# Are Subscribers Cutting their Subscriptions in the Telecommunications Industry?

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*This paper researches the cord cutting phenomenon occurring in the telecommunications industry. An analysis of changes in the number of subscribers of telephone, satellite TV, voice, cable, and broadband companies has been compiled. Some of the reasons that cord cutting is occurring include increasing prices of services, new technology that provide multiple ways to obtain services, changes in viewing habits, and government policy changes. A discussion about the future of the industry suggests that live content TV and 5G technology will further impact the number of subscribers.*

## INTRODUCTION

The telecommunications industry provides telephone, television and internet service to the facilities of households and businesses. In the beginning, telephone service was provided via copper wires and television service was provided via copper wires and over-the-air. Copper wire communication dominated the industry from 1874 to 1980. After 1980, fiber optic communication slowly took over until it dominated the industry by 1995 (Leader, 2004). Mobile or cell phone communication, which currently dominates the telephone industry, started in 1973 when the first cell phone was made. In 1983, cell phones became available to the public and in 1993, the first "smartphone" was made (Foster, 2015). By the year 2000, copper wired telephone communication peaked and has been declining dramatically (Brogan, 2014). Udland (2015) has observed the same trend in the number of wired cable television subscribers in 2015; he stated "…cable subscriptions (are) falling off a cliff." Wired internet or broadband service may be growing for cable television companies but is levelling off for telephone companies such as Verizon, AT&T, and CenturyLink (US cable broadband, 2015).

According to Bouma (2016), 'cord cutting' is a new term in the industry that frequently refers to the act of discontinuing expensive pay television services from cable (such as Comcast) and telephone (such as AT&T) companies and replacing it with free over-the-air (OT) broadcasting via the use of an antenna or a low cost subscription to over-the-top (OTT) programming via streaming video over the internet. On March 2007, Apple released their first Apple TV 40 GB hard disk that enabled streaming video content to one's TV. The first Roku player followed this in May 2008. However, cord cutting, from a historical perspective, started with landline telephones. In 2000, the number of U.S. landlines peaked at 186 million and cord cutting of landlines began, replacing them with cell phones or internet-based phones (Svensson, 2013). This is the first wave in cord cutting with pay television the second wave. The third wave of cord cutting refers to consumers replacing their expensive wired internet or broadband service with mobile phone internet service (Burger, 2016; Pressman, 2016).

This paper examines data from the top publicly traded companies that provide wired telephone, television and broadband service to determine the extent of cord cutting and discusses the dominant reasons for cord cutting: economic, technological, the demographic characteristics of cord cutters, and government policy. The paper also explores the future of cord cutting and how traditional cable and telephone companies are responding to new entrants into the industry.

## CORD CUTTING IN VOICE, VIDEO, AND BROADBAND BY SUBSCRIBERS

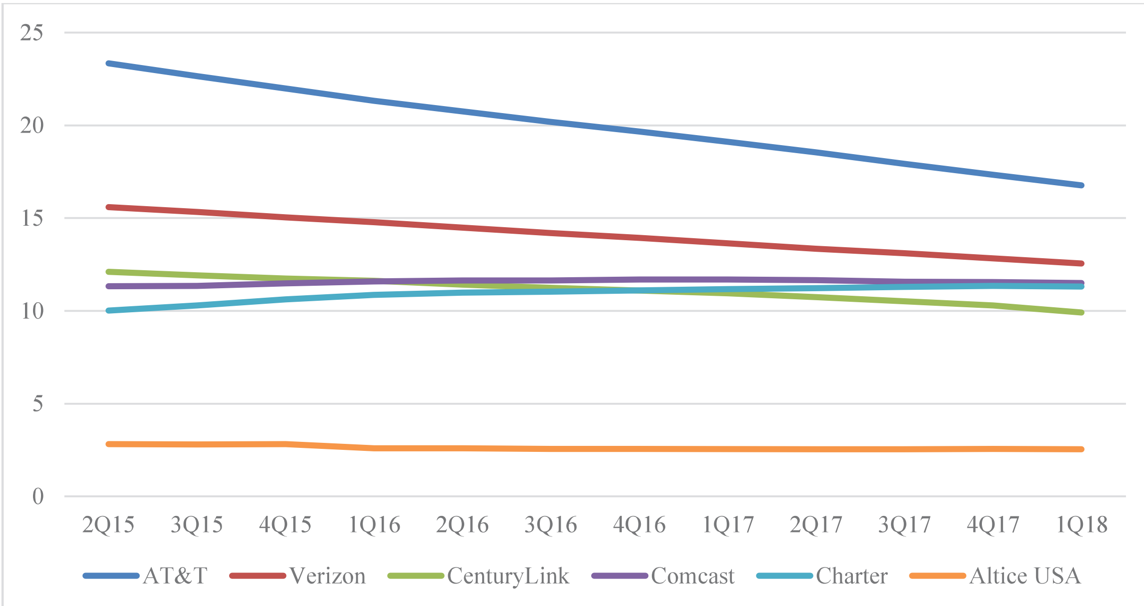
To get a clear picture of the cord cutting trend among subscribers of wired voice, video (pay-tv), and broadband (internet) services, quarterly data was collected from the second quarter of 2015 to the first quarter of 2018 from top providers. In the telephone industry, AT&T, Verizon, and CenturyLink are the top providers while AT&T (DirecTV) and DISH Network are the top satellite television providers. Comcast, Charter Communications and Altice USA, which owns Suddenlink Communication and Cablevision, are the top three cable television providers.

### Voice Subscribers of Telephone and Cable TV Companies

The top providers of wired voice or telephone service to U.S. residential and business customers are AT&T, Verizon, CenturyLink, Comcast, Charter, and Altice USA.  Altice is a European company. It entered the U.S. market with its acquisition of Suddenlink Communication in December 2015 and Cablevision in June 2016 and became known as Altice USA. Data for telephone, television and broadband subscribers of Altice USA prior to December 2015 and June 2016 was obtained from the quarterly statements of Suddenlink and Cablevision.

According to Figure 1 below, the number of total wired voice subscribers in the second quarter of 2015 was 75,185,000. By the end of the first quarter of 2018, this number has declined by 7.1% or down to 64,590,000. The largest decline occurred with AT&T, Verizon, and CenturyLink. Cable TV companies fared much better than these three telephone companies. They did not experience significant declines, in fact, Comcast and Charter gained subscribers.

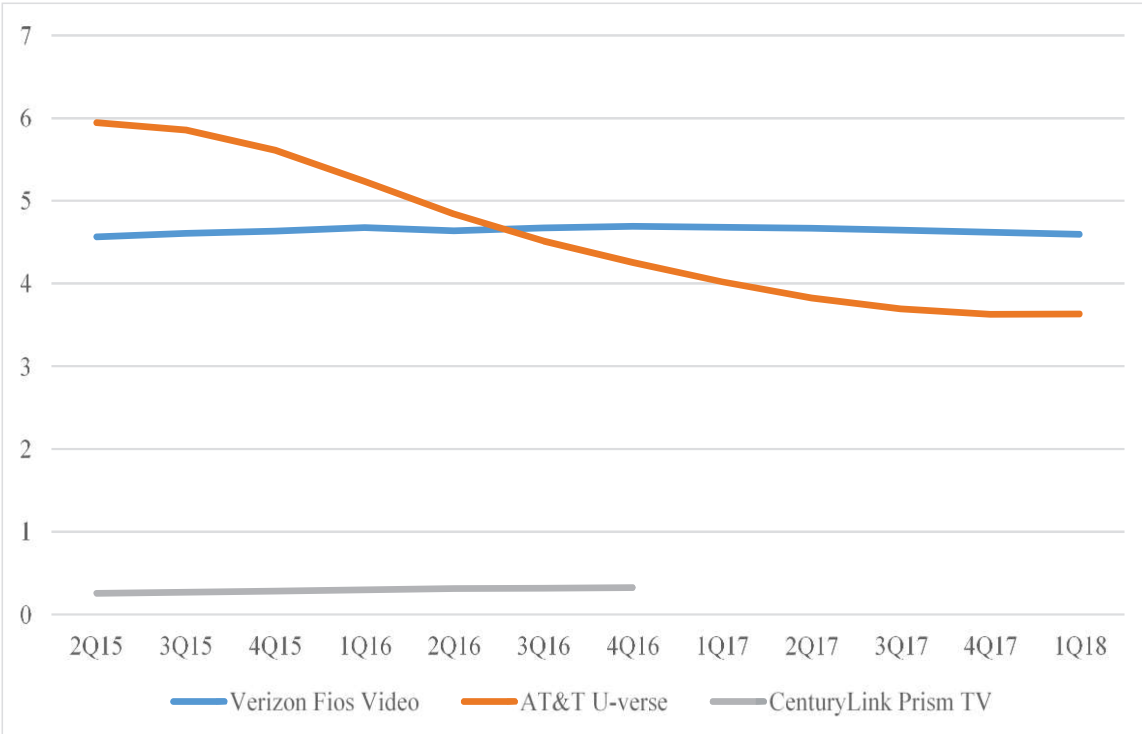
**FIGURE 1**
**QUARTERLY VOICE SUBSCRIBERS**




**Video Subscribers of Telephone Companies**

In Figure 2 below, Verizon has not experienced as much cord cutting as AT&T (U-verse) and CenturyLink. In fact, Verizon's Fios Video service grew by 32,000 subscribers between the second quarter of 2015 and the first quarter of 2018, a 0.7% growth rate. AT&T's dramatic reduction in their U-verse video offering may be due to the company's request that subscribers move to their DirecTV satellite service instead of just cord cutting (Bode, 2015). CenturyLink stopped reporting the number of their Prism TV subscribers in 2017 because of the company discontinuing it (Arnason, 2017; Frankel, 2017). In summary, the total number of subscribers of the three companies has declined by 2,540,000 between the second quarter of 2015 and the first quarter of 2018.

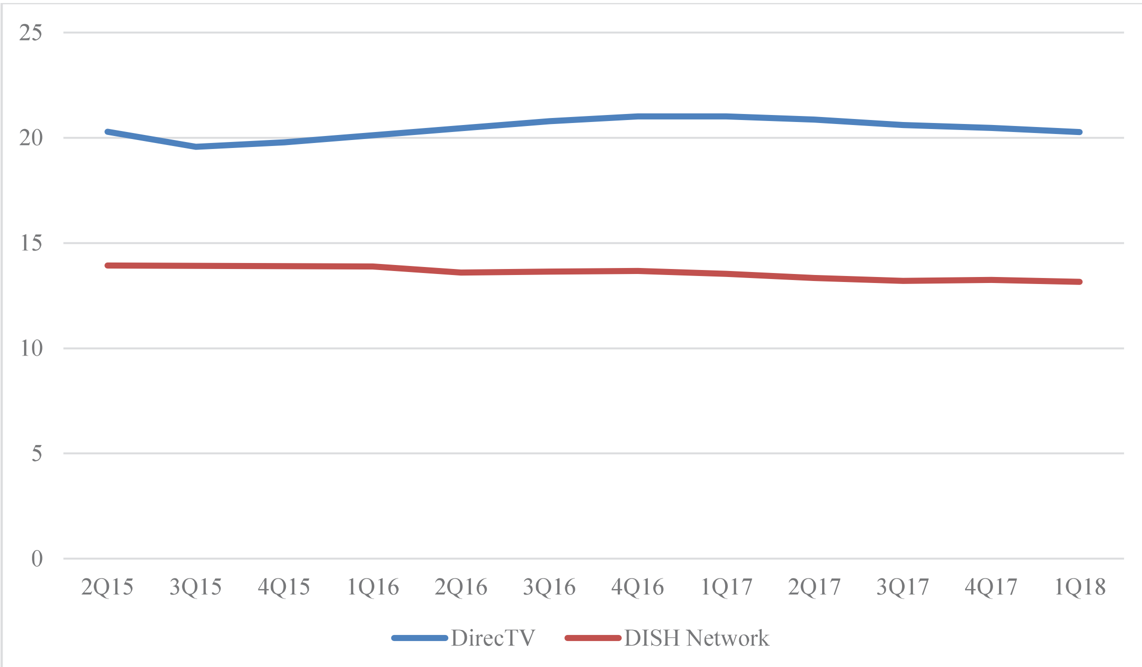
**FIGURE 2**
**QUARTERLY VIDEO SUBSCRIBERS FOR TELEPHONE COMPANIES**




**Video Subscribers of Satellite TV Companies**

In Figure 3 below, the subscribers for the two satellite companies, AT&T's DirecTV and DISH Network reflect a similar pattern that was observed above with Telephone companies. AT&T's DirecTV service experienced a small decrease of 9,000 in subscribership. However, there is a distinct downward trend starting in the second quarter of 2017. DISH Network, on the other hand, has experienced a significant reduction of 784,000 subscribers or a 5.6% reduction and a consistent downward trend which started in quarter two of 2015. Overall, the satellite TV companies have fared better than the telephone companies, with a net decrease of 793,000 subscribers versus 2,540,000 subscribers for telephone companies between the second quarter 2015 and first quarter 2018.

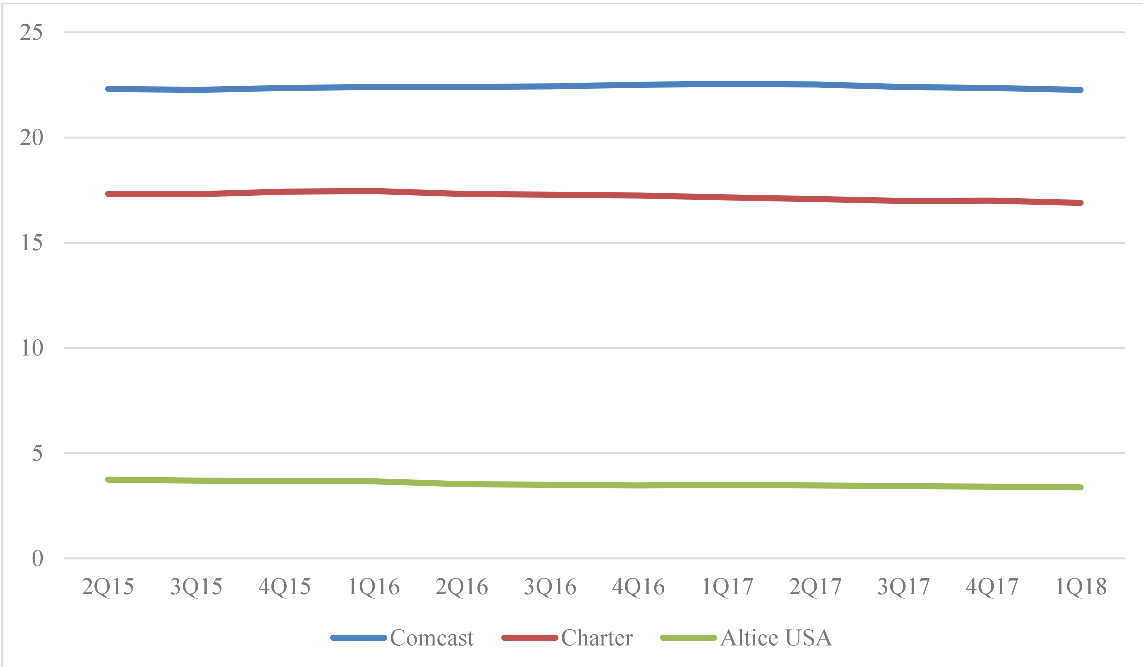
**FIGURE 3**
**QUARTERLY VIDEO SUBSCRIBERS FOR SATELLITE TV COMPANIES**




**Video Subscribers of Cable Companies**

Cable TV (See Figure 4 below) companies have not seen reductions in the number of their subscribers. Comcast has increased by 210,000 subscribers over the last two years, an increase of approximately 1%. Charter Communications has seen a slight decrease of 318,000 or a 2% decrease. Altice USA, after its acquisition of Suddenlink Communications in December 2015 and Cablevision in the second quarter of 2016, has decreased by 176,000 subscribers or 5% by the second quarter in 2017. In summary, the subscriber count for cable TV companies has decreased by 284,000 over the last eleven quarters.

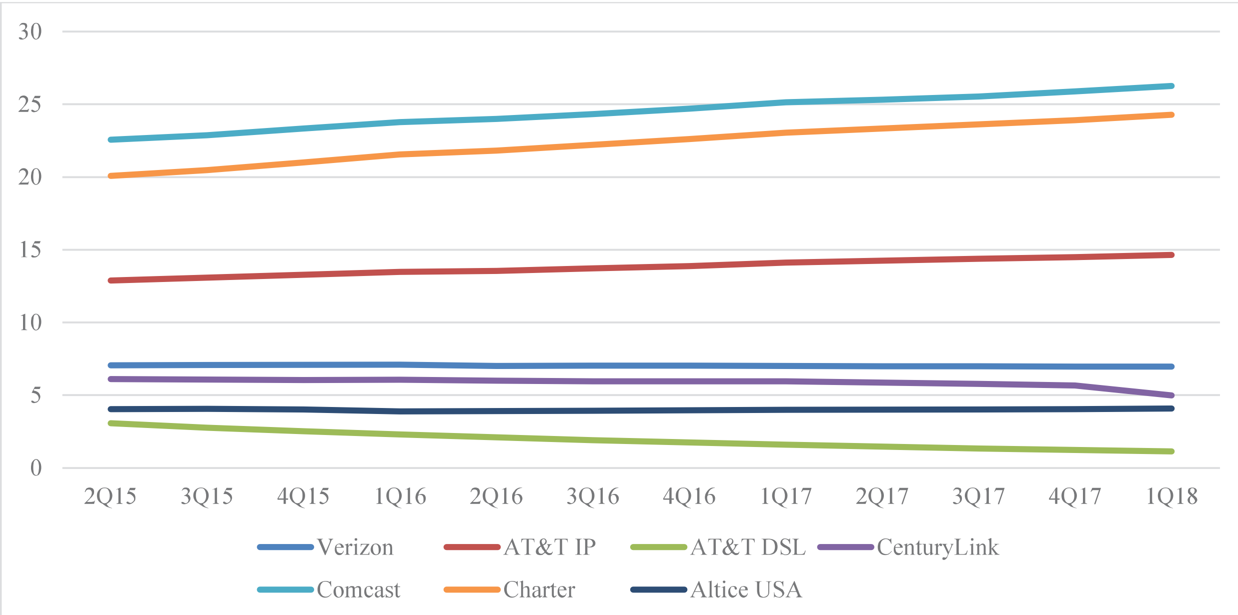
**FIGURE 4**
**QUARTERLY VIDEO SUBSCRIBERS FOR CABLE TV COMPANIES**




**Broadband Subscribers of Telephone and Cable TV Companies**

According to Figure 5 below, the number of Broadband subscribers has increased for all Telephone and Cable TV companies between the second quarter of 2015 and the first quarter of 2018 except for AT&T's DSL service and CenturyLink's broadband service, which does not provide separate numbers for DSL service. However, AT&T's and CenturyLink's DSL service will continue to decline due to faster access technologies such as fiber-optic cables.

**FIGURE 5**
**QUARTERLY BROADBAND SUBSCRIBERS**



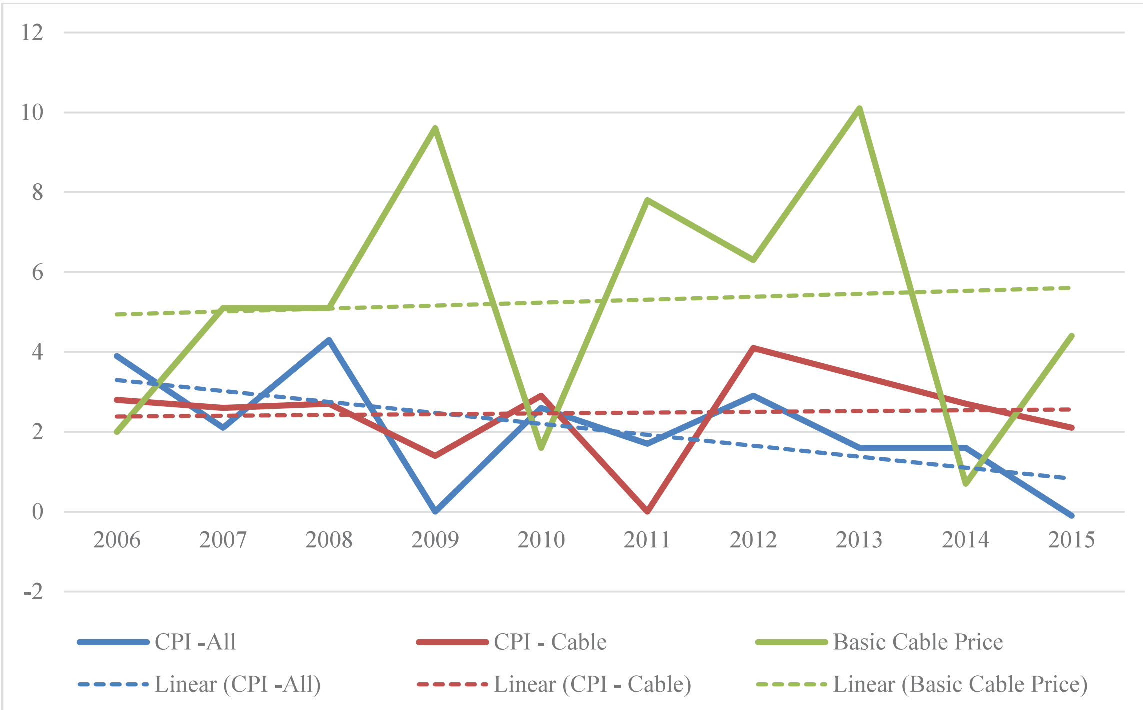

## REASONS FOR CORD CUTTING

Triple cord cutting is occurring in the telecommunications industry. American consumers are cancelling their traditional pay-TV services, fixed broadband, and landline telephone services. MarketWatch reports that as of the end of the second quarter 2016 there was a loss of 834,000 pay TV subscribers. Specific company trends indicate the following: the four largest publicly traded cable companies have been doing better over the past two years; smaller companies have been doing worse; AT&T has been doing better since its acquisition of DirecTV but has seen a loss of 250,000 subscribers by the end of the second quarter 2016; Dish has seen poorer performance even with its ownership of Sling TV; and cable operators have more broadband subscribers than pay-TV subscribers (Dawson, 2016). IBISWorld reports that annual growth in the wired telecommunications industry is expected to be -1.6% from 2016-2021 (LeClair, 2016), and expects modest growth of 3.2% in the wireless telecommunications industry from 2016-2021 (Blau, 2016). eMarketing predicts that by 2018, 1 in 5 US consumers will not have a subscription to a cable TV package (Boorstin, 2016; Pressman, 2016).

### Economic Reason

The first and most important reason is the economic reason or price of service. According to the "2016 Connected Subscriber Report" by Salesforce, 56% of pay TV cord cutters surveyed listed the price of communication service providers (CSPs) as too expensive. Data provided by the Federal Communications Commission in their "2015 Report on Cable Industry Prices" released in 2016 support this complaint. The report states that in July 1998, the price of the Basic Pay TV Tier Service was $12.06 and in January 2015 it had grown to $23.79, a 97% change in price. The Expanded Basic Television Service price grew by 148% in the same period, from $27.88 to $69.03. The Next Most Popular Pay TV Service grew by 125% from $38.58 to $86.83. The FCC concluded that the pay television price growth rate was significantly higher than inflation during the years from 1998 to 2015.

**FIGURE 6**
**GROWTH RATES AND TREND LINES OF CPI AND BASIC CABLE**




FCC 2016

Figure 6 above, constructed from the FCC's data, reflects the annual growth rate in overall CPI for the U.S. from 2006 to 2015, the annual growth rate in CPI for Cable, Satellite and Radio Services and the annual growth rate in price of the Basic Cable Pay TV Tier Service. The growth rate for cable pay TV is considerably higher than both CPI measures. In fact, the FCC stated that the 10-year compound average annual rate of change was 5.2% for the Basic Cable Pay Tier, 2.0% for overall CPI and 2.5% for CPI for Cable, Satellite and Radio Services.

Even triple play or TV bundles that include TV service, a landline phone and internet service have seen significant price increases that are encouraging cord cutting (Wingfield, 2014). Furthermore, the ritual of forcing customers to negotiate a new triple play price after the promotion period is over adds to cord cutting behavior because "… rather than leaving the customer delighted that they just saved money, you leave them disenchanted and feeling like it was only through cunning that they were able to avoid getting hosed," according Moffett (2014). In addition, the average consumer paid about $187 per month last year before 'cutting the cord' for their cable TV, phone, and internet access services (Ramachandran, 2016). In 2008, TV cable subscribers had 129 channels to choose from, but watched an average of 17 channels per week. By 2013, TV cable subscribers had 189 channels to choose from, but still only watched about 17.5 channels (The Economist, 2016).

### New Technology Reason

The economic reason may not be as important today (Top 5 Reasons, 2016) as it was in the beginning of the cord cutting phase due to new technologies that provide more content with more variety than traditional cable TV programming and methods that make it cost efficient. Netflix, which was founded in August 29, 1997, by offering mail order DVD movies, began offering streaming services in 2007 and new programming such as House of Cards and Orange is the New Black in 2013. Its rival, Hulu, which was founded in 2007, is providing new live TV services and is working with two of its owners, Fox and

Disney, to offer television programming. Hulu provides several original programming with Difficult People and The Path ranked first and second respectively (Kurland, 2017).

In an effort to respond to Netflix and Hulu, DISH Network introduced Sling TV in January 5, 2015, which is a “skinny bundle” option (The Economist, 2016). In addition, several technology and internet companies have been entering the market: Sony with its playStation “Vue”, Amazon with its Primer offering and partnering with Comcast, and Apple along with Google’s YouTube offering TV viewing (Boorstin, 2016; The Economist, 2016).

CenturyLink, the third largest traditional telephone company in the U.S., is the latest company to enter the streaming TV market with their $45 per month CenturyLink Stream service because of the losses they have been experiencing with their Prism TV Internet Protocol Television service (Arnason, 2017; Frankel, 2017). The CEO of the company also plans to replace Prism TV with the new streaming service and may brand it as ‘Prism Stream’ (Bouma, 2017).

Originally streaming video was limited to tablets and telephones, but now it is possible to watch favorite television shows on big screen TVs. Google’s Chromecast and Amazon’s Firestick provide cost efficient options (Stewart, 2017). Content providers such as Disney, HBO, and ESPN are offering streaming subscription services directly to consumers for a monthly fee and cutting out the middle man (Wyatt, 2016).

**Demographic Reason**

There have also been some viewing changes among consumers. Older viewers watch more television than other demographic groups and their TV viewing times are increasing (The Economist, 2016). Only 15% of baby boomers aged 50-64 have indicated they may cancel TV services (Pressman, 2016). Younger viewers are looking for lower prices (Boorstin, 2016) and 38% of viewers between the ages of 21 and 34 indicate they plan to cancel cable or satellite subscriptions and replace it with online video services (Pressman, 2016). Television viewing is declining among younger viewers (The Economist, 2016) however they are very connected via their tablets and smartphones, spending hours on them every day (Wyatt, 2016). “Binge watching’ is a new trend among TV viewers in which viewers will watch an entire season (or more) of a favorite show in a single sitting (Stewart, 2017). The government may mandate the unlocking of the set top box allowing a third party market for the boxes, however there is concern this would violate programming agreements and there would be copyright issues (Boorstin, 2016).

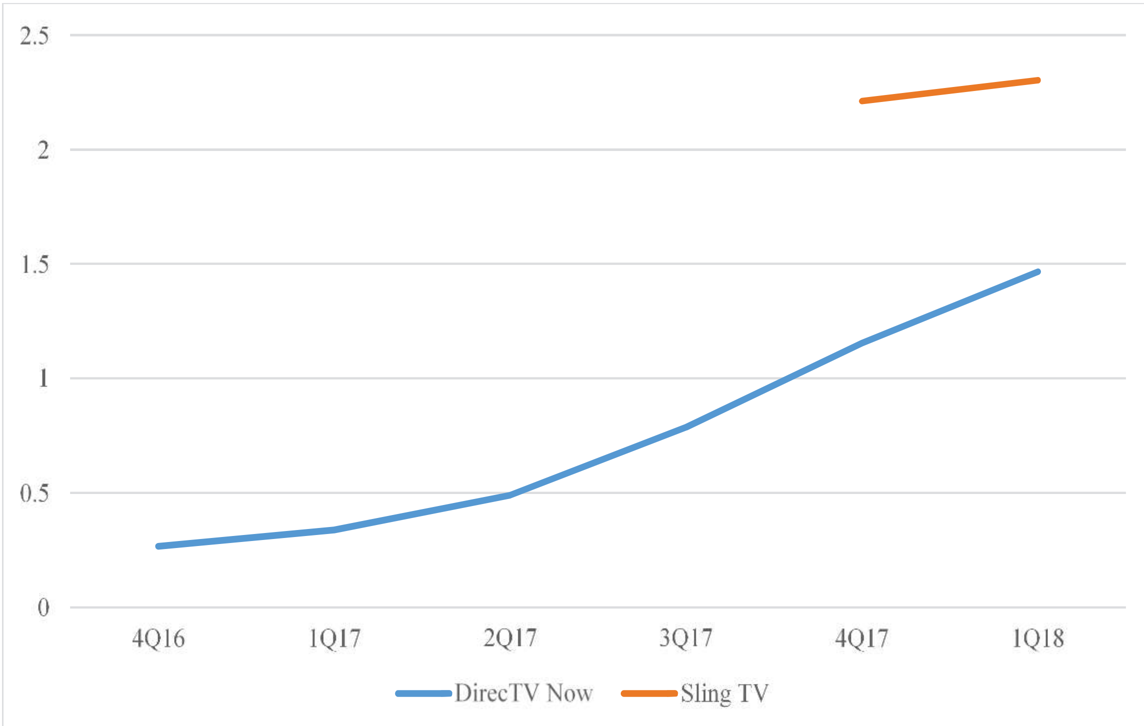
**Government Policy Reason**

Government policies are also affecting this industry. The FCC has passed the Open Internet Order and adopted it on February 26, 2015 (FCC, 2015). The order bans providers (such as cable companies) from discriminating against types of internet traffic, such as streaming video sites like Netflix, by slowing down video connections. The FCC is also investigating contracts between cable providers and cable networks to determine whether the contracts make it more difficult for networks to put their content online. These actions by the FCC were attempts to encourage cord cutting (Finley, 2016). However, a new set of rules by the new FCC chairman Ajit Pai, appointed in January 2017 by President Trump, reversed these actions in December 2017 (Snider, 2017). However, the U.S. Senate and several states have introduced legislation to reverse Pai’s actions. The industry is now in a wait and see mode.

## TELEPHONE AND CABLE TV COMPANY RESPONSES TO CORD CUTTERS

AT&T and DISH Network have responded to cord cutters by offering reduced versions of their television packages under the brand names of DirecTV Now and Sling TV. Figure 7 below indicates that both services have experienced significant growth since introduction during the fourth quarter of 2016 for DirecTV Now and the fourth quarter of 2017 for Sling TV.

**FIGURE 7**
**QUARTERLY SUBSCRIBERS FOR DIRECTV NOW AND SLING TV**




CenturyLink started a streaming service on June 29, 2017 (Bouma, 2017) only to shut it down nine months later on March 31, 2018 which is not surprising in a crowded market with more than ten companies offering live TV streaming service (Bouma, 2018). Verizon's proposed streaming service, which was announced in May 2017 (Heisler, 2017), may not happen because of late entrance into the industry (Brown, 2018).

In the Cable TV segment of the industry, Comcast introduced an $18 streaming service, called Xfinity Instant TV, in September 2017, but it is only for its own broadband customers (Welch, 2017). It is a "skinny" TV bundle similar to Sling TV. Spectrum Stream, a Charter Communications 25 live channels streaming service, is another skinny bundle for its own customer base (Hill, 2017). In February 2018, Charter proposed an even skinnier 10-channel a la carte-like bundle, called Spectrum TV Choice, to keep their most likely cord cutters and gain some new ones (Newman, 2018). In November 2017, Altice USA upgraded its technology to a new platform called Altice One, which will allow for streaming TV services on multiple devices and in May 2018, the company added Cheddar, which is a news service for younger viewers (Baumgartner, 2018).

## THE FUTURE OF CORD CUTTING

The future of cord cutting looks very promising due to two major technological innovations, live content and 5G mobile networks and phones. An advantage cable TV and telephone TV companies have had over cord cutters was access to live TV shows. In the beginning, many customers were reluctant to cut the cord because they did not want to give up their sports packages such as the NFL and NBA networks and ESPN. However, live content is now available on DirecTV Now, Hulu, Live TV, PlayStation Vue, Sling TV, YouTube TV, and Fubo TV (Wilkinson, 2017) and more services are coming which will help TV viewers to save money (Samson, 2017).

Mobile phone telecommunications companies have also announced 5G network technology. Verizon are conducting 5G trials in 11 cities since 2017 and AT&T will have trials of wireless 5G in Austin and Indianapolis in 2017 and other cities to be announced at a later date. 5G networks have two goals: to provide faster data-transfer speed and more reliable service. An entire movie could be downloaded in less than a second. Today it takes 10 minutes on the 4G/LTE networks (Ausick, 2017). The implication here is that more landline telephone services will be discontinued as time goes by.

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