

AN ASSESSMENT OF THE THOROUGHBRED RACING INDUSTRY CONSTITUENTS IN  
THE UNITED STATES

A Thesis

by

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Submitted to the Honors College  
of Texas A&M University-Commerce  
in partial fulfillment of the requirements  
for the degree of  
Bachelor of Science in Agribusiness  
December 2020

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## Abstract

In the United States, thoroughbred racing is not a popular sport. Many industry writers and reporters have been discussing the challenges the industry is facing, and without solutions for these challenges the industry will fade into history. This study will aim to collect information on constituents as well as their perspectives of the industry. To test the hypothesis that the industry is declining with an increasing demographic concentration, a survey was used to collect both demographic information as well as perspectives from the constituents. The results were compared with any statistical data available as well.

The collected results were limited, but showed concentrated demographics as well as some key perspectives of the industry. It will be essential for the industry to evaluate constituent education, the development of a governing body, and standards industry wide. If these are not evaluated the industry will continue to face the same challenges with no solutions or means to popularize the industry.

## Chapter 1

### INTRODUCTION

The equine industry is a multi-million-dollar industry with people involved in breeding contracts, training, sales, etc. Because of the intricacies of the market and the different aspects of it, having connections and long-lasting relationships with stakeholders is key for interacting in this market. In such a complex market, consumers and producers' education of the market is essential in caring for horses and making informed decisions about investing in the market. According to the Equine Business Association (2019), the equine industry is one of the “biggest industries that is hidden in plain sight.” Globally, it “involves \$300 billion [and generates] 1.6 million full time jobs,” making it a massive and diverse industry. In the United States, the equine industry involves \$102 billion and employs over 460,000 people with 9.2 million horses nationwide (Equine Business Association, 2019). These horses can be broken down into 4 groups: recreation (3,141,449), showing (1,227,986), racing (1,224,482), and working (537,261) (American Horse Council, 2019). These four categories classify horses by their purpose or job throughout their lifetime. In this sense, horses are distinguished from other livestock. Horses may fall in more than one category and can also be reclassified into another category depending on age and season.

This study targets the constituents of the 1.2 million horses in the racing segment, which has changed since the racing industry started in the United States in the 1950s, including changes in popularity because of wars, economic factors, and legislative barriers. In recent history, cultural trends have brought about even more variables that can impact the racing industry. Throughout this study, we evaluated opinions and trends of constituency in thoroughbred racing. Some of these trends revolve around the top of racing- the triple crown- and others are strictly based on fan opinions.

## **Statement of the Problem**

This study analyzes recent trends in the thoroughbred industry and its appeal as a sport right now. It took into consideration different small-scale studies that have been done as well as opinions or obstacles expressed through the survey respondents.

## **Purpose of the Study**

The purpose of this study is to evaluate who is involved with the industry, and general feelings and perceptions about industry through survey responses. Very few regional studies address the health of the thoroughbred racing industry.

## **Hypotheses**

1. The thoroughbred racing industry in the United States is declining. It is losing racing fans and demographics are becoming more concentrated.
2. Another hypothesis is that horse racing is perceived incorrectly and that it is in fact increasing in popularity.
3. Another hypothesis is that whether horse racing popularity is increasing or decreasing depends on the region of the United States.

## **Research Questions**

1. Is horse racing popularity increasing, decreasing, or about the same in each state? If so, how likely are constituents to recommend others to attend horse races?
2. What are possible causes of constituents' inclinations towards the horse racing industry?
3. Are there any trends in the responses?

### **Significance of the Study**

1. The study attempts to consolidate and evaluate information about the equine industry.
2. The study may be useful for identifying trends in the industry that are relevant to stakeholders and constituents.
3. The study may be helpful in identifying trends to the general horseman or people involved in the industry as a whole.
4. Other studies related to this topic are regionally based and specific; they do not evaluate the industry nationwide, or are generally focused on owners and not fans.

### **Background Information**

The Paulick Report released an article in May of 2018 about some serious problems the horse racing industry is facing now such as an aging consumer base, closing race tracks, decreasing foal crop, and lack of industry wide consistency. In the past two years have these problems gone away? Is the article simply wrong in what it suggests based on the respondents of the survey in this study?

“According to the Jockey Club, the North American foal crop is projected to be... [down] 39% [compared to 2008]. North American handle was \$11.5 billion last year compared to \$14.3 billion (-19%) in 2008. A 2011 McKinsey study found that just 46% of surveyed fans... would actively recommend others to follow [racing]. For comparison, baseball fans recommended their sport at a rate of 82%...” (Paulick, 2018). These rates definitely support the trend of declining investments in the thoroughbred racing industry.

## Chapter 2

### LITERATURE REVIEW

According to the newest data collected in 2014 by the American Association of Equine Practitioners (AAEP), horse ownership, breeding, and sales declined considerably since the early 2000s (American Horse Council, 2019). While there was a large spike in ownership, breeding, and sales in the late 1990s and early 2000s, it has been a steep decline since (American Horse Council, 2019). The equine industry is declining in a different way than most other sectors of the agricultural market. Other sectors of the agricultural market are getting smaller while putting out more product to meet the demands of a growing world; large corporations are taking out family owned business because they are able to increase production with technology. The Equine Industry on the other hand, is not having a corporate takeover; each year fewer and fewer horses are being bred and foaled and fewer people are buying into the industry. After breaking the large equine industry into smaller categories such as by breed or purpose, the trend continues across all categories. Many horses fall into four categories: show, racing, recreation and working. The population of horses in all of these categories is in decline with none of them increasing or remaining stagnant. There is no sector of the equine industry that is thriving, they are all on different degrees of decline (Klein, 2014).

Neibergs and Thalheimer (1998) studied the different incentive policies and their result on breeders and owners. Their model specifically looks at supply and inverse demand. These models give some insight into constructing supply and demand equations and evaluating them to support different hypotheses. “The model is based on the hypothesis that breeders act in accordance with the information available to them when breeding decisions are made in a way represented by the interaction of thoroughbred yearling supply and demand. Breeding decisions are dependent on the

expected price of yearlings” (Neibergs and Thalheimer, 1998). This study gives some insight into how breeding decisions are made in the industry. It is important to consider the variables that they discuss to understand why there has been a decrease foals in recent years, and how this is affecting the health of the industry.

Horse Racing Nation released an article in January 2019 discussing wagering levels for previous years. For the first time in 8 years wagering surpassed \$11 billion, seeing a 3%+ increase in both wagering and purses, but the number of racing days were down over three percent along with fewer races per day and fewer horses in each race (Horse Racing Nation, 2019). With the decreases in races and an increase in wagering, there was significant additional investments to the industry in 2018 (Horse Racing Nation, 2019). While 2018 saw a triple crown winner, are there other reasons contributing to this increase as well? The survey discussed in the methodology section aims to discover if this increase in reflected in respondents as well.

Rutgers University did a study in 2019 updating their previous study of the health of the Horse Racing Industry in New Jersey. Throughout the study they would compare the statistics they found in New Jersey to that of New York and Pennsylvania. They defined in the study that “indicators of industry health [include] purse monies awarded, number of race days, races restricted..., mares bred and foals registered” (Malinowski, 2019). These indicators were also discussed in Horse Racing Nation (2019). Purse monies and wagering have increased while race days and mares and foals have decreased. Rutgers’s study illustrates that in the state of New Jersey revenues from wagering have decreased in total, but the percentage of wagering through mobile methods have increased significantly. They have found that New Jersey’s racing industry cannot keep up with that of New York, one of the national hubs for racing. New Jersey will have to find

innovative programs to encourage more wagering, higher purses, and breeding if they will be able to improve the health of their racing industry.

The Paulick Report, in July of 2019, brought questions to light about the crisis facing the racing industry following increased media coverage of horse deaths at the Santa Anita race track. These deaths resulted in an investigation and shut down of the race track; at the time, there was no definitive result of the investigation as to what was killing the horses at Santa Anita. With the rise of these deaths, the media sought out the deaths they could find at many more race tracks in the country. The media coverage brought a national spotlight to the racing industry, fueling the fires of animal activists to end the sport. Paulick reached out to industry leads to collect their statements on the crisis. Jockey Club President, James Gagliano, stated that “Throughout 2019, Thoroughbred horse racing has been under tremendous pressure with the eyes of the nation focused squarely on the sport. The Jockey Club believes that without serious reform, the industry will continue to decline, and racing could be banned in some areas of the country.” His statement demonstrates the impact that the media has played in portraying the industry to the nation, as well as a need for industry leaders to make changes to bring growth back to the sport and industry. Many other industry leaders responded similarly focusing on education, regulations, and safety measures.

The New York Times released an article on the mysterious horse deaths in the racing industry as well in April 2019. Walker Hancock of Claiborne Farms, home to Secretariat, says that he believes the industry “is living on borrowed time.” With the deaths of horses at a premier track, it has brought harsh scrutiny to the industry. The deaths of horses while racing almost shut down racing in southern California, but 2018 saw an average of 10 horses a week dying around the country according to the Equine Injury Database. People for the Ethical Treatment of Animals (PETA) has begun meeting with different race tracks to change the regulations to increase the

health and safety of the horses racing. The article states that the racing industry has been on the decline for nearly 2 decades with decreasing bets and foals, and some leadership recommend that people not get involved in the industry. While much of the industry can agree that changes need to happen, the way to make changes is not agreed upon. Many leaders have collaborated with congressman and lobbying organizations to draft a federal bill, but with Churchill Downs opposing, many others will not stand and support the bill as the way for regulation. Churchill Downs has instead created a coalition for regulation reform, changing the highest level of racing in the sport. Hancock is quoted at the end of the article stating that “[industry leaders] got to start proving that we are doing all that we can to do the best for these horses,” he said. “If not, we are out of business and we should be.”

Digital Media Solutions released an article in April 2019 about Kentucky Derby fans. Kentucky Derby is considered to be the top of racing and starts off the run for the Triple Crown. It is longest run sporting event in the U.S. and had over sixteen million viewers in 2018, 52% of which were female viewers. They also note that the largest constituent base for racing is gamblers. Gamblers have a higher affinity for races than the general adult population. The other large constituent base for racing is sports fans; hockey fans are 45% more likely to tune in for racing than the general adult population, followed by baseball, football, basketball, and lastly, soccer.

Similar to digital media solutions, Broadcasting Cable took a look at viewers of the Preakness and Belmont Stakes for 2018, where Justified won the Triple Crown, and found out that 22% of the Kentucky Derby audience tuned in for the Preakness, and 26% also watched the Belmont. “With the Triple Crown on the line during the Belmont Stakes, it makes sense that the race was the most-watched among all three. Overall, 3% of the country tuned in to watch the win...” It was an interesting study of how constituents tuned into the different races, and for

more people the watch the Belmont they must be following racing through other methods of media.

## Chapter 3

### METHODS AND PROCEDURES

#### **Research objective**

This study provides an evaluation of the horse racing industry in the United States through constituent perspectives. Regional statistical data can be found that evaluates segments of the racing industry, but it is limited in scope. These regional evaluations are also usually concentrated inside of the industry on owners, employees, or stakeholders, leaving out a large constituent- the fans and gamblers. Throughout this study, regional evaluations will be discussed along with evaluating responses to a survey. The responses aim to gather trends and insight into the opinions and dispositions of fans and the external population.

#### **Survey**

The survey covers backgrounds, demographics, and affiliation to the racing industry. It aims at discovering who the constituents of the equine industry are as well as what the opinions of the industry are. It answers the following questions: Do survey respondents express trends about the growth, decline, or plateau of investments? The study provided insight in formulating a study at a larger scale to evaluate the extent of investment and health of the racing industry in the United States through the lens of constituents.

#### **Methods of Inquiry**

The study provided insight in subsequent studies on trends and dispositions to the industry in the United States. This would include but not be limited to horse owners- inside and outside of the racing industry- breeders, racing fans, non-fans, and equine students. For distributing the survey (Appendix B), the survey was posted in Facebook groups that are centered around thoroughbred racing. With their participation, the goal was to obtain a relatively large sample of

75-150 people. The Facebook groups were selected from multiple regions of the country to ensure that the study does not yield only regional data.

## Chapter 4

### RESULTS

#### **Survey Results**

The survey goal was to receive 75+ responses in a 6-week period. It was disseminated to approximately 205,700 members in five Facebook groups: Thoroughbred horse racing discussion, thoroughbred horse racing, free horse racing tips, free horse racing tips- no1 community, and Friendly horse questions. The survey was shared on June 23, July 2, and July 30. We had very limited participation from these groups and received 14 completed surveys after the 6-week period. The survey responses are analyzed to evaluate the extent to which respondents express trends about the industry in terms of their participation and its popularity. For example, how likely they are to recommend the sport, the extent to which they follow horse races in the media and its limitations, how often they attend or bet on a horse race last year and why they attend, their opinion about trends in the horse racing industry popularity in their state, and the profile of the typical constituent.

The survey respondents represented 5 states (Appendix D, Figure 1): 50% represented Pennsylvania, 10% for Texas, 10% for Tennessee, 10% for New Jersey, 10% for Maryland, 10% for California. Most of the respondents had worked with or owned horses (93.21%) and only one had not (7.69%). These respondents also represented varying strengths of horse backgrounds despite significant participation from owners. These participants were thoroughbred owners (42.86%), recreational horse owners (14.29%), racing fans (28.57%), equine students (7.14%), or other (7.14%) (Appendix D, Table 5) and 71.43% were extremely likely to recommend others to attend horse races with 21.43% and 7.14% to respectively slightly recommend or extremely unlikely to recommend it (Appendix D, Table 6). When asked to identify their opinions about the industry 8.33% said that it is too hard to predict winners, 41.67% find that the news presents

contradictory stories about the industry, 45.83% identify racing as their favorite sport, and 4.17% follow other sports instead of racing in the media (Appendix D, Table 7). In addition, 80% of respondents attend races more than 5 times a year, 6.67% attend 1-2 or 3-5 times per year, and 6.67% used to attend more; this attendance is motivated by the belief that racing is interesting (40%), participants can bet and win (28%), or because they have an invested interest (32%) (Appendix D, Tables 8&9). Of the people surveyed, 41.67% have attended the Kentucky Derby, 16.67% have attended the Preakness Stakes, and 41.67% have attended the Belmont Stakes (Appendix D, Table 10). Despite varying backgrounds, regions, and states, 36.36% participants said that in their state popularity was increasing, 27.27% said popularity was decreasing, and 36.36% said it was stagnant and remaining the same (Appendix D, Table 11). With respect to respondent age, 7.69% are ages 20-29, 23.08% are 30-39, 15.38% are 40-49, and 53.85% are 60 or older, with 38.46% males and 61.54% females (appendix D, Table 12 and Table 13). In addition, 53.85% are single and 46.15% are married or in a domestic partnership with 23.08% having children in their household and 76.92% having no children in their household (Appendix D, Table 14&15). In terms of household incomes, 16.67% of the respondents make \$29,999 or less, 8.33% make \$30,000-\$49,999, 50% make \$50,000-\$99,999, 16.67% make \$100,000-\$349,999, and 8.33% make \$350,000 or more (Appendix D, Table 16).

### **Data Analysis**

The survey was composed of questions to gain demographic information as well as individual perspectives of the industry. This data was collected to shed light on the popularity of horse racing in the participant's eyes as well as the factors that affect the perceived popularity. Popularity can be evaluated on revenue, breeding/ foaling, race counts, and wagers. For analyzing

the data from the survey, the chi-square test of independence can be used to test several hypotheses, but the requirements for the test were not met. These chi-square tests for independence are:

1. Are states (Question 2, Appendix B) and horse racing popularity (Question 18, Appendix B) independent and dependent?
2. Is an invested interest (Question 14, Appendix B) independent or dependent of racing popularity (Question 18, Appendix B)?
3. Is horse background (Question 4, Appendix B) independent or dependent of racing popularity (Question 18, Appendix B)?
4. Is being an owner (Question 6, Appendix B) dependent or independent of household income (Question 24, Appendix B)?
5. Is being an owner (Question 6, Appendix B) independent or dependent on racing popularity (Question 18, Appendix B)?

The requirements for chi-square are:

1. All expected frequencies are greater than or equal to 1 ( $E \geq 1$ ).
2. No more than 20% of expected frequencies are less than 5.

The first chi-square test did not meet the hypothesis-testing requirements. However, the steps for conducting the hypothesis tests are reported below for illustration purposes. That is, when the hypothesis test requirements are satisfied, the following are the steps to conduct a chi-square test of independence. The level of significance that was selected for all chi-square tests was 5%.

### **Are states and horse racing popularity independent and dependent?**

Step 1: State the null and alternative hypotheses.

H<sub>0</sub>= states and popularity are independent.

H<sub>1</sub>= states and popularity are dependent.

Step 2: Summarize the observed counts.

	Increasing Population	About the Same	Decreasing Population	<b>Total</b>
Pennsylvania	0	2	2	<b>4</b>
Other	2	1	0	<b>3</b>
<b>Total</b>	<b>2</b>	<b>3</b>	<b>2</b>	<b>7</b>

Step 3: Calculate the expected counts.

The expected counts are calculated using the following formula:

Expected frequency= (row total\*column total)/ table total

The following table reports the expected counts.

	Increasing Population	About the same	Decreasing population
Pennsylvania	1.14	1.71	1.14
Other	0.86	1.29	0.86

Step 4: Compute the test statistic.

The chi-square test statistic is computed as:

$$x^2 = \sum \frac{(O_i - E_i)^2}{E_i}$$

where  $O_i$  is observed count and  $E_i$  is expected count.

The following table reports the expected counts.

O <sub>i</sub>	E <sub>i</sub>	O <sub>i</sub> - E <sub>i</sub>	(O <sub>i</sub> - E <sub>i</sub> ) <sup>2</sup>	[(O <sub>i</sub> - E <sub>i</sub> ) <sup>2</sup> ]/E <sub>i</sub>
0	1.14	-1.14	1.2996	1.1400
2	1.71	0.29	0.0841	0.0492
2	1.14	0.86	0.7396	0.6488
2	0.86	1.14	1.2996	1.5112
1	1.29	-0.29	0.0841	0.0652
0	0.86	-0.86	0.7396	0.8600

Therefore, Chi-Square Calculated = 4.2743, which is the sum of the values in the last column in table above.

Step 5: Determine the critical value.

When  $df = (r - 1) * (c - 1) = (2-1) * (3-1) = 2$  and  $\alpha = 0.05$ , the Chi-Square Critical = 5.991.

Step 6: Compare the calculated value with the critical value.

Since the calculated chi-square value fell inside the critical value, we fail to reject H<sub>0</sub>. As a result, we fail to reject that state and population were independent.

Step 7: State the conclusion.

There is not sufficient evidence to conclude that states and popularity are dependent at the 5% significance level and  $df = 2$ . Testing this chi-square is not fully reliable because of the limited number of responses we received on the survey, so the result is not reliable either.

**Is an invested interest independent or dependent of racing popularity?**

Step 1: State the null and alternative hypotheses.

H0= invested interest and popularity are independent.

H1= invested interest and popularity are dependent.

Step 2: Summarize the observed counts.

	Increasing Population	About the same	Decreasing population	<b>Total</b>
Invested	1	2	2	<b>5</b>
Other	1	1	1	<b>3</b>
<b>Total</b>	<b>2</b>	<b>3</b>	<b>3</b>	<b>8</b>

Step 3: Calculate the expected counts.

Expected frequency= row total\*column total/ table total

	Increasing population	About the same	Decreasing population
Invested	1.25	1.88	1.88
Other	0.75	1.13	1.13

Step 4: Compute the test statistic.

The chi-square test statistic is computed as:

$$x^2 = \sum \frac{(oi - Ei)^2}{Ei}$$

where  $O_i$  is observed count and  $E_i$  is expected count.

O <sub>i</sub>	E <sub>i</sub>	O <sub>i</sub> – E <sub>i</sub>	(O <sub>i</sub> - E <sub>i</sub> ) <sup>2</sup>	[(O <sub>i</sub> - E <sub>i</sub> ) <sup>2</sup> ]/E <sub>i</sub>
1	1.25	-0.25	0.0625	0.0500
2	1.88	0.12	0.0144	0.0077
2	1.88	0.12	0.0144	0.0077
1	0.75	0.25	0.0625	0.0833
1	1.13	-0.13	0.0169	0.0150
1	1.13	-0.13	0.0169	0.0150

Therefore, Chi-Square Calculated = 0.1786, which is the sum of the values in the last column in table above.

Step 5: Determine the critical value.

When  $df = (r - 1) * (c - 1) = (2-1) * (3-1) = 2$  and  $\alpha = 0.05$ , the Chi-Square Critical = 5.991.

Step 6: Compare the calculated value with the critical value.

Since the chi-square calculated fell inside of the critical value, we fail to reject that invested interests are independent of popularity (H<sub>0</sub>).

Step 7: State the conclusion.

There is not sufficient evidence to conclude that invested interest and popularity are dependent at the 5% significance level and  $df = 2$ . This test result is also not fully reliable because the data does not meet the test requirements.

This test explores if racing popularity is dependent on invested interest. From the limited data that was collected, it seems there is no association between invested interested in the industry and racing popularity. It is recommended to increase sample size to test just this. If there was an association between these two variables, then the data would have a clear leaning of invested participants believing that the industry is more popular than those that do not have an invested interest, but this is not what the collected data shows. Since the hypothesis testing requirements were not satisfied for each of the chi-square tests, the following sub-sections discusses the frequency of the responses.

**Is horse racing popularity increasing, decreasing, or about the same in each state? If so, how likely are constituents to recommend others to attend horse races?**

The participants represented Pennsylvania, New Jersey, Maryland, California, and Texas. Industry statistics were pulled for these states to further evaluate the constituent perspectives. Just under half of the respondents are thoroughbred owners and only 27% believe that horse racing popularity is decreasing in their state.

In 2017 the Pennsylvania Gaming Control Board released a benchmark report that showed statistics for the state from 2013-2017. Revenues and development fund investments were found to be decreasing. Breeding information had also significantly declined in both foals and breeders. For the same period, state thoroughbreds and starts were declining, meaning less horses are racing in less races. The purses paid out have seen significant declines as well as the attendance at tracks. The final data collected and reported in the study was wagering amounts which, aligned with the rest of the data, are declining as well. The survey respondents from Pennsylvania all noted that popularity was either about the same or decreasing which is in line with the information collected and reported by the Pennsylvania Gaming Control Board.

The Rutgers's University report on New Jersey Racing reflected many of the same trends as Pennsylvania. The main different between the two states is the scale of the industry; Pennsylvania has a development fund and a long history of legal wagering that New Jersey does not have. Decreasing attendance, wagers, foaling, breeding, and race starts are all still present for both states though, and the Rutgers report even compares the New Jersey statistics to New York and Pennsylvania. In this study, the constituent from New Jersey believes that racing popularity is increasing in their state. This constituent doesn't own a thoroughbred, but does have a vested interest that could skew their perception of the industry in their state. Since 2018 wagering has been legal in New Jersey, this could be a factor influencing the perception of horse racing popularity.

The Jockey Club released the 2020 Maryland Fact Book reporting some very intriguing trends on foaling, breeding, sales, and racing. It showed mares bred per year has declined since 2000 with slight upward trends in 2012-2016. The annual registered foals increased 2012-2018 but it has been trending downwards afterwards; the North American statistics have been declining since the turn of the century. The races per year has also gone down since 2000 along with starts and race days, but the field size has stayed about the same and the average purse has increased. In contrast, the earning per starter increased 2010-2019, but overall earnings have been decreasing. In 2000, \$47.3 million dollars in earnings were spread across 2,743 starters; in 2019, \$39.9 million was spread across 1,425 starters. These statistics together would point towards the industry declining for the state of Maryland, but doing better than many of the other states discussed specifically in this study. In this study, the constituent residing in Maryland selected that he/she believes the industry is increasing in popularity, which is inconsistent with the Jockey Club (2020).

The survey participant background reported a very weak background and while the participant has attended races for years, he/she reported to attend because he/she can bet and win.

Although the state of Tennessee does not even have thoroughbred racing, the state has tried to bring wagering and racing back after the creation of the Tennessee State Racing Commission in 1987. Unfortunately for the horse racing industry, no tracks were ever built and the initiative was disbanded in 1998. The year 2016 brought around an advisory committee to bring back racing, but the committee did not gain much support. In this study, the constituent from Tennessee did not comment on the popularity of the industry. This may be because there is not an industry in Tennessee despite its rich history related to horse racing.

In California there is a state horse racing board and they released an annual report in 2019. In the past two fiscal years the total handle was funded by the same revenue sources, but the total handle was less in 2018-2019 than 2017-2018. Most of the other information reported was only for the 2018-2019 fiscal year and did not compare to other fiscal years. The state has been bashed in the media because of the large number of thoroughbred deaths at the state race tracks. The Santa Anita race track was closed and missed many large races leading up to the COVID-19 Pandemic. Their perception in the media has definitely not been good over the past year. In this study, the constituent from California believes the industry is about the same as other years, but the statistics point to decreased wagering and investments in the industry.

Texas has a very similar Racing Commission to California, and they report wagering statistics for the last 2 years in their comparison report. The wagering levels decreased almost 9% from 2019 to 2020 at the race tracks, but decreased 43% for total wagers placed in Texas. A 43% decline on total wagering for the state definitely points towards decreasing popularity for the industry in the state of Texas.

After looking at perceptions of state popularities and statistics for state industries, it can be concluded that, for the states evaluated, the industries are declining in the metrics that were discussed in regards to defining health of the industry. In terms of how likely constituents are to recommend others to attend horse races, 76.92% of participants in this study said that they are extremely likely. While this is higher than the amount reported by Paulick 2018, it is still less than the results for baseball (82% of fans). The constituent group represented in this study is also smaller and possibly more active fans than represented by Paulick 2018. In this study, 85% of respondents noted that horse racing is their favorite sport while 15% (two respondents) noted that they were not extremely likely to recommend horse racing, described themselves as thoroughbred owners instead of as a racing fan.

Lastly, the participants in this study commented on their perspectives of the industry and its challenges. For instance, 80% believe that the news presents contradictory stories and information about the industry, which can play a very large part in nonfan perspectives of the industry. The media can also present information to fans which impact their investment in the industry. The challenges that the respondents mentioned fell into a few main topics: radical animal rights activists/ PETA, lack of leadership/ governing body, doping horses, public perception informed by media. These challenges the industry is facing impact both the nonfan as well as the fan because they can be a barrier to entry or result in the loss of fan investment.

### **What are possible causes of constituents' inclinations towards the horse racing industry?**

One of the main contributing factors for inclinations towards the industry are demographics and media portrayal. The majority of the constituents surveyed in this study see the media as an issue for the industry and without centralized leadership or a governing body there is no way for the industry to respond to the media's representation. Demographics also play a large role in how

a constituent will be able to evaluate the media and events taking place in the industry. In this study, 100% of the respondents follow horse racing in the media, and only 61.53% of them have an above average background in horses. Without a strong background and education, opinions and perceptions can be easily shaped and changed by the media. Education plays a vital role in evaluating stories and events and how they translate into industry investment. Almost 77% of respondents or a member of their family have owned a horse which means that there are owners without strong backgrounds or education.

In addition to demographics, participants were asked why they attend races; 76.92% attend because they find racing interesting, 61.53% have a vested interest, and 46.15% because they can bet and win. Being curious and interested can stimulate participants to seek out the truth, but with 80% of the participants finding the media to be contradictory they must rely on their background to guide their journey for the truth. With lower education, the chances of having informed perspectives is low and lead to inconsistency.

### **Are there any trends among the responses?**

In this study, the survey revealed 100% of the participants follow the media, 92% are Caucasian, 100% are watching or attending the Triple Crown races every year, 92% attend races more than 5 times a year, and 92% have owned or worked with horses in the past. These demographic trends illustrate the segment of the American population that the industry currently appeals to. Geographic distance to tracks and race play a large part in the investment of these participants. The media additionally plays a very large role in their relation to the industry and is definitely a challenge that the industry will have to create a plan for.

## Chapter 5

### CONCLUSION

The literature reviewed in this study as well as the survey suggest that the thoroughbred racing industry in the United States is declining. It is losing racing fans and demographics are becoming more concentrated; this concentration is not in the amount of money or time being invested, but what group or segment investment is coming from. In other sectors of the Agricultural industry, corporations are taking out small family farms, but in the thoroughbred industry a specific ethnicity is contributing the vast majority of investment. Since 92% of the participants from the survey were Caucasian who attended 5 or more races a year with access to media on racing, there seems to be a heavily concentrated segment of Americans that find the thoroughbred racing industry appealing. Since the percentage of the population that is Caucasian is decreasing in America, it becomes increasingly important to find avenues to make the industry more appealing to diverse populations. Seerat Sohi published an article in yahoo sports in June 2020 discussing the demographics of the thoroughbred industry; her evaluation of the concentration of Caucasian males is in line with the results of the survey. Thoroughbred racing was made for and is run by the white male. The Kentucky Derby is the only outlier to this trend because of the culture surrounding the race. Women will come on the arms of influential, invited men to celebrate the event with their iconic hats.

Participants in this study noted the large impact that the media has in the industry. All of them follow racing through the media even though they find it to contain contradictory stories. The industry needs to concentrate on combatting the media issues. PETA and animal rights activists have an advantage because they have a centralized leadership and vision that the media is able to use and report on while the industry does not. Without a centralized governing structure

for the industry, state and regional boards cannot combat the media stories or represent the industry well. Issues that arise in certain regions are taken to represent the industry as a whole. Even though the Jockey Club is head over racing guidelines and registrations, they are not a governing body working towards industry standards, wide spread rules, or representation for the nation's industry. State and regional boards should be replaced or superseded by a national governing body so that there is a united front in the media and standard in regards to drugs, development, and investment.

A secondary way to combat media's impact on the industry and constituents is to enable to industry to have educated participants. Educated constituents will additionally help to market the industry through peer to peer engagement and support an adapting, growing, or changing governing body. Education is a vital need for the industry to become diverse, attractive, and strong, but this education cannot be left to the hands of the media. There must be an avenue to clear and consistent information for constituents to find information on topics that will allow them to engage and invest in the industry in an informed manor; this can be done through educational resources on websites, at races, or included in daily racing forms.

Without these facing the challenges presented by the survey respondents the industry will continue to lose investments and continue declining as concentration in a declining segment grows. Even though this study collected limited responses, it illustrates a multiregional perspective of constituents and highlighted some limiting factors for the industry- such as limited data and the lack of standards, consistency, and diversity.

## APPENDIX A

### INFORMED CONSENT

**APPROVED**

6/3/20  
*Lucy Pickering*

Information about Being in a Research Study  
Texas A&M University-Commerce

#### AN ASSESSMENT OF THE THOROUGHBRED RACING INDUSTRY CONSTITUENTS IN THE UNITED STATES

##### **Description of the Study and Your Part in It**

Dr. Jose Lopez along with Haley Marshall are inviting you to take part in a research study. Dr. Lopez is Associate Professor of Agribusiness at Texas A&M University-Commerce in the College of Agricultural Sciences and Natural Resources (CASNR). Haley Marshall is an undergraduate student at Texas A&M University-Commerce in the same college. The purpose of this study is to evaluate who is involved with the thoroughbred racing industry in the United States, and general feelings and perceptions about industry.

Your part in the study, you will be asked to complete a 22-question survey about potential affiliation to and opinions of the thoroughbred industry as well as basic demographics information. It is composed of multiple choice and fill in the blank questions.

It will take you about 15 minutes to complete the survey.

##### **Choosing to Be in the Study**

You do not have to be in this study. Participation is voluntary. You may choose not to take part and you may choose to stop taking part at any time without penalty. You will not be punished in any way if you decide not to be in the study or to stop taking part in the study. If you decide not to take part or to stop taking part in this study, it will not affect your grade in any way.

##### **Risks and Discomforts**

There will be minimal risks, no more than that expected in daily life.

##### **Possible Benefits**

We do not know of any way you would benefit directly from taking part in this study. However, this research may help us to understand how to involve constituents in the industry.

##### **Incentives**

**No financial or other compensation will be offered.**

##### **Protection of Privacy and Confidentiality**

During this study limited confidential information will be collected. We do not collect names or contact information for participants. We will do everything we can to protect your privacy and confidentiality. We will not tell anybody outside of the research team that you were in this study or what information we collected about

you in particular. Data will be stored in a secure location where only the research team will be able to access to ensure confidentiality. Data will be retained for three years after the study is concluded.

#### **Contact Information**

If you have any questions or concerns about this study or if any problems arise, please contact the researcher at

Dr. Jose Lopez  
Associate Professor of Agribusiness  
College of Agricultural Sciences and Natural Resources  
Texas A&M University-Commerce  
903-886-5623  
[Jose.Lopez@tamuc.edu](mailto:Jose.Lopez@tamuc.edu)

If you have any questions or concerns about your rights in this research study, please contact the IRB Chair at

Dr. Lucy Pickering  
Chair, Institutional Review Board (IRB)  
Department of Literature and Languages  
Texas A&M University-Commerce  
Commerce, TX 75429-3011  
[IRB@tamuc.edu](mailto:IRB@tamuc.edu)

#### **Consent**

**By beginning the survey, you acknowledge that you are at least 18 years old, have read this consent form, have understood the above information, and agree to voluntarily participate in this research.**

If you would like a copy of this form for your reference, you may print this out.

APPENDIX B

QUESTIONNAIRE

**Default Question Block**

1. Please select one of the following.

- I am 18 years of age or older and wish to participate in this survey
- I am 18 years of age or older and do NOT wish to participate in this survey
- I am not yet 18 years old

2. Please enter your zip code

3. Have you ever worked with or owned a horse?

- Yes
- No

4. How would you describe your horse background?

Very Weak	Weak	Lower than average	Average	Higher than average	Strong	Very Strong
<input type="checkbox"/>						

5. Have you or your family ever owned a horse?

- Yes
- No

6. Which of the following best describes you?

- Thoroughbred Owner
- Recreational Owner
- Farmer or Rancher- working horse owner
- Fan - defined as betting on or attending three or more horse races a year
- Equine student
- Other

7. How likely are you to recommend others to attend horse races?

Not Very Likely	Not Likely	Neutral	Likely	Very Likely
<input type="checkbox"/>				

8. Did you follow horse races in the media (TV, online news, social media, etc.) at least once year?

- Yes
- No

9. Which of the following statements would you say are true? Mark all that apply

- It is too hard to predict winners of races
- I find that the news present contradictory stories about horse racing
- Horse racing is my favorite sport
- Races are too geographically distant for me to care
- I believe that racing is inhumane
- I follow other sports in the media instead of racing

10. In general, what do you consider to be the challenges faced by the horse racing industry today?

11. Have you attended or bet on a horse race in the last year?

- Yes
- No

**Block 1 (For those who have not attended over a year)**

12. Why have you not attended horse races over the last year? Mark all that apply.

- My interest in horse racing is decreasing
- I am afraid of losing lots of money betting
- My schedule does not allow me to attend anymore
- Other

**Block 2 (For those who have attended)**

13. How often do you attend horse races?

- I have not attended over the last 3 years
- I have not attended over the last year
- I attend about 1 or 2 times a year
- I attend about 3 to 5 times a year
- I attend more than 5 times a year
- I used to attend more than once a year, but have stopped attending
- Other

14. Why do you attend horse races?

- I attend because racing is interesting to follow
- I attend because I like to gamble
- I attend because I have an interest in the industry

**Block 3**

15. Have you ever attended one of the following? Mark all that apply.

- Kentucky Derby
- Maryland Preakness Stakes
- New York Belmont Stakes
- I have not

16. Have you watched the following on live TV? Mark all that apply

- Kentucky Derby
- Maryland Preakness Stakes
- New York Belmont Stakes
- I have not

17. How often do you attend or watch the Derby, Preakness, or Belmont?

- I attend or watch every year
- I attend or watch whenever there is a Triple Crown contender
- I used to attend or watch, but have stopped
- I began attending or watching since 2015

18. In my state horse racing is

- Increasing in popularity
- Decreasing in popularity
- About the same
- I don't know

**Block 4 (Demographic questions)**

19. What is your age?

- Under 20
- 20-29
- 30-39
- 40-49
- 50-59
- 60 and over

20. What sex do you identify as?

- Male
- Female

21. What is your race or ethnicity? Mark all that apply.

- White/ Caucasian
- Black/ African American
- Hispanic/ Latino
- Native American/ American Indian
- Asian/ Pacific Islander
- Other

22. What is your household makeup?

- Single
- Married or domestic partnership

23. Do you have children living in your household?

Yes

No

24. What is your approximate annual household income?

\$29,999 or less

\$30,000-\$49,999

\$50,000-\$99,999

\$100,000-\$349,999

\$350,000 and up

## APPENDIX C

### IRB APPROVAL LETTER



6/3/20

Dear Dr. Lopez:

As Chair of the Texas A&M University-Commerce's Institutional Review Board, I am writing to notify you that your IRB Protocol #2002 "An assessment of the thoroughbred racing industry constituents in the US" was determined to meet the requirements of Exempt Category 2(ii) on 6/3/20. The IRB approval letter is not the same as a student's Graduate School/TDS approval. If you are a PI on a graduate student's thesis or dissertation, ensure that your student submits a copy of this approval letter when they are submitting for approval from the Graduate School.

This determination applies only to the activities described in the IRB submission and does not apply should any changes be made. Changes to the protocol must be requested by submitting an Amendment Application to the Research Compliance Office for review. The Amendment must be approved before being implemented.

Should there be any sort of adverse event it is your duty to report that to the IRB immediately. Please submit a Research Closure Form once your research activity has been completed. Please refer to the above protocol number and title when submitting amendments or reports. This protocol will be subject to Post Approval Monitoring reviews until a closure form is received. All documentation must be kept by the PI during this time.

If you have any further questions, please feel free to email me at [irb@tamuc.edu](mailto:irb@tamuc.edu)

Good luck with your project.

Sincerely,

A handwritten signature in cursive script that reads "Lucy Pickering".

Dr. Lucy Pickering  
Professor, Department of Literature & Languages  
Chair, Institutional Review Board

Institutional Review Board for Protection of Human Subjects  
P. O. Box 3011 • Commerce, TX 75429-3011  
[irb@tamuc.edu](mailto:irb@tamuc.edu)

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A Member of The Texas A&M University System

## APPENDIX D

### TABLES AND GRAPHS

Table 1. Survey Participation by Zip Code.

<b>Q 2: Please enter your zip code</b>
37211- Tennessee
92128- California
18974- Pennsylvania
19608- Pennsylvania
18940- Pennsylvania
21045- Maryland
19154- Pennsylvania
19020- Pennsylvania
07753- New Jersey
75428- Texas

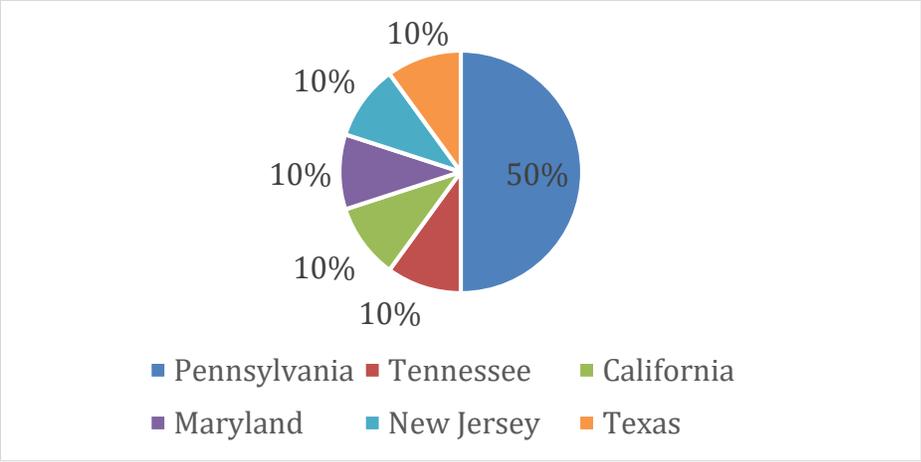


Figure 1. Survey Participation by State.

Table 2. Horse Background

#	Answer	%	Count
1	Yes	85.71%	12
2	No	14.29%	2
	Total	100%	14

Field	Minimum	Maximum	Mean	Std Deviation	Variance	Count
Have you ever worked with or owned horses?	1.00 Yes	2.00 No	1.14	0.35	0.12	14

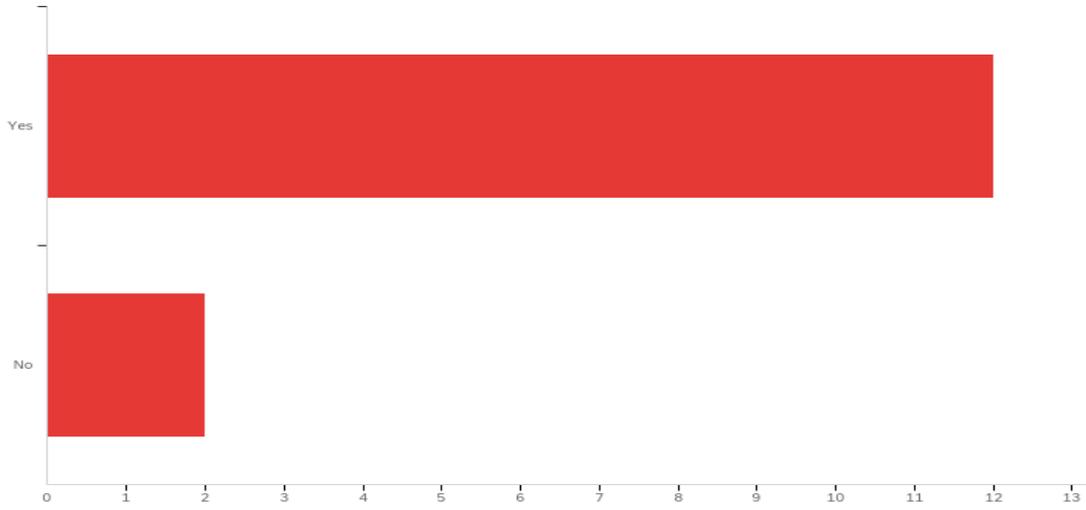


Figure 2. Horse Background

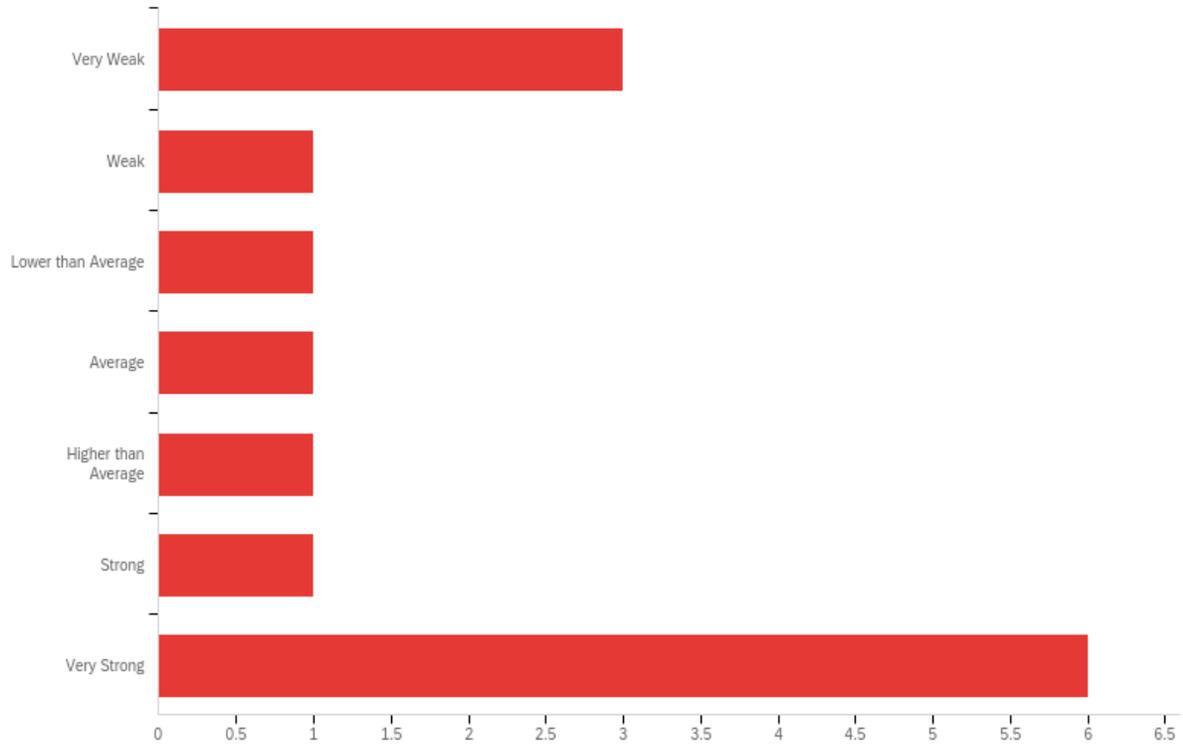


Figure 3. Strength of Horse Background

Table 3: Strength of Horse Background

Field	Minimum	Maximum	Mean	Std Deviation	Variance	Count
How would you describe your horse background?	1.00	7.00	4.64	2.47	6.09	14
	Very Weak	Very Strong				
#	Answer	%	Count			
1	Very Weak	21.43%	3			
2	Weak	7.14%	1			
3	Lower than Average	7.14%	1			
4	Average	7.14%	1			
5	Higher than Average	7.14%	1			
6	Strong	7.14%	1			
7	Very Strong	42.86%	6			
	Total	100%	14			

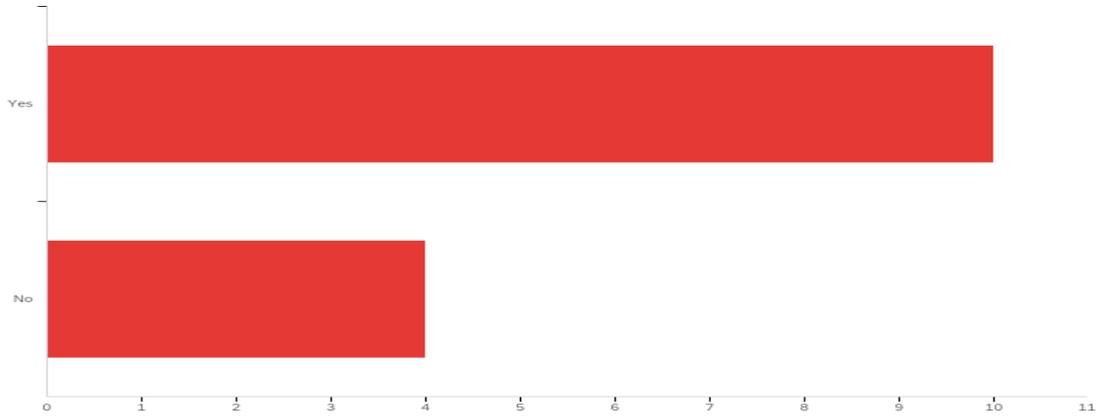


Figure 4: Horse Owner

Table 4: Horse Owner

#	Answer	%	Count
1	Yes	71.43%	10
2	No	28.57%	4
	Total	100%	14

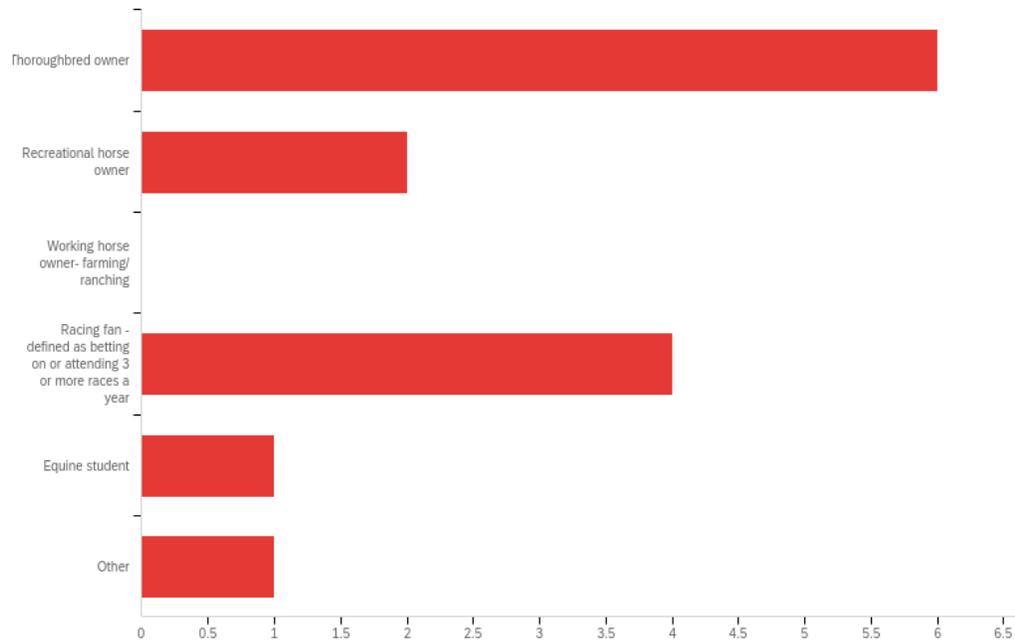


Figure 5: Constituent description

Table 5: Constituent description

#	Answer	%	Count
1	Thoroughbred owner	42.86%	6
2	Recreational horse owner	14.29%	2
3	Working horse owner- farming/ ranching	0.00%	0
4	Racing fan	28.57%	4
5	Equine student	7.14%	1
6	Other	7.14%	1
	Total	100%	14

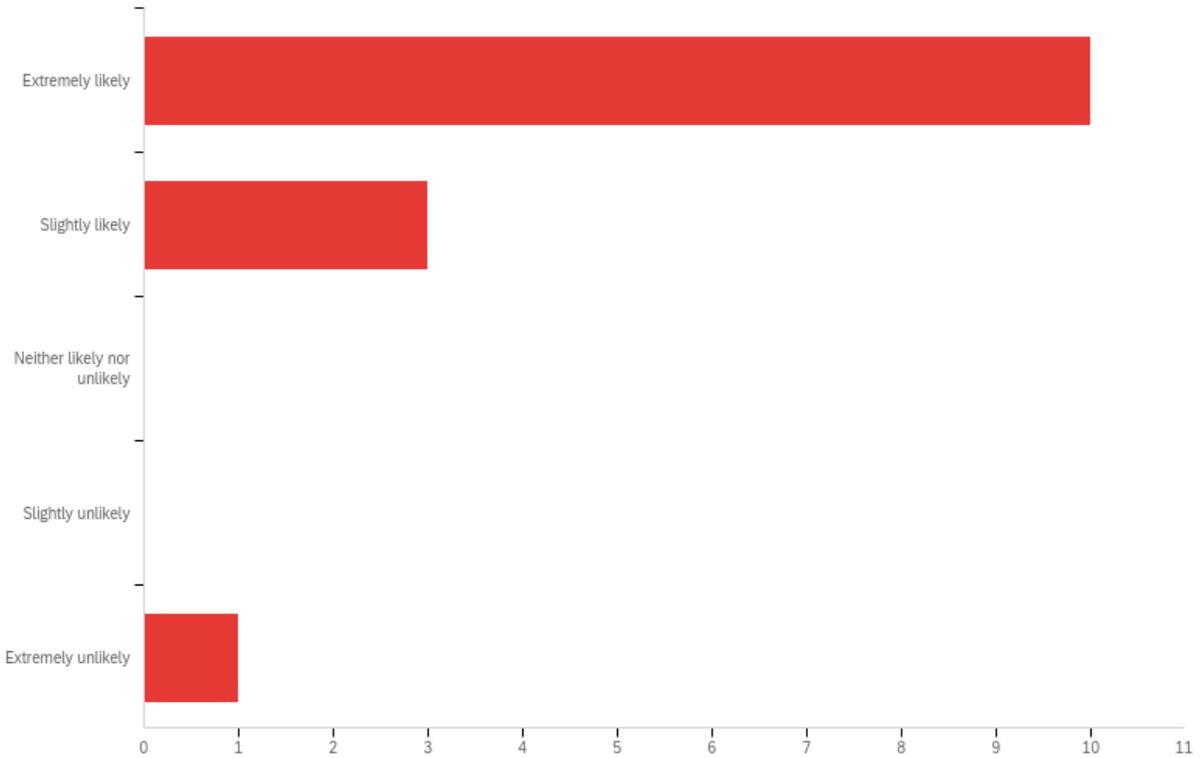


Figure 6: Likeliness of recommending horse racing

Table 6: Likeliness of recommending horse racing

#	Field	Minimum	Maximum	Mean	Std Deviation	Variance	Count
1	How likely are you to recommend others to attend horse races?	1.00	5.00	1.50	1.05	1.11	14
#	Answer			%	Count		
1	Extremely likely			71.43%	10		
2	Slightly likely			21.43%	3		
3	Neither likely nor unlikely			0.00%	0		
4	Slightly unlikely			0.00%	0		
5	Extremely unlikely			7.14%	1		
Total				100%	14		

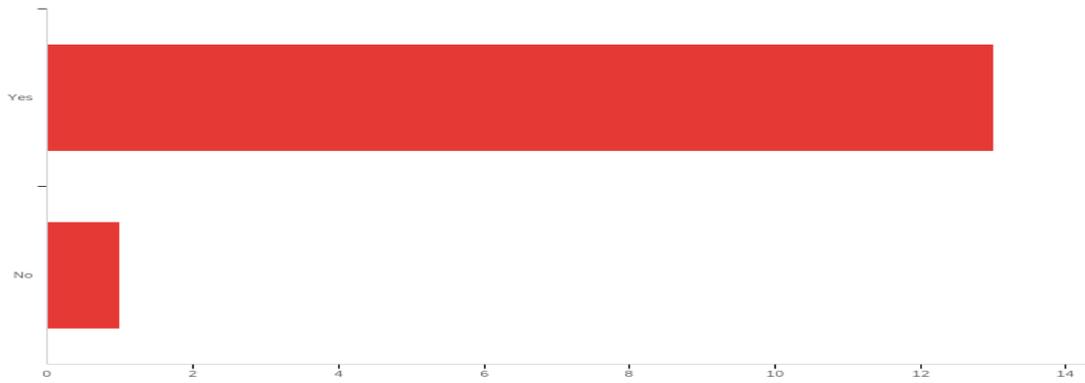


Figure 7: following horse racing in the media

Table 7: Following horse racing in the media

Minimum	Maximum	Mean	Std Deviation	Variance	Count
1.00 Yes	2.00 No	1.07	0.26	0.07	14
#	Answer	%	Count		
1	Yes	92.86%	13		
2	No	7.14%	1		
	Total	100%	14		

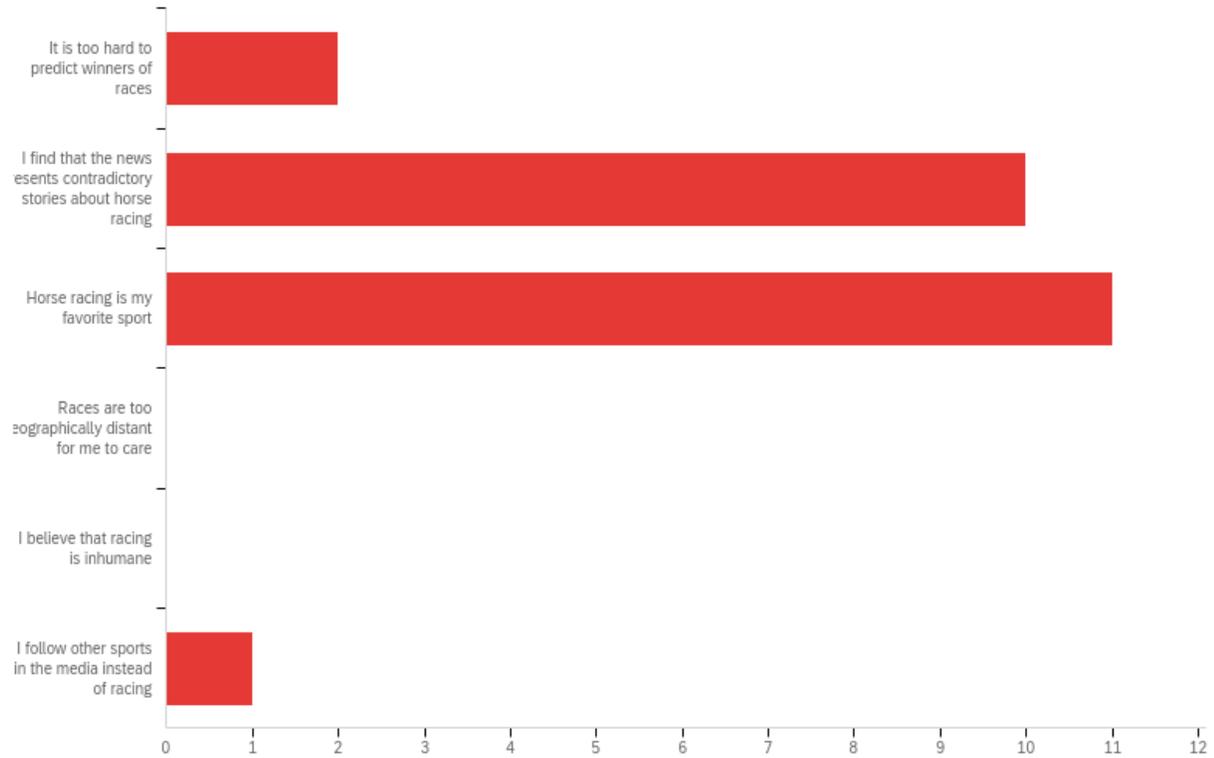


Figure 8: constituent opinions of the racing industry

Table 8: constituent opinions of the racing industry

#	Answer	%	Count
1	It is too hard to predict winners of races	8.33%	2
2	I find that the news presents contradictory stories about horse racing	41.67%	10
3	Horse racing is my favorite sport	45.83%	11
4	Races are too geographically distant for me to care	0.00%	0
5	I believe that racing is inhumane	0.00%	0
6	I follow other sports in the media instead of racing	4.17%	1

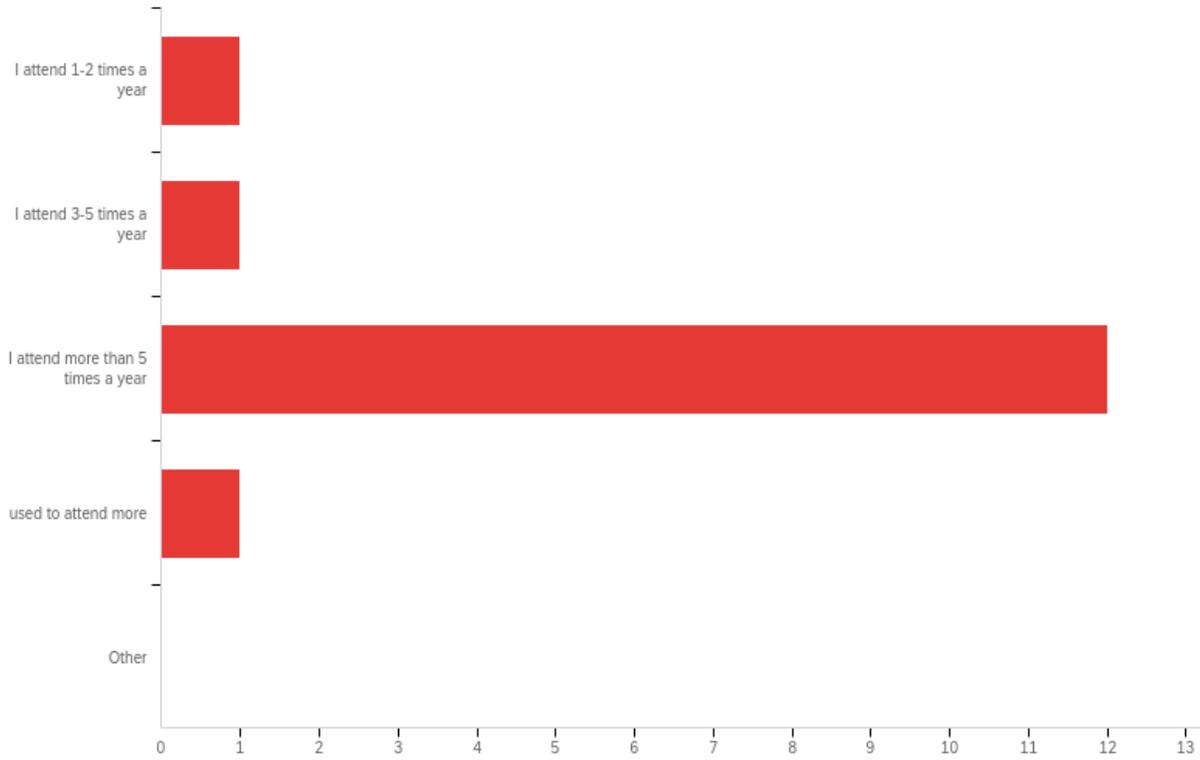


Figure 9: race attendance

Table 9: race attendance

#	Answer	%	Count
1	I attend 1-2 times a year	6.67%	1
2	I attend 3-5 times a year	6.67%	1
3	I attend more than 5 times a year	80.00%	12
4	I used to attend more	6.67%	1
5	Other	0.00%	0
	Total	100%	15

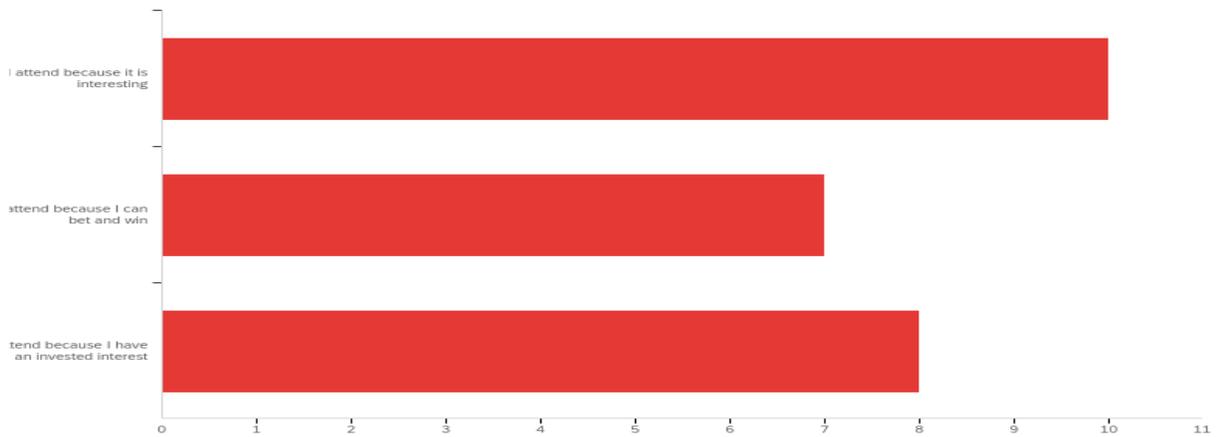


Figure 10: Motivations for attending races

Table 10: Motivations for attending races

#	Answer	%	Count
1	I attend because it is interesting	40.00%	10
2	I attend because I can bet and win	28.00%	7
3	I attend because I have an invested interest	32.00%	8
	Total	100%	25

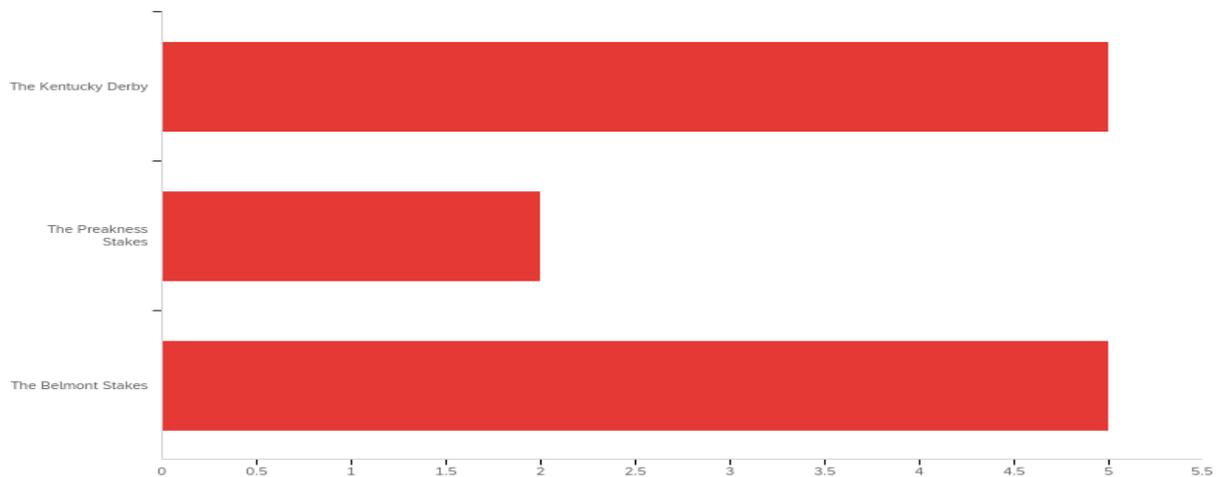


Figure 11: Triple Crown races attended

Table 11: Triple Crown races attended

#	Answer	%	Count
1	The Kentucky Derby	41.67%	5
2	The Preakness Stakes	16.67%	2
3	The Belmont Stakes	41.67%	5
	Total	100%	12

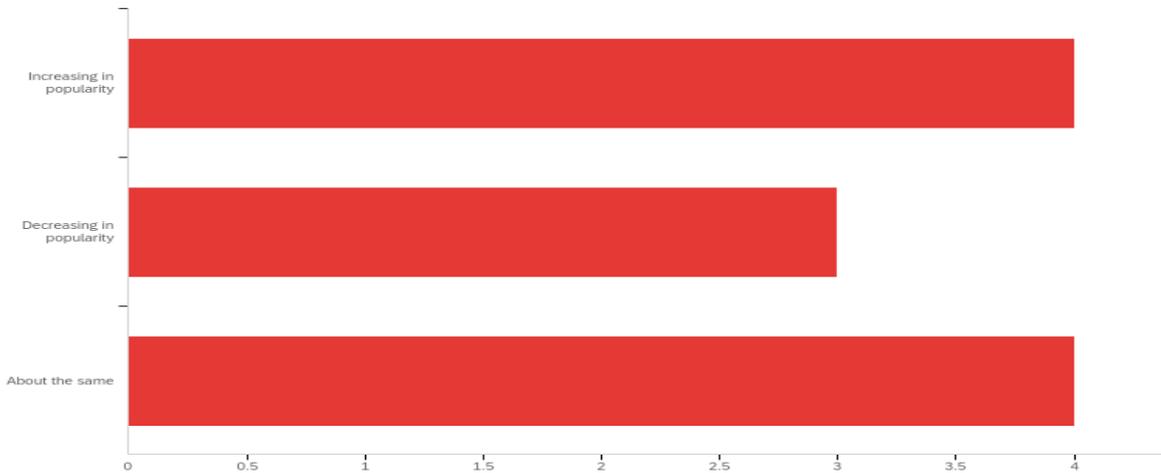


Figure 12: Popularity of Horse racing in represented states

Table 12: Popularity of horse racing in represented states

#	Field	Minimum	Maximum	Mean	Std Deviation	Variance	Count
1	In my state horse racing is	1.00	3.00	2.00	0.85	0.73	11

#	Answer	%	Count
1	Increasing in popularity	36.36%	4
2	Decreasing in popularity	27.27%	3
3	About the same	36.36%	4
	Total	100%	11

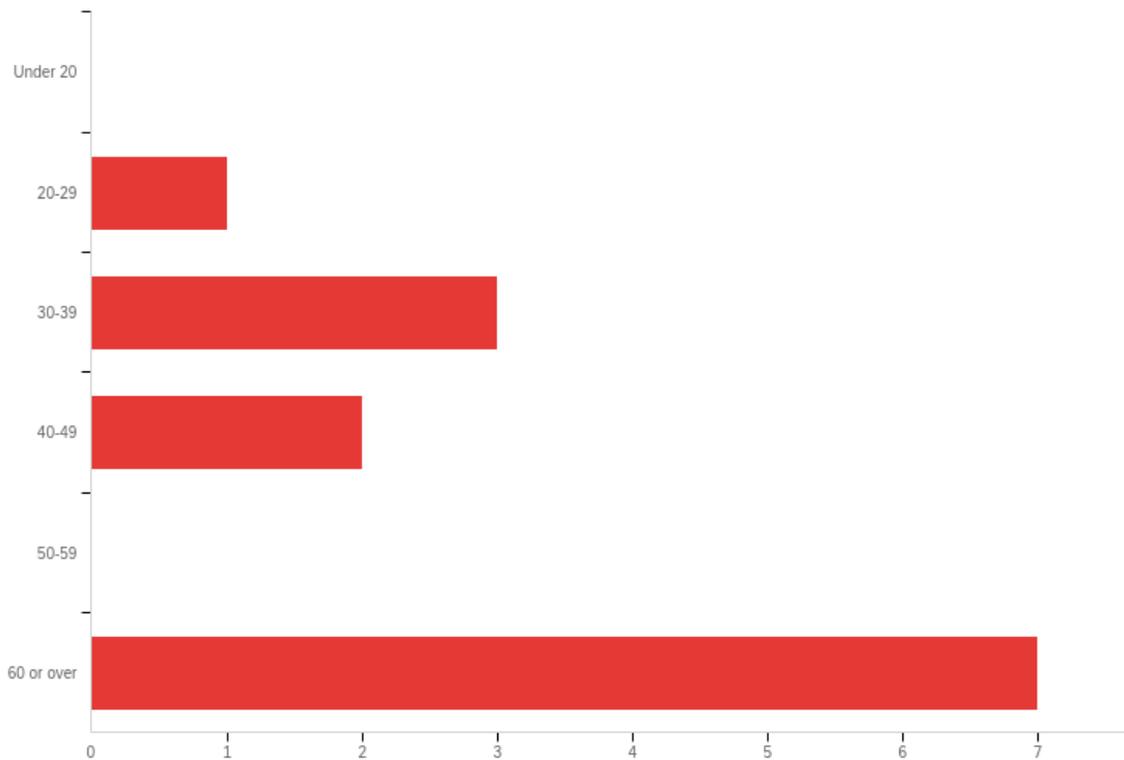


Figure 13: respondent age

Table 13: respondent age

Answer	%	Count
Under 20	0.00%	0
20-29	7.69%	1
30-39	23.08%	3
40-49	15.38%	2
50-59	0.00%	0
60 or over	53.85%	7
Total	100%	13

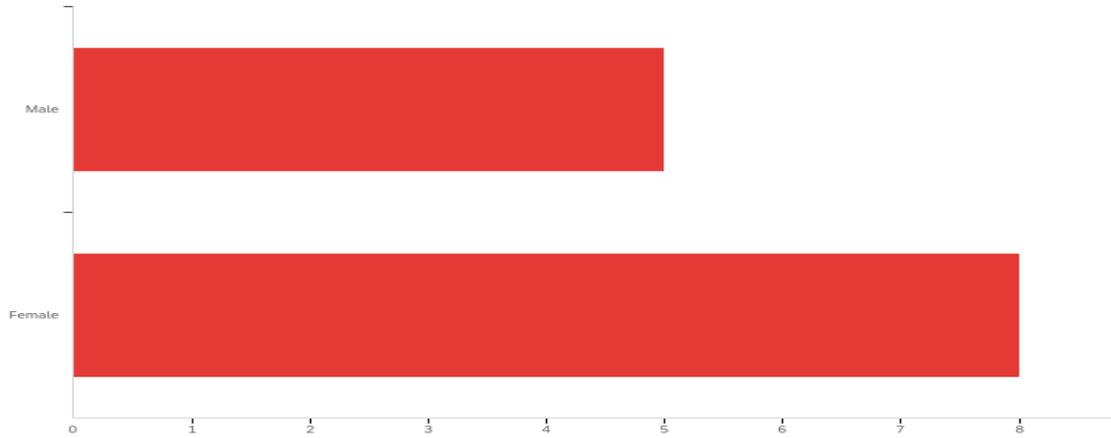


Figure 14: Gender

Table 14: Gender

#	Answer	%	Count
1	Male	38.46%	5
2	Female	61.54%	8
	Total	100%	13

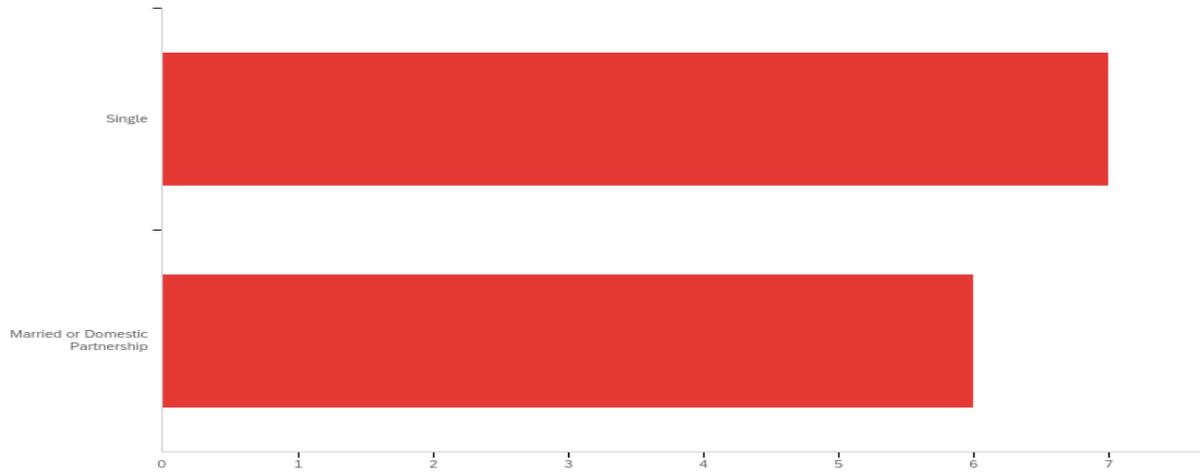


Figure 15: household makeup

Table 15: household makeup

#	Answer	%	Count
1	Single	53.85%	7
2	Married or Domestic Partnership	46.15%	6
	Total	100%	13

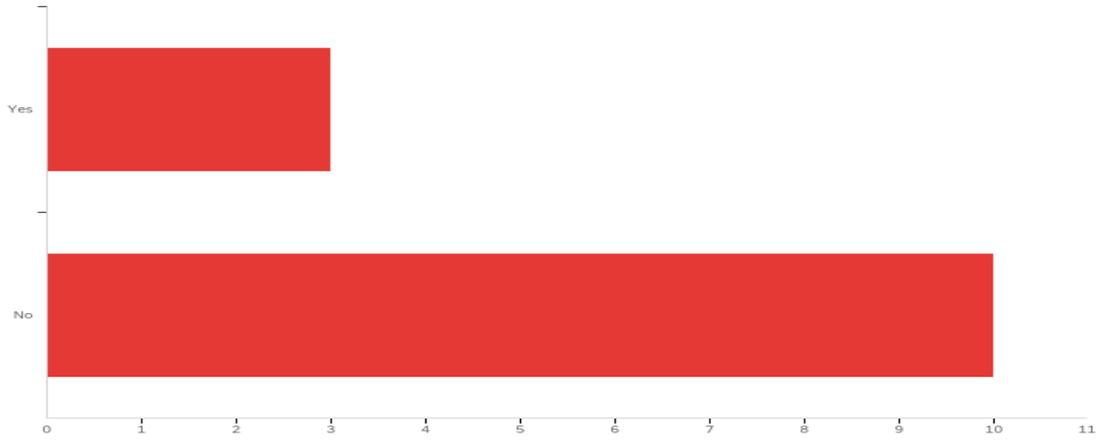


Figure 16: Children in household

Table 16: Children in household

#	Answer	%	Count
1	Yes	23.08%	3
2	No	76.92%	10
	Total	100%	13

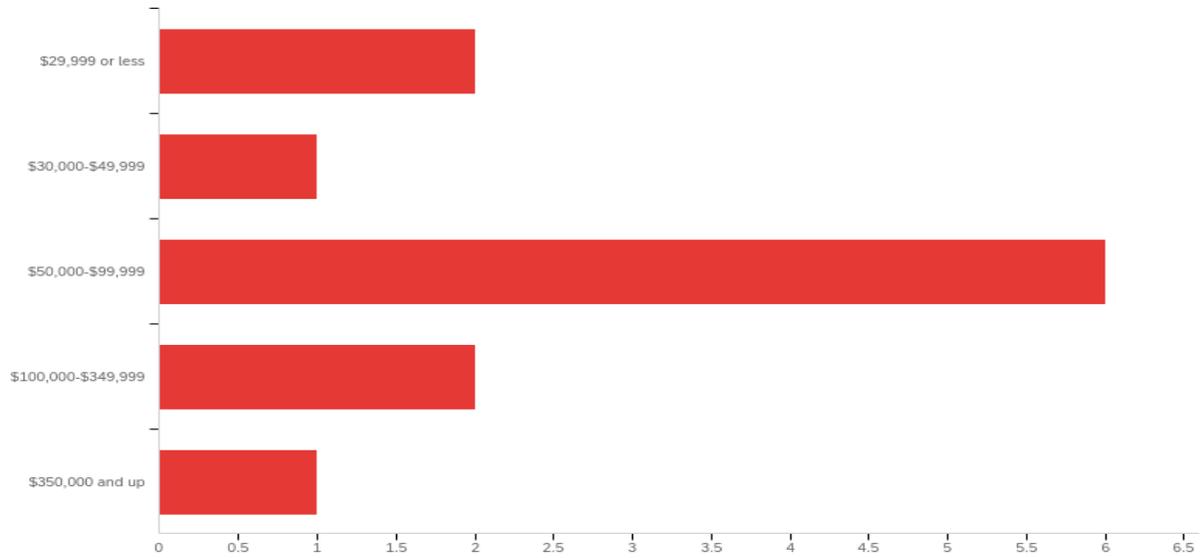


Figure 17: Household income

Table 17: household income

Answer	%	Count
\$29,999 or less	16.67%	2
\$30,000-\$49,999	8.33%	1
\$50,000-\$99,999	50.00%	6
\$100,000-\$349,999	16.67%	2
\$350,000 and up	8.33%	1
Total	100%	12

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