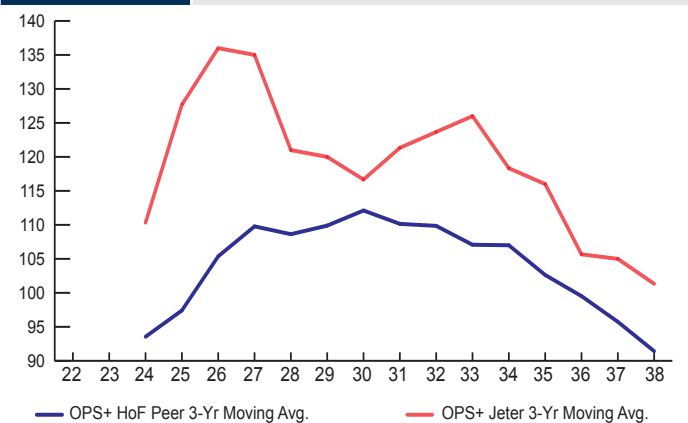
OPS+ HoF Peer 3-Yr Moving Avg. — OPS+ Jeter 3-Yr Moving Avg.

Jeter vs. Historical Baseline: Every Picture Tells a Story

FIGURE 3.9 — 1B/H% - Jeter vs. HoF Peers

Legend: 1B/H HoF Peer 3-Yr Moving Avg. | 1B/H Jeter 3-Yr Moving Avg.

FIGURE 3.10 — BB/PA% - Jeter vs. HoF Peers

Legend: BB/PA HoF Peer 3-Yr Moving Avg. | BB/PA Jeter 3-Yr Moving Avg.

FIGURE 3.11 — SBA/SBO% - Jeter vs. HoF Peers

Legend: SBA/SBO % HoF Peer 3-Yr Moving Avg. | SBA/SBO Jeter 3-Yr Moving Avg.
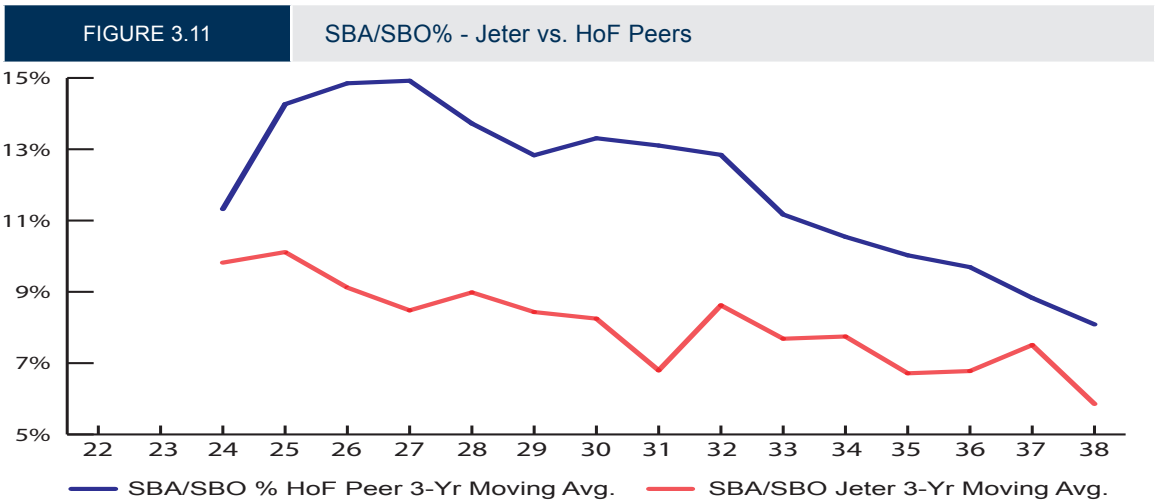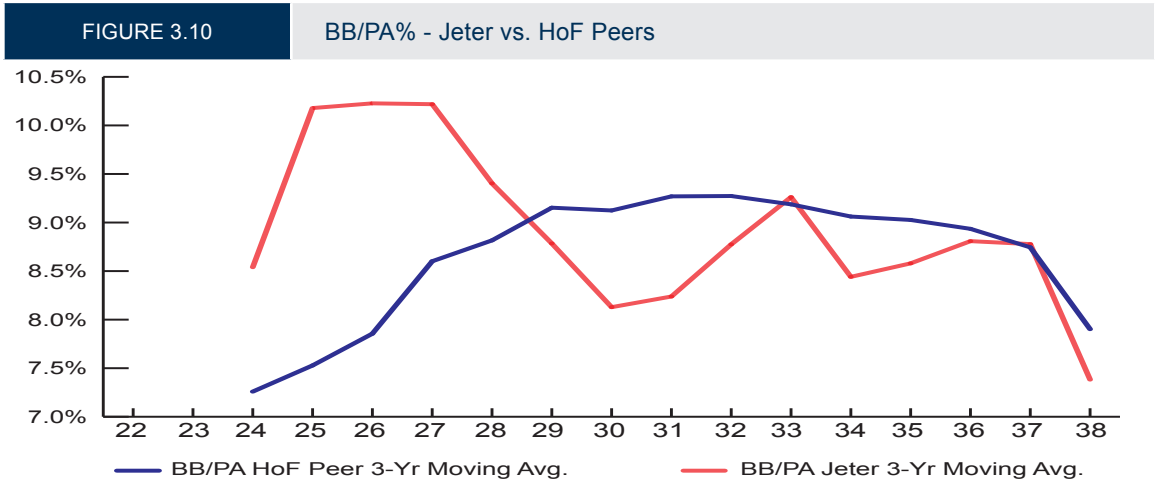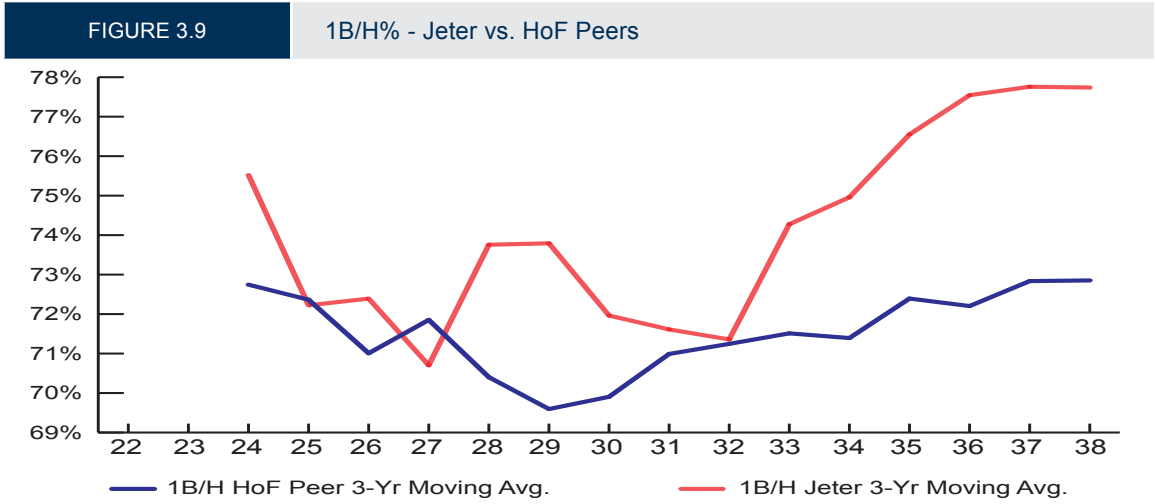
Jeter vs. Historical Baseline: Every Picture Tells a Story

FIGURE 3.12	Batting Runs Added (RBat) - Jeter vs. HoF Peers

Rbat HoF Peer 3-Yr Moving Avg.   Rbat Jeter 3-Yr Moving Avg.
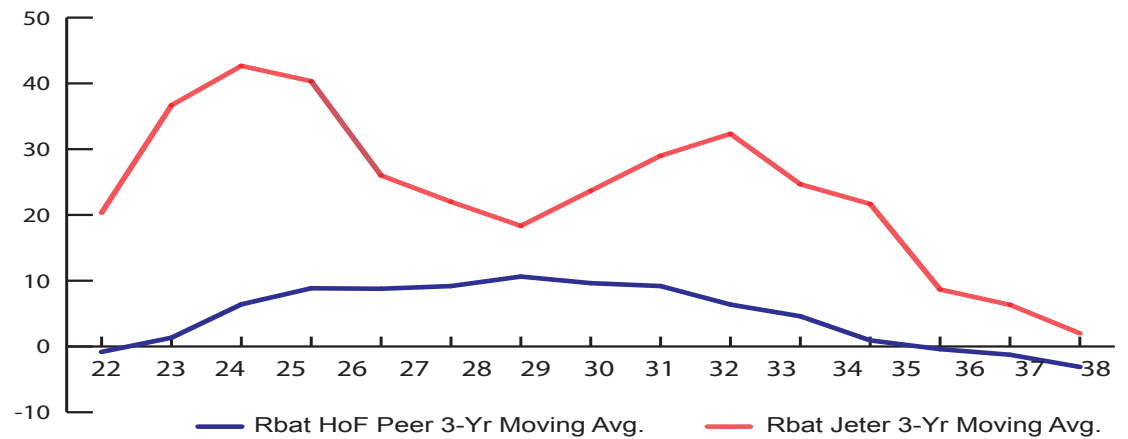
FIGURE 3.13	Baserunning Runs Contributed - Jeter vs. HoF Peers

Rbaser HoF Peer 3-Yr Moving Avg.   Rbaser Jeter 3-Yr Moving Avg.
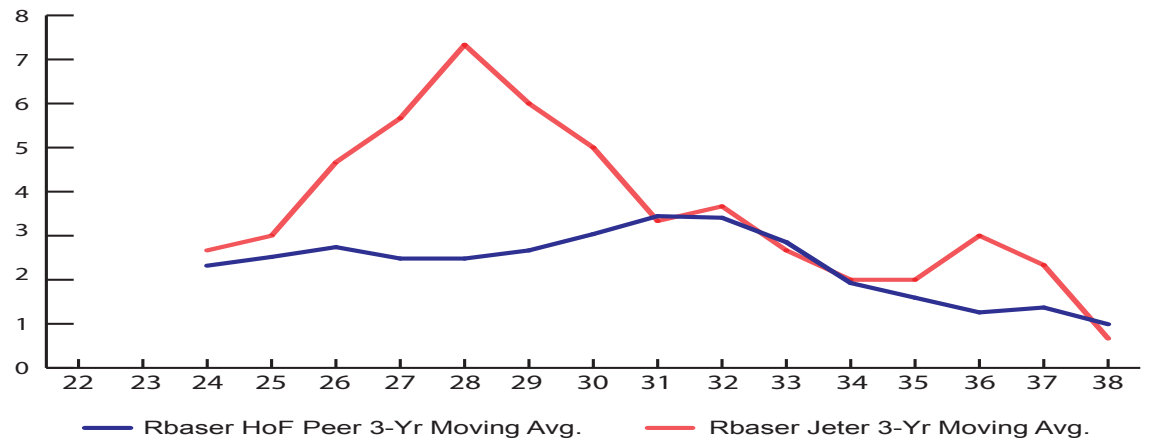
FIGURE 3.14	Fielding Runs Contributed - Jeter vs. HoF Peers

Rfield HoF Peer 3-Yr Moving Avg.   Rfield Jeter 3-Yr Moving Avg.
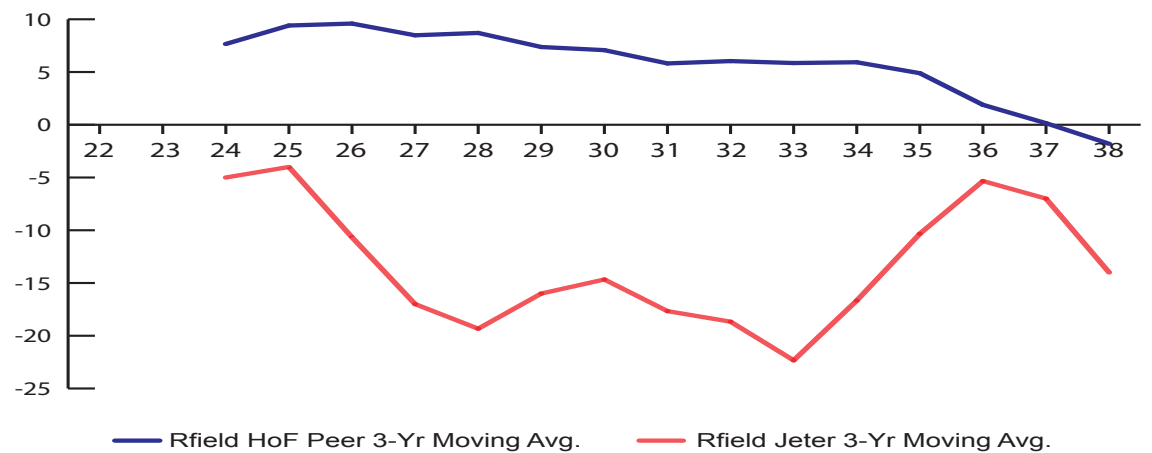
"You can take those stat guys and throw them out the window."

– Derek Jeter, April, 2004

Conclusion

Above all, we want to be clear about one thing: Our primary objective in undertaking this study was <u>not</u> to demonstrate that Derek Jeter's demise is imminent, *but rather to show that his demise is already well underway*. By taking advantage of the vast statistical data publicly available and putting it into context, we believe we've made our case.

We recognize the report could stir up some cognitive dissonance for Mr. and Ms. Yankee fan. While hardly scientific, a NY Post on-line poll, taken on 10/18/12, revealed that 89.9% of fans wanted Jeter back in 2013. Among all Yankee players, only CC Sabathia scored higher, but just barely (90.3%). The majority of fans, thinking emotionally rather than rationally, have not yet fully observed the unfolding reality we've presented in this report. They might not appreciate it, but as Leonard Koppett wrote in *A Thinking Man's Guide to Baseball* — "statistics are the lifeblood of baseball."

Lamentably, the local sports commentariat hasn't exactly helped matters, perpetuating the false "Peter Pan" narrative that surrounds the man. In our opinion, journalists and broadcasters have utterly failed to engage in honest discussion of his deterioration – let alone conduct any rigorous analysis. In effect, the media has failed to inform the public that the emperor in question, while perhaps not completely naked, is certainly wearing fewer clothes these days. We expect this oversight will soon change, as the trends in this report become apparent to even to the most casual baseball observer.

We are not naïve. We recognize the extremely low probability that Yankees' management will jettison its cherished icon any time soon. He is, after all, under contract for one more year, and has an $8 million option for 2014. While this is speculative on our part, we sense that the organization in recent years has sought to balance its winning championships' mandate with other priorities, namely printing money. Randy Levine, the team's president, has acknowledged as much, telling Bloomberg in 2008 that "the Yankees today are an entertainment company with a baseball team at its core." This fact likely bodes poorly for a swift changing of the guard. The Yankees desperately need to develop – or buy – a younger, stronger, and more defensive-minded shortstop, even if this means letting go of "the face of the organization" and sacrificing short-term merchandising revenues.

As for Jeter himself, he clearly appears to be in no hurry to move on, coyly telegraphing last summer to ESPN's Rick Reilly his fantasy of pursuing Pete Rose's all-time hits record. While we've mainly avoided specific forecasts, *we know from history good things do not happen to shortstops approaching 40 years of age.*

For Derek Sanderson Jeter, the bell tolls louder and louder, yet no one seems to hear it.
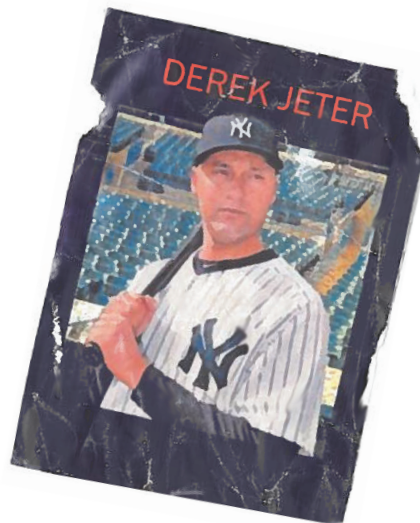
Appendix

APPENDIX TABLE 1		Derek Jeter: Runs Scoring Analysis												
Year	NYY HRs	DJ HRs	R	H	PA	AB	BB	HBP	DJ Runs by THR*	% of Runs by THR	DJ Runs by AHR	% of Runs by AHR**	RS%	RS-Adj %*
1995	122	0	5	12	51	48	3	0	NM	NM	NM	NM		
1996	162	10	104	183	654	582	48	9	15	14.4%	25	24.0%	41%	37%
1997	161	10	116	190	748	654	74	10	17	14.7%	27	23.3%	40%	36%
1998	207	19	127	203	694	626	57	5	16	12.6%	35	27.6%	44%	40%
1999	193	24	134	219	739	627	91	12	24	17.9%	48	35.8%	37%	31%
2000	205	15	119	201	679	593	68	12	20	16.8%	35	29.4%	39%	34%
2001	203	21	110	191	686	614	56	10	15	13.6%	36	32.7%	38%	33%
2002	223	18	124	191	730	644	73	7	21	16.9%	39	31.5%	42%	37%
2003	230	10	87	156	542	482	43	13	14	16.1%	24	27.6%	38%	34%
2004	242	23	111	188	721	643	46	14	27	24.3%	50	45.0%	39%	31%
2005	229	19	122	202	752	654	77	11	28	23.0%	47	38.5%	38%	31%
2006	210	14	118	214	715	623	69	12	31	26.3%	45	38.1%	37%	29%
2007	201	12	102	206	714	639	56	14	23	22.5%	35	34.3%	34%	28%
2008	180	11	88	179	668	596	52	9	19	21.6%	30	34.1%	34%	28%
2009	244	18	107	212	716	634	72	5	15	14.0%	33	30.8%	33%	29%
2010	201	10	111	179	739	663	63	9	25	22.5%	35	31.5%	42%	35%
2011	222	6	84	162	607	546	46	6	31	36.9%	37	44.0%	38%	27%
2012	245	15	99	216	740	683	45	5	26	26.3%	41	41.4%	33%	26%
Totals	**3,558**	**255**	**1,863**	**3,292**	**11,844**	**10,503**	**1,036**	**163**	**367**	**19.7%**	**622**		**38.0%**	**32.0%**

Notes:

RS% = (R - HR)/(H + HBP + BB - HR)
RS-Adjusted%*= (R - All HR*)/(H + BHP + BB - All HR*)
* THR = runs scored as a result of teammates' HR
** AHR = runs scored as a result of teammates' HRs and self HR's
Stats from 1995 season excluded from totals & percentage calculations

APPENDIX TABLE 2 — Jeter Post-Season Analysis

Year	G	PA	AB	H	K	BB	K/PA	3yr MA	"BB/PA"	3yr MA	K/BB	BA	OBP	3yr MA	XBH	TB	SLG	3yr MA	XBH/PA	3yr MA	R	R/PA	3yr MA
1996	15	67	61	22	13	4	19.4%		6.0%		3.3	.361	.409		4	28	.459		6.0%		12	17.9%	
1997	5	24	21	7	5	3	20.8%		12.5%		1.7	.333	.417		3	14	.667		12.5%		6	25.0%	
1998	13	61	51	12	10	7	16.4%	18.4%	11.5%	9.2%	1.4	.235	.328	.378	2	15	.294	.429	3.3%	5.9%	7	11.5%	16.4%
1999	12	53	48	18	9	5	17.0%	17.4%	9.4%	10.9%	1.8	.375	.434	.385	5	26	.542	.458	9.4%	7.2%	10	18.9%	16.7%
2000	16	75	63	20	18	11	24.0%	19.6%	14.7%	12.2%	1.6	.317	.427	.398	7	36	.571	.475	9.3%	7.4%	13	17.3%	15.9%
2001	17	70	62	14	8	3	11.4%	17.7%	4.3%	9.6%	2.7	.226	.275	.376	2	18	.290	.462	2.9%	7.1%	5	7.1%	14.1%
2002	4	19	16	8	3	2	15.8%	17.7%	10.5%	9.8%	1.5	.500	.526	.374	2	14	.875	.482	10.5%	6.7%	6	31.6%	14.6%
2003	17	78	70	22	13	7	16.7%	14.4%	9.0%	7.2%	1.9	.314	.385	.355	7	33	.471	.439	9.0%	6.6%	10	12.8%	12.6%
2004	11	59	49	12	6	7	10.2%	14.1%	11.9%	10.3%	0.9	.245	.339	.386	3	17	.347	.474	5.1%	7.7%	8	13.6%	15.4%
2005	5	23	21	7	5	1	21.7%	15.0%	4.3%	9.4%	5.0	.333	.348	.363	2	13	.619	.450	8.7%	7.5%	4	17.4%	13.8%
2006	4	17	16	8	2	1	11.8%	13.1%	5.9%	9.1%	2.0	.500	.529	.375	5	15	.938	.523	29.4%	10.1%	4	23.5%	16.2%
2007	4	17	17	3	4	0	23.5%	19.3%	0.0%	3.5%	Inf	.176	.176	.351	0	3	.176	.574	0.0%	12.3%	0	0.0%	14.0%
2009	15	74	64	22	11	10	14.9%	15.7%	13.5%	10.2%	1.1	.344	.432	.407	8	36	.563	.557	10.8%	12.0%	14	18.9%	16.7%
2010	9	42	40	10	10	2	23.8%	18.8%	4.8%	9.0%	5.0	.250	.286	.353	4	15	.375	.446	9.5%	9.0%	2	4.8%	12.0%
2011	5	25	24	6	8	1	32.0%	20.6%	4.0%	9.2%	8.0	.250	.280	.362	1	7	.292	.453	4.0%	9.2%	6	24.0%	15.6%
2012	6	30	27	9	10	2	33.3%	28.9%	6.7%	5.2%	5.0	.333	.379	.313	2	12	.444	.374	6.7%	7.2%	4	13.3%	12.4%
Totals	158	734	650	200	135	66	18.4%		9.0%		2.0	.308	.374		57	302	.465		7.8%		111	15.1%	

Glossary of Stats Used in this Report

*(*Asterisk denotes advanced metric)*

I. Batting

BtRuns* (Adjusted Batting Runs)
Formula: (.47)1B + (.78) 2B+1.09(3B) + (1.40)HR + .33(BB+HBP) - .25(AB-H) -(.5) (Outs on base).
Linear weights measure for how many runs a hitter contributes above and beyond what a league average replacement player would provide.

BtWins* - Adjusted Batting Wins
Adjusted Batting Runs divided by the number of runs required to create an additional win beyond average, which is 10.

G - Games Played

GS - Games Started

GB/FB - Ground Ball to Fly Ball ratio

GDP - Double plays grounded into

GDP/AB - Double plays grounded into as a percent of total at bats

GO/AO* - Ground Out to Fly Out ratio

ISO* - Isolated Power
Formula: (Total Bases-Hits)/AB

LD%* - Line Drive Percentage
Percentage of batted balls that are line drives. While not necessarily the hardest hit balls, line drives fall for a hit around 75% of the time. [*Baseball Info Solutions* tracks the trajectory of each batted ball and categorizes it as a groundball, fly ball or line drive.]

OBP - On-base Percentage
A measure of how often a batter gets on base for any reason other than a fielding error or a fielder's choice.
Formula used by MLB: (H + BB + HBP) / (AB + BB + HBP + SF)

OPS - On-base plus Slugging
A batting statistic that adds OBP (On Base Percentage) and SLG (Slugging Percentage). A quick measure of a batter's true contribution to his team's offense.

OPS+ - Adjusted On-base plus Slugging
OPS that is normalized to the league and park the player played in; average is 100.

Rbat* - Number of runs better or worse than average the player was as a hitter. Similar to "Wins above Replacement" but only for batting; uses runs rather than wins as units of value.

SecA* - Secondary Average
Measures number of extra bases gained by a player, independent of BA; designed to track contributions of power, speed and plate patience/eye. Formula: (TB - H + BB + SB - CS) / AB

SLG - Slugging Percentage
Total Bases divided by the number of at-bats.

wOBA* - Weighted On-base Average
Measures a hitter's overall offensive contributions per plate appearance; formed from taking the observed run values of various offensive events, dividing by a player's plate appearances, and scaling the result to be on the same scale as on-base percentage. Unlike statistics like OPS, wOBA attempts to assign the proper value for each type of hitting event.

XBH%* - Extra Base Hit Percentage
Formula: (2B+3B+HR) / (all plate appearances)

X/H%* - Percentage of all hits for extra bases
Formula: (2B+3B+HR) / H

II. Base Running

2ndSH* - On second, when a single is hit and runner scores.

2ndSH%* - Percentage of time runner scores from second on a single.

Rbaser* - Runs from base running
Number of runs better or worse than average the player was for all base running events - includes stolen base, caught stealing, PV, wild pitch, defensive interference.

RS%* - Run Scoring Percentage
Percentage of times a base runner eventually scores a run, excluding runs scored as a result of player's <u>own</u> home run.
Formula: (R-HR) / (H+HBP+BB-HR)

RS-Adjusted%* - Run Scoring Percentage Adjusted
Percentage of times a base runner eventually scores a run, excluding runs scored as a result of <u>any</u> home run.
Formula: (R-All HR) / (H+HBP+BB-All HR). *(Not recognized as a formal sabermetric.)*

SBA - Stolen Base Attempts
Number of times a runner attempts to steal a base.

SBO - Stolen Base Opportunities
Situation where a runner is on first or second with the next base open.

SBA/SBO* - Stolen base attempts as a percent of stolen base opportunities.

XBT%* - Extra Bases Taken Percentage
Percentage of time a runner advanced more than one base on a single or more than two bases on a double, when possible.

III. Fielding

A - Assists
Awarded to every defensive player who fields or touches the ball (after it has been hit by the batter) prior to the recording of a putout, even if the contact was unintentional.

Assists 1B - Assists where ball is thrown to 1B as a result of a ball in play.

CH - Defensive Chances, Putouts + Assists + Errors

DP - Double Plays Turned

E - Errors Committed

Fld% - Fielding Percentage, (Putouts + Assists) / (Putouts + Assists + Errors). Calculated as chances accepted divided by total chances; measures how effective a fielder is in avoiding errors.

F2O%* - Percentage of balls fielded by a player that result in outs.

Fielding Plus/Minus*
Number of plays made above/below the number an average fielder would make.

LgFld% - League Fielding Percentage
Fielding percentage of the league at this position.

PO - Putouts
Given to a defensive player who records an out by one of the following methods: 1) tagging a runner with the ball when he is not touching a base; 2) catching a batted or thrown ball and tagging a base to put out a batter or runner (a force out); 3) catching a thrown ball and tagging a base to record an out on an appeal play; catching a third strike (a strikeout); 4) catching a batted ball on the fly ("flyout"); and (5) being positioned closest to a runner called out for interference.

Rdrs* - Defensive Runs Saved above Average
The number of runs above or below average the player was worth based on the number of plays made. (Provided by *Baseball Info Solutions*)

Rpm* - Plus/Minus Fielding Runs above Average
The number of runs above or below average the player was worth based on the number of fielding plays made. (Provided by *Baseball Info Solutions*)

Rtot* - Total Zone Total Fielding above Average
The number of runs above or below average the player was worth based on the number of plays made. (Provided by *BaseballProjection.com*)

Rtz* - Total Zone Fielding Runs above Average
Number of runs above or below average the player was worth based on fielding plays made. (Provided by *BaseballProjection.com*)

TZR* - Total Zone Rating
Total Zone Rating is a fielding measure developed by Sean Smith and is used in WAR for all seasons prior to 2003. TZR is a non-observational fielding system that has various forms based on the level of data available ranging from basic fielding and pitching stats to play-by-play including batted ball types and hit location. As much data as is available is used for each season. When play-by-play is available TZR will use information like ground balls fielded by infielders and outfielders to estimate hits allowed by infielders. Balls fielded by outfielders to estimate their hits allowed. It uses base runner advancement and out information to determine arm ratings for outfielders, double play acumen by infielders and arm ratings for catchers.

IV. Overall Player Value

dWAR* - Defensive Wins above Replacement
A single value representing the number of wins a player adds to his team above what a replacement player would add, considering only fielding contributions.

oWAR* - Offensive Wins above Replacement
The same statistic as WAR for position players, but with fielding value excluded. Note: oWAR + dWAR does not equal WAR as adding would count positions twice.

WAR* - Wins above Replacement
A single number that presents the number of wins the player added to the team above what a replacement player (think AAA or AAAA) would add. Scale for a single-season: 8+MVP Quality, 5+ All-Star Quality, 2+ Starter, 0-2 Reserve, < 0 Replacement Level. (Developed by Sean Smith of BaseballProjection.com.)