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## Sunday to Friday: Investigating Masculinity using Pornography Traffic During Two Major Events

Michael K. Doherty  
*University of New Orleans*, [mkd@nolaanime.com](mailto:mkd@nolaanime.com)

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Sunday to Friday: Investigating Masculinity using Pornography Traffic During Two Major  
Events

A Thesis

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University of New Orleans  
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by

Michael Doherty

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## Abstract Page

This paper is an investigation into how Masculinity Theory can explain a shift in Pornhub traffic when specific major events take place. The paper examines two events, the recent Super Bowls and the early months of the COVID-19 pandemic framed against Pornhub traffic data at the same time. It finds that masculinity theory when combined with motivation for pornography viewing, can serve as one plausible explanation behind a shift in traffic.

Keywords: Masculinity, COVID-19, Super Bowl, Pornography, Pornhub

## **Introduction**

According to Pornhub Insights during the early stages of the COVID-19 pandemic, the most popular day to visit the website was Friday and the least popular day was Sunday. This information is more intriguing considering from 2017-2019 the most popular day was Sunday and the least popular day was Friday (Pornhub, 2020). The shifting of the most popular day wouldn't be too unusual, however the swap with the least popular day leads me to believe the pandemic may have played a role in this behavioral shift when it comes to Pornhub traffic. I assert that masculinity theory can be used to explain why this shift may have occurred and note examples help illuminate this point. This study is broken down into two parts and framed against two events. The first event, the Super Bowl, has a negative impact on Pornhub traffic and the second event, COVID-19, has a positive impact on Pornhub traffic. This paper seeks to illuminate how major events in association with masculine behaviors, can impact other masculine behaviors and trigger changes to daily patterns or routines. The focus will be on the pornography website Pornhub. The research included will demonstrate how these events impact daily traffic to the website, what may have triggered those changes, and how masculinity can be used to explain these changes.

### **The 1<sup>st</sup> Event: The Super Bowl (and American Football)**

The first event is the National Football League's Super Bowl. The Super Bowl is the most viewed program and event in the United States where two American football teams square off to acquire the title of champion. The Super Bowl is the most watched single telecasted program from 2016-Present averaging at least 100,000,000 viewers each year (Nielsen, 2016-2020). Additionally, like the popularity of the Super Bowl, NFL Sunday Night Football is either the highest or second highest rated regularly scheduled program during that same time frame. In

short, American football is extremely popular (in the U.S.) and is the most dominant sport in terms of viewership (Direct TV, 2021; Nielsen, 2016-2020). Beyond its viewership grasp, the NFL total revenue was around 15 billion dollars (USD), around half of Americans attending or planning a party (with the exception of 2021), and with most viewers planning on spending around \$70-\$85 per person just on Super Bowl festivities nationwide (Gough, 2021). In short, the Super Bowl is a large-scale event, with a large reaching social and financial reach that many Americans take part in.

### **The 2<sup>nd</sup> Event: The Pandemic**

COVID-19 is a highly contagious infectious disease caused by the coronavirus, SARS-CoV-2, which is a respiratory pathogen (WHO, 2020). The World Health Organization (WHO) first learned of this new virus from cases in Wuhan, People's Republic of China on 31 December 2019 (WHO, 2020). COVID-19 would spread across the world at an alarming rate, leading to (Ongoing Total) of 548,162 Deaths and 30,213,759 Cases in the United States alone as of **April 1, 2021** according to the Center for Disease Control and Prevention (2020). On March 11<sup>th</sup>, 2020, the WHO declared COVID-19 a worldwide pandemic, a date which mirrored the start of drastic changes in the United States.

The spread of the pandemic across the U.S. and the world led to millions of people finding their everyday life being turned upside down and changes to their daily routines. This change would include impacts on sexual behavior as well. There has been a large amount of research recently on understanding the motivation behind pornography use and how to measure it (Bothe et al., 2021; Brown et al., 2016; Chen et al., 2013; Doring, 2017 & 2021; Grubbs et al., 2019; Perry, 2017; Regenerus et al., 2015; Schenk, 2009; Wright, 2011; Wright et al., 2013; & Zattoni et al., 2020). Changes to daily life, larger amounts of time at home, lack of entertainment

options, and restrictions on going out can be reflected in the overall increase in streaming media during the pandemic (Awan et al., 2021; CNN, 2020; Doring, 2020; Mestre-Bach, 2020; & Zattoni et al., 2020). This change in behavior also includes when and the driving forces for why people would watch pornography (Lehmiller et al., 2020). People are at home and restricted from going out which resulted in a Pornhub traffic increase (Mestre-Bach, 2020; Pornhub, 2020). Pornhub noted a similar situation in 2017 with the Polar Vortex that had many northern U.S. residents locked in their homes and Pornhub saw an increase in traffic from those states. Unlike the Polar Vortex of 2017 however, the pandemic and its effects proved much longer lasting and brings into question just how impactful and enduring the effects will be. It wasn't just the traffic increase that occurred, but also a shift in when people visit the website as well (Pornhub, 2020). Changes to daily behavior along with motivational reasons for watching pornography are key to understanding this shift.

## **Literature Review**

### **Masculinity Theory**

Masculinity is the ideal by which a person operates with goal of being seen or viewed as masculine. When it comes to maintaining an identity perhaps Giddens said it best with, "something that has to be routinely created and sustained in the reflexive activities of the individual" (Giddens, 1991).

The concept of masculinity is a debated term when it comes to definition and framing (Pringle, 2010; Borgogna, 2019). The concept I am working with will be coming from Carrigan, Connell, and Lee's notion of the "male sex role" or what is often seen or defined as being socially constructed as male which would develop into the ideal of Hegemonic Masculinity (1985). Connell's Hegemonic Masculinity was coined as the most desirable (and hard to obtain)



form of male traits as defined by a culture or society which validates the legitimacy of patriarchy (Connell & Messerschmidt, 2005). Hegemonic Masculinity seeks to separate itself from anything deemed feminine and while also commanding subordination over women. Power and hierarchy are key when it comes to defining masculinity in this way and anything that fails to enforce or abide by said beliefs thus fail to be masculine (Johnson, 2005). While this term is often cited and used, Connell (2005) was also quick to note that hegemonic masculinity is simply the “currently accepted” strategy for power and as demonstrated by Roberts, Ander, & Magrath’s (2017) research on English footballers that these institutional norms are subject to change. Roberts, Ander, & Magrath’s (2017) found that past traditional notions of masculinity and behavior are not set in stone, although often supported by the institution. Instead, they found that younger footballers challenge these norms or find ways of expression that traditionally had not been defined as masculine based and yet never thought of their masculinity being challenged or reduced.

Butler (2009) states that gender is performative. A person performs or behaviors in a way one or society read and deem as masculine and feminine (Pringle, 2010). Gender is often denoted by specific obligatory norms that are then reproduced. For Butler, gender norms determine how we appear and are treated by society as a whole (2009). This performance of gender is still tied to and about negotiating power and expression, again the norms are based on pressure to adhere to what society or culture require. Birmingham (2007) quoting Calvin Thomas in analyzing masculinity from a feminist perspective perhaps describes the notion of masculinity best, “(masculinity) is not a natural or essential identity for men but rather a social construction open to interrogation and change” (1999). Finally, like Connell, Butler also notes that gender is a strategy for power and the norms are subject to change and outside forces.

Defining those norms are important for this research. I will be using Mahalik's research centered on affirming factors defining masculinity. Mahalik describes this construction of Conformity to Masculine Norms Inventory (CMNI) through five studies that examined said properties. Mahalik et al. (2003) identified eleven attributes that define common traits associated with masculinity. This research will focus on these norms in establishing what is considered masculine, application to the event at hand, and acts a baseline for how a person may perform in order to display masculinity. The eleven traits or masculine norms are as follows: winning, emotional control, primacy of work, risk-taking, violence, heterosexual self-presentation, playboy, self-reliance, power over women, dominance, and pursuit of status. Men who wish to act or be seen as masculine will often display or pursue traits like these and men who don't will be deemed feminine or less manly.

The primary goal for many men, according to Hegemonic Masculinity and using this notion of performance, is to act and perform the norms and behaviors associated as the "the most masculine". Hegemonic Masculinity is hard if not impossible to obtain as an ideal, as it is a set of standards that one seeks to achieve or hold to maintain dominance over others. It can be argued that the masculine ideal is in constant pursuit. One will always be trying to be or perform masculinity, no matter the situation or event. As a result, there is hierarchy even among men and specific qualities, traits, and behaviors will carry more weight than others (Pringle, 2010).

It becomes clear that masculinity itself is a tiered construct. Being a male and performing a behavior doesn't make it masculine, but rather the behavior must be deemed as masculine by society or the culture at large. Second, it is argued by Connell that there is currently an ideal type of masculine behavior which is defined as Hegemonic Masculinity. Finally, considering these

notions, performing, and acting masculine is then subject to change and those changes can have strong effects.

The following two ideas of hypermasculinity and masculine overcompensation come into play when a person seeks more extreme demonstrations of masculinity and/or seeks to overly establish oneself as masculine when challenged. First, the notion of hypermasculinity by Pringle (2010) which is used to define masculine behaviors beyond moderation or excessive. Pringle builds on work from Foucault (1992) where excessive (hyper) practices is where the danger lies when it comes to behavior. Pringle states that hypermasculinity is an idealized form of extreme masculinity that few could possibly achieve. This ideal runs parallel to the notion of Hegemonic Masculinity which also can be argued isn't actually achievable or very hard to achieve due to the process and conditions needed to succeed.

Second, the notion of Masculine Overcompensation by Willer (2013) which states that men will often go to extreme lengths to prove or maintain their masculinity when it is challenged. Willer ran three different tests in which men were given feedback that challenged their masculinity and a fourth linking higher testosterone in men to higher reactions. Willer finds that when men's masculinity is challenged or threatened, they find not only the need to re-enforce their status but overcompensate said demonstration to likely offset said challenges or threats. Finally, it forms that even a fear of having any lack of masculine traits could cause such a reaction to occur to support the idea they are manly.

Both terms are under the premise that masculinity is now being performed in an excessive if not problematic level. Masculine overcompensation is a result of a threat or perceived threat to masculinity and could be classified as a hypermasculine trait, however hypermasculinity isn't always about countering or compensation. Hypermasculinity is a

performance of taking masculinity to extreme points as a form of demonstration where the actor believes or wishes to achieve a specific idealized norm.

The application of these ideas for this research is thus under the idea that masculinity is something which a person continues to actively seek to obtain and demonstrate, performative, the idea of masculinity is in flux, executed in some prioritized order, and will even seek to overcompensate when means of expression have been removed.

### **Pornography & Motivational Theory**

Pornhub has shown that there was a set pattern of behavior when it comes to average usage, daily access, and hourly access from 2016-2019. Pornhub wasn't alone in the online pornography industry, with Google Trends showing a rise in searches for pornography websites in countries with strict lockdowns (Zattoni et al., 2020) while sex toys and tech also saw an overall increase in interest (Doring, 2020 & Lehmillier et al., 2021). These results show that behaviors were shifting when it comes to sexual activity. Understanding and measuring pornography usage can be tricky, but having a measurement is important for framing motivation (Regnerus et al., 2015). Bussy, Willoughy, Chiu, and Olsen (2020) presented the idea of a Pornography Usage Measure (PUM). The PUM defines pornography usage using a series of different measures while discovering the differences between usage (what people may use) and perception (what they consider) framing pornography as a multi-dimensional object.

The base idea of defining pornography usage is based on Bussy, Willoughby, Chiu, and Olsen's (2020) Pornography Usage Measure (Long and Short) which lays out a set of definitions for what people consider to be pornographic and what people use when it comes to pornography. This study isn't trying to measure pornography but understand factors that contribute to a behavioral shift. It is important to a set basis of what is considered pornography, which this study

uses the PUM to do so (Regnerus et al., 2015). Additionally, Bothe et al., (2021) focused and supported the validity of using the PUM as a form of measurement in their research on pornography motivation. Pornhub contains a large quantity of videos, notably their top searched categories from 2019, depicting the listed short version of factors that respondents consider pornography.

- An image of a woman alone posing in a suggestive way without any clothes on. (8)
- A short video depicting a couple having consensual sex. The women's breasts are shown but neither partner's genitalia are shown. (11)
- A picture of a couple having sex, women's breasts are shown but neither partner's genitalia are shown. (12)
- An image of a heterosexual couple having sex which shows the man's penis penetrating the women. (13)
- A video showing two naked women or men manually stimulating each other. (15)
- A video of a women or man alone masturbating. (16)
- A video that graphically depicts a three-way sexual encounter. (19)

Research confirms that the primary drive behind online pornography use is some form of pleasure-focused motive (Bothe et al., 2021; Brown et al., 2016; Doring, 2017 & 2021; Downing et al., (2017); Grubbs et al., (2019); Lehmillier et al., 2020; Miller et al., (2017); Perry, 2017; Schenk, 2009). However, pleasure-focused motives are not the sole drivers for pornography consumption. Grubbs et al., (2019) reviewed over 130 studies finding that intimacy, coupling motives, psychological coping, stress, and boredom are important factors (Schenk, 2009; Chen, 2013; & Baltazar, 2010)).

The primary force behind the shift was the pandemic leading to increased pornography use, yet I surmise that masculinity theory can also be applied to factors being affected (Awan et al., 2021; Doring, 2020; Pornhub, 2020; & Zattoni et al., 2020). The internet with its easy access and wide range of contributors increased access to pornography (Wright, 2011; Grubbs et all, 2019), changes in behavior (Lehmillier et al., 2020; Awan et al., 2021; Zattoni et al., 2020; &

Mestre-Bach, 2020), shifts in entertainment (Amazon, 2021; Stoll, 2021; & Tankovska, 2021), personal or large scale events during the pandemic (CNN, 2020), and factors like stress are being examined as contributors to the popular day shift.

## **Methods**

This is a descriptive study drawing from mainly quantitative data to compare the impact of two events on the website Pornhub. The first part will examine eleven key forms for expression or defining masculinity and list instances or examples from the event (Super Bowl) and impacted party (Pornhub). Data provided from Pornhub will show the impact the Super Bowl directly had while I use masculinity theory to explain how Super Bowl would inflict such an impact. Second, this study will shift to focus on existing theory for why people watch pornography and examine data from the COVID-19 pandemic's early months for logical explanations for the swap of the most and least popular traffic day on Pornhub. I argue that masculinity theory can explain why the shift happened and demonstrate core factors based on motivational pornography viewing as to why such a drastic shift occurred.

For this research the traffic data being used was gathered from the pornography website Pornhub and released through their Pornhub Insights section. Pornhub Super Bowl data was pulled from their Super Bowl Pornhub Insights from the years 2015-2020. Pornhub published their own insights and traffic data over a series of COVID-19 titled posts starting March 25, 2020 and ending (as of now) on June 18, 2020. The data range dates from March 3, 2020 to July 19, 2020. The traffic data released over this time was compared to the prior year's traffic. Pornhub Insights "Year in Review" is available from 2013 to 2019 and Pornhub Insights articles provide key components of data in addition to the COVID-19 Insights, while the 2020 data has yet to be released. Pornhub provides detailed information on trends, search spikes, holidays,

sporting events, popular media's effect on Pornhub, and other sexuality related articles. This data includes traffic, popular searches, demographics, and graphs. Pornhub was specifically chosen for few reasons. First, Pornhub publishes their data yearly (with 2020 not yet released as of writing) to the public. Second, Pornhub was the most popular pornography website in the U.S. according to rank at the time of research (Alexa, 2020). Finally, Pornhub is the only top ranked pornography website to release in-depth publicly available data during this time.

The primary event which led to a windfall of effects that attributed to this shift in behavior is the COVID-19 pandemic. COVID-19 announcements and information were primarily pulled from the World Health Organization's online timeline (WHO, 2020), CNN News Online COVID Headline Archives (CNN, 2020), and the Unacast Social Distancing Scoreboard (Unacast, 2020). Daily news was also cross checked in case of one website missing information or bias. Further health information, while focused from the WHO timeline was also sourced from the CDC website (CDC, 2020). Unacast Social Distancing Scoreboard included data on reported cases of COVID-19 and used Corona Data Scraper (prior to March 22) and John Hopkins GitHub Repository starting March 22nd (Unacast, 2020). The Unacast Social Distancing Scoreboard (USDS) was used for the daily U.S. case count. Headlines were then selected and coded based on likely influence on a larger popular scale given traffic data to the website. The Pornhub COVID Insights data was national and not regional. Regional data was not available for the United States at the time of this writing.

Using existing research and theory on pornography motivation and usage, this study considers the primary event and how it influenced existing motivational usage. Using that information, this study will demonstrate how masculinity theory is a logical explanation for

usage increases, secondary events that could shape usage times, and how a shift in traffic popularity could happen.

## **Analysis 1: Super Bowl and Pornhub**

### **Football as a Masculine Behavior: The Super Bowl**

Sports and sporting events are attributed to the masculine norms (Pringle 2010; Whitson, 1990). American football is a common stereotype associated with masculinity, toughness, and the desire to win, however sport itself isn't masculine unless defined as such by society. It is here we can apply Mahalik's eleven points of masculinity and find that the Super Bowl and football both provide a place to demonstrate masculinity for all those involved. The Super Bowl is the most viewed and anticipated annual sporting event in the United States (Nielsen, 2017-2020) combining many masculine norms into one giant event. Taking Mahalik's (2005) points, here is a short breakdown of what is performed:

- For fans and those involved, the goal is to win and be the champion (winning). It can then be asserted that what makes football so interesting is the need to have to continuously maintain his status and position by continuously winning.
- Football often employs ideas of being tough and suppressing feminine emotions (emotional control). The only times participants in such events can (or perhaps even expected to) show emotion is when they either win or lose when there a lot of stake (like a championship or playoffs).
- "The best coaches and players" prioritize football over anything else and fans/viewers express a level of loyalty and time allocation to the sport (primacy of work).
- "Risk-taking" is involved in multiple fronts, first for players and those involved is the next norm of violence and health risks and for fans often betting or even emotion investment is involved. Football is often seen as a bastion of "heterosexual self-presentation" with tough men, doing tough things, with only this past month (June 2021) having the first active gay player come out. There is rarely an association of being gay and a love of football in media for instance.
- Football players are depicted as "playboys" with the lead quarterback being able to get any girl and football players having "football wives" on their side.
- There is a notion that football represents the ability for players to make it when everything is against them and possess the physical and mental wherewithal to play (self-reliance).



- Displays of cheerleaders for the male gaze and often the strong man getting the girl enforces ideas of “power over women”. You can also cite the lack of and hesitation to allow women onto the field in this way as well.
- Football fans and players both love to exhibit and show “dominance”. This can be over other team directly on the field or as fans versus fans of opponents who lose (or may maintain a rivalry).
- Finally, “pursuit of status” is ever present with the best players making the most money and having the most regard. Every fan wants their team to be best and being from that city or associating with that team when they win provides even passive levels of power and status. This could be best exemplified by the bags worn over Saints fans of the past when the team was one of the worst in the NFL versus now where many Saints fans due to their four year winning streak and association of being good, proudly support their team.

In short, football and being part of it in some form or fashion serves as a prime place to exhibit and demonstrate one’s own masculinity be it by association or actual participation.

Another important note about the Super Bowl is that it serves as a socially acceptable place to demonstrate and show masculinity via the players, fans, and viewers alike. For fans and viewers, the Super Bowl can serve a center point through they express masculine norms through parties, attendance, dress, cheers, consumption, and after celebration or sadness (given the result and team you support). Football is a place where everyone involved can perform masculinity and inch closer to the ideal of hegemonic masculinity by being the winner.

Finally, I insert the notion of hypermasculinity here as well. Football and its participants may go to extremes to demonstrate their support of their team. Fans will spend thousands upon thousands for tickets, memorabilia, jerseys, and travel just to see their team play. Getting drunk, pregaming, tailgating, and general shows of extreme fandom can be considered part of the ritual that is football. Players risk not only their safety, but their future health, sacrifice time (years and years) of their lives and aim for ideal physical standards all to be part of the game, if not the best. The danger, as warned by Pringle, is that football and the Super Bowl can be an outlet for not just demonstrations of masculinity, but extreme demonstrations across all norms

covered. I feel it is important to note here that while fans and players may be under some form of pressure to do so or challenged (masculine overcompensation), rather it is simply beliefs that what their actions and demonstrations if pushed to the extreme would earn them higher status. This idea of not only of applying all the norms of masculinity, but the ability to apply it on a hypermasculine level is a plausible factor for its place over a behavior like watching pornography.

### **Pornography as a Masculine Behavior: Pornhub**

Viewing pornography or pornography consumption is also considered a masculine behavior (Borgonoga et al, 2019). Pornography, and by association Pornhub being the most popular pornography website, contains many of the masculine norms also listed by Mahalik. Borgonoga pointed out a few of these, but again I will list common examples found in pornography according to the Mahalik's (2005) list:

- “Winning” can be a bit more indirect in focus, but the idea of mating and bedding women in itself is often considered a game. To be able to “score” is a direct relation to some point total or game in the process and pornography is about getting what you want (Wade, 2018).
- Men rarely are showing any type of emotion except a drive to have sex. The scenes and situations are straightforward, and lust driven (emotion control).
- “Risk Taking” can come in two forms for pornography. One the idea of the watching or viewing it may involve some risk. It is a common theme of a young man being caught watching pornography in media. Second, Pornography also contains many scenes where one of the parties involved are cheating, related, or have some other risk involved because of their position. This is even reflected in categories like NTR, Stepsister/Mom, Married, etc.
- “Violence” is another common theme found in pornography. Building on the notion of power over women, pornography can have violent themes and like before, even have set categories related to exploring violence as part of the genre.
- “Heterosexual self-presentation” is how Pornhub (and other big websites) directly lay itself out. Pornhub is by default “straight” and “male” with categories and settings that would shift it towards gay, transexual, or women. This is also echoed where “lesbian” isn't listed considered gay pornography.
- The idea of sleeping with multiple women is a common theme (playboy).
- Pornography clips and videos usually have the man (or camera) in a “position of power” and “dominance” over the woman. This can be demonstrated through actual actions,

words, and behaviors in the pornography or through the angles and setting. This is also an echo on the “violence” norm above.

- “Pursuit of Status” itself can be hard to apply. For some people watching and opening admitting to watching pornography does confirm one’s own masculinity, however for some groups (like religious) doing so can be detrimental.

By numeric count, pornography lacks three norms when it comes to covering every single masculine norm. Primacy of work is hard to justify and demonstrate as is self-reliance. As noted above, pursuit of status can also be a minefield to navigate given perspectives around the topic. Finally, pornography is often something done in privacy. Watching pornography falls out of the realm of public social acceptance when it comes to open displays of practice (or illegal). In short, pornography, unlike sports, is a more internalized masculine when it comes to expression and affirmation. Given that masculinity is about exerting dominance according to Connell and performative according to Butler, expression through sport which can be demonstrated and public, would be “more” masculine over watching pornography which is a more private demonstration and can have moral complications involved (Perry, 2017). Finally, while their addictions and other notable behaviors with increased or extreme pornography consumption, I believe the idea of hypermasculinity (unlike football) doesn’t apply due to how pornography is socially perceived and its execution in the private sphere.

### **Analysis on Football’s Impact on Pornhub: A Collision of Masculine Norms**

When it comes to masculinity, the combination of social acceptance, place, and norms, puts football in a higher placing than watching or visiting Pornhub. Football, unlike watching pornography, is often a public event which allows multiple demonstrations of masculinity to occur. Visiting Pornhub however, while it can be done in public, is usually reserved in private or intimate spaces given its nature and the pleasure related focus. This hierarchy is important as it

demonstrates a priority or status associated with specific behaviors actions. This is reflected in the effect football has on Pornhub traffic.

This effect on Pornhub and priority as a masculine behavior can be seen with the Super Bowl itself. The event, The Super Bowl, has an actual impact when it comes to Pornhub traffic and viewing. Pornhub released several graphs showing the traffic changes from 2015 through 2020 which visualize the change. The Super Bowl has a negative impact on Pornhub's traffic when they air. From these Super Bowl's, Pornhub data shows that traffic from the United States drops at 5:00PM and has a sharp decline from 6:00PM to a minimum of twenty percent during the big game (around 10:00PM) from which traffic than spikes over the national average by about 9% at 11:00PM. Additionally, the areas where the competing teams come from (the state), traffic decreases as low as fifty percent and which is significantly lower than the national average. This demonstrates a vested interested in the areas competing versus the rest of the nation.

Second, that impact not only is visible in traffic, but has an impact on the hourly rate as well. This can also be partially attributed to Sunday Night Football as a program, which is normally in the Top 5 programs any given year ratings wise (Nielsen, 2017-2020). The hour with highest traffic rate on average is midnight, however on Sunday this time changes to 11:00 PM. This is demonstrated not only by the overall average, but also seen during the Super Bowl itself. After the Super Bowl there is a sharp increase in traffic to Pornhub, 11:00 PM for nation and 12:00 AM+ for the winning city.

A few things can be inferred here when it comes to the impact masculinity has in connection with the Super Bowl (as an event), football, and Pornhub (and pornography viewing). First, as an event, the Super Bowl has a direct impact on Pornhub. Second, considering that the

Super Bowl (and football) meets each point of masculinity norms where Pornhub does not, participation centered around the Super Bowl (and football) is considered more masculine. Being more masculine also grants it higher status and priority over watching pornography and this is illuminated with the data impact the Super Bowl has on Pornhub. Finally, there is a clear behavioral change in play as well when it comes to the heatmap looking at Sunday vs the Week notably when factoring Sunday Night Football is the “generally” the most popular program on television and fills the correlating timeslot (Nielsen, 2017-2020). People will not only adjust their schedule, but actively seek to demonstrate masculinity when possible and that action can be seen in the impact the Super Bowl has on Pornhub.

### **Analysis 2: COVID-19 & Pornhub**

Pornhub Insights graphs (see Appendix) show a pattern of behavior when it comes to which day of the week Pornhub is being accessed. Sexual behavior changed from the norm during the pandemic, at least regarding Pornhub. Friday is the most popular day with Sunday being the least. According to Pornhub Insights the average day with highest traffic and lowest traffic has flipped in 2020 with Friday being the least popular day and Sunday being the most popular day from 2017-2019. When considering all the factors involved, I surmise the primary reason for the shift has less to do with direct motivations, but more to do with several conditions caused by the pandemic. I theorize that masculinity theory can help explain why this shift occurred due to the conditions created by the pandemic and its aftereffects. There is not one direct occurrence, rather a shift in lifestyle and behaviors over and during the pandemic that can be explained when considering masculinity norms and how those norms were challenged.

Watching pornography is often considered a masculine behavior. The context and situations that unfold within a pornographic video also demonstrate many masculine behaviors

and norms (Borgonoga et al, 2019). A common norm for masculinity is the idea of sex and power over women, with the end goal of gratification. The primary reason given pre-pandemic for pornography was some form of sexual gratification or stimulation (Bothe et al., 2021; Brown et al., 2016; Doring, 2017 & 2021; Downing et al., 2017; Grubbs et al., 2019; Lehmiller et al., 2020; Miller et al., 2017; Perry, 2017; Schenk, 2009) and this reason plays a major role in the shift. Interestingly, while it has been stated people were having less sex during the pandemic, Lehmiller et al., (2020) also found that respondents reported less sexual activity including masturbation. Yet even with that research, we do know that Pornhub did see a significant spike in daily traffic of 12.59%. This isn't to say that people weren't out for sexual gratification, but this information also hints at additional factors at play as to why individuals are accessing Pornhub. Counting for conditions and factors that arose during the pandemic, a need to assert or affirm masculinity aids in filling that gap.

This would bring conditions caused by the pandemic combined with the secondary motives for pornography use into the picture. Given that research has shown that coping, intimacy, coupling motives, stress, and boredom can all play roles in pornography consumption and sexual activity (Grubbs et all, 2019; Lehmiller et al., 2020; Awan et al., 2021; Zattoni et al., 2020; Wilcox & Dew, 2012; & Mestre-Bach, 2020), I assert that these motives may have played a bigger role during the pandemic. In short, the overall daily behavioral patterns for people shifted during the pandemic which includes sexual activity, and this is reflected in the traffic shift on Pornhub. It will be important to understand Pornhub's daily traffic and factors for usage before and during to frame reason for the shift.

## **Before COVID-19: Heat / Traffic Charts from Pornhub**

Pornhub released heat charts for 2016, 2017, 2018, and 2019 which show when the website has higher or lower traffic. These charts also include a twenty-four-hour bar graph showing the traffic change by hour versus the weekly average, however these charts do not give numerical values. From these charts we know the lowest and highest traffic times by hour and Pornhub states which day of the week is the least and most popular. One key takeaway from charts is that the traffic values are relatively consistent. In fact, the traffic by hour remains consistent for the four years of chart data released, showing that the average time of day for when people access Pornhub seems to follow a set pattern.

Day of the week also show two clear patterns for access to Pornhub. Monday through Thursday have a very similar heat map where Friday, Saturday, and Sunday show variation. These patterns also remain consistent over the four-year span, making the change in 2020 noticeably stand out.

The pattern for Monday through Thursday show slightly above average usage at 1:00 AM, which decreases to below average through 1:00 PM, traffic starts to rise starting at 2:00 PM, spike at 4:00 PM, slightly reduce (still above average) until 8:00 PM, where traffic once again spikes until Midnight. Midnight is the highest average traffic hour on Pornhub. Finally, Monday 5:00 AM is the lowest point of traffic on Pornhub for 2019, the other Pornhub Insight articles didn't directly state the lowest traffic time.

The weekend is a different story. Friday follows a similar pattern in the late nighttime frame 1:00 AM being slightly warmer. The morning traffic increase starts about two hours earlier than the weekdays, around Noon, and falls a bit quicker at 7:00 PM where it remains average (average as compared to the rest of the week according to the chart). Nighttime traffic

behaviors see a spike from 10:00 PM to Midnight. Saturday sees a slightly higher late-night 1:00 AM starting value than any day in the week. It does slowdown overnight from 2:00 AM to 9:00 AM, however traffic picks up again around 10:00 AM where it increases until a 2:00 PM to 4:00 PM peak and drops below average into the evening from 6:00 PM to 10:00 PM. There is another sharp uptick late-night before at 11:00 PM and peaking at Midnight. Sunday has a 1:00 AM warm value in line with the weekdays and slows overnight, however traffic hits average values earlier in the morning at 10:00 AM through 1:00 PM. There than an afternoon increases and spike from 1:00 PM to 5:00 PM. There is a drop in traffic below normal in the evening from 6:00 PM to 8:00 PM. Sunday night varies from all other days with traffic rising significantly at 10:00 PM where it hits week high values at 11:00 PM, and starts to slow down quick (in comparison to every other day) at Midnight.

### **Focus on Friday (Pre-pandemic)**

Given the swap between Friday and Sunday, it is important to take a deeper look into what might have changed for those two days and reasons for their previous popularity (or lack of) when it comes to Pornhub. Friday is still a weekday, meaning the morning routine of getting ready for work, kids, carpool, commutes, and the actual workday play a major role in daytime traffic. Unlike the rest of the weekday, Friday sees an increase in traffic to Pornhub earlier than any day of the week. This could be attributed to various reasons like early workdays or relaxed conditions. The difference between the weekdays and Friday is the notable decrease in traffic from 7:00 PM through 9:00 PM. This could be inferred from people going out and seeking Friday night entertainment be it for dating or social reasons. Finally, Pornhub traffic starts to rise slower and later than the rest of the weekdays but leads to a slightly higher 1:00 AM traffic rate.



In short, Friday is a combination of a popular day to go out and having the standard weekday routine included. Second, I surmise that Friday carries a lower stress rate compared to Sunday due to social mentalities for it being the end of the week and the start of the weekend. Friday is also the most common payday for many employees (McBeth, 2020), adding some sort of relief or excitement to the day. This combination leads to the lowest overall average simply due to the various ongoing on the day and night never giving a consistent period for increased traffic. In comparison to the weekend, Saturday has large wave of traffic during the day due to free time and Sunday has the highest traffic power hour. These peaks offset the lows in traffic.

### **Focus on Sunday (Pre-pandemic)**

Sunday and Friday share similar morning traffic patterns with an earlier increase in traffic compared to the weekdays which consistently builds up though 4:00 PM where it declines during the evening. The notable difference on Sunday is the larger drop in traffic from 6:00 PM through 8:00 PM with a slightly earlier increase again starting at 9:00 PM leading into the week leading spike at 11:00 PM.

Unlike Friday, Sunday is fully free weekend day and usually doesn't have the same morning conflicts as Friday, thus one simply has more time. An article in Fatherly interviewed three psychologist on Sunday's popularity regarding pornography (Vinopal, 2019). The article cites increased anxiety and insomnia, religiosity could play a role (Perry, 2017), or as Dr. Nicole Prause, a sexuality psycho-physiologist and neuroscientist who founded the research institute Liberos, notes that people just have more free time on Sunday. Prause points to Bodenmann et al., (2010) research that found Sunday, and the weekend, is simply the most popular time for sexual activity.

Where Friday may be the “Funday”, Sunday has been attributed with both rest and stress noted as Sunday Blues or Sunday Scaries (Heitmann, 2018). According to two polls conducted by two major hiring websites, they found that a large percentage of people find Sunday to have enhanced stress levels (Settembre, 2018). Respondents cited the having to balance the day while handling and foreseeing the upcoming work week, worrying about their workload, or remembering unfinished tasks. Settembre (2018) notes that one website also found that this anxiety gets bad at night. This combination of factors could explain why 11:00 PM at night would be such a popular time pre-COVID.

### **During COVID-19: By the Numbers**

Pornhub did not release a Pornhub Insights for 2020, however it did release COVID-19 specific Insights showing numerical daily traffic values from March to July 2020. Taking these values, I was able to determine that the most popular day traffic wise was Friday and the least popular day was Sunday. As a result of Pornhub Insights not releasing for 2020, there hour by hour data and I can only show quantitative data for the day shift. Pornhub only released hour by hour for one day, Tuesday March 17th, which did show a drastic shift in when people were watching.

The actual numbers for traffic tell an interesting story. Starting on Monday to Thursday, traffic would slowly increase from 12.28% to 14.49%, but see a sharp uptick to 17.33% on Friday. That is a spike of 2.84% in once day over a four day increase of 2.21%. The weekend itself turned a different result with Saturday traffic dropping by 7.59% down to a daily traffic average of 9.73 and continuing downward to a Sunday low of just 6.94%. This shift in traffic is jarring considering the previous three years before had Sunday as the highest traffic day for Pornhub. While Bodenmann et al., (2010) found the weekend to be the greatest point of sexual

activity point during normal times, sexual activity regarding Pornhub saw a sharp downturn during the pandemic.

That data did show that four of the five highest traffic days happened on a Friday. Accounting for the fact that U.S. lockdowns started to occur the week of 3/22, there wasn't a single Friday from 3/22 to 7/11 that fell below double-digit percentages of increased traffic. Sunday in turn only had two days where it had a double digit traffic value, both of those days following major incidents in the U.S. with the first being the Sunday following the first week of lockdowns and the second being the Sunday following the Black Lives Matter protests resurgence.

The one day with hourly usage released by Pornhub in March also shows a clear shift in when people were accessing the website (Pornhub CIPI, 2020). Unlike normal behavior from 2016-2019, 1:00 AM to 3:00 AM became the peak (not the lowest) time for access and the daytime access wave shifted from later afternoon to midday. I theorize, privacy and availability are playing a role here as well. Later starts to the day translate to later behaviors at night and thus a shift from previous popular times to visit Pornhub. Additionally, partners, children, roommates, and other privacy concerns could play a role in when people would take the time to access the website. Finally, the idea of using it as a form of leisure and perhaps as a sleep aid would have shifted with sleeping behavior.

### **Pornhub Day Shift: A Masculinity Effect**

The cited pre-pandemic numbers above drastically changed during the pandemic. I argue that conditions created or resulting from the pandemic invoked a situation where masculinity was not only challenged but forced many to adjust to how it could be expressed or employed. Conditions like unemployment, social unrest, inability to go out, and working from home are all

factors that likely restricted ways that people expressed masculinity. People would now need to find a new means for expression. Given, as demonstrated with the Super Bowl example, pornography is a private masculine behavior, I assert that removing means of public performances would result in an increase in a need to seek affirmation or possibly other forms of relief through pornography. A second level of masculinity I want to address in this section is the idea of Masculine Overcompensation. This applies to men who feel their masculinity has been challenged and now seek to overcompensate. I argue another reason the shift was so drastic was due to the nature of masculinity being challenged and men needing to find a means to compensate for this loss. I will give a direct example where masculine overcompensation was highlighted by the Pornhub data, but I also surmise it was an always present factor. Given the means to demonstrate masculinity were unavailable, the data indicates that Pornhub served as an outlet for frustration or comfort given pornography is a masculine behavior. The combination of pornography viewing being a private activity and available time increased, along with the need to find affirmation or expression of masculinity, Pornhub saw not only a spike but a shift in traffic. I attribute in this next area how the data supports the idea that masculinity theory serves as a framework for why the most popular day on Pornhub shifted from Sunday to Friday.

### **Time, Work, & Play**

One the biggest changes to everyday life for many during the pandemic was how time and availability shifted. One of the big factors for pornography consumption on Sunday pre-pandemic is the idea that Sunday is often viewed as a rest day and often the freest day within the week. Where Friday and Saturday are often loaded with plans, events (work and school in the case of Friday), and evening plans, Sunday may be used as a recovery day for the start of the work week. The pandemic changed those daily trends. The time related issues are direct windfall

of the pandemic and lockdown. Lockdowns and quarantine measures restricted and forced many people to stay at home, but those same measures also forced many businesses and entertainment venues to shut down.

Masculinity norms dictate that primacy of work, self-reliance, and pursuit of status is important. American culture also dictates that the man is supposed to be the breadwinner and provide for the family. The pandemic quickly challenged these norms. Starting with business and work, unemployment skyrocketed in the U.S. (CNN, 2020), and many businesses were forced to temporarily or permanently close due to restrictions and eventual financial strain. To ensure the health and safety of customers and employees, many businesses, up to 46%, quickly changed to work at home measures as early as March 5, 2020 (WTW, 2020). These layoffs, temporary closures, and the additional of stimulus checks all go counter to masculinity norms. For many people, they no longer could show or demonstrate several key aspects of what society may or consider masculine which in turn would weaken their position as a man. Given that hegemonic masculinity and masculinity in general is about constant pursuit and hierarchy, being without work, ability to provide for oneself or family, and loss of status would all contribute to one's loss of a masculine self. Instead, now many people found themselves having more time and no means of expression or performance.

This change alone would result in more time and a change in work mentality. A Seattle Times article titled "*How COVID-19 has changed what we wear and how we feel about clothing*" captures just how drastic that change could be reflecting changes in office culture during the pandemic (Burbank, 2021). Workers are no longer wear suits, business casual, or even jeans and shifted to wearing "whatever we want" making traditional formality a "waist-up enterprise" (Burbank, 2021). This article demonstrates a mental shift in how work is viewed and a changing

mentality from traditional norms, which also shows that norms can change and shift. As for additional time, removal of morning and evening commutes would free up more time in the day for many individuals and the traditional ways work was done was challenged. Getting off at 5:00 PM, meant getting off and being home already. The home became the workspace and the home is often considered a feminine space (Rezeanu, 2016). This change again has multiple implications. The atmosphere of work itself was changing. Given masculinity norms again push emotional control and primacy of work, being home and the atmosphere involved changes that. According to Burbank, workers were now dressing and acting laxer, which is counter to the idea of professionalism before. The boundaries of masculine workspace now intermingle with the feminine home, leading to a collision of two spaces that were considered very different and run counter to the idea of masculinity which seeks to separate itself from all things feminine.

There is a second major factor when it comes to time and availability as well. Entertainment wise, everything from sports, restaurants, bars, theme parks, social clubs, and movie theatres either had to close to adapt to a takeout only routine if available. This restriction on leisure venues would also translate to more time at home. While at first the impact on Pornhub viewing and masculinity may be absent, masculinity is a performance. Going out, be it on dates, couple time, hitting bars, going to social clubs, and attending sports all provide a way for a person to display and enforce their masculinity. These shows of recreation provide a means for demonstrating success, wealth, power, and status which are all tied to Mahalik's masculine norms. In short, not only were venues for standard entertainment and relaxation removed, but an actual standard means of expressing one's masculinity. In turn, Pornhub traffic which usually had notable declines on Friday and Saturday evening due to these performances now shifted to free and available times for people to visit the website. Confined to a feminine space, those

seeking masculine affirmation now have limited options. Events and activities that often take individuals away from home were no longer available and that time now translates to time spent at home. Being at home meant that more time was afforded towards the private aspect of expression and recreation, which I assert includes pornography usage.

### **Mental Health, Stress, and Overcompensation**

Masculinity norms and theory dictate that a person has control over their emotions, power over women, and assert some level of dominance, which were also challenged during the pandemic. Grubbs et al., (2019), Baltazar (2010), and Bothe et al., (2020) all found that pornography use can be attributed to depression, psychological distress, and emotional suppression. Various studies during the pandemic saw an increase in mental health conditions and issues (Browning et al., 2020; Ferrucci & Marino, 2020; Ahmed et al., 2020; Huang & Zhao, 2020; Firkey et al. 2021; Machado et al., 2020 & Zimmerman et al., 2020). Noted stressors came from quarantine orders and confinement, health concerns, uncertainty, and relationships. Another major set of stressors during the pandemic was the greatly increased unemployment and events of social unrest (CNN, 2020). Finally, I am considering relationships as a stressor based on Doring (2020) directly stating that “Factors contributing to relationship stress during the pandemic are limited living space, demanding home schooling and home office duties as well as job loss, preexisting conflicts, physical and mental diseases.” Prior to the pandemic Sunday was a day with increased stress rates and labeled as the Sunday Blues by LinkedIn (Heitmann, 2018), but now Friday may have also taken a load of that stress. High unemployment, changes in relationship dynamics, and restrictions on leisure, and financial uncertainty coupled with the fact that Friday is usually payday in the US (McBeth, 2020) would have made Friday a point of anxiety. Friday now served not only as a point of additional time with a lack of means to express oneself as before,

but openly reminded one of short comings linked to status affirmation of masculinity. Friday became a threat to masculinity, a position that Sunday held, which led to a change in when and how men sought to express or affirm themselves as men.

As an example of that change through the whole pandemic data period, Friday constantly remained the highest traffic day. I theorize a combination of stress, uncertainty, and lack of amenities all played a role in this increase. Additionally, the Friday following the initial lockdowns in the U.S. saw the highest trafficked day on Pornhub during the entire data period. I surmise that masculine overcompensation would be more noticeable here. Given that Willer (2013) found that social unrest and events that challenge the norm leads to an increase in the need to express masculinity, it comes as no surprise that the week with the highest traffic average during that time followed major events of social unrest. The first instance was the week of initial lockdowns, unemployment, and government intervention due to the spread of the pandemic. The second were the two Fridays following the death of George Floyd and the rise of the Black Lives Matters protests saw third and fourth highest traffic spikes during the data period, supporting external stressors as a driver of pornography usage. Those spikes also seem to have carried over to the whole weekend with those days being the only Sunday's to hit double digit traffic. In short, these weekends not only show that Pornhub saw an increase when masculinity norms were flipped or challenged, but they also show the strongest reaction and change in Pornhub giving light to masculine overcompensation theory. In short, social unrest and increased anxiety contributed as a reason for the increased use.

Finally, I assert that relationships also play a role as a stressor and factor when considering that masculine norms dictate power over women, dominance, and heterosexual self-presentation. Couple time is a change for men to express their power, dominances, ability to



provide, seek emotional enforcement, and demonstrate and affirm themselves as heterosexual. Doring states that relationships themselves also added to the stress factor during the pandemic (2020). Wilcox & Dew (2012) found couple time greatly affects relationship stability and happiness. According to the study, couple time may help relieve stress by allowing them to enjoy time together apart from their ordinary life. This “time apart from their ordinary life” became hard to create given the conditions of the pandemic. Couple couldn’t just go out or have quality time apart from their everyday settings which could include work, reminders, or lack of resources due to unemployment, and children. Couple time is also attributed to enhance intimacy, communication, and commitment according to Wilcox & Dew (2012). Lack of intimacy was reflected by Lehmilller et al., (2020) which found that 43.5% of their responding couple were having less sex. Finally, according to media outlets may also play a role stating that there could be an expected rise in separation and divorce (Doring & Walter, 2020). In short, inability to have or create time, lack of intimacy on any level (notably sex), and media influence all increase or create stress, anxiety, and uncertainty for relationships and relationship health. All these factors would, again, increase the numerous challenges to masculine norms now threatening their heterosexual male self and how expression with their partners that enforce norms no longer existed. A shift to a day where these factors previously were met or occurred would likely happen, once again a larger increase in Friday traffic.

### **The Switch to Online Streaming**

Research has clearly shown the primary drive for pornography consumption is some form of sexual gratification (Bothe et al., 2021; Brown et al., 2016; Doring, 2017 & 2021; Downing et al., 2017; Grubbs et al., 2019; Lehmilller et al., 2020; Miller et al., 2017; Perry, 2017; Schenk, 2009). It can be inferred from the data that standard means of sexual gratification found in sex

was not available (Lehmiller et al., 2020 & Doring, 2020) for everyone. Additionally, forms of couple time (Wilcox & Dex, 2012) or singles going out (Bodenmann & Atkins, 2010) which can lead to intimacy and sexual experiences prior to the pandemic were no longer available. All of this supports the idea that masculinity norms were challenged and availability to express or demonstrate masculinity was difficult. In place of outward expression, pornography, often used for sexual gratification, also saw greater purpose when pursuing and affirming masculine ideas. As noted in the Super Bowl event, pornography demonstrates or supplies a temporary means of multiple masculinity norms which could serve to affirm or alleviate outward expression.

In short, people looking for new forms of entertainment and gratification combined with the social distancing and lockdown regulations, a shift in how leisure activity was performed occurred. According to subscriptions and traffic data, streaming service became a primary form of entertainment during the pandemic (Amazon, 2021; Stoll, 2021; & Tankovska, 2021). Many adults also turned to virtual dating or other internet related platforms as a means of contact and intimacy (Lehmiller et al., 2020; Doring, 2020; & Melore, 2021). With the large increase of using streaming video as a means of entertainment, it can also be asserted that many people saw streaming online pornography as a form of sexual entertainment as well. Given that separation from children (Melore, 2021) and limits on sexual activity, additional factors like stress also contributed to the overall reduction in actual sex. While sex and pornography don't have a direct correlation, my supposition is that many people simply turned to online pornography for a means of sexual gratification as noted by changes to entertainment habits and space. Online and streaming became leading means of entertainment and relief, as a result online streamed pornography would also see a similar increase.

## **‘Discussion & Conclusion**

This is a study into what can drive behavioral shifts and this research provides insight into how behaviors change along with how people adapt to long- and short-term changes due to major events. It builds on existing theory and research for support, demonstrating that baseline motivations behind use may not change but events can cause shifts in when and possibly why people access Pornhub at certain times. The primary framework is laid in masculinity theory where an event can have a negative or positive impact on another object or site, but also how the urge to perform or a challenge against masculinity can explain those impacts. Referring to the Giddens quote that identity is continuously performed and sustained (1991), I argue that men still want to demonstrate or have their masculinity affirmed in some form or fashion. In the Super Bowl example, I show that if there is a greater (or higher tiered) event which this can be done, other places of where masculinity is demonstrated might reduce (Pornhub). In turn, in my second and primary example, if an event would lead to the restriction, challenge, or removal of ways to express masculinity occurs, men would turn to other means that invoke masculinity and at greater force (again Pornhub). It serves to not only highlight a possible explanation to why the day shift in popularity occurred, but how the motivational reasons for pornography viewing and masculinity theory are intertwined. Next, this supports the theory that a hierarchy exists for what is considered masculine and when/why it is performed. Last, it demonstrates that masculinity challenges and means of expression are important to the point that restricting those means can lead to drastic shifts to other forms behaviors or where sites masculinity is expressed.

## **Limitations**

This study is strictly focusing on U.S. based internet traffic to the pornography website Pornhub using their Pornhub Insight Data released from March to July 2020. This study relies on

various theories as to why usage may have increased and compare against other trends noted by Pornhub Insights for possible explanations in the uptick in traffic.

In short, what is considered pornography, what is used as pornography, and the motivations behind the use all vary. Likewise, as noted in my research, masculinity as a concept is constantly in a state of flux as well. Being armed with that knowledge doesn't begin to solve the riddle of why each individual person may turn on their computer and "watch some porn", nor is there a blanket reason as to why Pornhub itself saw a considerable spike to its daily traffic or what caused a shift in daily popularity. Follow-up data and research post-pandemic will tell us a lot about the possible behavioral changes and if the pandemic's long list of health (both mental and physical) effects should consider adding sex and sexual health. Second, additionally qualitative research using Mahalik's masculine norms with pornography viewing, ideally Pornhub viewers, would provide a deeper look into influences on usage.

Pornhub doesn't represent all pornography and since the release of their data the website itself has seen great change. First, Pornhub is the most popular pornography website in the U.S., but not the only pornography website, however Pornhub is the only one that provided open and detailed statics. This study is only a glimpse into the vast quantity of pornography and sexual content that was affected by the pandemic. Exploration into physical medium sales (e.g. Blu-ray), uploads and downloads, toys and accessories, exploration, relationship status, and various demographics need to be weighted when trying to better understand the overall national impact the pandemic had on sex and sexual health. Just building on this study, a consideration or follow up research other popular pornography websites (xvideos.com or xhamster.com) or the rise of other websites (onlyfans.com) should also be in the mix if they make their data available to the public. Additionally, deeper use and analyzation of metrics from search engines like Google

Trends or social media could also reveal more about sex and sexual behavior changes during the pandemic.

Second, Pornhub fell under legal and public examination at the end of 2020 after the release of a New York Times report of illegal, exploitative, or questionable content being hosted on their website (Kristof, 2020). While most videos uploaded to Pornhub do not contain illegal content, Kristof claims there are times that videos slip past the content control mechanisms allowing for illegal or exploitative content to be uploaded. In response to these claims, Pornhub removed around 70% of its content to ensure none of the questionable content remained according to an article from CNN (Valinsky, 2020). Pornhub has since changed their upload requirements so that only verified users can post videos on its website to prevent any chance of illegal content being uploaded. This change is important to note, as it affects who is posting on Pornhub and what is available for consumption. A verified user is exactly that, this requirement removes not only illegal or questionable material (at least the chance of it being uploaded), but also places a barrier on content creators who do not wish to be known or named. The large removal of content and requirement of verification may have removed a viewer's favorite videos, content creator, or brand. This large removal of content and possible loss of viewers would make future examination of Pornhub year-over-year or by comparison even more difficult.

Third, qualitative work is the next step for this study when trying to measure or explain possible behavioral changes and other theoretical possibilities that drive motivation and use. Survey research and interviews would give much needed insight into trying to gain confidence levels when linking behavior and the pandemic. If I chose to pursue this line of research further, I feel doing survey or interview work with people who accessed Pornhub during the pandemic and creating an in-depth set of questions in regard to behavior and lifestyle changes would yield

fruitful results. A noted risk, much like with reporting pornography itself, is recency bias and perhaps unwillingness to acknowledge certain behaviors or actions. I would use PUM as a framework as a key for doing such research.

Finally, the pandemic (at the time of this research) is still ongoing which makes it difficult to draw any type of conclusion. Further research on various data sets post-pandemic, year-over-year data from Pornhub, comparative data to other similar websites, buying and purchasing habits in relation to sex and sexual wellness, and examination in the possible permanent or ongoing shift to streaming media would and should be considered.

## Bibliography

Ahmed, Md Zahir et al. (2020). "Epidemic of COVID-19 in China and associated Psychological Problems." *Asian journal of psychiatry* vol. 51 (2020): 102092. doi:10.1016/j.ajp.2020.102092

Alexa. (2021). Alexa - Pornhub.com Competitive Analysis, Marketing Mix and Traffic. Retrieved on April 1, 2021 from [www.alexacom/siteinfo/pornhub.com](http://www.alexacom/siteinfo/pornhub.com).

Amazon. (2021). Annual Reports Proxies and Shareholder Letters, Retrieved on June 1, 2021 from <https://ir.aboutamazon.com/annual-reports-proxies-and-shareholder-letters/default.aspx>

Awan Hashir Ali, & Aamir Alifiya, & Diwan Mufaddal Najmuddin, & Ullah Irfan, & Pereira-Sanchez Victor, & Ramalho Rodrigo, & Orsolini Laura, de Filippis Renato, & Ojeahere Margaret Isioma, & Ransing Ramdas, & Vadsaria Aftab Karmali, & Virani Sanya. (2021). Internet and Pornography Use During the COVID-19 Pandemic: Presumed Impact and What Can Be Done. *Frontiers in Psychiatry*, Vol 12. (2021) 220. <https://doi.org/10.3389/fpsy.2021.623508>

Baltazar, Alina & Jr, H.W. & McBride, Duane & Hopkins, Gary & Jr, J.V.. (2010). Internet Pornography use in the Context of External and Internal Religiosity. *Journal of Psychology and Theology*. 38. 32-40. 10.1177/009164711003800103.

Birmingham, Elizabeth. (2007). Shifting Discipline in Women's Studies: Studies of Masculinities, Pornographies, and Sexualities. *NWSA Journal* 19(2), 230-239. <https://www.muse.jhu.edu/article/219827>.

Bodenmann, Guy, & Atkins, David, & Schär, Marcel, & Poffet, Valerie. (2010). The association between daily stress and sexual activity. *Journal of Family Psychology*, 24(3), 271–279. <https://doi.org/10.1037/a0019365>

Borgogna, Nicholas, McDermott, Ryon., Berry, April., & Browning, Brandon. (2020). Masculinity and problematic pornography viewing: The moderating role of self-esteem. *Psychology of Men & Masculinities*, 21(1), 81–94. <https://doi.org/10.1037/men0000214>

Böthe, Beata, & Tóth-Király, Istvan, & Bella, Nora, & Potenza, Marc, & Demetrovics, Zsolt, & Orosz, Gabor. (2021). Why do people watch pornography? The motivational basis of pornography use. *Psychology of Addictive Behaviors*, 35(2), 172–186. <https://doi.org/10.1037/adb0000603>

Brown, Cameron, & Durtschi, Jared, & Carroll, Jason, & Willoughby, Brian. (2017). Understanding and predicting classes of college students who use pornography, *Computers in Human Behavior*, Volume 66, 2017, Pages 114-121, ISSN 0747-5632, <https://doi.org/10.1016/j.chb.2016.09.008>.

Burbank, Megan. (2021). How COVID-19 has changed what we wear and how we feel about clothing, *Seattle Times*, 23 Feb. 2021, Retrieved on June 1, 2021 from

<https://www.seattletimes.com/life/fashion/farewell-to-bras-hard-pants-and-business-casual-how-covid-19-has-changed-what-we-wear-and-how-we-feel-about-clothing/>

Busby, Dean, & Willoughby, Brian, & Chiu, Hsin-Yao, & Olsen, Joseph. (2020) "Measuring the Multidimensional Construct of Pornography: A Long and Short Version of the Pornography Usage Measure" (2020). Faculty Publications. 4644.

Carrigan, Tim., Connell, RW., and Lee, John. (1985). "Toward a New Sociology of Masculinity. *Theory and Society* 14:551–604.

Center for Disease Control and Prevention (CDC). (2021). CDC COVID Data Tracker, Retrieved on April 1, 2021 from <https://covid.cdc.gov/covid-data-tracker/#datatracker-home>

Chen, An-Sing & Leung, Mark & Chen, & Chih-Hao & Yang, Shu. (2013). Exposure to Internet Pornography Among Taiwanese Adolescents. *Social Behavior and Personality: an international journal*. 41. 10.2224/sbp.2013.41.1.157.

Connell, RW. (2005). *Masculinities*. Berkeley, CA: University of California Press

Connell, RW. and Messerschmidt, J. (2005). "Hegemonic Masculinity: Rethinking the Concept." *Gender and Society* 19:829–59.

CNN. (2020). Coronavirus News. *CNN*, Cable News Network, 19 Feb. 2020, Retrieved on April 1, 2021 from <https://www.cnn.com/>

Direct TV. (2021). "Which states love to watch sports the most?" Retrieved on July 18, 2021 from <https://www.usdirect.com/resources/most-watched-sports-america/>

Döring, Nicola & Daneback, Kristian & Shaughnessy, Krystelle & Grov, Christian & Byers, E.. (2017). Online Sexual Activity Experiences Among College Students: A Four-Country Comparison. *Archives of Sexual Behavior*. 46. 10.1007/s10508-015-0656-4.

Döring, Nicola, & Walter, Roberto. (2020). How is the COVID-19 Pandemic Changing our Sexualities? An Overview of Media Narratives in Spring 2020. *Zeitschrift für Sexualforschung*, 33(2). <https://doi.org/10.1055/a-1165-7760>

Döring, Nicola. How Is the COVID-19 Pandemic Affecting Our Sexualities? An Overview of the Current Media Narratives and Research Hypotheses. (2020). *Arch Sex Behav* 49, 2765–2778 (2020). <https://doi.org/10.1007/s10508-020-01790->

Downing, Martin., & Schrimshaw, Eric, & Scheinmann, Roberta & Hirshfield, Sabina, & Antebi-Gruszka, Nadav. (2017). Sexually Explicit Media Use by Sexual Identity: A Comparative Analysis of Gay, Bisexual, and Heterosexual Men in the United States. *Arch Sex Behav* 46, 1763–1776 (2017). <https://doi.org/10.1007/s10508-016-0837-9>

Ferrucci, Roberta, & Marino, Daniela, & Reitano, Maria & Rita & Ruggiero, Fabiana & Mameli, Francesca & Poletti, Barbara & Pravettoni, Gabriella & Barbieri, Sergio & Priori, Alberto &



Averna, Alberto. (2020). Psychological Impact During an Epidemic: Data from Italy's First Outbreak of COVID-19 (4/11/2020). Available at SSRN: <https://ssrn.com/abstract=3576930> or <http://dx.doi.org/10.2139/ssrn.3576930>

Firkey, Madison, & Sheinfil, Alan, & Woolf-King, Sarah. (2021) [Substance use, sexual behavior, and general well-being of U.S. college students during the COVID-19 pandemic: A brief report](#). Journal of American College Health 0:0, pages 1-7.

Foucault, Michel. (1992). The use of pleasure: History of sexuality: Vol. 2. (trans. R. Hurley). New York: Pantheon.

Giddens, Anthony. (1991). Modernity and self-identity: Self and society in the late modern age. Stanford, CA: Stanford University Press.

Google Trends. (2021). Trends, Retrieved on June 1, 2021 from <https://trends.google.com/trends/?geo=US>

Gough, Christina. (2021). "Average consumer spending on Super Bowl Sunday in the UNivted States from 2011 to 2021." Statista, 1 Feb. 2021, Retrieved on July 18, 2021 from <https://www.statista.com/statistics/251064/super-bowl-sunday-average-consumer-spending/>

Gough, Christina. (2021). "Do you plan to throw or attend a Super Bowl party?" Statista, 1 Feb. 2021, Retrieved on July 18, 2021 from <https://www.statista.com/statistics/217156/super-bowl-parties-in-the-us/>

Gough, Christina. (2021). "Super Bowl - Statistics & Facts." Statista, 8 Feb. 2021, Retrieved on July 18, 2021 from <https://www.statista.com/topics/1264/super-bowl/>

Grubbs, Joshua & Wright, Paul & Braden, Abby & Wilt, Joshua & Kraus, Shane. (2019). Internet pornography use and sexual motivation: a systematic review and integration. Annals of the International Communication Association. 43. 1-39. 10.1080/23808985.2019.1584045.

Heitmann, Blair. (2018). LinkedIn Offical Blog; Your Guide to Winning @Work: Decoding the Sunday Scaries. Retrieved on June 1, 2021 from <https://blog.linkedin.com/2018/september/28/your-guide-to-winning-work-decoding-the-sunday-scaries>

Huang, Yeen, & Ning Zhao. (2020). "Generalized anxiety disorder, depressive symptoms and sleep quality during COVID-19 outbreak in China: a web-based cross-sectional survey." Psychiatry research. vol. 288 (2020): 112954. doi:10.1016/j.psychres.2020.112954

Johnson, Allan. (2005). The Gender Knot: Unraveling our Patriarchal Legacy. Philadelphia: Temple University Press.

Kristof, Nicholas. (2020) "The Children of Pornhub." The New York Times, The New York Times, 4 Dec. 2020, Retrieved on April 1, 2021 from [www.nytimes.com/2020/12/04/opinion/sunday/pornhub-rape-trafficking.html](http://www.nytimes.com/2020/12/04/opinion/sunday/pornhub-rape-trafficking.html).

Lehmiller, Justin, & Garcia, Justin, & Gesselman, Amanda, & Mark, Kristen. (2021) Less Sex, but More Sexual Diversity: Changes in Sexual Behavior during the COVID-19 Coronavirus Pandemic, *Leisure Sciences*, 43:1-2, 295-304, DOI: [10.1080/01490400.2020.1774016](https://doi.org/10.1080/01490400.2020.1774016)

Leung, L., & P. S. Lee. (2012). "The Influences of Information Literacy, Internet Addiction and Parenting Styles on Internet Risks." *New Media & Society* 14 (1): 117–136.

Machado, Daiane, & Alves<sup>1</sup>, Flavia, & Teixeira, Camila, & Rocha, Aline, & Castro-de-Araujo, Luis & Singh, Amandeep, & Barreto, Mauricio. (2020). Effects of COVID-19 on Anxiety, Depression and Other Mental Health Issues: A worldwide scope review., 13 August 2020, PREPRINT (Version 1) available at Research Square [<https://doi.org/10.21203/rs.3.rs-58186/v1>]

Mahalik, James, Locke, Benjamin, Ludlow, Larry, Diemer, Matthew, Scott, Ryan, Gottfried, Michael, & Freitas, Gary. (2003). Development of the Conformity to Masculine Norms Inventory. *Psychology of Men and Masculinity*, 4, 3–25. <http://dx.doi.org/10.1037/1524-9220.4.1.3>

McBeth, Katie. (2020). Semimonthly vs biweekly payroll pay schedules, Intuit Quickbooks, 24 July 2020, Retrieved on June 1, 2020 from <https://quickbooks.intuit.com/r/payroll/semimonthly-vs-biweekly/>

Melore, Chris. (2021). Same old Saturday: Americans are running out of date night ideas during COVID, Studyfinds, 13 Feb. 2021, Retrieved on June 1, 2021 from <https://www.studyfinds.org/americans-date-night-ideas-covid/>

Mestre-Bach, Gemma, & Blycker, Gretchen, & Potenza, Marc. (2020). Pornography use in the setting of the COVID-19 pandemic, *Journal of Behavioral Addictions J Behav Addict*, 9(2), 181-183. Retrieved Jun 27, 2021, from <https://akjournals.com/view/journals/2006/9/2/article-p181.xml>

Miller, Dan, & McBain, Kerry, & Li, Wendy, & Raggatt, Peter. (2019). Pornography, preference for porn-like sex, masturbation, and men's sexual and relationship satisfaction. *Pers Relationship*. 2019; 26: 93– 113. <https://doi.org/10.1111/pere.12267>

Nielsen. (2017). "Tops of 2017: Television and Social Media." Retrieved on July 18, 2021 from <https://www.nielsen.com/us/en/insights/article/2017/tops-of-2017-television-and-social-media/>

Nielsen. (2018). "Tops of 2018: Television." Retrieved on July 18, 2021 from <https://www.nielsen.com/us/en/insights/article/2018/tops-of-2018-television/>

Nielsen. (2019). "Tops of 2019: Television." Retrieved on July 18, 2021 from <https://www.nielsen.com/us/en/insights/article/2019/tops-of-2019-television-2/>

Nielsen. (2020). "Tops of 2020: Television." Retrieved on July 18, 2021 from <https://www.nielsen.com/us/en/insights/article/2020/tops-of-2020-television/>

Perry, Samuel & Schleifer, Cyrus. (2017). Race and Trends in Pornography Viewership, 1973-2016: Examining the Moderating Roles of Gender and Religion. *The Journal of Sex Research*. 56. 10.1080/00224499.2017.1404959.

Pornhub. (2021). Pornhub Porn Videos. Retrieved on April 1, 2021 from [www.pornhub.com/](http://www.pornhub.com/).

Pornhub CIPI. (2020). Coronavirus Insights - Pornhub Insights, Retrieved on June 1, 2021 from <https://www.pornhub.com/insights/corona-virus>

Pornhub. (2016). “The 2016 Year in Review.” Retrieved on April 1, 2021 from <https://www.pornhub.com/insights/2016-year-in-review>

Pornhub. (2017). “The 2017 Year in Review.” Retrieved on April 1, 2021 from <https://www.pornhub.com/insights/2017-year-in-review>

Pornhub. (2018). “The 2018 Year in Review.” Retrieved on April 1, 2021 from <https://www.pornhub.com/insights/2018-year-in-review>

Pornhub. (2019). “The 2019 Year in Review.” Retrieved on April 1, 2021 from <https://www.pornhub.com/insights/2019-year-in-review>

Pornhub. (2020). Coronavirus Update – June 18. Retrieved on April 1, 2021 from [www.pornhub.com/insights/coronavirus-update-june-18](http://www.pornhub.com/insights/coronavirus-update-june-18).

Pornhub. (2015). “Pornhub Traffic Changes During Super Bowl XLIX.” Retrieved on April 1, 2021 from <https://www.pornhub.com/insights/pornhub-super-bowl-xlIX>

Pornhub. (2016). “Pornhub Traffic During Super Bowl 50.” Retrieved on April 1, 2021 from <https://www.pornhub.com/insights/pornhub-traffic-super-bowl-50>

Pornhub. (2017). “Pornhub Traffic During Super Bowl 51.” Retrieved on April 1, 2021 from <https://www.pornhub.com/insights/pornhub-traffic-super-bowl-51>

Pornhub. (2018). “2018 Super Bowl 52.” Retrieved on April 1, 2021 from <https://www.pornhub.com/insights/2018-super-bowl-52>

Pornhub. (2019). “2019 Super Bowl 53.” Retrieved on April 1, 2021 from <https://www.pornhub.com/insights/2019-super-bowl-53>

Pornhub. (2020). “2020 Super Bowl 54.” Retrieved on April 1, 2021 from <https://www.pornhub.com/insights/2020-super-bowl-54>

Regnerus, Mark & Gordon, David & Price, Joseph. (2015). Documenting Pornography Use in America: A Comparative Analysis of Methodological Approaches. *Journal of sex research*. 53. 1-9. 10.1080/00224499.2015.1096886.

Rezeanu, Cătălina-Ionela. "The relationship between domestic space and gender identity: Some signs of emergence of alternative domestic femininity and masculinity." *Journal of Comparative Research in Anthropology and Sociology* 6 (2015): 9-29.

Roberts, Steven, Anderson, Eric, and Magrath, Rory. (2017), Continuity, change and complexity in the performance of masculinity among elite young footballers in England. *The British Journal of Sociology*, 68: 336-357. <https://doi.org/10.1111/1468-4446.12237>

Schenk, Casey B., "Pornography as a Leisure Behavior: An Investigation of Pornography Use and Leisure Boredom" (2009). *Theses and Dissertations*. 1976. <https://scholarsarchive.byu.edu/etd/1976>

Settembre, Jeanette. (2018). The Sunday Scaries are affecting a frightening number of Americans, *Market Watch*, 28 Oct. 2018, Retrieved on June 1, 2021 from <https://www.marketwatch.com/story/the-sunday-scaries-are-affecting-a-frightening-number-of-americans-2018-10-28>

Simon, W., & Gagnon, J.H. (1986). Sexual scripts: Permanence and change. *Arch Sex Behav* 15, 97–120 (1986). <https://doi.org/10.1007/BF01542219>

Stoll, Julia. (2021) "Netflix Subscribers Count in the U.S." Statista, 2 Feb. 2021, Retrieved on April 1, 2021 from [www.statista.com/statistics/250937/quarterly-number-of-netflix-streaming-subscribers-in-the-us/](http://www.statista.com/statistics/250937/quarterly-number-of-netflix-streaming-subscribers-in-the-us/)

Tankovska, H. (2021). "Global YouTube Audience 2021." Statista, 26 Jan. 2021, Retrieved on April 1, 2021 from [www.statista.com/statistics/805656/number-youtube-viewers-worldwide/](http://www.statista.com/statistics/805656/number-youtube-viewers-worldwide/).

Thomas, Calvin. (1999). "Review of Antony Rowland, Emma Liggins and Eriks Uskalis, eds. *Signs of Masculinity: Men in Literature 1700 to the Present*." *The Heidelberg Review of English Studies* 16(11).

Unacast. (2020). Unacast Covid-19 Social Distancing Scoreboard. Retrieved on April 1, 2021 from [www.unacast.com/covid19/social-distancing-scoreboard](http://www.unacast.com/covid19/social-distancing-scoreboard).

Valinsky, Jordan. "Pornhub Removes a Majority of Its Videos after Investigation Reveals Child Abuse." *CNN, Cable News Network*, 15 Dec. 2020, Retrieved on April 1, 2021 from [www.cnn.com/2020/12/15/business/pornhub-videos-removed/index.html](http://www.cnn.com/2020/12/15/business/pornhub-videos-removed/index.html).

Vinopal, Lauren. (2019). No One Watches Porn on Friday, but Everyone Watches on Sundays, *Fatherly*, 25 Jan. 2019, Retrieved on June 1, 2021 from <https://www.fatherly.com/health-science/why-everyone-watches-porn-on-sundays-according-to-science/>

Wade, Lisa. (2018). *American Hookup: The New Culture of Sex on Campus*. W.W. Norton & Company.

West, C., & Zimmerman, D. H. (1987) Doing gender. *Gender and Society*, 1(2), 125-151.

Whitson, D. (1990). "Sport in the social construction of masculinity. In Messner, M. A. & Sabo, D. F. (eds.), *Sport, men and the gender order: critical feminist perspectives.*" Champaign, IL: Human Kinetics.

Wilcox, Bradford & Dew, Jeffrey, "The Date Night Opportunity: What Does Couple Time Tell Us About the Potential Value of Date Nights?" (2012). *Faculty Publications.* 4551.  
<https://scholarsarchive.byu.edu/facpub/4551>

Willer, Robb, et al. (2013). "Overdoing Gender: A Test of the Masculine Overcompensation Thesis." *American Journal of Sociology*, vol. 118, no. 4, 2013, pp. 980–1022. *JSTOR*, [www.jstor.org/stable/10.1086/668417](http://www.jstor.org/stable/10.1086/668417). Accessed 18 July 2021.

Willis Towers Watson (WTW). (2020). North American companies take steps to protect employees from coronavirus epidemic, 5 Mar. 2020, Retrieved on June 1, 2021 from <https://www.willistowerswatson.com/en-US/News/2020/03/north-american-companies-take-steps-to-protect-employees-from-coronavirus-epidemic>

World Health Organization (WHO). (2019). "WHO's COVID-19 Response (Timeline)." Retrieved April 1, 2021 from [www.who.int/emergencies/diseases/novel-coronavirus-2019/interactive-timeline](http://www.who.int/emergencies/diseases/novel-coronavirus-2019/interactive-timeline).

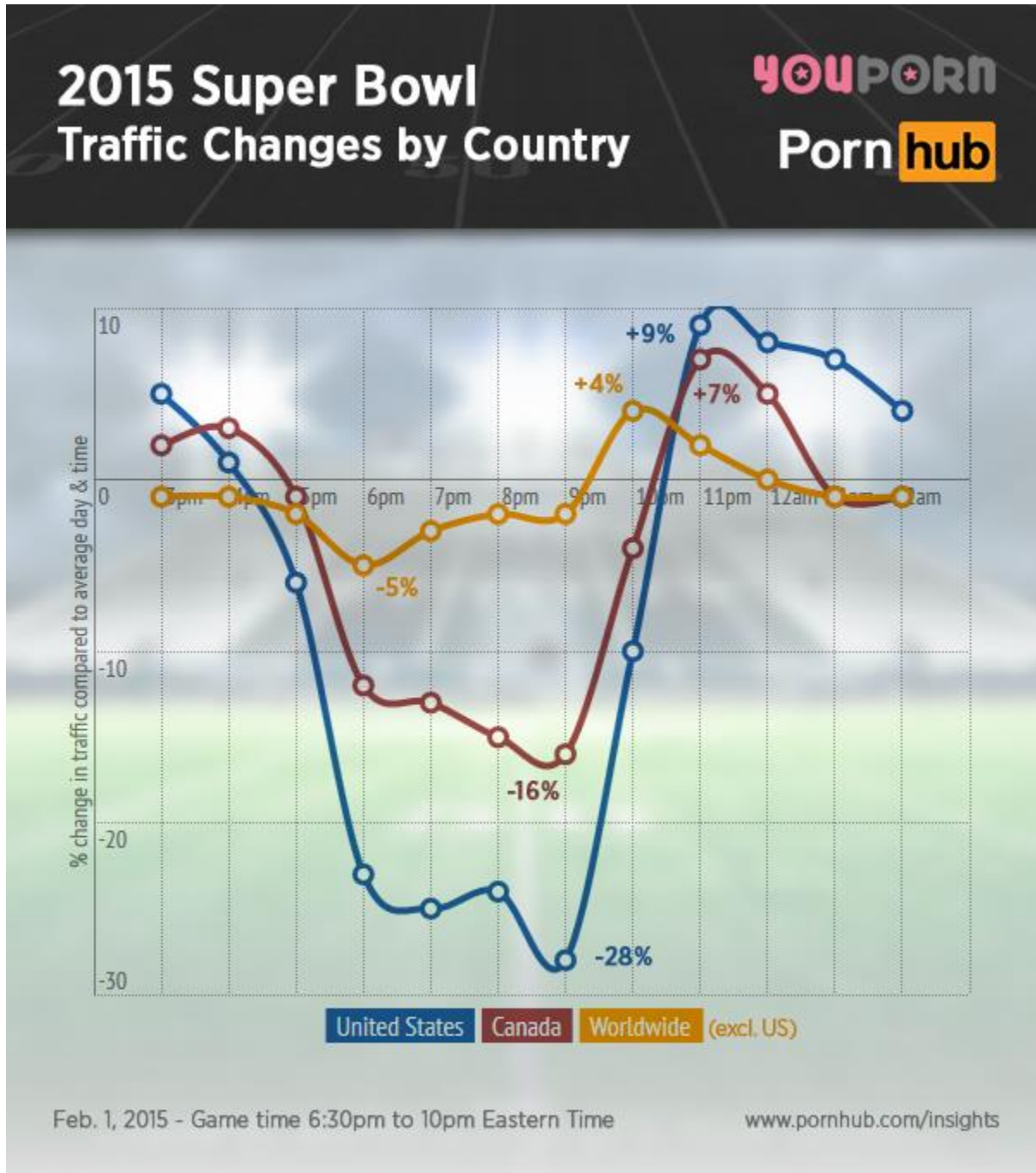
Wright, Paul. (2011). U.S. Males and Pornography, 1973–2010: Consumption, Predictors, Correlates. *Journal of sex research.* 50. 10.1080/00224499.2011.628132.

Wright, Paul & Bae, Soyoung & Funk, Michelle. (2013). United States Women and Pornography Through Four Decades: Exposure, Attitudes, Behaviors, Individual Differences. *Archives of sexual behavior.* 42. 10.1007/s10508-013-0116-y.

Zattoni, Fabio & Gul, Murat & Soligo, Matteo & Morlacco, Alessandro & Motterle, Giovanni & Collavino, Jeanlou & Barneschi, Andrea & Moschini, Marco & Dal Moro, Fabrizio. (2020). The impact of COVID-19 pandemic on pornography habits: a global analysis of Google Trends. *International Journal of Impotence Research.* 1-8. 10.1038/s41443-020-00380-w.

Zimmermann, Martha & Bledsoe, Casandra & Papa, Anthony. (2020). The Impact of the COVID-19 Pandemic on College Student Mental Health: A Longitudinal Examination of Risk and Protective Factors. 10.31234/osf.io/2y7hu.

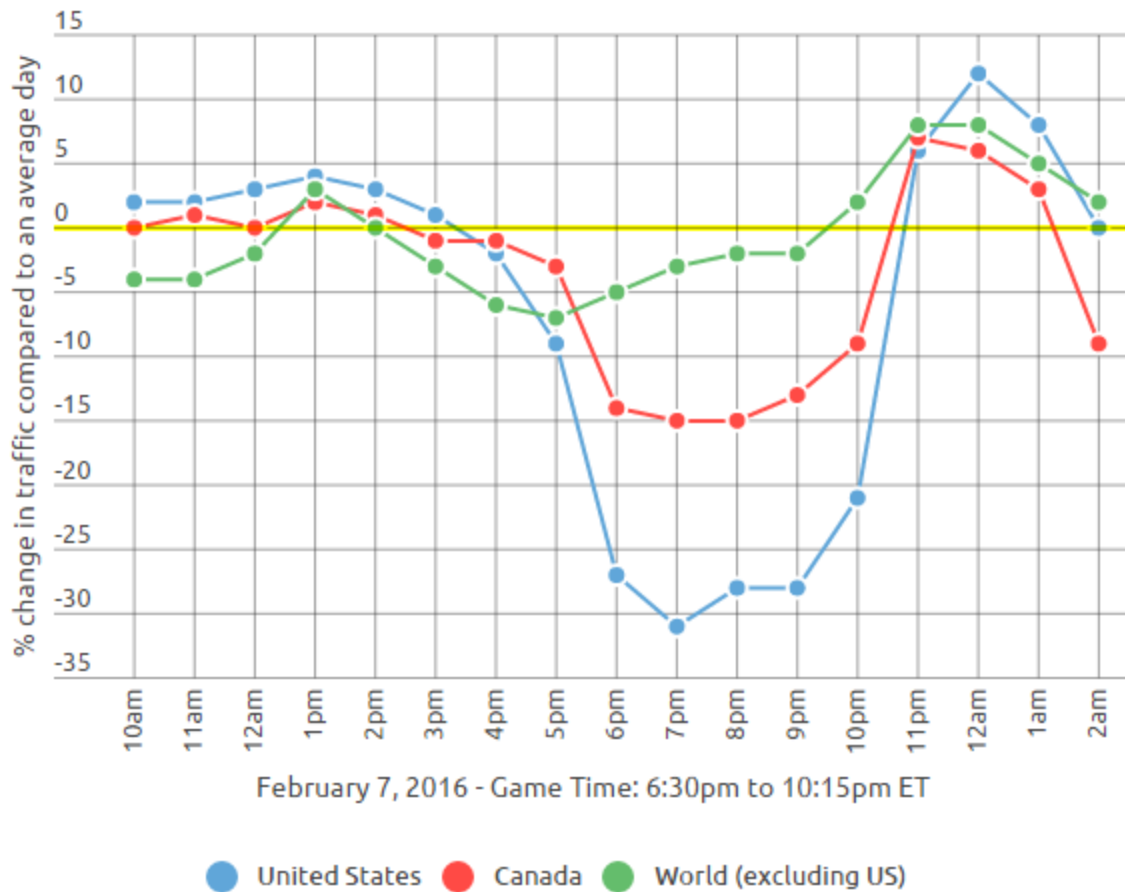
Appendix: Super Bowl Data from Pornhub (See Bibliography – Pornhub)





# SUPER BOWL 50

## Game Time Pornhub Traffic Change



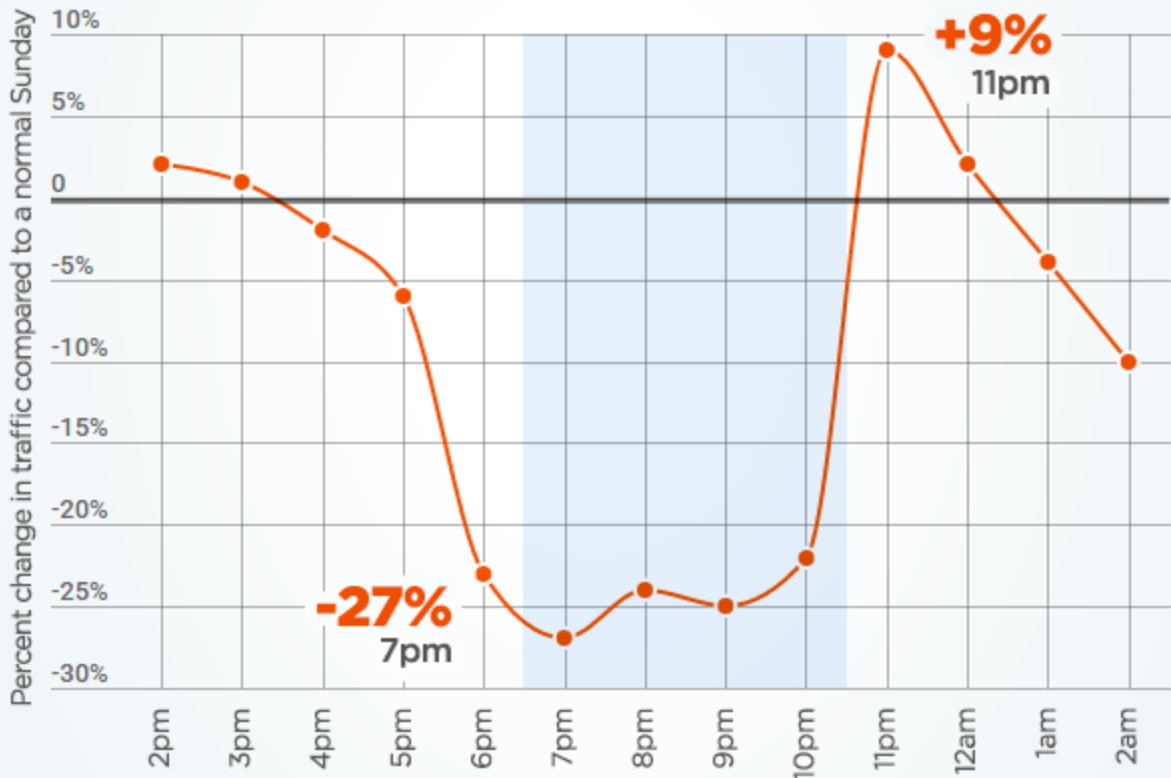
[pornhub.com/insights](http://pornhub.com/insights)

Porn hub

# 2017 Super Bowl LI

Feb. 5th Game Day Traffic Changes

New England Patriots (34) vs Atlanta Falcons (28)



● United States Traffic

[pornhub.com/insights](http://pornhub.com/insights)

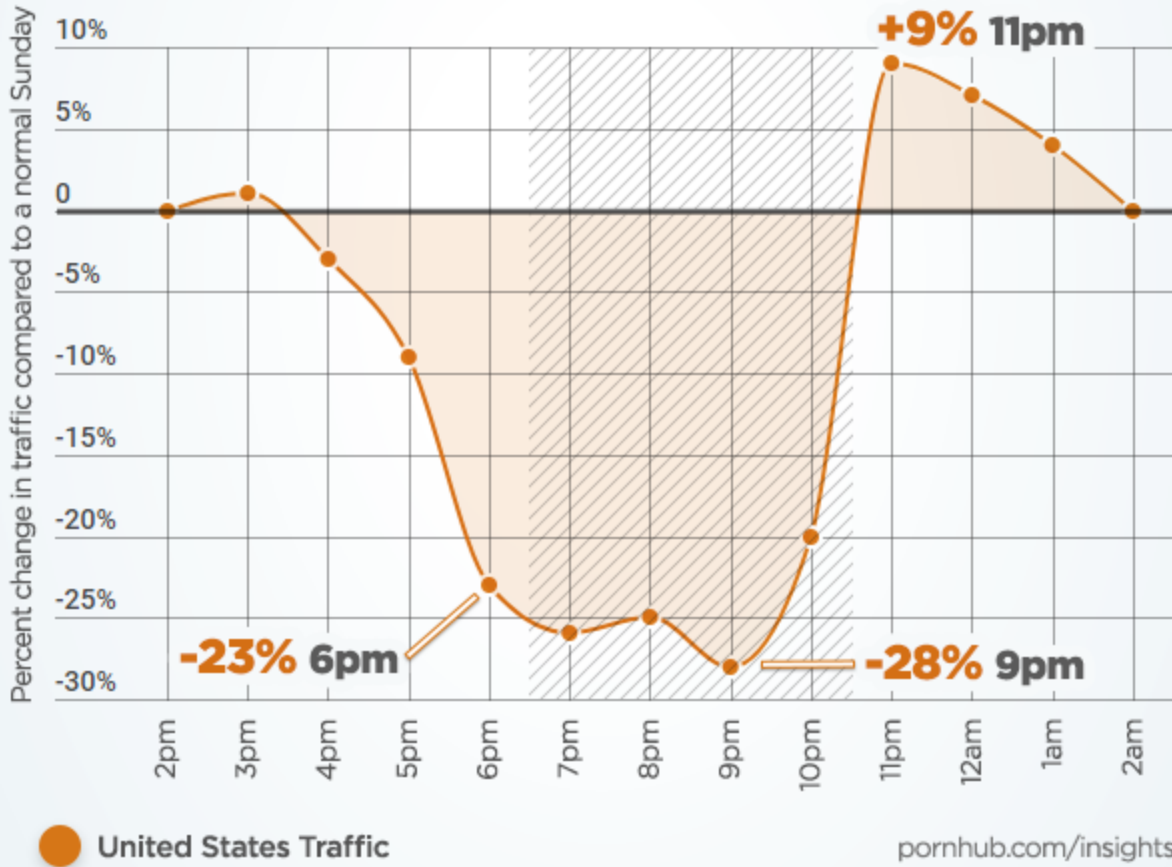


Porn hub

# Super Bowl 52 🏈 Feb 4th, 2018

Philadelphia Eagles (41) vs New England Patriots (33)

## U.S. Game Day Traffic Changes

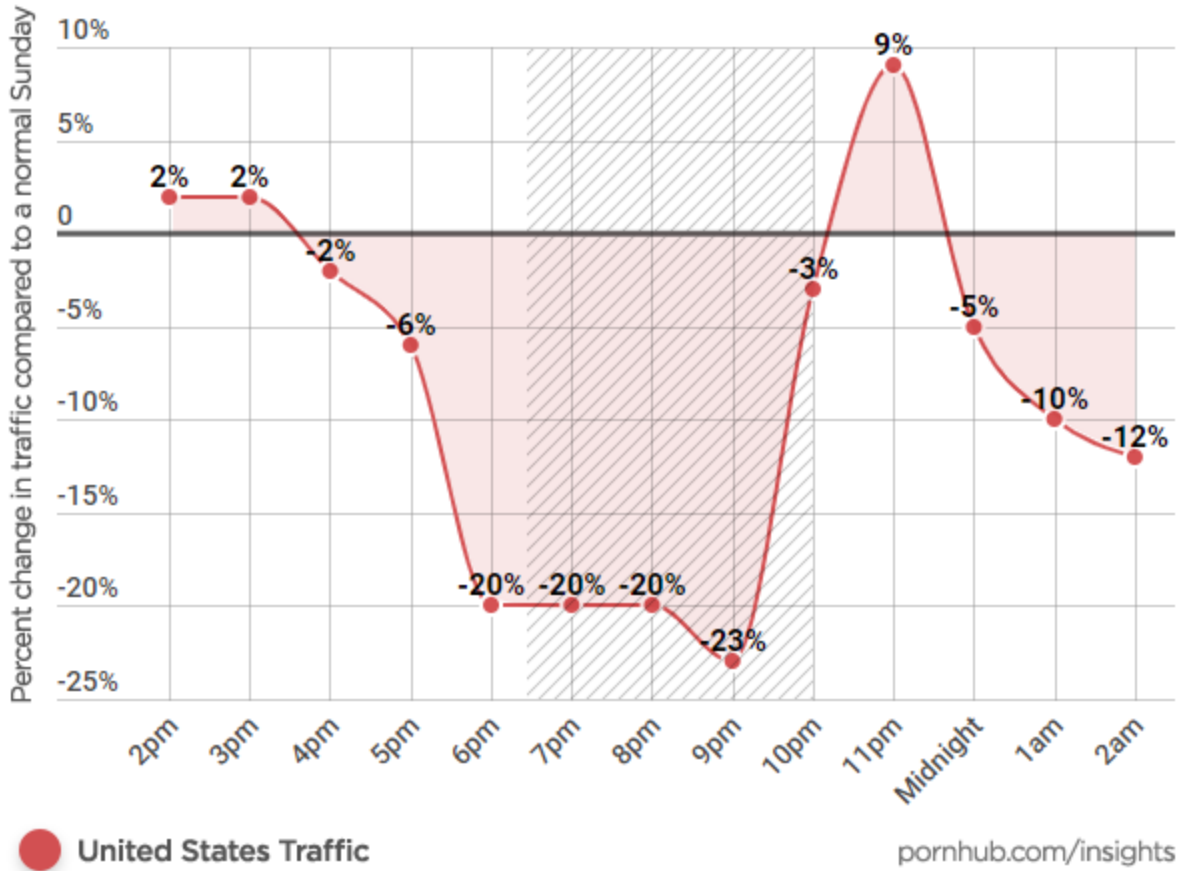


Pornhub

# Super Bowl 53 🏈 Feb 3rd, 2019

New England Patriots (13) vs Los Angeles Rams (3)

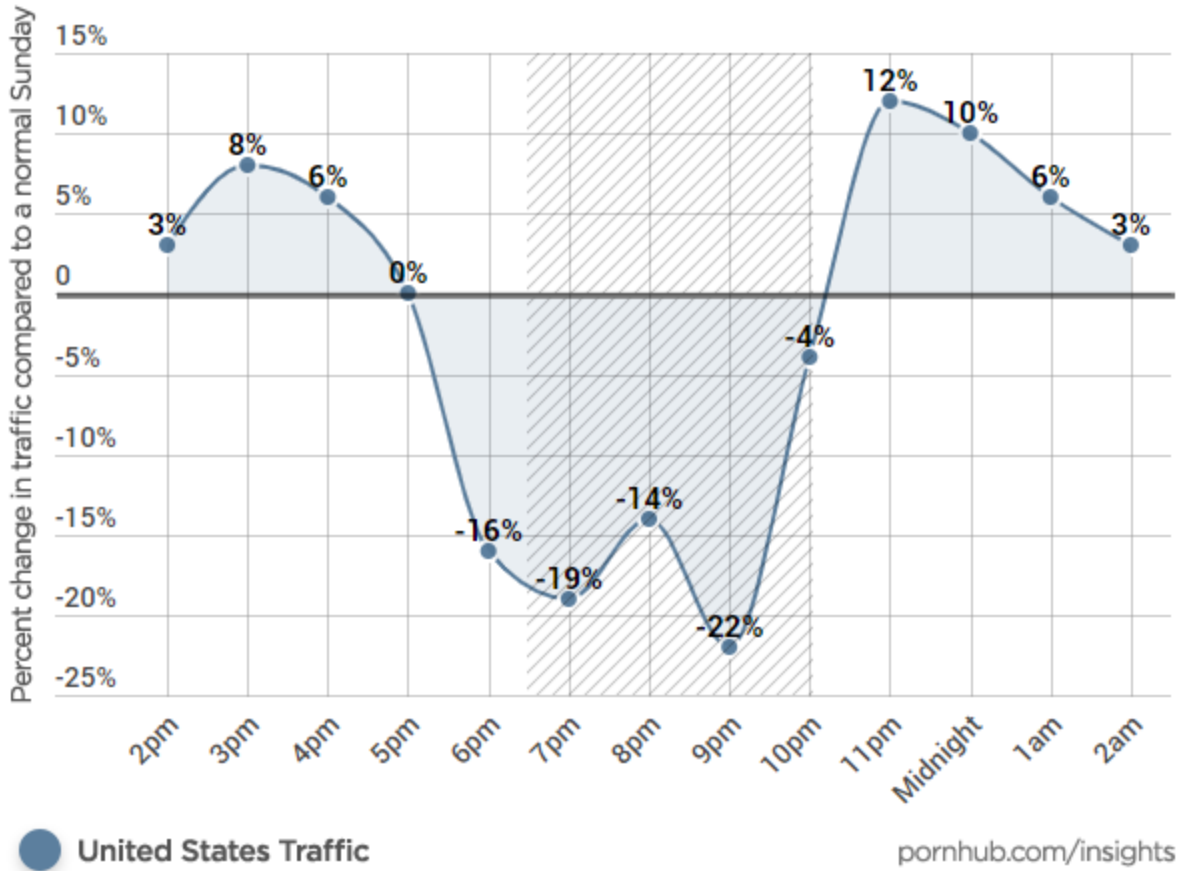
## U.S. Game Day Traffic Changes



# Super Bowl 54 🏈 Feb 2nd, 2020

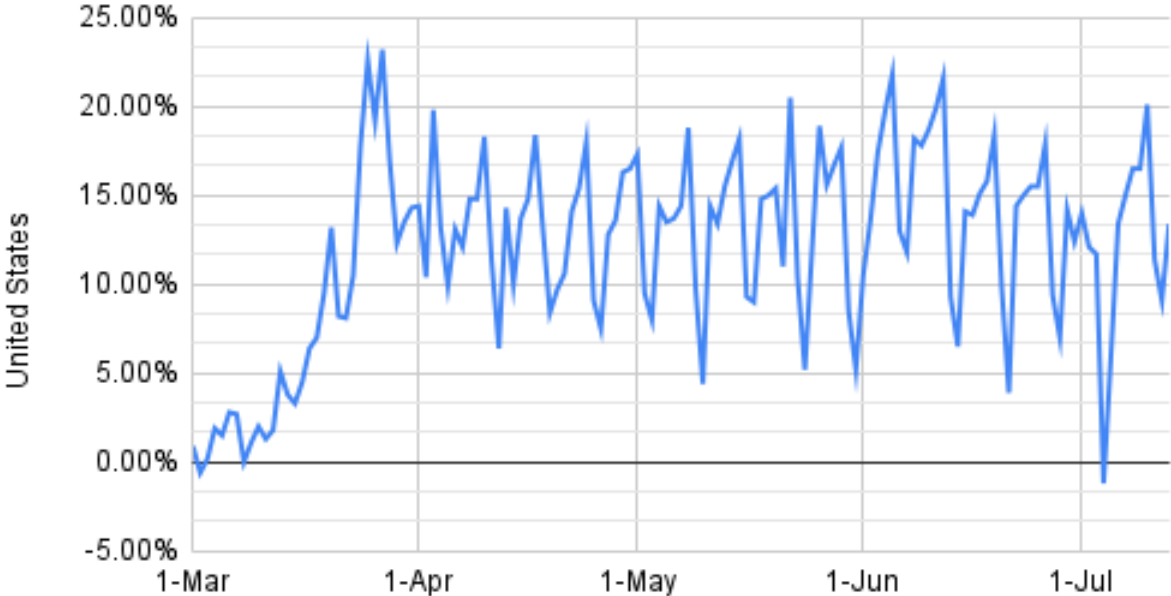
Kansas City Chiefs (31) vs San Francisco 49ers (20)

## U.S. Game Day Traffic Changes



**Appendix: COVID-19 Data & Pornhub (See Bibliography – Pornhub)**

**United States Daily Traffic**



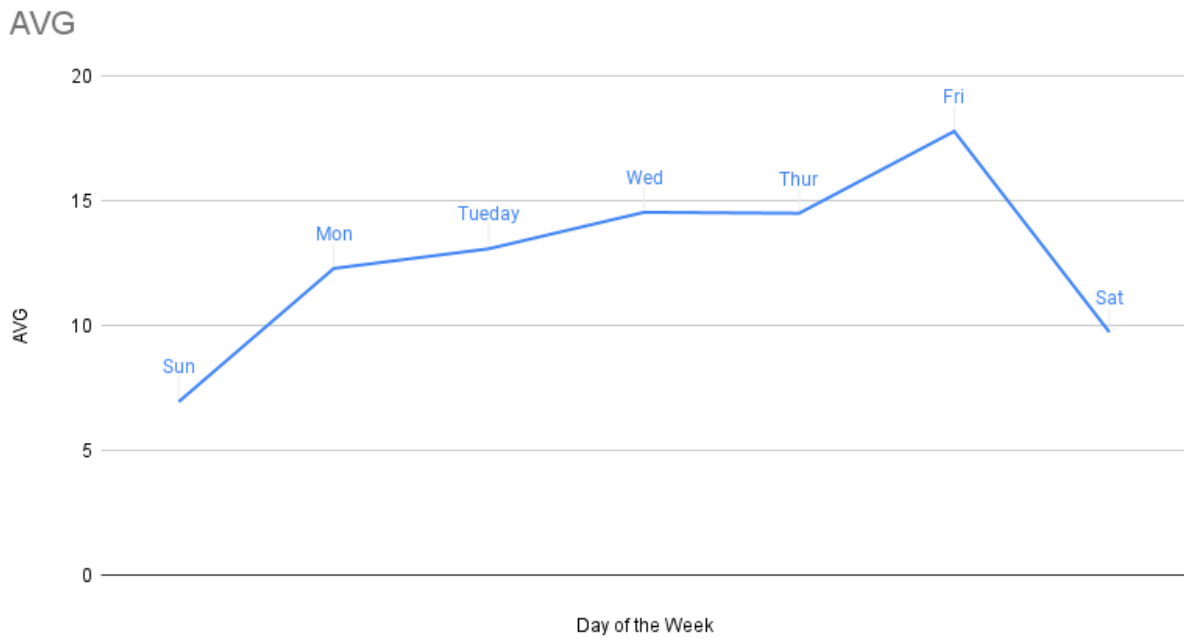
**Daily Traffic**

The total time of Pornhub’s data spans 135 days starting March 1<sup>st</sup>, 2020 and ending July 13<sup>th</sup>, 2020. This graph shows the usage over the average in comparison to an average day according to Pornhub.

	Sun	Mon	Tues	Wed	Thur	Fri	Sat	AVG
3/8-3/14	0	1.1	2	1.3	1.8	5.1	3.8	2.157142857
3/15-3/21	3.3	4.5	6.4	7	9.5	13.2	8.2	7.442857143
3/22-3/28	8.1	10.5	17.8	<b>22.6</b>	19.2	<b>23.2</b>	17	<b>16.91428571</b>
3/29-4/4	12.3	13.5	14.3	14.4	10.4	19.8	13.2	13.98571429
4/5-4/11	9.9	13.1	12.1	14.8	14.8	18.3	11.3	13.47142857
4/12-4/18	6.4	14.3	10	13.7	14.8	18.4	13.3	12.98571429
4/19-4/25	8.4	9.7	10.6	14.1	15.4	18	9.1	12.18571429
4/26-5/2	7.5	12.8	13.6	16.3	16.5	17.3	9.5	13.35714286
5/3-5/9	8	14.4	13.5	13.7	14.4	18.8	9.8	13.22857143
5/10-5/16	4.4	14.4	13.4	15.5	16.9	18.2	9.3	13.15714286
5/17-5/23	9	14.8	15	15.4	11	20.5	10.4	13.72857143
5/24-5/30	5.2	<b>12.1</b>	18.9	15.6	16.7	17.7	8.5	13.52857143
5/31-6/6	5.2	10.5	13.6	17.4	19.7	<b>21.8</b>	13	14.45714286
6/7-6/13	11.8	18.2	17.8	18.7	19.9	<b>21.6</b>	9.3	<b>16.75714286</b>
6/14-6/20	6.5	14.1	13.9	15.1	15.8	18.4	9.9	13.38571429
6/21-6/27	<b>3.9</b>	14.4	15	15.5	15.5	17.9	9.4	13.08571429
6/28-7/4	7	14.2	12.4	14	12.1	11.7	<b>-1.2</b>	10.02857143
7/5-7/11	5.9	13.4	15	16.5	16.5	20.1	11.4	14.11428571
7/12-7/13	9.1	13.4						11.25
AVG	6.942	12.28	13.07	14.53	14.49	17.77	9.733	<b>12.5906015</b>

### Traffic Breakdown

Traffic Breakdown shows the day to day usage changes, weekly average, daily average over the time frame studied, and average weekly traffic for the whole-time frame. The chart started March 8<sup>th</sup> as the prior week shows within normal ranges and March 8<sup>th</sup> is the last date where the average traffic was achieved during the pandemic. There are three highlighted holidays being Easter Sunday, Memorial Day, and July 4<sup>th</sup>.



### Day of the Week Avg. Traffic

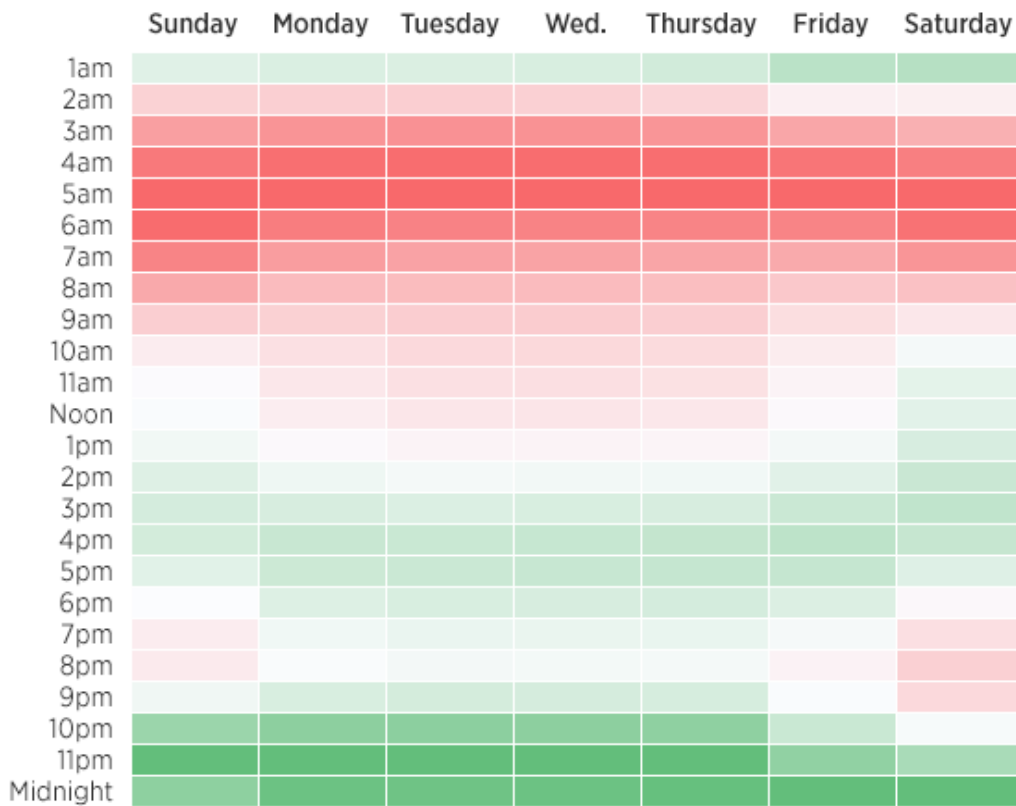
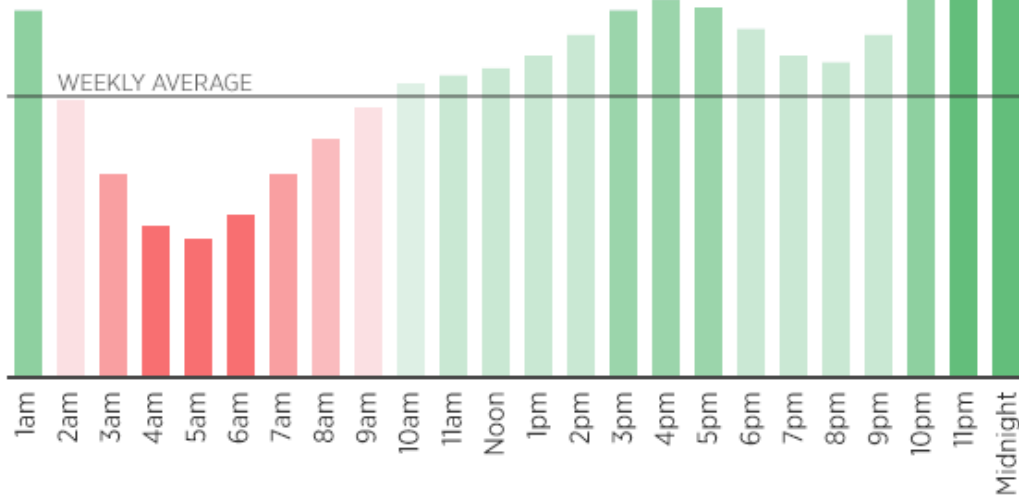
Composite weekly average using “Traffic Breakdown”. There is pattern of Sunday being the low, building throughout the week, with Friday acting as the peak, and a downturn in traffic on Saturday.

### Pornhub

Pornhub Heatmaps and Daily Breakdown graphs sourced from Pornhub Insights 2016, 2017, 2018, & 2019.

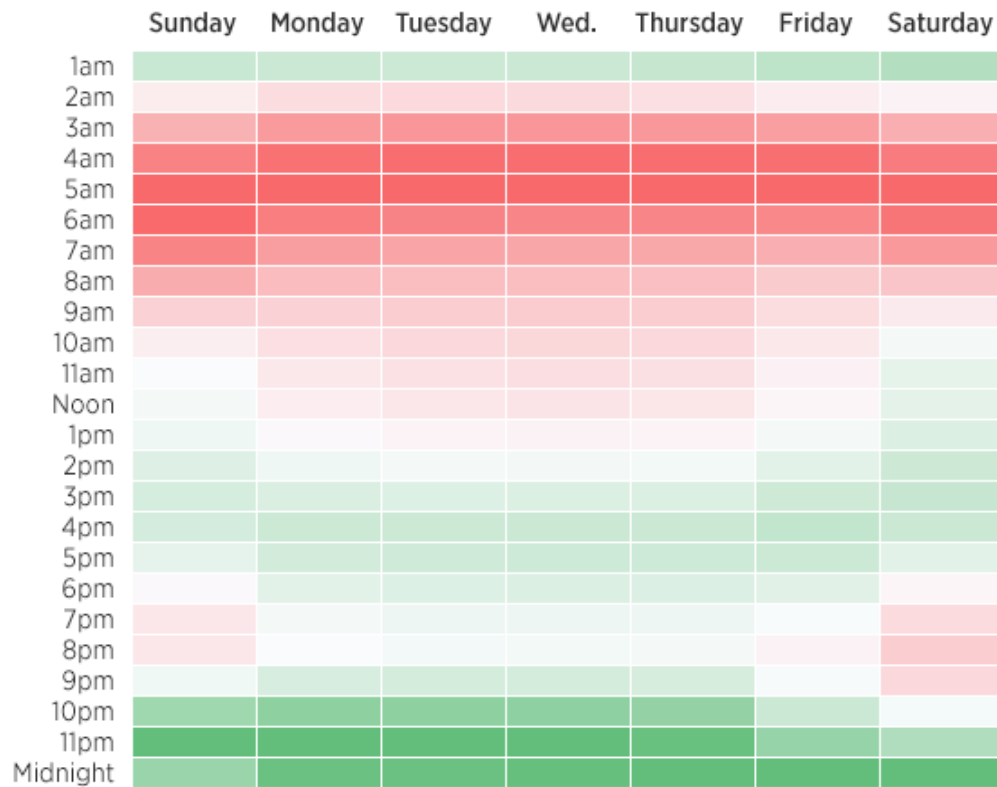
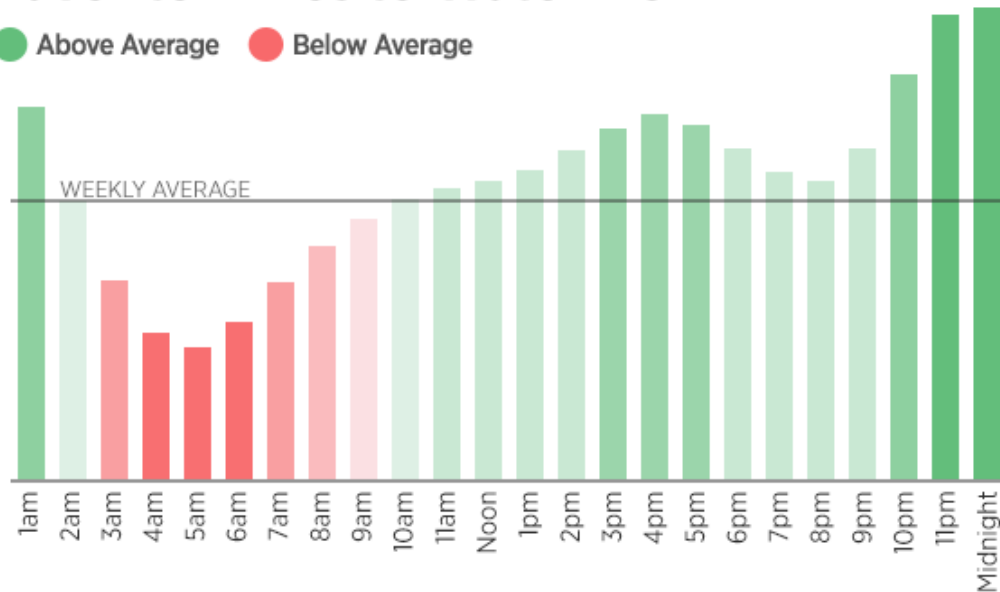
## Favorite Times to Watch Porn

● Above Average ● Below Average



## Favorite Times to Watch Porn

● Above Average ● Below Average



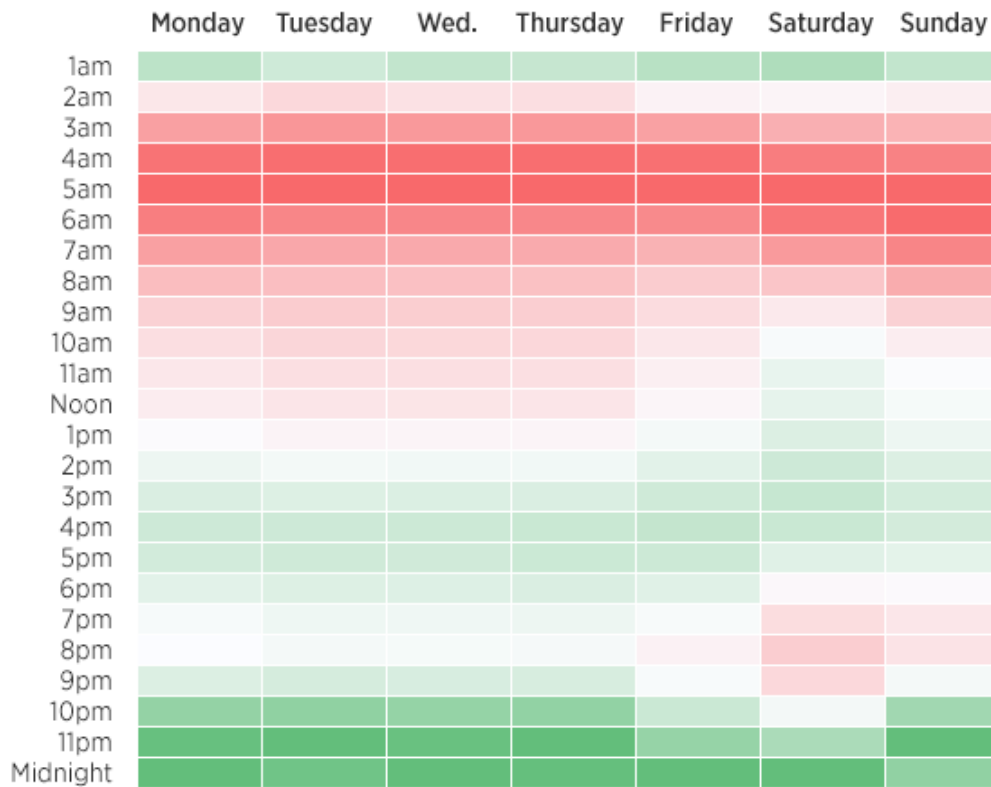
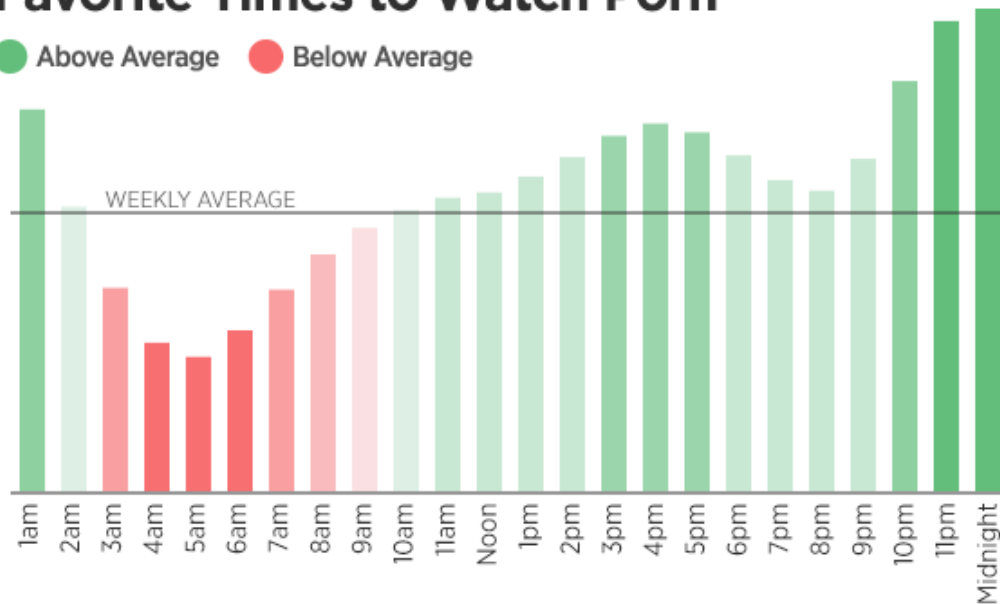
Most Popular Day: **SUNDAY**

Least Popular Day: **FRIDAY**



## Favorite Times to Watch Porn

● Above Average ● Below Average

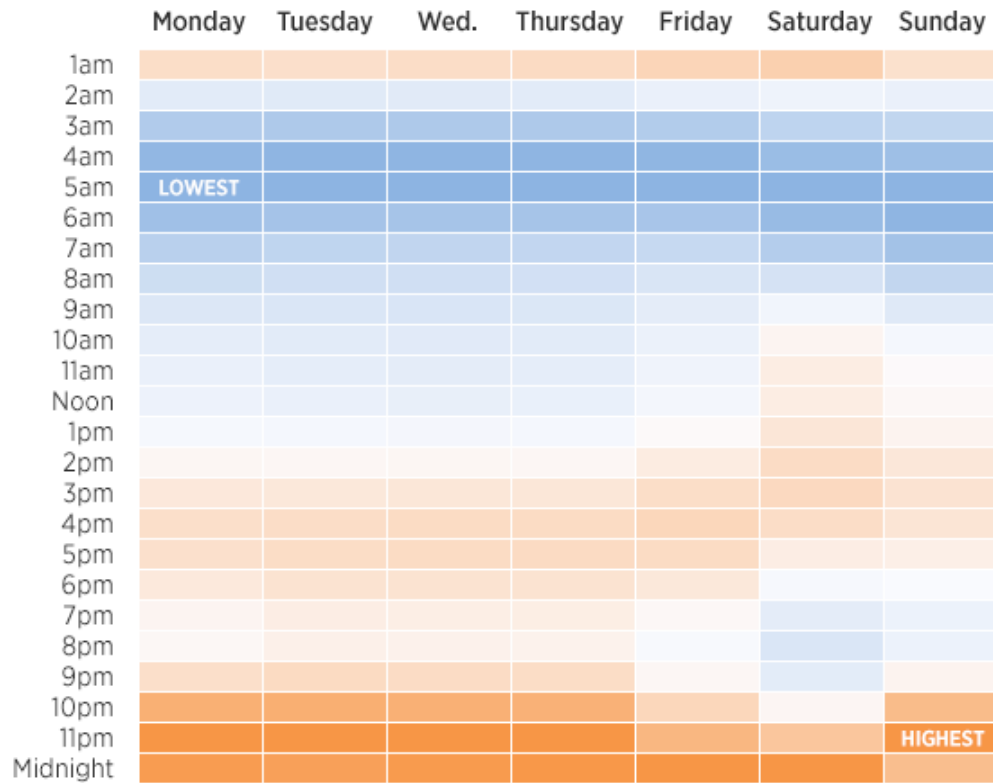
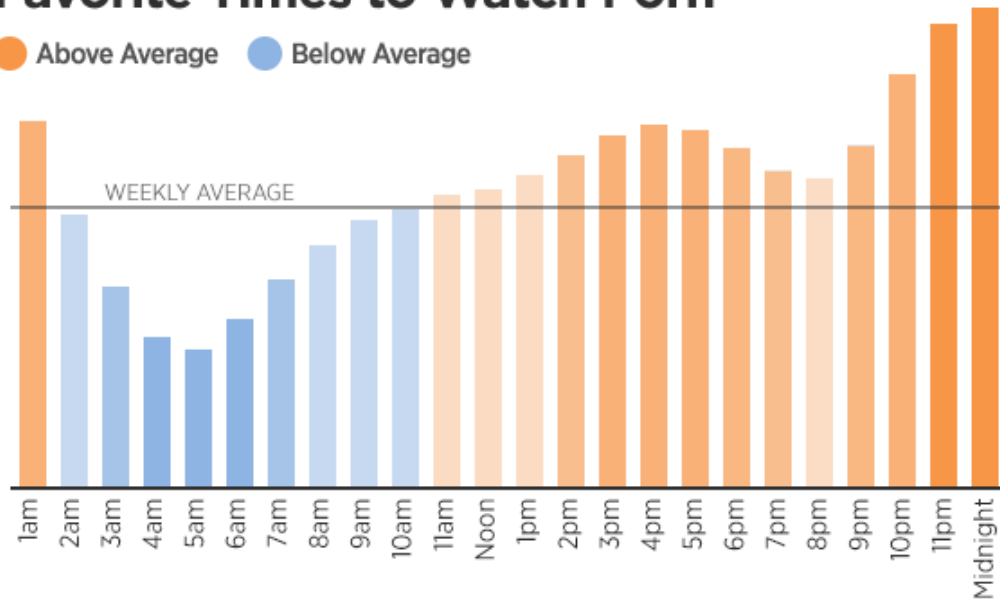


Most Popular Day: **SUNDAY**

Least Popular Day: **FRIDAY**

## Favorite Times to Watch Porn

● Above Average    ● Below Average



Least Popular Day: **FRIDAY**

Most Popular Day: **SUNDAY**

**Vita**

Michael Doherty was born in South Korea and adopted and raised in New Orleans & Metairie, LA. Graduated with a B.A. of Interdisciplinary Studies from the University of New Orleans in 2019 and continued pursuit of a master's degree in Sociology from the University of New Orleans with plans to graduate in Summer 2021.