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BEATING THE ODDS:  
BLACK JOCKEYS IN THE KENTUCKY DERBY, 1870-1911

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**ABSTRACT**

The Kentucky Derby is the premier American horse race. The first race was held in 1875 and 13 of the 15 jockeys were African Americans. African American jockeys continued to play an important role until the turn of the 19th century when they were forced from the Kentucky Derby and the other big American races, victims of the rising tide of Jim Crow. This paper uses a new data set based on the odds on all the entries in the Kentucky Derby between 1875 and 1915 to examine the willingness of owners and trainers to hire African American jockeys and the willingness of fans to bet on them.

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## 1. African American Jockeys in the Kentucky Derby

At the first running of the Kentucky Derby in 1875 thirteen of the fifteen jockeys were African Americans. The winning horse was Aristedes, the favorite. The jockey was Oliver Lewis, an African American. The trainer was Ansel Williams, an African American. This was a legacy of slavery when most jockeys on Southern tracks were African Americans. In the decades that followed, more and more White jockeys entered the field, but African Americans continued to play an important role. Among the great African American jockeys were Isaac Murphy who won three Kentucky Derbies and Willie Simms who won the Kentucky Derby twice, the Belmont Stakes twice, and the Preakness Stakes once. At the turn of the century Jimmy Winkfield won the Kentucky Derby in 1901 and 1902, and finished 2<sup>nd</sup> in 1903, but Winkfield was the last African American to win a Triple Crown race. Indeed, he was one of the last African Americans to ride in a Triple Crown race. At the turn of the century, African American jockeys were forced from American racing.

The expulsion of the African American jockeys was another tragic example of Jim Crow. Racism and segregation had always been present in the South, but they became more extreme in the 1890s.<sup>1</sup> African Americans were disenfranchised and forced from many jobs they had occupied previously. The classic history of the turn-of-the-century surge in racism is C. Vann Woodward's *The Strange Career of Jim Crow* (2002 [1955]). The title conveys his thesis. Segregation was not a constant, but rather an institution that had hardened in the 1890s. Horse racing fits Vann Woodward's pattern to a T. In subsequent work we hope to explore the underlying causes for the

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<sup>1</sup> Vann Woodward later conceded that he may have underestimated the early extent of segregation, particularly in cities.

expulsion of the African American jockeys. Here we will focus on the narrower question of how African American jockeys were received by the owners, trainers, and fans before they were forced out.

## **2. What Can the Odds Tell Us?**

We can look to the betting odds for some insights into the attitudes of the owners, trainers, and fans. If the betting market was well informed and efficient we would expect bettors to weigh objectively all of the determinants of winning, all that was known about each horse and each rider. The bettors would take into account the horse's performance in previous races, its bloodlines, the opinion of the trainer on the readiness of the horse, and so on. A well-informed and efficient betting market would also consider all that was known about the jockey. The jockey may not be as important as the horse – a common piece of track wisdom is that it is 90% about the horse and 10% about the jockey – but an efficient market would also take account the jockey's success in previous races, his age, his current physical condition, and so on.

But there were two reasons why the odds on a horse ridden by an African American jockey might be lengthened by bettors compared with what they would be in a well-informed and efficient market. One is that bettors might have underestimated the skill of African American jockeys.<sup>2</sup> The other is that they might have bet against horses ridden by African American jockeys from prejudice. In other words, beyond the money they might win or lose, they got some kind of pleasure from seeing White jockeys beat African American Jockeys. We believe the first possibility, underestimate of ability, is

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<sup>2</sup> Brown and Yang (2015) compare the odds on female jockeys with their success rate to determine and show that female jockeys were underestimated.

unlikely simply because there were so many successful and famous African American jockeys in the Kentucky Derby. Their skill was recognized and praised in the press.

Here, for example, is what the *Louisville Courier-Journal* (May 15, 1890, p. 2) had to say about Isaac Murphy after he won the Kentucky Derby in 1890.

“Isaac Murphy who piloted Riley to such a great victory is a quiet, polite, young man, who never made a bet in his life, never swore and never was caught telling a lie. His integrity and honor are the pride of the turf, and any of the best horsemen pronounce him the greatest jockey that ever mounted a horse.”

Is it any wonder that he was the odds-on favorite when he rode Kingman to victory in the 1891 Derby? The belief that African American jockeys were less skillful than White jockeys was a rationalization that emerged after African American jockeys were forced out of the big races. True, if only a few bettors were prejudiced others interested only in making money could take advantage. But if prejudice against African American jockeys was widespread, the arbitragers might not command enough resources to arbitrage away the effects of prejudice. Below we provide some evidence of bias in the betting on the Kentucky Derby.

In analyzing the betting we converted track odds into probabilities of winning. We do this for several reasons. (1) Probabilities are more familiar to economic historians. (2) The resulting graphs are easier to read because in graphs that make use of track odds, the long shots tend to obscure everything else. (3) Probabilities provide a common way of comparing results from different forms of betting. In Section 7, sources and methods, we explain in more detail how we computed comparable probabilities from different forms of betting.

### **3. Did African American Jockeys “Beat the Odds?”**

The Kentucky Derby, the first leg of the Triple Crown, is now, undoubtedly, the leading race in America. During the period we are examining, there was less of a consensus about the top races, but the Kentucky Derby was well regarded, and was on its way to iconic status. The Derby, like other legs of the Triple Crown, is for three year olds: young colts that have reached full form. The excitement they generate is similar to that generated by a baseball player, a star in the minor leagues, who is a rookie in the majors.

Table 1 shows the results of a simple way of comparing the performance of White and African American jockeys. We used the odds to determine the expected place for each horse in the race, and then asked how many places up or down the horse finished. If the horse was expected to finish fourth and finished third we recorded a step up; and if the horse was expected to finish fourth and it finished fifth we recorded a step down. Table 1 covers the performance of African American jockeys in each Derby from 1875 to 1911, the last in which an African American jockey finished “in the money.” An inspection of the table shows that African American jockeys were more likely to finish higher compared with what the betting odds predicted than to finish lower. Over the whole period African American jockeys moved up about 40 places and fell back only about 16 places; 2.5 steps forward, for every one step back.

We tested the attitude of the bettors toward African American jockeys in the Kentucky Derby formally by estimating an ordered probit regression with 0 designating horses that finished worse than predicted, 1 designating horses that finished as predicted, and 2 designating horses that finished better than predicted. The results are shown in Table 2.

In addition to our main concern, a binary variable that takes the value one if the jockey was an African American, we added three controls: the probability of winning assigned to an entry by the bettors, the number of horses in the race, and a three-year moving average of lynchings of African Americans in the state of Kentucky. The probability of winning was included because it is possible that entries given better chances of winning had a tendency to finish better or worse than predicted. For example, bettors might have exaggerated the chances of horse that came into the race with an outstanding record. The number of horses in the race was included because a large field may have produced congestion that made it difficult for even unusually skilled jockeys to improve their position. And lynching was included to allow for the possibility that the rising tide of racism at the end of the 19<sup>th</sup> century may have produced more racetrack violence intended to prevent African American riders from finishing ahead of White riders.

As shown in Table 2, the implied probability of winning and the number of entries did not have significant impacts on whether an entry beat the odds. Lynching had the expected negative sign but was only marginally significant. The binary variable indicating an African American jockey, however, was positive and significant at the 10-percent level. We experimented with other controls, but did not find any that proved significant and that substantially altered the picture provided by the regression shown in Table 2. In our view, the most likely explanation for these results is that some bettors in Kentucky bet against African American jockeys simply from prejudice. The story, of course, may have been different in races run in other parts of the country. In future work we plan to explore the betting on races run on Northern tracks.

#### **4. What Kind of Rides Did African American Jockeys Get?**

Bearing in mind the prejudice of the bettors, we can use the implied probabilities to get a sense of the quality of the horses African American Jockeys were being hired to ride. Were they riding the best horses or only the also-rans?

Chart 1 shows the implied probabilities for the winning horse in each Derby from 1875 to 1902 by ethnicity of the jockey. As Chart 1 shows, African American Jockeys sometimes had to beat the odds to win. The outstanding case was the 1882 Derby won by “Babe” Hurd who rode Apollo, a 33:1 longshot to victory; a record that was not broken until the White jockey Roscoe Goose rode a 91:1 longshot to victory in 1913, still the record.<sup>3</sup> Apollo had not raced as a two year old, so the uncertainty about his abilities may have been a factor in the long odds against him. This race, incidentally, was the origin of the “Apollo Curse:” a horse that did not run as a two year old cannot win the Derby.” The curse was finally broken in 2018 by Justify. Justify, however, was the favorite, perhaps reflecting the abundance of information available today, even for a horse without a record in competitive races. All told, 15 winners of the Kentucky Derby were ridden by African American Jockeys and 13 by White jockeys during the years from 1875 to 1902, after which African American jockeys were, with a few exceptions, not hired to ride in the Derby.

Chart 2 shows the probabilities from a different perspective: the favorites. As you can see, although White jockeys rode the favorites in a majority of the races, African

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<sup>3</sup> We have not found a reference to Hurd's first name.



American jockeys rode the favorite in 12 of the 31 races shown in the chart.<sup>4</sup> The last African American jockey to ride a favorite in the Kentucky Derby was Jimmy Winkfield in 1903. He had beaten the favorites to win in 1901 and 1902, but was the odds-on favorite in 1903, although he finished second. As shown above, overall the bettors in the Kentucky Derby favored the White jockeys. But there were more than a few who were willing to bet on an African American, especially if it was Jimmy Winkfield on a strong contender.

A comprehensive view is provided in Chart 3 which shows the difference between the average probability of winning for the African American jockeys in each race less the average probability for the White jockeys in the same race. If, for example, there was one African American jockey riding a horse the bettors thought had a 60 percent chance of winning and one White jockey with a 40 percent chance of winning, we would record a positive 20 percent difference in Chart 3. If the probabilities were the same the difference would be zero. The difference varies from race to race but hovers, as shown more clearly by the five-year moving average, close to zero: Evidence that the African American jockeys were getting rides comparable to the rides given to White jockeys. Since we found evidence of prejudice against African American jockeys by the bettors, the difference shown in Chart 3 is a lower bound estimate: the true differences would be higher.

The last African American jockey to finish in the money was Jess “Long Shot” Conley who rode Colston to third place in the 1911 Derby. The owner and trainer was Raleigh Colston Jr., an African American. In the day-of-the-race odds published in the

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<sup>4</sup> This counts 1893 in which a White jockey and African American jockey were co-favorites.

Louisville *Courier-Journal* (May 13, 1911, p. 10) a White jockey is shown as picked to ride Colston, so Conley seems to have been a last minute substitution. We don't know why the substitution was made. It is not an uncommon event. But it is possible that Colston wanted to minimize the chance of collusion by the White jockeys. In the morning odds, Colston was given a 12.62 percent chance of winning, which put him in fourth place. In an auction, possibly held the night before or morning of the race, Colston was given a lower chance of winning, 6.48 percent, although this still put him in fourth place. In the parimutuel betting, however, the bettors gave him a 4.58 percent chance of winning, which gave him an expected finish of fifth place. The difference between the earlier and later odds, although this is mostly speculation, may have reflected the switch to an African American jockey. In any event, Conley beat the odds

## **5. Winners and Losers**

The main losers from the imposition of Jim Crow, without a doubt, were the African American jockeys, some possibly as talented as Isaac Murphy and Jimmy Winkfield, who never got the chance to ride in the Kentucky Derby. Their fans, both African American and White, also lost from Jim Crow. Later, some tracks ran "Darktown Derbies" for African American fans, events analogous to Negro League baseball games. The main beneficiaries, by the same token, were the White jockeys who got a ride in the Derby who would not otherwise have gotten the chance. Perhaps it can also be said that some prejudiced White fans were made better off by seeing all-White races.

What about White owners? Economic theory raises the possibility that White owners lost, at least for a period of time, from the imposition of Jim Crow because they

had to draw from a smaller and more expensive pool of potential jockeys. But the costs were probably low. The cost of hiring jockeys was only a small part of the total cost of owning, training, and racing horses. The competitive pressures that undermine discrimination in some settings, moreover, were not at work here. An owner could not get an edge on other owners by hiring a highly skilled but underpaid African American jockey. The “color line,” as it was known at the time, was firmly drawn. This was not true in other aspects of racing. White owners could employ African Americans in other capacities, such as trainer or adviser, and did so. In any case, the Kentucky Derby continued to grow and prosper in future years even though African American jockeys had been banished from the track.

## **6. Conclusions**

Before the Civil War America’s most famous jockeys were slaves; After the Civil War, African American jockeys continued to play a major role in American racing. They were stars in the races that were becoming the Triple Crown, and this was no more true than in the Kentucky Derby which was on its way to becoming the premier American horse race. Between 1890 and 1899 African American jockeys won 6 of 10 Kentucky Derbies. At the end of the 1890s, however, they were forced from the Kentucky Derby and the other big American races by the rising tide of Jim Crow, although some continued to find rides in steeplechase races and in low budget flat races.

Here we looked to the odds to provide some additional insight. We found evidence of some prejudice on the part of bettors. But there were plenty of bettors who were willing to bet on horses ridden by African American jockeys. We have also shown

that African American jockeys were getting rides comparable to White jockeys. There may have been owners who refused to hire African-American jockeys out of prejudice — we cannot test for this form of discrimination with our data — but the bottom line is that there were owners who were willing to hire African American jockeys to ride horses with good chances of winning and fans who were willing to bet on them.

To reiterate, just a few years after Jimmy Winkfield's great run of success in the Derby – wins in 1900 and 1901 and second in 1902 – Jim Crow forced African American jockeys from the Kentucky Derby and the other big races. Our results, then, are a poignant illustration of the central thesis of C. Vann Woodward's *The Strange Career of Jim Crow* (2002 [1955]). Segregation, Vann Woodward argued, had not always been as extreme as it became at the end of the nineteenth century. There was considerable discrimination in the post-bellum South, but opportunities were severely reduced at the end of the century. It was this theme that Martin Luther King, Jr. emphasized in his famous speech at Montgomery, Alabama which capped the march from Selma, the largest civil rights demonstration in Southern history to that point. If rigid segregation had arisen long after the end of the Civil War then rigid segregation was not inevitable, it could be overcome.

Many questions remain: If neither the fans nor the owners were insisting on an all-White Derby, who was driving the African Americans out, and why? In future work we hope to explore the story on northern tracks, to compare the story in racing with that in other professional sports, and to analyze further the forces that produced the expulsion of African American jockeys from American racing.

## 7. Sources and Methods

In this section we identify our sources and explain how we used them to compute odds and other variables. An excel file containing all of our data is available from the authors upon request.

The website of the Kentucky Derby was our first stop. It has a form chart for each race. However, the charts in the media guide do not always have the odds on all the entries or other data that we needed so we had to supplement the charts with data from other sources. We needed data, for example, on the ethnicities of the jockeys. The media guide was extremely valuable because it includes a discussion of African American jockeys who have ridden in the race. In addition, Weeks (1898), Parmer (1939), Hotaling (1999), and Mooney (2014) were extremely helpful. We also located stories about individual jockeys in newspaper reports.

Betting at the Derby was structured in a variety of ways that changed over time. In the early years of the Derby (1875 to 1886), the only odds we have found are from “auction pools.” Each auction consisted of a series of rounds of bidding. The winner of the first round chose whichever horse they wanted. The winner of second round could choose from the remaining horses, and so on until all the entrants had been taken. Those who had bought the winning horse would receive the pool less the pool-seller’s commission, typically, it is said, five percent (Riess 2011, Kindle Locations 453-455). In many pools entrants from the same stable were paired in the bidding; that is you could choose two or more of horses with a single bid. The reason in most cases was that the owners, who were major participants in the pools, didn’t want to create the impression that they favored one of their horses, possibly even instructing one of their jockeys to

cooperate in pushing through one of their entries. In some cases the weakest horses, the “field,” were also pooled, and were taken in the last round of betting.

Since the bids reported for the auction pools were reported gross of the pool-seller’s commission, we could estimate the implied probability of winning simply by dividing the amount bet on a particular horse by the total size of the pool. Typically, there was more than one auction, so reports in different sources can differ. In most cases, we used the auction pool reported in the Derby Media Guide. But in a few cases when more detailed information was reported, we used an auction from O’Connor (1921).

The auction pools were often criticized. One problem was that the favorites tended to get picked by the bettors with the deepest pockets. Indeed, it was hard for someone of limited means to make any bet at all and that led to the introduction of other forms of betting that allowed for greater participation.

Our first parimutuel bet is from 1880. But from then until 1889 we have found only the prices for the winning tickets or in some cases place and show tickets. From 1890 through 1907, parimutuel betting at the track was discontinued. Thus we only have parimutuel odds beginning in 1908.

Our first set of bookmaking odds is for 1884, and we have them for most of the years through 1907. For some years we have odds from several sources and from several types of wagering. Typically when this is the case, the probabilities derived from different sources don’t differ to the extent that they would point to different orders of finish.

A numerical example will show how we computed the implied probabilities of winning and how we decided whether a particular jockey had “beaten the odds.”

Table 3 shows a hypothetical three-horse race. Column 1 shows the three horses entered in the race. Column 2 shows the amount bet on each horse. If these amounts were the prices from an auction pool we could compute the expected probability of winning of each entry simply by dividing the amount bet on that horse by the total amount bet.

For parimutuel betting, however, what is reported are the payouts after the track takes a slice of the pie. Column 3 shows what the payout would be for each horse assuming that the track took 10%. If *Really Fast* won, bettors would receive the total amount bet, \$350, less 10 percent for the track or \$315. Out of this amount \$200 would cover the initial wager, so the winning bettors would receive a net payout of \$115 on a wager of \$200. Column 4 shows the odds as dollars won per dollar bet; \$115/\$200 or \$0.58 per dollar \$1.00. The track, typically, would express this more conveniently as a ratio of integers; 3:5 would be close, \$0.60 per dollar. The track, of course, might choose an integer value that left it with a larger slice of the pie.

Column 5 shows estimates of the probability of winning based on the parimutuel odds. These probabilities were computed by dividing the amount wagered by the sum of the amount wagered and the amount that would be won if *Really Fast* came in first. The odds per dollar for *Really Fast* are \$0.58 per \$1.00. The frequency interpretation is that if the race was run 158 times, we would expect *Really Fast* to win 100 and to finish lower 58 times. The odds on *Really Fast* imply a probability of winning of 63.49%. The calculation is  $[1/(1+.58)]*100 = 63.49\%$ . The probabilities in column 5 sum to more than

100% because of the slice taken by the track. So in column 6 the probabilities are adjusted to sum to 100% by dividing by the sum of column 5.

We treat bookmaker odds in the same fashion. They are usually reported as odds such as those shown in column 4. First we create probabilities for each entry and then adjust so that they sum to 100.

These probabilities then tell us the expected order of finish in the race. Suppose the *Really Fast* and *Middle of the Road* were ridden by White jockeys and *Slowpoke* by an African American jockey. And suppose that *Slowpoke* did better than expected and finished first as shown in column 8. Then we could say, as shown in column 9, that this particular jockey “beat the odds” and advanced two places in the race. Conversely, each of the White jockeys finished down two places. If the betting market was efficient we would expect the African American jockeys to finish up about as often as they finished down.



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**Table 1**  
**Beating the Odds in the Kentucky Derby, 1875-1911**

<b>Year</b>	<b>Number of Entries</b>	<b>Number of White jockeys</b>	<b>Number of Black jockeys</b>	<b>Improvements (or setbacks) in the final position of Black Jockeys</b>
1875	15	2	13	8.5
1876	11	5	6	-3.0
1877	11	4	7	2.5
1878	9	1	8	-1.0
1879	9	3	6	4.5
1880	5	3	2	2.0
1881	6	1	5	0.0
1882	14	7	7	5.0
1883	7	2	5	-4.0
1884	9	2	7	-1.5
1885	10	3	7	1.0

1886	10	4	6	0.0
1887	7	3	4	3.5
1888	7	2	5	-1.5
1889	8	3	5	0.5
1890	6	4	2	3.0
1891	4	3	1	1.0
1892	3	3	0	0.0
1893	6	3	3	0.0
1894	5	3	2	0.5
1895	4	3	1	0.0
1896	8	5	3	-2.0
1897	6	2	4	-1.0
1898	4	2	2	1.0
1899	5	2	3	0.0
1900	7	2	5	0.0
1901	5	1	4	1.0

1902	4	2	2	3.5
1903	6	5	1	-1.0
1904	5	5	0	...
1905	3	3	0	...
1906	6	6	0	...
1907	6	5	1	-1.0
1908	8	7	1	-2.5
1909	10	9	1	0.0
1910	7	7	0	...
1911	7	6	1	2.0

Notes: In some cases horses were paired in the betting. In those cases we assigned an average rank for the pair of horses. Hence the half steps shown in the Table. There were no African American jockeys in the Derby between 1911 and 2000.

Sources: Section 7, sources and methods.

**Table 2**  
**Performance Relative to Expectations**  
**in the Kentucky Derby, 1875-1915**

Variable	Coefficient
Dependent Variable: Whether the jockey did better or worse than predicted by the betting odds.	
Constant	-.433 (-0.86)
Probability of Winning According to the Bettors	0.003 (0.51)
Number of horses in the race	0.008 (0.16)
Three-year moving average of lynchings of African Americans	-0.075 (-1.51)
African American Jockey	0.388 (1.95)
Number of Observations 187. Log Likelihood Ratio -115.222. Pseudo R <sup>2</sup> .024.	
Notes: This is an ordered probit regression. z-statistics in parentheses.	
Sources: Lynching; Wright (1990). Other Variables; Section 7, Sources and Methods.	

**Table 3****A Hypothetical Three-horse Race**

1	2	3	4	5	6	7	8	9
Horse	Amount Bet	Net Payout (After the track takes 10%)	Odds to a dollar	Implied probability based on odds	Implied Probability, adjusted	Expected Finish	Actual Finish	Change in Rank
Really Fast	200	115	.58	63.49	57.14	1	2	-1
Middle of the Road	100	215	2.15	31.75	28.57	2	3	-1
Slowpoke	50	265	5.30	15.87	14.29	3	1	2
<b>Total</b>	<b>350</b>	<b>315</b>		<b>111</b>	<b>100</b>			<b>0</b>

## Odds (as a probability) on the Winning Horse in the Kentucky Derby by Ethnicity of the Jockey, 1875-1905

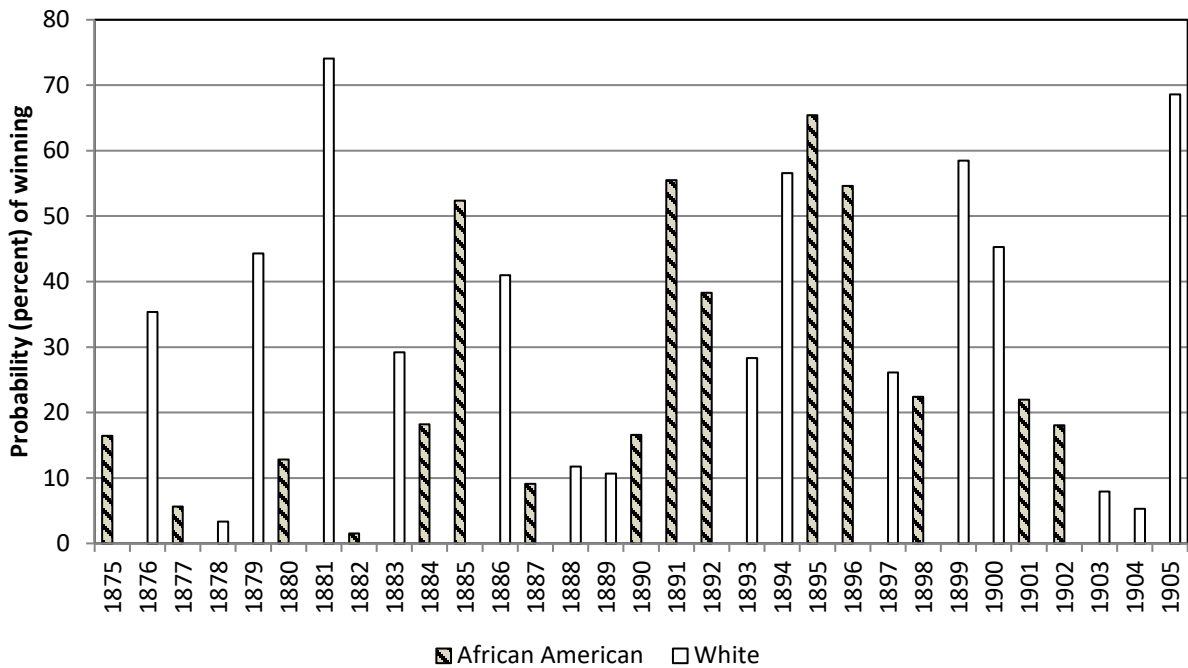


Chart 1

Source: Section 7, Sources and Methods



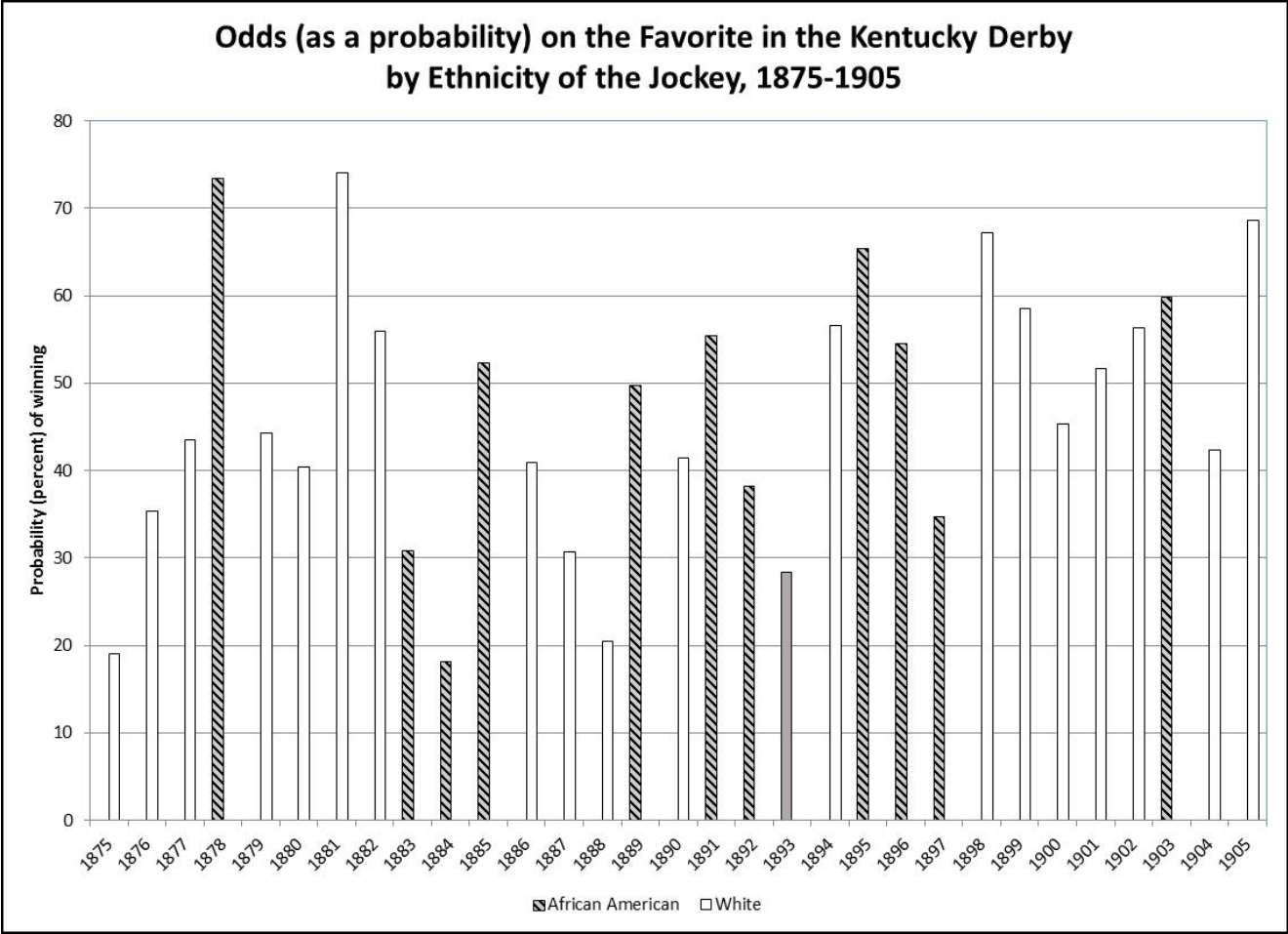


Chart 2

Source: Section 7, Sources and Methods

Note: In 1893 two horses that were paired in the betting were the favorites, one ridden by a White jockey and one by an African American jockey.

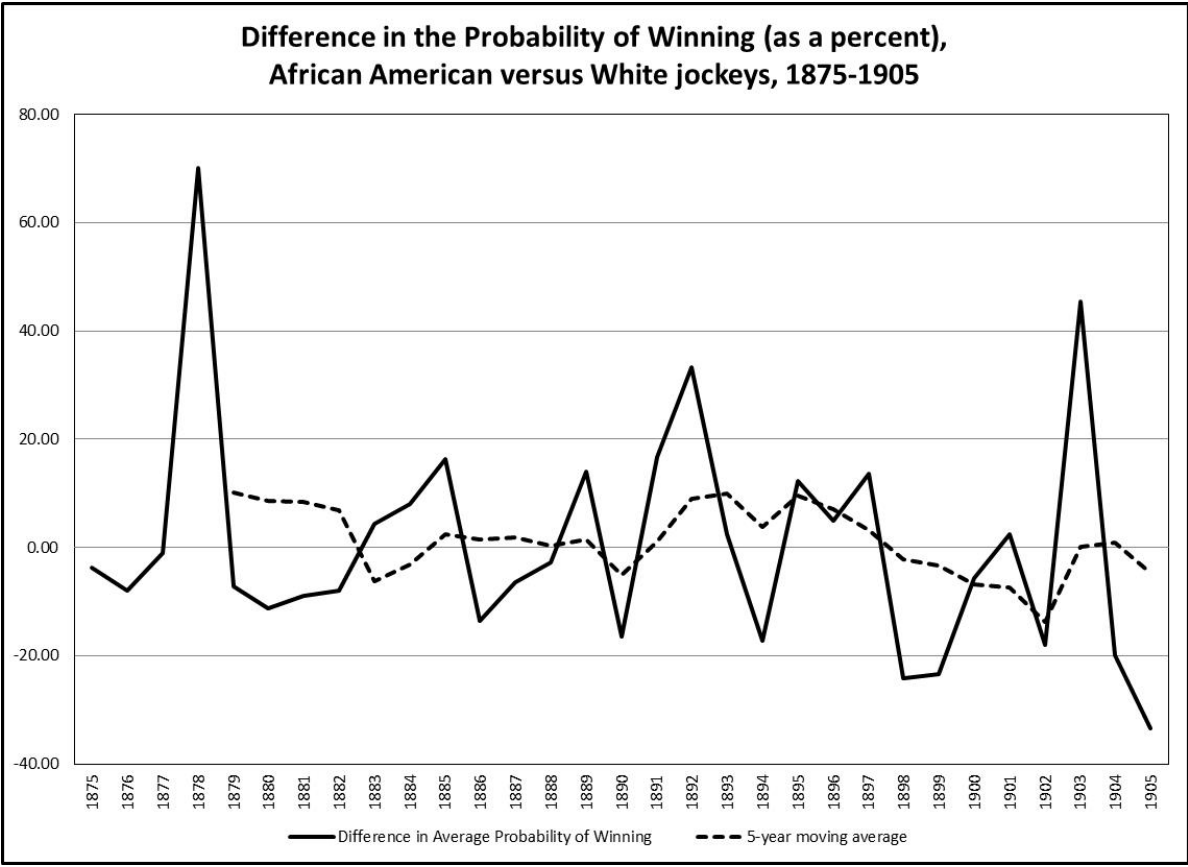


Chart 3

Source. Section 7, Sources and Methods.