

**Second Edition, Conducted and Compiled By:  
opspe & Verbose**

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**T**his report details the results of the second Survey of the Brony Subculture, conducted in August and September 2012. Results are categorized and presented in chapters 3 through 6.

## 1 Introduction

As the second incarnation of the Survey of the Brony Subculture, this study sought to characterize and further explore the brony fandom. Since the premiere of *My Little Pony: Friendship is Magic* in October of 2010, the show has attracted an unusual fanbase, consisting of older (high school and college-age) men, known collectively as bronies. Naturally, such a periphery demographic has engendered many misconceptions that have propagated throughout the media. Over the past years, a number of scientific studies have been conducted to understand exactly what it is about the show that is appealing to young men. One of the better known examples of such is the Brony Study[1], conducted in 2012. The results of that study were presented in such a way as to address some of the myths and misconceptions commonly held about bronies, which it did with success.

Our previous edition of the survey, also titled the Survey of the Brony Subculture[5], was conducted in early 2012 with the intent of describing the fandom

analytically and comprehensively. As a continuation of that study, this edition of the survey aimed to continue and expand upon the previous analyses. This edition also took the same approach to our previous edition when it came to questions regarding controversial content, with the aim of continuing a systematic analysis of the entirety of the brony fandom.

Our previous edition was based on a questionnaire developed by Know Your Meme user bijutdo with the intent of better understanding bronies around the site. Know Your Meme user Verbose, one of the authors of the Survey of the Brony Subculture, created another, more comprehensive questionnaire to learn more about this sub-community. During the development of this questionnaire, the suggestions of fellow Know Your Meme users opspe (listed as an author), Blue Screen (of Death), and RandomMan were incorporated. That survey was then distributed on Know Your Meme, Equestria Daily, tumblr, and other sites, and gained 3,751 respondents. The analysis was conducted using Microsoft Excel, SPSS, and MatLab, and the results were compiled, published, and distributed on the same sites.

The present edition of the survey was conducted on SurveyGizmo, and analysis was conducted using Microsoft Excel and MatLab. The survey had a total of 4,489 respondents. The logo of the survey

was designed by DeviantArt user BlockEraser, at the request of the authors.

## 2 Methodology

The collection of responses was conducted using a questionnaire with 38 items in total, which were divided into three sections: demographics, show-related topics, and fandom-related topics. The first section had items requesting information on gender, age, religious affiliation, education level, financial status, relationship status, social network use, opinions of furries (another large fandom with a considerable and established internet presence), sexual orientation, race/ethnicity, and involvement in other fandoms or subcultures. The second section had items requesting information about when the respondents began to watch the show, their favorite and least favorite Mane Six pony, favorite secondary character, favorite Mane Six pet, favorite and least favorite episode, whether the show is the best show ever created, what the respondent liked about the series, what websites the respondent frequented for *FiM*-related content, the frequency in which respondents watched episodes of *My Little Pony: Friendship is Magic*, and the frequency with which respondents engage in fandom-related activities. The third section has items requesting information on how respondents were involved with the fandom, a combination item on brony status and whether the respondent liked the show or not, what types of merchandise are bought, openness about being a brony, opinions of shipping, favorite shipping pairs, grimdark / gory content, and sexually explicit content.

The survey was then uploaded to SurveyGizmo, and distributed via a number of sources, including on the news site Equestria Daily, on the Internet phenomena documentation site Know Your Meme, on tumblr, on 4chan's /mlp/ board, and on reddit. This was in order to ensure a diverse range of respondents; this generally presumed to have been the case, based on the results.

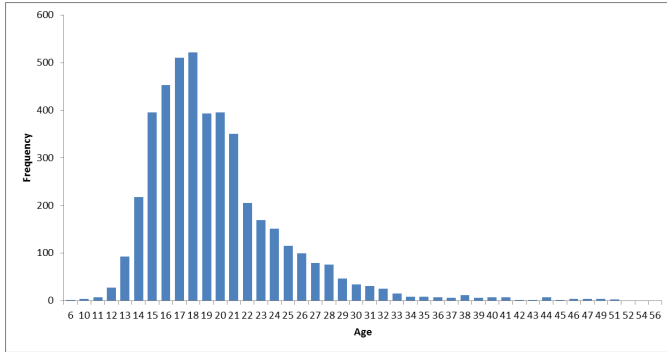
The statistical analyses conducted on the data involved simple descriptive analysis, and more complex numerical and mathematical analyses. Other analyses included numerical correlation analysis, which calculates the amount of covariance between a number of factors, and Principal Component Anal-

ysis (PCA), which characterizes covariance between factors, and extracts the relevant contributions to the overall variance. The mathematical formulations for these are rooted heavily in matrix algebra, and exceed the scope of this survey. Software used to analyze the data included Microsoft Excel and MatLab.

For any questions regarding the survey or its results, please direct email correspondence to opspe or Verbose. Please note that geographical information was collected anonymously by SurveyGizmo.

### 3 Vital Statistics about the Respondents

#### 3.1 Ages of Respondents

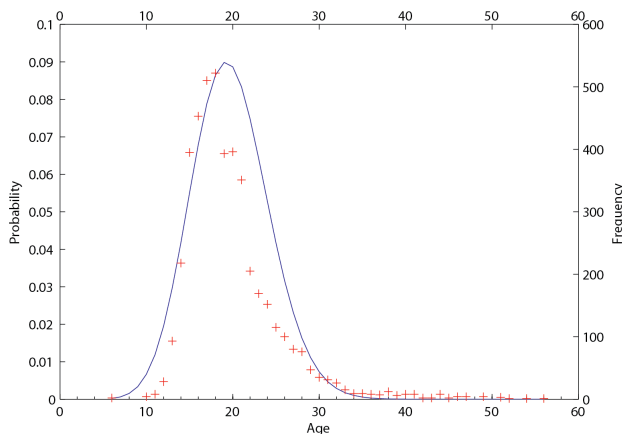


**Figure 1:** *Ages of Respondents*

Figure 1 shows a histogram of the ages of the respondents; the lowest was 6, and the highest was 56. The average age was 19.74, with a standard deviation of 5.17. This is very similar to the result reported in our previous survey, which was 19.97.[5] 19 was the median age, and 18 was the mode (most common age). The distribution of ages roughly resembles a Poisson distribution, which is defined as:

$$P(X = k) = f(k|\lambda) = \frac{\lambda^k e^{-\lambda}}{k!}$$

where  $k \in \mathbf{N}^+$ , and  $\lambda > 0$ . To visualize this, the age histogram was replotted superimposed on a plot of the actual Poisson distribution calculated with  $\lambda = 19.74033$ . The result can be seen in Figure 2.



**Figure 2:** *Age Distribution of Respondents (red) and Poisson Distribution (blue)*

The blue line, showing the Poisson Distribution, shows the degree of spread around the mean (19.74 years old in this case). That is to say, it predicts

how likely it is for a respondent to be, say, 14 years old. In this case, that probability is 4.18%. Looking at the data itself, the Poisson Distribution does not provide a perfect fit; the actual proportion of 14-year-olds is 4.90%.

#### 3.2 Locations of Respondents

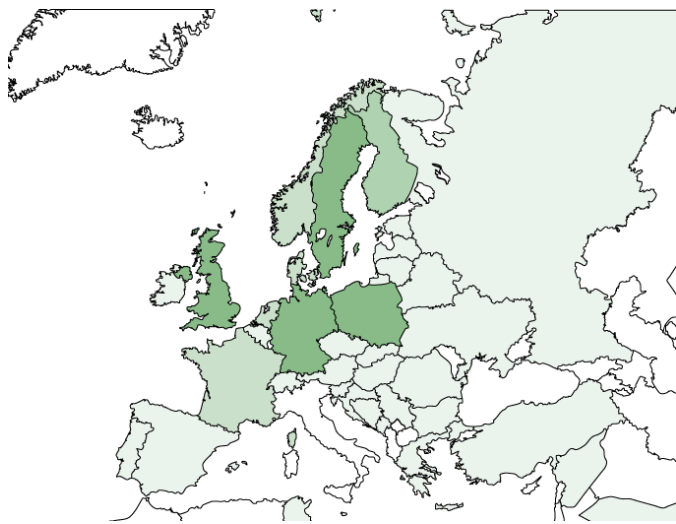
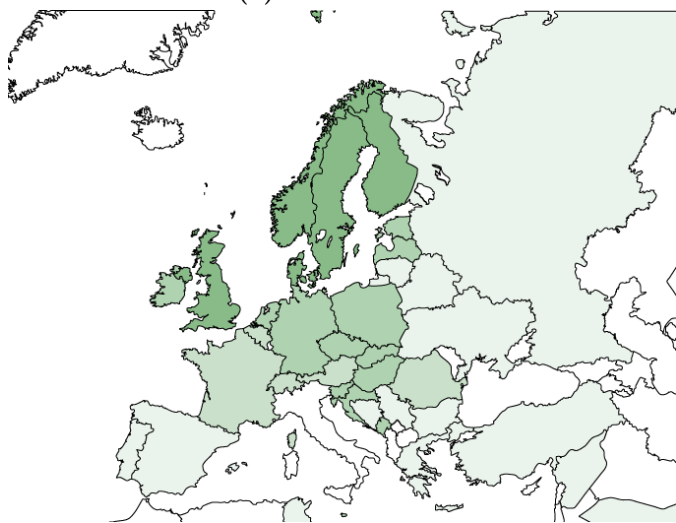
The Survey was filled out by respondents from 72 countries across all of the inhabited continents. Naturally, the majority of respondents (76.1%) hailed from English-speaking countries. The United States had the most number of respondents (2,488 - 56.0% of the total), followed by the United Kingdom (294), Canada (289), and Australia (242), Germany (126), Poland (126), Mexico (96), Sweden (89), Finland (52), and Brazil (50).

**Table 1:** *Respondents Per Capita in Selected Countries*

Country	# of Resp.	# per Million Pop.
Australia	242	10.8
Canada	289	8.63
USA	2,488	7.95
New Zealand	33	7.43
Denmark	30	5.37
UK	294	4.66
Singapore	8	1.54
Germany	126	1.54
Mexico	96	0.85
Brazil	50	0.26

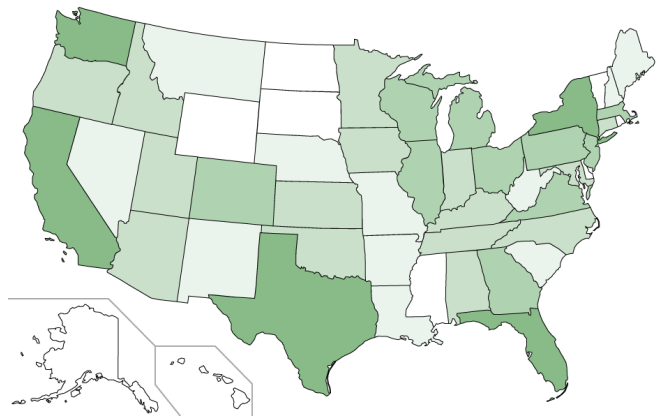
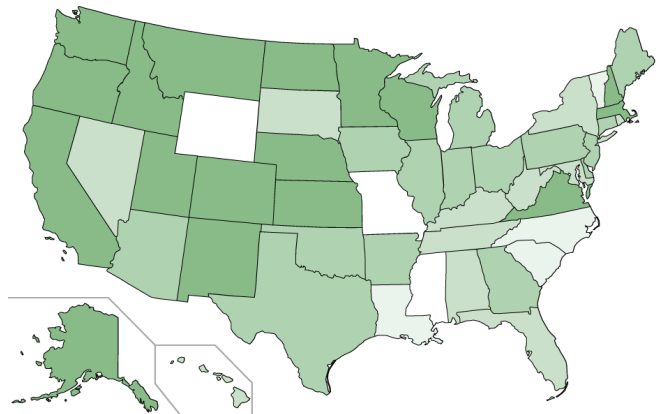
Respondents were concentrated in the developed world, although there were a significant number from Latin America, as well as from Southeast Asia. The number of respondents in Latin America can be explained by the Survey's distribution on several Spanish-language Facebook groups. Looking at per capita data, the statistics become more apparent; Brazil and Mexico, which had significant numbers of respondents, in fact have relatively low numbers of respondents per capita, due to their high populations. Conversely, smaller countries such as New Zealand, Denmark, and Singapore have much higher numbers of respondents per capita (see Table 1).

Looking exclusively at Europe, where the greatest concentration of respondents outside of North America is located, respondents are distributed across Northern and Central Europe,

(a) *Total Number*(b) *Per Capita***Figure 3:** *Respondents in Europe*

where English-language education is traditionally the most prevalent. Southern Europe's population was generally underrepresented, while the highest concentration of respondents was in Scandinavia. Note that the relatively large number of Polish respondents was mostly due to the Survey's distribution on a number of Polish-language sites, such as MLPPolska.pl. See Figure 3 for related maps.

Within the United States, respondents hailed from all 50 states, the District of Columbia, and Puerto Rico. As with the global trend, the majority of American respondents were from the most populous states: California (342), Texas (205), New York (130), Florida (122), Washington (113), and Illinois (106). The state of Washington is the 13th most populous overall, but ranked 5th in the number of respondents. Figure 4a shows the total number of

(a) *Total Number*(b) *Per Capita***Figure 4:** *Respondents in the United States*

respondents per state.

Perhaps more useful is Figure 4b, which shows the number of respondents per capita per state. This map clearly shows a different trend than 4a. The Mountain States, the Upper Midwest, and the Pacific States have the highest proportions of respondents, while the South has the smallest. Missouri and Wyoming fall outside the trend, both with few respondents. See Table 2 for data on the states with the most and least respondents per capita.

In Canada, respondents hailed from all ten provinces, as well as the Northwest Territories. As was expected, Quebec and New Brunswick had the lowest number of respondents per capita, due to their large francophone populations. The number of respondents per capita was highest in British Columbia, Nova Scotia, and Newfoundland and Labrador. Mathematically, the Northwest Territories had the absolute highest number of respondents per capita of any region measured, but this can be considered to be an outlier, due to the territory's small population of 41,462. High numbers

**Table 2:** *Respondents Per Capita in Selected US States*

State	# of Resp.	# per Million Pop.
Washington	113	16.5
Idaho	23	14.5
Utah	40	14.2
Alaska	9	12.5
North Dakota	8	11.7
Montana	11	11.0
North Carolina	45	4.66
South Carolina	21	4.49
Louisiana	14	3.06
Missouri	17	2.83
Mississippi	8	2.69
Wyoming	1	1.76

**Table 3:** *Respondents in Canada*

Prov./Terr.	# of Resp.	# per Million Pop.
Alberta	36	9.88
B.C.	60	13.6
Manitoba	6	4.97
N.B.	2	2.66
Newfoundland	12	23.3
Nova Scotia	15	16.3
N.W.T.	1	24.1
Ontario	122	9.49
P.E.I.	1	7.13
Quebec	25	3.16
Saskatchewan	9	8.11

of respondents were also from Alberta and Ontario. The average Canadian province had a higher number of respondents per capita than the average US state. Table 3 lists the relevant data.

Respondents in Australia were most concentrated in the eastern states, with the greatest number being from Queensland. Per capita, however, Tasmania and South Australia were the highest, with Queensland coming in third. Victoria and New South Wales had proportionally lower numbers of respondents per capita than other states. Australia was the country with the highest number of respondents per capita. See Table 4 for the data.

Respondents in the United Kingdom were relatively uniformly distributed across England and Scotland, outside of Greater London. Wales and Greater London provided the fewest number of respondents, while North West and South East

England had the highest numbers of respondents. Per Capita, Northern Ireland had the most respondents, while North East England had relatively few respondents, as did East Anglia and South East England. See Figure 5 for maps detailing the distribution of respondents in the UK.

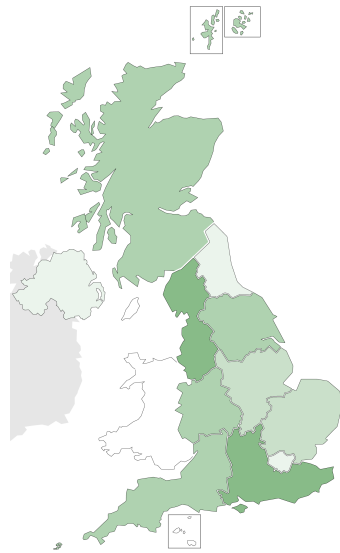
Large-scale trends regarding where bronies are more likely to live are not readily apparent from this data. Statistically speaking, there will be more bronies in regions with higher population, but that information is not entirely useful. However, looking at the per capita data in English-speaking countries, it is not unreasonable to estimate that it is more likely that bronies come from regions that are not highly populated. That is to say, bronies are more likely to come from more isolated regions.

This conclusion can be reached by noticing how bronies tend to be more prevalent in the less dense states and provinces in western and northeastern North America (i.e. the West and Midwest, the Pacific Coast, New England, and Atlantic Canada), as well as how bronies tend to be less prevalent in the American South, and the more populous Australian states of New South Wales and Victoria. The United Kingdom, having been settled centuries before the other major English-speaking countries, accordingly has a much more uniformly-distributed population, which is reflected in its map (see Figure 5); note how Greater London has the fewest respondents.

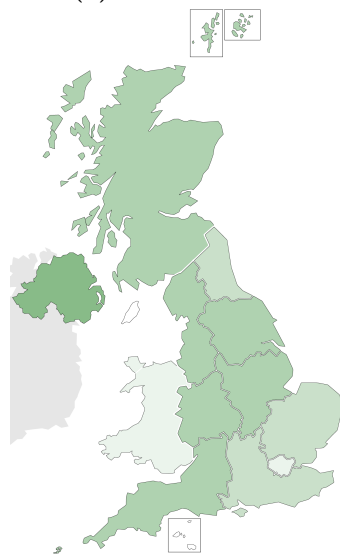
This trend is by no means indicative of the brony community as a whole, however. Any number of reasons could account for it; it may simply be due to the internet habits of users in more isolated regions, or it may have to do with differing societal norms in these regions. Further research must be completed to determine what factors, if any, influence this trend.

**Table 4:** *Respondents in Australia*

State/Terr.	# of Resp.	# per Million Pop.
A.C.T.	5	13.5
N.S.W.	58	7.81
Northern Terr.	2	8.61
Queensland	73	16.2
South Aus.	30	18.2
Tasmania	10	19.5
Victoria	38	6.82
Western Aus.	26	10.9



(a) Total Number

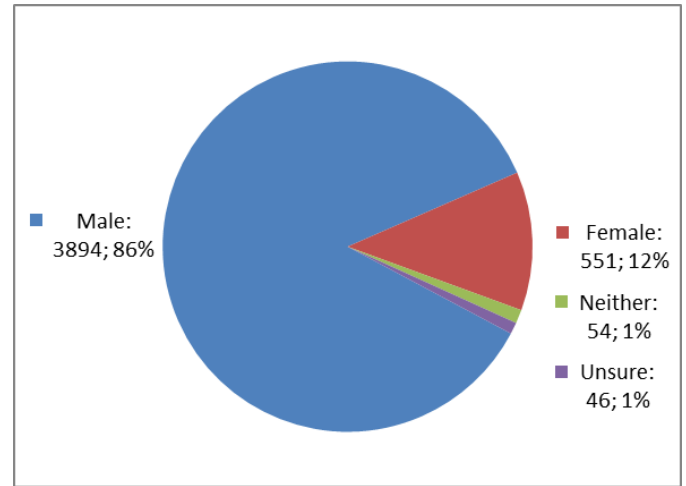


(b) Per Capita

**Figure 5: Respondents in the United Kingdom**

### 3.3 Gender of Respondents

Respondents were overwhelmingly male, as was predicted, based on the results in our previous survey. The respondents were 86% male, 12% female, and 2% unsure or neither. The proportion of female respondents was up by 1% from our last survey.[5] The result reported in this survey agrees with the result found by Edwards and Redden in *The Brony Study*.<sup>[1]</sup>

**Figure 6: Gender of Respondents**

### 3.4 Ethnicity of Respondents

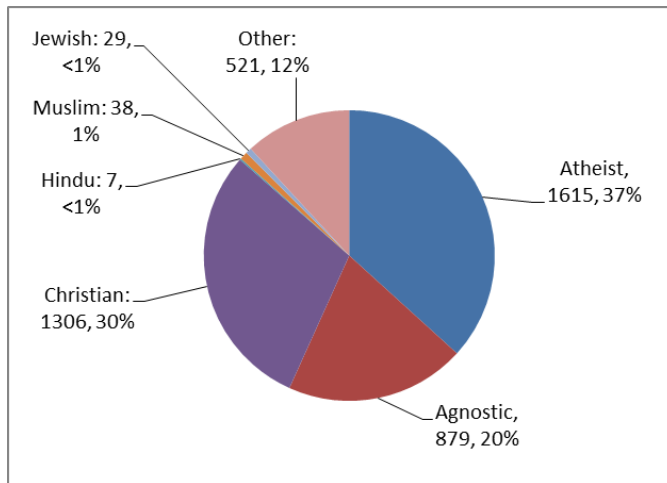
The majority of respondents identified as White/Caucasian (84.1%). This is roughly in line with our previous results (81.5%).<sup>[5]</sup> Other statistics are not as easily compared, due to differences in the questions. More respondents identified as Hispanic/Latino in the present survey than previously; this was due in part to the survey's distribution on a number of Spanish-language Facebook groups.

### 3.5 Religion of Respondents

Most Respondents identified as non-religious (either Atheist or Agnostic; 57% combined). This is in keeping with the general perception of the internet as being mostly non-religious. The most widely-reported religion was Christianity; 30% of respondents identified as such. We previously offered respondents a choice between various Christian denominations<sup>[5]</sup>, but that option was excluded in this version of the survey, due to its relative lack of importance. Other large religions that were reported

**Table 5: Ethnicity of Respondents**

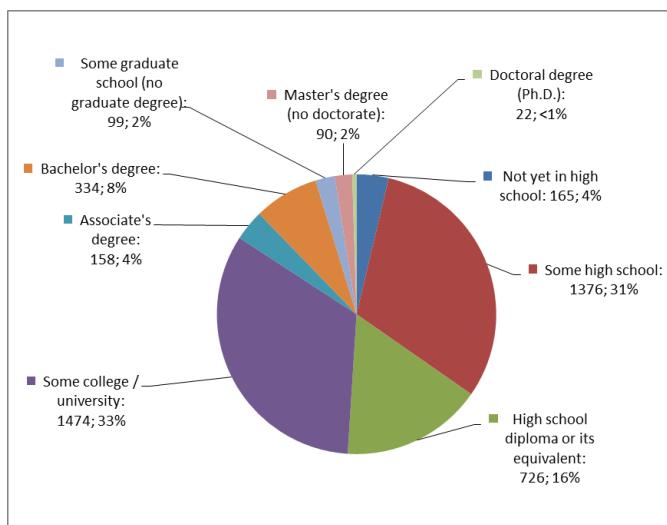
Ethnicity	Distribution
Asian	310 (7.0%)
Black / African-American	101 (2.3%)
Hispanic / Latino	500 (11.2%)
Middle Eastern	72 (1.6%)
Native American Indian	95 (2.1%)
Pacific Islander	52 (1.2%)
White / Caucasian	3,745 (84.1%)



**Figure 7:** Religion amongst the Respondents

include Islam, Judaism, and Hinduism, each with a very small proportion of the overall respondents (about 1% or below). 12% of respondents chose “Other” as their religion.

### 3.6 Education Level of Respondents

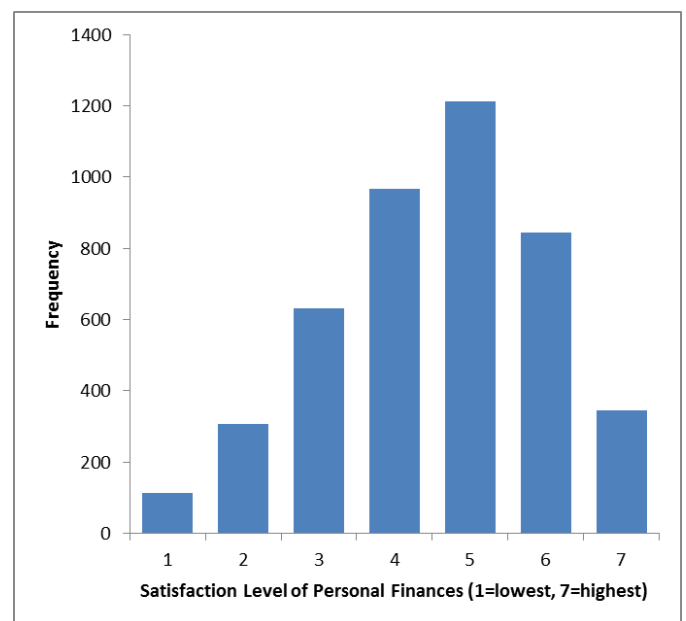


**Figure 8:** Education Level Amongst Respondents

The distribution of education levels amongst respondents is generally in keeping with the age distribution (see Figs. 1, 2). 65% of respondents have completed high school, while 17% of respondents have also completed an undergraduate degree (Bachelor's or Associate's Degree). Roughly 3% of respondents have completed graduate degrees (Master's Degree or Ph.D.). In the United States, as of 2011, 86% of people aged 18 and over have completed high school, 36% have completed an undergraduate degree, and 10% have completed a

graduate degree[2]. This survey allowed responses from users under the age of 18; considering only responses from users above 18, 80% of respondents have completed high school, 17% have completed an undergraduate degree, and 5% have completed a graduate degree. This clearly shows that the respondents, and by extension bronies in general, are more likely to be high school or undergraduate students than the average populace. This conclusion is supported by the age distribution, as previously mentioned (see Figs. 1, 2).

### 3.7 Finances of Respondents



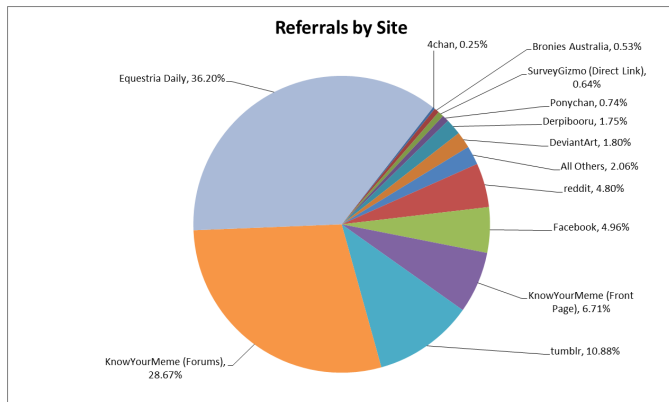
**Figure 9:** Financial Satisfaction Level of Respondents

Respondents admitted being relatively satisfied with their finances; the most frequent response was 5, leaning towards “Most Satisfied”. This is an interesting metric, given that the majority of respondents are high schoolers or undergraduates. Although it was self-reported, it may speak to the large amounts of money that bronies spend on art commissions, merchandise, and various other products.

### 3.8 Referral Sites

This survey was primarily distributed on a number of sites: the Know Your Meme forums, Tumblr, 4chan's /mlp/ board, /r/mylittlepony/ on reddit, Equestria Daily, Derpibooru, Ponychan, and in Facebook groups. The largest proportion of traffic

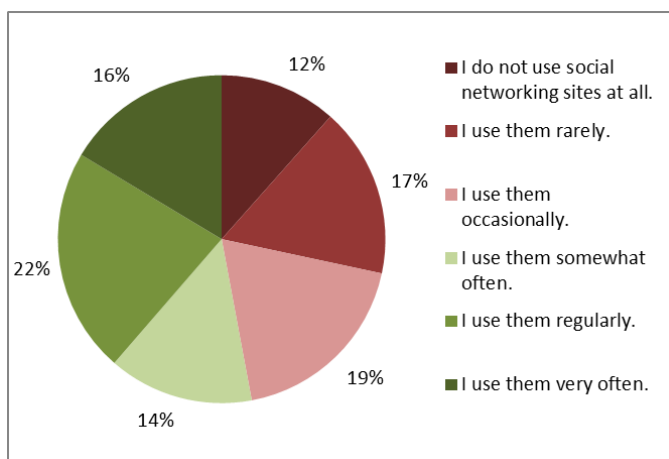




**Figure 10:** *Referrals to the Survey, by site*

(36.20%) came from Equestria Daily, where the survey was featured in a Nightly Roundup post. Know Your Meme accounted for the second largest proportion of traffic (35.38%). Figure 10 shows the referrals from other sites. There were a number of secondary distributions of the survey, such as people sharing the direct link to the survey on SurveyGizmo, and via other sites such as Bronies Australia and the Tactical Warfare forums. The number of respondents from 4chan (/mlp/) was lower than expected; this was partially due to board-wide purge of new threads shortly after the link was posted, due to some unrelated flame wars.

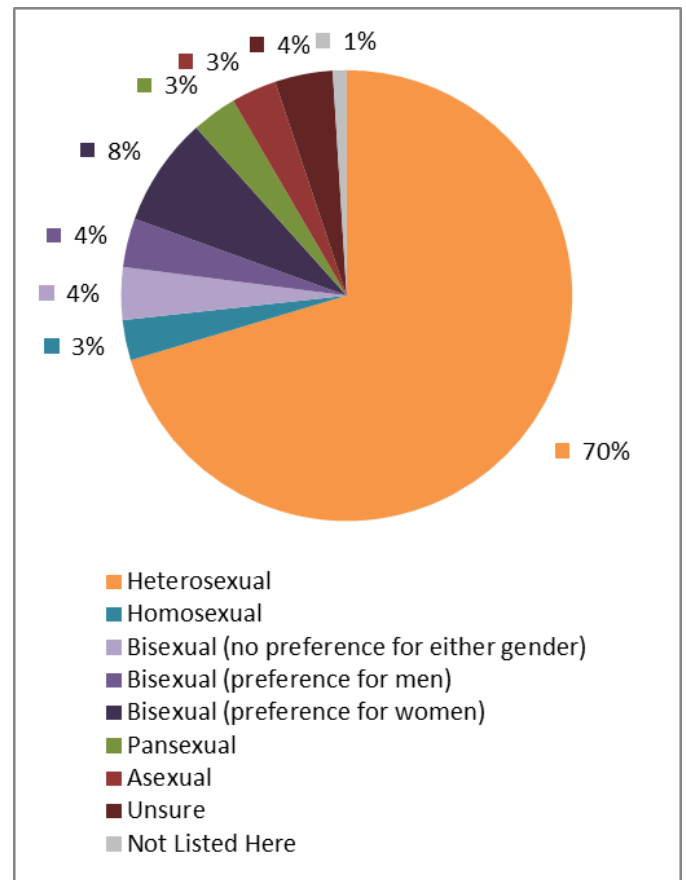
### 3.9 Social Media Usage by Respondents



**Figure 11:** *Social Media Usage by Respondents*

The usage of social media sites, such as Facebook, Twitter, and Myspace, by respondents was fairly evenly distributed between the levels defined in the question (see Figure 11). 52% of respondents use social media at least somewhat often. These results were highly similar to those previously reported.[5]

### 3.10 Sexual Orientation of Respondents

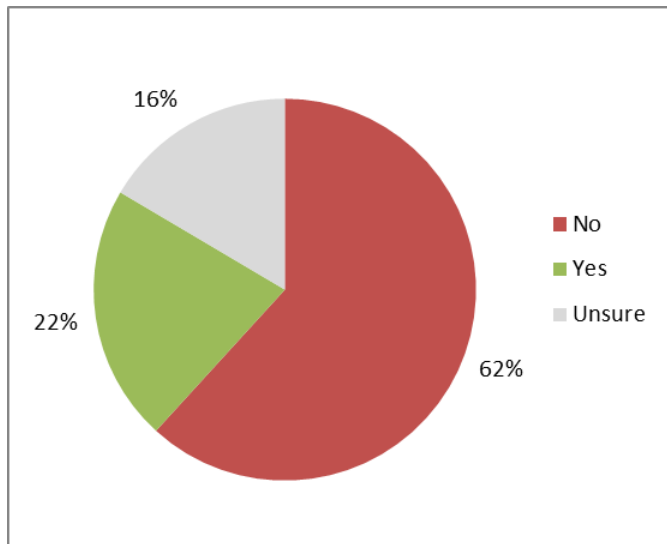


**Figure 12:** *Sexual Orientation of Respondents*

The sexuality of respondents changed somewhat from our previous survey.[5] 70% of respondents were heterosexual, with a large bisexual minority - 16%. 3% of respondents were homosexual, a further 3% were pansexual, and a further 3% were asexual. 4% of respondents were unsure of their sexuality. The latter four percentages were more or less consistent with our previous results (2.4% homosexual, 1.5% pansexual, 6.9% asexual or unsure)[5]; the biggest difference is the much larger proportion of bisexual respondents. The proportion of bisexual respondents doubled from the previous survey, with a corresponding drop in the number of heterosexual respondents.

This data also represents a clear contrast to typical populations. The proportion of homosexual respondents is around the upper limits of the norm, but the proportion of bisexual respondents is over five times higher than the norm[3]. The change from the previous results, as well as the large





**Figure 13:** Responses to “Are you sexually attracted to FiM-stylized ponies?”

discrepancy between the currently reported results with those of a typical population, may have to do with where the survey was distributed. Otherwise, there is no clear reason as to why there is a difference.

When asked if they are sexually attracted to ponies, 62% of respondents said no, 22% said yes, and 16% said that they are unsure. As with sexual orientation (see Figure 12), this represents a departure from our previously reported results. A similar question was asked, but without the “Unsure” option, and a substantially higher proportion of respondents (87%) replied “No”.<sup>[5]</sup> Again, this may be due to a difference in where the surveys were distributed; it does not necessarily indicate a drastic change in the population. Inclusion of the “Unsure” option no doubt had an effect on the proportion of “No” responses as well.

### 3.11 Relationships of Respondents

The majority of respondents (78%) were not in a relationship. This is a slight decrease from our previous result (81.8%)<sup>[5]</sup>, and was significantly less than the value reported by Edwards and Redden (96.4%)<sup>[1]</sup>.

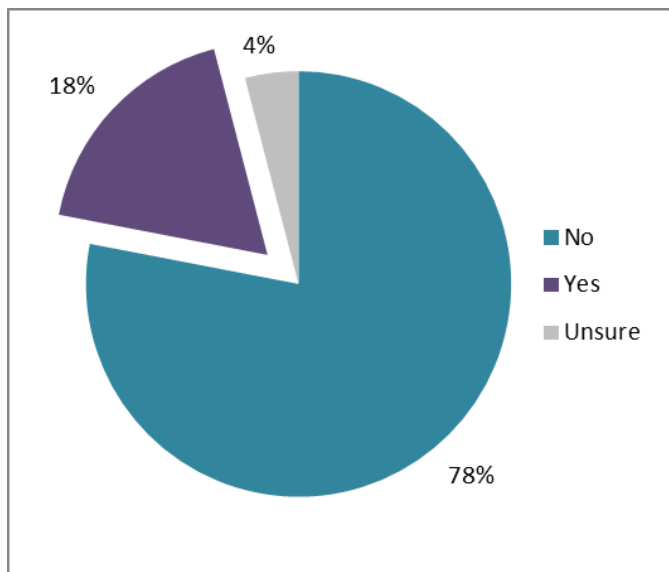
Of the 18% of respondents who were in relationships, several other questions were asked to gauge the nature of their relationships. The results are presented below.

The various types of relationships of the re-

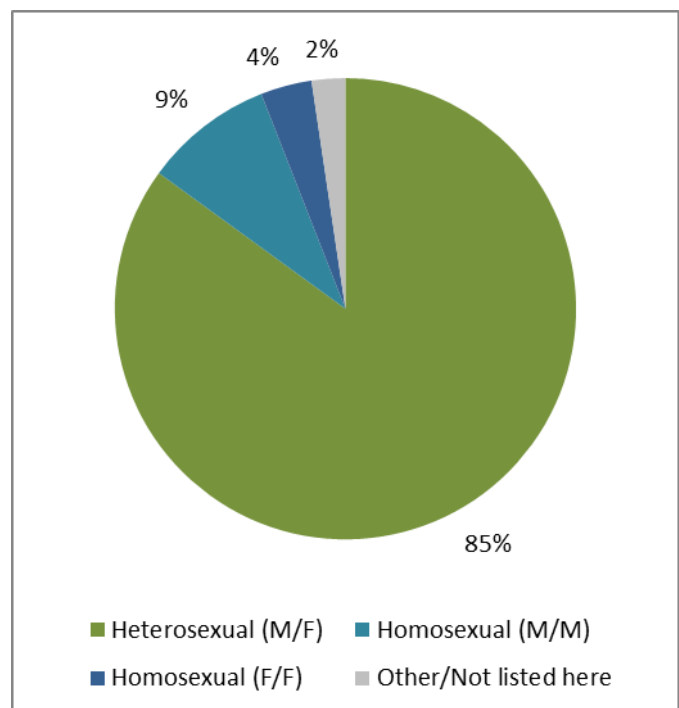
spondents were investigated (see Figure 15). 52% of respondents in relationships were in “Steady” relationships (i.e. unmarried) - this is what is most commonly referred to as ‘dating.’ 10% were in a “Open” relationships, 10% were in long-distance relationships, and 8% were in online relationships. A distinction was made between the latter two; “Long-Distance” was taken to mean relationships in which the partners have met in person, and “Online” was taken to mean relationships in which the partners have *not* met in person; in such online relationships, the partners would have met each other and communicate over the internet, and perhaps may have had plans to meet up in future. 6% of respondents were engaged, and 14% of respondents were married or in a civil union. For the average age range of the respondents (i.e. around 19), this was in line with data collected by the Centers for Disease Control and Prevention in 2002; the latter study reported 16.5% of respondents between the ages of 20 and 24 were married.<sup>[4]</sup>

As seen in Figure 16, the majority (85%) of the respondents’ relationships were heterosexual (i.e. male-female). Of the 13% of homosexual relationships, 9% were male-male relationships, and 4% were female-female. The higher proportion of male-male relationships is no doubt due to the higher proportion of males within the respondents (see Figure 6).

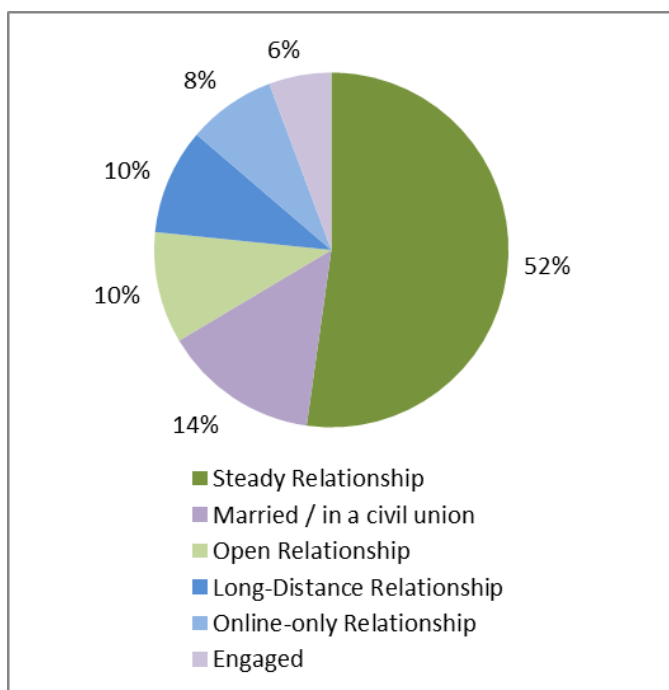
The final assessment of the respondents’ relationships was about the brony status of the partners (see Figure 17). In a plurality of cases (48%), both partners in the relationship were bronies. Of this 48%, about one in five relationships began because the partners met via the brony fandom. Interestingly, in those cases, a large proportion of relationships were male-male, and most of those were “Online” relationships. In fact, the number of “Online” and “Steady” relationships with partners meeting via the brony fandom was equivalent. This demonstrates two things. First, it demonstrates how a fandom can bring like-minded people together; at conventions or meetups, people can easily find those with similar interests, which may be otherwise difficult due to the often eclectic and varied interests of people who ascribe to subcultures and fandoms. Second, it demonstrates internet’s ability to facilitate the exploration of peoples’ sexualities, and its ability to find like-minded people who may be facing similar challenges.



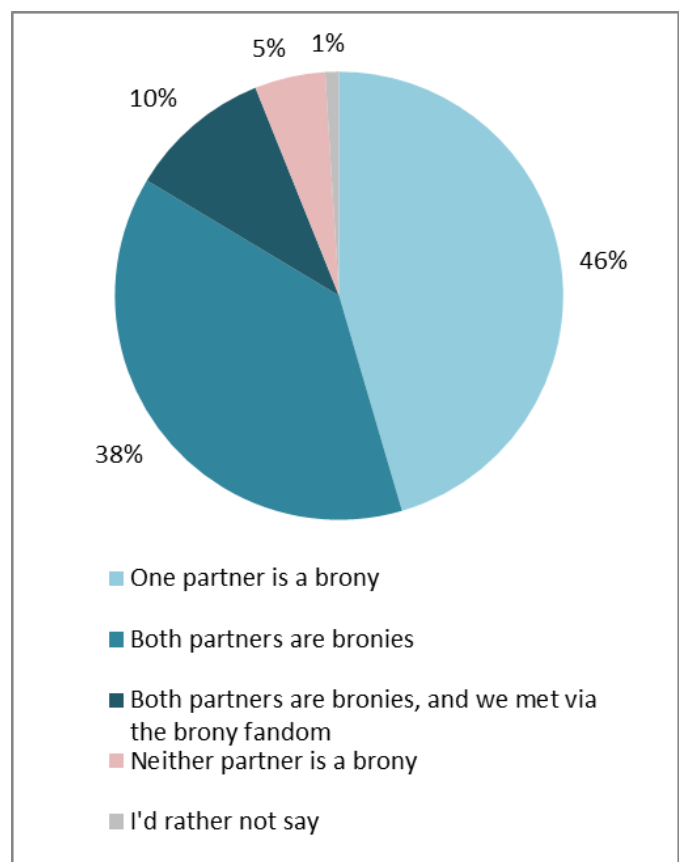
**Figure 14:** *Relationships Amongst Respondents; “Are you currently in a relationship?”*



**Figure 16:** *Sexuality of the Respondents' Relationships*



**Figure 15:** *Nature of the Respondents' Relationships*



**Figure 17:** *Brony Status in the Respondents' Relationships*

Additionally, in 46% of respondents, only one partner was a brony (presumably the one filling out the survey). In a further 5% of respondents' relationships, neither partner identified as a brony.

## 4 Vital Statistics about the Fandom

### 4.1 Brony Status of Respondents

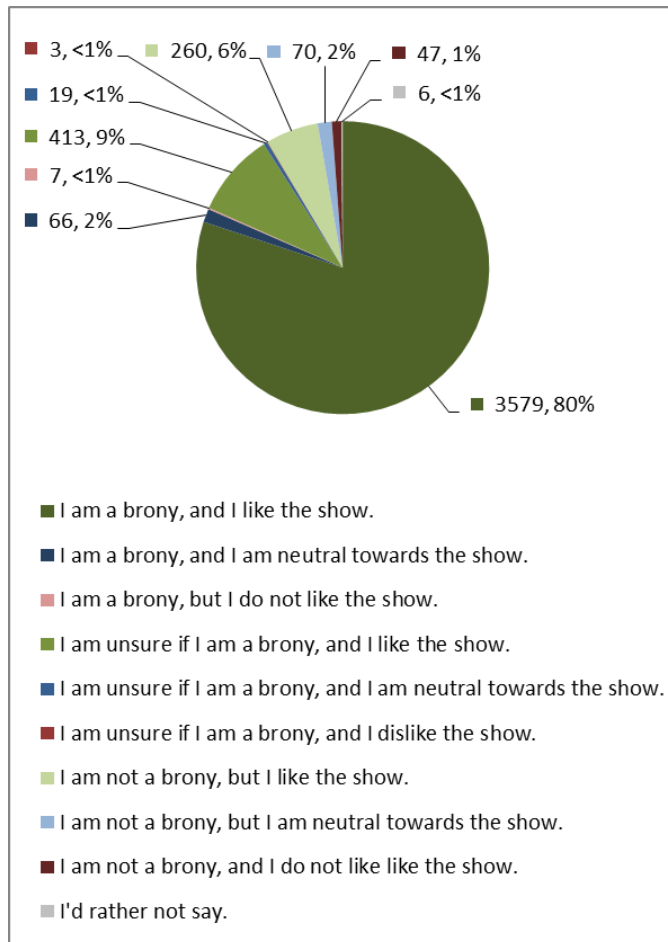


Figure 18: Self-reported Brony Status of Respondents

As was to be expected, the vast majority (95%) of respondents like *My Little Pony: Friendship is Magic* (see Figure 18). 82% of respondents identified as bronies, 10% were unsure if they identify as bronies, and 9% do not identify as bronies. This data is similar to our previously reported data.[5]

### 4.2 Date of Entrance into Fandom

*My Little Pony: Friendship is Magic* premiered on October 10, 2010. The respondents' date of entrance into the Brony fandom was thus tracked from this month. In Figure 19, the data is represented by the

red circles, and the blue curve is a logistic function which has been fitted to the data.

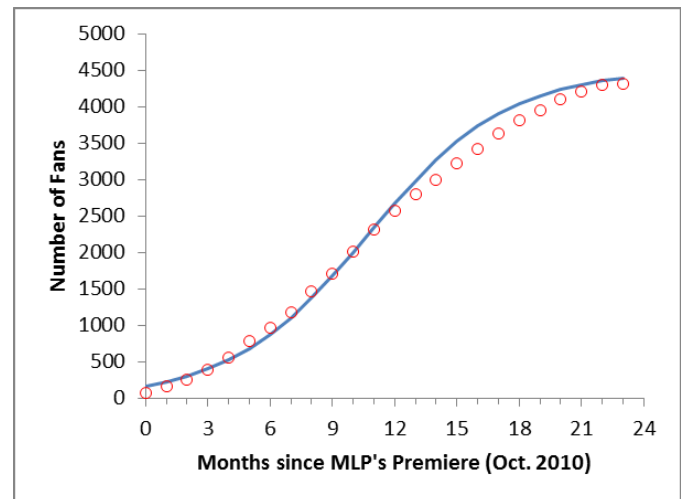


Figure 19: Date of Entrance into the Brony Fandom

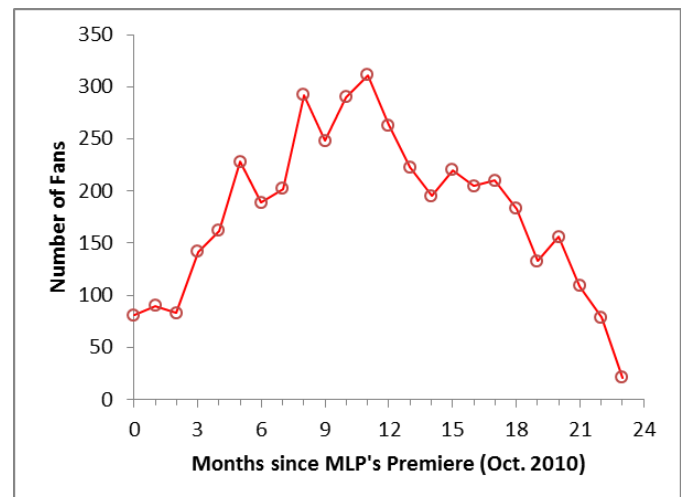


Figure 20: Rate of Change of the Size of the Brony Fandom

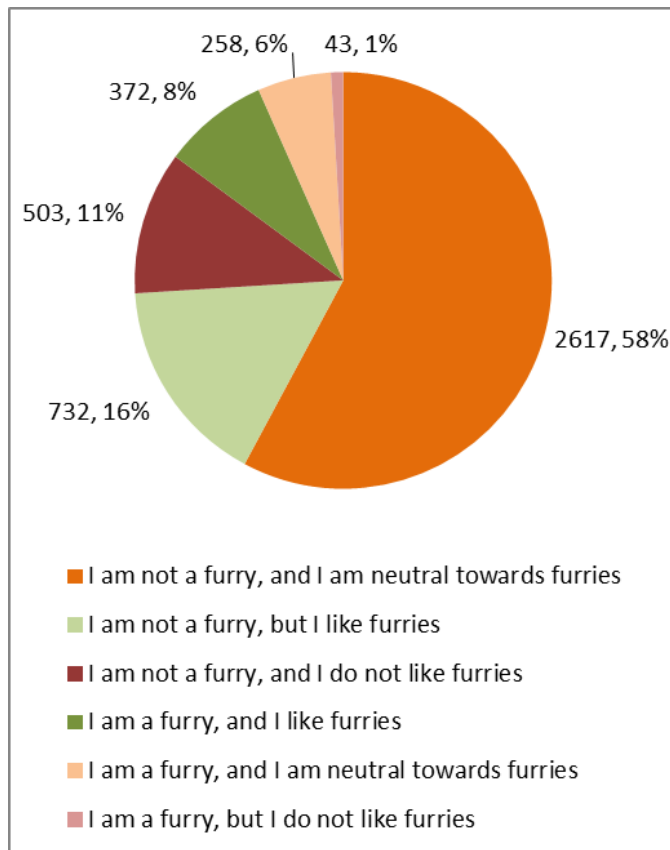
$$N(t) = \frac{N_{max}}{1 + Ke^{-rt}} = \frac{4500}{1 + 25e^{-0.3t}}$$

The results clearly shows a declining rate of growth of the fandom. Figure 20 shows the number of new bronies per month since the show's premiere. The rate peaked between 9 and 12 months after October 2010 - between July and October 2011. This coincides with launch of *My Little Brony*, an offshoot of the Cheezburger site Memebase. *My Little Brony* was created to deal with the huge influx of *MLP*-related images submitted to Memebase itself. There was also a great deal of fan activity during the summer of 2011, including the first BronYCon (also held in July 2011). The growth

of the brony subculture began to decline after the premiere of Season 2, in fall of 2011.

The logistic equation to which the data was fitted suggests a maximum number of 4,500 bronies. This is, of course, not representative of the overall brony population, but it is the trend in the fandom size that is important.

### 4.3 Attitudes Towards Furies



**Figure 21:** Respondents' Opinions about Furies

The majority of respondents (85%) do not identify as furies, and most held a neutral opinion towards them (58%). This is similar to our previous survey.[5] As before, this data shows that, on the whole, the furry and brony fandoms do not intersect. However, the proportion of respondents liking furies (24%) was double the proportion disliking furies (12%).

### 4.4 Overlap with Other Fandoms

Table 6 shows a list of the fandoms in which respondents participate.

**Table 6:** Respondents Participating in Selected Fandoms

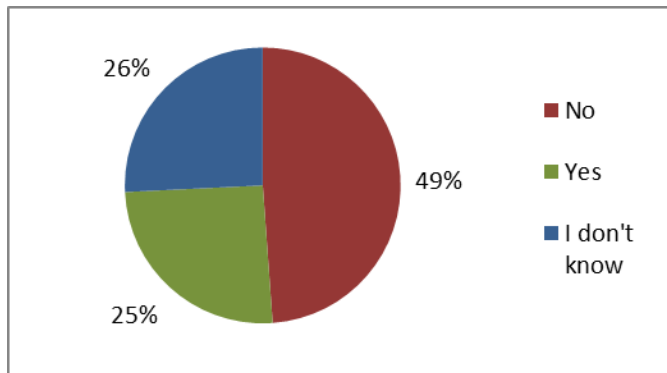
Fandom	Participants
Adventure Time	756 (22.2%)
Avatar / Legend of Korra	894 (26.2%)
Anime / Otaku	1,021 (29.9%)
Doctor Who	1,045 (30.6%)
Earthbound / Mother	168 (4.9%)
Final Fantasy	430 (12.6%)
Futurama	837 (24.5%)
Gravity Falls	378 (11.1%)
Homestuck	295 (8.6%)
Katawa Shoujo	189 (5.5%)
The Legend of Zelda	909 (26.6%)
Magic: The Gathering	370 (10.8%)
Pokemon	1,243 (36.4%)
Portal	1,171 (34.3%)
The Simpsons	428 (12.5%)
Sonic the Hedgehog	365 (10.7%)
Starcraft	313 (9.2%)
Star Trek	361 (10.6%)
Star Wars	751 (22.0%)
Team Fortress 2	1,227 (36.0%)
Touhou	164 (4.8%)
Vocaloid / Miku Hatsune	279 (8.2%)
Warhammer 40K	364 (10.7%)

Fandoms with significant overlap with the brony subculture include Pokemon, Portal, Team Fortress 2, *Doctor Who*, and Anime/Otaku. The first three are video game-related fandoms, showing an affinity for gaming. This can be said about online culture in general, along with Anime/Otaku fandom. The high amount of *Doctor Who* fans is noteworthy, though. *Doctor Who* has similar themes to *My Little Pony*; both shows have a focus on platonic relationships and their benefits, as well as the notion that the extraordinary can happen to anyone. Thus, they may hold a similar appeal to bronies.

## 5 Opinions about the Show

### 5.1 "Is *MLP: FiM* the Best Show Ever Created?"

Respondents were asked whether they thought that *My Little Pony: Friendship is Magic* is the best TV show ever created. Figure 22 shows the results; approximately half of the respondents do not believe that *MLP: FiM* is not the best show ever, while a quarter of respondents believe that it is the best



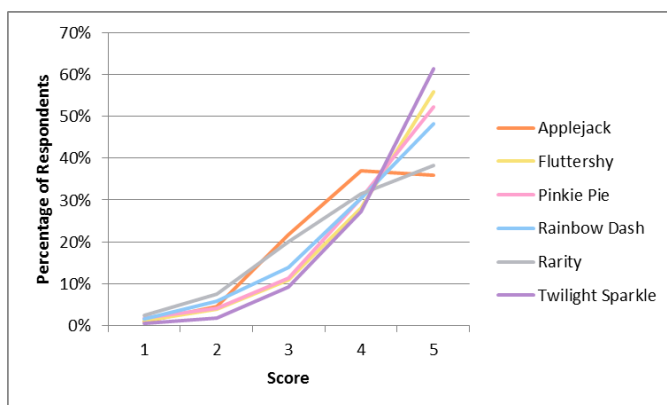
**Figure 22:** *Respondents' Answers to "Is MLP: FiM the Best Show Ever Created?"*

show ever. A further quarter of respondents were unsure.

## 5.2 Opinions about the Mane Six

### 5.2.1 Numbered Ratings

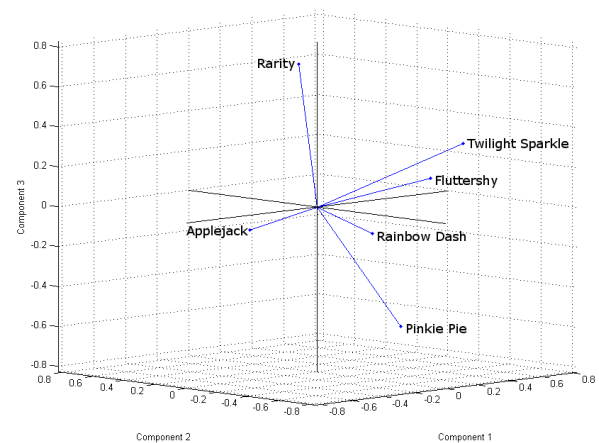
Respondents were asked to rank their opinions of the various characters in the mane six on a scale from 1 ("I do not like this pony at all") to 5 ("I like this pony a lot"). The results are presented in Table 7.



**Figure 23:** *Respondents' Opinions about the Mane Six*

Figure 23 shows a graphical representation of Table 7. Respondents, on the whole, felt more neutral towards Applejack and Rarity, while they felt more favorable towards Twilight Sparkle and Fluttershy. This is reflected in the respondents' favorite and least favorite ponies amongst the mane six (see Figs. 25 and 26).

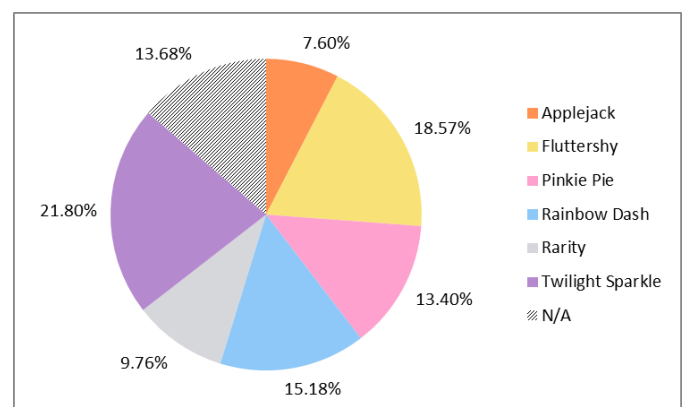
The covariance of opinions of the Mane Six was examined using Principal Component Analysis (PCA), and the results can be seen in Figure 24. The



**Figure 24:** *Covariance among Respondents' Opinions of the Mane Six*

plot shows vectors representing each of the Mane Six, aligned in Principal Component space; vectors that are close to each other indicate covariance between their values. Figure 24 shows that opinions of Fluttershy and Twilight Sparkle are correlated, as are opinions of Pinkie Pie and Rainbow Dash (to a lesser extent). Opinions of Applejack and Rarity appear to be uncorrelated. This shows that respondents who like Twilight Sparkle are more likely to also like Fluttershy, and that respondents who like Rainbow Dash are somewhat more likely to also like Pinkie Pie.

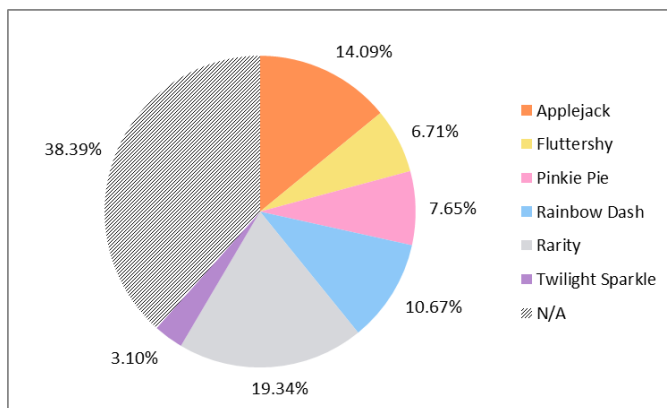
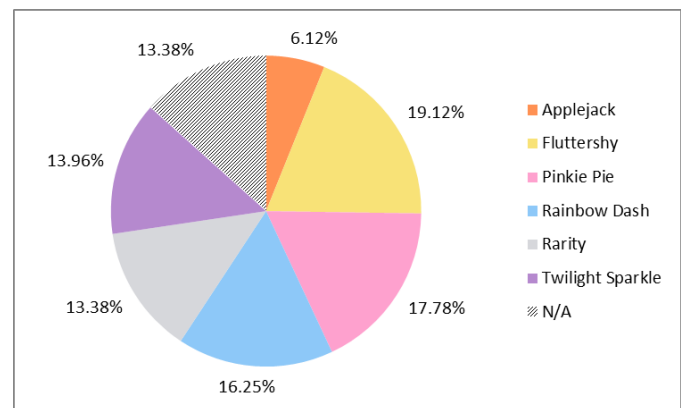
### 5.2.2 Favorites and Least Favorites



**Figure 25:** *Respondents' Favorites of the Mane Six*

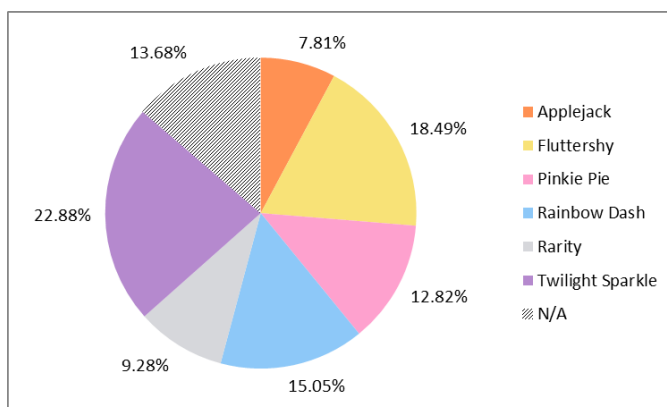
Twilight Sparkle and Fluttershy were the most favorited of the Mane Six, at 21.8% and 18.6%, respectively. Applejack and Rarity were favorites of the fewest respondents, at 7.6% and 9.8%, respectively. Concurrently, Applejack and Rarity

	1: I do not like this pony at all	2: I do not like this pony very much	3: I feel neutral / indifferent towards this pony	4: I like this pony somewhat	5: I like this pony very much
Applejack	42 (1.0%)	199 (4.5%)	953 (21.7%)	1,621 (36.9%)	1,578 (35.9%)
Fluttershy	55 (1.3%)	171 (3.9%)	478 (10.9%)	1,231 (28.0%)	2,454 (55.9%)
Pinkie Pie	77 (1.8%)	183 (4.2%)	499 (11.4%)	1,336 (30.5%)	2,290 (52.2%)
Rainbow Dash	72 (1.6%)	260 (5.9%)	607 (13.8%)	1,341 (30.5%)	2,115 (48.1%)
Rarity	107 (2.4%)	330 (7.5%)	885 (20.1%)	1,387 (31.6%)	1,685 (38.3%)
Twilight Sparkle	20 (0.5%)	78 (1.8%)	409 (9.3%)	1,195 (27.2%)	2,992 (61.3%)

**Table 7:** Respondents' Opinions about the Mane Six**Figure 26:** Respondents' Least Favorites of the Mane Six**Figure 28:** Female Respondents' Favorites of the Mane Six

were the most frequent least favorites of the Mane Six, at 14.1% and 19.3%, respectively, while Twilight Sparkle and Fluttershy were the least frequent least favorites, at 3.1% and 6.7%, respectively. Roughly 2 1/2 as many respondents had no least favorite than had no favorite. This data is roughly in line with our previous report.[5]

### 5.2.3 Favorites Compared between Genders

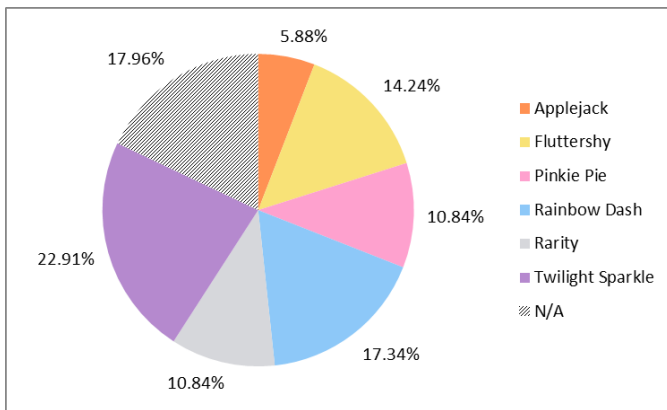
**Figure 27:** Male Respondents' Favorites of the Mane Six

Figures 27 and 28 show the favorites of the Mane Six split between male and female respondents. (Respondents identifying as 'neither' or 'other' for their gender were excluded, since together those categories accounted for 2% of the overall responses. See Figure 6.) The favorites among females were relatively evenly distributed, with the exception of Applejack, who had significantly fewer favorites (6.1%). Fluttershy had the most favorites (19.1%), edging out Pinkie Pie (17.8%) and Rainbow Dash (16.3%). Among males, the favorites were less evenly distributed. Twilight Sparkle was by far the most frequent favorite (22.9%, up 8.9% compared to females). Rarity and Pinkie Pie had significantly fewer favorites than among females (down 4.1% and 5.0%, respectively). The number of respondents who said they had no favorite was relatively the same between male and female respondents. These results agree, more or less, with our previous results.[5]

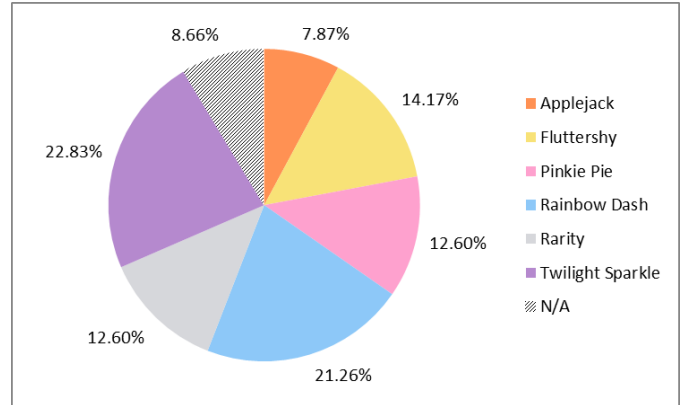
### 5.2.4 Favorites Compared between Sexualities

Figures 29, 30, 31, 32, and 33 show the favorites of the Mane Six split between the respondents'

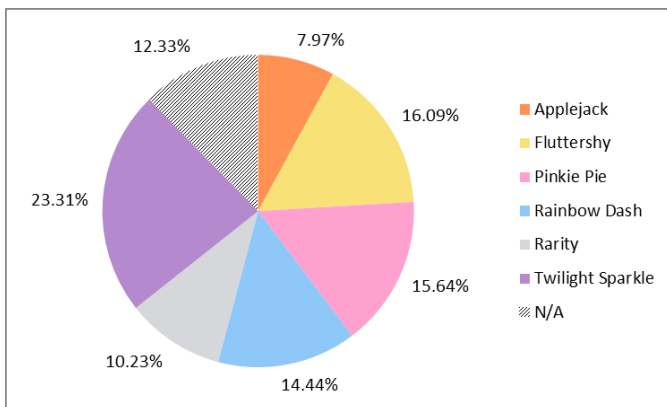




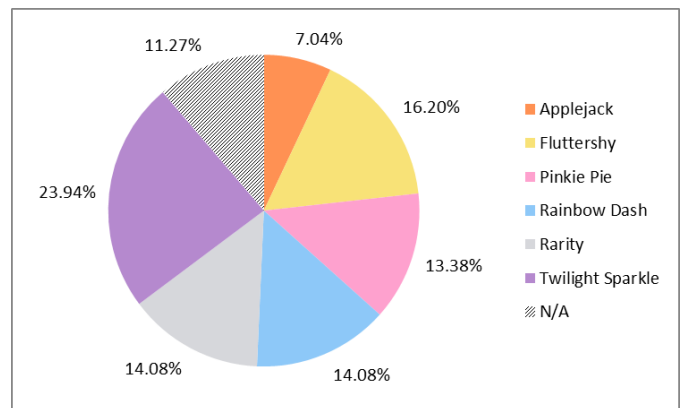
**Figure 29:** *Asexual Respondents' Favorites of the Mane Six*



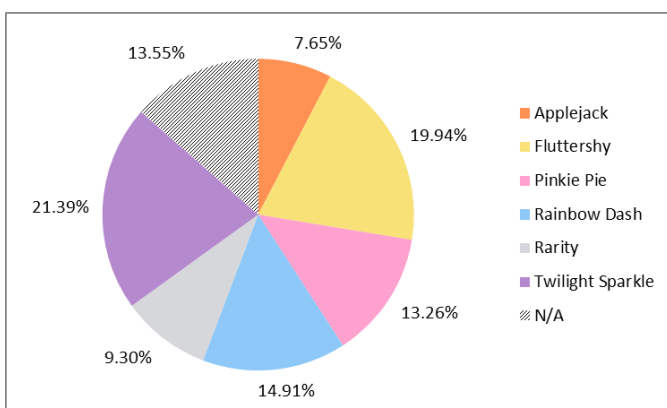
**Figure 32:** *Homosexual Respondents' Favorites of the Mane Six*



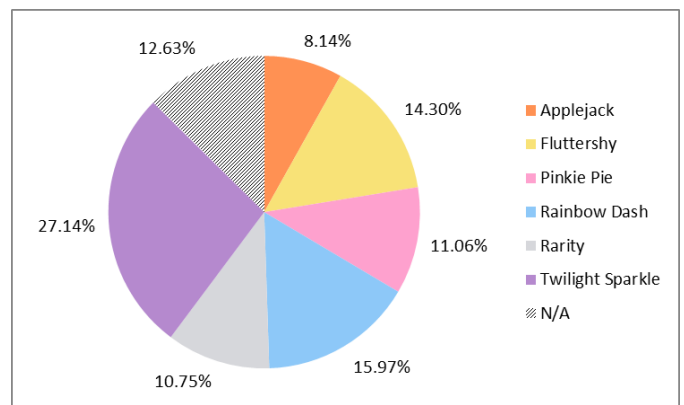
**Figure 30:** *Bisexual Respondents' Favorites of the Mane Six*



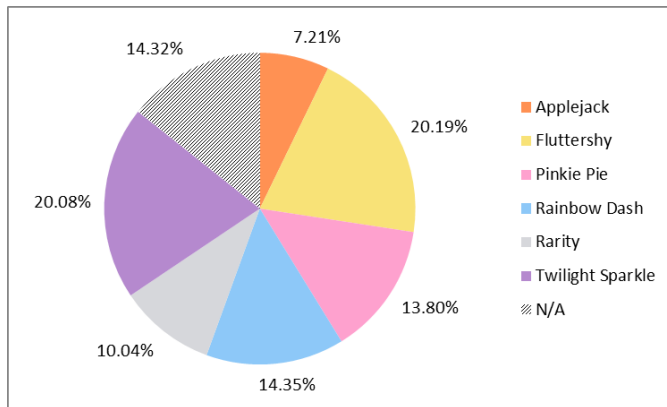
**Figure 33:** *Pansexual Respondents' Favorites of the Mane Six*



**Figure 31:** *Heterosexual Respondents' Favorites of the Mane Six*



**Figure 34:** *Favorites of the Mane Six of Respondents Who Reported Being Sexually Attracted to FiM-stylized Ponies*



**Figure 35:** *Favorites of the Mane Six of Respondents Who Reported Not Being Sexually Attracted to FiM-stylized Ponies*

reported sexualities: asexual, bisexual, heterosexual, homosexual, and pansexual. Twilight Sparkle was the leading favorite in all cases, and Applejack was the least favored in all cases. Twilight Sparkle was favored by the widest margin by bisexual respondents (23.3%), and was favored by the narrowest margin by heterosexual respondents (21.4%). Applejack was favored most among bisexual respondents (8.0%), and least by asexual respondents (5.9%).

Favorites among pansexual respondents (Figure 33) were the most evenly distributed, and bisexual respondents had a similar response (Figure 30). Pansexual respondents favored Rarity the most of any group (14.1%), followed by homosexual respondents (12.6%). Asexual respondents had a slightly higher preference for Rainbow Dash than bisexual and pansexual respondents (Figure 29). Interestingly, more asexual respondents indicated that they had no favorite among the Mane Six than any other sexuality (18%). Heterosexual respondents favored Fluttershy (19.9%) as well as Twilight Sparkle, and had the second highest proportion of respondents choosing no favorite, after asexual respondents (Figure 31). Homosexual respondents heavily favored Rainbow Dash (21.3%) along with Twilight Sparkle. This was noted in our previous results, although the present survey yielded more evenly distributed responses.[5]

Comparing the favorites among respondents who do and do not identify as being sexually attracted to *FiM*-stylized ponies (Figures 34 and 35, a few differences are apparent. Among those who are not, Twilight and Fluttershy remain the most

popular; in fact, the proportions are similar to those of heterosexual respondents (Figure 31). Among respondents who did identify as such, Twilight is by far the most favorite (27.1%). This is the highest proportion of any of the sexuality groups. Otherwise, the proportions mostly parallel those of pansexual respondents (Figure 33).

### 5.3 Favorite Secondary Characters

Respondents were asked to choose their favorite secondary character from a list of 80 choices, as well as "I have no favorite secondary character." Since these characters are not given as much screen time or character depth as the Mane Six, the favorites among respondents can yield some interesting insights into the fans' thoughts, and their projection of personalities onto characters. Responses are visible in table 8.

**Table 8:** *Favorite Secondary Characters of Respondents (with more than 25 choices)*

Character Name	Number of Choices
Apple Bloom	108
Big McIntosh	245
Braeburn	50
Cheerilee	65
Daring Do	76
Derpy Hooves	978
Discord	387
Fancypants	33
Nightmare Moon	41
Princess Cadance	39
Princess Celestia	148
Princess Luna	768
Queen Chrysalis	93
Scootaloo	201
Shining Armor	30
Soarin'	28
Spitfire	50
Sweetie Belle	239
Trixie	143
Zecora	132

The most popular secondary characters, by far, are Derpy Hooves and Princess Luna. These represent two distinct cases of fandom interest in secondary characters. Derpy Hooves, originally an unnoticed animation glitch on a background character, has been given an entirely fan-created

personality and backstory, and has become a favorite among artists, writers, and fans in general. She is widely recognized as being a symbol of the creativity of the fandom, and her subsequent recognition in the show itself in cameos, and later in the opening scene of the Season 2 episode *The Last Round-Up*. Despite the controversy generated by her fan-created personality, including the Save Derpy campaign, she remains the most popular secondary character, with 978 choices, 22.4% of the total.

The respondents' choice of Princess Luna as a favorite secondary character, on the other hand, speaks more to the nature of the fans, rather than the fandom. As a character, Luna was widely misunderstood and shunned by society, and thus was turned into the depressed, tortured monster Nightmare Moon. Only by the renewed love and acceptance she found in society (thanks to Twilight and the Elements of Harmony) was she able to return to her former, happy self. Luna's popularity thus may be attributed to bronies identifying with her backstory. Due to the nature of the fandom, many bronies may feel shunned by society to some extent, due to preconceptions people may have about the fandom (MLP is for little girls, etc). In such situations, Luna's similar story may appeal to fans. Furthermore, the hope that, with love and tolerance, people can overcome hardships is an attractive prospect. Thus, many bronies identify and sympathize with Luna's character; she was chosen as a favorite 768 times, or 17.6% of the total.

Other popular characters include Discord, the Cutie Mark Crusaders, Big McIntosh, Trixie, and Zecora. Generally, the more popular characters have been given the most screen time; this is especially the case with the Cutie Mark Crusaders, amongst whom Sweetie Belle is the favorite by a narrow margin. Discord is also a very popular character, perhaps due to the notoriety of his voice actor, John de Lancie. These values mirror our previously-reported results.[5]

## 5.4 Favorite Pets

Table 9 lists the respondents' favorite pets. The preferences generally do not correlate with respondents' preferences for the pets' owners, and are generally correlated with the amount of screen time given to the pets. Gummy is likely the most popular (29.7%) due to the novelty of having a de-toothed

**Table 9:** *Favorite Pets of Respondents*

Pet Name	# of Choices	Percent
Angel	737	16.8%
Gummy	1,302	29.7%
Opalescence	182	4.2%
Owlowiscious	201	4.6%
Philomena	493	11.3%
Tank	559	12.8%
Winona	238	5.4%
I have no favorite pet.	667	15.2%

alligator as a pet, and Angel is likely the second most popular (16.8%) due to his frequent brief appearances alongside Fluttershy. Angel, unlike Gummy, has a somewhat developed personality. The next two most popular, Tank and Philomena, both had episodes centered on them, and they have somewhat developed profiles. Owlowiscious, Opalescence, and Winona have limited profiles, and thus are the least-chosen as favorite pets. A significant number chose no pet as their favorite (15.2%). These results are in line with our previous results.[5]

## 5.5 Opinions about the Episodes

The present survey was conducted between the end of Season 2 and the premiere of Season 3, so the respondents were asked to choose their favorite episode from the 52 that aired in that time period. Selected results are listed in Table 10.

The results presented in Table 10 are for those with either more than 100 or fewer than 10 choices. One thing that is immediately apparent from the least favorited episodes is that they are the ones that focus most on secondary characters. Characterizing the most favorited episodes is not as straightforward, however. The most favorited episodes center on a variety of characters, and deal with a variety of themes. It is worth noting that the most popular choice, by a large margin, was "I have no favorite episode", which indicates that many fans value the series as a whole.

Looking at the least favorite episodes, a large proportion chose "I have no least favorite" (1,341 respondents). The choices were generally the inverse of the most favorited episodes, except for the

**Table 10:** *Selected Favorite Episodes*

Episode Name	# of Choices
<i>I have no favorite episode.</i>	672
A Canterlot Wedding (Pt. II)	396
Lesson Zero	395
Luna Eclipsed	351
Party of One	194
Hurricane Fluttershy	186
Sonic Rainboom	155
Winter Wrap Up	132
The Cutie Mark Chronicles	126
The Return of Harmony (Pt. II)	124
Dragon Quest	8
Owl's Well that Ends Well	5
A Bird in the Hoof	3

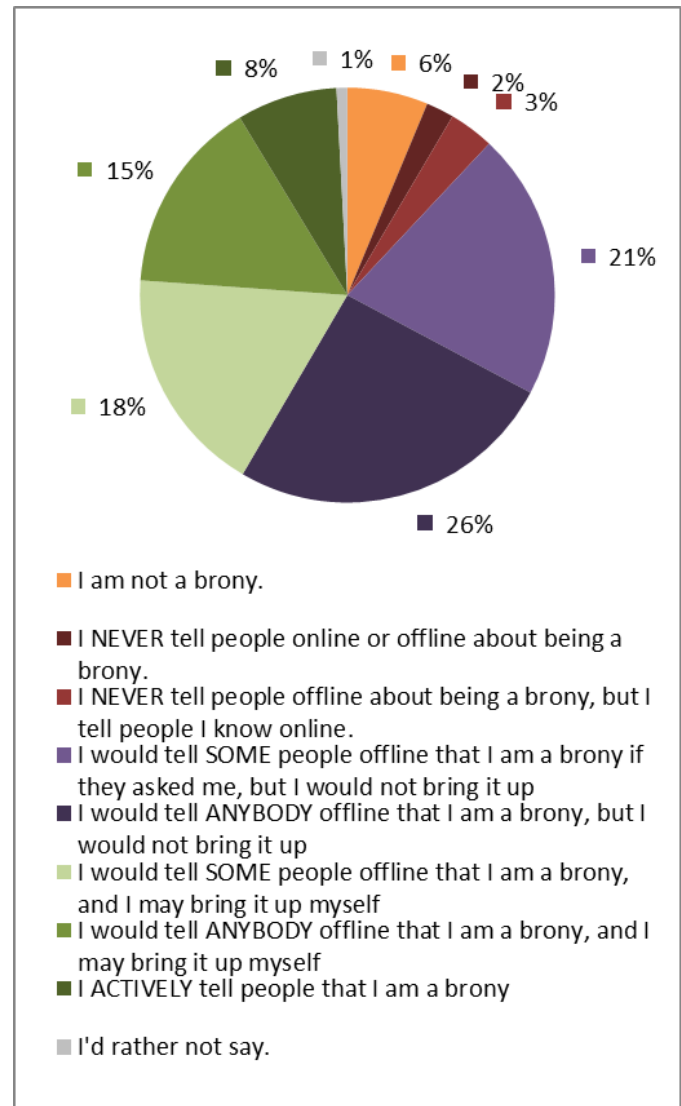
Season 2 episode *The Mysterious Mare Do Well*. This was the most disliked episode (407 respondents), and it has been widely reviled by the fandom.

## 6 The Fandom

In this section, various aspects of the fandom that have not previously been addressed are presented.

### 6.1 Openness of Respondents about Being a Brony

Respondents were asked to identify how open they are about discussing their involvement with the brony fandom, as with our previous survey. The results are in Figure 36. 41% of respondents would volunteer the information that they are a brony to people online and offline, 50% would only volunteer that information online, and 2% hide their involvement with the brony fandom. The proportions are similar to those reported in our previous survey[5], but there has been a slight shift towards concealing involvement with the brony fandom, at least offline. The fact that less than half of respondents are comfortable with revealing their fan status to people they know in person speaks to the possibility of ongoing misconceptions that people may have about the nature of the fandom.

**Figure 36:** *Respondents' Openness about Being a Brony*

### 6.2 Appeal of the Show

Respondents were asked to identify what features or aspects of the show most appealed to them. Respondents were able to choose as many responses from the list as they wished, and the results are shown in Table 11.

The most popular aspects of the show are the characters, the humor, the graphical style (i.e. character and world design), and the voice acting. This agrees with our previous survey[5], and it reinforces conceptions about what typically draws bronies to the show. As with many animated shows, the humor is typically designed to be the broad appeal to all demographics. The characters and voice acting tend to have a larger effect on whether or not an animated show is memorable, and that certainly appears to be the case here. As discussed

**Table 11:** What qualities of MLP: FiM appeal to you?

Value	# of Choices	% of Resp.
The characters	4,060	92.3%
The humor	3,791	86.2%
The style / design	3,480	79.1%
The voice acting	3,210	73.0%
The story / writing	2,708	61.6%
The world-building	2,183	49.6%
The innocence	2,156	49.0%
The moral values	2,064	46.9%
The drama	1,178	26.8%
Nostalgia	980	22.3%
I don't know	109	2.5%

previously, fans may identify with some aspects of the characters, and thus for bronies, the characters form the main appeal to the show.

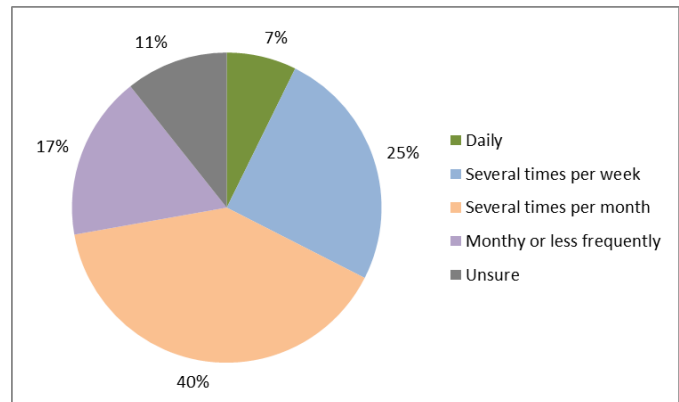
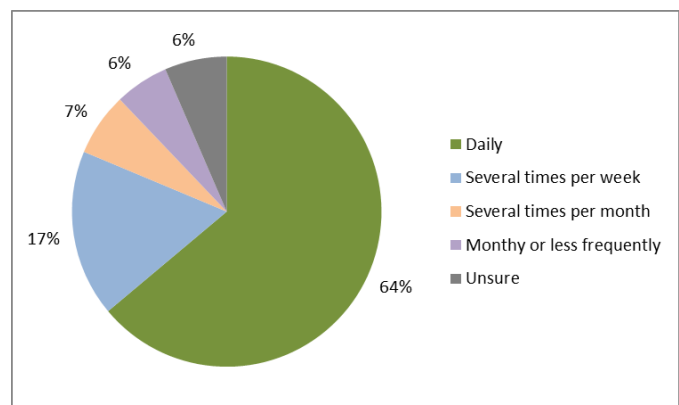
The popularity of the graphical style is also noteworthy. The *My Little Pony* franchise was originally conceived in 1983, and the toy line (and associated television series) have a distinctive style, which is very dated by contemporary standards. The *Friendship is Magic* reboot included a significant re-design of the style, intended to modernize the show and toy line, and to facilitate the transition from traditional to computer-generated animation. The re-design was largely successful, as demonstrated by the large volumes of fanart generated by the fandom, and evidently forms a large part of the appeal of the show.

The overall reason why bronies were attracted to *My Little Pony: Friendship is Magic* is almost certainly a combination of the above qualities, as well as some personal reasons among the fans themselves.

### 6.3 Fan Activity

Respondents were asked to say how frequently they watched episodes of *My Little Pony: Friendship is Magic*, and how frequently they engaged in fan-related activities (browsing fanart, *FiM*-related websites, etc.). Figure 37 shows the frequency with which respondents watch episodes of *MLP: FiM*, and Figure 38 shows the frequency with which respondents engage in unspecified fan activity.

The majority (57%) of respondents watch

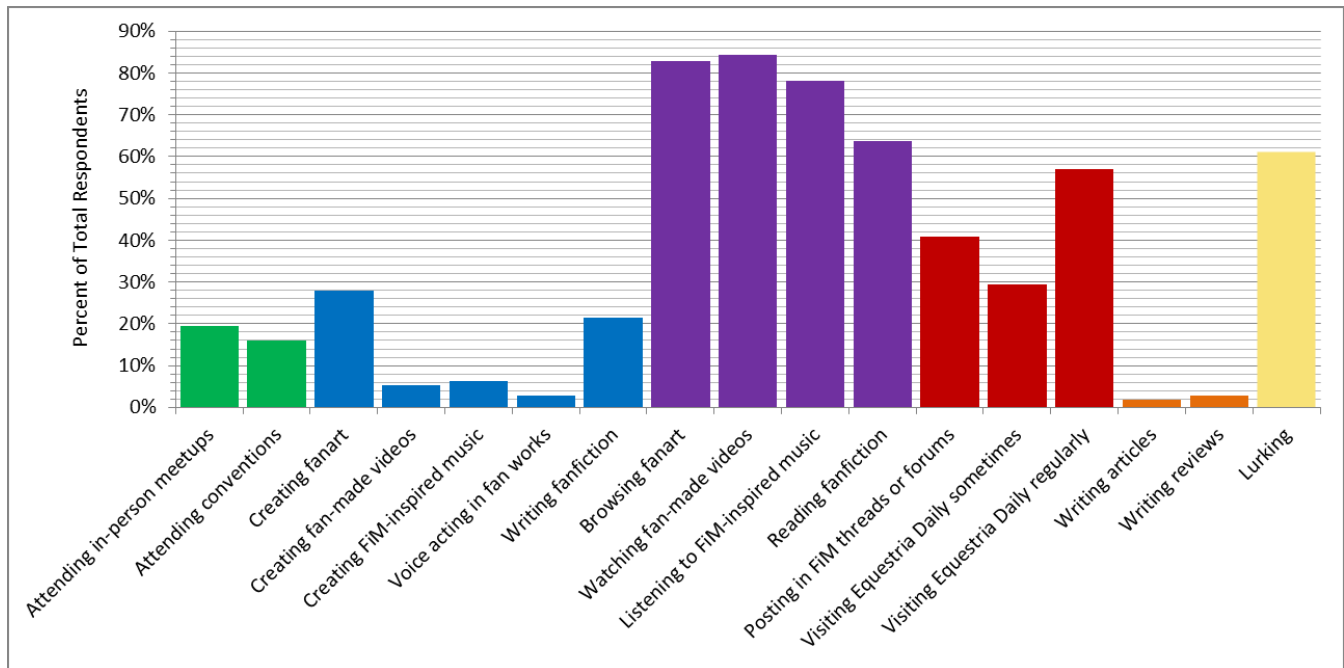
**Figure 37:** Respondents' Frequency Watching the Show**Figure 38:** Respondents' Frequency Engaging in Fan Activities

episodes semi-monthly or less frequently. This is because the present survey was conducted during *FiM*'s summer hiatus. Presumably, the majority of respondents would watch episodes weekly or more frequently during the show's airing season. However, the majority (64%) of respondents engage in fan activity daily, which demonstrates that the fandom remains active through the show's summer hiatus.

### 6.4 Respondents' Involvement with the Fandom

Respondents were asked to select manners in which they are involved with the bronie fandom. As with the previous question, respondents were instructed to select as many activities as they wished. Figure 39 shows a histogram of the results, color coded by the nature of the activity.

The purple bars, indicating passive fan activity, are the most popular among the respondents; the vast majority of bronies browse fanart, watch fan-made videos (such as fan animations and



**Figure 39:** *Fan Activity among Respondents*

parodies), and listening to fan-made music inspired by the show. A smaller proportion read fanfiction, which is understandable as it requires a more active commitment. Many fans browse and post in *FiM*-related sites and discussion boards (red bars), and a majority of fans lurk on such sites (yellow bar); that is to say, they observe the fandom without interacting with it. Only a small proportion attend meet-ups or conventions (both less than 20% of respondents), speaking to the largely online nature of the fandom.

The active part of the fandom (the blue bars), however, is significantly smaller than one might expect. Between 20% and 30% of respondents create fanart or write fanfiction, which are by far the two most popular media of fan creation. Under 6% create fan content using other media. The discrepancy between fanart and fanfiction and other media is to be expected, as the former two are much easier to do without technical skills or equipment. The discrepancy between the active (on average, 13% of respondents) and passive (on average, 77% of respondents) parts of the fandom is notable. Similar statistics about other fandoms do not exist, so it is impossible to compare this information with other fandoms. However, it is probable that other fandoms exhibit similar statistics.

The correlation between different types of fan activity was examined. The most notable results

were that fans engaging in one type of passive fandom (i.e. browsing fanart) were likely to engage in the other types of passive fandom. Additionally, lurkers were not likely to engage in any creative aspects of the fandom, and were least likely to attend conventions and meet-ups. These results were as expected.

## 6.5 Fan Sites

Respondents were asked to select which *FiM*-related websites they frequent for fan content and interaction. As previously shown, the majority of fans view fanart, fan-created videos, and other fan-created content daily, so it is of interest to see where this behavior is occurring. The results are listed in Table 12.

Equestria Daily and YouTube are the most frequently-visited sites for fan content. Equestria Daily is exclusively *My Little Pony: Friendship is Magic*-related, and features a variety of fan-created media, including art, videos, music, and fanfiction. YouTube, on the other hand, is not specific to anything, and includes only videos. It is likely the most-visited site (by a narrow margin) because of the availability of both *FiM* episodes and fan videos. DeviantArt was also a popular choice; it is a hub for *FiM*-related fanart. It is interesting to note that it was several times more popular than the *FiM*-exclusive Derpibooru; this may be because



	4chan (/mlp/)	Derpibooru	DeviantArt	Equestria Daily	Facebook	MyLittleBrony	Ponychan	reddit	tumblr	YouTube
Attending in-person meetups	0.0058	0.0744	0.1395	0.1708	0.2647	0.0760	0.0510	0.0410	0.0772	0.1079
Attending conventions	0.0294	0.0520	0.1266	0.1575	0.2119	0.0471	0.0199	0.0465	0.0938	0.1050
Creating fanart	-0.0092	0.0668	0.2906	0.1327	0.0963	0.0610	0.0451	0.0218	0.1757	0.1146
Creating fan-made videos	0.0139	0.0396	0.0969	0.0868	0.0749	0.0107	0.0291	0.0007	0.0828	0.0885
Creating <i>FIM</i> -inspired music	0.0131	0.0315	0.0489	0.0771	0.0743	0.0008	0.0619	0.0463	0.0622	0.0703
Voice acting in fan works	-0.0198	-0.0023	0.0470	0.0585	0.0805	-0.0023	0.0531	0.0186	0.0721	0.0581
Writing fanfiction	0.0120	0.0966	0.1340	0.1479	0.0893	0.0362	0.0572	-0.0111	0.1214	0.1031
Browsing fanart	0.0532	0.1238	0.3617	0.3777	0.1224	0.1504	0.0781	0.1120	0.2065	0.3365
Watching fan-made videos	0.0681	0.0929	0.3189	0.4062	0.1481	0.1762	0.0887	0.0827	0.1819	0.4422
Listening to <i>FIM</i> -inspired music	0.0529	0.0858	0.3427	0.4341	0.1635	0.1689	0.1065	0.1114	0.1933	0.4091
Reading fanfiction	0.0556	0.1241	0.2851	0.3705	0.1362	0.1312	0.0958	0.0599	0.2201	0.2861
Posting in <i>FIM</i> threads or forums	0.1531	0.1292	0.1762	0.1950	0.1713	0.0294	0.1605	0.1728	0.1299	0.1563
Visiting Equestria Daily sometimes	0.0815	0.0707	0.0611	0.0028	0.1062	0.0237	0.0290	0.0997	0.0963	0.0845
Visiting Equestria Daily regularly	-0.0529	0.0701	0.2741	0.6844	0.0803	0.1482	0.0912	0.0083	0.0954	0.2784
Writing articles	0.0217	0.0689	0.0417	0.0340	0.0817	-0.0019	0.0552	0.0200	0.0637	0.0299
Writing reviews	0.0002	0.0640	0.0690	0.0569	0.0782	-0.0132	0.0665	0.0053	0.0697	0.0686
Lurking	0.1492	0.0723	0.1187	0.1415	0.0150	0.0695	0.0767	0.1001	0.1075	0.1452

Figure 40: Numerical Correlations between Fan Activity and Websites

Table 12: MLP: *FiM*-related Sites

Site	# of Choices	% of Resp.
4chan (/mlp/)	578	14.2%
Derpibooru	572	14.0%
DeviantArt	2,418	59.3%
Equestria Daily	3,060	75.0%
Facebook	1,058	25.9%
MyLittleBrony	1,684	41.3%
Ponychan	404	9.9%
reddit	645	15.8%
tumblr	1,361	33.3%
YouTube	3,066	75.1%
Others	1,011	24.8%

respondents who use DeviantArt are interested in a variety of art, not necessarily just *FiM* fanart.

It should also be noted that the distribution of popular sites may have been influenced by the survey’s audience, and on which sites the survey was distributed.

The correlation between fan activity and frequented websites was examined, and the results are presented in Figure 40. The color scale represents the level of correlation between sites and fan activities; green represents a high positive correlation, red represents a high negative correlation, and values near zero indicate no correlation. Thanks to this, some information is readily apparent from the figure. It is unlikely that users of 4chan, Derpibooru, MyLittleBrony, Ponychan, and reddit engage in creative aspects of the fandom, and it is very likely that users of DeviantArt, Equestria Daily, and

YouTube engage in passive aspects of the fandom. Additionally, users of DeviantArt, Equestria Daily, and Facebook are more likely to attend meetups or conventions.

DeviantArt users are extremely likely to create fanart; this is an immediate reflection of the site’s purpose as an artistic hub. Tumblr users, while more prone to engage in passive aspects of the fandom, are also relatively likely to create fanart, fan videos, and write fanfiction. 4chan users, on the other hand, are not at all likely to create fanart.

It is also interesting to note that 4chan users are exceptionally unlikely to use Equestria Daily regularly, while DeviantArt users are highly likely to use Equestria Daily. After conducting a similar analysis comparing the correlation between different fan sites, it is apparent that 4chan users are highly unlikely to use other sites for *FiM*-related content, especially Equestria Daily, while DeviantArt and YouTube users are likely to use other sites. Most interestingly, reddit users are exceptionally unlikely to visit MyLittleBrony (Memebase’s *FiM*-themed site). This speaks to different “circles” within the fandom; 4chan and reddit tend to be insular communities, while the other sites tend to share a common userbase.

## 6.6 Merchandise

As *My Little Pony: Friendship is Magic* is a show based on a line of toys, Hasbro naturally has created a variety of merchandise products to accompany it. Additionally, some fans create small-scale custom merchandise. The legality of this is murky, but

nonetheless, fan-made plush toys are very common. Respondents were asked to identify what types of merchandise they purchase; the results are listed in Table 13.

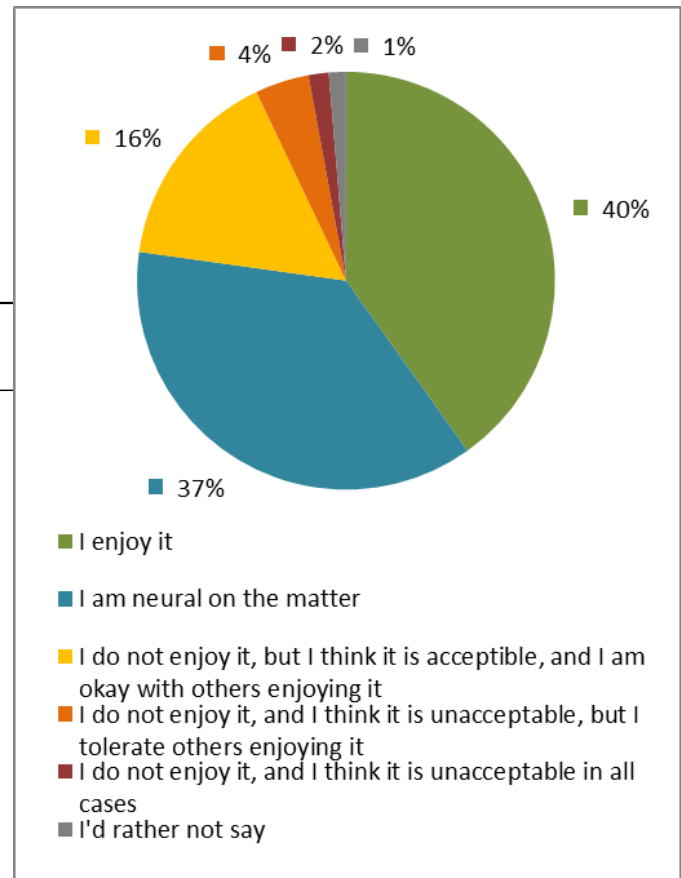
**Table 13:** *Respondents' Merchandise Purchases*

Type of Merchandise	# of Choices	% of Resp.
I am not interested in merchandise.	561	13.8%
I would buy some if I could.	1,342	35.2%
Official toys / models	1,460	35.9%
Official episodes	575	14.4%
Official clothing	979	27.1%
Other official merchandise	503	12.4%
Fan-made art (commissions / prints)	463	11.4%
Fan-made toys / models / plushies	468	11.5%
Fan-made clothing	757	18.6%
Other fan-made merchandise	447	11.0%

Official merchandise is generally slightly more popular than fan-made merchandise. By far the most popular type of merchandise was official toys and models; this is likely because they are inexpensive and easy to come by. Clothing, both official and fan-made, are also popular choices. It should be noted that fan-made clothing may include costume pieces as well as street clothes. Nearly half (49%) of respondents do not buy merchandise, though; many are unable for financial or personal reasons, while some are outright unwilling or are not interested in doing so.

## 6.7 Opinions about Fan Shipping

Respondents were asked about their opinion regarding fan shipping of *FiM* characters. Shipping, the practice of imagining fictitious relationships between characters, can be a sensitive issues to some fans, and so the question was specifically phrased to cover only non-sexual (i.e. platonic) shipping between characters. Respondents were also asked



**Figure 41:** *Opinions on Non-Sexual Shipping*

to choose characters they most frequently shipped from a list of main and secondary characters. Figure 41 shows the respondents' opinions, and Table 14 shows the popular character choices.

A large proportion (40%) of respondents enjoy the practice of non-sexual shipping, and an approximately equal number (37%) feel neutral about it. 22% of respondents do not enjoy shipping. This represents a change from our previous survey.[5] The number of respondents who feel neutral about shipping increased by 13%, at the expense of those who enjoy it. The proportion of respondents who do not enjoy it remained more or less unchanged. This difference may be partially due to a change in the wording of the responses; previously, the "I enjoy it" response was divided into "I enjoy it occasionally" and "I enjoy it regularly;" respondents who chose the former response before might have been split between "I enjoy it" and "I am neutral on the matter" in the present survey.

As far as the subjects of the shipping, all of the Mane Six appear in Table 14; of them, Rainbow Dash was the most shipped (she was also the most

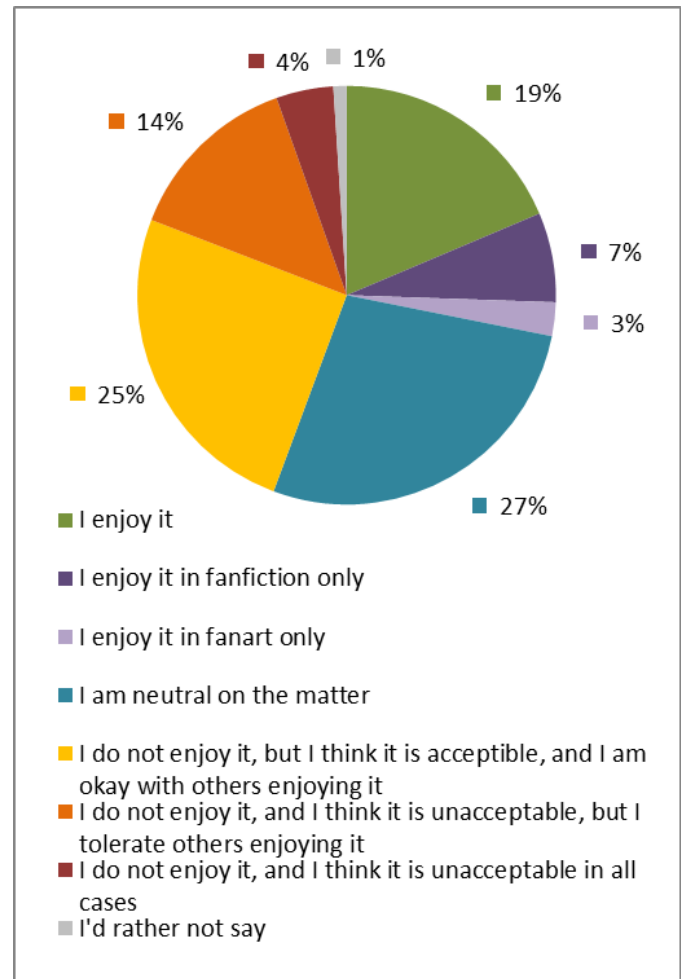
**Table 14:** *Favorite Shipping Characters of Respondents (with more than 50 choices)*

Character Name	Number of Choices
Applejack	263
Big McIntosh	292
Bon Bon	299
Braeburn	64
Cheerilee	64
Derpy Hooves	113
Discord	98
Fluttershy	397
Lyra	304
Octavia	403
Pinkie Pie	161
Princess Celestia	118
Princess Luna	109
Rainbow Dash	694
Rarity	181
Soarin'	108
Trixie	74
Twilight Sparkle	456
Vinyl Scratch	411

shipped overall), and Pinkie Pie was the least shipped. Among other characters, Octavia and Vinyl Scratch are by far the most commonly shipped, followed by Bon Bon and Lyra. These two pairs are well-known fan shippings.

## 6.8 Opinions about Grimdark and/or Gore within the Fandom

Figure 42 shows the respondents' opinions about grimdark and/or gore within fan-created media. More respondents (43%) do not enjoy such content than those who do (29%). This is similar to our previously reported results[5], with the notable exception that the proportion of respondents who feel neutral on the subject increased by 8%. This trend is similar to that observed with respondents' opinions on shipping (see Figure 41), and may be due to similar reasons. Based on the responses, it can generally be said that respondents enjoy shipping more than grimdark or gory content.

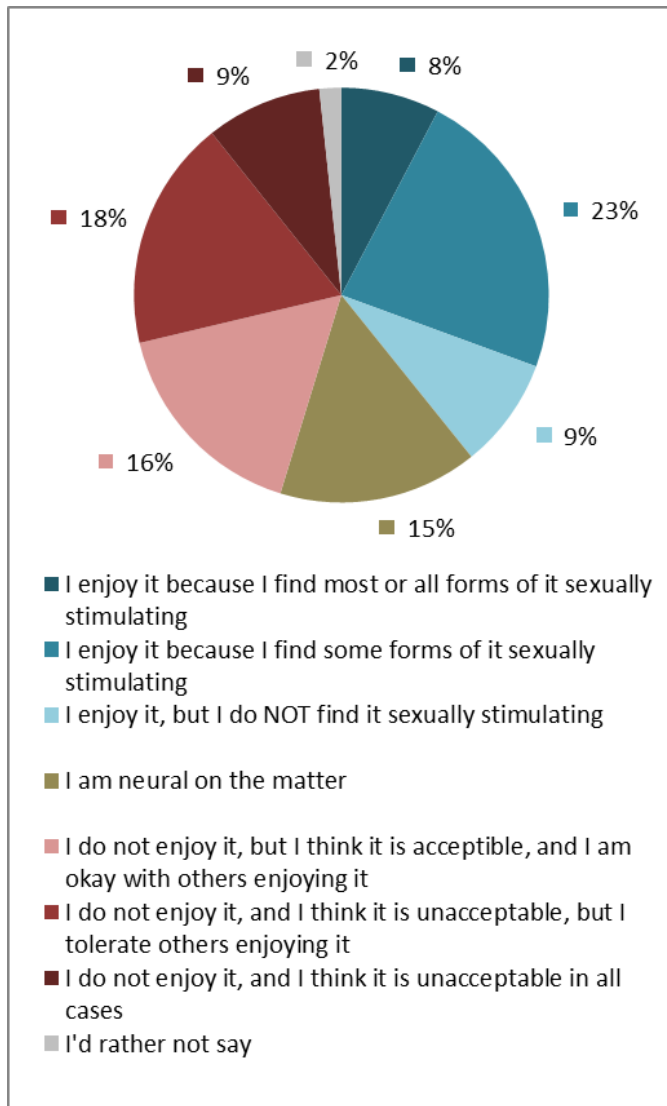
**Figure 42:** *Opinions on Grimdark and Gory Content*

## 6.9 Opinions about Sexually Explicit Fan-Created Content

Finally, respondents were asked about their opinions on sexually explicit fan-created content. This is perhaps the most contentious and polarizing issue within the brony subculture. Figure 43 shows the respondents' opinions.

Slightly more (43%) respondents do not enjoy sexually explicit content than those who do (40%). 27% of respondents find such content unacceptable under any circumstances. 31% of respondents admit enjoying such content because they find it sexually stimulating, which is slightly higher than the 22% of respondents who identify as being sexually attracted to *FtM*-stylized characters (see Figure 13). The reason for the discrepancy is perhaps the generality of the opinion question.

To further understand fan interest in sexually explicit content, respondents were asked to choose what styles of sexually explicit content they found



**Figure 43:** *Opinions on Sexually-Explicit Fan-Created Content*

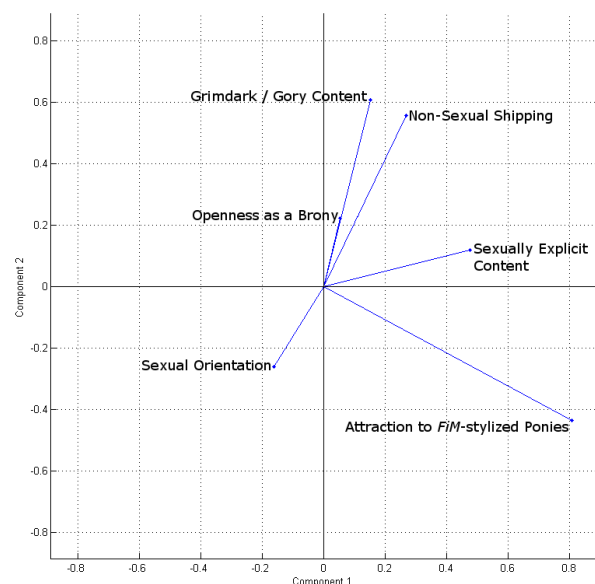
acceptable, and the results are listed in Table 15. The responses were not mutually exclusive. The proportion of respondents who chose “No style is acceptable” (29.1%) is roughly equivalent to the number who find sexually explicit content unacceptable, as reported in the previous question (28%). Of the respondents who do find such content acceptable, many had no preference for style. Of those who did, most found humanized art, i.e. *FiM* characters depicted as humans, to be acceptable. Anthro or ‘furry’ art, i.e. anthropomorphized *FiM* characters, was found to be the least acceptable. This is because this style of art is commonly associated with the furry fandom, which as Figure 21 suggests, is not generally well-liked by bronies.

**Table 15:** *Acceptability of Sexually Explicit Content Styles*

Style	# of Choices	% of Resp.
Any style is acceptable	1,014	23.3%
Humanized art is acceptable	1,044	24.0%
Anthro or ‘Furry’ art is acceptable	459	10.6%
<i>FiM</i> -stylized art is acceptable	817	18.8%
No style is acceptable	1,267	29.1%
I’d rather not say	395	9.1%

## 6.10 Covariance between Opinions

To get a better understanding of the mentality of the brony fandom as a whole, the covariance various opinions on aspects of the fandom were analyzed using covariant analysis and principal component analysis (PCA). Figure 44 shows the resulting PCA plot, and Figure 45 shows the numerical correlations between respondents’ opinions and fan websites.



**Figure 44:** *Covariance between Opinions on Fan Content*

The PCA analysis determined that Principal Component 1 contributed approximately 44% of the overall variance, while the remaining 5 principal

	4chan (/mlp/)	Derpibooru	DeviantArt	Equestria Daily	Facebook	MyLittleBrony	Ponychan	reddit	tumblr	YT
Grimdark / Gory Content	0.0809	0.0519	0.0852	0.0469	0.0176	-0.0104	0.0643	0.0026	0.1041	0.0501
Sexually Explicit Content	0.0358	0.0098	0.0298	0.0073	0.0321	0.0068	0.0050	-0.0092	0.0283	0.0369
Openness About being a Brony	0.0296	0.0089	0.0177	0.0491	0.0183	0.0135	0.0135	-0.0022	-0.0018	0.0166
Non-Sexual Shipping	0.0117	0.0330	0.0385	0.0592	0.0230	0.0153	0.0156	0.0324	0.0288	0.0426
Sexual Orientation	-0.0251	-0.0206	0.0138	0.0131	0.0095	-0.0005	-0.0281	-0.0226	-0.0091	0.0086
Attraction to FiM-stylized Ponies	0.0281	-0.0030	0.0346	-0.0030	0.0380	0.0023	0.0052	-0.0006	0.0061	0.0209

**Figure 45:** Numerical Correlations between Opinions on Fan Content and Fan Websites

components contributed between 9% and 12%. It is firstly apparent that sexual orientation is negatively correlated to all of the other factors. Attraction to *FiM*-stylized ponies was, naturally, highly correlated with favorable opinions of sexually explicit content, and it was also positively correlated with favorable opinions of non-sexual shipping.

Because of the closeness of vectors in principal component space, a numerical correlation analysis was performed on the same data to gain further insight. That analysis confirmed the previous results, and also revealed that respondents' openness about being a brony was poorly correlated with the other factors. This analysis represents a departure from our previous survey, in which it was found that openness about being a brony was somewhat correlated with many of the same factors.[5]

The negative correlation between the sexual orientation of respondents and the other factors, reinforced by the numerical correlation, is telling. In order to perform principal component and numerical correlation analyses on the data, it had to be transformed from text-based data to numerical data. With opinion-based factors, this was straightforward, but with sexual orientation, this was not the case. Heterosexuality was arbitrarily chosen to have a value of +10, and homosexuality was arbitrarily chosen to have a value of -10, with the other orientations falling in between the two extremes. The negative correlation observed between sexual orientation and the other factors indicates that homosexual respondents were far more likely to hold favorable opinions of non-sexual shipping and sexually explicit content than heterosexual respondents, and that homosexual respondents were more likely to be attracted to *FiM*-stylized ponies.

This is an interesting result, in that it speaks to the different areas of the brony fandom. The negative correlation between sexuality and attraction to *FiM*-stylized ponies may reflect any number of factors. Respondents identifying as sexual minorities

may be more open as identifying as a further sexual minority in this case, or the correlation could have arisen due to the communities in which the survey was distributed. This is the first such analysis regarding the brony subculture, so it is impossible to know if this represents the fandom as a whole without further research.

Figure 45 shows the same factors correlated with sites that users frequent for *FiM*-related content. There are a number of insights that this offers. Firstly, users of MyLittleBrony have a generally negative view of grimdark / gory content (the only site to do so), and they are generally undecided about the rest of the factors (as indicated by the near-zero correlation values). Users of 4chan and Equestria Daily are the most likely to be open about being a brony, while reddit and tumblr users are the least likely. Reddit users are the only users to take a generally negative view of sexually explicit content, while 4chan, DeviantArt, and YouTube users are more likely to take favorable views of such content. Shipping predominates across all sites, and is most prevalent on Equestria Daily.

The distribution of sexual orientations is quite apparent. Respondents who use DeviantArt, Equestria Daily, Facebook, and YouTube are more likely to be heterosexual, while respondents who use 4chan, Derpibooru, Ponychan, reddit, and tumblr are more likely to be homosexual. Attraction to *FiM*-stylized ponies is most prevalent on 4chan. DeviantArt, Facebook, and YouTube, while Derpibooru and Equestria Daily users are least likely to share that attraction. The other sites are mostly uncorrelated to such attraction, indicating that their userbase features a mix of both those who are and are not attracted to *FiM*-stylized ponies.



## 7 Conclusions

The present survey has continued the comprehensive analysis of the brony subculture started in our previous survey. Documentation of the demographics of the fandom has demonstrated that it is, indeed, similar to many other fandoms. The comprehensive analysis has also revealed some interesting trends within the brony fandom itself, ranging from overlap with other fandoms, to the geographical distribution of respondents, to the various preferences of fans for different aspects of the show and the fandom.

There were a few errors and omissions from the survey questions and available responses, but the majority of these were noticed and corrected before or during the course of collecting responses. A further inherent limitation with the survey is the manner of distribution, and subsequent sample size. Although the present survey was more widely distributed than our previous survey, it still faced many of the same challenges when it came to recruiting respondents from across all areas of the brony fandom. As noted in the report, some brony communities can be very insular, and thus members of those communities may have chosen not to participate, or may not have noticed the survey at all. If a future study is conducted, it will be important to ensure a diverse set of respondents.

The authors have done their best to ensure the accuracy of the present study's data and analysis. Currently, there are no plans to conduct an updated version of this survey; we believe that our two surveys have attained a satisfactory level of detail, and that there is not much more new information we can gain from creating a new version. As was mentioned previously, for any questions regarding the survey or its results, please direct email correspondence to opspe or Verbose.

## List of Figures

1	Ages of Respondents . . . . .	3
2	Age Distribution of Respondents (red) and Poisson Distribution (blue) . . .	3
3	Respondents in Europe . . . . .	4
4	Respondents in the United States . .	4
5	Respondents in the United Kingdom	6
6	Gender of Respondents . . . . .	6
7	Religion amongst the Respondents .	7
8	Education Level Amongst Respondents	7
9	Financial Satisfaction Level of Respondents . . . . .	7
10	Referrals to the Survey, by site . . .	8
11	Social Media Usage by Respondents	8
12	Sexual Orientation of Respondents .	8
13	Responses to "Are you sexually attracted to FiM-stylized ponies?" . .	9
14	Relationships Amongst Respondents; "Are you currently in a relationship?"	10
15	Nature of the Respondents' Relationships . . . . .	10
16	Sexuality of the Respondents' Relationships . . . . .	10
17	Brony Status in the Respondents' Relationships . . . . .	10
18	Self-reported Brony Status of Respondents . . . . .	11
19	Date of Entrance into the Brony Fandom	11
20	Rate of Change of the Size of the Brony Fandom . . . . .	11
21	Respondents' Opinions about Furies	12
22	Respondents' Answers to "Is <i>MLP: FiM</i> the Best Show Ever Created?"	13
23	Respondents' Opinions about the Mane Six . . . . .	13
24	Covariance among Respondents' Opinions of the Mane Six . . . . .	13
25	Respondents' Favorites of the Mane Six	13
26	Respondents' Least Favorites of the Mane Six . . . . .	14
27	Male Respondents' Favorites of the Mane Six . . . . .	14
28	Female Respondents' Favorites of the Mane Six . . . . .	14
29	Asexual Respondents' Favorites of the Mane Six . . . . .	15
30	Bisexual Respondents' Favorites of the Mane Six . . . . .	15
31	Heterosexual Respondents' Favorites of the Mane Six . . . . .	15
32	Homosexual Respondents' Favorites of the Mane Six . . . . .	15



33	Pansexual Respondents' Favorites of the Mane Six . . . . .	15
34	Favorites of the Mane Six of Respondents Who Reported Being Sexually Attracted to <i>FiM</i> -stylized Ponies . .	15
35	Favorites of the Mane Six of Respondents Who Reported Not Being Sexually Attracted to <i>FiM</i> -stylized Ponies	16
36	Respondents' Openness about Being a Brony . . . . .	18
37	Respondents' Frequency Watching the Show . . . . .	19
38	Respondents' Frequency Engaging in Fan Activities . . . . .	19
39	Fan Activity among Respondents . .	20
40	Numerical Correlations between Fan Activity and Websites . . . . .	21
41	Opinions on Non-Sexual Shipping . .	22
42	Opinions on Grimdark and Gory Content . . . . .	23
43	Opinions on Sexually-Explicit Fan-Created Content . . . . .	24
44	Covariance between Opinions on Fan Content . . . . .	24
45	Numerical Correlations between Opinions on Fan Content and Fan Websites . . . . .	25

15	Acceptability of Sexually Explicit Content Styles . . . . .	24
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## List of Tables

1	Respondents Per Capita in Selected Countries . . . . .	3
2	Respondents Per Capita in Selected US States . . . . .	5
3	Respondents in Canada . . . . .	5
4	Respondents in Australia . . . . .	5
5	Ethnicity of Respondents . . . . .	6
6	Respondents Participating in Selected Fandoms . . . . .	12
7	Respondents' Opinions about the Mane Six . . . . .	14
8	Favorite Secondary Characters of Respondents (with more than 25 choices)	16
9	Favorite Pets of Respondents . . . . .	17
10	Selected Favorite Episodes . . . . .	18
11	What qualities of <i>MLP: FiM</i> appeal to you? . . . . .	19
12	<i>MLP: FiM</i> -related Sites . . . . .	21
13	Respondents' Merchandise Purchases	22
14	Favorite Shipping Characters of Respondents (with more than 50 choices)	23