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THE EXPULSION OF AFRICAN AMERICAN JOCKEYS FROM AMERICAN RACING

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ABSTRACT

Between the Civil War and the turn of the nineteenth century there were many prominent African American jockeys. They rode winners in all of the Triple-Crown races. But at the turn of the century they were forced out. This paper uses a new data set on the Triple-Crown races, which includes odds on all of the entrants in all of the races, to explore the causes of the expulsion of African American jockeys. Our conclusion is that although there is some evidence of prejudice by owners and the betting public – for the latter in the Kentucky Derby although not in the other legs of the Triple Crown – historical evidence indicates that the final push came from the White jockeys who were determined to “draw the color line.”

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1. Introduction

In a previous paper (Leeds and Rockoff 2019) we explored the expulsion of the African American jockeys from the Kentucky Derby. Here we expand our analysis to include the other legs of the “Triple Crown”, the Preakness Stakes and the Belmont Stakes.¹ These races were run entirely (Belmont) or mostly (Preakness) on northern tracks. The contrast with the Derby helps us better understand the causes of the expulsion.

At the first running of the Kentucky Derby in 1875, thirteen of the fifteen jockeys were African Americans. The winning horse was Aristides, 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 American. Gradually, in the decades that followed, more and more White jockeys entered the field. But African Americans continued to play an important role.

The list of great African American jockeys includes Isaac Burns Murphy who won many important races, including three Kentucky Derbies (1884, 1890, and 1891) and was in the inaugural class of jockeys inducted into the National Museum of Racing and Hall of Fame. It also includes Willie Simms who won the Kentucky Derby twice (1896,

¹ Although these three races were always important, in the 19th century there was competition for the position of America’s top races. The term “Triple Crown” was first used to describe the three most important British races. It appears that in the United States the first prominent use of the term was in the New York Times in 1923; but we have not done a comprehensive search for the origin of the term in American racing. The Kentucky Derby was first run in 1875, the Preakness Stakes in 1873, and the Belmont Stakes in 1867.

1898), the Preakness Stakes once (1898), and the Belmont Stakes twice (1893, 1894). And it includes Jimmy Winkfield who won the Kentucky Derby in 1901 and 1902 and rode the favorite to a second-place finish in 1903. But Winkfield was the last African American jockey to win a Triple Crown race. Indeed, he was one of the last African Americans to ride in a Triple Crown race for almost a century. The simple fact is that African American jockeys were forced out of American racing at the end of the 19th century despite their stellar record. It was another tragic example of “the Strange Career of Jim Crow.”

Figure 1 shows what happened in a particularly graphic way. The chart shows the number of Triple Crown races won by African American jockeys from 1870 to 2018. The effect of the “regime change” as we might call it today – “drawing the color line,” as it was called at the time – could not be clearer.

Racism and segregation had always existed in both the North and South, but at the turn of the 19th century there was a surge of racism. African American were disenfranchised and forced out of many jobs that they had occupied. The classic history of the intensification of racism at the turn of the century is C. Vann Woodward’s *The Strange Career of Jim Crow*. The title conveys the thesis: although racism was always present in the South, segregation became even more extreme in the 1890s.² Horse racing fits the pattern he describes to a T. Somers (1974, 35) reports that the Whites and African Americans were separated at New Orleans tracks in the immediate aftermath of Reconstruction but that things then changed for the better.

² Vann Woodward later conceded that he may have underestimated the early extent of segregation, particularly in cities.

“Black jockeys continued to ride on local tracks in the 1880s and 1890s and often dominated the winner’s circle. Negroes gained the right to attend races on equal footing with whites in the 1880s after professional sportsmen assumed control of local racing from the city’s socially exclusive jockey clubs.”

But by the beginning of the twentieth century racial inclusion at the track was over.

The surge in racism in the 1890s and at the turn of the nineteenth century, of which the expulsion of the African American jockeys from the Triple Crown is a striking example, was the product of cultural, political, and economic forces. Untangling these forces has challenged historians for more than a century. We cannot hope to make a definitive analysis here, but the expulsion of the African American jockeys is a particularly clear case of the exclusion of African Americans. By studying it, we add to the general understanding of the rise of Jim Crow.

We approach the expulsion of the African American jockeys from several directions. First, we make use of the work of narrative historians such as O’Connor (1921), Parmer (1939), and most importantly Mooney (2014), and our reading of the newspapers and other contemporary sources. Then we estimate two econometric models that test for the presence of discrimination against black jockeys. These models are based on a new data set that we have constructed. The sources and methods we used to construct the data set are explained in the Appendix.

The first model, reported in section 4, explores the relationship between the rise of Jim Crow and the decline in the number of mounts going to black jockeys. We used both a straightforward timing variable to represent the rise of Jim Crow, and variables that track the disenfranchisement of African Americans in the South.

The second econometric study, reported in section 5, sheds light on the behavior of the bettors. One way of determining whether there was discrimination against black

jockeys is by applying what sports economists refer to as an “outcome test.” Does a particular class of athletes do better than predicted by the odds? This test aligns with the claim by many women and minorities that they must be better than their peers to get a job or a promotion. Indeed, outcome tests widely applicable. As Gary Becker pointed out in his Nobel lecture, “If banks discriminate against minority applicants, they should earn greater profits on the loans made to them than on those to whites.” (Becker, 1993: 389).

The outcome test has since been applied in a variety of contexts, ranging from racial disparities in police practices (Knowles, Persico, and Todd, 2001; and Ayers, 2002) to discriminatory practices by journal editors. (Smart and Waldfogel, 1996) While studies of sports have not directly tested for an outcome effect, studies have shown that racially integrated Major League Baseball teams (Hanssen, 1998) and English Football League teams (Szymanski, 2000) outperformed teams that had failed to integrate.

In our case, the outcome test reveals whether bettors allowed racial prejudice to affect their betting patterns. Specifically, a discriminatory bettor might be unwilling to place a bet on a horse ridden by an African American jockey even if such a bet were a profitable action. In section 5 we ask, specifically, whether in the era we consider it was smart to bet on black jockeys because they were more to finish “in the money” (first, second, or third) than predicted by the odds.

2. The Triple Crown

The Triple Crown consists of three races: The Kentucky Derby, first run in 1875, the Preakness Stakes, first run in 1873, and the Belmont Stakes, first run in 1867.³ At the crudest level, the story was the same in all three Triple Crown races: There was initially a period in the nineteenth century when African American Jockeys raced and frequently won, followed by expulsion at the end of the nineteenth century. However, the story developed differently in each race, so in the following sections we describe the changing role of African American jockeys in each leg of the Triple Crown in more detail.

2.1 The Kentucky Derby

The Kentucky Derby is now, undoubtedly, the leading horserace in America. This race, like other legs of the Triple Crown, is for three-year olds: young colts that have just reached full form. The excitement they generate resembles that generated by a star minor-league baseball player who is a rookie in the majors.

Figure 2 shows the odds (as probabilities) at the track for the winning horse in each Kentucky Derby from 1875 to 1902 by ethnicity of the jockey.⁴ Evidently, African American Jockeys sometimes had to beat the odds to win. The outstanding case was the 1882 Derby won by the African American jockey “Babe” Hurd, who rode Apollo, a 33:1 longshot to victory; a record that was not exceeded until the White jockey Roscoe

³ Although these three races were always important, in the 19th century there was competition for the position of America’s top races. The term “Triple Crown” was first used to describe the three most important British races. It appears that in the United States the first prominent use of the term was in the *New York Times* in 1923; but we have not done a comprehensive search for the origin of the term in American racing.

⁴ The Appendix explains the relationship between track odds and implied probabilities.

Goose rode a 91:1 longshot to victory in 1913, still the record for the Derby.⁵ Apollo had not raced as a two-year old, possibly a factor in the long odds against him. This was the origin of the “Apollo Curse:” the belief that 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 a favorite, perhaps reflecting the great abundance of information available today, even for a horse without a record in competitive races. All told, between 1875 and 1902, 15 winners of the Kentucky Derby were ridden by African American Jockeys and 13 by White jockeys, after which African American jockeys were excluded until Marlon St. Julien rode in the 2000 Derby.

Figure 3 provides perspective on the quality of rides African American jockeys were getting before they were finally forced out. It shows the implied probabilities for the favorite in each Kentucky Derby from 1875 to 1905 by the ethnicity of the jockey. It is clear that African American jockeys were getting some very good rides. In several cases they rode the “odds-on favorite.” True, there is a run of years at the end of the 19th century when the White jockeys rode the favorites, but in 1903 Jimmy Winkfield, fresh off two Derby victories rode the odds-on favorite to a second place finish. Evidently, despite widespread racism there were owners who were willing to trust their best horses to African American jockeys and bettors who recognized a good thing when they saw it.

The last African American to ride in the Kentucky Derby before 2000, and the last finish “in the money” (first, second, or third), was Jess “Long Shot” Conley who rode Colston to third place in the 1911 Derby. Colston’s owner and trainer was Raleigh

⁵ We have not found a reference to Hurd's first name.

Colston Jr., an African American. In the morning-of-the-race odds published in the *Louisville Courier-Journal* (May 13, 1911, p. 10) a White jockey is listed as riding Colston, so Conley seems to have been a last-minute substitution. Conley did well. According to the odds in the *Derby Media Guide* he was expected to finish fifth. Conley ran a fine race and exceeded his expected finish.

While outstanding African American jockeys, such as Winkfield, did get rides in the Derby in the 1890s and the first years of the twentieth century, there was an ominous trend, as shown in Table 1. Column 5 shows the share of rides in each race that went to African American jockeys. A peak is reached in 1892 when all three entries were ridden by African Americans. From 1892 onward, the trend is downward. Column 4 shows the total number of African American jockeys in each race; it contains only ones and zeroes after 1902. The existence of a break point in 1892 is not a surprise, as it was the year of the populist revolt that would ultimately produce C. Vann Woodward's "Strange Career of Jim Crow." In 1892, Kentucky enacted the Separate Coach Bill, "the first of several pieces of legislation that placed [Kentucky] in line with southern states in legally limiting the social, economic, and educational opportunities of African Americans." (Marshall, 2000: 242)

The last column of Table 1 allows us to see how bettors responded to African American jockeys. To get the number shown in the table we first ranked the entries in each race according to the final odds and compared that ranking with the race results. If the odds, for example, said that an African American jockey was expected to finish fourth but he finished third, we credit him with a step up. If he was expected to finish fourth but finished fifth, we recorded a step down. As you can see the African American

jockeys on average finished higher than expected more often than they finished lower. This is preliminary evidence that bettors underestimated the skills of the African American jockeys or bet against them from prejudice. We explore this issue systematically in Section 5.

2.2 The Preakness

Relatively few African Americans rode in the Preakness. Table 2 shows that African Americans rode in four Preakness Stakes before the modern era. Only one of these races took place at Pimlico in Maryland; the others were run on Northern tracks. The race at Pimlico, incidentally, was a strange affair. Initially, only one horse was entered, with African American jockey George “Spider” Anderson aboard. All he would have had to do to win was walk his horse around the track. At the last moment, another entry was found to make it a race, but Anderson won easily. Some of the owners who raced their horses at Pimlico we think, preferred White jockeys, especially White English jockeys, but this form of prejudice is hard to establish given our data. In each case, we compared the expected finish in the race based on the odds with the actual finish to see if bettors underrated the African American Jockeys. As you can see, only one case showed a change from the expected finish based on the odds, a step up.

2.3 The Belmont Stakes

Table 3 shows the Belmont Stakes in which African American Jockeys rode. As one can see, African American jockeys continued to get rides in the 1890s, when the trend was downward in Kentucky. The African American jockeys, moreover, acquitted themselves

well, and bettors seem to have realized how good they were. If anything, the table suggests that bettors overrated African American jockeys at Belmont. Over the 15 races in which African American jockeys rode, they finished worse by a total of 4.5 positions. The average probability of winning assigned a horse ridden by African American jockeys by the bookies and bettors was slightly higher than the average for a horse ridden by White jockey, 22.5 compared with 15.2.

Figure 4 shows the odds assigned by the bettors to the four horses ridden by African American winners (expressed as a percentage) as well as the odds on the favorite. In 1870, Edward Brown rode the favorite to a win; hence, the two columns are equal. In 1893 the future Hall of Fame Jockey Willie Simms had to beat the odds to win, but the following year he rode the favorite. Overall, it appears that bettors at the Belmont Stakes put their prejudices behind them. Discrimination probably came many forms, only some of which we can measure.

3. The White Jockeys “Draw the Color Line”

Contemporary newspaper accounts suggest that White jockeys conspired at the turn of the century to force out the African American jockeys, to “draw the color line,” as it was expressed at the time. They had the tacit support of the owners, although it is difficult to tell the extent to which owners passively accepted or actively supported drawing the line. We return to the interests of the owners below. One of the most convincing accounts the expulsion appeared in the *New York Times* (July 29, 1900, p.19). After describing the sudden decline in the number of African American jockeys from the 1899 racing season to the 1900 season, the *Times* reporter explained that

“The public generally accepted the theory that the old time favorites of African blood had outgrown their skill, and really were out of date because of their inability to ride up to form of past years. Racing men know better. As a matter of fact, the Negro jockey is down and out not because he could no longer ride, but because of a quietly formed combination shut him out.”

The reporter could not say for sure whether the owners played a role in the expulsion of the African American jockeys. He would only go this far.

“Gossip around the racing headquarters said that the white riders had organized to draw the color line. In this they were said to be upheld and advised by certain horse owners and turfmen who have great influence in racing affairs. Rumor even went so far as to state that The Jockey Club approved the plan tacitly and unofficially.”

The reporter had some circumstantial evidence that the conspiracy had reached the Jockey Club, the ruling body of New York racing: a report that a member who was close to offering a ride to an African American jockey whom he had employed before, suddenly broke off negotiations. He also reports that some owners initially laughed at the idea of a color line and continued to offer mounts to African American jockeys, but they were soon brought into line.

“The Negro riders got mounts at first, but they failed to win races. Somehow or other, they met with all sorts of accidents and interferences in their races. The doubting horse owners seem to have been convinced since the early meetings that if they want to win races they must ride the white jockeys.”

In the summer of 1900, fresh off a third-place finish in the Kentucky Derby, the future Hall of Fame African American jockey Jimmy Winkfield went to New York to look for rides. There he heard about the “Anti-Colored Union”⁶ of White jockeys, and saw

⁶ The policy of excluding African Americans was practiced by many, although not by any means all, labor unions during this era (Sundstrom 1994). African Americans were often used as strikebreakers and the willingness of the African American workers and community leaders to support strikebreaking was influenced by the racial policies of the striking unions (Whatley 1995). Racial discrimination by craft unions continued well into the twentieth century (Leigh 1978).

famous African American jockeys searching desperately for rides. Winkfield then went to Chicago, but the determination of White jockeys to shut out African American jockeys had hit Chicago as well. Winkfield was attacked in a race at a track near Chicago, crashed into the rail by a White jockey. Winkfield was hospitalized with severe leg injuries, but the story did not end there. Soon the papers were reporting a “race war” between White and African American jockeys at the track (Drape 2006, 71-84, Hotaling 2005, 36-39). Winkfield was not out of American racing at this point – he would go on to win the Kentucky Derby twice, and finish second once – but the color line was being drawn. Drape (2006, 81-82) suggests that hiring African American jockeys lasted longer at Southern tracks because Southern White jockeys were used to competing against African Americans and did not feel threatened.

Charles B. Parmer (1939, 150) summarized the tactics used by White jockeys in *For Gold and Glory*, his classic history of American racing.

But some of his [African-American Jockey Jimmy Lee’s] compatriots of color became a trifle cocky in the jockey rooms. The white boys retaliated by ganging up on the black riders on the rails. A black boy would be pocketed, thrust back in the race; or his mount would be bumped out of contention; or a white boy would run alongside, slip a foot under a black boy’s stirrup, and toss him out of the saddle. Again, while ostensibly whipping their own horses those white fellows would lash out and cut the nearest Negro rider ...They literally ran the black boys off the track.

Ganging up on a jockey of a different race was not, of course, strictly the province of the White jockeys. Bergin (1917) reported an interview with “Babe” Hurd the African American jockey who won the 1882 Derby aboard Apollo.⁷ According to the interview, Hurd claimed that he had beaten the odds on favorite Runnymede because the White

⁷ This race was the source of the “Apollo Curse.” Apollo had not raced as a 2-year old, and no horse that had not raced as a 2-year old would win again until Justify in 2018.

jockey from New York riding Runnymede had bragged that he would teach the African American jockeys how to ride. In retaliation he was boxed out by three African American jockeys, permitting Apollo to win. However, given the larger number of White jockeys, and the prejudice of the stewards, this tactic better served White jockeys.

4. An Empirical Model of the Share of African American Jockeys in the Triple Crown Races

Figures 5a-5d show how the presence of black jockeys rose and fell over the period 1867-1911. They reveal three patterns. First, the Kentucky Derby had far more black jockeys than either the Preakness or the Belmont Stakes. Second, the variation in the representation of black jockeys was both greater and more sustained for the Kentucky Derby, as the other two races generally had no black jockeys, with brief exceptions occurring, largely in the 1890s.

Finally, the representation of black jockeys was far greater in the 1890s than in any other decade. As noted, this was the result of spikes for the Preakness and the Belmont Stakes that offset the declining trend in the Kentucky Derby. As noted above, the existence of a break point in 1892 is not a surprise. It was the year the populist revolt became a major political force in the South.

Our estimation strategy uses this observation by estimating two sets of regressions. The first identifies whether the relationships we see in Figures 5a-5d are statistically significant. This regression largely contains variables that identify specific time periods and races:

$$PBJ_{rt} = \beta_0 + \beta_1 NUMH_{rt} + \beta_2 PROX_t + \beta_3 POST1900_t + \beta_4 DERBY_r + \beta_5 PREAK_r + \varepsilon_{rt} \quad (1)$$

PBJ_{rt} , the percentage of mounts ridden by black jockeys in race r in year t , is the dependent variable. $PROX_t$ is a measure of the proximity of year t to 1892, the peak year of black ridership in Figures 5a and 5b.⁸ Because the relationships in Figures 5a and 5b are non-linear, we express $PROX_t$ as

$$PROX_t = t/1892 \quad \text{if } t < 1892 \quad (2a)$$

$$PROX_t = 1 - \left(\frac{t-1892}{1892} \right) \quad \text{if } t > 1892 \quad (2b)$$

$POST1900_t$ is a dummy variable intended to capture increasing repression of blacks, particularly in the South, through the intensification of Jim Crow laws in the early 1900s. $DERBY_r$ and $PREAK_t$ identify the race as being either the Kentucky Derby or the Preakness, with the Belmont Stakes as the default. The only continuous variable, $NUMH_{rt}$, captures the number of horses entered in race r in year t . To the degree that qualified white jockeys were a scarce resource, we expect the representation of black jockeys to rise with the number of horses in the race.

In our alternative specification, we replace $PROX_t$ with variables intended to capture the social and legal environment in which these races took place:

$$PBJ_{rt} = \beta_0 + \beta_1 NUMH_{rt} + \beta_2 PAY_{rt} + \beta_3 POPV_t + \beta_4 VSL_t + \beta_5 POST1900_t + \beta_6 DERBY_r + \beta_7 PREAK_r + \varepsilon_{rt} \quad (3)$$

⁸ We also estimated a variant of Equation (1), which replaced the proximity variable with a dummy variable that identified the 1890s. The results of this regression, whose results are largely the same but with a slightly higher likelihood ratio, are available upon request.

PAY_{rt} is the payout to the first-place finisher in race r in year t . We include this variable because, as racing became more popular, payments to jockeys rose accordingly. At the pinnacle of his career in 1891, Isaac Murphy, perhaps the greatest black jockey, enjoyed an income of up to \$25,000 (McDaniels III, 2013: 374). As jockeys' pay rose, other ethnicities – particularly Irish Catholic immigrants – saw it as an increasingly attractive occupation (McDaniels III, 2013: 212)

$POPV_t$ is the percentage of the popular vote in Southern states that went to third-party presidential candidates (Kousser 1974, Table 1.1, 12). These votes usually went to populist candidates. This variable tracks the sudden rise of Populism in the South in the 1890s, and its gradual demise as a political force as the Democratic Party absorbed its segregationist policies.⁹ Because we observe these data only once every four years, we take a log-linear interpolation of the vote between presidential elections. We also scale the numbers so that the variable equals 1.0 in 1892, which was the peak year of votes for populist candidates in the South. VSL_t is a three-year moving average for the number of laws designed to suppress the voting by African Americans (e.g., the poll tax) that were enacted in Southern states (Kousser 1974, Table 9.1, 240).¹⁰

The dependent variable in Equations (1) and (3) lies between 0 and 1. As a result, we estimated both equations using the tobit procedure for a sample that is censored both below and above. Because most of the variation in black ridership took

⁹ Initially some of the southern Populists advocated a racially inclusive polity, but that was soon reversed as documented famously by Vann Woodward (2002 [1955]) and many other sources.

¹⁰ In regressions not shown here, we included a three-year moving average for the number of lynchings in Kentucky. The coefficient for this variable was not significant.

place in the Kentucky Derby, we estimated both equations for both all three Triple Crown races and for the Derby alone.

Means for all relevant variables appear in Table 4. They show that, while less than one in five jockeys overall was African American, more than one-third of the jockeys in the Kentucky Derby were. As noted earlier, the Southern vote for populist third parties peaked in 1892. This corresponds to 9.71 percent of the popular vote. Laws to suppress the voting rights of African Americans were relatively uncommon until the late 1880s, with no such laws being enacted from 1883 to 1888. However, every year but one from 1889 to 1903 saw at least one law restricting the franchise for African Americans.

As shown in Figures 6a-6c, the payouts for the three races show very different patterns. The Kentucky Derby shows steady growth until the 1890s. This is followed by a sharp decline in the early 1890s and then a flat payment for the remainder of the period. The Preakness follows a U-shape, declining from its inception in the mid-1870s until the mid-1890s and then rising steadily. The Belmont Stakes showed little growth until the late 1880s but increasingly rapid growth thereafter.

The number of horses in the race showed surprising variation. The 1883, 1884, and 1889 Preakness all had only two entrants, as did the 1887, 1888, 1892, and 1910 Belmont Stakes. The Kentucky Derby never went below three horses (1892 and 1905). The largest race was the very first Kentucky Derby in 1875, with 15 entrants. All three races had several races with 14 horses.

4.1 Results

Our tobit results appear in Table 5. The first two columns show the estimates from using the full sample, while the last two columns show the results from using only the Kentucky Derby. Columns (1) and (3) show the estimates of Equation (1), and columns (2) and (4) show the results for Equation (3).

The results in columns (1) and (3) are very similar to each other, indicating that the employment of black jockeys in the Kentucky Derby followed a similar temporal pattern to the employment of black jockeys in the Triple Crown as a whole. As expected, employment rose as one approached 1892 and fell thereafter. The coefficient is so large because the differences in the values of $PROX_i$ fall into a narrow range between 0.9 and 1.0. Also as expected, employment fell after 1900. The dummies for each leg of the Triple Crown confirm the observation that the Kentucky Derby had the most African American jockeys, and the Preakness had the fewest. The only statistically insignificant coefficient was for the number of horses in the race. Thus, we cannot reject the null hypothesis that the number of horses did not affect the percentage of jockeys who were African American.

When we replace proximity with variables reflecting the political setting in which the races took place, the coefficients in column (2) generally resemble the coefficients in column (1). The coefficient for the number of horses is still insignificant, the coefficient indicating races after 1900 is still negative, and the dummy variable for the Kentucky Derby is still positive. The only meaningful change is that the coefficient for the Preakness now is statistically insignificant, indicating that, controlling for the new factors, the Preakness and the Belmont Stakes are indistinguishable.

The new coefficients have largely counterintuitive results. While the payout to the winning horse has no impact, black ridership is positively related to both votes for populist candidates and laws suppressing the rights of African Americans to vote. These results are best understood if we recall that the regression here shows correlation, not causation. The rising representation of African Americans in horse racing, as elsewhere in Southern society, was met with increasing hostility from those who felt displaced by blacks and from others who objected to the presence of blacks in general. The basic purpose of Jim Crow Laws was to prevent African Americans from rising politically, economically, and socially. Had they not been doing so, there would have been no need for such laws.¹¹ It is also possible that the rise of Jim Crow in the South stimulated efforts by black jockeys to find rides on northern tracks, a subsidiary factor that may help explain the spikes in the number of black jockeys that we see in the Belmont and Preakness in the 1890s.

As seen in column (4), when we restrict the sample to the Kentucky Derby, most of the coefficients are not substantially different from the other specifications. However, we see two changes relative to the full sample (column (2)) and to the temporal model using just the Kentucky Derby (column (3)). First, the number of horses now has a positive impact on the representation of African American jockeys, which indicates a greater readiness to employ African American jockeys when the field expands. Second, the payout now has the expected negative impact. This shows that, for the Kentucky Derby, the growing revenue for the owners – and, presumably for the jockeys, although

¹¹ A similar pattern of black achievement before the intensification of segregation was present in other areas such as accumulation of property (Higgs 1982, 1984) and Margo (1984), and patenting (Cook 2014).

we have only anecdotal evidence – led other groups to want to take over those positions. Such displacement has occurred in contemporary sports, as seen, for example, by the decline in the number of women coaching women’s collegiate sports with the advent of Title IX.

5. Did Bettors Undervalue African American Jockeys?

We test for discrimination by applying the outcome test described earlier. Specifically, we test whether African American jockeys in the Triple Crown races of the late 19th and early 20th century were more likely to finish “in the money” (first, second, or third place), holding constant other factors, most importantly the expected finish of the horse, as set by the betting odds. If betting on a horse with an African American jockey is a winning strategy, then there is a market failure in the betting market. Our estimating equation is given by:

$$MONEYFIN_{rt} = \beta_0 + \beta_1 NUMH_{rt} + \beta_2 WINPROB_{rt} + \beta_3 AAJ_{rt} + \beta_4 AAJWP_{rt} + \varepsilon_{rt} \quad (4)$$

Our dependent variable, $MONEYFIN_{rt}$, is a binary variable, equal to 1 if the horse finishes “in the money.” That is, whether it finishes first, second, or third in the race. As before, $NUMH_{rt}$ is the number of horses in the race. As the number of horses in a race rises, we expect the probability that any one of them finishes in the money to decline. Hence, we anticipate the coefficient here to be negative. In contrast, the better the betting odds are on a horse, the higher the probability that it will finish in the money.

The final two variables are the key to testing for an outcome effect. If the coefficient for AAJ_{rt} , a dummy variable indicating whether the horse was ridden by an

African American jockey, is positive, then betting on that horse improves a bettor's chances of winning, *cet. par.* The final independent variable interacts the presence of an African American jockey with the probability of winning. It therefore asks whether an African American jockey increases the likelihood that a good mount will finish in the money.

We estimate Equation (4) using the probit technique. We first estimate it without the interaction effect, using data for all three races. Because the Kentucky Derby seems qualitatively different from the other two races in employing black jockeys, we also run the regression using data for only the Kentucky Derby. Finally, we add the interaction effect for the full data set.

5.1 Results

The results for our estimation of Equation (4), whether a horse finishes in the money, appear in Tables 6a and 6b. Table 6a contains results using data from all three of the Triple Crown races. The results in 6b contain results only from the Kentucky Derby. The χ^2 statistic for each of the equations is strongly significant, indicating that the regressions fit the data well. Overall, they provide support for the presence of an outcome effect that indicates racial prejudice by Triple Crown bettors.

The impacts of our control variables conform to our expectations. The probability that a horse finishes in the money declines as the number of horses in the race rises. At the same time, bettors tend to be on target, as the horses with a greater probability of winning, as defined by the betting odds, are more likely to finish among the top three.

The first column of Tables 6a and 6b show the impact of a horse's being ridden by a black jockey. In both cases, this variable has a positive coefficient in the first two

regressions. However, it is statistically insignificant for all races and of borderline significance for the Kentucky Derby.

The second column in the tables shows the impact of interacting the presence of an African American jockey and the quality of the mount. These coefficients are strongly significant and positive. This indicates that African American jockeys increased the likelihood that a better horse would finish in the money.

Regressions using both the dummy variable and the interaction variable, found in column 3 of the tables, yielded generally statistically insignificant coefficients for both variables. This is likely because the two variables are positively correlated (a correlation coefficient of about 0.6 for both samples). This correlation suggests that Black jockeys were not subject to discrimination in the assignment of mounts. If anything, the horses they rode were more highly regarded by the bettors.

We also ran the regressions shown in Table 6 on several subsamples not shown here. We found no significant differences when we restricted the sample to the pre-1892 years or to only the Preakness, the Belmont, or these two races combined. We conclude, therefore, that there is mild evidence that betting on a horse ridden by an African American jockey was a winning betting strategy. In other words, some bettors bet against horses ridden by African Americans out of prejudice, but we emphasize that the evidence is mild. Many bettors were willing to put their money on the great African American jockeys. That is why Jimmy Winkfield was a strong favorite in the 1903 Kentucky Derby.

6. The Story was Similar in Other Sports

Other major sports tell a similar story, inclusion followed by exclusion, though the timing was different in each. The expulsion of African Americans from Major League Baseball preceded the expulsion of the African American jockeys by a decade (McDaniel 2013, 280; Seymour 1960, 278). The first African American recognized to be a major league baseball player was Moses Fleetwood Walker, who played for the Toledo Blue Stockings in 1884. But a warning shot had been fired already in an exhibition game. Adrian “Cap” Anson, the game’s first superstar, the player manager of the Chicago White Stockings, let his team take the field against the Blue Stockings to save their share of the gate receipts, but he let it be known that he would never again play against a Black man. Until 1947, the major leagues remained all-white enterprises.

The exclusion of African Americans from white baseball led to the formation of the famous Negro leagues that provided limited opportunities for African American players to play exciting baseball and for African American and white fans to see them. Nothing equivalent arose for African American jockeys. A few African American jockeys continued to get rides in the steeplechase and in less prestigious flat races.¹² But the Triple Crown was out of bounds. Many owners, moreover, continued to employ African Americans as trainers and consultants long after African American jockeys had been forced out of the big races. The African American Jockey William Walker became one of the nation’s foremost experts on racehorse bloodlines. It is said that the prominent stable owner for whom he worked would never trade a horse without Walker’s consent. For a few years after the expulsion of the African Americans, several tracks ran

¹² The steeplechase may have presented fewer opportunities for the rough tactics used to force out African American jockeys. In the steeplechase those tactics would be more likely to endanger valuable horses or wealthy amateur riders.

“Darktown Derbies” in which only African American jockeys could ride. But without a regular path to the big races, owners and trainers had little incentive to train African American jockeys, and, unlike the Negro baseball leagues, the Darktown Derbies disappeared.

A correlation between hard times and segregation can be found in other professional sports. Hard times are not the whole story; racial animus was always a force. Nevertheless, the correlation appears to be there. The National Football League began in 1920 as a combination of formerly independent teams in the Midwest and upstate New York.¹³ In the 1920s, the NFL featured several African American players. Frederick Douglass "Fritz" Pollard, an All American at Brown, played and coached for a number of teams. He was inducted posthumously into the National Football Hall of Fame. Jay Mayo "Ink" Williams who played for the Hammond (Indiana) Pros, the Dayton Triangles, and several other teams later became well-known as a record producer. Paul Robeson was an All American at Rutgers in 1917 and 1918 and then played professionally with the Canton Bulldogs before beginning his renowned career as actor, singer, and activist. However, when the league expanded nationally, at the start of the Great Depression, African American players were cut out – partly because of the competition for fewer jobs as teams went bankrupt and partly to placate potential owners of southern franchises. Black players were not permitted to play in professional football until after World War II (McCambridge 2005).

In the 1890s the sport that most resembled horse racing was bicycle racing. The modern bicycle did not become widely available until the 1890s. The reasons for the

¹³ Its original name was the American Professional Football Conference. It took its current name in 1922.

timing are not entirely clear. Some historians stress technological innovations, in particular the invention of the inflatable rubber bicycle tire by John Boyd Dunlop in 1887. Once bicycles were available, the craze for riding and racing them took off. One of the greatest early stars was an African American: Marshall Walter “Major” Taylor (Kranish 2019, Ritchie 2017). In the late 1890s he won many races, set world records at several distances, and was recognized as a national and world champion. He also became a favorite with the race-going public.

Like the leading African American jockeys, Taylor faced determined, sometimes violent efforts by white cyclists to prevent him from winning or even competing. In some cases, he was boxed out, in others he was bumped and jostled by white riders. Sometimes it was worse. In 1897, a white rider who had finished third in a race in which Taylor had finished second, tackled Taylor and choked him into unconsciousness. In 1904, a white rider in Australia deliberately collided with Taylor, who fell to the track, unconscious. Fortunately, he made a full recovery. The parallel with African American jockeys – for example Winkfield who, as noted above, was deliberately forced into the rails in a race in Chicago in 1900 – is striking

7. Discussion and Conclusions

Before the Civil War, many of America’s most famous jockeys were slaves; After the War, African American jockeys continued to play a major role. Between 1890 and 1899, African American jockeys won six Kentucky Derbies, one Preakness Stakes, and three

Belmont Stakes. Nevertheless, at the end of the 1890s and early years of the twentieth century African American jockeys were forced out of the sport.

Who was responsible? As shown in section 5, we find no evidence of racial prejudice by the betting public for races run on Northern Triple Crown tracks, but we find some evidence of prejudice for the Kentucky Derby. We find that horses ridden by African American jockeys were more likely to finish in the money (first, second, or third) than predicted by the betting odds. Thus, some bettors at the Derby were complicit with the expulsion of African American jockeys.

At the very least, owners also gave tacit approval to the expulsion of African American jockeys. For some owners it was probably a matter of prejudice. For others, it was likely just a business decision: why employ a black jockey if white jockeys were going to use violence to prevent him from finishing in the money and, in the process, possibly damage a valuable racehorse. Some owners who had regularly employed African American jockeys continued to employ them in other capacities, such as trainer or advisor.

The historical evidence suggests that the key push came when white jockeys began a violent and quickly successful effort to force out African American jockeys. African American jockeys were boxed out, run into the rail, hit with riding crops, and so on. These attacks prevented African American jockeys from finishing in the money, and endangered fragile and valuable racehorses. Soon after the attacks on African American jockeys began, African American jockeys could not get rides.

The rising tide of racism that produced Jim Crow had important political, cultural, psychological and economic causes that interacted with one another. Understanding a

particular aspect of Jim Crow often requires stressing one or another of these forces. To understand the wave of disfranchisement in the South in the late 1890s requires that an historian delve into the complexities of Southern politics. Understanding the physical separation of the races – on railroad cars, in music halls, at drinking fountains, and so on – may require that one focus on cultural or psychological factors, and the role of *Plessy vs. Ferguson* (1896). It can be fairly said that untangling these forces is an ongoing project. Horse racing provides a particularly helpful case study because it was enormously popular in both North and South, because it was integrated for many years after the Civil War, and because one can gather quantitative data that reflect underlying attitudes that are revealed when people put their money on the line.

In horseracing, anxiety over job insecurity appears to have played an important, perhaps decisive role in the call to "draw the color line." First, there is the nature of racing itself. The demand curve for jockeys was highly inelastic, with a limited number of slots. White jockeys would have benefitted in any circumstances from the exclusion of black jockeys, but the late 1890s were a time when unease about finding rides was especially high. First, there was an economic depression. The hard times began in 1893, when the United States experienced a severe financial crisis, and unemployment rose dramatically.

There were also factors particular to racing. There was an anti-gambling crusade, a brother to the campaign for prohibition of alcohol, which was gathering steam. Laws against gambling created severe problems for horse racing, limiting betting through moral suasion and producing anti-gambling legislation. Anti-gambling forces existed in all parts of the country. New York passed anti-gambling legislation in 1895, and New

Jersey did so in 1898. Charles Evans Hughes, the reform governor of New York, thought that the 1895 law did not go far enough, and in 1908 he signed legislation banning all but verbal contracts at race courses, a law that Hughes enforced vigorously. As a result, attendance at racetracks declined precipitously. One victim was the Belmont Stakes, which was not run in 1911 or 1912. Overall, the number of racetracks in the U.S dropped from 314 in 1897 to 25 by 1908 (Sauer 2001, 8). In short, anti-gambling social pressure and laws hit racing hard, and jockeys found the demand for their services contracting.

Native-born white jockeys also faced increasing competition from immigrants. Joe Drape (2006, 54) tells the story of “Father” Bill Daly – by no means a priest – an Irish-American owner and trainer based in New York. Daly trafficked (Drape’s term) in young Irish-American jockeys, whom he brutalized but pushed to success. Perhaps his two best known jockeys were Winnie O’Connor and Hall of Famer Danny Maher.

Competition for jobs in hard times, and the politics based on it, reinforced the extremes of racial hatred that produced demands for segregation and racial deference. Recall that, in describing the attacks on African American Jockeys, Charles B. Parmer claimed the White jockeys’ retaliated for African American jockeys’ becoming “a trifle cocky in the jockey rooms.” Today, such response would be deemed abhorrent, but it was a familiar reaction in the Jim Crow era, when a perceived lack of deference could provoke a violent response. Once African American Jockeys were pushed out, a racist explanation for the disappearance of the African American Jockeys – they just could not ride as well as White jockeys – quickly took hold. In a 1905 column in the *Washington*

Post (August 20, p. S3) titled “Negro Riders on the Wane: White Jockeys’ Superior Intelligence Supersedes,” the author catalogued the achievements of African American jockeys but then reported that

“Horsemen ascribe the passing of the colored riders to the fact that it is no longer considered ignoble to be a jockey, and the money to be made in the profession has drawn boys of good family to essay to learn the art of riding, So the white jockey is now crowding out the colored riders, as the paleface is pressing back the red men on the plains.”

This story was published widely. One poignant example is from the *Louisville Courier-Journal* (July 24, 1905). where this paragraph also appeared. Yet about 10 years earlier in the obituary for Isaac Murphy the *Courier-Journal* (February 13, 1896) had told its readers that Murphy, among other virtues, was “the finest judge of pace ever seen in a saddle on our tracks. His seat was good and his hands perfect.” this explanation for the disappearance of African American jockeys appeared just a few years after Jimmy Winkfield’s great run in the Derby: third in 1900, first in 1901, first in 1902, and second in 1903. The comparison with Native Americans is telling: no mention of the violence used to drive African American jockeys from the track or to drive Native Americans from the plains. In all, C. Vann Woodward (1955) might well have included the stories about African American jockeys as examples in the *Strange Career of Jim Crow* to show how quickly people came to believe things about African Americans that they had not believed a few years earlier.

The only discussion of the expulsion of the African American Jockeys we have found in the contemporary economics literature was in Alfred Holt Stone’s 1906 essay “The Economic Future of the Negro: The Factor of White Competition” in the *American Economic Review*. Stone – apparently unaware of or uninterested in the successes of

African American jockeys just a few years earlier – argued that they were being displaced for the same reason that African American coachmen were being displaced: African Americans were not as good as Whites when it came to handling horses!

Some journalists got it right. Leroy Williams was one of the last great African American jockeys, but as the *Washington Post* (January 11, 1907, p. 8.) explained.

Williams has a hard row to hoe every time he mounts a horse, for not only has he to force every ounce of speed out of his horse, but he has to steer clear of the “pockets” and snares that the white boys set to trap him in.

In short, we find that African American jockeys were victims of discrimination at multiple levels and were eventually forced out by rival white jockeys. This last finding adds to the case for believing that anxiety about jobs was an important contributing factor to the rising tide of racism that produced Jim Crow.

Appendix. Sources and Methods

Our data set includes horses entered, times, jockeys, ethnicity of the jockey, final position in the race, odds on each entry, payouts, and so on from a variety of sources. The websites of the Triple Crown races provided considerable amounts of data. Each of the websites has form charts for all of the races. However, the charts in the media guides 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. O'Connor's (1921) history of the Kentucky Derby and Sowers's (2014) authoritative history of the Triple Crown were especially important. Accounts of the races in newspapers were important for filling in and double-checking. We made considerable use of the *New York Times*, *The Baltimore Sun* (especially important for the Preakness when run at Pimlico), several Brooklyn papers (especially important when the Preakness was run at Gravesend in Brooklyn), and other papers when they reported on a particular race in detail.

We also needed information on the ethnicities of the jockeys. The contemporary media guides were extremely valuable because they each include a discussion of African American jockeys who have ridden in the race. In addition, Weeks (1898) and Hotaling (1999) were extremely helpful. We also located stories about individual jockeys in newspaper reports and other sources.

Betting was structured in a variety of ways that changed over time. In the early years, the only odds available are from "auction pools." Each auction consisted of a series of rounds of bidding. The winner of the first round could choose whichever horse he 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

received the pool, less the pool-seller's commission, typically, 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 horses with a single winning bid. The reason might be that the owners, who were major participants in the pools, did not want to create the impression that they favored one of their horses. They might be favoring one of their entrants through honest evaluation, but a decision to favor one of their entrants might raise the suspicion that they had instructed one of their jockeys to cooperate in pushing through one of their entries. In some cases, one could bet on "the field," several horses with little chance of winning. One problem with the auction pools 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 bet at all. That led to the introduction of other forms of betting that allowed for greater participation.

The auction pools were followed by the more familiar bookies who would post odds and then pay the winners at those odds after taking a commission. Sometimes the odds reported in different papers differed because they reported the odds of different auction pools or bookmakers, but all reported odds are usually quite close. In fact, when both are available, the odds from the pools and from the bookies are quite close.

Still later, the tracks began using the modern parimutuel system. Bettors buy tickets on the horse they think will win -- to take the simplest example, they can also bet on a horse to place (second) or show (third) or bet on more exotic combinations. The payout is determined by how many tickets are bought for a particular horse.

In all these cases we converted the odds reported in the papers into "implied probabilities." One reason for doing so is that a chart based on the odds used by bettors

is hard to read: the races won by long shots obscure all the other races. The “implied probabilities” on the other hand, fall between 0 and 1. Probabilities, moreover, are more familiar to economists. As explained below, we also converted odds to probabilities because we needed to adjust for changes in the track’s share of the betting pool.

The conversion of odds given by bookies or parimutuel machines is straightforward. For example, odds of 5:1 mean that, if the horse wins, the owner of a ticket for a bet of \$1.00 will receive \$6.00, the original stake of \$1.00 plus \$5 of winnings. The formula connecting the odds to the implied probability is

$$(1) P = 1/(O + 1)$$

Where P = the “implied probability” a horse will win.

O = the track odds on the horse expressed as a ratio

Suppose the odds are 3:2. Then the “implied probability” is $P = 1/[(3/2)+1] = 0.40$.

The frequency interpretation is that if the race were run 5 times, we would expect this horse to win twice and lose three times.

However, we must adjust the probabilities given by (1) for the amount taken from the betting pool by the track. An example will make clear how we do this. Suppose the pool consisted of a total of \$100 bet on the race and \$40 dollars was bet on horse X. Also assume that if X won, the people who had bet on X would win the whole pool, receiving a profit of \$60 on their \$40 bet. The odds, or the payoff ratio as some betters think of it, would be \$60/\$40 or 3:2. The implied probability of winning, calculated according to (1) would be 0.40. But this would be the odds in a fair pool. Normally, the track or the bookies take a share off the top, the vigorish or the “vig” as bettors and

bookies call it.¹⁴ The vig reduces the odds offered the bettor. In our example, if the track took 20% off the top, those who had bet on X would receive only \$80, and the odds would be \$40/\$40 or 1:1. The implied probability, according to (1) would be higher than with a fair pool, 0.50 rather than 0.40. We therefore adjusted for the vigorish by dividing each individual implied probability by the sum of the implied probabilities, ensuring that the adjusted probabilities summed to 100%. This adjustment allows us to compare races across time, even as the vigorish changed.

In the case of the pools, we simply divided the price for each horse by the sum of the prices for all of the horses in the race. Since the prices were reported gross of the pool-seller's cut, there was no need to adjust the probabilities. When a bettor in a pool took a stable or the field, we divided the price paid for the group by the number of horses in the group to get an implied probability for each horse separately.

For the Kentucky Derby we used odds from auction pools for 1875 to 1886 with the exception of 1884, from bookmakers for 1884 and 1887-1907, and from mutuels in subsequent years. For the Preakness we used odds from auction pools for 1879-1887, from bookmakers for 1888-1889, and from mutuels in subsequent years. For the Belmont Stakes we used odds from auction pools for 1867-1876, from bookmakers for 1877-1897, and from mutuels in subsequent years.

The odds given by auction pools, bookmakers, or by the track in the case of parimutuel betting reflected a wide variety of variables: a horse's performance in recent races, its bloodlines, the jockey's record, the weather, rumors about the mental or

¹⁴ The term is also used to describe the amount charged by "loan sharks" a fact that probably tells us something about how track goers thought about the people with whom they bet.

physical health of the horse, theories about horse racing, and many other factors. We do not have enough data to extract the impacts of all these factors. Nevertheless, the odds shed light on the nature and sources of discrimination. If owners discriminate, African American jockeys will have to settle for longshots. If bettors are prejudiced, the odds will be inaccurate, and African American jockeys will beat the odds.

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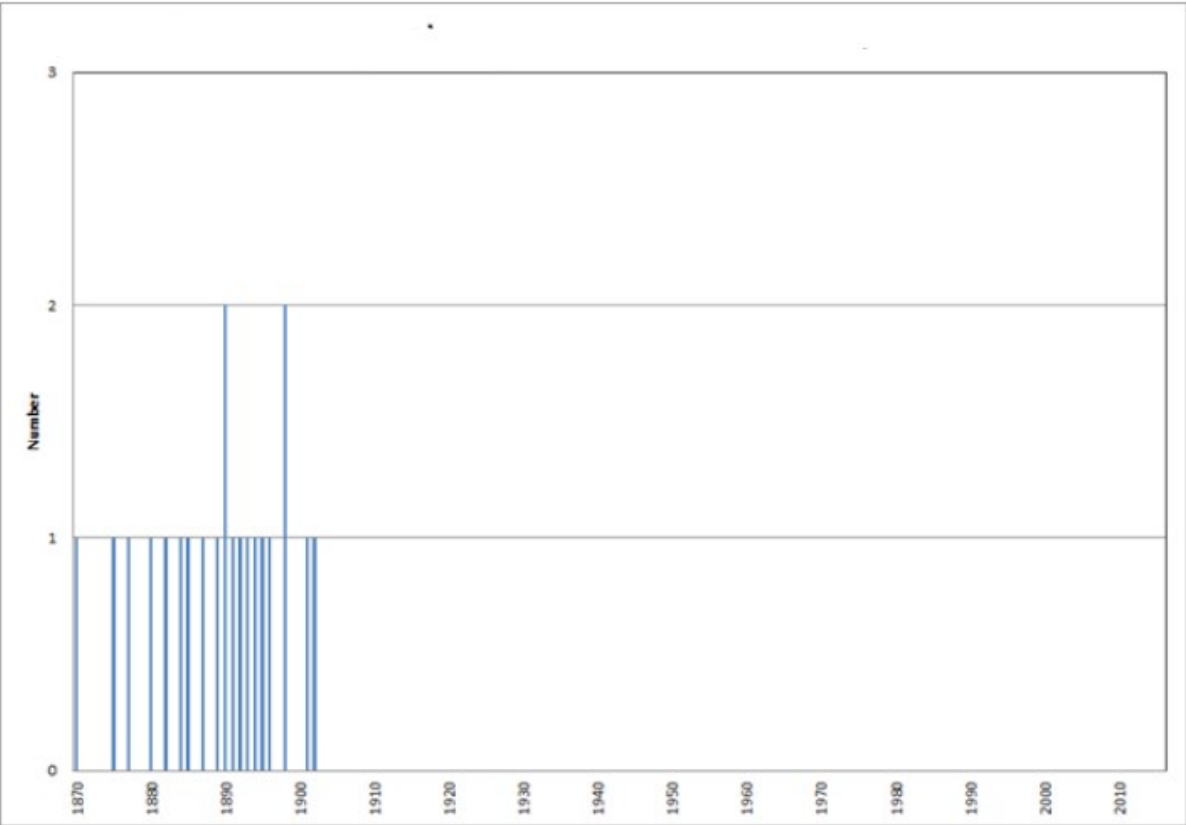
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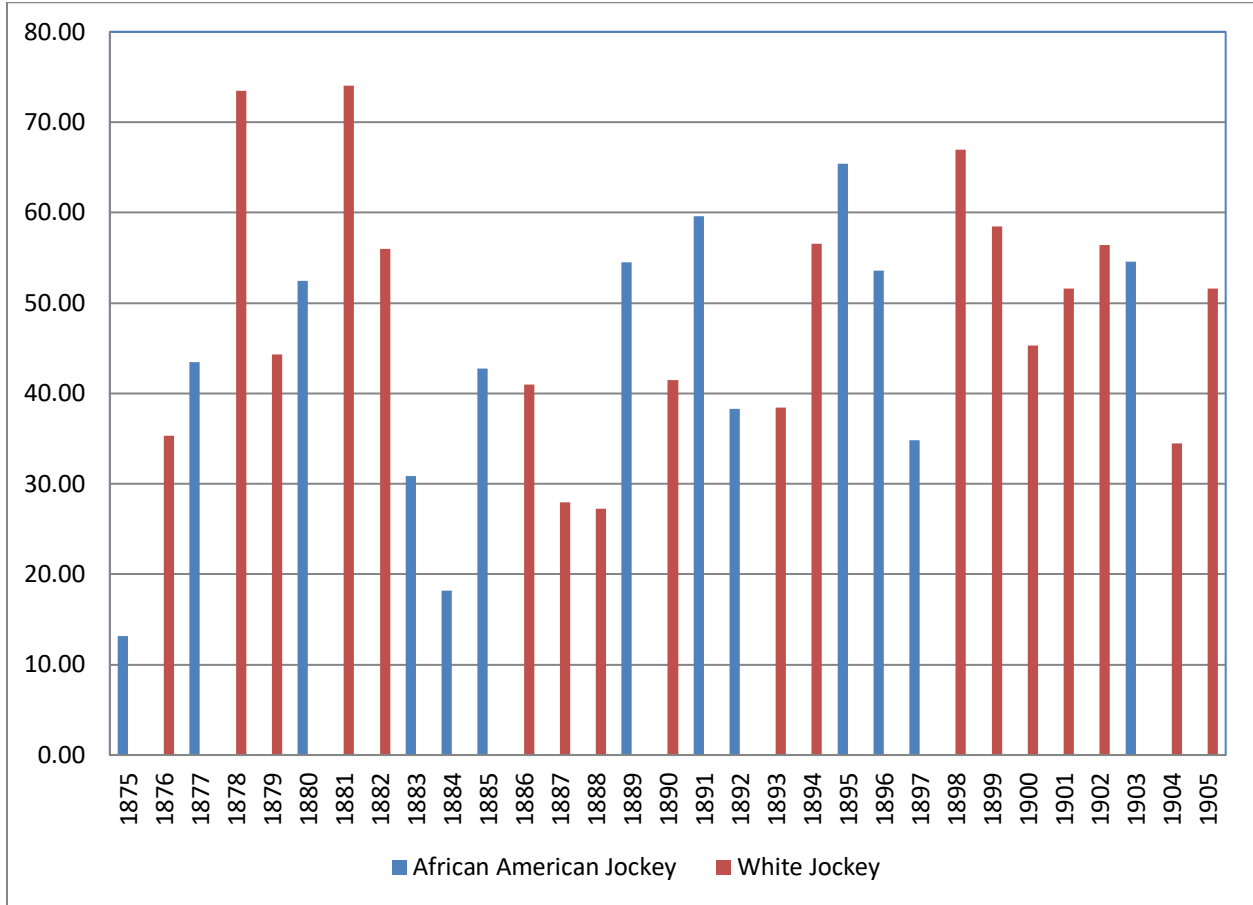
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Figure 1. Triple Crown Races Won by African American Jockeys, 1870-2018.



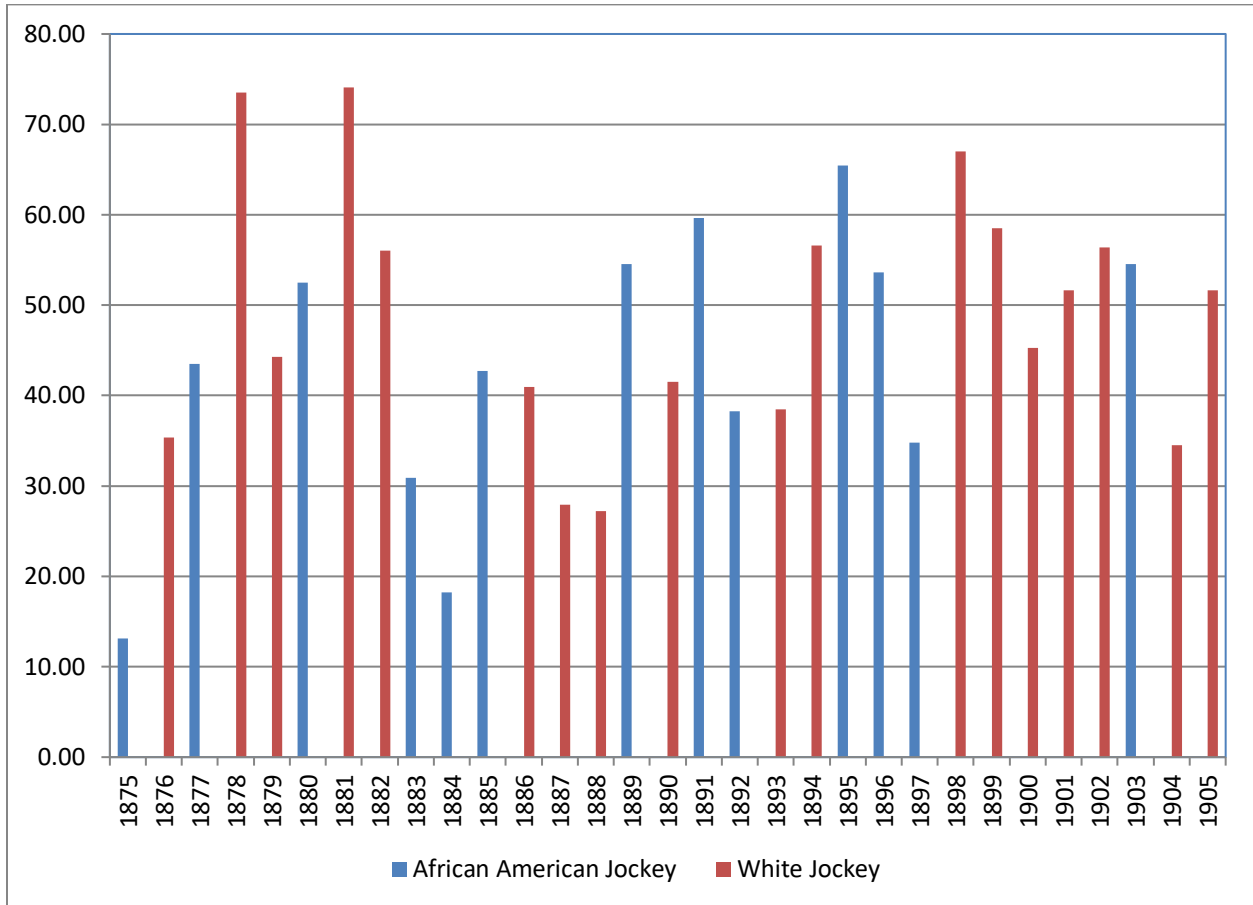
Sources and Methods: See the Appendix

Figure 2. Odds (as a probability) on the Winning Horse in the Kentucky Derby by Ethnicity of the Jockey, 1875-1905.



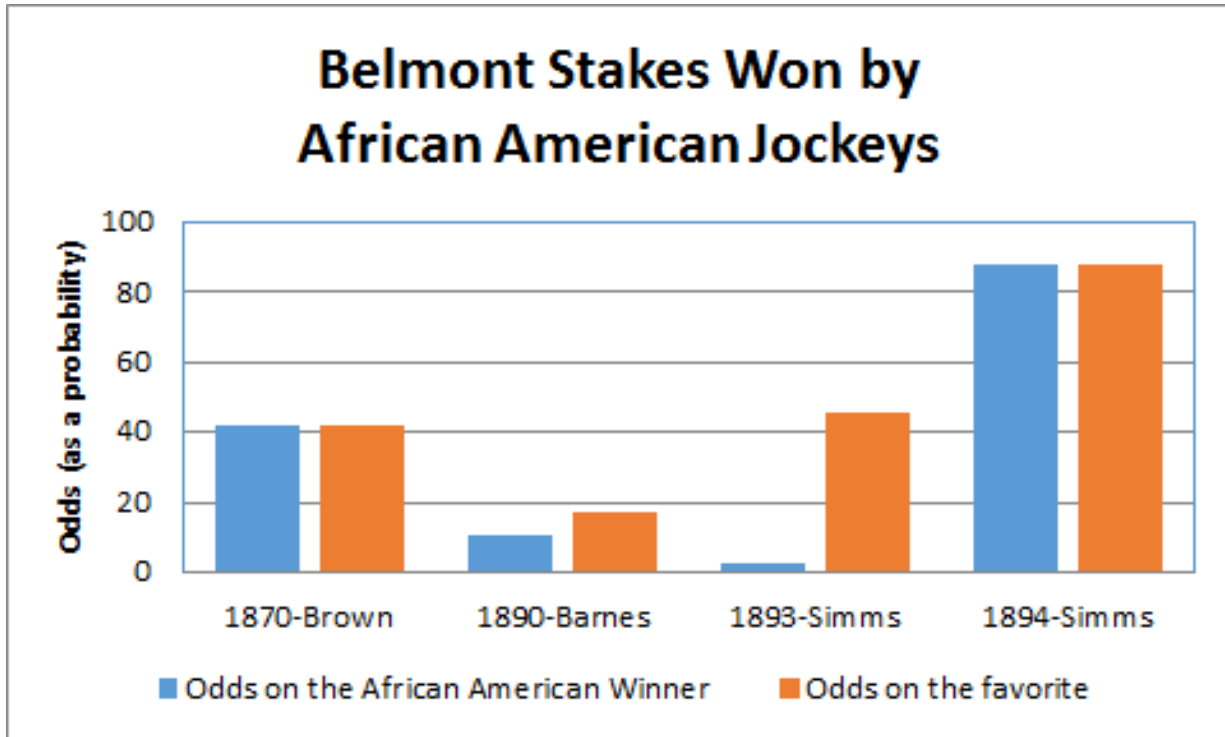
Sources and Methods: See the Appendix

Figure 3, Odds as a probability) on the Favorites in the Kentucky Derby by Ethnicity of the Jockey, 1875-1905



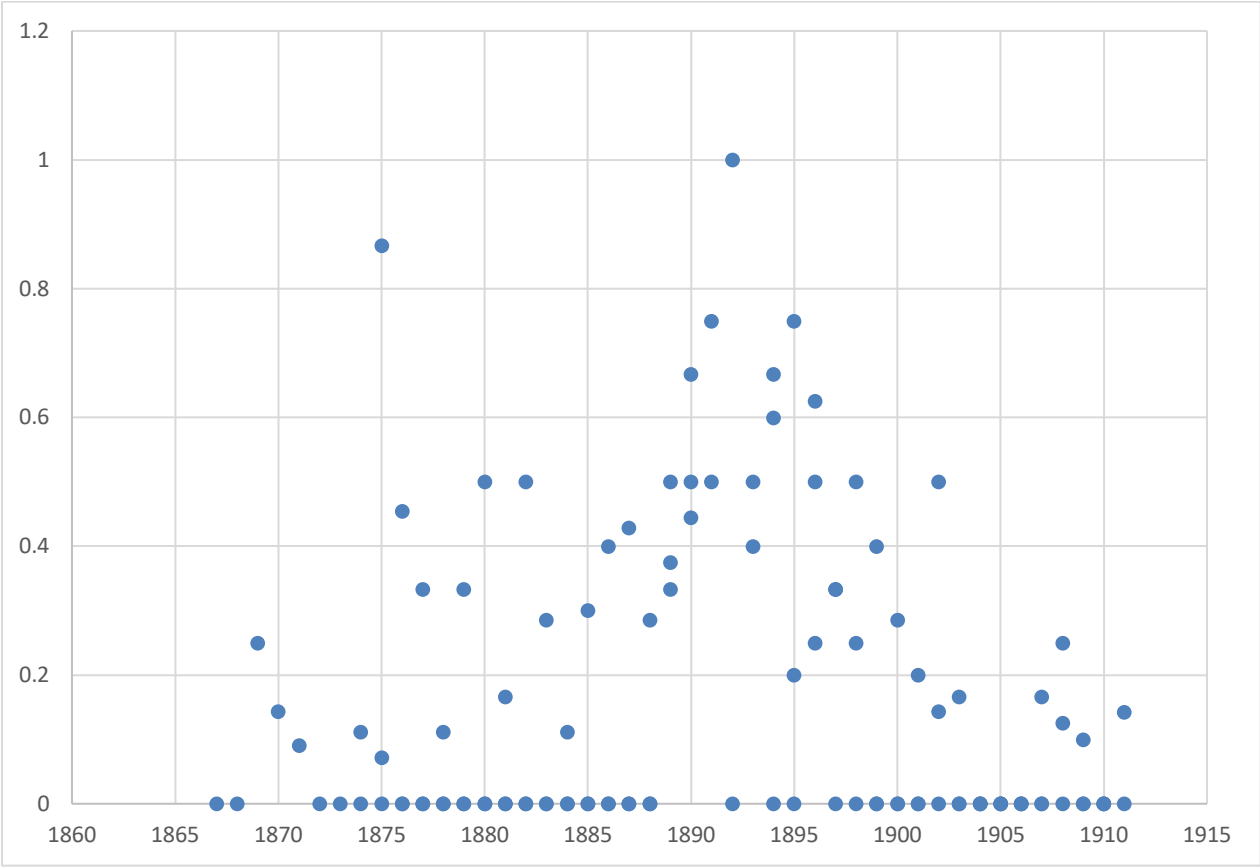
Sources and Methods: See the Appendix

Figure 4. Belmont Stakes Won by African American Jockeys.



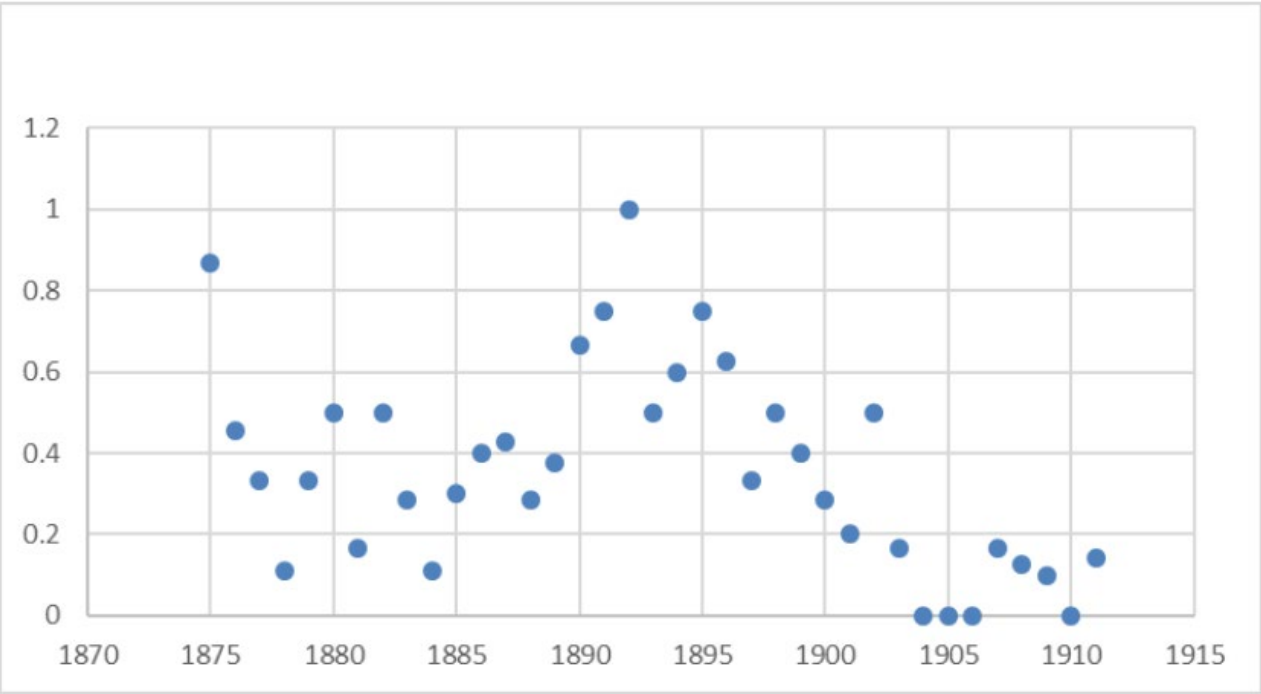
Sources and Methods: See the Appendix

Figure 5a. The Share of African American Jockeys in All Races, 1867-1915.



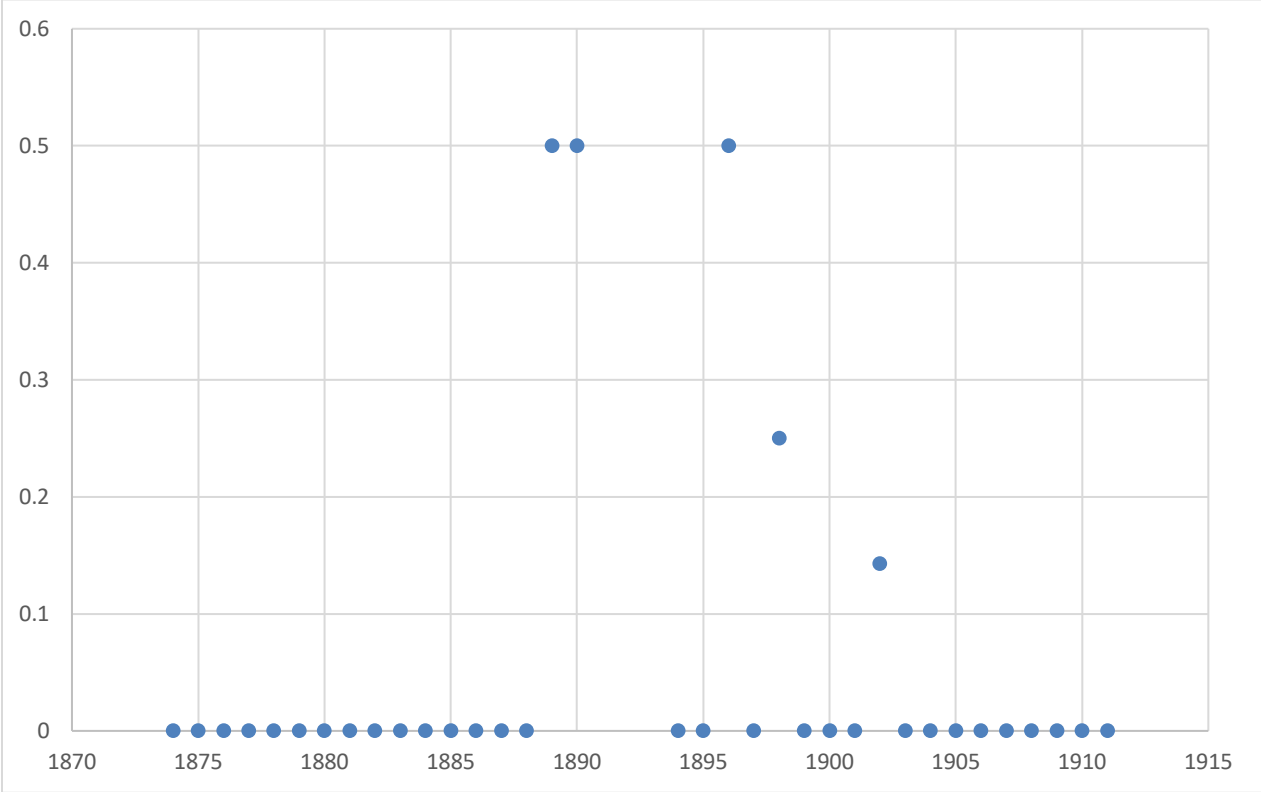
Sources and Methods: See the Appendix

Figure 5b. The Share of African American Jockeys in the Kentucky Derby, 1875-1911.



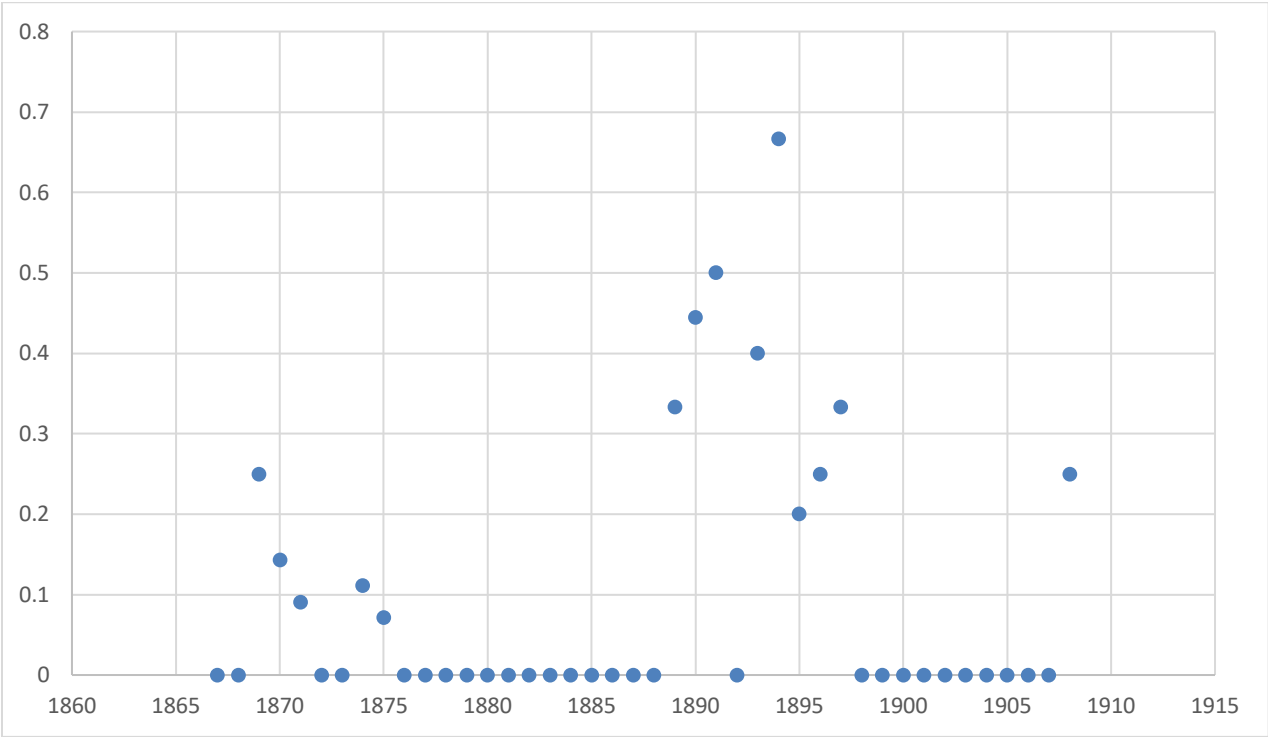
Sources and Methods: See the Appendix

Figure 5c. The Share of African American Jockeys in the Preakness Stakes



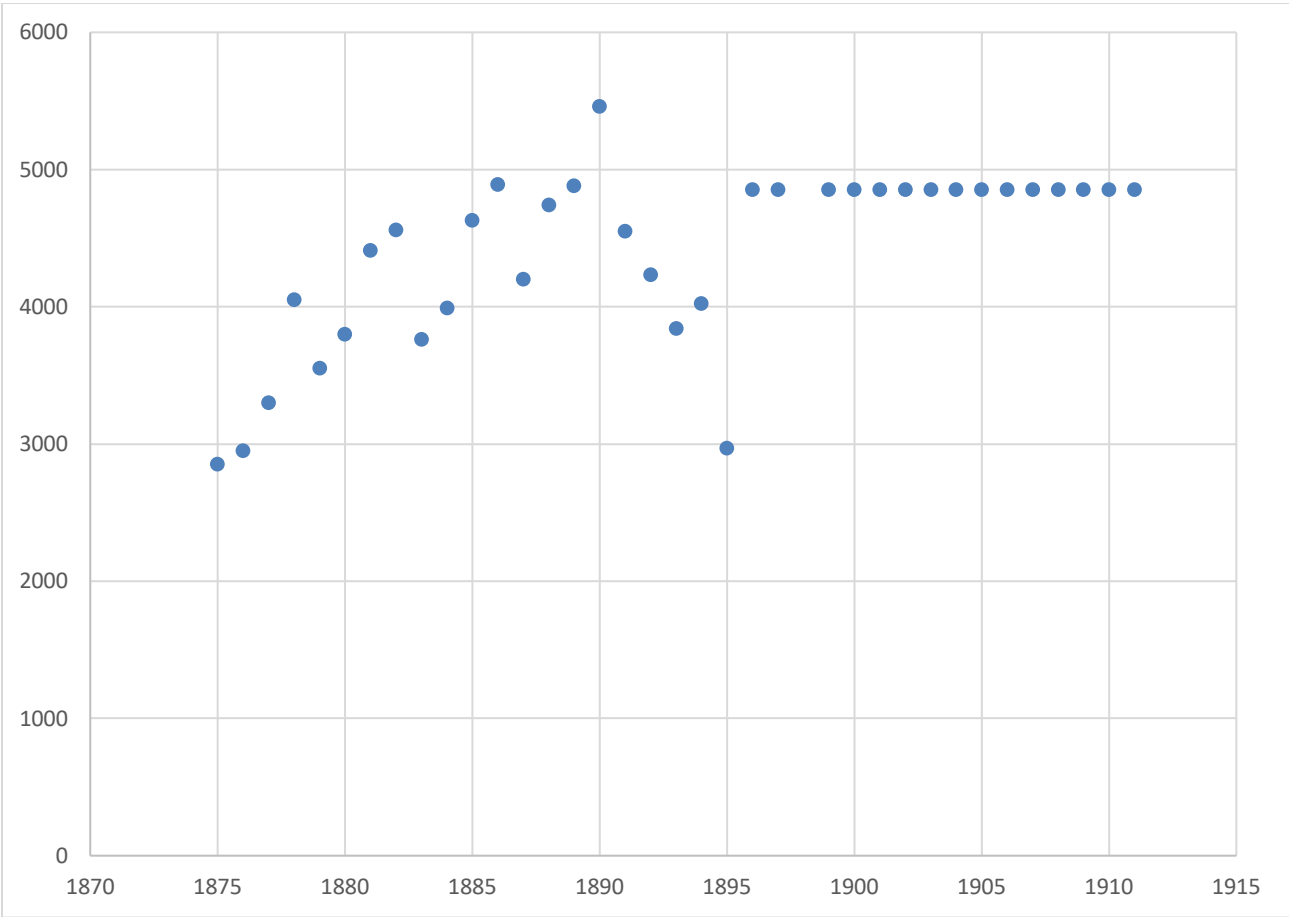
Sources and Methods: See the Appendix

Figure 5d. The Share of African American Jockeys in the Belmont Stakes, 1867-1915,



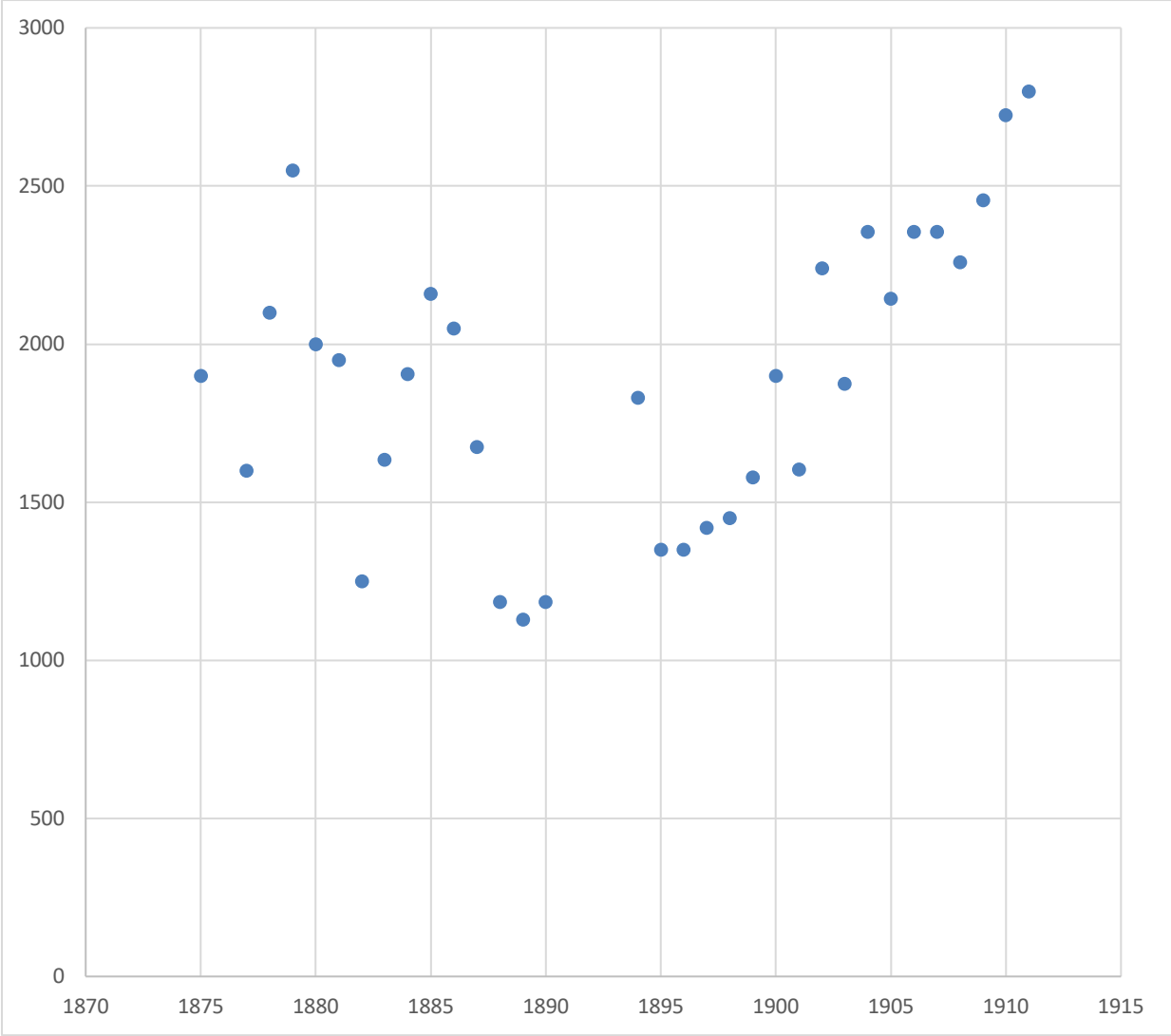
Sources and Methods: See the Appendix

Figure 6a. Payouts in the Kentucky Derby (dollars).



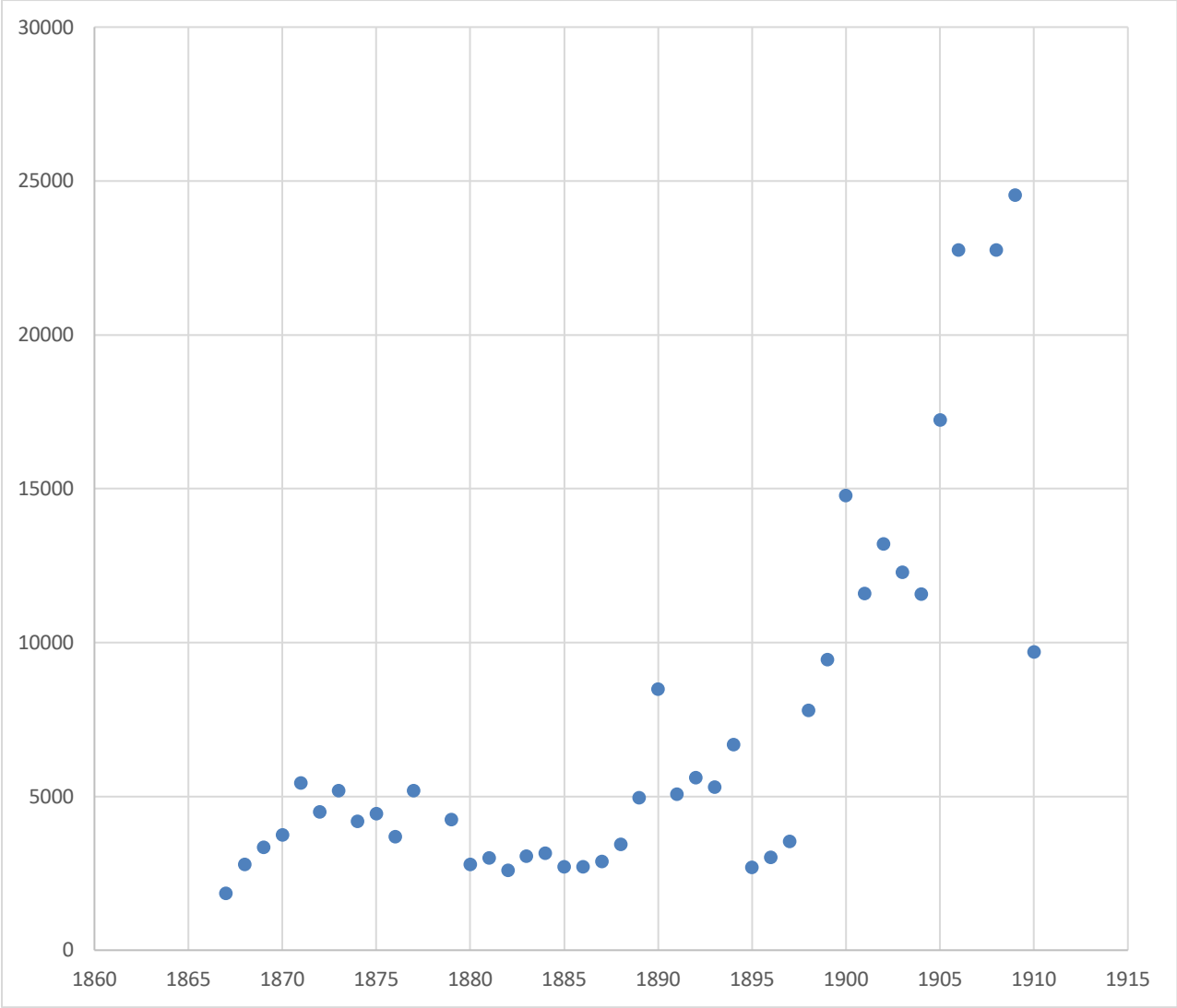
Sources and Methods: See the Appendix

Figure 6b. Payouts in the Preakness Stakes (dollars).



Sources and Methods: See the Appendix

Figure 6c. Payouts in the Belmont Stakes (dollars).



Sources and Methods: See the Appendix

Table 1. African American Jockeys in the Kentucky Derby, 1875-1911

Year	Number of Entries	Number of White jockeys	Number of Black jockeys	Share of Black jockeys (as a percent)	Improvements (or setbacks) in the final position of Black jockeys
1875	15	2	13	87	8.5
1876	11	6	5	45	-3.0
1877	11	7	4	36	2.5
1878	9	8	1	11	-1.0
1879	9	6	3	33	4.5
1880	4	2	2	50	2.0
1881	6	5	1	17	0.0
1882	14	7	7	50	5.0
1883	7	5	2	29	-4.0
1884	9	7	2	22	-1.5
1885	10	7	3	30	1.0
1886	10	6	4	40	0.0
1887	7	4	3	43	3.5
1888	7	5	2	29	-1.5
1889	8	5	3	38	0.5
1890	6	2	4	67	3.5
1891	4	1	3	75	1.0
1892	3	0	3	100	...
1893	6	3	3	50	0.0

1894	5	2	3	60	0.5
1895	4	1	3	75	0.0
1896	8	3	5	63	-2.0
1897	6	4	2	33	-1.0
1898	4	2	2	50	1.0
1899	5	3	2	40	0.0
1900	7	5	2	29	0.0
1901	5	4	1	20	1.0
1902	4	4	2	50	3.5
1903	6	5	1	17	-1.0
1904	5	5	0	0	...
1905	3	3	0	0	...
1906	6	6	0	0	...
1907	6	5	1	17	-1.0
1908	8	7	1	13	-2.5
1909	10	9	1	10	0.0
1910	7	7	0	0	...
1911	7	6	1	14	2.0
Average	7.08	4.57	2.57	36.30	.67

Note: 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 last column of the table.

Sources and Methods: See the Appendix

Table 2. African American Jockeys in the Preakness Stakes

Year	Track	Number of White Jockeys	Number of African American Jockeys	Average probability of Winning, White Jockeys (%)	Average Probability of Winning, African American Jockeys (%)	Improvements in the final placement of African American Jockeys
1889	Pimlico	1	1	4.76	95.24	0
1890	Morris Park	2	2	30.62	19.38	0
1896	Gravesend	2	2	39.82	10.18	0
1898	Gravesend	3	1	22.99	33.33	1

Sources and Methods: See the Appendix.

Table 3. African American Jockeys in the Belmont Stakes

Race	Value to the Winner	Number white jockeys	Number of African American Jockeys	Average probability of Winning, White Jockeys (%)	Average Probability of Winning, African American Jockeys (%)	Improvements in the final placement of African American Jockeys
1869	3,350	6	2	14.2	7.4	-2.0
1870	3,750	6	1	9.6	42.2	0.0
1871	5,450	10	1	8.8	11.7	0.5
1874	4,200	8	1	12.23	2.174	0
1875	4,450	13	1	6.7	13.4	0.5
1889	4,960	2	1	25.6	48.8	-1.0
1890	8,560	5	4	9.3	13.3	-2.0
1891	5,070	3	3	9.5	23.9	-1.0
1893	5,314	3	2	26.5	10.2	2.0
1894	6,680	1	2	7.4	46.3	1.0
1895	2,700	4	1	20.9	16.5	-0.5
1896	3,025	3	1	13.9	58.3	-1.0
1897	3,350	4	2	16.4	17.3	-0.5
1908	12,285	3	1	32.4	2.9	0
Average				15.2	22.5	-0.3

Note: Only years in which an African American jockeys rode are included.

Sources and Methods: See the Appendix.

Table 4. Summary Statistics of Key Variables

Variable	Mean	Std.Dev.	Minimum	Maximum
% Black Jockeys – All	0.1834	0.2434	0	1
% Black Jockeys – Derby	0.3794	0.2502	0	1
Proximity to 1892 – All	0.9953	0.0027	0.9894	1
Proximity to 1892 - Derby	0.9955	0.0027	0.9910	1
Populist Vote - All	0.1905	0.2030	0.00001	1
Populist Vote - Derby	0.2098	0.2098	0.00001	1
Voter Suppression Laws - All	1.3333	1.2601	0	4.3333
Voter Suppression Laws - Derby	1.3333	1.2472	0	4.33
Number of Horses – All	6.1531	2.9370	2	15
Number of Horses - Derby	7.1212	2.8696	3	15
Payout – All	3639.71	2637.82	904	15,381.76
Payout – Derby	3596.43	499.43	2216.42	4560.00

Sources and Methods: See the Appendix.

Table 5. Determinants of the Representation of African American Jockeys

Variable	All Races-1	All Races-2	Derby Only-1	Derby Only-2
Number of Horses	0.0131 (1.07)	0.0164 (1.47)	0.0108 (0.66)	0.0417* (3.13)
Proximity to 1892	43.6160* (3.67)		42.1710* (2.28)	
Post-1900	-0.2130* (-2.61)	-0.3114* (-3.63)	-0.2176* (-2.05)	-0.2571* (-3.26)
Kentucky Derby	0.4001* (5.28)	0.4672* (5.95)		
Preakness	-0.1698 (-1.93)	-0.0275 (-0.26)		
Payout (\$000s)		-0.0166 (-0.99)		-0.1195* (-2.05)
Populist vote		0.5774* (3.68)		0.7081* (4.16)
Voter suppression Laws		0.1027* (3.69)		0.0678* (2.79)
Constant	-43.4862* (-3.66)	-0.4526* (-3.19)	-41.6256 (-2.25)	0.3344 (1.26)
Number Observations	116	116	37	33
Likelihood Ratio χ^2	80.34*	91.69*	23.87*	41.66*

Sources and Methods: See the Appendix.

**Table 6a. The Likelihood that African American Jockeys finish “In the Money”:
All Races**

Variable			
Number of Horses	-0.1048*** (-5.66)	-0.1044*** (-5.63)	-0.1036*** (-5.57)
Probability of Winning	0.0478*** (9.73)	0.0456*** (9.19)	0.0446*** (8.72)
Black Jockey	0.2027 (1.42)		-0.1667 (-0.68)
Black Jockey x Probability of Winning		0.0242** (2.20)	0.0340* (1.85)
Constant	-0.0113 (-0.06)	0.0064 (0.04)	0.0227 (0.13)
Observations	720	261	720
Likelihood Ratio (χ^2)	236.66***	240.12***	240.60***

**Table 6b. The Likelihood that African American Jockeys finish “In the Money”:
Kentucky Derby Only**

Variable			
Number of Horses	-0.0859*** (-2.73)	-0.0789** (-2.51)	-0.0784** (-2.45)
Probability of Winning	0.0484*** (6.27)	0.0429*** (5.46)	0.0426*** (5.08)
Black Jockey	0.3261* (1.76)		-0.0264 (-0.09)
Black Jockey x Probability of Winning		0.0308** (2.27)	0.0322* (1.54)
Constant	-0.2799 (-0.91)	-0.2614 (-0.85)	-0.2583 (0.84)
Observations	261		720
Likelihood Ratio (χ^2)	80.79***	83.39***	83.40***

Sources and Methods: See the Appendix.

*Significant at 10%; **Significant at 5%; ***Significant at 1%