

FORM 10-K

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

(Mark One)

**ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d)
OF THE SECURITIES EXCHANGE ACT OF 1934**

For the fiscal year ended December 31, 2018

OR

**TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d)
OF THE SECURITIES EXCHANGE ACT OF 1934**

For the transition period from _____ to

Commission File Number: 1-8610

AT&T INC.

Incorporated under the laws of the State of Delaware
I.R.S. Employer Identification Number 43-1301883

208 S. Akard St., Dallas, Texas, 75202
Telephone Number 210-821-4105

Securities registered pursuant to Section 12(b) of the Act: (See attached Schedule A)

Securities registered pursuant to Section 12(g) of the Act: None.

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes [X] No []

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act. Yes [] No [X]

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes [X] No []

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). Yes [X] No []

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K is not contained herein, and will not be contained, to the best of registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K. [X]

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company, or an emerging growth company. See definition of "large accelerated filer," "accelerated filer," "smaller reporting company," and "emerging growth company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer [X]

Non-accelerated filer []

Accelerated filer []

Smaller reporting company []

Emerging growth company []

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act. []

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes [] No [X]

Based on the closing price of \$32.11 per share on June 30, 2018, the aggregate market value of our voting and non-voting common stock held by non-affiliates was \$233 billion.

At February 12, 2019, common shares outstanding were 7,284,589,883.

[Table of Contents](#)

DOCUMENTS INCORPORATED BY REFERENCE

- (1) Portions of AT&T Inc.'s Annual Report to Stockholders for the fiscal year ended December 31, 2018 (Parts I and II).
- (2) Portions of AT&T Inc.'s Notice of 2019 Annual Meeting and Proxy Statement dated on or about March 11, 2019 to be filed within the period permitted under General Instruction G(3) (Parts III and IV).

SCHEDULE A

Securities Registered Pursuant To Section 12(b) Of The Act:

<u>Title of each class</u>	<u>Name of each exchange on which registered</u>
Common Shares (Par Value \$1.00 Per Share)	New York Stock Exchange
Floating Rate AT&T Inc. Global Notes due June 4, 2019	New York Stock Exchange
Floating Rate AT&T Inc. Global Notes due August 3, 2020	New York Stock Exchange
1.875% AT&T Inc. Global Notes due December 4, 2020	New York Stock Exchange
2.65% AT&T Inc. Global Notes due December 17, 2021	New York Stock Exchange
1.45% AT&T Inc. Global Notes due June 1, 2022	New York Stock Exchange
2.50% AT&T Inc. Global Notes due March 15, 2023	New York Stock Exchange
Floating Rate AT&T Inc. Global Notes due September 5, 2023	New York Stock Exchange
1.05% AT&T Inc. Global Notes due September 5, 2023	New York Stock Exchange
1.30% AT&T Inc. Global Notes due September 5, 2023	New York Stock Exchange
2.75% AT&T Inc. Global Notes due May 19, 2023	New York Stock Exchange
2.40% AT&T Inc. Global Notes due March 15, 2024	New York Stock Exchange
3.50% AT&T Inc. Global Notes due December 17, 2025	New York Stock Exchange
1.80% AT&T Inc. Global Notes due September 5, 2026	New York Stock Exchange
2.90% AT&T Inc. Global Notes due December 4, 2026	New York Stock Exchange

SCHEDULE A – Continued

2.35% AT&T Inc. Global Notes due September 5, 2029	New York Stock Exchange
4.375% AT&T Inc. Global Notes due September 14, 2029	New York Stock Exchange
2.60% AT&T Inc. Global Notes due December 17, 2029	New York Stock Exchange
3.55% AT&T Inc. Global Notes due December 17, 2032	New York Stock Exchange
5.20% AT&T Inc. Global Notes due November 18, 2033	New York Stock Exchange
3.375% AT&T Inc. Global Notes due March 15, 2034	New York Stock Exchange
2.45% AT&T Inc. Global Notes due March 15, 2035	New York Stock Exchange
3.15% AT&T Inc. Global Notes due September 4, 2036	New York Stock Exchange
7.00% AT&T Inc. Global Notes due April 30, 2040	New York Stock Exchange
4.25% AT&T Inc. Global Notes due June 1, 2043	New York Stock Exchange
4.875% AT&T Inc. Global Notes due June 1, 2044	New York Stock Exchange
5.35% AT&T Inc. Global Notes due November 1, 2066	New York Stock Exchange
5.625% AT&T Inc. Global Notes due August 1, 2067	New York Stock Exchange

TABLE OF CONTENTS

Item		Page
<u>PART I</u>		
1.	Business	1
1A.	Risk Factors	13
2.	Properties	15
3.	Legal Proceedings	15
4.	Mine Safety Disclosures	15
	Executive Officers of the Registrant	16
<u>PART II</u>		
5.	Market for Registrant’s Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities	17
6.	Selected Financial Data	18
7.	Management’s Discussion and Analysis of Financial Condition and Results of Operations	18
7A.	Quantitative and Qualitative Disclosures about Market Risk	18
8.	Financial Statements and Supplementary Data	18
9.	Changes in and Disagreements with Accountants on Accounting and Financial Disclosure	18
9A.	Controls and Procedures	19
9B.	Other Information	20
<u>PART III</u>		
10.	Directors, Executive Officers and Corporate Governance	20
11.	Executive Compensation	20
12.	Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters	21
13.	Certain Relationships and Related Transactions, and Director Independence	22
14.	Principal Accountant Fees and Services	22
<u>PART IV</u>		
15.	Exhibits and Financial Statement Schedules	22

AT&T Inc.

PART I

ITEM 1. BUSINESS

GENERAL

AT&T Inc. (“AT&T,” “we” or the “Company”) is a holding company incorporated under the laws of the State of Delaware in 1983 and has its principal executive offices at 208 S. Akard St., Dallas, Texas, 75202 (telephone number 210-821-4105). We maintain an internet website at www.att.com. (This website address is for information only and is not intended to be an active link or to incorporate any website information into this document.) We make available, free of charge, on our website our annual report on Form 10-K, our quarterly reports on Form 10-Q, current reports on Form 8-K and all amendments to those reports as soon as reasonably practicable after such reports are electronically filed with, or furnished to, the Securities and Exchange Commission (SEC). We also make available on that website, and in print, if any stockholder or other person so requests, our “Code of Ethics” applicable to all employees and Directors, our “Corporate Governance Guidelines,” and the charters for all committees of our Board of Directors, including Audit, Human Resources and Corporate Governance and Nominating. Any changes to our Code of Ethics or waiver of our Code of Ethics for senior financial officers, executive officers or Directors will be posted on that website.

History

AT&T, formerly known as SBC Communications Inc. (SBC), was formed as one of several regional holding companies created to hold AT&T Corp.’s (ATTC) local telephone companies. On January 1, 1984, we were spun-off from ATTC pursuant to an anti-trust consent decree, becoming an independent publicly-traded telecommunications services provider. At formation, we primarily operated in five southwestern states.

Following our formation, we have expanded our footprint and operations by acquiring various businesses, most significantly:

- Our subsidiaries merged with Pacific Telesis Group in 1997, Southern New England Telecommunications Corporation in 1998 and Ameritech Corporation in 1999, thereby expanding our wireline operations as the incumbent local exchange carrier (ILEC) into a total of 13 states.
- In November 2005 we merged one of our subsidiaries with ATTC, creating one of the world’s leading telecommunications providers. In connection with the merger, we changed the name of our company from “SBC Communications Inc.” to “AT&T Inc.”
- In December 2006 we merged one of our subsidiaries with BellSouth Corporation (BellSouth) making us the ILEC in an additional nine states. With the BellSouth acquisition, we also acquired BellSouth’s 40 percent economic interest in AT&T Mobility LLC (AT&T Mobility), formerly Cingular Wireless LLC, resulting in 100 percent ownership of AT&T Mobility.
- In 2014, we completed the acquisition of wireless provider Leap Wireless International, Inc. and sold our ILEC operations in Connecticut, which we had previously acquired in 1998.
- In 2015, we acquired wireless properties in Mexico, and in July 2015 we acquired DIRECTV, a leading provider of digital television entertainment services in both the United States and Latin America.
- In 2018, we completed the acquisition of Time Warner Inc. (Time Warner), a leader in media and entertainment that operates the Turner, Home Box Office (HBO) and Warner Bros. business units. We also acquired Otter Media Holdings and advertising platform AppNexus.

General

We are a leading provider of telecommunications, media and technology services globally. The services and products that we offer vary by market and utilize various technology platforms in a range of geographies. Our operating segments are organized as follows:

The **Communications segment** provides services to businesses and consumers located in the U.S., or in U.S. territories, and businesses globally. Our business strategies reflect bundled product offerings that cut across product lines and utilize shared assets. This segment contains the following business units:

- **Mobility** provides nationwide wireless service and equipment.
- **Entertainment Group** provides video, internet and voice communications services to residential customers.
- **Business Wireline** provides advanced IP-based services (referred to as “strategic services”), as well as traditional voice and data services to business customers.

AT&T Inc.

The **WarnerMedia segment** develops, produces and distributes feature films, television, gaming and other content over various physical and digital formats. This segment contains the following business units:

- **Turner** primarily operates multichannel basic television networks and digital properties.
- **Home Box Office** primarily operates multichannel premium pay television services.
- **Warner Bros.** principally produces and distributes television shows, feature films and games.

The **Latin America segment** provides entertainment and wireless services outside of the U.S. This segment contains the following business units:

- **Vrio** provides video services in Latin America primarily to residential customers using satellite technology.
- **Mexico** provides wireless service and equipment to customers in Mexico.

The **Xandr segment** provides advertising services. These services utilize data insights to develop higher-value targeted advertising.

Our **Corporate and Other** group reconciles our segment results to consolidated operating income and income before income taxes, and include:

- **Corporate**, which consists of: (1) businesses no longer integral to our operations or which we no longer actively market, (2) corporate support functions, (3) impacts of corporate-wide decisions for which the individual segments are not being evaluated, (4) the reclassification of the amortization of prior service credits, which we continue to report with segment operating expenses, to consolidated other income (expense) and (5) the recharacterization of programming intangible asset amortization, for programming acquired in the Time Warner acquisition, which we continue to report with WarnerMedia segment operating expense, to consolidated amortization expense.
- **Acquisition-related items**, which consists of items associated with the merger and integration of acquired businesses, including amortization of intangible assets.
- **Certain significant items**, which includes (1) employee separation charges associated with voluntary and/or strategic offers, (2) losses resulting from abandonment or impairment of assets and (3) other items for which the individual segments are not being evaluated.
- **Eliminations and consolidations**, which (1) removes transactions involving dealings between our segments, including content licensing between WarnerMedia and Communications and (2) includes adjustments for our reporting of the advertising business.

Areas of Focus

With continuing advances in technology and in response to changing demands from our customers, in recent years we have focused on providing enhanced broadband, video and voice services. We are also capitalizing on data insights from our direct-to-consumer relationships and our premium video and digital advertising inventory to provide advertising that matters. Our acquisitions over the past few years and our continued investment in a premier network experience make our customers' lives more convenient and productive and foster competition and further innovation in the communications and entertainment industry. In 2019, we plan to focus on the areas discussed below.

Communications

As the communications industry continues to move toward internet-based technologies that are capable of blending wireline, satellite and wireless products, we are offering services that take advantage of these more sophisticated technologies. In particular, our focus is on expanding our high-speed internet and video offerings and on developing IP-based services that allow customers to integrate their home or business wireline services with their mobile service. During 2019, we will continue to develop and provide unique integrated video, mobile and broadband solutions. We believe offering integrated services facilitates our customers' desire to view video anywhere on demand and encourages customer retention.

Wireless Service

We are experiencing rapid growth in data usage as consumers are demanding seamless access across their wireless and wired devices, and as more and more machines are being connected to the internet. We expect to continue to strengthen the reach and sophistication of our network facilities to offer a variety of wireless communications services.

Our 4G LTE technology covers over 400 million people in North America, and, in the United States, we cover all major metropolitan areas and almost 325 million people with our LTE technology. Our 3G network provides services to customers using older handsets and connected devices. We are contemplating the redeployment of spectrum currently used for our 3G services and project that we will discontinue service on our 3G network in early 2022, and will manage this process consistent with previous network upgrades. As of December 31, 2018, about 11% of our postpaid subscribers were using 3G

AT&T Inc.

handsets, and we expect them to transition to newer technologies. We do not expect this transition to have a material impact on our consolidated operating results.

We are currently beginning the deployment of the latest wireless technology (5G) in multiple U.S. cities. In late 2018, we were the first U.S. company to introduce mobile 5G service in parts of 12 cities and plan to expand that deployment nationwide by early 2020. The introduction of 5G service is largely dependent on the development of 5G standards. To that end, we are one of the top North American wireless carrier contributors into 3rd Generation Partnership Project's (3GPP) work on 5G standards. We have been awarded the contract to provide national coverage for emergency personnel (first responders) by the First Responder Network Authority (FirstNet), which gives us access to a nationwide low band 20 MHz of spectrum. We will continue to invest in our wireless network as we look to provide future service offerings and participate in technologies such as 5G and millimeter-wave bands. The increased speeds and network operating efficiency expected with 5G technology should enable massive deployment of devices connected to the internet as well as faster delivery of data services. We expect that 5G will enhance our customers' entire connected experience and not just provide faster speeds.

As the wireless industry has matured, future wireless growth will increasingly depend on our ability to offer innovative data services on a wireless network that has sufficient spectrum and capacity to support these innovations. We continue to invest significant capital in expanding our network capacity, as well as obtaining additional spectrum that meets our long-term needs. We have participated in recent FCC spectrum auctions and have been redeploying spectrum previously used for more basic services to support more advanced mobile internet services.

Internet Protocol (IP) Technology IP is generally used to describe the transmission of data, which can include voice (called voice over IP or VoIP), using a software-based technology rather than a traditional telephone network. Software-based technology presents cost-savings and growth opportunities by using bandwidth more efficiently than a legacy copper wire network and by improving our ability to provide data and video services to both fixed locations and mobile devices. We are rapidly converting to a software-based network and managing the migration of wireline customers to services using IP; we expect to continue this transition through at least 2020. Software-based technologies align with our global leadership in software defined network (SDN) and network function virtualization (NFV). This network approach, of which we are a global leader in our commitment to virtualize 75% of our network by 2020, delivers a demonstrable cost advantage in the deployment of next-generation technology over the traditional, hardware-intensive network approach. Our virtualized network will be able to support next-generation applications like 5G and IP-based services quickly and efficiently.

Media

We produce and distribute high-quality video content to take advantage of growing global demand. Our media businesses use their strong brands, distinctive intellectual property and global scale to produce and distribute quality content. As the television industry continues to evolve from a distribution system using satellite and cable offerings to individual streaming video services, we are well-positioned to address and capitalize on these changes, but we face risks and new sources of competition associated with these developments. We plan in 2019 to continue launching more personalized services offered directly to consumers.

Advertising

Our Xandr segment relies on using data (on an anonymous basis) from our more than 170 million customer relationships, to develop digital advertising that is more relevant to consumers. Advertisers are interested in capitalizing on our broad distribution and ability to offer more precise marketing to customers through a digital platform. We also are expanding relationships with other broadband and video providers to use our digital platform to reach their audiences. This segment experienced rapid growth in 2018, and we believe this growth will continue in 2019.

Latin America

We believe that the wireless model in the U.S., with accelerating demand for mobile internet service and the associated economic benefits, will be repeated around the world as companies invest in high-speed mobile networks. Due in part to changes in the legal and regulatory framework in Mexico in 2015, we acquired Mexican wireless operations to establish a seamless, cross-border North American wireless network covering over 400 million people and businesses in the United States and Mexico. During 2018, we largely completed building a 4G LTE network in Mexico which covers approximately 100 million people and businesses.

AT&T Inc.

BUSINESS OPERATIONS

OPERATING SEGMENTS

Our segments are strategic business units that offer different products and services over various technology platforms and/or in different geographies that are managed accordingly. We analyze our operating segments based on segment contribution, which consists of operating income, excluding acquisition-related costs and other significant items, and equity in net income (loss) of affiliates for investments managed within each operating segment. We have four reportable segments: (1) Communications, (2) WarnerMedia, (3) Latin America and (4) Xandr.

Additional information about our segments, including financial information, is included under the heading “Segment Results” on pages 21 through 32 and in Note 4 of the Annual Report and is incorporated herein by reference pursuant to General Instruction G(2).

COMMUNICATIONS

Our Communications segment provides wireless and wireline telecom, video and broadband services to consumers located in the U.S. or in U.S. territories and businesses globally. Our Communications services and products are marketed under the AT&T, Cricket, AT&T PREPAID and DIRECTV brand names. The Communications segment provided approximately 84% of 2018 segment operating revenues and 84% of our 2018 total segment contribution. This segment contains the Mobility, Entertainment Group and Business Wireline business units.

Mobility – Our Mobility business unit provides nationwide wireless services to consumers and wholesale and resale wireless subscribers located in the United States or U.S. territories by utilizing our network to provide voice and data services, including high-speed internet over wireless devices. We classify our subscribers as either postpaid, prepaid, connected device or reseller. At December 31, 2018, we served 153 million Mobility subscribers, including 77 million postpaid, 17 million prepaid, 8 million reseller and 51 million connected devices. Our Mobility business unit revenue includes the following categories: service and equipment.

Wireless Services

We offer a comprehensive range of high-quality nationwide wireless voice and data communications services in a variety of pricing plans to meet the communications needs of targeted customer categories. Our wireless services also include advertising revenues generated from the subscriber relationships.

Wireless data services continue to be a growing area for this segment, representing an increasing share of overall subscriber revenue. We are experiencing solid growth in this area as an increasing number of our subscribers have upgraded their handsets to more advanced integrated devices, are using data-centric devices such as tablets and connected cars, and are utilizing the network to connect and control physical devices using embedded computing systems and/or software, commonly called the Internet of Things (IoT). We offer plans that include unlimited features allowing for the sharing of voice, text and data across multiple devices, which attracts subscribers from other providers and minimize subscriber churn. Customers in our “connected device” category (e.g., users of session-based tablets, monitoring devices and automobile systems) generally purchase those devices from third-party suppliers that buy data access supported by our network. We continue to upgrade our network and coordinate with equipment manufacturers and application developers to further capitalize on the continued growing demand for wireless data services.

We also offer nationwide wireless voice and data communications to certain customers who prefer to pay in advance. These services are offered under the Cricket and AT&T PREPAID SM brands and are typically monthly prepaid services.

Equipment

We sell a wide variety of handsets, wirelessly enabled computers (e.g., tablets and notebooks) and wireless data cards manufactured by various suppliers for use with our voice and data services. We also sell accessories, such as carrying cases and hands-free devices. We sell through our own company-owned stores, agents and third-party retail stores. Like other wireless service providers, we have historically provided postpaid contract subscribers substantial equipment subsidies to initiate, renew or upgrade service. We have now largely eliminated these subsidies and provide our customers with more service options, the ability to purchase handsets on an installment basis and the opportunity to bring their own device. With the elimination of most handset subsidies, our subscribers have been bringing their own devices or retaining their handsets for longer periods, which could impact future upgrade activity.

Entertainment Group – Our Entertainment Group business unit provides video, internet, voice communication and interactive and targeted advertising services to customers in the United States and U.S. territories by utilizing our IP-based

AT&T Inc.

and copper wired network and/or our satellite technology. Our Entertainment Group business unit revenue includes the following categories: video entertainment, high-speed internet, legacy voice and data services and other service and equipment.

Video Entertainment

Video entertainment revenues are comprised of subscription and advertising revenues. We offer video entertainment services using satellite and IP-based technologies (referred to as “linear”) as well as a streaming option that does not require either satellite or wired IP services (referred to as “over-the-top” or “OTT”). Our offerings are structured to provide customers with the best video experience both inside and outside of the home by offering subscribers attractive programming and state-of-the-art technology. Due to the rising cost of programming as well as higher costs to acquire new subscribers in an increasingly competitive industry, it is even more important to distinguish and elevate our video entertainment experience for our new and existing customers.

We provide approximately 24 million subscribers with access to hundreds of channels of digital-quality video entertainment and audio programming. In addition, our video entertainment subscribers have the ability to use the internet and/or our mobile applications from smartphones and tablets to view authorized content, search program listings and schedule DVR recordings.

We believe it is critical that we continue to extend our brand leadership as a premium pay-TV provider in the marketplace by providing the best video experience both at home and on mobile devices. With annual cash of over \$4,000 million historically generated from the business, including synergies resulting from our DIRECTV acquisition, we are focused on providing content to subscribers when and where they want it and believe that our flexible platform that uses a combination of satellite, IP-based, and cloud infrastructure with a broadband and wireless connection is the most efficient way to transport that content. Through this integrated approach, we are able to optimize the use of storage in the home as well as in the cloud, while also providing a seamless service for consumers across screens and locations.

High-Speed Internet

We offer broadband and internet services to 13.7 million residential subscribers. Our IP-based technology provides high-speed internet services.

Legacy Voice and Data Services

Revenues from our traditional voice services continue to decline as customers switch to wireless or VoIP services provided by us, cable companies or other internet-based providers. We have responded by offering packages of combined voice and data services, including broadband and video, and intend to continue this strategy during 2019.

Business Wireline – Our Business Wireline business unit provides services to business customers, including multinational corporations, small and mid-sized businesses, governmental and wholesale customers. Our Business Wireline business unit revenue includes the following categories: strategic services, legacy voice and data services, and other services and equipment.

Strategic Services

Strategic services (previously known as strategic business services) are our most advanced business solutions. Our strategic services are made up of Strategic Data, Strategic Voice, Security and Cloud Solutions. Strategic Data services include our Virtual Private Networks (VPN), AT&T Dedicated Internet (ADI), and Ethernet and Broadband Services. These offerings allow our customers to create and manage their own internal networks and to access external data networks. Our Strategic Voice services include both premises-based Voice over IP (VOIP) and cloud-based voice solutions. Additionally, we provide collaboration services that utilize our IP infrastructure and allow our customers to utilize the most advanced technology to improve their productivity. We continue to reconfigure our wireline network to take advantage of the latest technologies and services. We have developed AT&T FlexWare, a service that relies on our SDN and NFV to enhance business customers’ digital agility in a rapidly evolving environment. We sell Cyber-Security services to our customers providing state-of-the-art security solutions like Threat Management, Intrusion Detection and other business security applications. We also offer Cloud Solutions and Wi-Fi services. Due to developing technology, our most advanced business solutions are subject to change periodically. We review and evaluate our strategic service offerings annually, which may result in an updated definition and the recast of our historical financial information to conform to the current period presentation. Any modifications will be reflected in the first quarter.

Legacy Voice and Data Services

Voice services include services provided to business and governmental customers, either directly or through wholesale arrangements with other service providers. Our circuit-based, traditional data products include switched and dedicated

AT&T Inc.

transport services that allow customers to transmit data at high speeds, as well as access to the internet using a DSL connection.

Other Services

Other service revenues include Outsourcing, Managed Services, Professional Services and Equipment. These services are typically large customer specific contracts where we provide many services including LAN & WAN management, consulting and other management services.

Additional information on our Communications segment is contained in the Annual Report in the “Overview” section beginning on page 22 and is incorporated herein by reference pursuant to General Instruction G(2).

WARNERMEDIA

Our WarnerMedia segment is comprised of leading media and entertainment businesses that principally develop, produce and distribute feature films, television content, and other content globally; operate cable networks, premium pay television and OTT services domestically and internationally; and operate digital media properties. The WarnerMedia segment includes Time Warner operations for the period subsequent to our June 14, 2018 acquisition and provided approximately 11% of 2018 segment operating revenues and 15% of our 2018 total segment contribution. This segment consists primarily of the Turner, Home Box Office and Warner Bros. business units.

Turner – The Turner business unit operates television networks and related properties that offer branded news, entertainment, sports and kids multi-platform content for consumers around the world. In the U.S., its networks and related businesses and brands include TNT; TBS; Adult Swim; truTV; Turner Classic Movies; Turner Sports; Cartoon Network; Boomerang; and CNN. Turner’s digital properties include Bleacher Report and the CNN digital network. Digital properties Turner manages or operates for sports leagues include NBA.com, NBA Mobile, NCAA.com and PGA.com.

Turner licenses programming to affiliates that have contracted to receive and distribute the programming to subscribers, sells advertising on its networks and its digital properties owned or managed for other companies, and licenses its original programming and brands and characters for consumer products and other business ventures. Turner revenue includes the following categories: subscription, advertising and content and other.

Subscription

Turner’s programming is primarily distributed by affiliates and is available to subscribers of the affiliates for viewing live and on demand on television and on various internet-connected devices through the affiliates’ services and Turner’s network apps.

Turner’s license agreements with its affiliates are typically multi-year arrangements that provide for annual service fee increases and have fee arrangements that are generally related to the number of subscribers served by the affiliate and the networks provided to the affiliate by Turner.

Advertising

Advertising arrangements for its networks generally have terms of one year or less. In the U.S., the advertising revenues depend on the size and demographics of a network’s audience delivered to an advertiser, the number of units of time sold and the price per unit. Turner sells some of its advertising inventory in the “upfront” market in advance each year and other inventory in the “scatter” market closer to the time a program airs. Outside the U.S., advertising is generally sold at a fixed rate for the unit of time sold, determined by the time of day and network.

Turner’s digital properties consist of its own assets and those it manages and/or operates for sports leagues where Turner holds the related programming rights. The CNN digital network is the leading digital news destination, based on the number of average monthly domestic multi-platform unique visitors and videostarts for the year ended December 31, 2018. Turner’s Bleacher Report is the leading digital sports publisher across Facebook, Instagram and Twitter (based on data for the year ended December 31, 2018 sourced from CrowdTangle).

Content and Other

Turner provides services for other business ventures and licenses certain owned original programming to international territories and to subscription VOD (referred to as “SVOD”) services. Turner also licenses its brands and characters for consumer products.

AT&T Inc.

Home Box Office – Our Home Box Office business unit owns and operates leading multichannel premium pay television services, HBO and Cinemax. Our Home Box Office business unit revenue includes the following categories: subscription and content and other.

Subscription

In the U.S., HBO and Cinemax programming is available to subscribers of traditional affiliates for viewing live and on demand on television and various internet-connected devices. Home Box Office has entered into arrangements with a number of digital distributors to provide their subscribers access to the HBO and Cinemax services and programming on digital platforms and devices. HBO NOW, a domestic stand-alone OTT service, is provided through digital distributors, such as Apple, Google, Amazon and Roku, as well as by some affiliates. At December 31, 2018, Home Box Office was the most widely distributed domestic multichannel premium pay television service. At December 31, 2018, after including the negative effect of a carriage dispute, Home Box Office had approximately 50 million domestic subscribers, including HBO NOW.

Home Box Office’s domestic license agreements with affiliates are typically multi-year arrangements that provide for annual service fee increases and marketing support. The relationship between subscriber totals and the amount of revenues earned under Home Box Office’s license agreements depends on the specific terms of the applicable agreement, which may include basic and/or pay television subscriber thresholds, volume discounts and other performance-based discounts.

Internationally, Home Box Office uses one or more of the following distribution models: premium pay and basic tier television services distributed by traditional affiliates, licensing of programming to third-party providers, OTT services distributed by third parties and direct-to-consumer OTT services. HBO- and Cinemax-branded premium pay, basic tier television and/or OTT services are distributed in over 70 countries in Latin America, Europe and Asia. Home Box Office had approximately 90 million international premium pay, basic tier television service and OTT service subscribers at December 31, 2018, including subscribers through Home Box Office’s unconsolidated joint ventures. The amount of its international subscription revenues depends on factors such as basic and/or pay television subscriber thresholds, performance-based or volume discounts, negotiated minimum guarantees or flat-fee arrangements.

Content and Other

Home Box Office licenses its original programming to television networks and OTT services in over 150 countries, including arrangements under which it licenses programming to television networks that are branded as the “Home of HBO” in countries such as the U.K., Australia, France and Germany and as “HBO Canada” in Canada. HBO’s original programming also is available to customers in both physical and digital formats in the U.S. and various international regions through a wide variety of digital storefronts and traditional retailers.

Warner Bros. – Our Warner Bros. business unit is one of the largest television and film studios in the world. Its businesses consist principally of the production, distribution and licensing of television programming and feature films and the distribution of home entertainment product in both physical and digital formats, as well as the production and distribution of games and consumer product and brand licensing.

At December 31, 2018, Warner Bros.’ vast content library consists of more than 100,000 hours of programming, including over 8,600 feature films and 5,000 television programs comprised of tens of thousands of individual episodes.

The home entertainment industry has been undergoing significant changes as it transitions from the distribution of film and television content via physical formats to digital formats. Consumer spending on home entertainment product in physical formats has declined as a result of several factors, including consumers shifting to OTT service subscriptions and, to a lesser degree, digital purchases and transactional VOD rentals of content; changing retailer initiatives and strategies (e.g., reduction in floor space devoted to home entertainment product in physical formats); retail store closures; increasing competition for consumer discretionary time and spending; and piracy. Consumer spending on film and television content in higher margin digital formats represents an increasing share of total home entertainment consumer spending in recent years, but has not offset declines in consumer spending on home entertainment product in physical formats.

In response to these dynamics, Warner Bros. has been focusing on increasing the more profitable electronic sell-through and transactional digital VOD rentals of its film and television content and participates in a variety of initiatives that are designed to make digital ownership more compelling for consumers.

Our Warner Bros. business unit revenue includes the following categories: theatrical product, television product, and games and other.

AT&T Inc.

Theatrical Product

Theatrical product consists of (1) rental fees paid by movie theaters for the initial exhibition of feature films produced (or co-produced) and/or distributed by Warner Bros., (2) licensing fees paid by television networks, premium pay television services and OTT services for the exhibition of feature films produced or co-produced by Warner Bros. and (3) revenues from the distribution of Warner Bros.' and other companies' feature films in physical and digital formats. Our feature films also support Warner Bros.' key brands and franchises, which helps generate consumer product and brand licensing revenues based on Warner Bros.' films and characters.

Warner Bros. was one of the top film studios in global box office receipts in 2018 and has been a leading film studio in domestic box office receipts for the past ten years.

Television Product

Television product consists of (1) fees for the initial broadcast of Warner Bros.' television programming on U.S. broadcast and cable television networks and premium pay television and OTT services, (2) fees for the airing or other distribution of its television programming after its initial broadcast in secondary U.S. distribution channels (such as basic cable networks, local television stations and OTT services), (3) fees for the international distribution of Warner Bros.' television programming for free-to-air television, basic tier television services, premium pay television services and OTT services, and (4) revenues from the sale of the television programming of Warner Bros. and other companies in physical and digital formats. Our television programming also supports Warner Bros.' key brands and franchises, which helps generate consumer product and brand licensing revenues based on the programming for years beyond the initial airing of the programming on television.

Warner Bros. was a leading producer of primetime television series for the U.S. broadcast networks for the 2018-2019 television season, producing 35 series. In addition, Warner Bros. licenses its U.S. programming globally.

Games and Other

Warner Bros. develops, publishes and distributes games, including mobile and console games. Its games are based on intellectual property owned or licensed by Warner Bros. (including DC Entertainment properties, Harry Potter and Mortal Kombat).

Additional information on our WarnerMedia segment is contained in the Annual Report in the "Overview" section beginning on page 27 and is incorporated herein by reference pursuant to General Instruction G(2).

LATIN AMERICA

Our Latin America segment provides entertainment services in Latin America and wireless services in Mexico. The Latin America segment provided approximately 4% of 2018 segment operating revenues. Our Latin America services and products are marketed under the AT&T, DIRECTV, SKY and Unefon brand names. This segment contains the Vrio and Mexico business units.

Vrio – Video entertainment services are provided to primarily residential customers using satellite technology. We are a leading provider of digital television services throughout Latin America, providing a wide selection of local and international digital-quality video entertainment and audio programming under the DIRECTV and SKY brands. We provide one of the most extensive collections of programming available in the Latin America pay-TV market, including HD sports video content and the most innovative interactive technology across the region. In addition, we have the unique ability to sell superior offerings of our differentiated products and services on a continent-wide basis with an operational cost structure that we believe to be lower than that of our competition.

We have approximately 14 million video subscribers in Latin America. Our business encompasses pay television services with satellite operations serving Argentina, Brazil, Chile, Colombia, Ecuador, Peru, Uruguay, Venezuela and parts of the Caribbean. Our operations also include our 41% equity method investment in Innova, S. de R.L. de C.V., or SKY Mexico. Sky Mexico financial results are accounted for as an equity-method investment.

Mexico – We utilize our regional and national wireless networks in Mexico to provide consumer and business customers with wireless data and voice communication services. We divide our revenue into the following categories: wireless service and wireless equipment.

We offer postpaid and prepaid wireless services in Mexico to approximately 18 million subscribers under the AT&T and Unefon brands. Postpaid services allow for (1) no annual service contract for subscribers who bring their own device or

AT&T Inc.

purchase a device on installment (the device must be paid in full if the customer chooses to drop their service from AT&T) and (2) service contracts for periods up to 24 months for subscribers who purchase their equipment under the traditional device subsidy model. All plans offer no roaming charges in the United States or Canada, unlimited minutes and messages to the extended AT&T community and unlimited data access to social networking. We also offer prepaid services to customers who prefer to pay in advance.

We sell a wide variety of handsets, including smartphones manufactured by various suppliers for use with our voice and data services. We sell through our own company-owned stores, agents and third-party retail stores.

Additional information on our Latin America segment is contained in the Annual Report in the “Overview” section beginning on page 29 and is incorporated herein by reference pursuant to General Instruction G(2).

XANDR

Our Xandr segment relies on using data from our more than 170 million customer relationships (on an anonymous basis), to develop digital advertising that is more relevant to consumers. The Xandr segment provided approximately 1% of 2018 segment operating revenues and 3% of our 2018 total segment contribution. Advertisers are interested in capitalizing on our broad distribution and ability to offer more precise marketing to customers through a digital platform. We also are expanding relationships with other broadband and video providers to use our digital platform to reach their audiences. This segment experienced rapid growth in 2018, and we believe this growth will continue in 2019.

Additional information on our Xandr segment is contained in the Annual Report in the “Overview” section beginning on page 32 and is incorporated herein by reference pursuant to General Instruction G(2).

MAJOR CLASSES OF SERVICE

The following table sets forth the percentage of total consolidated reported operating revenues by any class of service that accounted for 10% or more of our consolidated total operating revenues in any of the last three fiscal years:

	Percentage of Total Consolidated Operating Revenues		
	2018	2017	2016
Communications Segment			
Wireless service ¹	32 %	36 %	36 %
Subscription ^{2, 3}	19	23	22
Advanced data ⁴	12	12	11
Equipment	10	9	9
WarnerMedia Segment			
Subscription	4	-	-
Latin America Segment			
Subscription ²	3	3	3
Wireless service	1	1	1
Equipment	1	-	-

¹ 2018 excludes \$232 million of advertising revenues included as Wireless service in our Mobility business unit.

² Subscription is reported as Video in our Entertainment Group and Vrio business units.

³ 2018 excludes \$1,595 million of advertising revenues included as Video in our Entertainment Group business unit.

⁴ Advanced data is reported as High-speed internet and Strategic services in our Entertainment Group and Business Wireline business units, respectively.

Additional information on our geographical distribution of revenues is contained in the Annual Report in the “Segment Information” section beginning on page 72 and is incorporated herein by reference pursuant to General Instruction G(2).

GOVERNMENT REGULATION

Wireless communications providers must be licensed by the U.S. Federal Communications Commission (FCC) to provide communications services at specified spectrum frequencies within defined geographic areas and must comply with the rules and policies governing the use of the spectrum as adopted by the FCC. The FCC's rules have a direct impact on whether the wireless industry has sufficient spectrum available to support the high-quality, innovative services our customers demand. Wireless licenses are issued for a fixed time period, typically ten years, and we must seek renewal of these licenses. While the FCC has generally renewed licenses given to operating companies such as us, the FCC has authority to both revoke a license for cause and to deny a license renewal if a renewal is not in the public interest. Additionally, while wireless communications providers' prices and service offerings are generally not subject to regulation, the federal government and various states are considering new regulations and legislation relating to various aspects of wireless services.

The Communications Act of 1934 and other related acts give the FCC broad authority to regulate the U.S. operations of our satellite services, which are licensed by the FCC, and some of WarnerMedia's businesses are also subject to obligations under the Communications Act and related FCC regulations. In addition, states representing a majority of our local service access lines have adopted legislation that enables us to provide IP-based video service through a single statewide or state-approved franchise (as opposed to the need to acquire hundreds or even thousands of municipal-approved franchises) to offer a competitive video product. We also are supporting efforts to update and improve regulatory treatment for retail services. Regulatory reform and passage of legislation is uncertain and depends on many factors.

In February 2015, the FCC released an order classifying both fixed and mobile consumer broadband internet access services as telecommunications services, subject to Title II of the Communications Act. This order, which represented a departure from longstanding bipartisan precedent, significantly expanded the FCC's authority to regulate broadband internet access services, as well as internet interconnection arrangements. AT&T and several other parties appealed the FCC's order. In June 2016, a divided panel of the District of Columbia Court of Appeals upheld the FCC's rules by a 2-1 vote, and petitions for rehearing en banc were denied in May 2017. Petitions for a writ of Certiorari at the U.S. Supreme Court remain pending. Meanwhile, in December 2017, the FCC reversed its 2015 decision by reclassifying fixed and mobile consumer broadband services as information services and repealing most of the rules that were adopted in 2015. In lieu of broad conduct prohibitions, the order requires internet service providers to disclose information about their network practices and terms of service, including whether they block or throttle internet traffic or offer paid prioritization. Several parties, including several state Attorneys General, net neutrality advocacy groups and others, have appealed the FCC's December 2017 decision. Those appeals, which initially were consolidated in the U.S. Court of Appeals for the Ninth Circuit, were transferred at the request of the parties to the D.C. Circuit. Although the FCC order expressly preempted inconsistent state or local measures, a number of states are considering or have adopted legislation that would reimpose the very rules the FCC repealed, and in some cases, establish additional requirements that go beyond the FCC's February 2015 order. Additionally, some state governors have issued executive orders that effectively re-impose the repealed requirements. Suits have recently been filed concerning laws in California and Vermont, and other lawsuits are possible. We will continue to support congressional action to codify a set of standard consumer rules for the internet.

On April 20, 2017, the FCC adopted an order that maintains light touch pricing regulation of packet-based services like Ethernet and extends this "light touch" approach to high-speed TDM transport services and to most of our TDM channel termination services, based on the application of a competitive market test for such services. For those services that do not qualify for light touch regulation, the order allows companies to offer volume and term discounts, as well as contract tariffs. Several parties appealed the FCC's decision. In August 2018, the U.S. Court of Appeals for the Eighth Circuit largely upheld the FCC decision, but found that the FCC had not provided adequate notice of the possibility that it might apply light touch regulation to all transport services. The FCC has since remedied that notice deficiency and has proposed to reinstate its light touch approach for transport services.

Privacy-related legislation has been considered in a number of states. The policy environment is complex and rapidly evolving. Legislative and regulatory action could result in increased costs of compliance, claims against broadband internet access service providers, content owners and others, and increased uncertainty in the value and availability of data. In June 2018, the State of California enacted comprehensive privacy legislation that gives California consumers the right to know what personal information is being collected about them, to know whether and to whom it is sold or disclosed, and to access and request deletion of this information. Subject to certain exceptions, it also gives consumers the right to opt-out of the sale of personal information. The law applies the same rules to all companies that collect consumer information. The new law could significantly affect how data markets operate and will impose implementation costs and challenges. We will continue to support congressional action to codify a set of standard consumer rules of the internet, including a federal privacy framework.

AT&T Inc.

Our ILEC subsidiaries are subject to regulation by state governments, which have the power to regulate intrastate rates and services, including local, long-distance and network access services, provided such state regulation is consistent with federal law. Some states have eliminated or reduced regulations on our retail offerings. These subsidiaries are also subject to the jurisdiction of the FCC with respect to intercarrier compensation, interconnection, and interstate and international rates and services, including interstate access charges. Access charges are a form of intercarrier compensation designed to reimburse our wireline subsidiaries for the use of their networks by other carriers.

WarnerMedia creates, owns and distributes intellectual property, including copyrights, trademarks and licenses of intellectual property. To protect its intellectual property, WarnerMedia relies on a combination of laws and license agreements. Outside the U.S., laws and regulations relating to intellectual property protection and the effective enforcement of these laws and regulations vary greatly from country to country. The European Union Commission is pursuing legislative and regulatory initiatives that could impair Warner Bros.' current country-by-country licensing approach in the European Union. Piracy, particularly of digital content, continues to threaten revenues from WarnerMedia's products and services, as well as revenues from our pay TV business, and we work to limit that threat through a combination of approaches, including technological and legislative solutions. Outside the U.S., various laws and regulations, as well as trade agreements with the U.S., also apply to the distribution or licensing of feature films for exhibition in theaters and on broadcast and cable networks. For example, in certain countries, including China, laws and regulations limit the number of foreign films exhibited in such countries in a calendar year.

Our subsidiaries operating outside the United States are subject to the jurisdiction of national and supranational regulatory authorities in the market where service is provided.

Additional information relating to regulation of our subsidiaries is contained in the Annual Report under the headings "Operating Environment Overview" beginning on page 37 and "Regulatory Developments" beginning on page 39 and is incorporated herein by reference pursuant to General Instruction G(2).

IMPORTANCE, DURATION AND EFFECT OF LICENSES

Certain of our subsidiaries own or have licenses to various patents, copyrights, trademarks and other intellectual property necessary to conduct business. Many of our subsidiaries also hold government-issued licenses or franchises to provide wireline, satellite or wireless services. Additional information relating to regulation affecting those rights is contained in the Annual Report under the heading "Operating Environment Overview," beginning on page 37, and is incorporated herein by reference pursuant to General Instruction G(2). We actively pursue patents, trademarks and service marks to protect our intellectual property within the United States and abroad. We maintain a significant global portfolio of patents, trademarks and service mark registrations. We have also entered into agreements that permit other companies, in exchange for fees and rights, and subject to appropriate safeguards and restrictions, to utilize certain of our patents, trademarks and service marks. As we transition our network from a switch-based network to an IP, software-based network, we have increasingly entered into licensing agreements with software developers.

We periodically receive offers from third parties to obtain licenses for patents and other intellectual rights in exchange for royalties or other payments. We also receive notices asserting that our products or services sold to customers or software-based network functions infringe on their patents and other intellectual property rights. These claims, whether against us directly, such as network functions or against third-party suppliers of products or services that we, in turn, sell to our customers, such as wireless handsets, could require us to pay damages, royalties, stop offering the relevant products or services and/or cease network functions or other activities. While the outcome of any litigation is uncertain, we do not believe that the resolution of any of these infringement claims or the expiration or non-renewal of any of our intellectual property rights would have a material adverse effect on our results of operations.

MAJOR CUSTOMERS

No customer accounted for 10% or more of our consolidated revenues in 2018, 2017 or 2016.

COMPETITION

Information relating to competition in each of our operating segments is contained in the Annual Report under the heading "Competition" beginning on page 41, and is incorporated herein by reference pursuant to General Instruction G(2).

AT&T Inc.

RESEARCH AND DEVELOPMENT

AT&T scientists and engineers conduct research in a variety of areas, including IP networking, advanced network design and architecture, network and cyber security, network operations support systems, satellite technology, video platform development and data analytics. The majority of the development activities are performed to create new services and to invent tools and systems to manage secure and reliable networks for us and our customers. Research and development expenses were \$1,194 million in 2018, \$1,503 million in 2017, and \$1,649 million in 2016.

EMPLOYEES

As of January 31, 2019, we employed approximately 268,000 persons. Approximately 40% of our employees are represented by the Communications Workers of America (CWA), the International Brotherhood of Electrical Workers (IBEW) or other unions. After expiration of the agreements, work stoppages or labor disruptions may occur in the absence of new contracts or other agreements being reached. A contract now covering approximately 8,300 traditional wireline employees in our Midwest region expired in April 2018 and employees are working under the terms of the prior contract, including benefits, while negotiations continue. In addition, a contract now covering approximately 3,300 traditional wireline employees in our legacy AT&T Corp. business also expired in April 2018. Those employees are working under the terms of their prior contract, including benefits, while negotiations continue. Other contracts covering approximately 26,000 employees are scheduled to expire during 2019.

At December 31, 2018, we had approximately 548,000 retirees and dependents that were eligible to receive retiree benefits.

RECENT DEVELOPMENTS

A putative stockholder class action lawsuit has been filed in connection with statements made in the registration statement and prospectus on Form S-4 (S-4), filed by AT&T with the SEC in connection with our acquisition of Time Warner Inc. The action, *Hoffman v. Stephenson et al.* (the “Hoffman Complaint”), filed on February 7, 2019 in the Supreme Court of the State of New York, County of New York, alleges violations of Sections 11, 12(a)(2) and 15 of the Securities Act of 1933, as amended, by AT&T and certain of AT&T’s current officers and directors based on alleged misrepresentations and omissions in the S-4 relating to trends in its then Entertainment Group segment and in particular with respect to the number of subscribers to our DIRECTV NOW service. The plaintiff in the Hoffman Complaint seeks damages, attorneys’ fees and costs, rescission, disgorgement and other and further relief. We believe the claims in the Hoffman Complaint are without merit and will vigorously defend our legal position in court.

AT&T Inc.

ITEM 1A. RISK FACTORS

Information required by this Item is included in the Annual Report under the heading “Risk Factors” on pages 54 through 58 which is incorporated herein by reference pursuant to General Instruction G(2).

CAUTIONARY LANGUAGE CONCERNING FORWARD-LOOKING STATEMENTS

Information set forth in this report contains forward-looking statements that are subject to risks and uncertainties, and actual results could differ materially. Many of these factors are discussed in more detail in the “Risk Factors” section. We claim the protection of the safe harbor for forward-looking statements provided by the Private Securities Litigation Reform Act of 1995.

The following factors could cause our future results to differ materially from those expressed in the forward-looking statements:

- Adverse economic and/or capital access changes in the markets served by us or in countries in which we have significant investments, including the impact on customer demand and our ability and our suppliers’ ability to access financial markets at favorable rates and terms.
- Changes in available technology and the effects of such changes, including product substitutions and deployment costs.
- Increases in our benefit plans’ costs, including increases due to adverse changes in the United States and foreign securities markets, resulting in worse-than-assumed investment returns and discount rates; adverse changes in mortality assumptions; adverse medical cost trends; and unfavorable or delayed implementation or repeal of healthcare legislation, regulations or related court decisions.
- The final outcome of FCC and other federal, state or foreign government agency proceedings (including judicial review, if any, of such proceedings) involving issues that are important to our business, including, without limitation, special access and business data services; pending Notices of Apparent Liability; the transition from legacy technologies to IP-based infrastructure, including the withdrawal of legacy TDM-based services; universal service; broadband deployment; wireless equipment siting regulations; E911 services; competition policy; privacy; net neutrality; multichannel video programming distributor services and equipment; content licensing and copyright protection; availability of new spectrum, on fair and balanced terms; IP licensing, and wireless and satellite license awards and renewals.
- The final outcome of state and federal legislative efforts involving topics that are important to our business, including deregulation of IP-based services, relief from Carrier of Last Resort obligations and elimination of state commission review of the withdrawal of services, internet regulation and privacy issues.
- Enactment of additional state, local, federal and/or foreign regulatory and tax laws and regulations, or changes to existing standards and actions by tax agencies and judicial authorities including the resolution of disputes with any taxing jurisdictions, pertaining to our subsidiaries and foreign investments, including laws and regulations that reduce our incentive to invest in our networks, resulting in lower revenue growth and/or higher operating costs.
- Potential changes to the electromagnetic spectrum currently used for broadcast television and satellite distribution being considered by the FCC could negatively impact WarnerMedia’s ability to deliver linear network feeds of its domestic cable networks to its affiliates, and in some cases, WarnerMedia’s ability to produce high-value news and entertainment programming on location.
- U.S. and foreign laws and regulations regarding intellectual property rights protection and privacy, personal data protection and user consent are complex and rapidly evolving and could result in impact to our business plans, increased costs, or claims against us that may harm our reputation.
- Our ability to absorb revenue losses caused by increasing competition, including offerings that use alternative technologies or delivery methods (e.g., cable, wireless, VoIP and over-the-top video service), subscriber reluctance to purchase new wireless handsets, and our ability to maintain capital expenditures.
- The extent of competition including from governmental networks and other providers and the resulting pressure on customer totals and segment operating margins.
- Our ability to develop attractive and profitable product/service offerings to offset increasing competition and increasing fragmentation of customer viewing habits.
- The ability of our competitors to offer product/service offerings at lower prices due to lower cost structures and regulatory and legislative actions adverse to us, including non-regulation of comparable alternative technologies (e.g., VoIP and data usage).
- The continued development and delivery of attractive and profitable video and broadband offerings; the extent to which regulatory and build-out requirements apply to our offerings; our ability to match speeds offered by our competitors and the availability, cost and/or reliability of the various technologies and/or content required to provide such offerings.
- Our continued ability to maintain margins, attract and offer a diverse portfolio of video, wireless service and devices and device financing plans.

AT&T Inc.

- Our ability to generate advertising revenue from attractive video content, especially from WarnerMedia, in the face of unpredictable and rapidly evolving public viewing habits.
- The availability, cost and our ability to adequately fund additional wireless spectrum and network upgrades; and regulations and conditions relating to spectrum use, licensing, obtaining additional spectrum, technical standards and deployment and usage, including network management rules.
- Our ability to manage growth in wireless data services, including network quality and acquisition of adequate spectrum at reasonable costs and terms.
- The outcome of pending, threatened or potential litigation (which includes arbitrations), including, without limitation, patent and product safety claims by or against third parties.
- The impact from major equipment failures on our networks, including satellites operated by DIRECTV; the effect of security breaches related to the network or customer information; our inability to obtain handsets, equipment/software or have handsets, equipment/software serviced in a timely and cost-effective manner from suppliers; and in the case of satellites launched, timely provisioning of services from vendors; or severe weather conditions including flooding and hurricanes, natural disasters including earthquakes and forest fires, pandemics, energy shortages, wars or terrorist attacks.
- The issuance by the Financial Accounting Standards Board or other accounting oversight bodies of new accounting standards or changes to existing standards.
- The U.S. Department of Justice prevailing on its appeal of the court decision permitting our acquisition of Time Warner Inc.
- Our ability to successfully integrate our WarnerMedia operations, including the ability to manage various businesses in widely dispersed business locations and with decentralized management.
- Our ability to take advantage of the desire of advertisers to change traditional video advertising models.
- Our increased exposure to foreign economies, including foreign exchange fluctuations as well as regulatory and political uncertainty.
- Changes in our corporate strategies, such as changing network-related requirements or acquisitions and dispositions, which may require significant amounts of cash or stock, to respond to competition and regulatory, legislative and technological developments.
- The uncertainty surrounding further congressional action to address spending reductions, which may result in a significant decrease in government spending and reluctance of businesses and consumers to spend in general.

Readers are cautioned that other factors discussed in this report, although not enumerated here, also could materially affect our future earnings.

AT&T Inc.

ITEM 2. PROPERTIES

Our properties do not lend themselves to description by character and location of principal units. At December 31, 2018, of our total property, plant and equipment, central office equipment represented 29%; outside plant (including cable, wiring and other non-central office network equipment) represented approximately 22%; satellites represented 1%; other equipment, comprised principally of wireless network equipment attached to towers, furniture and office equipment and vehicles and other work equipment, represented 28%; land, building and wireless communications towers represented 12%; and other miscellaneous property represented 8%.

For our Communications segment, substantially all of the installations of central office equipment are located in buildings and on land we own. Many garages, administrative and business offices, wireless towers, telephone centers and retail stores are leased. Property on which communication towers are located may be either owned or leased.

For our WarnerMedia segment, we own or leases offices; studios; technical, production and warehouse spaces; communications facilities and other properties in numerous locations globally.

ITEM 3. LEGAL PROCEEDINGS

We are a party to numerous lawsuits, regulatory proceedings and other matters arising in the ordinary course of business. As of the date of this report, we do not believe any pending legal proceedings to which we or our subsidiaries are subject are required to be disclosed as material legal proceedings pursuant to this item.

ITEM 4. MINE SAFETY DISCLOSURES

Not applicable.

AT&T Inc.

**EXECUTIVE OFFICERS OF THE REGISTRANT
(As of February 1, 2019)**

<u>Name</u>	<u>Age</u>	<u>Position</u>	<u>Held Since</u>
Randall L. Stephenson	58	Chairman of the Board, Chief Executive Officer and President	6/2007
William A. Blase Jr.	63	Senior Executive Vice President – Human Resources	6/2007
John M. Donovan	58	Chief Executive Officer, AT&T Communications, LLC	8/2017
David S. Huntley	60	Senior Executive Vice President and Chief Compliance Officer	12/2014
Lori M. Lee	53	Chief Executive Officer-AT&T Latin America and Global Marketing Officer	8/2017
Brian D. Lesser	44	Chief Executive Officer-Xandr, AT&T Services, Inc.	9/2017
David R. McAtee II	50	Senior Executive Vice President and General Counsel	10/2015
John T. Stankey	56	Chief Executive Officer, Warner Media, LLC	6/2018
John J. Stephens	59	Senior Executive Vice President and Chief Financial Officer	6/2011

All of the above executive officers have held high-level managerial positions with AT&T or its subsidiaries for more than the past five years, except for Mr. Lesser who was previously CEO of GroupM in North America from November 2015 to September 2017 and CEO of Xaxis from January 2011 to November 2015. Executive officers are not appointed to a fixed term of office.

AT&T Inc.

PART II

ITEM 5. MARKET FOR REGISTRANT’S COMMON EQUITY, RELATED STOCKHOLDER MATTERS AND ISSUER PURCHASES OF EQUITY SECURITIES

(a) Our common stock is listed on the New York Stock Exchange. The number of stockholders of record as of December 31, 2018 and 2017 was 937,230 and 968,119. The number of stockholders of record as of February 12, 2019, was 933,461. We declared dividends, on a quarterly basis, totaling \$2.01 per share in 2018 and \$1.97 per share in 2017.

Other information required by this Item is included in the Annual Report under the headings “Quarterly Financial Information” on page 87, “Selected Financial and Operating Data” on page 14, and “Stock Trading Information” on the back cover, which are incorporated herein by reference pursuant to General Instruction G(2).

(c) Our Board of Directors approved authorizations in both March 2013 and 2014 to repurchase up to 300 million shares of our common stock. For the year ended December 31, 2018, we repurchased 13 million shares for distribution through our employee benefit plans, totaling \$419 million under the March 2013 authorization. For the year ended December 31, 2017, we repurchased 7 million shares totaling \$279 million under the March 2013 authorization. Excluding the impact of acquisitions, the emphasis of our 2019 financing activities will be the refinancing and/or repayment of debt and the payment of dividends, subject to approval by our Board of Directors. We plan to fund our financing uses of cash through a combination of cash from operations, debt issuances and asset sales. The timing and mix of any debt issuance will be guided by credit market conditions and interest rate trends.

To implement these authorizations, we used open market repurchase programs, relying on Rule 10b5-1 of the Securities Exchange Act of 1934 where feasible.

We will continue to fund any share repurchases through a combination of cash from operations, borrowings dependent on market conditions, or cash from the disposition of certain non-strategic investments.

A summary of our repurchases of common stock during the fourth quarter of 2018 is as follows:

ISSUER PURCHASES OF EQUITY SECURITIES

Period	(a) Total Number of Shares (or Units) Purchased ^{1,2,3}	(b) Average Price Paid Per Share (or Unit)	(c) Total Number of Shares (or Units) Purchased as Part of Publicly Announced Plans or Programs ¹	(d) Maximum Number (or Approximate Dollar Value) of Shares (or Units) That May Yet Be Purchased Under The Plans or Programs
October 1, 2018 - October 31, 2018	528,852	\$ 30.88	-	375,662,000
November 1, 2018 - November 30, 2018	112,236	30.67	-	375,662,000
December 1, 2018 - December 31, 2018	1,055,525	28.80	-	375,662,000
Total	1,696,613	\$ 29.57	-	

¹ In March 2014, our Board of Directors approved an authorization to repurchase up to 300 million shares of our common stock. In March 2013, our Board of Directors approved an authorization to repurchase up to 300 million shares of our common stock. The authorizations have no expiration date.

² Of the shares purchased, 1,031,328 shares were acquired through the withholding of taxes on the vesting of restricted stock or through the payment in stock of taxes on the exercise price of options.

³ Of the shares repurchased or transferred, 665,285 shares were transferred from the AT&T maintained Voluntary Employee Benefit Association (VEBA) trusts.

AT&T Inc.

ITEM 6. SELECTED FINANCIAL DATA

Information required by this Item is included in the Annual Report under the heading “Selected Financial and Operating Data” on page 14, which is incorporated herein by reference pursuant to General Instruction G(2).

ITEM 7. MANAGEMENT’S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

Information required by this Item is included in the Annual Report on pages 15 through 48, which is incorporated herein by reference pursuant to General Instruction G(2).

ITEM 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

Information required by this Item is included in the Annual Report under the heading “Market Risk” on page 40, which is incorporated herein by reference pursuant to General Instruction G(2).

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

Information required by this Item is included in the Annual Report on pages 49 through 87, which is incorporated herein by reference pursuant to General Instruction G(2).

ITEM 9. CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE

During our two most recent fiscal years, there has been no change in the independent accountant engaged as the principal accountant to audit our financial statements, and the independent accountant has not expressed reliance on other independent accountants in its reports during such time period.

AT&T Inc.

ITEM 9A. CONTROLS AND PROCEDURES

Disclosure Controls and Procedures

The registrant maintains disclosure controls and procedures that are designed to ensure that information required to be disclosed by the registrant is recorded, processed, summarized, accumulated and communicated to its management, including its principal executive and principal financial officers, to allow timely decisions regarding required disclosure, and reported within the time periods specified in the SEC's rules and forms. The Chief Executive Officer and Chief Financial Officer have performed an evaluation of the effectiveness of the design and operation of the registrant's disclosure controls and procedures as of December 31, 2018. Based on that evaluation, the Chief Executive Officer and Chief Financial Officer concluded that the registrant's disclosure controls and procedures were effective as of December 31, 2018.

Internal Control Over Financial Reporting

(a) Management's Annual Report on Internal Control over Financial Reporting

The management of AT&T is responsible for establishing and maintaining adequate internal control over financial reporting. AT&T's internal control system was designed to provide reasonable assurance as to the integrity and reliability of the published financial statements. AT&T management assessed the effectiveness of the company's internal control over financial reporting as of December 31, 2018. In making this assessment, it used the criteria set forth by the Committee of Sponsoring Organizations of the Treadway Commission (COSO) in Internal Control – Integrated Framework (2013 framework). We have excluded from the scope of our assessment of internal control over financial reporting the operations and related assets of Warner Media, LLC (formerly Time Warner Inc. and referred to as "Warner Media") which we acquired in 2018. At December 31, 2018 and for the period from acquisition through December 31, 2018, total assets and operating revenues subject to Warner Media's internal control over financial reporting represented 24.1% and 9.7% of AT&T's consolidated total assets and total revenues as of and for the year ended December 31, 2018. Based on its assessment, AT&T management believes that, as of December 31, 2018, the Company's internal control over financial reporting is effective based on those criteria.

(b) Attestation Report of the Independent Registered Public Accounting Firm

The independent registered public accounting firm that audited the financial statements included in the Annual Report containing the disclosure required by this Item, Ernst & Young LLP, has issued an attestation report on the Company's internal control over financial reporting. The attestation report issued by Ernst & Young LLP is included in the Annual Report on page 89, which is incorporated herein by reference pursuant to General Instruction G(2).

AT&T Inc.

ITEM 9B. OTHER INFORMATION

There is no information that was required to be disclosed in a report on Form 8-K during the fourth quarter of 2018 but was not reported.

PART III

ITEM 10. DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE

Information regarding executive officers required by Item 401 of Regulation S-K is furnished in a separate disclosure at the end of Part I of this report since the registrant did not furnish such information in its definitive proxy statement prepared in accordance with Schedule 14A. Information regarding directors required by Item 401 of Regulation S-K is incorporated herein by reference pursuant to General Instruction G(3) from the registrant's definitive proxy statement, dated on or about March 11, 2019 (Proxy Statement) under the heading "Management Proposal Item No. 1. Election of Directors."

Information required by Item 405 of Regulation S-K is incorporated herein by reference pursuant to General Instruction G(3) from the registrant's Proxy Statement under the heading "Section 16(a) Beneficial Ownership Reporting Compliance."

The registrant has a separately-designated standing audit committee established in accordance with Section 3(a)(58)(A) of the Securities Exchange Act of 1934. The members of the committee are Messrs. Di Piazza, Jr. and McCallister, and Ms. Taylor and Tyson. The additional information required by Item 407(d)(5) of Regulation S-K is incorporated herein by reference pursuant to General Instruction G(3) from the registrant's Proxy Statement under the heading "Audit Committee."

The registrant has adopted a code of ethics entitled "Code of Ethics" that applies to the registrant's principal executive officer, principal financial officer, principal accounting officer, or controller or persons performing similar functions. The additional information required by Item 406 of Regulation S-K is provided in this report under the heading "General" under Part I, Item 1. Business.

ITEM 11. EXECUTIVE COMPENSATION

Information required by this Item is incorporated herein by reference pursuant to General Instruction G(3) from the registrant's Proxy Statement under the headings "Director Compensation," "CEO Pay Ratio," and the pages beginning with the heading "Compensation Discussion and Analysis" and ending with, and including, the pages under the heading "Potential Payments upon Change in Control."

Information required by Item 407(e)(5) of Regulation S-K is included in the registrant's Proxy Statement under the heading "Compensation Committee Report" and is incorporated herein by reference pursuant to General Instruction G(3) and shall be deemed furnished in this Annual Report on Form 10-K and will not be deemed incorporated by reference into any filing under the Securities Act of 1933 or the Securities Exchange Act of 1934.

AT&T Inc.

ITEM 12. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED STOCKHOLDER MATTERS

Information required by Item 403 of Regulation S-K is included in the registrant’s Proxy Statement under the heading “Common Stock Ownership,” which is incorporated herein by reference pursuant to General Instruction G(3).

Equity Compensation Plan Information

The following table provides information as of December 31, 2018, concerning shares of AT&T common stock authorized for issuance under AT&T’s existing equity compensation plans.

Equity Compensation Plan Information			
Plan Category	Number of securities to be issued upon exercise of outstanding options, warrants and rights (a)	Weighted average exercise price of outstanding options, warrants and rights (b)	Number of securities remaining available for future issuance under equity compensation plans (excluding securities reflected in column (a)) (c)
Equity compensation plans approved by security holders	40,468,244 (1)	\$ 26.28	312,109,777 (2)
Equity compensation plans not approved by security holders	0	0	0
Total	40,468,244 (3)	\$ 26.28	312,109,777 (2)

- (1) Includes the issuance of stock in connection with the following stockholder approved plans: (a) 3,188,886 stock options under the Stock Purchase and Deferral Plan (*SPDP*), (b) 1,861,950 phantom stock units under the Stock Savings Plan (*SSP*), 12,658,357 phantom stock units under the SPDP, 3,216,681 restricted stock units under the 2011 Incentive Plan, 1,604,712 restricted stock units under the 2016 Incentive Plan and 30,014 restricted stock units under the 2018 Incentive Plan, (c) 4,886,946 target number of stock-settled performance shares under the 2011 Incentive Plan, 10,047,502 target number of stock-settled performance shares under the 2016 Incentive Plan, and 31,185 target number of stock-settled performance shares under the 2018 Incentive Plan. At payout, the target number of performance shares may be reduced to zero or increased by up to 150%. Each phantom stock unit and performance share is settleable in stock on a 1-to-1 basis. The weighted-average exercise price in the table does not include outstanding performance shares or phantom stock units.
The SSP was approved by stockholders in 1994 and then was amended by the Board of Directors in 2000 to increase the number of shares available for purchase under the plan (including shares from the Company match and reinvested dividend equivalents). Stockholder approval was not required for the amendment. To the extent applicable, the amount shown for approved plans in column (a), in addition to the above amounts, includes 2,160,838 phantom stock units (computed on a first-in-first-out basis) that were approved by the Board in 2000. Under the SSP, shares could be purchased with payroll deductions and reinvested dividend equivalents by mid-level and above managers and limited Company partial matching contributions. No new contributions may be made to the plan.
- (2) Includes 41,538,764 shares that may be issued under the SPDP, 249,157,068 shares that may be issued under the 2018 Incentive Plan, and up to 2,889,674 shares that may be purchased through reinvestment of dividends on phantom shares held in the SSP.
- (3) Does not include certain stock options issued by companies acquired by AT&T that were converted into options to acquire AT&T stock. As of December 31, 2018, there were 26,970,020 shares of AT&T common stock subject to the converted options, having a weighted-average exercise price of \$18.96. Also, does not include 8,214,489 outstanding phantom stock units that were issued by companies acquired by AT&T that are convertible into stock on a 1-to-1 basis, along with an estimated 114,352 shares that may be purchased with reinvested dividend equivalents paid on the outstanding phantom stock units. No further phantom stock units, other than reinvested dividends, may be issued under the assumed plans. The weighted-average exercise price in the table does not include outstanding performance shares or phantom stock units.

AT&T Inc.

ITEM 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS, AND DIRECTOR INDEPENDENCE

Information required by Item 404 of Regulation S-K is included in the registrant’s Proxy Statement under the heading “Related Person Transactions,” which is incorporated herein by reference pursuant to General Instruction G(3). Information required by Item 407(a) of Regulation S-K is included in the registrant’s Proxy Statement under the heading “Director Independence,” which is incorporated herein by reference pursuant to General Instruction G(3).

ITEM 14. PRINCIPAL ACCOUNTANT FEES AND SERVICES

Information required by this Item is included in the registrant’s Proxy Statement under the heading “Principal Accountant Fees and Services,” which is incorporated herein by reference pursuant to General Instruction G(3).

Part IV

ITEM 15. EXHIBITS and FINANCIAL STATEMENT SCHEDULES

(a) Documents filed as a part of the report:

	Page
(1) Report of Independent Registered Public Accounting Firm	*
Financial Statements covered by Report of Independent Registered Public Accounting Firm:	
Consolidated Statements of Income	*
Consolidated Statements of Comprehensive Income	*
Consolidated Balance Sheets	*
Consolidated Statements of Cash Flows	*
Consolidated Statements of Changes in Stockholders’ Equity	*
Notes to Consolidated Financial Statements	*

* Incorporated herein by reference to the appropriate portions of the registrant’s Annual Report to Stockholders for the fiscal year ended December 31, 2018. (See Part II.)

	Page
(2) Financial Statement Schedules:	
II - Valuation and Qualifying Accounts	27

Financial statement schedules other than those listed above have been omitted because the required information is contained in the financial statements and notes thereto, or because such schedules are not required or applicable.

(3) Exhibits:

Exhibits identified in parentheses below, on file with the SEC, are incorporated herein by reference as exhibits hereto. Unless otherwise indicated, all exhibits so incorporated are from File No. 1-8610.

Exhibit
Number

- 2 Agreement and Plan of Merger, dated as of October 22, 2016, among AT&T Inc., Time Warner Inc. and West Merger Sub, Inc. ([Exhibit 10.1 to Form 8-K filed on October 24, 2016](#))
- 3-a Restated Certificate of Incorporation, filed with the Secretary of State of Delaware on December 13, 2013 ([Exhibit 3.1 to Form 8-K filed on December 16, 2013](#))
- 3-b Bylaws ([Exhibit 3 to Form 8-K filed on December 18, 2015](#))
- 4-a No instrument which defines the rights of holders of long-term debt of the registrant and all of its consolidated subsidiaries is filed herewith pursuant to Regulation S-K, Item 601(b)(4)(iii)(A), except for the instruments referred to in 4-b, 4-c, 4-d, 4-e, 4-f below. Pursuant to this regulation, the registrant hereby agrees to furnish a copy of any such instrument not filed herewith to the SEC upon request.

AT&T Inc.

- 4-b Guaranty of certain obligations of Pacific Bell Telephone Co. and Southwestern Bell Telephone Co. ([Exhibit 4-c to Form 10-K for the period ending December 31, 2011](#))
- 4-c Guaranty of certain obligations of Ameritech Capital Funding Corp., Indiana Bell Telephone Co. Inc., Michigan Bell Telephone Co., Pacific Bell Telephone Co., Southwestern Bell Telephone Company, Illinois Bell Telephone Company, The Ohio Bell Telephone Company, The Southern New England Telephone Company, Southern New England Telecommunications Corporation, and Wisconsin Bell, Inc. ([Exhibit 4-d to Form 10-K for the period ending December 31, 2011](#))
- 4-d Guarantee of certain obligations of AT&T Corp. ([Exhibit 4-e to Form 10-K for the period ending December 31, 2011](#))
- 4-e Indenture, dated as of May 15, 2013, between AT&T Inc. and The Bank of New York Mellon Trust Company, N.A., as Trustee ([Exhibit 4.1 to Form 8-K filed on May 15, 2013](#))
- 4-f Indenture dated as of November 1, 1994 between SBC Communications Inc. and The Bank of New York, as Trustee ([Exhibit 4-h to Form 10-K for the period ending December 31, 2013](#))
- 10-a 2018 Incentive Plan ([Exhibit 10-a to Form 10-K for the period ending December 31, 2017](#))
- 10-b 2016 Incentive Plan ([Exhibit 10-a to Form 10-Q for the period ending March 31, 2016](#))
 - 10-b(i) Resolution Regarding John Donovan ([Exhibit 10-a to Form 10-Q for the period ending September 30, 2017](#))
 - 10-b(ii) Resolution Regarding John Stankey ([Exhibit 10-b to Form 10-Q for the period ending September 30, 2017](#))
 - 10-b(iii) Resolution Regarding John Stephens ([Exhibit 10-c to Form 10-Q for the period ending September 30, 2017](#))
- 10-c 2011 Incentive Plan ([Exhibit 10-a to Form 10-Q for the period ending September 30, 2015](#))
- 10-d Short Term Incentive Plan ([Exhibit 10.1 to Form 8-K filed on February 2, 2018](#))
- 10-e Supplemental Life Insurance Plan ([Exhibit 10-e to Form 10-Q for the period ending September 30, 2015](#))
- 10-f Supplemental Retirement Income Plan ([Exhibit 10-e to Form 10-K for the period ending December 31, 2013](#))
- 10-g 2005 Supplemental Employee Retirement Plan ([Exhibit 10.1 to Form 8-K filed on October 4, 2017](#))
- 10-h Salary and Incentive Award Deferral Plan ([Exhibit 10-k to Form 10-K for the period ending December 31, 2011](#))
- 10-i Stock Savings Plan ([Exhibit 10-l to Form 10-K for the period ending December 31, 2011](#))
- 10-j Stock Purchase and Deferral Plan ([Exhibit 10-a to Form 10-Q for the period ending September 30, 2018](#))

AT&T Inc.

10-k	Cash Deferral Plan (Exhibit 10-b to Form 10-Q for the period ending September 30, 2018)
10-l	Master Trust Agreement for AT&T Inc. Deferred Compensation Plans and Other Executive Benefit Plans and subsequent amendments dated August 1, 1995 and November 1, 1999 (Exhibit 10-dd to Form 10-K for the period ending December 31, 2009)
10-m	Officer Disability Plan (Exhibit 10-i to Form 10-Q for the period ending June 30, 2009)
10-n	AT&T Inc. Health Plan (Exhibit 10-a to Form 10-Q for the period ending June 30, 2018)
10-o	Pension Benefit Makeup Plan No.1 (Exhibit 10-n to Form 10-K for the period ending December 31, 2016)
10-p	AT&T Inc. Equity Retention and Hedging Policy (Exhibit 10.2 to Form 8-K filed on December 16, 2011)
10-q	Administrative Plan (Exhibit 10-p to Form 10-K for the period ending December 31, 2016)
10-r	AT&T Inc. Non-Employee Director Stock and Deferral Plan
10-s	AT&T Inc. Non-Employee Director Stock Purchase Plan (Exhibit 10-t to Form 10-K for the period ending December 31, 2013)
10-t	AT&T Inc. Board of Directors Communications Concession Program (Exhibit 10-aa to Form 10-K for the period ending December 31, 2012)
10-u	Form of Indemnity Agreement, effective July 1, 1986, between Southwestern Bell Corporation (now AT&T Inc.) and its directors and officers. (Exhibit 10-bb to Form 10-K for the period ending December 31, 2011)
10-v	AT&T Executive Physical Program (Exhibit 10-ff to Form 10-K for the period ending December 31, 2016)
10-w	Equalization Agreement for John Stankey (Exhibit 10.1 to Form 8-K filed on August 20, 2015)
10-x	Agreement between Robert Quinn and AT&T Inc. (Exhibit 10-b to Form 10-Q for the period ending June 30, 2018)
10-y	Attorney Fee Payment Agreement for John Stankey (Exhibit 10.1 to Form 8-K filed on July 3, 2018)
10-z	\$12,000,000,000 Amended and Restated Credit Agreement, dated December 11, 2015, among AT&T, certain lenders named therein and Citibank, N.A., as administrative agent. (Exhibit 10 to Form 8-K filed on December 15, 2015)
10-z(i)	\$7,500,000,000 Amended and Restated Credit Agreement, dated as of December 11, 2018, among AT&T Inc., certain lenders named therein and Citibank, N.A., as agent. (Exhibit 10.1 to Form 8-K filed on December 13, 2018)

[Table of Contents](#)

AT&T Inc.

10-aa	\$7,500,000,000 Five Year Credit Agreement, dated as of December 11, 2018, among AT&T Inc., certain lenders named therein and Citibank, N.A., as agent (Exhibit 10.2 to Form 8-K filed on December 13, 2018.)
10-bb	\$10,000,000,000 Term Loan Credit Agreement, dated as of November 15, 2016, among AT&T Inc., the lenders named therein and JPMorgan Chase Bank, N.A., as Agent (Exhibit 10.1 to Form 8-K filed on November 15, 2016.)
10-bb(i)	Letter Amendment, dated as of February 2, 2018, among AT&T Inc., the lenders named therein and JPMorgan Chase Bank, N.A., as Agent. (Exhibit 10.1 to Form 8-K filed on February 5, 2018.)
10-cc	\$2,250,000,000 Term Loan Credit Agreement, dated as of September 29, 2017, among AT&T Inc., certain lenders named therein and The Bank of Nova Scotia, as Administrative Agent (Exhibit 10-f to Form 10-Q for the period ending September 30, 2017.)
10-dd	\$3,550,000,000 Term Loan Credit Agreement, dated as of November 20, 2018, among AT&T Inc., certain lenders named therein and Bank of America, N.A., as agent (Exhibit 10.1 to Form 8-K filed on November 21, 2018.)
10-ee	Amended and Restated Contribution Agreement
10-ff	Fourth Amended and Restated Limited Liability Company Agreement of Mobility II LLC
10-gg	First Amendment to the Fourth Amended and Restated Limited Liability Company Agreement of Mobility II LLC
10-hh	Second Amendment to the Fourth Amended and Restated Limited Liability Company Agreement of Mobility II LLC
10-ii	Amended and Restated Registration Rights Agreement by and among AT&T Inc. and The SBC Master Pension Trust and Brock Fiduciary Services LLC
12	Computation of Ratios of Earnings to Fixed Charges
13	Portions of AT&T's Annual Report to Stockholders for the fiscal year ended December 31, 2018. Only the information incorporated by reference into this Form 10-K is included in the exhibit.
21	Subsidiaries of AT&T Inc.
23	Consent of Ernst & Young LLP
24	Powers of Attorney
31	Rule 13a-14(a)/15d-14(a) Certifications
31.1	Certification of Principal Executive Officer
31.2	Certification of Principal Financial Officer
32	Section 1350 Certification
99	Supplemental Interim Financial Information
101	XBRL Instance Document

AT&T Inc.

We will furnish to stockholders upon request, and without charge, a copy of the Annual Report to Stockholders and the Proxy Statement, portions of which are incorporated by reference in the Form 10-K. We will furnish any other exhibit at cost.

AT&T INC.
SCHEDULE II - VALUATION AND QUALIFYING ACCOUNTS
Allowance for Doubtful Accounts
Dollars in Millions

COL. A	COL. B	COL. C			COL. D	COL. E
		Additions				
	Balance at Beginning of Period	(1) Charged to Costs and Expenses (a)	(2) Charged to Other Accounts (b)	(3) Acquisitions (c)	Deductions (d)	Balance at End of Period
Year 2018	\$ 663	1,791	-	179	1,726	\$ 907
Year 2017	\$ 661	1,642	-	-	1,640	\$ 663
Year 2016	\$ 704	1,474	-	-	1,517	\$ 661

- (a) Includes amounts previously written off which were credited directly to this account when recovered. Excludes direct charges and credits to expense for nontrade receivables in the consolidated statements of income.
- (b) Includes amounts related to long-distance carrier receivables which were billed by AT&T.
- (c) Acquisition of Time Warner in 2018.
- (d) Amounts written off as uncollectible, or related to divested entities.

AT&T INC.
SCHEDULE II - VALUATION AND QUALIFYING ACCOUNTS
Allowance for Deferred Tax Assets
Dollars in Millions

COL. A	COL. B	COL. C			COL. D	COL. E
		Additions				
	Balance at Beginning of Period	(1) Charged to Costs and Expenses	(2) Charged to Other Accounts (a)	(3) Acquisitions (b)	Deductions (c)	Balance at End of Period
Year 2018	\$ 4,640	(210)	(53)	211	-	\$ 4,588
Year 2017	\$ 2,283	2,376	(19)	-	-	\$ 4,640
Year 2016	\$ 2,141	81	61	-	-	\$ 2,283

- (a) Includes current year reclassifications from other balance sheet accounts.
- (b) Acquisition of Time Warner in 2018.
- (c) Reductions to valuation allowances related to deferred tax assets.

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized, on the 20th day of February, 2019.

AT&T INC.

/s/ John J. Stephens
John J. Stephens
Senior Executive Vice President
and Chief Financial Officer

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the registrant and in the capacities and on the date indicated.

Principal Executive Officer:
Randall Stephenson*
Chairman of the Board, Chief Executive Officer
and President

Principal Financial and Accounting Officer:
John J. Stephens
Senior Executive Vice President
and Chief Financial Officer

/s/ John J. Stephens
John J. Stephens, as attorney-in-fact
and on his own behalf as Principal
Financial Officer and Principal
Accounting Officer

February 20, 2019

Directors:

Randall L. Stephenson*
Samuel A. Di Piazza, Jr.*
Richard W. Fisher*
Scott T. Ford*
Glenn H. Hutchins*
William E. Kennard*

Michael B. McCallister*
Beth E. Mooney*
Joyce M. Roché*
Matthew K. Rose*
Cynthia B. Taylor*
Laura D'Andrea Tyson*
Geoffrey Y. Yang*

* by power of attorney

AT&T INC.

**NON-EMPLOYEE DIRECTOR STOCK
AND DEFERRAL PLAN**

As amended through November 2, 2018

AT&T Inc.

Non-Employee Director Stock and Deferral Plan

Article 1. Purpose

The purpose of the Non-Employee Director Stock and Deferral Plan (the “Plan”) (formerly the Deferred Compensation Plan for Non-Employee Directors) is to promote the achievement of long-term objectives of AT&T Inc. by linking the personal interests of Non-Employee Directors to those of the Company’s stockholders and to attract and retain Non-Employee Directors of outstanding competence.

Article 2. Definitions

Whenever used in the Plan, the following terms shall have the meanings set forth below and, when the defined meaning is intended, the initial letter of the word is capitalized:

- (a) **“Annual Retainer” or “Retainer”** means the payments made to Directors for their annual Board service. It includes any additional Retainer paid to Committee Chairpersons or the Lead Director. **“Base Annual Retainer”** means the Annual Retainer without any additional amounts for Committee Chairpersons, Lead Directors or otherwise.
- (b) **“Award”** means, individually or collectively, an award under this Plan of Stock Units.
- (c) **“Board”** means the Board of Directors of the Company.
- (d) **“Business Day”** means any day that the Company is open for the regular transaction of business.
- (e) **“Company”** means AT&T Inc., a Delaware corporation.
- (f) **“Director”** means any individual who is a member of the Board, including Advisory Directors.
- (g) **“Employee”** means any full-time, nonunion, salaried employee of the Company or of the Company’s directly or indirectly held subsidiaries. For purposes of the Plan, an individual whose only employment relationship with the Company is as a Director shall not be deemed to be an Employee.
- (h) **“Fair Market Value” or “FMV”** means the closing price on the New York Stock Exchange (“NYSE”) for Shares on the relevant date, all as determined by the Company. In lieu of the foregoing, the Board may select any other index or measurement to determine the FMV of Shares under the Plan.
- (i) **“Non-Employee Director”** means any individual who is a member of the Board but who is not otherwise an Employee, nor has otherwise been an Employee.
- (j) **“Participant”** means a person who is entitled to participate in the Plan.
- (k) **“Shares”** means shares of common stock of the Company, par value one dollar (\$1.00) per share.
- (l) **“Stock Unit” or “Unit”** means an Award acquired by a Participant as a measure of participation under the Plan, and having a value equal to one (1) Share.
- (m) **“Trading Day”** means any day that the Shares are traded on the NYSE.

Article 3. Eligibility and Administration

3.1 Eligibility . Persons eligible to participate in the Plan are limited to Non-Employee Directors.

3.2 The Committee . The Plan shall be administered by the Corporate Governance and Nominating Committee of the Board (the “Committee”), subject to the restrictions set forth in the Plan.

3.3 Administration by the Committee . The Committee shall have the full power, discretion, and authority to interpret and administer the Plan in a manner consistent with the Plan’s provisions. However, in no event shall the Committee have the power to determine Plan eligibility, or to determine the number, the value, the vesting period, or the timing of Awards to be made under the Plan (all such determinations being automatic pursuant to the provisions of the Plan).

3.4 Decisions Binding . All determinations and decisions made by the Committee pursuant to the Plan, and all related orders or resolutions of the Committee shall be final, conclusive, and binding on all persons, including the Company, its stockholders, Participants, and their estates and beneficiaries.

Article 4. Shares Previously Acquired Under Plan

Effective December 31, 2008, no Shares may be issued under this Plan. However, any Shares previously acquired by a Director under this Plan may not be sold for one year after acquisition. Thereafter, such Shares shall only be sold pursuant to an effective registration statement or pursuant to an exemption from the Securities Act of 1933, including sales pursuant to Rule 144 thereunder. The Company may place a legend on the certificates for such Shares evidencing this restriction.

Article 5. Award of Deferred Stock Units for Non-Employee Directors

5.1 Award of Deferred Stock Units for Non-Employee Directors . Effective the day of each annual meeting of the Company’s stockholders, each continuing Non-Employee Director shall be granted that number of Stock Units that is equal to \$220,000 divided by the Fair Market Value of a Share on the last Trading Day in the calendar month in which such Award is made. Each Award is intended to be in consideration for service until the next annual meeting of stockholders, but will be fully earned on the date of the Award and credited to the Non-Employee Director’s account on the day the number of Stock Units is determined. Provided, however, if the Director terminates service on or before the day of the annual meeting of stockholders, the related Award to be earned on such meeting date will not be made.

5.2 Deferral of Retainers into Stock Units . Each Non-Employee Director may elect to defer all (100%) or fifty percent (50%) of the Director’s Annual Retainer earned during the relevant calendar year into Stock Units. The number of Stock Units acquired shall equal the portion of the Annual Retainer being deferred into Stock Units in a calendar month, divided by the Fair Market Value of a Share on the last Trading Day in such calendar month, and such Stock Units shall be

credited to the Non-Employee Director's account effective the day the number of Stock Units is determined. Amounts are deferred at the time they otherwise would have been paid were it not for the relevant deferral election.

Any deferral election under this Section 5.2 shall be made prior to the beginning of, and will be effective for, the calendar year in which such payments would be earned. Unless the Non-Employee Director notifies the Secretary of the Company otherwise prior to the beginning of each subsequent calendar year, each election hereunder will renew automatically for an additional calendar year.

5.3 Payout of Deferred Stock Units . Each Stock Unit shall be paid out in cash equal to the Fair Market Value of a Share; a fractional Share Unit shall be entitled to cash equal to the equivalent fraction of a Share.

The Participant shall elect the timing of the payout for Stock Unit Awards no later than the last day of the calendar year prior to the first scheduled payment of such Stock Units. Notwithstanding the foregoing:

(i) persons who become Directors after November 19, 2004, shall elect the timing of the payout of their Stock Units (their "Post 2004 Stock Units") no later than the time they first make a deferral election into Stock Units or thirty (30) days after their original election to the Board, whichever is sooner (the Corporate Governance and Nominating Committee may extend only the 30 day deadline and may do so only so long as such extension is permitted by Section 409A of the Internal Revenue Code of 1986, as amended ("Section 409A")); and

(ii) each Participant in the Plan as of November 19, 2004 who has not irrevocably elected the timing of the payout of Stock Units shall make such an election by December 31, 2004 with respect to all Stock Units from deferrals of Awards made or Annual Retainer or fees earned after December 31, 2004 (also known as "Post 2004 Stock Units").

One election will apply to all Post 2004 Stock Units, whether from deferrals, annual Awards or otherwise, and Stock Units earned thereon (each such payout schedule is hereinafter referred to as a "Stock Unit Schedule"); and a separate election shall apply to all other Stock Units and earnings thereon. Stock Units acquired under this Plan shall, with respect to each Stock Unit Schedule (if more than one), be paid out in a lump sum payment or in up to fifteen (15) annual installments, as elected by the Participant. The lump sum payment or the first installment, as the case may be, for each Stock Unit Schedule shall be payable on the first Business Day of February of the year following the calendar year of the termination of the Participant's service as a Director. Each subsequent annual installment shall be payable on the first Business Day of February. If the Director fails to make a timely election as to the number of installments for any Stock Unit Schedule, such Stock Units shall be paid out in four (4) annual installments.

For Participants electing a payout (or payouts, as the case may be) of Stock Units in installments, the number of Stock Units to be paid out for each Stock Unit Schedule in each installment shall equal the number of Stock Units available for payout under such Stock Unit Schedule, divided by the number of remaining installments (including the installment being made).

5.4 Stock Units . Each Stock Unit shall represent an unfunded and unsecured promise by the Company to issue cash equal in value to the Stock Unit. Participants holding Stock Units (or fractions thereof) shall earn dividend equivalents paid in the form of additional Stock Units added to their account. The number of Stock Units so added shall equal the dividend on a Share multiplied by the number of Stock Units held by the Participant on the record date for such dividend, divided by the Fair Market Value of a Share on the last Trading Day in the calendar month in which the record date for such dividend occurs. The Stock Units shall be credited to a Participant's account on the day the number of Stock Units is determined.

Article 6. Cash Deferral Account

6.1 Cash Deferral Account . A cash deferral account (the "Cash Deferral Account") shall be established and maintained by the Company for each Participant that makes a cash deferral election under the Plan. Each Cash Deferral Account shall be credited as of the date the amount deferred otherwise would have become due and payable to the Participant and shall be credited to reflect the interest return thereon until paid. The establishment and maintenance of such Cash Deferral Accounts, however, shall not be construed as entitling any Participant to any specific assets of the Company and shall represent an unfunded and unsecured promise of the Company with respect to the amounts due thereunder.

6.2 Cash Deferral Elections . Effective for payments on or after January 1, 1998, each Non-Employee Director may elect to defer all (100%) or fifty percent (50%) of the Director's Annual Retainer earned during the relevant calendar year into the Director's Cash Deferral Account. Amounts are deferred at the time they otherwise would have been paid were it not for the relevant deferral election.

Any deferral election under this Section 6.2 shall be made prior to the beginning of, and will be effective for, the calendar year in which such payments would be earned. Unless the Non-Employee Director notifies the Secretary of the Company otherwise prior to the beginning of each subsequent calendar year, each election hereunder will renew automatically for an additional calendar year.

Deferral elections under the Plan made prior to November 21, 1997, shall be credited to the Cash Deferral Account and continue to earn interest in accordance with Section 6.3.

6.3 Interest on Cash Deferral Accounts . The annual rate of interest on amounts in the Cash Deferral Accounts for 1997 and subsequent calendar years shall be Moody's Long-Term Corporate Bond Yield Average as published by Moody's Investor Service, Inc. (or any successor thereto) for the month of September before the calendar year in question (if such yield is no longer published, a substantially similar average selected by the Committee) or such other rate as the Committee shall determine prior to the year for which the interest rate would be applicable. Such interest shall be compounded quarterly, in arrears, on all unpaid amounts and shall be recorded on Participant's statements quarterly.

6.4 Form and Timing of Payout of Cash Deferral Accounts . Cash Deferral Accounts shall be paid out in cash. The Participant shall elect the timing of the payout for the Participant's Cash Deferral Account no later than the last day of the calendar year prior to the first scheduled payment thereof. Notwithstanding the foregoing:

(i) persons who become Directors after November 19, 2004, shall elect the timing of the payout of their Cash Deferral Account (their "Post 2004 CDA Deferrals") no later than the time they first make a deferral election into their Cash Deferral Account; and

(ii) each Participant in the Plan as of November 19, 2004 who has not irrevocably elected the timing of the payout of his or her Cash Deferral Account shall make such an election by December 31, 2004 with respect to all amounts from deferrals into such Participant's Cash Deferral Account of Annual Retainers or fees earned after December 31, 2004 (the "Post 2004 CDA Deferrals").

One election shall apply to a Participant's Post 2004 CDA Deferrals and earnings thereon (each such payout schedule is hereinafter referred to as a "Cash Account Schedule"); and a separate election shall apply to amounts that are not Post 2004 CDA Deferrals and earnings thereon.

A Participant's Cash Deferral Account shall, with respect to each Cash Account Schedule (if more than one), be paid out in a lump sum payment or in up to fifteen (15) annual installments, as elected by the Participant. The lump sum payment or the first installment, as the case may be, for each Cash Account Schedule shall be payable on the first Business Day of February of the year following the calendar year of the termination of the Participant's service as a Director. Each subsequent annual installment shall be payable on the first Business Day of February. If the Director fails to make a timely election as to the number of installments for any Cash Account Schedule, the Participant's Cash Deferral Account shall be paid out in four (4) annual installments. Each installment shall equal the amount available for payout under such Cash Account Schedule, divided by the number of remaining installments (including the installment being made).

6.5 Conversion of Non-Employee Director's Cash Deferral Account to Deferred Stock Units . Each year, on or before the close of trading in Shares on the NYSE on the tenth day (if the tenth day is not a Trading Day, then the next preceding Trading Day) following the Company's public release of its annual summary statement of earnings (typically in January of each year) (such Trading Day to be the "Conversion Date"), a Non-Employee Director may elect to convert all or part of the balance of his or her Cash Deferral Account into Stock Units. Notwithstanding the foregoing, however, no such conversion of Post 2004 CDA Deferrals shall be permitted unless the payout schedules for such Participant's Post 2004 CDA Deferrals and Post 2004 Stock Units are identical. Each such election shall become irrevocable as of the last time such election may be made. A Non-Employee Director who elects to convert his or her Cash Deferral Account shall receive the number of Stock Units found by dividing the Non-Employee Director's balance in the Cash Deferral Account, together with all accrued but not yet credited interest, or such lesser amount of the Cash Deferral Account elected by the Non-Employee Director, by the Fair Market Value of a Share on the Conversion Date. Upon such conversion, the Participant's Cash Deferral Account shall be reduced by the amount so converted.

Article 7. Amendment, Modification, and Termination

7.1 Amendment, Modification, and Termination . Subject to the terms set forth in this Article 7, the Board may terminate, amend, or modify the Plan at any time and from time to time.

7.2 Awards Previously Granted . Unless required by law, no termination, amendment, or modification of the Plan shall in any material manner adversely affect any Award previously provided under the Plan, without the written consent of the Participant holding the Award.

Article 8. Miscellaneous

8.1 Elections . All elections and notices of any kind hereunder shall be in writing and provided to the Secretary of the Company in a form prescribed by the Secretary. Unless marked as irrevocable, an election may be modified or revoked at any time prior to, and shall not be effective until, the deadline for making such election.

8.2 Assignment . Except as otherwise expressly provided herein, no rights under this Plan may be assigned by a Participant.

8.3 Savings Clause. In the event any provision of the Plan shall be held illegal or invalid for any reason, the illegality or invalidity shall not affect the remaining parts of the Plan, and the Plan shall be construed and enforced as if the illegal or invalid provision had not been included. Notwithstanding any provision to the contrary in this Plan, each provision in this Plan shall be interpreted to permit the deferral of compensation in accordance with Section 409A of the Internal Revenue Code of 1986, as amended, and any provision that would conflict with such requirements shall not be valid or enforceable.

8.4 Death of a Director/Beneficiary Designation . Each Participant under the Plan may, from time to time, name any beneficiary or beneficiaries (who may be named primarily or contingently) to whom any benefit under the Plan is to be paid in the event of his or her death. Each designation will revoke all prior designations by the same Participant, shall be in a form prescribed by the Secretary of the Company, and will be effective only when provided by the Participant in writing to the Secretary during such Participant's lifetime. In the absence of any such designation, benefits remaining unpaid at the Participant's death shall be paid to the Participant's estate.

In the event of the death of a Participant before full payment of all amounts due hereunder, the balance shall be paid in a lump sum as soon as administratively possible in accordance with the foregoing. Notwithstanding this, if the Participant so elects as part of the Participant's deferral elections, the Stock Units and/or the Cash Deferral Account will be paid out in the number of annual installments elected by the Participant, beginning on the first Business Day of February following the calendar year of the Participant's death and occurring annually thereafter; provided, however, if distributions to the Participant have already commenced at the time of the Participant's death, then under this election, distributions will continue as scheduled.

8.5 No Right of Nomination . Nothing in the Plan shall be deemed to create any obligation on the part of the Board to nominate any Director for reelection by the Company's stockholders.

8.6 Successors . All obligations of the Company under the Plan with respect to Awards granted hereunder shall be binding on any successor to the Company, whether the existence of such successor is the result of a direct or indirect purchase, merger, consolidation, or otherwise, of all or substantially all of the business and/or assets of the Company.

8.7 Requirements of Law . The granting of Awards under the Plan shall be subject to all applicable laws, rules, and regulations, and to such approvals by any governmental agencies or national securities exchanges as may be required.

8.8 Governing Law . The Plan and all agreements hereunder, shall be construed in accordance with and governed by the internal, substantive laws of the State of Texas.

8.9 Adjustments. In the event of a merger, reorganization, consolidation, recapitalization, separation, liquidation, stock dividend, stock split, share combination, or other change in the corporate structure of the Company affecting the Shares, such adjustment shall be made in the number of outstanding Stock Units as may be determined to be appropriate and equitable by the Board, in its sole discretion, to prevent dilution or enlargement of rights.

AMENDED AND RESTATED CONTRIBUTION AGREEMENT

This Amended and Restated Contribution Agreement (the “Agreement”) is entered into as of the 15th day of October, 2018, by and among Brock Fiduciary Services LLC (the “Independent Fiduciary”); JP Morgan Chase Bank, N.A., as directed trustee of the SBC Master Pension Trust (the “Trustee”); AT&T Inc.; and AT&T Mobility II LLC, an indirect wholly owned subsidiary of AT&T Inc. (the “Issuer”).

RECITALS

WHEREAS, AT&T Inc., formerly known as SBC Communications Inc., is a holding company incorporated under the laws of the State of Delaware;

WHEREAS, on September 9, 2013, AT&T Inc. made an in-kind contribution (the “Contribution”) of 320 million cumulative perpetual preferred membership interests (each a “Preferred Interest” and collectively, the “Preferred Interests”) of the Issuer to the SBC Master Pension Trust (the “Trust”), which holds assets of the AT&T Pension Benefit Plan (the “Plan”) pursuant to the terms of a Contribution Agreement between the Independent Fiduciary, Trustee, AT&T Inc., and Issuer, dated as of August 30, 2013 (the “Initial Agreement”);

WHEREAS, on September 9, 2013, the Independent Fiduciary and AT&T Inc. entered into a Supplemental Contribution Agreement which added certain provisions to the Initial Agreement (the “Supplement”);

WHEREAS, the U.S. Department of Labor (“Labor Department”) issued a Prohibited Transaction Exemption (the “PTE”) with respect to the Contribution;

WHEREAS, on September 30, 2014 the Independent Fiduciary, AT&T Inc., Issuer, and AT&T Services, Inc., entered into a Letter Agreement, acknowledged by Trustee, which further modified and clarified certain terms under the Initial Agreement (the “Side Letter”).

WHEREAS, in connection with the making of the Contribution, AT&T Services, Inc. retained the Independent Fiduciary as named fiduciary and investment manager with respect to the Preferred Interests to be held by the Trust pursuant to an Independent Fiduciary Agreement dated as of May 1, 2012, as amended (the “Independent Fiduciary Agreement”), and an Investment Management Agreement dated as of August 30, 2013 (the “Investment Management Agreement”); and

WHEREAS, simultaneously with the execution of this Agreement, the members of Issuer are entering into the Fourth Amended and Restated Limited Liability Company Agreement of AT&T Mobility II LLC (the “LLC Agreement”);

WHEREAS, in connection with entering into this Agreement, AT&T Inc. has agreed to make a payment to the Trust in the amount of \$80 million; and

WHEREAS, the parties desire to amend and restate the Initial Agreement as modified by the Side Letter and the Supplement, to, among other things, remove AT&T Inc.’s right to call the

Preferred Interests and otherwise to replace the Initial Agreement, Side Letter and Supplement with this Agreement.

AGREEMENT

NOW, THEREFORE, in consideration of the premises and the mutual covenants contained herein, the parties hereto agree as follows:

1. The parties hereby acknowledge and agree that, pursuant to the Initial Agreement, Side Letter and Supplement: (a) AT&T Inc. contributed the Preferred Interests to the Trust, as an addition to the Plan's assets and in consideration of a reduction of AT&T Inc.'s funding obligation with respect to the Plan, effective as of September 9, 2013 (the "Contribution Date"); and (b) the Independent Fiduciary agreed, effective as of the Contribution Date, to accept the Preferred Interests on behalf of the Trust on the Contribution Date and, in its capacity as an "investment manager" (as such term is defined under section 3(38) of ERISA) to the Plan, directed the Trustee to take any and all action as it determined was necessary or appropriate to consummate such acceptance.

2. AT&T Inc. and the Issuer each represents and warrants to the Independent Fiduciary as of the date of this Agreement, that:

(a) The Issuer has been duly formed and is existing as a limited liability company in good standing under the laws of the State of Delaware and has all requisite power and authority of a limited liability company to own, lease and operate its assets and to carry on its business as it is now being conducted. The Issuer is duly qualified to do business as a foreign limited liability company, as applicable, and is in good standing under the laws of each state or other jurisdiction in which the nature of the activities conducted by it or the ownership or leasing of its properties requires such qualification, other than in such jurisdictions where the failure to so qualify or be in good standing, individually or in the aggregate, would not reasonably be expected to have a material adverse effect on its business operations;

(b) The authorized and outstanding capital classes of the Issuer, as of the date hereof, is as set forth in the Issuer's unaudited financial statements for the calendar year ended December 31, 2016, copies of which have been delivered to the Independent Fiduciary;

(c) The Preferred Interests have been duly authorized and are and will remain validly issued; under the Delaware Limited Liability Company Act, neither AT&T Inc. nor the Trust has any obligation to make future payments with respect to the Preferred Interests solely by reason of their status as members;

(d) This Agreement has been duly authorized, executed and delivered by each of AT&T Inc. and the Issuer and constitutes a valid and legally binding agreement of AT&T Inc. and the Issuer enforceable against each of them in accordance with its terms, subject to bankruptcy, insolvency, reorganization and other laws of general applicability relating to or affecting creditors' rights and to general equity principles;

(e) The contribution of the Preferred Interests to the Trust, the compliance by AT&T Inc. and the Issuer with all of the provisions of the Initial Agreement and this Agreement, and the consummation of the transactions contemplated in the Initial Agreement and this Agreement did not and will not conflict with or result in a breach of any of the terms or provisions of, or constitute a default under, any material indenture, mortgage, deed of trust, loan agreement or other material agreement or instrument to which AT&T Inc. or any of its subsidiaries, including the Issuer, is now (or was at the Contribution Date) a party or by which AT&T Inc. or any of its subsidiaries, including the Issuer, is now (or was at the Contribution Date) bound, nor did any such action result in any violation of the provisions of the Amended and Restated Articles of Incorporation or the amended and restated Bylaws of AT&T Inc. or the LLC Agreement, or the charter, bylaws, or LLC operating agreements of any of their respective subsidiaries or any statute or any order, rule or regulation of any court or governmental agency or body having jurisdiction over AT&T Inc., the Issuer or any of their respective subsidiaries or any of their respective properties;

(f) AT&T Inc. is subject to section 13 or 15(d) of the Securities Exchange Act of 1934, as amended;

(g) Neither the Issuer nor any person acting on its behalf has offered or sold the Preferred Interests by means of any general solicitation or general advertising within the meaning of Rule 502(c) under the Securities Act of 1933 (the "1933 Act").

(h) No commission, within the meaning of section 408(e)(2) of ERISA, or brokerage fee will become due or payable in connection with the execution and delivery of this Agreement or the transactions contemplated hereby; and

(i) Subject to compliance by the Independent Fiduciary with Section 3 of the Initial Agreement and the accuracy of the Independent Fiduciary's representations stated therein, it was not necessary in connection with the offer, sale and delivery of the Preferred Interests at the Contribution Date by the Issuer to AT&T Inc. or by AT&T Inc. to the Trust to register the Preferred Interests under the 1933 Act.

3. The Independent Fiduciary, acting on behalf of the Trust:

(a) Represents and warrants that it has the authority to act on behalf of the Trust and that all action necessary on the part of the Independent Fiduciary, including its direction to the Trustee, to authorize the execution and delivery of this Agreement on behalf of the Trust has been taken;

(b) Represents and warrants that its directions to the Trustee are pursuant to the Independent Fiduciary's authority as an "investment manager" (as such term is defined under section 3(38) of ERISA) to the Plan;

(c) Acknowledges that the Preferred Interests have not been registered under the 1933 Act and were contributed to the Trust in reliance upon an exemption from such registration under the 1933 Act;

(d) Acknowledges that the Trust is an institutional “accredited investor” within the meaning of Rule 501 under the 1933 Act;

(e) Confirms that the Independent Fiduciary has been informed that the Preferred Interests (i) are not subject to any registration rights and (ii) are “restricted securities” under the 1933 Act and may not be resold or transferred except in accordance with the terms of the LLC Agreement;

(f) Is aware of the adoption of Rule 144 under the 1933 Act (“Rule 144”) by the U.S. Securities and Exchange Commission, which permits limited public resale of securities of an issuer acquired in a nonpublic offering, subject to the satisfaction of certain conditions, including, among other things: (i) the availability of certain current public information about such issuer, (ii) such public resale being through a broker in an unsolicited “broker’s transaction”, with a “market maker” or in a “riskless principal transaction” and (iii) the amount of securities being sold during any three month period not exceeding specified limitations;

(g) Represents that, (i) prior to accepting the Contribution on behalf of the Trust, it acquired sufficient information about the Issuer to reach an informed and knowledgeable decision to accept the Contribution, (ii) it had such knowledge and experience in financial and business matters as to make it capable of evaluating the risks to the Trust of accepting the Contribution and to make an informed decision with respect thereto and (iii) the Trust was able to bear the economic risk of accepting the Contribution;

(h) Agrees that the Issuer shall not be required (i) to transfer on its books any Preferred Interests that have been assigned, sold or otherwise transferred in violation of the provisions of this Agreement or the LLC Agreement nor (ii) to treat as the owner of the Preferred Interests, or otherwise to accord voting, distribution or other rights to, or admit as a member of the Issuer, any person to whom the Preferred Interests have been assigned, sold or otherwise transferred in contravention of this Agreement or the LLC Agreement; and further agrees that the Preferred Interests are subject to the provisions of the LLC Agreement (a copy of which the Independent Fiduciary has received and reviewed);

(i) Agrees that the Trust shall make no disposition of the Preferred Interests that is contrary to the terms of the Preferred Interests, this Agreement or the LLC Agreement, and shall not pledge or grant any security interest in the Preferred Interests; provided, however, that the Independent Fiduciary shall have the authority under Section 2(c) of the Investment Management Agreement relating to swap transactions; and

(j) Acknowledges that, in order to reflect the restrictions on the transfer or other disposition of the Preferred Interests, the Preferred Interests will either be issued in certificated form and held in custody by the Trustee on behalf of the Trust or issued in uncertificated form and evidenced on the Issuer’s or its transfer agent’s books (at the Issuer’s option), in either case in the name and under the authority of the Trustee, subject to the direction of the Independent Fiduciary, and subject to restrictive legends or restrictive notations in such books indicating that the Preferred Interests are subject to the provisions of this Agreement and the LLC Agreement (in addition to such other legends or

notations contemplated by the LLC Agreement), as the same may be amended from time to time hereafter in accordance with the provisions set forth therein and Delaware law.

4. The Preferred Interests shall, pursuant to the LLC Agreement, continue to accrue cumulative distributions of \$1.75 per Preferred Interest per annum, payable quarterly upon declaration by the Issuer and pursuant to the LLC Agreement. At any time when distributions on any outstanding Preferred Interests are in arrears for purposes of the LLC Agreement: (a) the Issuer shall not be permitted to make any transfer of cash to AT&T Inc. or any other member of the Issuer, whether pursuant to a loan, equity distribution or any other arrangement, and (b) AT&T Inc. shall not be permitted to declare any dividends on or make any repurchases of its common stock.

5. The Independent Fiduciary acknowledges that the aggregate fair market value of the Preferred Interests upon their delivery to the Trustee on the Contribution Date was \$9.2032 billion. AT&T Inc. agrees that such valuation of the Preferred Interests as of the Contribution Date for purposes of the minimum amount required to meet the funding requirements of sections 412 and section 430 of the Code (without regard to any subsequent adjustments required by such funding requirements with respect to interest accrual or investment experience) did not exceed \$9.2032 billion.

6. The price for each Preferred Interest (“Option Price”) in the event of an exercise of a Put Option (described below) is the greater of:

(a) the fair market value of the Preferred Interest, determined by the Independent Fiduciary as of the last date of the calendar quarter preceding the date of exercise of a Put Option or, for the portion of the Preferred Interests that cannot be purchased due to the Put 12-Month Cap (defined in Section 8 below), the fair market value of the Preferred Interest, determined by the Independent Fiduciary as of the last date of the calendar quarter immediately preceding the date such portion of the Preferred Interest is actually purchased by AT&T Inc., and

(b) the sum of: (i) \$25.00, plus (ii) any accrued and unpaid distributions.

For purposes of the foregoing, “the fair market value of the Preferred Interest”

(x) in cases of exercise of the Put Option on or after September 9, 2020 (other than an exercise prior to September 9, 2022 as the result of a Contingent Event (defined below)), an amount determined based upon \$25.00 plus any accrued and unpaid distributions and market conditions at the time, and

(y) in cases of exercise of the Put Option prior to September 9, 2022 as the result of a Contingent Event, an amount determined based upon the sum of:

(i) \$25.00 plus any accrued and unpaid distributions, and

(ii) the present value of future distributions (excluding accrued and unpaid distributions accounted for in (i) immediately above) through and ending on September 9, 2022.

For purposes of the foregoing, “Contingent Event” means an event described in Section 8(a), (b) or (c).

7. [Reserved].

8. AT&T Inc. and the Issuer hereby grant to the Trust the right to require AT&T Inc. to purchase the Preferred Interests (the “Put Option”), at a price per Preferred Interest equal to the Option Price, at any time and from time to time on or after the earliest of (a) the first date that the Issuer’s debt-to-total-capitalization ratio (as defined below) exceeds that of AT&T Inc., (b) the date on which AT&T Inc. is rated below investment grade for two consecutive calendar quarters by at least two of the following rating agencies: (x) Standard & Poor’s, (y) Moody’s, or (z) Fitch Group, (c) a “Change of Control” as described in Section 9 (and subject to the additional terms of such Section 9), or (d) September 9, 2020. The Put Option may be exercised as many number of times, and in each case for the number of Preferred Interests, as the Trust elects; provided, however, that except in the event of a Change of Control, AT&T Inc. and its affiliates shall not be required to purchase more than 106,666,667 Preferred Interests in any twelve-month period (the “Put 12-Month Cap”) pursuant to this Agreement or the LLC Agreement. For purposes of this Section 8, the Issuer’s “debt-to-total-capitalization ratio” is defined as the Issuer’s “Debt” (defined below) divided by the sum of the Issuer’s Debt and total members’ equity including outstanding Preferred Interests (as taken directly from the Issuer’s most recently prepared US GAAP balance sheet), and AT&T Inc.’s “debt-to-total-capitalization ratio” is defined as AT&T Inc.’s Debt divided by the sum of AT&T Inc.’s Debt and total shareholders’ equity (as taken directly from AT&T Inc.’s most recently prepared US GAAP balance sheet). For purposes of this Section 8, “Debt” of any Person means, without duplication, (x) all obligations of such Person for borrowed money or with respect to deposits or advances of any kind, and (y) all obligations of such Person evidenced by bonds, debentures, notes or similar instruments. Upon the Independent Fiduciary’s request, as of the end of any calendar quarter, AT&T Inc. shall, within forty-five (45) calendar days after the end of such calendar quarter, certify as to whether the Issuer’s debt-to-total-capitalization ratio exceeds that of AT&T Inc. In the event of an exercise pursuant to clause (d) above, the Put Option may only be exercised upon written notice from the Trust delivered to AT&T Inc. during a period beginning on the 15th Business Day prior to the end of each fiscal quarter of AT&T Inc. and ending on the 15th Business Day of the subsequent fiscal quarter of AT&T Inc. The obligation to purchase the Preferred Interests upon exercise of the Put Option may be consummated by, at the sole election of AT&T Inc., any of (or any combination of) AT&T Inc., its wholly-owned, direct or indirect, subsidiaries or Issuer (each, a “Permitted Purchaser”).

9. For purposes of Section 8 hereof, a “Change of Control” means (a) the occurrence of any merger, reorganization or other transaction that results in AT&T Inc., directly or indirectly, owning less than fifty percent of the capital or profits interests (where the Issuer remains taxable as a partnership), or equity (if the Issuer becomes taxable as a corporation), of the Issuer exclusive of the Preferred Interests or (b) a transfer of fifty percent or more of the Plan liabilities and Trust assets to an entity not under common control with AT&T Inc. Upon a Change of Control, the Put Option shall become exercisable in full, thereby giving the Independent Fiduciary the right to require AT&T Inc. to purchase all or any portion of the Preferred Interests at the Option Price, except that (i) the limitation on the number of Preferred Interests that AT&T Inc. may be required to purchase in any twelve-month period as described in Section 8 shall not apply and (ii) AT&T Inc. shall have a period of up to one year to pay the Option Price.

10. At the sole election of AT&T Inc. or other Permitted Purchaser, as the case may be, payment of the Option Price may be made in (a) fully paid and non-assessable shares of AT&T Inc. common stock (“AT&T Shares”), (b) cash, or (c) any combination of AT&T Shares and cash. Any AT&T Shares delivered to satisfy all or a portion of the Option Price shall be valued at the average closing price of the 20 trading days preceding the date of delivery of the applicable notice of exercise of the Put Option by the Trust (or, in the case of a delayed payment pursuant to the one-year payment period described in Section 9 above in connection with a Change of Control, the 20 trading days preceding the actual date of payment). AT&T Inc., the Independent Fiduciary and the Trustee have executed and delivered an Amended and Restated Registration Rights Agreement, dated as of the date hereof, incorporated herein for all purposes, providing for the registration of the AT&T Shares under the 1933 Act and other matters as provided therein.

11. Notwithstanding anything herein to the contrary, in no event shall AT&T Inc. or any other Permitted Purchaser, as the case may be, be required to deliver more than 250 million AT&T Shares (the “Capped Number”) to the Trust in settlement of the Option Price for the Preferred Interests; provided, however, AT&T Inc. may, in its sole and absolute discretion (subject to the last sentence of this Section 11), deliver (or cause any other Permitted Purchase to delivery) more than the Capped Number of AT&T Shares. AT&T Inc. represents and warrants that the Capped Number is equal to or less than the number of authorized but unissued AT&T Shares that are not reserved for future issuance on the date of this Agreement. In the event AT&T Inc., through delivery of the Capped Number of AT&T Shares and AT&T Shares in addition to the Capped Number of AT&T Shares, if any, shall not have delivered the full number of AT&T Shares otherwise deliverable in settlement of the Option Price for the Preferred Interests, AT&T Inc. will use its best efforts to authorize and deliver additional AT&T Shares. AT&T Inc. may elect, solely at its option, to settle the Option Price, in whole or in part, by delivering cash. In the event of a merger, reorganization, consolidation, recapitalization, separation, split-up, liquidation, share combination, stock split, stock dividend, or other change in the corporate structure of AT&T Inc. affecting the AT&T Shares (including a conversion of the AT&T Shares into cash or other property), an adjustment may be made in the number and class of shares that may be delivered in settlement of the Option Price for the Preferred Interests, as determined by AT&T Inc. to prevent dilution or accretion with respect to the Capped Number and reflect such changes in corporate structure (e.g., substitution of successor shares), provided, that, if AT&T does not make any such adjustment or the Independent Fiduciary disagrees with the adjustment, the Independent Fiduciary can request that AT&T modify its determination and if AT&T fails to do so, the parties shall resolve the matter in accordance with the dispute resolution procedures specified in the Investment Management Agreement. In the event AT&T Inc., through delivery of the Capped Number of AT&T Shares and AT&T Shares in addition to the Capped Number of AT&T Shares, if any, shall not have delivered the full number of AT&T Shares otherwise deliverable in settlement of the Option Price for the Preferred Interests (resulting in a shortfall), the Preferred Interests for which neither AT&T Shares nor cash have been delivered shall remain outstanding, in accordance with their terms.

12. AT&T Inc. and the Issuer shall be solely responsible for (a) determining the proper treatment of the Preferred Interests, any distributions or other payments with respect thereto, or any proceeds of any redemption or conversion thereof for tax or financial accounting purposes; (b) any and all regulatory reporting or filings required in connection with or as a result of the Contribution or the Trust’s ownership or disposition of the Preferred Interests; (c) the payment of

any franchise or similar fees or taxes with respect to the Preferred Interests; and (d) any transfer agency or similar fees or expenses relating to the issuance or transfer of the Preferred Interests.

13. [Reserved]

14. This Agreement shall be binding upon, and inure solely to the benefit of, the Trust, the Trustee, the Independent Fiduciary, AT&T Inc., the Issuer and their respective successors and assigns, and no other person shall acquire or have any right under or by virtue of this Agreement. No assignee, purchaser or any other transferee of any Preferred Interests from the Trust shall be treated as a successor or assign of the Trust for the purpose of this Section 14 by reason of such assignment, purchase or other transfer.

15. This Agreement may be amended only by mutual written agreement of the parties.

16. This Agreement shall terminate upon the later of the disposition of all Preferred Interests by the Trust and on such date when the PTE (or any successor thereto) shall no longer be necessary for the Trust to hold or dispose of the Preferred Interests or any AT&T Shares received in exchange therefor pursuant to this Agreement. In addition, in the event of partial disposition of Preferred Interests by the Trust, this Agreement shall terminate with respect to, and no provisions of this Agreement (including without limitation, the Put Option and the registration rights associated with the right to receive AT&T Shares) shall apply to, the Preferred Interests that are no longer held by the Trust, effective upon such Preferred Interests ceasing to be held by the Trust.

17. In the event of the termination or resignation of the Independent Fiduciary, the AT&T Inc. Benefit Plan Investment Committee (the "Committee"), shall appoint a successor independent fiduciary in accordance with the terms of the Investment Management Agreement. Such successor independent fiduciary shall acknowledge in writing the assignment to it of this Agreement and its acceptance of all rights and responsibilities of the Independent Fiduciary hereunder. In the event of a termination or resignation by the Independent Fiduciary, the Independent Fiduciary shall reasonably cooperate with any successor independent fiduciary appointed by the Committee in transitioning its work-in-progress under this Agreement, which cooperation shall include, but shall not be limited to, providing copies of all records regarding the Independent Fiduciary's activities pursuant to this Agreement, if and to the extent requested by the successor independent fiduciary.

18. This Agreement shall be governed and construed according to the laws of the State of Delaware without regard to its conflicts of laws provisions, except as superseded and preempted by ERISA or other laws of the United States.

19. The Preferred Interests described herein have been issued pursuant to, and are subject to the provisions of, the LLC Agreement. In the case of a conflict between this Agreement (including Schedule A hereto) and the LLC Agreement with respect to terms and conditions of the Preferred Interests (including rights and obligations thereto), the LLC Agreement shall control.

20. This Agreement may be executed by the parties hereto in counterparts, each of which shall be deemed to be an original, but all such respective counterparts shall together constitute one and the same instrument.

21. Any disputes arising under this Agreement shall be resolved in accordance with the dispute resolution procedures specified in the Investment Management Agreement.

22. AT&T Inc. hereby agrees that in the event any governmental authority undertakes to impose or collect any tax with respect to the acquisition, holding or disposition of any Preferred Interests by the Trust (including, without limitation, any Shares received by the Trust in exchange for Preferred Interests), or with respect to any distribution to the Trust by the Issuer in connection with the Preferred Interests (or such Shares), AT&T Inc. shall, subject to Section 23 of this Agreement, make additional cash contributions to the Trust in the full amount of any resulting tax, any interest or penalties thereon, and any legal, accounting or other expenses of the Trust, including any such amounts as may be incurred by the Independent Fiduciary that are reimbursed by the Trust, to the extent reasonably incurred in connection therewith. The Independent Fiduciary shall reasonably cooperate with AT&T Inc. or any of its affiliates in challenging, disputing, settling or compromising any such asserted tax liability. The parties hereto acknowledge that the Company, or such other person to whom authority with respect to this matter is delegated by the Company, but not the Independent Fiduciary, shall, in its sole discretion be responsible for directing the Trustee with respect to challenging, disputing, settling or compromising the asserted tax liability on behalf of the Trust.

23. Payment of the contributions contemplated by Section 22 shall be made at such time as AT&T Inc. shall determine so long as the Trust is actively disputing or negotiating the asserted liability, provided that the contributions contemplated herein shall be due and payable as soon as practicable upon the imposition of any final judgment or lien against the Trust, or in the event that the Company directs the Trust to pay a tax liability.

24. Anything herein to the contrary notwithstanding, no contribution(s) shall be required hereunder to the extent that both (a) the Plan would be deemed to be fully funded (within the meaning Section 7 of this Agreement) after payment of the asserted tax liability and (b) such contribution(s) would be subject to excise tax as excess contributions pursuant to section 4972 of the Code.

[Signature Page Follows]

IN WITNESS WHEREOF, the parties hereto have duly executed this Agreement to be effective as of the date set forth above.

AT&T INC.

By: _____
Name: George B. Goeke
Title: Senior Vice President and Treasurer

AT&T MOBILITY II LLC

By: AT&T MOBILITY CORPORATION, its sole Manager

By: _____
Name: George B. Goeke
Title: Treasurer

BROCK FIDUCIARY SERVICES LLC

By: Brock Capital Group LLC, its Managing Member

By: Charles Brock LLC, its Managing Member

By: _____
Name:
Title:

**JP MORGAN CHASE BANK, N.A.,
as directed trustee of the SBC Master Pension Trust**

By: _____
Name:
Title:

*Signature Page to
Amended and Restated Contribution Agreement*

**FOURTH AMENDED AND RESTATED
LIMITED LIABILITY COMPANY AGREEMENT
OF
AT&T MOBILITY II LLC**

This Fourth Amended and Restated Limited Liability Company Agreement (this “Agreement”) is entered into effective as of the date specified herein by and among New Cingular Wireless Services, Inc., a Delaware corporation (“NCWS”), AT&T Mobility LLC, a Delaware limited liability company (“Mobility”), AT&T Corp, a New York corporation (“AT&T Corp.”), SBC Master Pension Trust (“Trust”) and BellSouth Mobile Data, Inc., a Georgia corporation (“BSMD”), as the members (the “Members”), and AT&T Mobility Corporation, a Delaware corporation, as the manager (the “Manager”) of AT&T Mobility II LLC (f/k/a Cingular Wireless II LLC) (the “Company”), which has been formed as a limited liability company pursuant to the Delaware Limited Liability Company Act (6 Del. C. § 18 101, et seq.) (the “Act”) upon the following terms and conditions.

WHEREAS, NCWS, Mobility, BSMD and Manager are parties to an Amended and Restated Limited Liability Company Agreement of the Company with an effective date of January 16, 2008, 6:01 P.M. Eastern Standard Time, which amended and restated the Prior Agreement, and that certain First Amendment to the Amended and Restated Limited Liability Company Agreement of the Company dated August 25, 2009 by and among NCWS, Mobility and BSMD, as the members, and Manager as the manager of the Company (as amended, the “Original Amended and Restated Agreement”);

WHEREAS, on January 1, 2010, Centennial Cellular Operating Co LLC (“CCOC”) contributed certain assets to Mobility II in exchange for a 1.2721165% interest in Mobility II and at such time, and in connection with such contribution, the assets of Mobility II were revalued;

WHEREAS, on July 1, 2010, CCOC merged with Centennial Communications Corp., a Delaware corporation (“Centennial”) and as a result of such merger, the Mobility II interest held by CCOC was transferred to Centennial and Centennial was admitted as a member of the Company;

WHEREAS, on September 9, 2013, the then existing membership interests in the Company were recapitalized into Common Interests (defined below);

WHEREAS, on September 9, 2013, AT&T Inc. contributed a promissory note to the Company (the “Series A Contribution”) pursuant to a Contribution, Assignment and Assumption Agreement, dated as of August 30, 2013 (which agreement is being amended and restated at or around the date of this Agreement) (as amended and restated, the “Contribution Agreement”) in exchange for 320,000,000 Series A Preferred Interests (defined below) and the Amended and Restated Agreement was amended and restated and superseded by the Second Amended and Restated Limited Liability Company Agreement (the “Second Amended and Restated Agreement”) to provide, among other things, for the issuance of the Series A Preferred Interests to AT&T Inc.;

WHEREAS, on September 9, 2013, 4:30 P.M. Eastern Daylight Time, AT&T Inc. contributed 320,000,000 Series A Preferred Interests in the Company to the Trust and the Trust was admitted as a member of the Company and the Second Amended and Restated Limited Liability Company Agreement was amended and restated and superseded by the Third Amended and Restated Limited Liability Company Agreement (the “Third Amended and Restated Agreement”);

WHEREAS, on January 1, 2016, Centennial merged with AT&T Corp. and as a result of such merger, the Company interest held by Centennial was transferred to AT&T Corp. by operation of law, and AT&T Corp. was admitted as a member of the Company and the Third Amended and Restated Agreement was amended (the “First Amendment to Third Amended and Restated Agreement”);

WHEREAS, on December 30, 2016, the Third Amended and Restated Agreement, as amended, was amended to reflect changes to Section 13 and Section 15 of that agreement (the “Second Amendment to Third Amended and Restated Agreement”);

WHEREAS, on May 31, 2017, NCWS and Mobility redeemed a portion of their common interests in the Company (the “Membership Redemption”) and the Third Amended and Restated Agreement as amended, was amended to reflect the Membership Redemption and make certain changes in connection therewith (the “Third Amendment to Third Amended and Restated Agreement”);

WHEREAS, effective May 31, 2017, the Third Amended and Restated Agreement as amended, was amended to update the final Percentage Interests of the Members resulting from the Membership Redemption based on the finalized valuation received from Duff & Phelps (the “Fourth Amendment to Third Amended and Restated Agreement”);

WHEREAS, on October 15, 2018, the Third Amended and Restated Agreement as amended, was amended to remove the requirement that the Manager approve transfers of Series A Preferred Interests (the “Fifth Amendment to Third Amended and Restated Agreement”);

WHEREAS, the Members and the Manager desire to amend and restate the Third Amended and Restated Agreement, as amended, to provide, among other things, additional rights with respect to any transferee of the Series A Preferred Interests and otherwise to replace the Third Amended and Restated Agreement and First through Fifth Amendments thereof with this Agreement.

NOW, THEREFORE, in consideration of the premises, and the representations, warranties, covenants and agreements contained herein, the parties hereto agree as follows:

1. Certain Definitions. For the purposes of this Agreement, the following terms shall have the following meanings:

“Act” has the meaning set forth in the Recitals.

“Adjusted Capital Account Balance” means, with respect to any Member as of the date of any determination, the balance in such Member’s Capital Account at such time, after such balance is:

(a) Increased by any amounts that such Member is obligated to restore under the standards set by Treasury Regulation Section 1.704-1(b)(2)(ii) (c) (taking into account the extent to which the Member bears the economic risk of loss for Company liabilities (other than Member Nonrecourse Debt) as determined in accordance with Code Section 704(b) and the Treasury Regulations thereunder and Treasury Regulation Section 1.752-2) or is deemed obligated to restore under Treasury Regulation Sections 1.704-2(g) and 1.704-2(i)(5); and

(b) Decreased by the amount of the items described in Regulations Sections 1.704-1(b)(2)(ii) (d)(4), 1.704-1(b)(2)(ii) (d)(5) and 1.704-1(b)(2)(ii) (d)(6) .

The foregoing definition of Adjusted Capital Account Balance is intended to comply with the provisions of Regulations Section 1.704-1(b)(2)(ii) (d) and shall be interpreted consistently therewith.

“Adjusted Capital Account Deficit” means, with respect to each Member, the deficit balance, if any, of such Member’s Adjusted Capital Account Balance as of the end of the relevant Allocation Period.

“Agreement” has the meaning set forth in the Recitals.

“Allocation Period” means (a) any period commencing on January 1 and ending on the following December 31 or (b) any portion of the period described in clause (a) for which the Company is required to allocate Net Income, Net Loss and other items of Company income, gain, loss or deduction pursuant to Section 14.

“AT&T Common Stock” means the common stock, \$1.00 par value per share, of AT&T Inc. and any successor equity securities issued in lieu thereof by any successor of AT&T Inc.

“AT&T Corp.” has the meaning set forth in the Recitals.

“AT&T Shares” means AT&T Inc. Common Stock that may become deliverable pursuant to Section 8(e)(iii) of this Agreement.

“AT&T Inc.’s Debt-to-Total-Capitalization Ratio” means AT&T Inc.’s Debt divided by the sum of AT&T Inc.’s Debt and total shareholders’ equity (as taken directly from AT&T Inc.’s most recently prepared US GAAP balance sheet).

“BSMD” has the meaning set forth in the Recitals.

“Business Day” means any day other than a Saturday, Sunday, federal holiday or a day on which banks in The City of New York are authorized or obligated by law to close.

“Capital Account” means the account established and maintained for each Member on the books of the Company pursuant to Section 15, as said Capital Account may be increased or decreased from time to time. Any reference to Capital Account of a Member shall include the Capital Account of a predecessor holder of the interest of the Member, or a proportionate share of that Capital Account if the Member has succeeded to less than all of the predecessor’s interest.

“Capital Contribution” means, with respect to any Member, the amount by which (a) the aggregate amount of money and the initial Carrying Value of any property (other than money) contributed to the Company by such Member (or its predecessors in interest) with respect to the LLC Interest in the Company held by such Member exceeds (b) the initial Carrying Value of any liabilities to which such contributed property is subject or that are assumed from such Member in connection with such contribution.

“Carrying Value” means, with respect to any Company asset or liability (which shall include, for purposes of this Agreement, the Company’s interest in any asset or liability owned through one or more partnerships) as of the date of any determination, the value at which the asset or liability is properly reflected on the books and records of the Company as of such date in accordance with Treasury Regulation Section 1.704-1(b)(2)(iv) as follows:

(a) The initial Carrying Value of any asset or liability contributed or transferred by a Member to the Company shall be the fair market value of such asset or liability as agreed to by the transferring Member and the Manager;

(b) The Carrying Values of all Company assets and liabilities shall, except as otherwise provided herein, be adjusted to equal their respective Fair Market Values immediately prior to the following events: (i) immediately prior to a contribution to the Company of more than a de minimis amount of cash or other property, or a Member’s assumption of more than a de minimis amount of Company liabilities, in exchange for an interest in the Company, the issuance of an interest (other than a de minimis interest) in the Company in consideration of the performance of services, or the issuance of a Noncompensatory Option (other than an option for a de minimis interest); (ii) the distribution by the Company to a Member of more than a de minimis amount of money or other property in retirement of all or any portion of its LLC Interest; (iii) the liquidation of the Company within the meaning of Treasury Regulation Section 1.704-1(b)(2)(ii)(g); and (iv) any other event to the extent determined by the Manager to be permitted and necessary to properly reflect Carrying Values in accordance with the standards set forth in Treasury Regulation Section 1.704-1(b)(2)(iv); provided, however, that in the event of the issuance of an interest in the Company pursuant to the exercise of a Noncompensatory Option where the right to share in Company capital represented by such LLC Interest differs from the consideration paid to acquire and exercise such option, the Carrying Value of each Company property immediately after the issuance of such LLC Interest shall be adjusted upward or downward in a manner consistent with Treasury Regulation Section 1.704-1(b)(2)(iv)(s);

(c) The Carrying Value of any Company asset distributed to any Member or any Company Liability assumed or taken subject to by any Member shall, except as

otherwise provided herein, be the Fair Market Value of such asset (or, in the case of cash, shall be its face amount) or liability as of the date of such distribution or assumption;

(d) The Carrying Values of Company assets shall, except as otherwise provided herein, be increased (or decreased) to reflect any adjustments to the adjusted basis of such assets pursuant to Code Section 734(b) or Code Section 743(b), but only to the extent that such adjustments are taken into account in determining Capital Accounts pursuant to Treasury Regulation Section 1.704-1(b)(2)(iv) (*m*) and subparagraph (f) of the definition of “Net Income” and “Net Loss” or Section 14(c)(vii); provided, however, that Carrying Values shall only be adjusted pursuant to this subparagraph (d) to the extent that the adjustment would be allowable under Treasury Regulation Section 1.704-1(b)(2)(iv) (*m*)(5) after taking into account any adjustment to Carrying Value required pursuant to subparagraph (b) as a result of the same transaction that would otherwise result in an adjustment pursuant to this subparagraph (d);

(e) If the Carrying Value of a Company asset has been determined or adjusted pursuant to subparagraph (a), (b), or (d) or Section 15, such Carrying Value shall thereafter be adjusted by the Depreciation taken into account with respect to such asset for purposes of the allocations made pursuant to Section 14; and

(f) If the Carrying Value of a Company Liability has been determined or adjusted pursuant to subparagraph (a) or (b) or Section 15, such Carrying Value shall thereafter be adjusted based on the method adopted under subparagraph (e) of the definition of “Net Income” and “Net Loss” to determine the extent to which the Carrying Value of such liability is treated as satisfied or otherwise taken into account.

“ Change of Control ” means the occurrence of any merger, reorganization or other transaction that results in AT&T Inc., directly or indirectly, owning less than fifty percent of the capital or profits interests (where the Company remains taxable as a partnership), or equity (if the Company becomes taxable as a corporation), of the Company exclusive of the Series A Preferred Interests.

“ Code ” means the Internal Revenue Code of 1986 (as amended from time to time, or any successor statute).

“ Common Interests ” shall mean the common membership interests of the Company, having the powers, preferences, rights, qualifications, limitations and restrictions set forth in Section 7(b) of this Agreement.

“ Common Percentage Interest ” of a Member holding Common Interests shall mean such Member’s aggregate Common Interests’ economic percentage interest in the Company as determined by dividing the Common Interests of such Member by the total Common Interests of all Members, as set forth on **Schedule A** and as may be adjusted from time to time.

“ Company ” has the meaning set forth in the Recitals.

“ Company’s Debt-to-Total-Capitalization Ratio ” means the Company’s Debt divided by the sum of the Company’s Debt and total members’ equity including outstanding Series A Preferred Interests (as taken directly from the Company’s most recently prepared US GAAP balance sheet).

“ Company Liability ” means any Obligation of the Company.

“ Contingent Event ” means an event described in Section 8(e)(i)(a), (b) or (c).

“ Contribution Agreement ” has the meaning set forth in the Recitals.

“ Debt ” of any Person means, without duplication, (a) all obligations of such Person for borrowed money or with respect to deposits or advances of any kind, and (b) all obligations of such Person evidenced by bonds, debentures, notes or similar instruments.

“ Depreciation ” means, for each Allocation Period, an amount equal to the depreciation, amortization, or other cost recovery deduction allowable for federal income tax purposes with respect to an asset for such Allocation Period, except that (a) with respect to any asset whose Carrying Value differs from its adjusted tax basis for United States federal income tax purposes and which difference is being eliminated by use of the “remedial method” defined by Treasury Regulation Section 1.704-3(d), Depreciation for such Allocation Period shall be the amount of book basis recovered for such Allocation Period under the rules prescribed by Treasury Regulation Section 1.704-3(d)(2) and (b) with respect to any other asset whose Carrying Value differs from its adjusted basis for federal income tax purposes at the beginning of such Allocation Period, Depreciation shall be an amount which bears the same ratio to such beginning Carrying Value as the federal income tax depreciation, amortization, or other cost recovery deduction for such Allocation Period bears to such beginning adjusted tax basis; provided, however, that if the adjusted basis for federal income tax purposes of an asset at the beginning of such Allocation Period is zero, Depreciation shall be determined with reference to such beginning Carrying Value using any reasonable method selected by the Manager.

“ Distribution Payment Date ” has the meaning set forth in Section 16(a)(i).

“ Distribution Period ” has the meaning set forth in Section 16(a)(i).

“ Effective Time ” means the time specified in Section 3.

“ Fair Market Value ” means (a) as of the date of any revaluation of Company property in accordance with Section 15, the fair market value of each Company asset and liability and (b) as of the date of any distribution of Company property or a Member’s assumption or taking subject to a Company Liability, the fair market value of each Company asset or liability, in each case as determined reasonably and in good faith by the Manager using such reasonable methods of valuation as it may adopt; provided, however, that if at the time of any revaluation of Company property in accordance with Section 15, the Company has an outstanding Noncompensatory Option, the fair market value of Company property shall be adjusted as provided in Treasury Regulation Section 1.704-1(b)(2)(iv) (h)(2) .

“Fifth Amendment to Third Amended and Restated Agreement” has the meaning set forth in the Recitals.

“First Amendment to Third Amended and Restated Agreement” has the meaning set forth in the Recitals.

“Fourth Amendment to Third Amended and Restated Agreement” has the meaning set forth in the Recitals.

“Guaranteed Payment Amount” of a particular Series A Preferred Return quarterly amount means an amount equal to (a) the Series A Preferred Return quarterly amount less (b) the Series A Preferred Interest Return of Capital Amount for such Series A Preferred Return quarterly amount, and such amount shall be treated as a guaranteed payment within the meaning of section 707(c) of the Code.

“Indemnified Party” has the meaning set forth in Section 24(b)(v).

“Liquidation Amount of the Series A Preferred Interests” means \$25.00 per Series A Preferred Interest.

“Liquidation Preference” means the Liquidation Amount of the Series A Preferred Interests, *plus* the Unpaid Series A Preferred Interest Return of Capital Amount, *plus* any accrued but unpaid Series A Preferred Return.

“LLC Interest” means a Member’s entire limited liability company interest in the Company at any particular time, evidenced by Common Interests and Series A Preferred Interests.

“Manager” has the meaning set forth in the Recitals.

“Members” means those Persons executing this Agreement as Members of the Company, including any substitute Members or additional Members, in each such person’s capacity as a Member of the Company.

“Member Nonrecourse Deductions” has the same meaning as the term “partner nonrecourse deductions” in Treasury Regulation Sections 1.704-2(i)(1) and 1.704-2(i)(2).

“Member Nonrecourse Debt” has the same meaning as the term “partner nonrecourse debt” in Treasury Regulation Section 1.704-2(b)(4).

“Member Nonrecourse Debt Minimum Gain” means an amount, with respect to each Member Nonrecourse Debt, equal to the Minimum Gain that would result if such Member Nonrecourse Debt were treated as a Nonrecourse Liability, determined in accordance with Treasury Regulation Section 1.704-2(i)(3).

“Minimum Gain” has the meaning given the term “partnership minimum gain” in Treasury Regulation Sections 1.704-2(b)(2) and 1.704-2(d).

“Mobility” has the meaning set forth in the Recitals.

“NCWS” has the meaning set forth in the Recitals.

“Net Income” and “Net Loss” mean, for each Allocation Period, an amount equal to the Company’s taxable income or loss for such Allocation Period, determined in accordance with Code Section 703(a) (for this purpose, all items of income, gain, loss, or deduction required to be stated separately pursuant to Code Section 703(a)(1) shall be included in taxable income or loss), with the following adjustments:

(a) Any income of the Company that is exempt from federal income tax and not otherwise taken into account in computing Profits or Losses pursuant to this definition of “Net Income” and “Net Loss” shall be added to such taxable income or loss;

(b) Any expenditures of the Company described in Code Section 705(a)(2)(B) or treated as Code Section 705(a)(2)(B) expenditures pursuant to Treasury Regulation Section 1.704-1(b)(2)(iv) *(i)*, and not otherwise taken into account in computing Net Income or Net Loss pursuant to this definition of “Net Income” and “Net Loss” shall be subtracted from such taxable income or loss;

(c) Gain or loss resulting from any disposition of Company property with respect to which gain or loss is recognized for federal income tax purposes shall be computed by reference to the Carrying Value of such property, notwithstanding that the adjusted tax basis of such property differs from its Carrying Value;

(d) In lieu of the depreciation, amortization, and other cost recovery deductions taken into account in computing such taxable income or loss, there shall be taken into account Depreciation for such Allocation Period, computed in accordance with the definition of “Depreciation;”

(e) Income, gain, deduction or loss resulting from the satisfaction or accrual for federal income tax purposes of a Company Liability with a Carrying Value that differs from its adjusted issue price (if any) shall be computed by reference to the Carrying Value of such liability, with the extent to which the Carrying Value of such liability is treated as satisfied or otherwise taken into account being determined under any reasonable method adopted by the Manager; and

(f) Notwithstanding anything to the contrary in subparagraphs (a) through (e) above, any items which are specially allocated pursuant to Section 14(c) or (d) shall not be taken into account in computing Net Income or Net Loss.

The amounts of the items of Company income, gain, loss or deduction available to be specially allocated pursuant to Section 14 shall be determined by applying rules analogous to those set forth in subparagraphs (a) through (e) above.

“Noncompensatory Option” has the meaning set forth in Treasury Regulation Section 1.721-1(f).

“ Nonrecourse Deductions ” has the meaning set forth in Treasury Regulation Sections 1.704-2(b)(1) and 1.704-2(c).

“ Nonrecourse Liability ” has the meaning set forth in Treasury Regulation Section 1.704-2(b)(3).

“ Obligation ” has the meaning assigned to that term in Treasury Regulation Section 1.752-1(a)(4)(ii).

“ Option Price ” means, for each Series A Preferred Interest, the greater of.

(a) the fair market value of the Series A Preferred Interest as of the last date of the calendar quarter preceding the date of exercise of a Redemption Option or a Put Option, as the case may be or, for the portion of the Series A Preferred Interests that cannot be purchased due to the Put 12-Month Cap, the fair market value of the Series A Preferred Interest as of the last date of the calendar quarter immediately preceding the date such portion of the Series A Preferred Interest is actually redeemed by the Company, and

(b) the Liquidation Amount of the Series A Preferred Interests plus any accrued and unpaid distributions.

For purposes of the foregoing, “the fair market value of the Series A Preferred Interest” means:

(x) in cases of exercise of the Put Option on or after September 9, 2020 (other than an exercise prior to September 9, 2022 as the result of a Contingent Event) OR upon exercise of the Redemption Option on or after September 9, 2022, an amount determined based upon the Liquidation Amount of the Series A Preferred Interests plus any accrued and unpaid distributions and market conditions at the time, and

(y) in cases of exercise of the Put Option prior to September 9, 2022 as the result of a Contingent Event OR upon exercise of the Redemption Option prior to September 9, 2022, an amount determined based upon the sum of:

(i) the Liquidation Amount of the Series A Preferred Interests plus any accrued and unpaid distributions, and

(ii) the present value of future distributions (excluding accrued and unpaid distributions accounted for in (i) immediately above) through and ending on September 9, 2022.

The independent fiduciary with respect to Series A Preferred Interests held by the SBC Master Pension Trust shall determine “the fair market value of the Series A Preferred Interests” with respect to Series A Preferred Interests held by the SBC Master Pension Trust.

“ Original Amended and Restated Agreement ” has the meaning set forth in the Recitals.

“ Person ” means any natural person, partnership (whether general or limited), trust, estate, association, corporation, custodian, nominee or any other individual or entity in its own or any representative capacity, in each case, whether domestic or foreign, or a limited liability company or foreign limited liability company.

“ Plan ” means the AT&T Pension Benefit Plan.

“ Public Indebtedness ” means the Cingular Wireless LLC 7.125% Senior Notes, due December 2031 in the principal amount of \$510 million; and the AT&T Wireless Services, Inc. 8.75% Senior Notes, due March 2031 in the principal amount of \$896 million.

“ Put 12-Month Cap ” has the meaning set forth in Section 8(e)(i).

“ Put Option ” has the meaning set forth in Section 8(e)(i).

“ Put Option Period ” means any period, from time to time, after the Put Option becomes exercisable hereunder, beginning on the 15th Business Day prior to the end of each fiscal quarter of AT&T Inc. and ending on the 15th Business Day of the subsequent fiscal quarter of AT&T Inc.

“ Redemption Option ” has the meaning set forth in Section 8(e)(ii).

“ Redemption Period ” means the period, from time to time, after the Redemption Option becomes exercisable hereunder, beginning on the 26th Business Day of each fiscal quarter of AT&T Inc. and ending on the 35th Business Day of each fiscal quarter of AT&T Inc.

“ Registration Rights Agreement ” means the Amended and Restated Registration Rights Agreement dated October 15, 2018 among AT&T Inc., Brock Fiduciary Services LLC and the Trust, as may be amended from time to time.

“ Revised Partnership Audit Procedures ” shall mean the provisions of Subchapter C of Subtitle A, Chapter 63 of the Code, as amended by the Bipartisan Budget Act of 2015, P.L. 114-74 (together with any subsequent amendments thereto, Treasury Regulations promulgated thereunder, and published administrative interpretations thereof).

“ Second Amended and Restated Agreement ” has the meaning set forth in the Recitals.

“ Second Amendment to Third Amended and Restated Agreement ” has the meaning set forth in the Recitals.

“ Series A Contribution ” has the meaning set forth in the Recitals.

“ Series A Preferred Interest Return of Capital Amount ” means, with respect to each Series A Preferred Interest, (a) for each quarter in the first five (5) years following the

issuance of the Series A Preferred Interests an amount equal to the quotient where (i) the difference between (A) the Capital Contribution of the Series A Preferred Interest and (B) the Liquidation Amount of the Series A Preferred Interest is the numerator and (ii) twenty (20) is the denominator, and (b) in all other years zero.

“Series A Preferred Interests” means the series A cumulative perpetual preferred membership interests, having the powers, preferences, rights, qualifications, limitations and restrictions set forth in Section 7(c) of this Agreement.

“Series A Preferred Return” means, with respect to each Series A Preferred Interest, a distribution of \$1.75 per annum, payable quarterly. A portion of the Series A Preferred Return shall be treated as the Guaranteed Payment Amount and a portion of the Series A Preferred Return shall be treated as the Series A Preferred Interest Return of Capital Amount.

“Special Rights” means, with respect to any Series A Preferred Interests, the rights set forth in Section 7(c), Section 8 and Section 23 of this Agreement as applicable to such interests.

“Tax Matters Representative” has the meaning set forth in Section 20.

“Third Amended and Restated Agreement” has the meaning set forth in the Recitals.

“Third Amendment to Third Amended and Restated Agreement” has the meaning set forth in the Recitals.

“Transfer” means (a) when used as a verb, to give, sell, exchange, assign, transfer, pledge, hypothecate, bequeath, devise or otherwise dispose of or encumber, and (b) when used as a noun, the nouns corresponding to such verbs, in either case voluntarily or involuntarily, by operation of law or otherwise.

“Treasury Regulations” means the Income Tax Treasury Regulations, including Temporary Treasury Regulations, promulgated under the Code, as such regulations are amended, modified or supplemented from time to time.

“Trust” has the meaning set forth in the Recitals.

“Unpaid Series A Preferred Interest Return of Capital Amount” means, with respect to each Series A Preferred Interest, an amount equal to (a) the Capital Contribution of the Series A Preferred Interest, *minus* (b) the Liquidation Amount of the Series A Preferred Interest, *minus* (c) payments of the Series A Preferred Return treated as the Series A Preferred Interest Return of Capital Amount of the Series A Preferred Interest.

“Unrealized Gain” attributable to any item of Company property means, as of any date of determination, the excess, if any, of (a) the Fair Market Value of such property as of such date over (b) the Carrying Value of such property as of such date. With respect to any Company Liability, Unrealized Gain shall mean, as of any date of determination, the excess, if any, of

(a) the Carrying Value of such liability as of such date, over (b) the Fair Market Value of such liability as of such date.

“Unrealized Loss” attributable to any item of Company property means, as of any date of determination, the excess, if any, of (a) the Carrying Value of such property as of such date, over (b) the Fair Market Value of such property as of such date. With respect to any Company Liability, Unrealized Loss shall mean, as of any date of determination, the excess, if any, of (a) the Fair Market Value of such liability as of such date over (b) the Carrying Value of such liability as of such date.

2. Name. The name of the limited liability company formed hereby is AT&T Mobility II LLC. The Company may do business under that name or any other name approved by the Manager.

3. Effectiveness. This Agreement shall, upon the execution by all parties hereto, be fully effective on October 15, 2018.

4. Termination of Limited Liability Company Agreement. All prior limited liability company agreements of the Company are hereby terminated and superseded in its or their entirety by this Agreement.

5. Registered Office. The address of the registered office of the Company in the State of Delaware is 1209 Orange Avenue, Wilmington, Delaware 19801.

6. Registered Agent. The name and address of the registered agent of the Company for service of process on the Company in the State of Delaware is CT Corporation, 1209 Orange Avenue, Wilmington, Delaware 19801.

7. Capital Structure.

(a) General. Subject to the terms of this Agreement, (i) the Company is authorized to issue equity interests in the Company designated as “LLC Interests,” which shall constitute limited liability company interests under the Act and shall include initially Common Interests and Series A Preferred Interests and (ii) the Manager is expressly authorized, by resolution or resolutions, to create and to issue, out of authorized but unissued LLC Interests, different classes, groups or series of LLC Interests and fix for each such class, group or series such voting powers, full or limited or no voting powers, and such distinctive designations, preferences and relative participating, optional or other special rights and qualifications, limitations or restrictions as determined by the Manager. The Manager shall have the authority to issue such number of LLC Interests of any class, series or tranche pursuant to clauses (i) and (ii) of the immediately preceding sentence as the Manager shall from time to time determine. Other than as set forth in this Agreement, or in the instruments governing the terms of the LLC Interests issued pursuant to clause (ii), each LLC Interest shall be identical in all respects with each other LLC Interest.

(b) Common Interests. The Common Interests shall have such rights to allocations and distributions as may be authorized and set forth under this Agreement. The relative rights, powers, preferences, duties, liabilities and obligations of holders of the Common

Interests shall be as set forth herein. Each holder of Common Interests shall be entitled to vote, in person or by proxy, or to act by written consent, on the basis of its Common Percentage Interest on all matters upon which Members have the right to vote, give approval or take other actions as set forth in this Agreement and provided under the Act. All approvals to be given and other actions to be taken by the holders of Common Interests pursuant to this Agreement and the Act (whether by vote at a meeting or written consent) may be granted or taken by the holders of Common Interests representing a majority in Common Percentage Interest.

(c) Series A Preferred Interests. The Series A Preferred Interests shall have such rights to allocations and distributions as may be authorized and set forth in this Agreement. The Series A Preferred Interests shall rank senior to any other class or series of equity interests in the Company in respect of the right to receive distributions and the right to receive payments or distributions out of the assets of the Company, upon voluntary or involuntary liquidation, dissolution or winding up of the Company, all as provided in Section 16 hereof. The Series A Preferred Interests shall not have any voting power. Accordingly, but subject to Section 23, no holder of Series A Preferred Interests shall have any voting rights (or other approval rights) with respect to their interest in the Company or as to any other matter (whether under this Agreement or the Act) as a result of holding the Series A Preferred Interests.

(d) Certificates; Legend. In the sole discretion of the Manager, the issued and outstanding LLC Interests may be represented by certificates. In addition to any other legend required with respect to a particular class, group or series of LLC Interests or pursuant to any other agreement between any one or more Members and the Company, each such certificate shall bear the following legend:

THE LLC INTERESTS REPRESENTED BY THIS CERTIFICATE ARE SUBJECT TO A FOURTH AMENDED AND RESTATED LIMITED LIABILITY COMPANY AGREEMENT AMONG THE COMPANY AND ITS MEMBERS, A COPY OF WHICH IS ON FILE AT THE PRINCIPAL EXECUTIVE OFFICE OF THE COMPANY. NO TRANSFER, SALE, ASSIGNMENT, PLEDGE, HYPOTHECATION OR OTHER DISPOSITION OF THE LLC INTERESTS REPRESENTED BY THIS CERTIFICATE MAY BE MADE EXCEPT IN ACCORDANCE WITH THE PROVISIONS OF SUCH FOURTH AMENDED AND RESTATED LIMITED LIABILITY COMPANY AGREEMENT.

THE LLC INTERESTS REPRESENTED BY THIS CERTIFICATE HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED, OR UNDER ANY OTHER APPLICABLE SECURITIES LAWS AND MAY NOT BE TRANSFERRED, SOLD, ASSIGNED, PLEDGED, HYPOTHECATED OR OTHERWISE DISPOSED OF EXCEPT (A) PURSUANT TO A REGISTRATION STATEMENT EFFECTIVE UNDER SUCH ACT AND LAWS, OR (B) PURSUANT TO AN EXEMPTION FROM REGISTRATION THEREUNDER.

Any LLC Interests issued in uncertificated form may be subject to similar restrictive notations on the relevant books and records of the Company or its transfer agent.

(e) Opt-in to Article 8 of the Uniform Commercial Code. The Members agree that the LLC Interests may be evidenced by certificates executed by the Manager of the Company and that the LLC Interests shall be securities governed by Article 8 of the Uniform Commercial Code of the State of Delaware (and the Uniform Commercial Code of any other applicable jurisdiction).

8. Transfers of LLC Interests.

(a) General Restrictions.

(i) No Member may Transfer all or any part of such Member's LLC Interest, except as provided in this Section 8. Any purported Transfer of an LLC Interest or a portion thereof in violation of the terms of this Agreement shall be null and void and of no effect. A permitted Transfer shall be effective as of the date specified in the instruments relating thereto. Any transferee desiring to make a further Transfer shall become subject to all the provisions of this Section 8 to the same extent and in the same manner as any Member desiring to make any Transfer.

(ii) A person shall cease to be a Member upon Transfer of all such Member's LLC Interest.

(b) Permitted Transfers.

(i) Except as otherwise provided in this Section 8(b), each Member holding Series A Preferred Interests shall have the right to Transfer (but not to substitute the transferee as a substitute Member in such Member's place, except in accordance with Section 8(c)), by a written instrument, all or any part of such Member's Series A Preferred Interests, if, and only if: (1) the Manager determines in advance that the Transfer will comply with the registration requirements of the Securities Act of 1933 and any applicable state or other securities laws (including any exemption therefrom); (2) the Manager determines in advance that the Transfer will not cause the Company to become a "publicly traded partnership" within the meaning of Section 7704(b) of the Code; (3) the transferee has executed an instrument accepting and adopting the terms and provisions of the Certificate and this Agreement; (4) the transferee has executed and become a party to the Registration Rights Agreement; and (5) the transferee has caused to be paid all reasonable expenses of the Company in connection with the admission of the transferee as a substitute Member. In making the determinations referenced in the prior sentence, the Manager may require the proposed transferor, the proposed transferee or others to provide such evidence of compliance with the registration requirements referenced above, including an opinion of counsel, certificates or other documentation, as it may reasonably request.

(ii) Except as otherwise provided in this Section 8(b), each Member holding Common Interests shall have the right to Transfer (but not to substitute the transferee as a substitute Member in such Member's place, except in accordance with

Section 8(c)), by a written instrument, all or any part of such Member's Common Interests, if, and only if: (1) the Manager has given its prior approval, which may be withheld in its sole discretion for any reason or no reason, (2) the transferee has executed an instrument accepting and adopting the terms and provisions of the Certificate and this Agreement; and (3) the transferee has caused to be paid all reasonable expenses of the Company in connection with the admission of the transferee as a substitute Member.

(iii) No Transfer of an LLC Interest shall be effective or reflected on the books and records of the Company or its transfer agent except in accordance with this Section 8.

(c) Substitute Member. No transferee of all or part of a Member's LLC Interest shall become a substitute Member in place of the transferor unless and until the terms of Section 8(b) are satisfied. Upon satisfaction of all the foregoing conditions with respect to a particular transferee, the Manager shall cause the books and records of the Company to reflect the admission of the transferee as a substitute Member to the extent of the Transferred LLC Interest held by the transferee.

(d) Effect of Admission as a Substitute Member. A transferee who has become a substitute Member has, to the extent of the Transferred LLC Interest, all the rights, powers and benefits of and is subject to the restrictions and liabilities of a Member under the Certificate, this Agreement, the Act and, in the case of a transferee of Series A Preferred Interests, the Registration Rights Agreement. Upon admission of a transferee as a substitute Member, the transferor of the LLC Interest so acquired by the substitute Member shall cease to be a Member of the Company to the extent of such Transferred LLC Interest.

(e) Put Option and Redemption Option.

(i) The Company hereby grants to the holder of Series A Preferred Interests the right to require the Company to purchase the Series A Preferred Interests (the "Put Option"), at a price per Series A Preferred Interest equal to the Option Price, at any time and from time to time on or after the earliest of (a) the first date that the Company's Debt-to-Total-Capitalization Ratio exceeds that of AT&T Inc., (b) the date on which AT&T Inc. is rated below investment grade for two consecutive calendar quarters by at least two of the following rating agencies: (x) Standard & Poor's, (y) Moody's, or (z) Fitch Group, (c) a Change of Control, or (d) September 9, 2020; provided, however, that except in the event of a Change of Control, the Company shall not be required to purchase more than 106,666,667 Series A Preferred Interests in any twelve-month period (the "Put 12-Month Cap"). Upon the request of a holder of Series A Preferred Interests, as of the end of any calendar quarter, the Company shall, within forty-five (45) calendar days after the end of such calendar quarter, certify as to whether the Company's Debt-to-Total-Capitalization ratio exceeds that of AT&T Inc. A purchase of Series A Preferred Interests pursuant to Section 8 of the Contribution Agreement shall be treated as a purchase by the Company for purposes of determining whether or not the Put 12-Month Cap has been met for a given twelve-month period. In the event of an exercise pursuant to clause (d) above, the Put Option may only be exercised upon written notice to the Company during a Put Option Period, specifying the name of the holder of

Series A Preferred Interests, number of Series A Preferred Interests to be purchased by the Company (subject to the limitation in the proviso in the previous sentence) and the time and place of the closing of the Put Option.

(ii) The Company has the right to purchase from the holder of the Series A Preferred Interests, all or any portion of the Series A Preferred Interests (the “Redemption Option”), at a price per Series A Preferred Interest equal to the Option Price, at any time and from time to time (1) upon a Change of Control or (2) on or after September 9, 2022. In the event of an exercise pursuant to clause (2) above, the Redemption Option may only be exercised upon written notice to the holder(s) of Series A Preferred Interests during a Redemption Period, specifying the number of Series A Preferred Interests to be purchased by the Company and the time and place of the closing of the Redemption Option.

(iii) At the sole election of the Company, payment of the Option Price may be made in (a) fully paid and non-assessable AT&T Shares, (b) cash, or (c) any combination of AT&T Shares and cash as the Company shall determine. Any AT&T Shares delivered to satisfy all or a portion of the Option Price shall be valued at the average closing price of the 20 trading days preceding the date of the applicable notice of exercise (A) by the holder(s) of Series A Preferred interests (in the case of exercise of a Put Option) or (B) by the Company (in the case of exercise of a Redemption Option). In the event there are two or more holders Series A Preferred Interests, then (x) in the event less than all of the Series A Preferred Interests are to be purchased by the Company, the Company shall repurchase from each such holder its pro rata portion of Series A Preferred Interests (based on the total number of Series A Preferred Interests held by all such holders) and (y) in the event the Company elects to pay the Option Price in a combination of AT&T Shares (including in any election effected under subsection (iv) of this Section 8(e)), then the relative proportion of cash and AT&T Shares shall be the same for all such holders Series A Preferred Interests to the nearest extent practicable, unless otherwise agreed in writing by the Company and any holder(s) who agree to accept a different proportion.

(iv) Notwithstanding anything herein to the contrary, in no event shall the Company be required to deliver more than 250 million AT&T Shares (the “Capped Number”) to the holder(s) of Series A Preferred interests in settlement of the Option Price for the Series A Preferred Interests; provided, however, the Company may, in its sole and absolute discretion (subject to the last sentence of this Section 8(e)(iv)), deliver more than the Capped Number of AT&T Shares. In the event the Company, through delivery of the Capped Number of AT&T Shares and AT&T Shares in addition to the Capped Number of AT&T Shares, if any, shall not have delivered the full number of AT&T Shares otherwise deliverable in settlement of the Option Price for the Series A Preferred Interests, the Company will use its best efforts to acquire and deliver additional AT&T Shares. The Company may elect, solely at its option, to settle the Option Price, in whole or in part, by delivering cash. In the event of a merger, reorganization, consolidation, recapitalization, separation, split-up, liquidation, share combination, stock split, stock dividend, or other change in the corporate structure of AT&T Inc. affecting the AT&T Shares (including a conversion of the AT&T Shares into cash or other property), an

adjustment may be made in the number and class of shares that may be delivered in settlement of the Option Price for the Series A Preferred Interests, as determined by the Company to prevent dilution or accretion with respect to the Capped Number and reflect such changes in corporate structure (e.g., substitution of successor shares). In the event the Company, through delivery of the Capped Number of AT&T Shares and AT&T Shares in addition to the Capped Number of AT&T Shares, if any, shall not have delivered the full number of AT&T Shares otherwise deliverable in settlement of the Option Price for the Series A Preferred Interests (resulting in a shortfall), the Series A Preferred Interests for which neither AT&T Shares nor cash have been delivered shall remain outstanding, in accordance with their terms.

(f) Private Placement. In the event the holder of Series A Preferred Interests desires to Transfer some or all of the Series A Preferred Interests pursuant to a private placement offering, the Company shall use its reasonable best efforts to cooperate with such private placement. In the event of a private placement offering of the Series A Preferred Interests, the following shall apply:

(i) The Company shall select the investment banking firm that will conduct each such private placement offering;

(ii) The Company shall provide the financial information, document preparation and other support required for such private placement offering of the Series A Preferred Interests to the holders of the Series A Preferred Interests and/or to the investment bank on a timely basis; and

(iii) The Company shall bear all usual and customary costs associated with such private placement offering, including reasonable fees and expenses of investment banking firms, legal counsel for the Company and holders of the Series A Preferred Interests and, if required, auditors in connection therewith.

9. Members. The name of and LLC Interest held by each of the Members holding Common Interests and Series A Preferred Interests as of the Effective Time are set forth on **Schedule A** attached hereto. To the extent any additional or substitute Members are hereafter admitted to the Company or the respective relative Common Percentage Interests are adjusted as a result of the issuance of additional LLC Interests or the redemption of LLC Interests, the Manager shall revise **Schedule A** of this Agreement accordingly.

10. Powers.

(a) The business and affairs of the Company shall be managed by a manager, who may, but need not be, a Member. The Company shall initially have one manager. The number of managers shall be fixed from time to time by the Members, but in no instance shall there be less than one manager. The Members may, with or without cause, at any time and from time to time, remove the manager then acting and elect a new manager. Any person or entity dealing with the Company may rely on a certificate signed by the manager on any document purporting to bind the Company, which shall constitute exclusive evidence to third parties of the authority of such person to execute such document on behalf of the Company and so bind the

Company. Subject to any restrictions set forth in manager's organizational documents, as in effect from time to time, the manager acting on behalf or in respect of the Company is empowered, subject to the specified terms of this Agreement, to do any and all acts and things necessary, appropriate, proper, advisable, incidental to or convenient for the furtherance and accomplishment of the purposes and business described herein and for the protection and benefit of the Company and its subsidiaries, including, without limitation, full power and authority, directly or through its subsidiaries or affiliates, to distribute cash to the Members, enter into, perform and carry out contracts of any kind, borrow money and issue evidences of indebtedness whether or not secured by mortgage, deed of trust, pledge or other lien, acquire, own, manage, improve and develop any property, and lease, sell, transfer and dispose of any property. The Company shall not be required to hold annual meetings of the Members.

(b) The Members, in their capacity as such (and except to the extent that a Member shall act in the capacity of Tax Matters Representative pursuant to Section 20 hereof) shall have no part in the management of the Company and shall have no authority or right to act on behalf of or bind the Company in connection with any matter.

(c) AT&T Mobility Corporation is hereby designated to serve as the manager but may resign upon 30 days' written notice to the Members and any other manager.

11. Dissolution. The Company shall dissolve, and its affairs shall be wound up, upon the earlier to occur of the following: (a) the written consent of the Manager, subject to Section 10(a), or (b) the entry of a decree of judicial dissolution under Section 18-802 of the Act.

12. Admission. The Members set forth on **Schedule A** hereto are hereby confirmed to have been previously properly admitted as Members of the Company.

13. Additional Contributions.

(a) Except as provided in this Section 13, no Member is required to make any additional capital contribution to the Company. However, the Members may, in their sole discretion, make additional capital contributions to the Company.

(b) In the event that the assets of the Company are insufficient upon liquidation and dissolution pursuant to Section 11 hereof to fully satisfy the Public Indebtedness, Mobility shall contribute to the Company solely to be used to satisfy such Public Indebtedness an amount necessary to fully satisfy such indebtedness. In the event that such contribution is made, Mobility shall not be entitled to any right of reimbursement, contribution or other payment from the Company or any of its Members, and Mobility hereby waives and relinquishes any and all rights of contribution, reimbursement or any other remedy afforded under applicable law or otherwise to a guarantor or assesor of debt, on which more than one person has joint, several or joint and several liability, in connection with a payment on such debt by the guarantor or assesor.

14. Allocations. Each Member's distributive share of the Company's Net Income, Net Loss and items thereof shall be determined in accordance with the rules of this Section 14.

(a) Net Income. Except as otherwise provided in this Section 14, Net Income shall be allocated among the Members as follows:

(i) First, to the Members *pro rata* in proportion to the cumulative Net Losses previously allocated to each Member pursuant to Section 14(b)(ii), until the cumulative allocation of Net Income to each Member pursuant to this Section 14(a)(i) equals the cumulative allocation of Net Loss to each Member pursuant to Section 14(b)(ii); and

(ii) Second, any remaining Net Income to the Members holding Common Interests *pro rata* in proportion to their respective Common Percentage Interests.

(b) Net Loss. Except as otherwise provided in this Section 14, Net Loss shall be allocated among the Members as follows:

(i) First, to the Members holding Common Interests *pro rata* in proportion to their positive Adjusted Capital Account balances until the Adjusted Capital Account balances of the Members holding Common Interests is reduced to zero; and

(ii) Second, any remaining Net Loss to the Members who bear the economic risk of loss in accordance with the Treasury Regulations.

(c) Special Allocations. The following special allocations shall be made in the following order:

(i) Minimum Gain Chargeback. Except as otherwise provided in Treasury Regulation Section 1.704-2(f), notwithstanding any other provision of this Section 14, if there is a net decrease in Minimum Gain during any Allocation Period, each Member shall be specially allocated items of Company income and gain for such Allocation Period (and, if necessary, subsequent Allocation Periods) in an amount equal to such Member's share of the net decrease in Minimum Gain, determined in accordance with Treasury Regulation Section 1.704-2(g). Allocations pursuant to the previous sentence shall be made in proportion to the respective amounts required to be allocated to each Member pursuant thereto. The items to be so allocated shall be determined in accordance with Treasury Regulation Sections 1.704-2(f)(6) and 1.704-2(j)(2). This Section 14(c)(i) is intended to comply with the minimum gain chargeback requirement in Treasury Regulation Section 1.704-2(f) and shall be interpreted consistently therewith.

(ii) Member Minimum Gain Chargeback. Except as otherwise provided in Treasury Regulation Section 1.704-2(i)(4), notwithstanding any other provision of this Section 14, if there is a net decrease in Member Nonrecourse Debt Minimum Gain attributable to a Member Nonrecourse Debt during any Allocation Period, each Member who has a share of the Member Nonrecourse Debt Minimum Gain attributable to such Member Nonrecourse Debt, determined in accordance with Treasury Regulation Section 1.704-2(i)(5), shall be specially allocated items of Company income and gain for such Allocation Period (and, if necessary, subsequent Allocation Periods) in an amount equal to such Member's share of the net decrease in Member Nonrecourse Debt, determined in accordance with Treasury Regulation Section 1.704-2(i)(4). Allocations pursuant to the previous sentence shall be made in proportion to the

respective amounts required to be allocated to each Member pursuant thereto. The items to be so allocated shall be determined in accordance with Treasury Regulation Sections 1.704-2(i)(4) and 1.704-2(j)(2). This Section 14(c)(ii) is intended to comply with the minimum gain chargeback requirement in Treasury Regulation Section 1.704-2(i)(4) and shall be interpreted consistently therewith.

(iii) Qualified Income Offset. In the event any Member unexpectedly receives any adjustments, allocations, or distributions described in Treasury Regulation Section 1.704-1(b)(2)(ii) *(d)(4)*, 1.704-1(b)(2)(ii) *(d)(5)* or 1.704-1(b)(2)(ii) *(d)(6)*, items of Company income and gain shall be specially allocated to such Member in an amount and manner sufficient to eliminate, to the extent required by the Treasury Regulation, the Adjusted Capital Account Deficit of such Member as quickly as possible; provided that an allocation pursuant to this Section 14(c)(iii) shall be made only if and to the extent that such Member would have an Adjusted Capital Account Deficit after all other allocations provided for in this Section 14 have been tentatively made as if this Section 14(c)(iii) were not in the Agreement.

(iv) Gross Income Allocation. In the event any Member has an Adjusted Capital Account Deficit at the end of any Allocation Period, such Member shall be specially allocated items of Company income and gain in the amount of such deficit as quickly as possible; provided that an allocation pursuant to this Section 14(c)(iv) shall be made only if and to the extent that such Member would have an Adjusted Capital Account Deficit after all other allocations provided for in this Section 14 have been made as if Section 14(c)(iii) and this Section 14(c)(iv) were not in the Agreement.

(v) Nonrecourse Deductions. Nonrecourse Deductions for any Allocation Period shall be specially allocated to the Members in proportion to their Percentage Interests.

(vi) Member Nonrecourse Deductions. Any Member Nonrecourse Deductions for any Allocation Period shall be specially allocated to the Member who bears the economic risk of loss with respect to the Member Nonrecourse Debt to which such Member Nonrecourse Deductions are attributable in accordance with Treasury Regulation Section 1.704-2(i)(1).

(vii) Section 754 Adjustments. To the extent Treasury Regulation Section 1.704-1(b)(2)(iv) *(m)(2)* or 1.704-1(b)(2)(iv) *(m)(4)* requires an adjustment to the adjusted tax basis of any Company asset pursuant to Code Section 734(b) or Code Section 743(b) to be taken into account in determining Capital Accounts as the result of a distribution to a Member in complete liquidation of its LLC Interest, the amount of such adjustment to Capital Accounts shall be treated as an item of gain (if the adjustment increases the basis of the asset) or loss (if the adjustment decreases such basis) and such gain or loss shall be specially allocated to the Members in accordance with Treasury Regulation Section 1.704-1(b)(2)(iv) *(m)(2)* or Treasury Regulation Section 1.704-1(b)(2)(iv) *(m)(4)*, as the case may be; provided, however, that for this purpose, the determination of the extent to which Treasury Regulation Section 1.704-1(b)(2)(iv) *(m)(2)* or 1.70-1(b)(2)(iv) *(m)(4)* requires an adjustment pursuant to Code Section 734(b) or Code

Section 743(b) to be taken into account in determining Capital Accounts shall be made after taking into account any adjustment to the Carrying Value of the Company's assets required in connection with the liquidating distribution pursuant to subparagraph (b) of the definition of "Carrying Value" in Section 1.

(d) Curative Allocations. The allocations set forth in Section 14(c) and Section 14(e) (the "Regulatory Allocations") are intended to comply with certain requirements of the Treasury Regulations. It is the intent of the Members that, to the extent possible, all Regulatory Allocations shall be offset either with other Regulatory Allocations or with special allocations of other items of Company income, gain, loss or deduction pursuant to this Section 14(d). Therefore, notwithstanding any other provision of this Section 14 (other than the Regulatory Allocations), the Manager shall make such offsetting special allocations of Company income, gain, loss or deduction in whatever manner it determines appropriate so that, after such offsetting allocations are made, each Member's Capital Account balance is, to the extent possible, equal to the Capital Account balance such Member would have had if the Regulatory Allocations were not part of the Agreement and all Company items were allocated pursuant to this Section 14 without regard to the Regulatory Allocations. In exercising its discretion under this Section 14(d), the Manager shall take into account future Regulatory Allocations that, although not yet made, are likely to offset other previously made Regulatory Allocations.

(e) Loss Limitation. Net Loss allocated pursuant to Section 14(b) and the items of loss or deduction allocated pursuant to Section 14(c) and Section 14(d) shall not exceed the maximum amount of Net Loss and items of loss or deduction that can be so allocated without causing any Member to have an Adjusted Capital Account Deficit at the end of any Allocation Period.

(f) Other Allocation Rules.

(i) Net Income, Net Loss and any other items of income, gain, loss or deduction shall be allocated to the Members pursuant to this Section 14 as of the last day of each Allocation Period.

(ii) In any cases in which it is necessary to determine the Net Income, Net Loss or any other items allocable to any period within an Allocation Period, Net Income and Net Loss and any such other items shall be determined on a daily, monthly, or other basis, as determined by the Manager using any permissible method under Code Section 706 and the Treasury Regulation thereunder.

(iii) The Members hereby agree to be bound by the provisions of this Section 14 in reporting their shares of Company income and loss for income tax purposes, except to the extent otherwise required by law.

(iv) Solely for purposes of determining each Member's share of the "excess nonrecourse liabilities" of the Company within the meaning of Treasury Regulation Section 1.752-3(a)(3), the manner in which the Members share excess nonrecourse liabilities for any taxable year shall be determined by the Manager using any permissible method provided under Treasury Regulation Section 1.752-3(a)(3); provided

that unless otherwise determined by the Manager, excess nonrecourse liabilities (within the meaning of Treasury Regulation Section 1.752-3(a)(3)) shall be allocated under the allocation method that (1) will, to the maximum extent possible, result in no Member recognizing taxable gain (or will minimize the taxable gain recognized) under Code Section 731 or otherwise as a result of any actual or deemed distribution to a Member, while (2) maximizing any Code Section 734(b) positive basis adjustment (or minimizing any Code Section 734(b) negative basis adjustment) resulting from any such actual distribution of property (the “Preferred Excess Nonrecourse Liability Allocation Method”). For purposes hereof, the Preferred Excess Nonrecourse Liability Allocation Method may be any method or combination of methods permitted by Treasury Regulation Section 1.752-3(a)(3), including the “additional method” of Treasury Regulation Section 1.752-3(a)(3), which allows excess nonrecourse liabilities to be allocated to a partner based on the amount of built-in gain that is allocable to such partner on Code Section 704(c) property (as defined in Treasury Regulation Section 1.704-3(a)(3)(ii)) or property for which reverse Code Section 704(c) allocations are applicable (as described in Treasury Regulation Section 1.704-3(a)(6)(i)) that is subject to a nonrecourse liability to the extent such built-in gain exceeds the gain described in Treasury Regulation Section 1.752-3(a)(2).

(g) Tax Allocations: Code Section 704(c).

(i) In accordance with Code Section 704(c) and the applicable Treasury Regulation thereunder, income, gain, loss, and deduction with respect to any property contributed to the capital of the Company before or after the Effective Time or any liability assumed by or taken subject to by the Company shall, solely for tax purposes, be allocated among the Members so as to take account of any variation between the adjusted basis of such property or the adjusted issue price (if any) of such liability to the Company, as the case may be, for federal income tax purposes and its initial Carrying Value.

(ii) In the event the Carrying Value of any Company asset or liability is adjusted pursuant to subparagraph (b) of the definition of “Carrying Value” in Section 1 and Section 14(b) or (c), subsequent allocations of income, gain, loss, and deduction with respect to such asset or liability shall take account of any variation between the adjusted basis of such asset or the adjusted issue price (if any) of such liability, as the case may be, for federal income tax purposes and its Carrying Value in the same manner as under Code Section 704(c) and the applicable Treasury Regulation thereunder.

(iii) For purposes of applying Section 704(c) to a contributed or revalued property or liability, the Manager may, except as otherwise provided herein, elect any permissible method under Section 704(c) of the Code and the Treasury Regulations thereunder; provided, however, that with respect to the adjustment to the Carrying Value of Company property and liabilities made in connection with the Additional Contributions, the Manager shall, unless otherwise agreed by the Members, elect “the traditional method with curative allocations” under Treasury Regulation Section 1.704-3(c).

(iv) Except as otherwise provided in this Agreement, all items of Company income, gain, loss, deduction, and any other allocations not otherwise provided for shall be divided among the Members in the same proportions as they share Net Income or Net Loss, as the case may be, for the Allocations Period.

(v) Allocations pursuant to this Section 14(g) are solely for purposes of federal, state, and local taxes and shall not affect, or in any way be taken into account in computing, any Member's Capital Account or share of Net Income, Net Loss other items, or distributions pursuant to any provision of this Agreement.

15. Capital Accounts.

(a) The Company shall maintain for each Member a Capital Account in accordance with the rules of Treasury Regulation Section 1.704-1(b)(2)(iv). Such Capital Account shall be (i) increased by (A) the Capital Contributions made by such Member to the Company pursuant to this Agreement, (B) the Net Income and items of Company income and gain (including income and gain exempt from tax) allocated to such Member pursuant to Section 14 and (C) the Fair Market Value of any Company Liability assumed or taken subject to by such Member, and (ii) decreased by (A) the amount of cash and the Fair Market Value of any property distributed to such Member pursuant to this Agreement (other than the Guaranteed Payment Amount) and (B) the Net Loss and items of Company deduction and loss (including expenditures of the Company that are neither deductible nor capitalized for federal income tax purposes) allocated to such Member pursuant to Section 14. In the event a Member transfers an LLC Interest in accordance with the terms of this Agreement, the transferee shall succeed to the Capital Account of the transferor to the extent it relates to the transferred LLC Interest.

(b) In accordance with the provisions of Treasury Regulation Sections 1.704-1(b)(2)(iv)(f) and 1.704-1(b)(2)(iv)(h)(2), immediately prior to a Member's contribution to the Company of more than a de minimis amount of cash or other property, or a Member's assumption of more than a de minimis amount of Company liabilities, in exchange for an interest in the Company, the issuance of an interest (other than a de minimis interest) in the Company in consideration of the performance of services, or the issuance of a Noncompensatory Option (other than an option for a de minimis interest), the Carrying Value of all Company property and liabilities shall be adjusted in accordance with subparagraph (b) of the definition of "Carrying Value" in Section 1 and the Capital Accounts of all Members shall be adjusted upward or downward to reflect any Unrealized Gain or Unrealized Loss attributable to Company property and liabilities, as if (i) the Unrealized Gain or Unrealized Loss with respect to such property and liabilities immediately prior to the contribution or assumption had been recognized on the sale of each such property and the satisfaction of each such liability at that time and (ii) the resulting items of Unrealized Gain or Unrealized Loss had been allocated among the Members pursuant to Section 14 as if such items were the only items of income, gain, loss, or deduction of the Company for an Allocation Period ending on the date of the contribution or assumption; provided, however, that in the event of the issuance of an interest in the Company pursuant to the exercise of a Noncompensatory Option where the right to share in Company capital represented by such interest differs from the consideration paid to acquire and exercise such option, the Carrying Value of each Company property immediately after the issuance of such interest shall be adjusted upward or downward to reflect any Unrealized Gain or Unrealized Loss attributable

to such Company property and the Capital Accounts of the Members shall be adjusted in a manner consistent with Treasury Regulation Section 1.704-1(b)(2)(iv)(s).

(c) In accordance with the provisions of Treasury Regulation Sections 1.704-1(b)(2)(iv)(f) and 1.704-1(b)(2)(iv)(h)(2), immediately prior to any distribution to a Member by the Company of more than a de minimis amount of money or other property, or the Company's assumption of more than a de minimis amount of a Member's individual liabilities, in exchange for an interest in the Company (including the liquidation of the Company within the meaning of Treasury Regulation Section 1.704-1(b)(2)(ii)(g)), the Manager may cause the Carrying Value of all Company property and liabilities to be adjusted in accordance with subparagraph (b) of the definition of "Carrying Value" in Section 1 and the Capital Accounts of all Members to be adjusted upward or downward to reflect any Unrealized Gain or Unrealized Loss attributable to Company property and liabilities, as if (i) the Unrealized Gain or Unrealized Loss with respect to such property and liabilities immediately prior to the distribution or assumption had been recognized on the sale of each such property and the satisfaction of each such liability at that time and (ii) the resulting items of Unrealized Gain or Unrealized Loss had been allocated among the Members pursuant to Section 14 as if such items were the only items of income, gain, loss, or deduction of the Company for an Allocation Period ending on the date of the distribution or assumption.

(d) In accordance with the provisions of Treasury Regulation Section 1.704-1(b)(2)(iv) (e) , immediately prior to any distribution to a Member of any Company property as part of a pro rata distribution to the Members, the Manager may cause the Carrying Value of the distributed Company property to be adjusted in accordance with subparagraph (c) of the definition of "Carrying Value" in Section 1 and the Capital Accounts of all Members to be adjusted upward or downward to reflect any Unrealized Gain or Unrealized Loss attributable to the distributed Company property, as if (i) the Unrealized Gain or Unrealized Loss with respect to such property immediately prior to the distribution had been recognized on the sale of such property at that time and (ii) such Unrealized Gain or Unrealized Loss had been allocated among the Members pursuant to Section 14 as if such items were the only items of income, gain, loss, or deduction of the Company for an Allocation Period ending on the date of the distribution.

(e) For purposes of computing the amount of any items of income, gain, loss or deduction to be reflected in the Members' Capital Accounts, rules analogous to those set forth in subparagraphs (a) through (e) of the definition of "Net Income" and "Net Loss" shall be applied.

16. Distributions.

(a) Non-Liquidating Distributions. Subject to the Manager's powers set forth in Section 10 hereof to determine the amount and timing of any distribution, any non-liquidating distributions shall be made to the Members in the following order of priority:

(i) First, Members holding Series A Preferred Interests shall be entitled to receive, when, as and if declared by the Manager, only out of funds legally available for the making of such distributions, cumulative cash distributions in an amount equal to the Series A Preferred Return with respect to each Series A Preferred Interest,

and no more, payable quarterly on the 1st day of February, May, August and November in each year (each, a “Distribution Payment Date”), beginning on November 1, 2013. Notwithstanding any provision hereof, any distribution otherwise payable on a Distribution Payment Date that is not a Business Day may be paid on the next succeeding Business Day with the same force and effect as if paid on such Distribution Payment Date and, if so paid, shall be deemed for all purposes to have been paid on such Distribution Payment Date. Any amount so payable on a Distribution Payment Date shall be payable in arrears with respect to the calendar quarter (or portion thereof) ending on the last day of such calendar quarter preceding such Distribution Payment Date (each such period, a “Distribution Period”), to the Members holding the Series A Preferred Interests on such Distribution Payment Date. Distributions on Series A Preferred Interests shall accrue and be cumulative from September 9, 2013. Any distribution or portion thereof payable on the Series A Preferred Interests in respect of any partial Distribution Period shall be computed on the basis of a 360-day year consisting of twelve 30-day months. Any distribution that accrues in respect of a Distribution Period but is not declared and paid on the relevant Distribution Payment Date as aforesaid shall cumulate and shall not be payable until such time, if any, as it is declared by the Manager out of legally available funds as aforesaid. No interest or distributions, or sum of money in lieu thereof, shall accrue or be payable in respect of any distribution payments on Series A Preferred Interests that may be in arrears. Holders of Series A Preferred Interests shall not be entitled to any distributions, whether payable in cash, securities or other property, other than distributions (if any) declared and payable on Series A Preferred Interests as specified in this Section 16(a)(1) (subject to the other provisions of the LLC Agreement) unless declared by the Manager. No distribution amount that accrues in respect of any Distribution Period shall be “in arrears” at any time on or prior to the corresponding Distribution Payment Date (or, if such day is not a Business Day, the next succeeding Business Day). Any distribution amount in arrears may be paid on any Business Day, whether or not a Distribution Payment Date, at any time at the election of the Manager, whereupon such amount shall no longer be “in arrears.”

(ii) Second, to the Members holding Common Interests in accordance with their relative Common Percentage Interests.

(b) Liquidating Distributions. Upon dissolution of the Company pursuant to Section 11, or any other voluntary or involuntary liquidation, dissolution or winding up of the affairs of the Company, the proceeds of such dissolution shall be used:

(i) First, to satisfy the debts and liabilities of the Company;

(ii) Second, to pay each Member holding Series A Preferred Interests an amount equal to the greater of (A) the Series A Preferred Interests Member’s Capital Account balance or (B) the aggregate Liquidation Preference for the Series A Preferred Interests held by such Member;

(iii) Third, any remaining proceeds shall be distributed to the Members in accordance with the positive balances in their Capital Account.

(c) Priority of Distributions.

(i) No distributions on the Series A Preferred Interests will be declared or paid or set apart for payment if such authorization, payment or setting apart for payment is restricted or prohibited by law or contract. Notwithstanding the foregoing, distributions with respect to the Series A Preferred Interests will accrue during (but only during) the relevant respective Distribution Period and, if not paid on the corresponding Distribution Payment Date, will thereupon cumulate, whether or not any of the foregoing restrictions exist, whether or not there are funds legally available for the payment thereof and whether or not they are declared (but no amount shall accrue on any cumulated distribution in arrears).

(ii) Unless accrued distributions on the Series A Preferred Interests have been, or contemporaneously are, declared and paid in full, or declared and a sum sufficient for the payment thereof in full is or has been set apart for such payment, for all past, completed Distribution Periods: (A) no distributions will be declared or paid, and no sums set apart for payment, upon any Common Interests (other than distributions payable in Common Interests); and (B) the Company shall not be permitted to make any transfer of cash or other property to any Member or affiliate of such Member, whether pursuant to a loan, equity distribution, sale, exchange or any other arrangement.

(d) Advance or Draw. Except as otherwise provided in any written agreement prepared in connection with a distribution by the Company, any non-liquidating distribution of money or other property made during a taxable year by the Company to a Member with respect to Common Interests held by such Member constitutes an advance or draw against the Member's distributive share of Company taxable income for such year; provided, however, that any such distribution that is made by the Company to a Member during a taxable year shall constitute a loan by the Company to such Member that must be repaid as soon as practicable to the extent that the amount of such distribution exceeds the Member's adjusted tax basis in its LLC Interest after taking into account its distributive share of the Company's taxable income for the current year. For purposes of the foregoing sentence, the amount of any distribution equals the sum of the amount of any distributed money and the fair market value of any distributed property.

17. Admission of Additional Members. Subject to Section 7(a), additional members of the Company may be admitted to the Company with the consent of the Manager.

18. Issuance of Additional LLC Interests. Subject to Section 7(a) and Section 8, Manager is hereby authorized to cause the Company from time to time to issue to Members or other persons additional LLC Interests in accordance with the terms hereof.

19. Personal Property. The LLC Interests shall for all purposes be personal property. No Member shall have any interest in specific property of the Company.

20. Tax Matters Representative.

(a) Mobility shall be designated and shall serve as the "tax matters partner" within the meaning of Section 6231(a)(7) of the Code (to the extent applicable for taxable years beginning before January 1, 2018) and as the "partnership representative" of the Company for

any tax period subject to the provisions of Section 6223 of the Code, as amended by the Revised Partnership Audit Procedures (in each such capacity, the “Tax Matters Representative” or “TMR”). Each Member hereby consents to such designation and agrees that, upon the request of the Manager, it will execute, certify, acknowledge, deliver, swear to, file and record at the appropriate public offices such documents as may reasonably be necessary or appropriate to evidence such consent. Without the consent of all the Members, the Tax Matters Representative may not elect to apply the Revised Partnership Audit Procedures to any taxable year beginning before January 1, 2018.

(b) In its capacity as Tax Matters Representative, Mobility shall represent the Company in any disputes, controversies or proceedings with the Internal Revenue Service or with any state, local, or non-U.S. taxing authority and is hereby authorized to take any and all actions that it is permitted to take by applicable law when acting in that capacity. The Members acknowledge and agree that it is the intention of the Members to minimize any obligations of the Company to pay taxes and interest in connection with any audit of the Company, including, if the Tax Matters Representative so determines, by means of elections under Section 6226 of the Code and/or the Members filing amended returns under Section 6225(c)(2) of the Code, in each case as amended by the Revised Partnership Audit Procedures. The Members agree to cooperate in good faith, including without limitation by timely providing information reasonably requested by the Tax Matters Representative and making elections and filing amended returns reasonably requested by the Tax Matters Representative, and by paying any applicable taxes, interest and penalties, to give effect to the preceding sentence. The Company shall make any payments it may be required to make under the Revised Partnership Audit Procedures and, in the Tax Matters Representative’s reasonable discretion, allocate any such payment among the current or former Members of the Company for the “reviewed year” to which the payment relates in a manner that reflects the current or former Members’ respective interests in the Company for that year and any other factors taken into account in determining the amount of the payment. To the extent payments are made by the Company that are allocable to a current Member in accordance with this Section 20(b), such amounts shall, at the election of the Tax Matters Representative, (i) be applied to and reduce the next distribution(s) otherwise payable to such Member under this Agreement or (ii) be paid by the Member to the Company within thirty (30) days of written notice from the Tax Matters Representative requesting the payment. In addition, if any such payment is allocable to a former Member, that Member shall pay over to the Company an amount equal to the amount of such payment within thirty (30) days of written notice from the Tax Matters Representative requesting the payment. The provisions contained in this Section 20(b) shall survive the dissolution of the Company and the withdrawal of any Member or the Transfer of any Member’s interest in the Company and shall apply to any current or former Member.

(c) The Company shall indemnify and reimburse the Tax Matters Representative for (i) all expenses, including legal and accounting fees, claims, liabilities, losses and damages incurred in connection with any administrative or judicial proceeding with respect to the tax liability of the Members or in connection with any audit of the Company’s income tax returns, except to the extent such expenses, claims, liabilities, losses and damages are attributable to the gross negligence or willful misconduct of the Tax Matters Representative and (ii) any taxes imposed on the Company or the Manager in respect of the Company’s operations or activities (other than income taxes payable in respect of profits properly allocated to Manager).

The payment of all such expenses to which the indemnification applies shall be made before any distributions pursuant to Section 16(a)(ii). Neither the Manager, nor any of its affiliates, nor any other person shall have any obligation to provide funds for such purpose. The taking of any action and the incurring of any expense by the Tax Matters Representative in connection with any such proceeding, except to the extent required by law, is a matter in the reasonable discretion of the Tax Matters Representative and the provisions on limitations of liability of the Manager and indemnification set forth in Section 24 of this Agreement shall be fully applicable to the Tax Matters Representative in its capacity as such.

21. Limited Liability. Except as otherwise provided by the Act, the debts, obligations and liabilities of the Company, whether arising in contract, tort or otherwise, shall be solely the debts, obligations and liabilities of the Company, and the Members and the Manager, if any, shall not be obligated personally for any such debt, obligation or liability of the Company solely by reason of being a member or manager of the Company.

22. Governing Law. THIS AGREEMENT SHALL BE GOVERNED BY, AND CONSTRUED UNDER, THE LAWS OF THE STATE OF DELAWARE, ALL RIGHTS AND REMEDIES BEING GOVERNED BY SAID LAWS, WITHOUT REGARD TO PRINCIPLES OF CONFLICT OF LAW.

23. Amendments. This Agreement may not be modified, altered, supplemented or amended except pursuant to a written agreement executed and delivered either by the Members holding Common Interests representing, in the aggregate, a majority in Common Percentage Interest or by the Manager; provided that any such amendment that adversely affects the Special Rights associated with any Series A Preferred Interests held by a Member or Members shall also be executed and delivered by the Member or Members holding a majority (in number) of the Series A Preferred Interests whose Special Rights are so affected.

24. Indemnification.

(a) The Manager shall not be liable, responsible or accountable in damages or otherwise to the Company, to any third party or to any Member for (i) any act performed or omission within the scope of the authority conferred on the Manager by this Agreement or otherwise except for the gross negligence, fraud or willful misconduct (including any willful violation of the terms of the Manager Certificate or this Agreement) of the Manager, (ii) the Manager's performance of, or failure to perform, any act on the reasonable reliance on advice of legal counsel to the Company, or (iii) the negligence, dishonesty or bad faith of any agent, consultant or broker of the Company selected, engaged or retained in good faith and with reasonable prudence. In any threatened, pending or completed action, suit or proceeding, the Manager shall, to the fullest extent permitted by law, be fully protected and indemnified and held harmless by the Company against all liabilities, obligations, losses, damages, penalties, actions, judgments, suits, proceedings, costs, expenses and disbursements of any kind or nature whatsoever (including, without limitation, reasonable attorneys' fees, costs of investigation, fines, judgments and amounts paid in settlement, actually incurred by the Manager in connection with such action, suit or proceeding) by virtue of its status as an indemnified party or with respect to any action or omission taken or suffered in good faith, other than liabilities and losses resulting from the gross negligence, fraud, breach of fiduciary duty or willful misconduct

(including any willful violation of the terms of the Certificate of Incorporation (or other governing instrument) of Manager or this Agreement) of the Manager. Expenses, including reasonable attorneys' fees, incurred by Manager in defending any such action, suit or proceeding shall be paid or reimbursed by the Company promptly upon demand and, if any such demand is made in advance of the final disposition of any such action, suit or proceeding, promptly upon receipt by the Company of an undertaking of Manager to repay such expenses if it shall ultimately be determined that Manager is not entitled to be indemnified by the Company. The indemnification provided by this Section 24 shall be recoverable only out of the assets of the Company, and no Member shall have any personal liability on account thereof. For purposes of this subsection (a), the term "Company" shall include any predecessor of the Company and any constituent entity (including any constituent of a constituent) absorbed by the Company in a consolidation or merger.

(b) (i) The Company shall indemnify to the full extent permitted by law (A) any person made or threatened to be made a party to any action, suit or proceeding, whether civil, criminal, administrative or investigative, by reason of the fact that such person or such person's testator or intestate is or was an officer of the Company or was a director, officer, member, stockholder, partner, incorporator or liquidator of a subsidiary of the Company or serves or served at the request of the Company any other enterprise as a director, officer, employee, member, stockholder, partner, incorporator or liquidator or in any other capacity, (B) the Manager to the extent of its indemnification payments under its bylaws, and (C) NCWS with respect to any payment made by it with respect to the Public Indebtedness. Expenses, including reasonable attorneys' fees, incurred by any such person in defending any such action, suit or proceeding shall be paid or reimbursed by the Company promptly upon demand by such person and, if any such demand is made in advance of the final disposition of any such action, suit or proceeding, promptly upon receipt by the Company of an undertaking of such person to repay such expenses if it shall ultimately be determined that such person is not entitled to be indemnified by the Company. The rights provided to any person by this provision shall be enforceable against the Company by such person, who shall be presumed to have relied upon it in serving or continuing to serve as an officer or in such other capacity as provided above. In addition, the rights provided to any person by this provision shall survive the termination of such person as any such officer of the Company or director, officer, member, stockholder, partner, incorporator or liquidator of a subsidiary of the Company and, insofar as such person served at the request of the Company as a director, officer, member, stockholder, partner, incorporator or liquidator of or in any other capacity for any other enterprise, shall survive the termination of such request as to service prior to termination of such request.

(ii) Notwithstanding anything contained in this subsection (b), except for proceedings to enforce rights provided in this subsection (b), the Company shall not be obligated under this subsection (b) to provide any indemnification or any payment or reimbursement of expenses to any officer or other person in connection with a proceeding (or part thereof) initiated by such person (which shall not include counterclaims or crossclaims initiated by others, or any claim to enforce rights to indemnification under this subsection (b) if it has been ultimately determined that the person making such indemnification claim is entitled to the claimed indemnification) unless the board of

directors of the Manager has authorized or consented to such proceeding (or part thereof) in a resolution adopted by it.

(iii) For purposes of this subsection (b), the term “Company” shall include any predecessor of the Company and any constituent entity (including any constituent of a constituent) absorbed by the Company in a consolidation or merger; the term “other enterprise” shall include any corporation, partnership, limited liability company, joint venture, trust, association or other unincorporated organization or other entity and any employee benefit plan; the term “officer”, when used with respect to the Company, shall refer to any officer of the Company or the Manager elected by or appointed pursuant to authority granted by the board of directors (or similar body) of the Manager pursuant to the bylaws (or other governing instrument) of the Manager, when used with respect to a subsidiary or other enterprise that is a corporation, shall refer to any person elected or appointed pursuant to the bylaws of such subsidiary or other enterprise or chosen in such manner as is prescribed by the bylaws of such subsidiary or other enterprise or determined by the board of directors of such subsidiary or other enterprise, and when used with respect to a subsidiary or other enterprise that is not a corporation or is organized in a foreign jurisdiction, the term “officer” shall include in addition to any officer of such entity, any person serving in a similar capacity or as the manager of such entity; service “at the request of the Company” shall include service as an officer or employee of the Company which imposes duties on, or involves services by, such officer or employee with respect to an employee benefit plan, its participants or beneficiaries; any excise taxes assessed on a person with respect to an employee benefit plan shall be deemed to be indemnifiable expenses; and action by a person with respect to an employee benefit plan which such person reasonably believes to be in the interest of the participants and beneficiaries of such plan shall be deemed to be action not opposed to the best interests of the Company.

(iv) Nothing in this subsection (b) shall limit the power of the Company or the Manager to provide rights of indemnification and to make payment and reimbursement of expenses, including attorneys’ fees, to officers, employees, agent or other persons otherwise than pursuant to this subsection (b).

(v) Payments made by the Company directly to attorneys representing persons entitled to indemnification under subsection (a) or (b) of this Section 24 (each an “Indemnified Party”), and payments made by the Company directly to claimants or other persons to discharge obligations of such persons that would be indemnifiable under subsection (a) or (b) of this Section 24 if paid by such persons, shall also be deemed to be indemnification payments.

(c) To the extent that, at law or in equity, an Indemnified Party has duties (including fiduciary duties) and liabilities relating thereto to the Company, to any Member or to any other Indemnified Party, an Indemnified Party acting under this Agreement shall not be liable to the Company or to any Member or to any other Indemnified Party for its good faith reliance on the provisions of this Agreement. The provisions of this Agreement, to the extent that they restrict the duties and liabilities of an Indemnified Party otherwise existing at law or in

equity, are agreed by the parties hereto to replace such other duties and liabilities of such Indemnified Party.

(d) No amendment of this Section 24 shall impair the rights of any person arising at any time with respect to events occurring prior to such amendment.

25. Severability. The provisions of this Agreement shall be deemed severable and the invalidity or unenforceability of any provision shall not affect the validity or enforceability of the other provisions hereof. If any provision of this Agreement, or the application thereof to any Person or any circumstance, is invalid or unenforceable, (a) a suitable and equitable provision shall be substituted therefore in order to carry out, so far as may be valid and enforceable, the intent and purpose of such invalid or unenforceable provision and (b) the remainder of this Agreement and the application of such provision to other Persons or circumstances shall not be affected by such invalidity or unenforceability, nor shall such invalidity or unenforceability affect the validity or enforceability of such provision, or the application thereof, in any other jurisdiction.

26. Counterparts. For the convenience of the Members, this Agreement may be executed in any number of counterparts, each of which shall be deemed to be an original and all of which shall together constitute the same agreement.

27. Headings; Recitals. All section headings and the recitals herein are for convenience of reference only and are not part of this Agreement, and no construction or reference shall be derived therefrom.

28. Entire Agreement; Waiver. This Agreement (including any exhibits and schedules hereto) supersedes all prior agreements, written or oral, among the parties hereto with respect to the subject matter hereof and thereof and contains the entire agreement among the parties with respect to the subject matter hereof and thereof. No waiver of any provisions hereof by any party hereto shall be deemed a waiver of any other provisions hereof by any such party, nor shall any such waiver be deemed a continuing waiver of any provision hereof by such party.

29. Third Party Beneficiaries. **NOTHING IN THIS AGREEMENT, EXPRESS OR IMPLIED, IS INTENDED TO CONFER UPON ANY PERSON NOT A MEMBER ANY RIGHTS OR REMEDIES OF ANY NATURE WHATSOEVER UNDER OR BY REASON OF THIS AGREEMENT (EXCEPT TO THE EXTENT SPECIFICALLY PROVIDED IN SECTIONS 24 AND 30) AND THE MANAGER SHALL HAVE NO DUTY OR OBLIGATION TO ANY CREDITOR OF THE COMPANY TO REQUEST THE MEMBERS TO MAKE ADDITIONAL CONTRIBUTIONS TO THE CAPITAL OF THE COMPANY.**

30. Exculpation. Notwithstanding any other terms of this Agreement, whether express or implied, or obligation or duty at law or in equity, no Indemnified Party shall be liable to the Company or any member or manager for any act or omission (in relation to the Company, this Agreement, any related document or any transaction contemplated hereby or thereby) taken or omitted by an Indemnified Person in the belief that such act or omission is in or is not contrary to the best interests of the Company and is within the scope of authority granted to such

Indemnified Party by this Agreement, provided that such act or omission does not constitute willful misfeasance, gross negligence or bad faith of such Indemnified Party.

[The remainder of this page intentionally left blank. Signatures on following page.]

IN WITNESS WHEREOF, the undersigned, intending to be legally bound hereby, have duly executed this Agreement (which may be in counterparts) as of the date first above written.

AS MEMBERS:

AS MANAGER:

New Cingular Wireless Services, Inc.

AT&T Mobility Corporation

By: _____
Name: George B. Goeke
Title: Treasurer

By: _____
Name: George B. Goeke
Title: Treasurer

AT&T Mobility LLC

By: AT&T Mobility Corporation,
its sole Manager

By: _____
Name: George B. Goeke
Title: Treasurer

AT&T Corp.

By: _____
Name: Julianne K. Galloway
Title: Chief Financial Officer and Treasurer

BellSouth Mobile Data, Inc.

By: _____
Name: George B. Goeke
Title: Treasurer

**JP Morgan Chase Bank, N.A., as trustee of the
SBC Master Pension Trust**

By: _____
Name: _____
Title: _____

SCHEDULE A

MEMBERS

Common Interest Members

Member	Common Interests	Common Percentage Interest
NCWS	127,005,486	18.2870222%
Mobility	517,961,360	74.5792265%
BSMD	36,823,564	5.3020806%
<u>AT&T Corp.</u>	<u>12,721,165</u>	<u>1.8316707%</u>
	<u>680,786,698</u>	<u>100.0000000%</u>

Series A Preferred Interest Member

Member	Series A Preferred Interests
SBC Master Pension Trust	320,000,000

*Schedule A to
Fourth Amended and Restated Limited Liability Company Agreement of AT&T Mobility II LLC*

**FIRST AMENDMENT TO THE
FOURTH AMENDED AND RESTATED
LIMITED LIABILITY COMPANY AGREEMENT
OF
AT&T MOBILITY II LLC**

This First Amendment (the “First Amendment”) to the Fourth Amended and Restated Limited Liability Company Agreement is entered into this 23 day of October, 2018 and effective as of the date set forth below, by AT&T Mobility Corporation, a Delaware corporation, as the manager (the “Manager”) of AT&T Mobility II LLC (the “Company”) pursuant to Section 22 of the Existing Agreement (defined below).

WHEREAS, the Company is governed by the Fourth Amended and Restated Limited Liability Company Agreement of AT&T Mobility II LLC, with an effective date of October 15, 2018 (the “Existing Agreement”);

WHEREAS, the Third Amended and Restated Limited Liability Company Agreement of the Company contained two amendments titled “Fifth Amendment”, one of which was dated effective April 30, 2018 (the “April Amendment”) and one of which was dated effective October 15, 2018 (the “October Amendment”);

WHEREAS, the April Amendment updated Schedule A to reflect a distribution to New Cingular Wireless Services, Inc. on April 30, 2018;

WHEREAS, as a result of scrivener’s error, the April Amendment was not incorporated into the Existing Agreement, resulting in Schedule A of the Existing Agreement not reflecting the current ownership of the Company; and

WHEREAS, the Manager desires to amend Schedule A of the Existing Agreement to incorporate the current ownership of the Company as set forth in the April Amendment, and does hereby adopt this First Amendment as an amendment to the Existing Agreement.

NOW THEREFORE, for good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the parties hereby agree as follows:

1. Amendments. The Schedule to the Existing Agreement entitled, **SCHEDULE A – MEMBERS** shall be deleted in its entirety and replaced by **SCHEDULE A – MEMBERS**, attached hereto, which sets forth the ownership of the Company as in effect on October 15, 2018.
2. Full Force and Effect. Except as amended by this First Amendment, the Existing Agreement shall continue in full force and effect.
3. Counterparts. This First Amendment may be executed in one or more counterparts, each of which shall constitute an original and all of which when taken together shall constitute one binding agreement.

The remainder of this page intentionally left blank.

IN WITNESS WHEREOF , the undersigned has caused this First Amendment to be executed by its duly authorized representative.

MANAGER:

AT&T MOBILITY CORPORATION

By: _____

Name: George B. Goeke

Its: Treasurer

*Signature Page to First Amendment to
Fourth Amended and Restated Limited Liability Company Operating Agreement of AT&T Mobility II LLC*

SCHEDULE A

MEMBERS

Common Interest Members

Member	Common Interests	Common Percentage Interest
NCWS	126,874,258	18.2715796%
Mobility	517,961,360	74.5933208%
BSMD	36,823,564	5.3030827%
AT&T Corp.	12,721,165	1.8320169%
	<hr/>	<hr/>
	694,380,347	100.0000000%

Series A Preferred Interest Member

Member	Series A Preferred Interests
SBC Master Pension Trust	320,000,000

**SECOND AMENDMENT TO THE
FOURTH AMENDED AND RESTATED
LIMITED LIABILITY COMPANY AGREEMENT
OF
AT&T MOBILITY II LLC**

This Second Amendment (the “Second Amendment”) to the Fourth Amended and Restated Limited Liability Company Agreement is entered into effective as of January 1, 2019 by AT&T Mobility Corporation, a Delaware corporation, as the manager (the “Manager”) of AT&T Mobility II LLC (the “Company”) pursuant to Paragraph 23 of the Existing Agreement (defined below).

WHEREAS, the Company is governed by the Fourth Amended and Restated Limited Liability Company Agreement of AT&T Mobility II LLC, with an effective date of October 15, 2018, amended as of October 23, 2018 (the “Existing Agreement”);

WHEREAS, on January 1, 2019, New Cingular Wireless Services, Inc. (“NCWS”) made a capital contribution of all of its 18.2715796% outstanding membership interest of the Company to AT&T Mobility LLC; and

WHEREAS, the Manager desires to amend **Schedule A** of the Existing Agreement to reflect the new Percentage Interest of the Members and does hereby adopt this Second Amendment as an amendment to the Existing Agreement;

NOW THEREFORE, for good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the parties hereby agree as follows:

1. Amendment. The Schedule to the Existing Agreement entitled, **SCHEDULE A – MEMBERS** shall be deleted in its entirety and replaced by **SCHEDULE A – MEMBERS**, attached hereto, which sets forth the final Percentage Interest of the Common Interest Members and Series A Preferred Interest Member as of 11:59 p.m. Eastern time on January 1, 2019.
2. Full Force and Effect. Except as amended by this Second Amendment, the Existing Agreement shall continue in full force and effect.
3. Counterparts. This Second Amendment may be executed in one or more counterparts, each of which shall constitute an original and all of which when taken together shall constitute one binding agreement.

The remainder of this page intentionally left blank.

IN WITNESS WHEREOF, the undersigned has caused this Second Amendment to be executed by its duly authorized representative.

MANAGER:

AT&T MOBILITY CORPORATION

By: /s/ Jackie A. Begue

Name: Jackie A. Begue

Title: Assistant Secretary

*[Signature Page to Second Amendment to
Fourth Amended and Restated Limited Liability Company Operating Agreement of
AT&T Mobility II LLC]*

SCHEDULE A

MEMBERS

Common Interest Members

Member	Common Interests	Common Percentage Interest
Mobility	644,835,618	92.8649006%
BSMD	36,823,564	5.3030827%
AT&T Corp.	12,721,165	1.8320168%
	<hr/>	<hr/>
	694,380,346	100.0000000%

Series A Preferred Interest Member

Member	Series A Preferred Interests
SBC Master Pension Trust	320,000,000

**AMENDED AND RESTATED
REGISTRATION RIGHTS AGREEMENT**

by and among

AT&T INC.

and

THE SBC MASTER PENSION TRUST

and

BROCK FIDUCIARY SERVICES LLC

DATED AS OF OCTOBER 15, 2018

TABLE OF CONTENTS

	<u>Page</u>
ARTICLE I DEFINITIONS	2
Section 1.1 Definitions	2
Section 1.2 Other Definitional Provisions	7
ARTICLE II REPRESENTATIONS AND WARRANTIES	7
Section 2.1 Representations and Warranties of AT&T	7
Section 2.2 Representations and Warranties of the Investment Manager	8
ARTICLE III TRANSFER RESTRICTIONS	8
Section 3.1 Transfer Restrictions	8
Section 3.2 Legends on Holder Shares; Securities Act Compliance	9
ARTICLE IV REGISTRATION RIGHTS	11
Section 4.1 Registration Statement	11
Section 4.2 Reserved	17
Section 4.3 Termination of Registration Obligation	17
Section 4.4 Registration Procedures	17
Section 4.5 Registration Expenses	24
Section 4.6 Indemnification; Contribution	24
Section 4.7 Indemnification Procedures	26
Section 4.8 Repurchase of Shares	27
Section 4.9 Right of First Offer	27
Section 4.10 Repurchase	27
Section 4.11 Cooperation During Non-S-3 Periods	28
ARTICLE V MISCELLANEOUS	28
Section 5.1 Termination	28
Section 5.2 Injunctive Relief	28
Section 5.3 Assignments	29
Section 5.4 Amendments; Waiver	29
Section 5.5 Notices	29
Section 5.6 GOVERNING LAW; FORUM SELECTION	31
Section 5.7 WAIVER OF JURY TRIAL	31
Section 5.8 Interpretation	31

Section 5.9	Scope of Agreement	31
Section 5.10	No Third Party Beneficiaries	32
Section 5.11	Severability	32
Section 5.12	Counterparts	32
Section 5.13	Effectiveness	32

REGISTRATION RIGHTS AGREEMENT, dated as of October 15, 2018 (this “Agreement”), by and among (i) AT&T Inc., a Delaware corporation (the “AT&T”), (ii) Brock Fiduciary Services LLC (the “Investment Manager”), as named fiduciary and investment manager, with respect to the AT&T Pension Benefit Plan (“AT&T Plan”), a participating plan in the SBC Master Pension Trust (“Trust”), acting on its own behalf and as investment manager on behalf of the Trust, (iii) the Trust, as a Holder (as defined below), and (iv) any additional or substitute Holders that become a party to this Agreement in accordance with and pursuant to Section 5.3(b) hereof.

WITNESSETH:

WHEREAS, on September 9, 2013, AT&T Mobility II, LLC, an indirect wholly owned subsidiary of AT&T (“AT&T Mobility”), issued 320 million cumulative perpetual preferred membership interests, Series A (each a “Preferred Interest” and, collectively, the “Preferred Interests”) to AT&T pursuant and subject to the terms and conditions of that certain Second Amended and Restated Limited Liability Company Agreement of AT&T Mobility (the “Second LLC Agreement”);

WHEREAS, AT&T entered into the Contribution Agreement (the “Contribution Agreement”), effective as of September 9, 2013, by and among the Investment Manager, the Trustee, AT&T and AT&T Mobility, providing for an in-kind contribution by AT&T to the AT&T Plan of the Preferred Interests, and the LLC Agreement was amended and restated in connection therewith (the “Third LLC Agreement”)

WHEREAS, the Contribution Agreement and the Third LLC Agreement, as thereafter amended, are being amended and restated, effective as of the date hereof, to provide, among other things, for the transferability of the Preferred Interests (such Fourth Amended and Restated Limited Liability Company Agreement, as the same may be amended from time to time, the “Fourth LLC Agreement” and such Amended and Restated Contribution Agreement, as the same may be amended from time to time, the “Amended Contribution Agreement,” respectively);

WHEREAS, pursuant to the Fourth LLC Agreement, AT&T Mobility has the right to purchase all or any portion of the Preferred Interests from the Trust in one or more transactions as provided in Section 8(e) thereof (such right, as so provided in the Fourth LLC Agreement, the “Redemption Option”); and pursuant to the Fourth LLC Agreement and the Amended Contribution Agreement, the Trust has the right to require AT&T Mobility or AT&T to purchase all or a portion of the Preferred Interests, from time to time, from the Trust as provided in Section 8(e) and Section 7 thereof, respectively (such rights, as so provided in the Fourth LLC Agreement and Amended Contribution Agreement, the “Put Option”);

WHEREAS, pursuant to the Fourth LLC Agreement and Amended Contribution Agreement, AT&T Mobility and AT&T have the right, in their sole discretion, to pay the purchase price for any Preferred Interests purchased pursuant to the Put Option or the Redemption Option, in whole or in part, by delivering shares of Common Stock to the Trust (or any substitute Members of AT&T Mobility) as provided therein;

WHEREAS, in connection with the foregoing, the parties hereto wish to amend and restate this Agreement governing the rights and obligations of the parties with respect to registration rights, transfers and other matters relating to shares of Common Stock (if any) that may be delivered to the Trust (or any substitute Members of AT&T Mobility who become Holders hereunder) pursuant to the Redemption Option or the Put Option.

NOW, THEREFORE, in consideration of the mutual covenants and agreements set forth herein and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the parties hereto agree as follows:

ARTICLE I

DEFINITIONS

Section 1.1 Definitions. As used in this Agreement, the following terms shall have the meanings indicated below:

“144 Notice” shall have the meaning set forth in Section 3.2(e).

“Affiliate” shall mean, with respect to any Person, any other Person that directly, or indirectly through one or more intermediaries, Controls, is Controlled by or is under Common Control with that Person.

“Agreement” shall have the meaning set forth in the Preamble.

“Amended Contribution Agreement” shall have the meaning set forth in the Recitals.

“AT&T” shall have the meaning set forth in the Preamble.

“AT&T Mobility” shall have the meaning set forth in the Recitals.

“AT&T Plan” shall have the meaning set forth in the Preamble.

“Beneficially Own” shall mean, with respect to any securities, having “beneficial ownership” of such securities within the meaning of paragraph (a) of Rule 13d-3 under the Exchange Act (as such rule is in effect on the date of this Agreement).

“Blackout Period” shall have the meaning set forth in Section 4.1(f).

“Board” shall mean, as of any date, the Board of Directors of AT&T in office on that date.

“Business Day” shall mean any day other than a Saturday, Sunday, federal holiday or a day on which banks in the City of New York are authorized or obligated by law to close.

“Claim Notice” shall have the meaning set forth in Section 4.7(a).

“Claims” shall have the meaning set forth in Section 4.6(a).

“Common Stock” shall mean the common stock, \$1.00 par value per share, of AT&T and any successor equity securities issued in lieu thereof by any successor of AT&T.

“Company Indemnified Party” shall have the meaning set forth in Section 4.6(b).

“Confidential Information” shall have the meaning set forth in Section 4.4(f).

“Contribution Agreement” shall have the meaning set forth in the Recitals.

“Control” (including, with correlative meanings, “Controlled by” and “under Common Control with”) shall mean the possession, direct or indirect, of the power to direct or cause the direction of management or policies of a Person, whether through ownership of securities, by contract or otherwise.

“Delivery Date” means any date on which shares of Common Stock are issued and first registered in the name of any Holders (or their respective nominees, as the case may be) on the books and records of AT&T or its transfer agent, in each case pursuant to the Redemption Option or the Put Option.

“Demand Request” shall have the meaning set forth in Section 4.1(b).

“Director” shall mean any member of the Board.

“Effective Period” shall have the meaning set forth in Section 4.4(a)(iii).

“Encumbrance” shall mean any lien, pledge, charge, claim, encumbrance, security interest, option, mortgage, easement or other restriction or third-party right of any kind, including any right of first refusal or restriction on voting.

“Exchange Act” shall mean the United States Securities Exchange Act of 1934, as amended from time to time, and the relevant rules and regulations promulgated by the SEC from time to time thereunder.

“Expiration Date” shall have the meaning set forth in Section 4.1(a)(v).

“Fourth LLC Agreement” shall have the meaning set forth in the Recitals.

“Holder” or “Holders” shall mean (i) the Trust, the sole initial Holder hereunder, and (ii) any substitute Members of AT&T Mobility (or subsequent substitute Members thereof) that have been duly admitted to such company pursuant to Section 8(c) of the Fourth LLC Agreement and that have executed this Agreement as required by Section 8(c)(ii) thereof and Section 5.3(b) hereof.

“Holder Indemnified Parties” shall have the meaning set forth in Section 4.6(b).

“Holder Shares” shall mean the shares of Common Stock issued and registered in the name of a Holder (or its nominee) on any Delivery Date pursuant to the Redemption Option

or the Put Option and any shares of Common Stock or other securities issued in respect of or into which such shares of Common Stock shall be converted in connection with any stock splits, reverse stock splits, stock dividends or distributions, combinations or any similar recapitalizations on or after such Delivery Date.

“Indemnified Party” shall mean any Company Indemnified Party, the Holder Indemnified Parties or Underwriter Indemnified Party, as the context may require.

“Indemnifying Party” shall have the meaning set forth in Section 4.7.

“Investment Manager” shall have the meaning set forth in the Recitals.

“Last Option Date” means the Delivery Date for Common Stock issued pursuant to an exercise of the Redemption Option or the Put Option (if any) after which neither the Redemption Option nor the Put Option is exercisable pursuant to its terms (e.g., because all Preferred Interests have been repurchased under the Fourth LLC Agreement or Amended Contribution Agreement or are otherwise no longer beneficially owned by a Holder).

“Majority in Interest of the Holders” means Holders of more than 50% of Registrable Securities then outstanding (or, as the context may require, prior to the initial Delivery Date, Members of AT&T Mobility holding Preferred Interests that would represent, upon delivery in connection with a Put Option or Redemption Option, as the case may be, a Majority in Interest of the Holders).

“Market Value” shall mean, as of any date, the average of the daily closing prices per share of Common Stock during the regular trading sessions on the NYSE (or on the principal securities exchange or interdealer quotation system on which Common Stock is then listed or quoted) for each of the 20 full trading days immediately preceding (but not including) such date.

“Non-Shelf Extension Period” shall have the meaning set forth in Section 4.1(a)(vii).

“Non-Shelf Factor” shall have the meaning set forth in Section 4.1(a)(vii).

“Non-Shelf Notice” shall have the meaning set forth in Section 4.1(a)(vi).

“Non-WKSI Extension Period” shall have the meaning set forth in Section 4.1 (a)(iii).

“Non-WKSI Factor” shall have the meaning set forth in Section 4.1(a)(iii).

“Organizational Documents” shall mean, with respect to any Person, such Person’s articles or certificate of association, incorporation, formation or organization, by-laws, limited liability company agreement, partnership agreement or other constituent document or documents, or with respect to any trust, such trust’s indenture, each in its currently effective form as amended from time to time.

“Person” shall mean any individual, corporation (including not-for-profit), general or limited partnership, limited liability company, joint venture, estate, trust, association, organization, Governmental Entity or other entity of any kind or nature.

“Preferred Interests” shall have the meaning set forth in the Recitals.

“Put Option” has the meaning set forth in the Recitals, as the same may be amended from time to time.

“Redemption Option” has the meaning set forth in the Recitals, as the same may be amended from time to time.

“Registrable Shares” shall mean, at any time, the Holder Shares that are then registered in the name of a Holder (or its nominee) and Beneficially Owned by such Holder. For the avoidance of doubt, the Registrable Shares shall not include any Preferred Interests or any rights of the Trust under the Contribution Agreement, including any right to receive Common Stock thereunder.

“Registration Period” means the period from the first Delivery Date (if any) to but excluding the Termination Date.

“Registration Trigger” shall have the meaning set forth in Section 4.1(a)(i).

“Renewal Shelf Registration Statement” shall have the meaning set forth in Section 4.1(a)(v).

“Repurchase Period” shall mean the 90 day period that begins on the date of the receipt by AT&T of written notice from the Holder (or Holders) with respect to its (or their) option under Section 4.1(a)(iv), 4.1(a)(viii), 4.1(e)(ii), or 4.10 of this Agreement.

“Restricted Share Repurchases” means repurchases of Common Stock by AT&T pursuant to, and in accordance with: (a) any publicly announced, broad-based share repurchase programs; (b) any accelerated share repurchase programs or similar structured repurchase programs; or (c) any issuer tender offers conducted by AT&T as issuer. For purposes of clarity, Restricted Share Repurchases shall not include, among other things: (x) any privately-negotiated repurchases; or (y) any repurchases or deemed repurchases pursuant to equity plans or equity awards issued by AT&T.

“S-3 Eligible” shall have the meaning set forth in Section 4.1(c).

“Sale Window” shall mean the period of time (a) beginning 24 hours following the filing or furnishing of AT&T’s quarterly or annual earnings release on Form 8-K (or any successor form) with the SEC for the most recently completed fiscal quarter or fiscal year, as the case may be, and (b) ending at 5:00 p.m. ET on the 30th calendar day following the filing or furnishing of AT&T’s quarterly or annual earnings release on Form 8-K (or any successor form, or, in the event such earnings release is not released, the Form 10-K or 10-Q, as applicable) with the SEC for the most recently completed fiscal quarter or fiscal year; provided that any Sale Window may be extended or supplemented with AT&T’s prior written consent.

“SEC” shall mean the United States Securities and Exchange Commission or any relevant successor agency.

“Second LLC Agreement” shall have the meaning set forth in the Recitals.

“Securities Act” shall mean the United States Securities Act of 1933, as it may be amended from time to time, and the relevant rules and regulations promulgated by the SEC from time to time thereunder.

“Shelf Takedown” shall have the meaning set forth in Section 4.1(b).

“Subsidiary” shall mean, with respect to any Person, any other entity (i) whose securities or other ownership interests, having by their terms the power to elect a majority of the board of directors or other Persons performing similar functions, are owned or controlled, directly or indirectly, by such Person, (ii) whose business and policies such Person has the power, directly or indirectly, to direct, or (iii) of which 50% or more of the securities, partnership or other ownership interests are owned, directly or indirectly, by such Person.

“Termination Date” shall have the meaning set forth in Section 4.3.

“Third LLC Agreement” shall have the meaning set forth in the Recitals.

“Transfer” shall mean any direct or indirect sale, transfer, assignment, pledge, hypothecation, mortgage, license, gift, creation of a security interest in or lien on, placement in trust (voting or otherwise), encumbrance or other disposition to any Person, including those by way of spin-off, hedging or derivative transactions (including by way of any short sale by another person in connection therewith) or otherwise.

“Trust Agreement” shall mean the amended and restated SBC Master Pension Trust dated February 1, 2012, as the same may be amended from time to time.

“Trust” shall have the meaning set forth in the Preamble.

“Trustee” shall mean JPMorgan Chase Bank, N.A. and shall include any successor trustee for the AT&T Plan and Trust.

“Unavailable S-3” shall have the meaning set forth in Section 4.1(a)(vi).

“Underwriter Indemnified Party” shall have the meaning set forth in Section 4.6(b).

“Underwritten Offering” shall mean any fixed-price firm-commitment underwritten offering.

“WKSI” shall mean a “well-known seasoned issuer” as such term is defined in Rule 405 promulgated under the Securities Act.

“WKSI Extension Period” shall have the meaning set forth in Section 4.1(a)(ii).

“WKSI Factor” shall have the meaning set forth in Section 4.1(a)(ii).

Section 1.2 Other Definitional Provisions. Unless the express context otherwise requires:

- (a) the words “hereof”, “herein”, and “hereunder” and words of similar import, when used in this Agreement, shall refer to this Agreement as a whole and not to any particular provision of this Agreement;
- (b) the terms defined in the singular have a comparable meaning when used in the plural, and vice versa;
- (c) any reference herein to “Dollars” and “\$” are to United States Dollars;
- (d) any references herein to a specific Section, Schedule, Annex or Exhibit shall refer, respectively, to Sections, Schedules, Annexes or Exhibits of this Agreement;
- (e) wherever the word “include”, “includes” or “including” is used in this Agreement, it shall be deemed to be followed by the words “without limitation”;
- (f) references herein to any gender includes the other gender;
- (g) unless otherwise specified, any law, rule or statute defined or referred to herein means such law, rule or statute (including any successor thereto) as it may be amended from time to time; and
- (h) unless the context otherwise indicates, all rights of the Trust under this Agreement shall be exercised, and all actions to be taken by it hereunder shall be performed or taken on its behalf by the Investment Manager. The obligations of the Trust hereunder shall be binding upon the Trustee, not personally but solely in its capacity as directed trustee of the SBC Master Pension Trust, in which the AT&T Plan is a participating plan. All notices to the Trust shall be deemed delivered if so delivered to the Investment Manager, and AT&T may rely on any and all actions taken by the Investment Manager as if taken by the Trust. In the event of the termination or resignation of the Investment Manager, Section 17 of the Amended Contribution Agreement shall apply to this Agreement *mutatis mutandis*.

ARTICLE II

REPRESENTATIONS AND WARRANTIES

Section 2.1 Representations and Warranties of AT&T. AT&T represents and warrants to the Holders as of the date hereof that:

- (a) AT&T is a corporation duly organized, validly existing and in good standing under the laws of the State of Delaware.
- (b) AT&T has all requisite power and authority and has taken all action necessary in order to execute and deliver this Agreement and to perform its obligations

hereunder. The execution and delivery by AT&T of this Agreement and the performance of its obligations hereunder have been duly authorized by all necessary action of AT&T. This Agreement has been duly executed and delivered by AT&T and, assuming the due authorization, execution and delivery of this Agreement by a Holder (and, in the case of the Trust (so long as the Trust remains a Holder), the Investment Manager), constitutes the legal, valid and binding obligation of AT&T, enforceable against AT&T in accordance with its terms, except as limited by applicable bankruptcy, insolvency, fraudulent transfer, reorganization, moratorium and similar laws affecting the enforcement of creditors' rights generally or, as to enforceability, by general equitable principles.

(c) The execution and delivery of this Agreement by AT&T and the performance of its obligations hereunder will not constitute or result in (i) a breach or violation of, or a default under, the Organizational Documents of AT&T, (ii) a breach or violation of, a termination (or right of termination) or default under, the creation or acceleration of any obligations under, or the creation of an Encumbrance on any of the assets of AT&T (with or without notice, lapse of time or both) pursuant to, any agreement, lease, license, contract, note, mortgage, indenture, arrangement or other obligation binding upon AT&T, or (iii) conflict with, breach or violate any law applicable to AT&T or by which its properties are bound or affected, except, in the case of clause (ii) or (iii) above, for any breach, violation, termination, default, creation or acceleration that would not, individually or in the aggregate, reasonably be likely to impair the ability of AT&T to perform its obligations under this Agreement.

Section 2.2 Representations and Warranties of the Investment Manager. The Investment Manager represents and warrants to AT&T as of the date hereof that Brock Fiduciary Services LLC has been duly appointed and is serving as the Investment Manager for the Trust and, in that capacity, acknowledges and affirms its statements in Section 3 of the Amended Contribution Agreement.

ARTICLE III

TRANSFER RESTRICTIONS

Section 3.1 Transfer Restrictions.

(a) A Holder shall not (and, in the case of the Trust (so long as the Trust remains a Holder), the Investment Manager shall not cause the Trust to) make any Transfer of any Holder Shares other than in accordance with this Agreement. No Transfer of Holder Shares in violation of this Agreement, including Article III hereof, or in violation of any restrictive legends (or comparable notations or other arrangements contemplated hereby), shall be made or recorded on the books and records of AT&T or its transfer agent and any such Transfer shall be void and of no effect. Upon completion of any Transfer of any Holder Shares, the Holder (or the Investment Manager on behalf of the Trust) shall notify AT&T and its transfer agent in writing of the number of Holder Shares so Transferred. The parties acknowledge and agree that the Investment Manager may direct the Trustee to enter into any agreements, incur reasonable costs on behalf of the Trust, or pledge or hypothecate assets of the Trust (except for the Preferred Interests or Holder Shares) in order to carry out interest rate and credit defaults swap transactions, and that any such transactions shall not be deemed to be a Transfer (either direct or

indirect) of the Preferred Interests or the Holder Shares. Notwithstanding the foregoing, under no circumstances shall any Holder engage in hedging of, or any derivative transaction with respect to, any securities issued by AT&T (which, for the avoidance of doubt, shall not include the Preferred Interests).

(b) No Holder Shares shall be Transferred except pursuant to an effective registration statement under the Securities Act as provided in this Agreement or in compliance with an available exemption from the registration requirements of the Securities Act, and in each case in compliance with the registration requirements of (or any available exemptions from) any applicable state or other securities laws. In addition, except for any Transfer during a Sales Window (i) pursuant to an Underwritten Offering or (ii) pursuant to any other fixed-price offering (including any such offering not being made pursuant to an effective registration statement), in each case, in compliance with the provisions of this Agreement, no Transfer shall be part of a transaction that, in the reasonable judgment of AT&T, would be a “distribution” within the meaning of Regulation M under the Exchange Act without AT&T’s prior written consent.

Section 3.2 Legends on Holder Shares; Securities Act Compliance.

(a) Each share certificate representing Holder Shares shall bear the following or substantially similar legends (and comparable notations or other arrangements will be reflected in the books and records of AT&T or its transfer agent with respect to any uncertificated Holder Shares):

“THE SHARES REPRESENTED BY THIS CERTIFICATE HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED, OR UNDER ANY OTHER APPLICABLE SECURITIES LAWS AND MAY NOT BE SOLD, ASSIGNED, PLEDGED, HYPOTHECATED OR OTHERWISE TRANSFERRED OR DISPOSED OF EXCEPT (A) PURSUANT TO A REGISTRATION STATEMENT EFFECTIVE UNDER SUCH ACT AND LAWS OR (B) PURSUANT TO AN EXEMPTION FROM REGISTRATION THEREUNDER (AND ONLY AFTER THE ISSUER HAS RECEIVED AN OPINION OF COUNSEL REASONABLY ACCEPTABLE TO IT STATING THAT SUCH TRANSFER OR DISPOSITION IS EXEMPT FROM THE REGISTRATION REQUIREMENTS OF SAID ACT AND LAWS. THE SECURITIES REPRESENTED BY THIS CERTIFICATE ARE SUBJECT TO THE PROVISIONS OF A REGISTRATION RIGHTS AGREEMENT DATED AS OF AUGUST 30, 2013, A COPY OF WHICH MAY BE INSPECTED AT OR OBTAINED FROM THE PRINCIPAL OFFICE OF ISSUER WITHOUT CHARGE.”

(b) Any Holder (or, in the case of the Trust (so long as the Trust remains a Holder), the Investment Manager) agrees that it will, in connection with a proposed Transfer and if requested by AT&T, deliver (at such Holder’s expense) to AT&T such customary certificates and other documents (which may include an opinion of reputable U.S. counsel selected by such Holder and reasonably acceptable to AT&T), in form and substance reasonably satisfactory to

AT&T, confirming that any Transfer made other than pursuant to an effective registration statement as provided herein does not require registration under the Securities Act.

(c) In connection with any Transfer of Holder Shares pursuant to an effective registration statement as provided herein, AT&T shall remove (or cause to be removed) the legend (or comparable notations or other arrangements) referenced in Section 3.2(a) with regard to such Holder Shares. In connection with any proposed Transfer of Holder Shares pursuant to Rule 144 under the Securities Act as provided herein, AT&T shall remove (or cause to be removed) the legend (or comparable notations or other arrangements) referenced in Section 3.2(a) with regard to such Holder Shares but solely with regard to such proposed Transfer and only when a Holder (or, in the case of the Trust (so long as the Trust remains a Holder), the Investment Manager) has delivered (at such Holder's expense) to AT&T such customary certificates and other documents (which may include an opinion of reputable U.S. counsel selected by such Holder and reasonably acceptable to AT&T), in form and substance reasonably satisfactory to AT&T, confirming that such proposed Transfer will comply with Rule 144 (including all of the applicable requirements thereof) and the provisions of this Agreement.

(d) At all times during the Registration Period, AT&T will use its commercially reasonable efforts to comply with the requirements of Rule 144(c)(1) with respect to public information about AT&T.

(e) In connection with any proposed Transfer of Holder Shares pursuant to Rule 144 under the Securities Act, a Holder shall give notice of any such proposed Transfer at least five (5) Business Days prior to the commencement of the proposed Transfer (a "144 Notice"). A 144 Notice shall specify (i) the date on which such Holder proposes to commence Transfers pursuant to Rule 144; (ii) the maximum number of Holder Shares to be disposed of in any such Transfers; and (iii) the expected completion date of such Transfers. Any such Holder agrees that it may Transfer its Holder Shares pursuant to Rule 144 only during a Sale Window and may not make any such Transfer after the expected completion date specified in the related 144 Notice (without AT&T's prior written consent). Upon completion or other termination of Transfers of Holder Shares contemplated in a 144 Notice, any such Holder shall promptly deliver written notice to AT&T of such completion or other termination of all such Transfers pursuant to Rule 144. For the avoidance of doubt, any Transfers by a Holder pursuant to Rule 144 (or other appropriate exemption under the securities laws) shall not be deemed a Demand Request or Shelf Takedown pursuant to Section 4.1(b), and shall not count as one of the four Demand Requests permitted pursuant to Section 4.1(b).

(f) At any time following receipt of a 144 Notice, AT&T may deliver notice of a Blackout Period as set forth in Section 4.1(e) hereof to the requesting Holder(s), upon which such Holder(s) shall be prohibited from making any Transfers of Holder Shares pursuant to Rule 144 (or otherwise) during such Blackout Period (it being understood that any such notice of a Blackout Period shall count as one of the two blackouts permitted by Section 4.1(e)).

ARTICLE IV
REGISTRATION RIGHTS

Section 4.1 Registration Statement.

(a) (i) Following the first delivery of Holder Shares pursuant to the terms of the Fourth LLC Agreement or Amended Contribution Agreement (the “Registration Trigger”), AT&T shall use its reasonable best efforts to file (A) a registration statement with the SEC (a “Shelf Registration Statement”) on Form S-3, if AT&T is then eligible to file a registration statement on Form S-3 (pursuant to the General Instructions to Form S-3 or its successor form) (“S-3 Eligible”), or (B) any other appropriate form under the Securities Act for the type of offering contemplated by the Holders, if AT&T is not then S-3 Eligible (a “Non-Shelf Registration Statement”). Such Shelf Registration Statement shall provide for sales of Registrable Shares on a delayed or continuous basis pursuant to Rule 415 promulgated under the Securities Act to the extent permitted under applicable law.

(ii) For so long as AT&T remains a WKSI and S-3 Eligible, AT&T shall have the obligation to file such Shelf Registration Statement within 30 days following the Registration Trigger, and to use its reasonable best efforts to cause such Shelf Registration Statement to become automatically effective and (subject to continuing eligibility) to remain effective for a period of three (3) years (subject to AT&T’s obligations under Section 4.1(a)(iv) with respect to any Renewal Registration Statement). If in this event the Shelf Registration Statement has not been filed and become effective on or before such 30th day following the Registration Trigger, AT&T shall pay to the Holders damages (a “Registration Fee”) in a cash amount per annum equal to (A) (x) 7.0% of the Market Value of the Registrable Securities outstanding on such 30th day (calculated as of the first Business Day after such 30th day) multiplied by (y) a fraction (the “WKSI Factor”), the numerator of which shall equal the number of days during the period beginning on (and including) the day after such 30th day and ending on (but excluding) the first day on which the registration statement has been filed (a “WKSI Extension Period”) and the denominator of which shall be 365 *less* (B) any dividends actually paid to the Holders on such Registrable Securities for which the record date is during the WKSI Extension Period multiplied by the WKSI Factor; provided, that such Registration Fee shall not be less than zero. Such Registration Fee shall be due and payable in installments on either (as applicable) (1) the final Business Day of each fiscal quarter of AT&T during the WKSI Extension Period (under circumstances where the WKSI Extension Period is ongoing following the completion of such fiscal quarter) or (2) on the Business Day after the Shelf Registration Statement is filed (thereby terminating the WKSI Extension Period), in each case in respect of the portion of the fee that has accrued and not been paid through and including such final day in the fiscal quarter or the final day of the WKSI Extension Period, as applicable. If there are multiple Holders at the time of payment of such Registration Fee is payable under this Section 4(a)(ii) or Sections 4(a)(iii), (iv), (vii) or (viii) below, the Registration Fee shall be payable to the Holders pro rata based on the number of Registrable Securities held by such Holders.

(iii) In the event AT&T is not a WKSJ but is S-3 Eligible at the Registration Trigger, AT&T shall use its reasonable best efforts to cause the Shelf Registration Statement to be filed and to become effective within 75 days after the Registration Trigger and (subject to continuing eligibility) to remain effective for a period of three (3) years (subject to AT&T's obligations under Section 4.1(a)(iv) with respect to any Renewal Registration Statement). If in this event the Shelf Registration Statement has not been filed and become effective on or before such 75th day following the Registration Trigger, AT&T shall pay to the Holders a Registration Fee in a cash amount per annum equal to (A) (x) 7.0% of the Market Value of the Registrable Securities outstanding on such 75th day (calculated as of the first Business Day after such 75th day) multiplied by (y) a fraction (the "Non-WKSJ Factor"), the numerator of which shall equal the number of days during the period beginning on (and including) the day after such 75th day and ending on (but excluding) the first day on which the registration statement has been filed and becomes effective (a "Non-WKSJ Extension Period"), and the denominator of which shall be 365 *less* (B) any dividends actually paid to the Holders on such Registrable Securities for which the record date is during the Non-WKSJ Extension Period multiplied by the Non-WKSJ Factor; provided, that such Registration Fee shall not be less than zero. Such Registration Fee shall be due and payable in installments on either (as applicable) (1) the final Business Day of each fiscal quarter of AT&T during the Non-WKSJ Extension Period (under circumstances where the Non-WKSJ Extension Period is ongoing following the completion of such fiscal quarter) or (2) on the Business Day after the Shelf Registration Statement is declared effective (thereby terminating the Non-WKSJ Extension Period), in each case in respect of the portion of the fee that has accrued and not been paid through and including such final day in the fiscal quarter or the final day of the Non-WKSJ Extension Period, as applicable.

(iv) If, on or before the 180th day following a Registration Trigger and AT&T is S-3 Eligible on such 180th day, AT&T has not filed and caused a Shelf Registration Statement to become effective for the sale of the Registrable Securities, at the option of Majority in Interest of the Holders, made pursuant to written notice to AT&T, either (A) each Holder will continue to receive its pro rata portion of the Registration Fee as provided in Section 4.1(a)(ii) or (iii), as applicable, or (B) AT&T will be restricted from declaring any dividends on or from making any Restricted Share Repurchases; provided that during the Repurchase Period, AT&T and AT&T Mobility may at their sole option repurchase from each Holder such Registrable Securities at a purchase price equal to the Market Value of such Registrable Shares calculated as of the Business Day preceding the date of delivery of the written notice by the Majority in Interest of the Holders. The Registration Fee will continue to accrue during, and be payable to any such Holder with respect to, the Repurchase Period. Such Registration Fee shall be due and payable in installments, as applicable, on either (1) the final Business Day of each fiscal quarter of AT&T during the Repurchase Period (under circumstances where such period is ongoing following the completion of such fiscal quarter) or (2) on the Business Day after either (i) the end of the Repurchase Period, or (ii) the repurchase of the Registrable Securities is completed, in each case in respect of the portion of the fee that has accrued and not been paid through and including such final day in the fiscal quarter or the final day of the Repurchase Period, as applicable.

(v) Upon expiration of any Shelf Registration Statement, in the event that (A) the Termination Date has not occurred and (B) any Holders beneficially own any outstanding Holder Shares or Preferred Interests representing Common Stock with an aggregate Market Value at such time of not less than \$500 million, AT&T shall use its reasonable best efforts to file a renewal Shelf Registration Statement (a “Renewal Shelf Registration Statement”) prior to the expiration date (the “Expiration Date”) of such Shelf Registration Statement pursuant to Rule 415 promulgated under the Securities Act (or any relevant successor provision), on the same terms and conditions as provided in Section 4.1(a)(i) - (iv) hereof, it being understood that for purposes of this Section 4.1(v), references to the Registration Trigger in Sections 4.1(a)(i) - (iv) shall refer to the Expiration Date (including, without limitation, for purposes of the payment of any Registration Fee).

(vi) If, following the effectiveness of any Shelf Registration Statement, such Shelf Registration Statement becomes unavailable for sales of Holder Shares (other than pursuant to a permitted Blackout Period pursuant to Section 4.1(e)) due to AT&T no longer being S-3 Eligible or as a result of a stop order with respect to such Shelf Registration Statement (an “Unavailable S-3”), AT&T shall comply with the provisions of this Section 4.1(a)(vi). In the event AT&T is not S-3 Eligible at the Registration Trigger, or, following the effectiveness of a Shelf Registration Statement such Shelf Registration Statement becomes an Unavailable S-3, subject to the provisions hereof (including Section 4.1(b)(ii)), AT&T shall not be obligated to file any registration statement on Form S-1 or any successor form until such time as a Majority in Interest of the Holders deliver a written notice (a “Non-Shelf Notice”) of their intention to make a public offering of all or a portion of the Registrable Securities held by such requesting Holders. AT&T shall use its reasonable best efforts to file a Non-Shelf Registration Statement within 30 days of receipt of such notice and use its reasonable best efforts to cause such Non-Shelf Registration Statement to be declared effective by the SEC within 75 days of receipt of such notice. The parties agree that AT&T shall not request effectiveness of the Non-Shelf Registration Statement without first consulting with the requesting Holders and the underwriters (if any) as to the expected timing of the Non-Shelf Offering (it being understood that if on the 75th day following receipt of the Non-Shelf Notice all other conditions and requirements for the Non-Shelf Registration Statement to be declared effective have been met (including the clearance of any SEC comments) and the requesting Holders and/or underwriters (if any) advise AT&T that it would be advisable to delay the effectiveness of such Non-Shelf Registration Statement, AT&T shall not be required to pay the Registration Fee with respect to such Non-Shelf Registration Statement); provided, that in no circumstances will AT&T be obligated to request the acceleration of such Non-Shelf Registration Statement more than 20 calendar days after such 75th day following receipt of such notice. The requesting Holders shall commence a Non-Shelf Offering of the Registrable Shares subject to the notice provided in this Section 4.1(a)(vi) held by the requesting Holders as soon as reasonably practicable following the effectiveness of the Non-Shelf Registration Statement, but in no event within three Business Days of the effectiveness of the Non-Shelf Registration Statement.

(vii) If in the event the Non-Shelf Registration Statement has not been filed and become effective on or before such 75th day following receipt of such Non-

Shelf Notice (subject to the limitations set forth in Section 4.1(a)(vi)), AT&T shall pay to the requesting Holders a Registration Fee in a cash amount per annum equal to (A) (x) 7.0% of the Market Value of the Registrable Securities outstanding on such 75th day (calculated as of the first Business Day after such 75th day) multiplied by (y) a fraction (the “Non-Shelf Factor”), the numerator of which shall equal the number of days during the period beginning on (and including) the day after such 75th day and ending on (but excluding) the first day on which the registration statement has been filed and becomes effective (a “Non-Shelf Extension Period”), and the denominator of which shall be 365 less (B) any dividends actually paid to the Holder on such Registrable Securities for which the record date is during the Non-Shelf Extension Period multiplied by the Non-Shelf Factor; provided, that the such Registration Fee shall not be less than zero. Such Registration Fee shall be due and payable in installments on either (as applicable) (1) the final Business Day of each fiscal quarter of AT&T during the Non-Shelf Extension Period (under circumstances where the Shelf Extension Period is ongoing following the completion of such fiscal quarter) or (2) on the Business Day after the Non-Shelf Registration Statement is declared effective (thereby terminating the Non-Shelf Extension Period), in each case in respect of the portion of the fee that has accrued and not been paid through and including such final day in the fiscal quarter or the final day of the Non-Shelf Extension Period, as applicable.

(viii) If, on or before the 180th day following the delivery of a Non-Shelf Notice, AT&T has not filed and caused an appropriate registration statement to become effective for the sale of the Registrable Securities, at the option of a Majority in Interest of the Holders made pursuant to written notice to AT&T, either (A) the Holders will continue to receive the Registration Fee as provided in Section 4.1(a)(vii) or (B) AT&T will be restricted from declaring any dividends on or from making any Restricted Share Repurchases; provided that during the Repurchase Period, AT&T and AT&T Mobility may at their sole option repurchase such Registrable Securities from the Holders at a purchase price equal to the Market Value of such Registrable Shares calculated as of the Business Day preceding the date of delivery of the written notice by the Majority in Interest of the Holders. The Registration Fee will continue to accrue during, and be payable to such Holders with respect to, the Repurchase Period. Such Registration Fee shall be due and payable in installments, as applicable, on either (1) the final Business Day of each fiscal quarter of AT&T during the Repurchase Period (under circumstances where such period is ongoing following the completion of such fiscal quarter) or (2) on the Business Day after either (i) the end of the Repurchase Period, or (ii) the repurchase of the Registrable Securities is completed, in each case in respect of the portion of the fee that has accrued and not been paid through and including such final day in the fiscal quarter or the final day of the Repurchase Period, as applicable.

(b) (i) Subject to the terms of this Section 4.1 and Section 4.9 hereof, during the period of time when any Shelf Registration Statement is effective, a Majority in Interest of the Holders shall have the right to deliver a demand (a “Demand Request”) to sell Registrable Shares pursuant to the Shelf Registration Statement (a “Shelf TakeDown”). Each Demand Request shall specify in writing the (A) aggregate amount of Registrable Shares to be sold, (B) the intended method or methods of distribution thereof (which shall comply with the requirements of the Securities Act and all other

applicable securities laws), and (C) the proposed date when offers of such Registrable Shares are to commence and the proposed date when sales and deliveries of such shares are to be completed, provided that, for each such offering, all such offers, sales and deliveries must occur during an available Sale Window and during a period not to exceed ten Business Days (it being understood that such ten Business Day period shall commence upon the initial offer being made in connection with any such Shelf TakeDown).

(ii) Subject to the terms of this Section 4.1 and Section 4.9 hereof, solely during the period of time when AT&T is not S-3 Eligible (including, without limitation, upon the expiration of the 180-day period referred to in Section 4.1(a)(iv)) or when there exists an Unavailable S-3, a Majority in Interest of the Holders shall have the right to deliver a Non-Shelf Notice to sell Registrable Shares pursuant to a Non-Shelf Registration Statement (a “ Non-Shelf Offering ”). Each Non-Shelf Notice shall specify in writing the (A) aggregate amount of Registrable Shares to be sold, (B) the intended method or methods of distribution thereof (which shall comply with the requirements of the Securities Act and all other applicable securities laws), and (C) the proposed date when offers of such Registrable Shares are to commence and the proposed date when sales and deliveries of such shares are to be completed, provided that, for each such offering, all such offers, sales and deliveries must occur during an available Sale Window and during a period not to exceed ten Business Days (it being understood that such ten Business Day period shall commence upon the initial offer being made in connection with any such Non-Shelf Offering).

(c) Notwithstanding anything to the contrary set forth in Section 4.1(a) or (b), AT&T shall not be obligated to effect a Shelf Takedown pursuant to a Demand Request or effect a Non-Shelf Offering (if applicable):

(i) in the case of a Shelf Takedown unless the Demand Request is received by AT&T not more than 30 Business Days and not less than 15 Business Days before the requested date of commencement of such offering;

(ii) more than four times in any 12-month period; and

(iii) unless the Registrable Shares to be included in such Shelf Takedown or other public offering have an aggregate Market Value of at least \$500 million calculated as of the second Business Day prior to the date such request for registration is delivered to AT&T (it being understood that any Transfers other than pursuant to a Shelf Takedown or other public offering shall not be subject to this Section 4.1(c)(iii), including without limitation Transfers pursuant to Rule 144).

(d) Any Demand Request or Non-Shelf Notice may be revoked by notice from the requesting Holders to AT&T prior to the commencement of any offers of Registrable Shares in a Shelf Takedown or Non-Shelf Offering, as the case may be; provided that such revoked Demand Request or Non-Shelf Notice shall (unless such revocation is due to any registration statement becoming unavailable for Transfers of Holder Shares pursuant to a stop order suspending the effectiveness of the registration statement or otherwise through no fault of

the requesting Holders) count as one Shelf Takedown pursuant to a Demand Request or Non-Shelf Offering following a Non-Shelf Notice for the purpose of the limitation in Section 4.1(c)(ii) unless AT&T waives such request and as promptly as reasonably practicable is reimbursed for all reasonable out-of-pocket expenses (including fees of outside counsel and accountants and other expenses incurred in connection with such Demand Request) incurred by AT&T relating to the Shelf Takedown requested pursuant to such revoked Demand Request.

(e) (i) Notwithstanding anything in this Agreement to the contrary, AT&T shall be entitled, in its sole discretion for any reason or no reason, to postpone and delay the filing, effectiveness or use of any registration statement for a period of time (a “Blackout Period”), and during each Blackout Period the Holders shall not make (or permit to be made on their behalf) any offers or sales of Registrable Shares, whether in a Shelf Takedown, a Non-Shelf Offering, pursuant to Rule 144 or in any other transaction, provided, however, that AT&T may not impose more than two Blackout Periods in any 12-month period, and such Blackout Periods may not exceed 60 days in the aggregate; provided, however, that AT&T shall give written notice to the Holders of its determination to impose a Blackout Period, in which case any requesting Holders shall be entitled to cancel any pending Demand Request or Non-Shelf Notice that has been made but not yet effected without such Demand Request or Non-Shelf Notice counting as one of the Demand Requests or Non-Shelf Notices referred to in Section 4.1(b). Upon notice by AT&T to the Holders of any such determination, the Holders shall, except as required by applicable law, keep the fact of any such notice strictly confidential, and during any Blackout Period, promptly halt any and all transfers of Holder Shares (whether pursuant to a Shelf Registration Statement, a Non-Shelf Offering, Rule 144 or otherwise) for the duration of the Blackout Period set forth in such notice (or until such Blackout Period shall be earlier terminated in writing by AT&T), and promptly halt any use, publication, dissemination or distribution of any prospectus or prospectus supplement covering such Registrable Shares for the duration of the Blackout Period set forth in such notice (or until such Blackout Period shall be earlier terminated in writing by AT&T) and, if so directed by AT&T, shall deliver to AT&T any copies then in its possession of any such prospectus or prospectus supplement. Notwithstanding anything to the contrary in this Agreement, if, upon commencement of a Shelf Takedown or Non-Shelf Offering, AT&T determines, without the agreement of a Majority in Interest of the requesting Holders, to cause such offering to be suspended or halted, such action by AT&T shall be counted as one of the two Blackout Periods permitted pursuant to this Section 4.1(b), and AT&T shall promptly reimburse such requesting Holders all of such Holders’ reasonable, out-of-pocket expenses incurred with respect to such suspended or halted offering.

(ii) The failure of AT&T to file or furnish its earnings release or its Form 10-K or Form 10-Q (as contemplated in the definition of “Sale Window”), as applicable and after giving effect to any permitted extension provided in Rule 12b-25 under the Exchange Act, within the period of time required for such filings pursuant to SEC rules and regulations, shall be deemed a “Blackout Period” for purposes of Section 4.1(e)(i), and shall count as one of the two Blackout Periods afforded AT&T pursuant to Section 4.1(e)(i). The 60-day Blackout Period referred to in Section 4.1(e)(i) shall commence on the first Business Day following the final date that a Form 10-K or Form 10-Q, as applicable, would have otherwise been required to be filed by AT&T pursuant to

SEC rules and regulations in order for such filing to be “timely” under the Exchange Act (including without limitation Rule 12b-25 under the Exchange Act). If (1) the 60-day Blackout Period referred to in Section 4.1(e)(i) expires (whether such days are consecutive or not), and at the expiration of such date AT&T is not “timely” with respect to its reporting requirements under the Exchange Act, or (2) if a commencement of a Blackout Period beyond the two Blackout Periods afforded to AT&T pursuant to Section 4.1(e)(i) is triggered pursuant to this Section 4.1(e)(i), then at the option of a Majority in Interest of the Holders made pursuant to written notice to AT&T, either (A) the Holders will receive the Registration Fee as provided in Section 4.1(a)(ii), or (B) AT&T will be restricted from declaring any dividends on or from making any Restricted Share Repurchases, provided that during the Repurchase Period, AT&T and AT&T Mobility may at their sole option repurchase from any Holder the Registrable Securities at a purchase price equal to the Market Value of such Registrable Shares calculated as of the Business Day preceding the date of delivery of the written notice by the Majority in Interest of the Holders. The Registration Fee will continue to accrue during, and be payable to each Holder with respect to, the Repurchase Period. Such Registration Fee shall be due and payable in installments on either (as applicable) (1) the final Business Day of each fiscal quarter of AT&T during the Repurchase Period (under circumstances where such period is ongoing following the completion of such fiscal quarter) or (2) on the Business Day after either (i) the end of the Repurchase Period, or (ii) the repurchase of the Registrable Securities is completed, in each case in respect of the portion of the fee that has accrued and not been paid through and including such final day in the fiscal quarter or the final day of the Repurchase Period, as applicable.

(f) In connection with any Underwritten Offering, the managing underwriter for such offering shall be selected by a Majority in Interest of the requesting Holders and reasonably acceptable to AT&T; provided that such managing underwriter shall be a nationally recognized investment banking firm.

(g) Nothing in this Article IV shall affect, supersede or otherwise modify any of the restrictions on Transfer set forth in Article III or any other provision of this Agreement.

Section 4.2 Reserved.

Section 4.3 Termination of Registration Obligation. The obligation of AT&T to register Registrable Shares and maintain the effectiveness of any registration statement pursuant to this Article IV shall terminate on the third anniversary of the Last Option Date (such date on which such obligation terminates pursuant to the prior sentence is herein referred to as the “Termination Date”).

Section 4.4 Registration Procedures.

(a) In connection with each registration statement prepared pursuant to this Article IV pursuant to which Registrable Shares will be offered and sold and subject to Section 4.9 hereof, and in accordance with the intended method or methods of distribution of the Registrable Shares as described in such registration statement, but in each case subject to the

limitations and other provisions of this Agreement (including the provisions of Section 4.1(a) regarding a registration relating to a Demand Request), AT&T shall:

(i) use its reasonable best efforts to prepare and file with the SEC a registration statement on an appropriate registration form of the SEC (including, without limitation, a registration statement on Form S-1 if AT&T is not then S-3 Eligible) and cause such registration statement to become effective under the Securities Act promptly after (or, as applicable, simultaneously with) the filing thereof, which registration statement shall comply as to form in all material respects with the requirements of the applicable form and include all financial statements required by such form to be filed therewith; provided that before filing a registration statement or prospectus or any amendments or supplements thereto, AT&T shall furnish to the underwriters, if any, and counsel selected by a Majority in Interest of the Holders draft copies of all such documents proposed to be filed at least five Business Days prior to such filing, which documents will be subject to the reasonable review and comment of the Investment Manager (so long as the Trust is a Holder), counsel to, and other agents of, the Holders, and representatives and the underwriters, if any, and AT&T shall not file any amendment or supplement to a Shelf Registration Statement filed pursuant to Section 4.1(a) to which a Majority in Interest of the Holders or the underwriters, if any, shall reasonably object;

(ii) use its reasonable best efforts to furnish without charge to the Holders and the underwriters, if any, at least one conformed copy of the registration statement and each post-effective amendment or supplement thereto (including all schedules and exhibits but excluding all documents incorporated or deemed incorporated therein by reference, unless requested in writing by a Majority in Interest of the Holders or an underwriter, except to the extent such exhibits and schedules are currently available via the SEC's Electronic Data Gathering, Analysis and Retrieval System ("EDGAR")) and such number of copies of the registration statement and each amendment or supplement thereto (excluding exhibits and schedules) and the summary, preliminary, final, amended or supplemented prospectuses included in such registration statement as the Holders or such underwriter may reasonably request in order to facilitate the public sale or other disposition of the Registrable Shares being sold by the Holders (AT&T hereby consents to the use in accordance with the U.S. securities laws of such registration statement (or post-effective amendment thereto) and each such prospectus (or preliminary prospectus or supplement thereto) by the Holders and the underwriters, if any, in connection with the offering and sale of the Registrable Shares covered by such registration statement or prospectus);

(iii) (A) in the case of a registration statement on Form S-3, use its reasonable best efforts to keep such registration statement effective until the Expiration Date (or such shorter period as shall terminate when all of the securities covered by the registration statement have been disposed or withdrawn) in accordance with the provisions of Form S-3 or any successor form, and (B) in the case of an appropriate registration statement other than Form S-3, use its reasonable best efforts to keep such registration statement effective until the conclusion of sales of Registrable Securities pursuant to such registration statement but not longer than 90 days (the "Effective Period"), and prepare and file with the SEC such amendments, post-effective

amendments and supplements to the registration statement and the prospectus as may be necessary to maintain the effectiveness of the registration for the Effective Period (including, without limitation, any supplements or post-effective amendments to add additional Registrable Shares to an existing registration statement) and cause the prospectus (and any amendments or supplements thereto) to be filed with the SEC;

(iv) use its reasonable best efforts to register or qualify the Registrable Shares covered by such registration statement under such other securities or “blue sky” laws of such jurisdictions in the United States as are reasonably necessary, keep such registrations or qualifications in effect for so long as the registration statement remains in effect, and do any and all other acts and things which may be reasonably necessary to enable the Holders or any underwriter to consummate the disposition of the Registrable Shares in such jurisdictions; provided, however, that in no event shall AT&T be required to (A) qualify to do business as a foreign corporation in any jurisdiction where it would not, but for the requirements of this subparagraph (iv), be required to be so qualified, (B) execute or file any general consent to service of process under the laws of any jurisdiction, (C) take any action that would subject it to service of process in suits other than those arising out of the offer and sale of the securities covered by the registration statement, or (D) subject itself to taxation in any jurisdiction where it would not otherwise be obligated to do so, but for this paragraph (iv);

(v) use its reasonable best efforts to cause all Registrable Shares covered by such registration statement to be listed (after notice of issuance) on the NYSE or on the principal securities exchange or interdealer quotation system on which the Common Stock is then listed or quoted (including, without limitation, filing one or more supplemental listing applications with the NYSE upon the delivery of Holder Shares to the Holders);

(vi) use its reasonable best efforts to promptly notify the Holders and the managing underwriter or underwriters, if any, after becoming aware thereof, (A) when the registration statement or any related prospectus or any amendment or supplement thereto has been filed, and, with respect to the registration statement or any post-effective amendment, when the same has become effective, (B) of any request by the SEC or any U.S. state securities authority for amendments or supplements to the registration statement or the related prospectus or for additional information, (C) of the issuance by the SEC of any stop order suspending the effectiveness of the registration statement or the initiation of any proceedings for that purpose, (D) of the receipt by AT&T of any notification with respect to the suspension of the qualification of the Registrable Shares for sale in any jurisdiction or the initiation of any proceeding for such purpose, or (E) within the Effective Period of the happening of any event or the existence of any fact which makes any statement in the registration statement or any post-effective amendment thereto, prospectus or any amendment or supplement thereto, or any document incorporated therein by reference untrue in any material respect or which requires the making of any changes in the registration statement or post-effective amendment thereto or any prospectus or amendment or supplement thereto so that they will not contain any untrue statement of a material fact or omit to state any material fact

required to be stated therein or necessary to make the statements therein, in light of the circumstances under which they were made, not misleading;

(vii) during the Effective Period, use its reasonable best efforts to obtain the withdrawal of any order enjoining or suspending the use or effectiveness of the registration statement or any post-effective amendment thereto or the lifting of any suspension of the qualification of any of the Registrable Shares for sale in any jurisdiction at the earliest date reasonably practicable;

(viii) use its reasonable best efforts to deliver promptly to the managing underwriters, if any, copies of all correspondence between the SEC and AT&T, its counsel or auditors and all memoranda relating to discussions with the SEC or its staff with respect to the registration statement (except to the extent such correspondence is currently available via EDGAR);

(ix) use its reasonable best efforts to provide and cause to be maintained a transfer agent and registrar for all Registrable Shares covered by such registration statement not later than the effective date of such registration statement;

(x) use its reasonable best efforts to cooperate with the Holders and the managing underwriter or underwriters, if any, to facilitate the timely preparation and delivery of certificates representing the Registrable Shares to be sold under the registration statement in a form eligible for deposit with The Depository Trust Corporation not bearing any restrictive legends (other than as required by The Depository Trust Corporation) and not subject to any stop transfer order with any transfer agent, and cause such Registrable Shares to be issued in such denominations and registered in such names as the managing underwriters, if any, may request in writing or, if not an Underwritten Offering, in accordance with the instructions of the Holders, in each case at least two Business Days prior to any sale of Registrable Shares;

(xi) in the case of an Underwritten Offering, use its reasonable best efforts to enter into an underwriting agreement customary in form and substance (taking into account AT&T's prior underwriting agreements) for firm commitment underwritten secondary offerings of the nature contemplated by the applicable registration statement;

(xii) in the case of an Underwritten Offering, use its reasonable best efforts to obtain an opinion from AT&T's counsel and a "cold comfort" letter from AT&T's independent public accountants (and, if necessary, any other independent certified public accountants of any Subsidiary of AT&T or of any business acquired by AT&T for which financial statements and financial data is, or is required to be, included in the registration statement) addressed to the underwriters (if any) in customary form and covering such matters as are customarily covered by such opinions and "cold comfort" letters in connection with an offering of the nature contemplated by the applicable registration statement;

(xiii) in the case of an Underwritten Offering, use its reasonable best efforts to provide to counsel to the Holders and to the managing underwriters, and no

later than the time of filing of any document which is to be incorporated by reference into the registration statement or prospectus (after the initial filing of such registration statement), copies of any such document;

(xiv) otherwise use its reasonable best efforts to assist the Holders in effecting sales of Registrable Shares (including, without limitation, making AT&T's management available as reasonably deemed necessary or prudent by the underwriters in connection with any Underwritten Offering); and

(xv) otherwise use its commercially reasonable efforts to comply with all applicable rules and regulations of the SEC and any applicable national securities exchange.

It is understood and agreed that references in this Section 4.4 to any managing underwriter or underwriter mean the persons acting as such in an Underwritten Offering of Registrable Shares, and AT&T shall have no obligations under this Section 4.4 with regard to any managing underwriter or underwriter (or other intermediary) except in such an offering.

(b) In the event that AT&T would be required, pursuant to Section 4.4(a)(vi), to notify the requesting Holders or the managing underwriter or underwriters of the happening of any event specified therein, AT&T shall, subject to Section 4.4(a)(vi), as promptly as practicable, prepare and furnish to the requesting Holders and to each such underwriter a reasonable number of copies of a prospectus supplemented or amended so that, as thereafter delivered to purchasers of Registrable Shares that have been registered pursuant to this Agreement, such prospectus shall comply as to form in all material respects, and shall not contain an untrue statement of a material fact or omit to state a material fact required to be stated therein or necessary to make the statements therein, in the light of the circumstances under which they were made, not misleading. The requesting Holders (and, in the case where the Trust is a requesting Holder), the Investment Manager) agrees that, upon receipt of any notice from AT&T pursuant to Section 4.4(a)(vi), it shall, and shall use its reasonable best efforts to cooperate with AT&T to, cause any sales or placement agent or agents for the Registrable Shares and the underwriters to forthwith discontinue disposition of the Registrable Shares until such Person shall have received copies of such amended or supplemented prospectus and, if so directed by AT&T, to destroy all physical copies, other than permanent file copies, then in its possession of the prospectus (prior to such amendment or supplement) covering such Registrable Shares as soon as practicable after the Holder's receipt of such notice.

(c) Each Holder (or in the case of the Trust (so long as the Trust remains a Holder), the Investment Manager) shall furnish to AT&T in writing such information regarding such Holder and its intended method of distribution of the Registrable Shares as AT&T may from time to time reasonably request in writing in order for AT&T to comply with its obligations under all applicable securities and other laws and to ensure that the prospectus relating to such Registrable Shares conforms to the applicable requirements of the Securities Act and the rules and regulations thereunder. If any Holder (or Investment Manager on behalf of the Trust as a Holder, as applicable) fails to provide the requested information within 15 Business Days of the receipt of such request, AT&T shall be entitled to refuse to register the Registrable Shares in the applicable registration statement or to effect a Shelf Takedown or Non-Shelf Offering, as the

case may be. Each Holder (or Investment Manager on behalf of the Trust as a Holder, as applicable) shall notify AT&T as promptly as practicable of any inaccuracy or change in information previously furnished by such Holder (or Investment Manager) to AT&T or of the occurrence of any event, in either case as a result of which any prospectus relating to the Registrable Shares contains or would contain an untrue statement of a material fact or omits to state any material fact required to be stated therein or necessary to make the statements therein, in light of the circumstances under which they were made, not misleading, and promptly furnish to AT&T any additional information required to correct and update any previously furnished information or required so that such prospectus shall not contain an untrue statement of a material fact or omit to state a material fact required to be stated therein or necessary to make the statements therein, in light of the circumstances under which they were made, not misleading.

(d) (i) If requested by the managing underwriter for an Underwritten Offering (primary or secondary) of any equity securities of AT&T and the Holders have not then delivered a Demand Request, the Holders (or Investment Manager, on behalf of the Trust if then a Holder) agrees not to effect any Transfer of any Registrable Shares, including any sale pursuant to Rule 144 under the Securities Act, and not to effect any Transfer of any other equity security of AT&T (in each case, other than as part of such Underwritten Offering) during the ten days prior to, and during the 30-day period (or such longer or shorter period as the Holders agree with the underwriters of such offering) beginning on the consummation of such Underwritten Offering. In connection with any such Underwritten Offering, AT&T shall use its reasonable best efforts to cause AT&T's executive officers and directors to agree to not effect any such Transfers for the same period of time as the Holders.

(ii) Without limiting Section 4.1(d)(i), AT&T hereby agrees that if it shall previously have received a Demand Request pursuant to Section 4.1 for a Shelf Takedown Registrable Shares or a Non-Shelf Notice for a Non-Shelf Offering of Registrable Shares in an Underwritten Offering, and if such previous registration shall not have been withdrawn or abandoned, AT&T, if requested by the managing underwriter for such Underwritten Offering, shall not issue, offer or sell any Common Stock, any other equity security of AT&T or any security convertible into or exchangeable for any equity security of AT&T until the earlier of (A) 30 days after the effective date of such registration statement and (B) such time as all of the Registrable Shares covered by such registration statement have been distributed; provided, however, that notwithstanding the foregoing, AT&T may issue, offer or sell Common Stock or such other securities (1) as part of such Underwritten Offering if the managing underwriter for such Underwritten Offering advises AT&T that it may sell shares of Common Stock or such other securities in such Underwritten Offering without materially adversely affecting the marketing or price per share of the Registrable Shares (it being understood that if AT&T is permitted to issue, offer or sell Common Stock or such other securities as part of such Underwritten Offering, the Holder shall not be required to reduce or otherwise have "cut-back" the number of Registrable Shares it offers for sale in such Underwritten Offering), (2) pursuant to a registration statement on Form S-8 or Form S-4 under the Securities Act or any successor or similar form, (3) pursuant to or in connection with any employee benefit or similar plan, (4) to its subsidiaries or affiliates, (5) as part of a transaction under Rule 145 of the Securities Act, (6) in one or more private transactions that would not interfere

with the method of distribution contemplated by such registration statement, or (7) if such transfer was publicly announced or agreed to in writing by AT&T prior to the date of the receipt of such Demand Request pursuant to Section 4.1.

(e) In the case of any Underwritten Offering of shares of Common Stock pursuant to Section 4.1(a), all shares of Common Stock to be included in such offering or registration, as the case may be, shall be subject to the applicable underwriting agreement, and no Person may participate in such offering or registration unless such Person agrees to sell such Person's securities on the basis provided therein and completes and executes all questionnaires, indemnities, underwriting agreements and other documents (other than powers of attorney) which must be executed in connection therewith, and provides such other information to AT&T or the underwriter as may be reasonably requested to offer or register such Person's Common Stock.

(f) Each Holder (and, in the case of the Trust (so long as the Trust remains a Holder), the Investment Manager) agrees that in connection with the foregoing registration procedures, they may receive confidential information from AT&T or its representatives, including draft documentation. Each Holder (and, in the case of the Trust (so long as the Trust remains a Holder), the Investment Manager) agrees to keep confidential and to use only for the purpose of exercising such Holder's rights under this Agreement, and not in a manner that would be detrimental to AT&T, all Confidential Information. As used herein, "Confidential Information" means any and all information that AT&T or any of its representatives furnish or otherwise make available to the Holders, the Investment Manager (so long as the Trust remains a Holder) or any of their respective representatives, whether oral, written or electronic, together with any reports, memoranda, notes or other written or electronic materials prepared by or for a Holder or the Investment Manager or any of their respective representatives that contain, reflect or are based upon such information, in each case relating to any registration or sale of Registrable Shares or any other matter under this Agreement, and shall also include the fact that any discussions or other actions relating to a sale of Registrable Shares or any other matter under this Agreement has occurred or may occur or that Confidential Information has been or may be provided by AT&T or its employees and advisers (it being understood that such information shall no longer be deemed "Confidential Information" for purposes of this Agreement upon such information becoming publicly available in connection with the commencement or consummation of a sale of Registrable Shares or otherwise). Notwithstanding the foregoing, each of the Holders and the Investment Manager may disclose Confidential Material (i) as required by law; (ii) to those of its employees and advisers who need to know such information for the purpose of assisting each such Holder in exercising its rights under this Agreement, so long as such Person causes such employees and advisers to treat the Confidential Material in a confidential manner and in accordance with the terms hereof (it being understood that each Holder and, as applicable, the Investment Manager will be responsible for any breach of the terms of this Agreement caused by any of their respective employees and advisers); and (iii) to the extent that AT&T gives its prior written consent. Each Holder and, as applicable, the Investment Manager agree to comply, and to cause its respective employees, advisers and other representatives to comply, with the provisions of the U.S. federal securities laws that prohibit trading in securities of AT&T or any related securities while in possession of material, nonpublic information about AT&T or any such securities.

Section 4.5 Registration Expenses. The Holders shall bear all agent fees and commissions, underwriting discounts and commissions and fees and disbursements of its counsel and accountants (if any) in connection with any registration of any Registrable Shares pursuant to Section 4.1, pro rata based on their respective Registrable Securities included in any such registration. AT&T shall bear all other fees and expenses incurred by it in connection with any registration statement pursuant to Section 4.1, including all registration and filing fees, all printing costs and all fees and expenses of counsel and accountants for AT&T (including, without limitation, such fees and expenses incurred by AT&T in connection with any offering contemplated in Section 4.1(d)(ii)(1)). It is agreed that AT&T shall not bear any cost incurred by underwriters or other intermediaries (including any fees of counsel for intermediaries), which shall be borne by the intermediaries.

Section 4.6 Indemnification; Contribution.

(a) AT&T shall, and it hereby agrees to, indemnify and hold harmless the Holders, the Investment Manager (in its individual capacity and to the extent the Trust is a Holder that has Registrable Securities included in any registration statement) and their respective controlling Persons, if any, and each underwriter and its controlling Persons, if any (collectively, the “Holder Indemnified Parties”), in any offering or sale of the Registrable Shares, against any losses, claims, damages or liabilities, actions or proceedings (whether commenced or threatened) in respect thereof and expenses (including reasonable fees of counsel) (collectively, “Claims”) to which each such Holder Indemnified Party may become subject, insofar as such Claims (including any amounts paid in settlement effected with the consent of AT&T as provided herein), or actions or proceedings in respect thereof, (i) arise out of or are based upon an untrue statement or alleged untrue statement of a material fact contained in any registration statement, or any preliminary or final prospectus contained therein, or any amendment or supplement thereto, or any document incorporated by reference therein, or (ii) arise out of or are based upon any omission or alleged omission to state therein a material fact required to be stated therein or necessary to make the statements therein, in light of the circumstances in which they were made, not misleading, and AT&T shall, and it hereby agrees to, reimburse periodically the Holders, the Investment Manager or any such underwriter for any legal or other out-of-pocket expenses reasonably incurred by them in connection with investigating or defending any such Claims for themselves or their respective controlling Persons; provided, however, that AT&T shall not be liable to any such Person in any such case to the extent that any such Claims arise out of or are based upon an untrue statement or alleged untrue statement or omission or alleged omission made in such registration statement, or preliminary or final prospectus, or amendment or supplement thereto, in reliance upon information furnished to AT&T by the Holders, the Investment Manager or any underwriter, or any representative thereof, expressly for use therein, or by a Holder’s failure to furnish AT&T, upon request, with the information with respect to such Holder, or any underwriter or Representative of the Holders, or such Holder’s intended method of distribution, that is the subject of the untrue statement or omission.

(b) The Holders and the Investment Manager (in its individual capacity and to the extent the Trust is a Holder that has Registrable Securities included in any registration statement) each shall, and hereby agrees to, (i) indemnify and hold harmless AT&T, its directors, its officers who sign the relevant registration statement and its controlling Persons, if any (collectively, the “Company Indemnified Parties”), if any, and each underwriter and its

controlling Persons, if any (collectively, “Underwriter Indemnified Parties”), in any offering or sale of Registrable Shares against any Claims to which each such Company Indemnified Party or Underwriter Indemnified Party may become subject, insofar as such Claims (including any amounts paid in settlement as provided herein), or actions or proceedings in respect thereof, (i) arise out of or are based upon an untrue statement or alleged untrue statement of a material fact contained in any registration statement, or any preliminary or final prospectus contained therein, or any amendment or supplement thereto, or any document incorporated by reference therein, or (ii) arise out of or are based upon any omission or alleged omission to state therein a material fact required to be stated therein or necessary to make the statements therein not misleading, in each case (i) and (ii) only to the extent that such untrue statement or alleged untrue statement or omission or alleged omission was made in reliance upon and in conformity with written information furnished to AT&T by such Holder or (if applicable) the Investment Manager, as the case may be, or any representative thereof, expressly for use therein, and (ii) reimburse AT&T for any reasonable legal or other out-of-pocket expenses reasonably incurred by AT&T in connection with investigating or defending any such Claim.

(c) The Holders, the Investment Manager (in its individual capacity and to the extent the Trust is a Holder that has Registrable Securities included in any registration statement) and AT&T agree that if, for any reason, the indemnification provisions contemplated by Section 4.6(a) or 4.6(b) are unavailable to or are insufficient to hold harmless an Indemnified Party in respect of any Claims referred to therein, then each Indemnifying Party shall contribute to the amount paid or payable by such Indemnified Party as a result of such Claims in such proportion as is appropriate to reflect the relative fault of the Indemnifying Party, on the one hand, and the Indemnified Party, on the other hand, with respect to the applicable offering of securities. The relative fault of such Indemnifying Party and Indemnified Party shall be determined by reference to, among other things, whether the untrue or alleged untrue statement of a material fact or omission or alleged omission to state a material fact relates to information supplied by such Indemnifying Party or by such Indemnified Party, and the parties’ relative intent, knowledge, access to information and opportunity to correct or prevent such statement or omission. If, however, the allocation in the first sentence of this Section 4.6(c) is not permitted by applicable law, then each Indemnifying Party shall contribute to the amount paid or payable by such Indemnified Party in such proportion as is appropriate to reflect not only such relative faults, but also the relative benefits to the Indemnifying Party and the Indemnified Party, as well as any other relevant equitable considerations. The parties hereto agree that it would not be just and equitable if contributions pursuant to this Section 4.6(c) were to be determined by *pro rata* allocation or by any other method of allocation which does not take into account the equitable considerations referred to in the preceding sentences of this Section 4.6(c). The amount paid or payable by an Indemnified Party as a result of the Claims referred to above shall be deemed to include (subject to the limitations set forth in Section 4.7) any legal or other fees or expenses reasonably incurred by such Indemnified Party in connection with investigating or defending any such action, proceeding or claim. No Person guilty of fraudulent misrepresentation (within the meaning of Section 11(f) of the Securities Act) shall be entitled to contribution from any Person who was not guilty of such fraudulent misrepresentation.

(a) If an Indemnified Party shall desire to assert any claim for indemnification provided for under Section 4.6 in respect of, arising out of or involving a Claim against the Indemnified Party, such Indemnified Party shall notify AT&T, the Holders or the Investment Manager (including with respect to notifying the Trust), as the case may be, as the relevant indemnifying party (the “Indemnifying Party”), in writing of such Claim, the amount or the estimated amount of Damages sought thereunder to the extent then ascertainable (which estimate shall not be conclusive of the final amount of such Claim), any other remedy sought thereunder, any relevant time constraints relating thereto and, to the extent practicable, any other material details pertaining thereto (a “Claim Notice”) promptly after receipt by such Indemnified Party of written notice of the Claim; provided, however, that failure to provide a Claim Notice shall not affect the indemnification obligations provided hereunder except to the extent the Indemnifying Party shall have been materially prejudiced as a result of such failure. The Indemnified Party shall deliver to the Indemnifying Party, promptly after the Indemnified Party’s receipt thereof, copies of all notices and documents (including court papers) received by the Indemnified Party relating to the Claim; provided, however, that failure to provide any such copies shall not affect the indemnification obligations provided hereunder except to the extent the Indemnifying Party shall have been materially prejudiced as a result of such failure.

(b) If a Claim is made against an Indemnified Party, the Indemnifying Party will be entitled to participate in the defense thereof and, if it so chooses and acknowledges without reservation its obligation to indemnify the Indemnified Party therefor, to assume the defense thereof with separate counsel (who may be counsel for the Indemnifying Party) selected by the Indemnifying Party and reasonably satisfactory to the Indemnified Party. Should the Indemnifying Party so elect to assume the defense of a Claim, the Indemnifying Party will not be liable to the Indemnified Party for legal expenses subsequently incurred by the Indemnified Party in connection with the defense thereof, unless the Claim involves potential conflicts of interest or substantially different defenses for the Indemnified Party and the Indemnifying Party. If the Indemnifying Party assumes such defense, the Indemnified Party shall have the right to participate in defense thereof and to employ counsel, at its own expense (except as provided in the immediately preceding sentence), separate from the counsel employed by the Indemnifying Party. The Indemnifying Party shall be liable for the fees and expenses of counsel employed by the Indemnified Party for any period during which the Indemnifying Party has not assumed the defense thereof and as otherwise contemplated by the two immediately preceding sentences, provided that in no event shall the Indemnifying Party be liable for the expenses of more than one separate counsel for all Indemnified Parties with respect to claims arising out of the same or related circumstances. If the Indemnifying Party chooses to defend any Claim, the Indemnified Party shall cooperate in the defense or prosecution thereof. Such cooperation shall include the retention and (upon the Indemnifying Party’s request) the provision to the Indemnifying Party of records and information that are reasonably relevant to such Claim, and use reasonable efforts to make employees available on a mutually convenient basis to provide additional information and explanation of any material provided hereunder. Whether or not the Indemnifying Party shall have assumed the defense of a Claim, the Indemnified Party shall not admit any liability with respect to, or settle, compromise or discharge, such Claim without the Indemnifying Party’s prior written consent (which consent shall not be unreasonably withheld or delayed). The Indemnifying Party may pay, settle or compromise a Claim without the written consent of the

Indemnified Party, so long as such settlement includes (i) an unconditional release of the Indemnified Party from all liability in respect of such Claim, (ii) does not subject the Indemnified Party to any injunctive relief or other equitable remedy, and (iii) does not include a statement or admission of fault, culpability or failure to act by or on behalf of any Indemnified Party.

Section 4.8 Repurchase of Shares. Following the second anniversary of any Registration Trigger, AT&T shall have the right in its sole discretion, at any time and from time to time, to repurchase all Registrable Shares then outstanding, in whole but not in part, upon three Business Days' prior notice to the Holders at a purchase price equal to 110.00% of the Market Value of such Registrable Shares calculated as of the Business Day preceding the date of delivery of such notice. Upon delivery of such notice, the Holders shall be obligated to sell and deliver all such Registrable Shares to AT&T, against payment of the purchase price by AT&T, on the third Business Day following delivery of such notice and AT&T's obligations under this Agreement with respect to such Registrable Shares shall be deemed satisfied, subject to the obligation to pay the purchase price. The parties shall take such actions as are reasonably necessary to complete any such repurchase as provided above (including compliance with all applicable securities laws).

Section 4.9 Right of First Offer. Following receipt of any Demand Request or Non-Shelf Notice, as the case may be, from any Holders, AT&T, in lieu of satisfying its obligations under Section 4.1 hereof, shall have the right (but not the obligation) to purchase for cash all of the Registrable Shares subject to such Demand Request or Non-Shelf Notice, as the case may be, at a price equal to the Market Value of such Registrable Shares calculated as of the Business Day preceding the date of delivery of such notice. In order to exercise such right, AT&T shall deliver a written notice to the requesting Holders within five Business Days of receipt of the Demand Request or Non-Shelf Notice stating that AT&T thereby elects to purchase such Registrable Shares and setting forth a date of delivery of such Registrable Shares, which date shall be no later than the third Business Day thereafter. If AT&T delivers such written notice within the specified time and tenders payment for such Registrable Shares by the specified date of delivery, then (i) AT&T shall have no further obligations under Section 4.1 with respect to such Registrable Shares and (ii) AT&T shall in no way be in breach of this Agreement by virtue of its non-compliance with Section 4.1 hereof. The parties shall take such actions as are reasonably necessary to complete any such repurchase as provided above (including compliance with all applicable securities laws).

Section 4.10 Repurchase. If a Shelf Registration Statement is not filed, effective and available for the Holders to sell Registrable Shares during the period commencing on the 180th day prior to the Termination Date through such Termination Date (including, without limitation, due to AT&T imposing multiple Blackout Periods), at the option of a Majority in Interest of the Holders made pursuant to written notice to AT&T, AT&T will be restricted from declaring any dividends on or from making any Restricted Share Repurchases, provided that during the Repurchase Period, AT&T and AT&T Mobility may at their sole option repurchase all such Registrable Securities from all the Holders at a purchase price equal to the Market Value of such Registrable Shares calculated as of the Business Day preceding the date of delivery of the written notice by the Majority in Interest of the Holders. The Registration Fee will continue to accrue during, and be payable to the Holders with respect to, the Repurchase Period. Such Registration

Fee shall be due and payable in installments, as applicable, on either (a) the final Business Day of each fiscal quarter of AT&T during the Repurchase Period (under circumstances where such period is ongoing following the completion of such fiscal quarter) or (b) on the Business Day after either (i) the end of the Repurchase Period, or (ii) the repurchase of the Registrable Securities is completed, in each case in respect of the portion of the fee that has accrued and not been paid through and including such final day in the fiscal quarter or the final day of the Repurchase Period, as applicable.

Section 4.11 Cooperation During Non-S-3 Periods. Notwithstanding anything to the contrary in this Agreement, at any time when AT&T is no longer S-3 Eligible (including, without limitation, at the time of the Registration Trigger) or any Shelf Registration Statement becomes an Unavailable Shelf Registration Statement, the parties agree to consider in good faith various options with respect to the liquidation of any Registrable Shares, including, without limitation, engaging in repurchase or similar transactions whereby AT&T would purchase the Registrable Shares at Market Value prior to the expiration of the 180-day period referred to in Sections 4.1(a)(iv) and (vii), provided, that, absent any such agreement by the parties, no party shall be relieved of its obligations pursuant to the terms of this Agreement, and that at any time there is more than one Holder, all such Holders shall be treated equitably in accordance with the number of Registrable Securities held by each of the Holders.

ARTICLE V MISCELLANEOUS

Section 5.1 Termination. Except for Section 4.5, Section 4.6 and Section 4.7, each of which shall survive termination of this Agreement, upon the consummation of a sale of all or substantially all of AT&T's assets or any tender or exchange offer, merger (other than a merger by AT&T to effect a reorganization or recapitalization) or consolidation or any similar transaction in which the Holders dispose of all of their respective Holder Shares (and any Preferred Interests) that are then beneficially owned by them and outstanding or that otherwise results in the acquisition of all (but not less than all) Holder Shares (and any Preferred Interests) that are then beneficially owned by them and outstanding, this Agreement shall terminate and be of no further force and effect. Each Holder shall deliver written notice to AT&T within five (5) Business Days of its disposal of all Holder Shares (and any Preferred Interests) that are then beneficially owned by it and outstanding. Any Registration Fee that is accrued but unpaid at the time of the termination of this Agreement shall be payable on such terminate date.

Section 5.2 Injunctive Relief. Each party hereto acknowledges that it would be impossible to determine the amount of damages that would result from any breach of any of the provisions of this Agreement and that the remedy at law for any breach, or threatened breach, of any of such provisions would likely be inadequate and, accordingly, agrees that the other party shall, in addition to any other rights or remedies which it may have, be entitled to such equitable and injunctive relief as may be available from any court of competent jurisdiction to compel specific performance of, or restrain any party from violating, any of such provisions. In connection with any action or proceeding for injunctive relief, each party hereto hereby waives the claim or defense that a remedy at law alone is adequate and agrees, to the maximum extent permitted by law, to have each provision of this Agreement specifically enforced against it, without the necessity of posting bond or other security against it, and consents to the entry of

injunctive relief against it enjoining or restraining any breach or threatened breach of such provisions of this Agreement.

Section 5.3 Assignments ; Additional Holders.

(a) This Agreement shall be binding upon and inure to the benefit of the parties hereto and their respective successors, heirs, legal representatives and permitted assigns. Neither AT&T nor the Holders may directly or indirectly assign any of its rights or delegate any of its rights or obligations under this Agreement, by operation of law or otherwise, without the prior written consent of all other parties. The Investment Manager, acting as such and not on behalf of the Trust, automatically shall assign its rights or obligations under this Agreement to a successor pursuant to a proper assignment under the Investment Management Agreement, dated as of August 30, 2013. The Investment Manager otherwise may not directly or indirectly assign any of its rights or delegate any of its obligations under this Agreement, by operation of law or otherwise, without the prior written consent of all other parties hereto. Any purported direct or indirect assignment in violation of this Section 5.3 shall be null and void *ab initio* .

(b) Notwithstanding anything to the contrary contained herein, any substitute Member of AT&T Mobility duly admitted in accordance with all of the provisions of Section 8(c) of the Fourth LLC Agreement shall become a party to this Agreement by executing and delivering an additional counterpart signature page to this Agreement, and thereafter shall be deemed a “Holder” for all purposes hereunder, and that no consent or further amendment of this Agreement shall be required for such party to become an additional Holder hereunder.

Section 5.4 Amendments; Waiver . No amendment, modification or discharge of this Agreement, and no waiver hereunder, shall be valid or binding unless set forth in writing and duly executed by (i) AT&T, (ii) a Majority in Interest of the Holders (or, prior to the initial Delivery Date, Members of AT&T Mobility holding Preferred Interests that would represent, upon delivery in connection with a Put Option or Redemption Option, as the case may be, a Majority in Interest of the Holders), and (iii) so long as the Trust remains a Holder, the Investment Manager. Any such waiver shall constitute a waiver only with respect to the specific matter described in such writing and shall in no way impair the rights of the party granting such waiver in any other respect or at any other time. The waiver by AT&T, a Holder or the Investment Manager (either personally or on behalf of the Trust) of a breach of or a default under any of the provisions of this Agreement or to exercise any right or privilege hereunder, shall not be construed as a waiver of any other breach or default of a similar nature, or as a waiver of any of such provisions, rights or privileges hereunder. The rights and remedies herein provided are cumulative and none is exclusive of any other, or of any rights or remedies that any party may otherwise have at law or in equity.

Section 5.5 Notices . Any notice, request, instruction or other document to be given hereunder by any party to the others shall be in writing and shall be deemed given to a party when (a) delivered to the appropriate address by hand or by nationally recognized overnight courier service, (b) sent by facsimile with confirmation of transmission by the transmitting equipment, or (c) received or rejected by the addressee, if sent by certified mail, return receipt requested, in each case, to the following addresses or facsimile numbers and marked to the

attention of the person (by name or title) designated below, or to such other persons or addresses as may be designated in writing by the party to receive such notice as provided below:

To AT&T:

AT&T Inc.
One AT&T Plaza
208 S. Akard Street
Dallas, Texas 75202
Telephone: (214) 757-3300
Fax: (214) 746-2103
Attention: General Counsel

With a copy to:

AT&T Inc.
One AT&T Plaza
208 S. Akard Street
Dallas, Texas 75202
Telephone: (214) 757-3230
Fax: (214) 746-2268
Attention: Treasurer

To the Trust:

Brock Fiduciary Services LLC
622 Third Avenue
Floor 12
New York, NY 10017
Attention: Charles Brock

With a copy (which shall not constitute notice) to:

J.P. Morgan Chase Bank, N.A.
221 West Sixth Street, Floor 02
TX3-8215
Austin, TX 78701-3402, United States
Attention: Amy Schneeberger

K&L Gates LLP
1601 K Street, NW
Washington, DC 20006
Telephone: (202) 778-9000
Fax: (202) 778-9100
Attention: Robert H. Rosenblum

If additional Holders become a party to this Agreement in accordance with Section 5.3(b), notice shall be sent to the address set forth on file with AT&T Mobility, with a copy to AT&T and the Trust as set forth above.

Section 5.6 GOVERNING LAW; FORUM SELECTION. THIS AGREEMENT SHALL BE GOVERNED BY AND CONSTRUED IN ACCORDANCE WITH THE LAWS OF THE STATE OF NEW YORK, WITHOUT REGARD TO THE CONFLICTS OF LAW PRINCIPLES THEREOF. ANY ACTION OR PROCEEDING AGAINST THE PARTIES RELATING IN ANY WAY TO THIS AGREEMENT MAY BE BROUGHT AND ENFORCED EXCLUSIVELY IN THE COURTS OF THE STATE OF NEW YORK LOCATED IN THE BOROUGH OF MANHATTAN OR (TO THE EXTENT SUBJECT MATTER JURISDICTION EXISTS THEREFOR) THE U.S. DISTRICT COURT FOR THE SOUTHERN DISTRICT OF NEW YORK, AND THE PARTIES IRREVOCABLY SUBMIT TO THE JURISDICTION OF BOTH SUCH COURTS IN RESPECT OF ANY SUCH ACTION OR PROCEEDING.

Section 5.7 WAIVER OF JURY TRIAL. EACH OF THE PARTIES HERETO HEREBY WAIVES TO THE FULLEST EXTENT PERMITTED BY APPLICABLE LAW ANY RIGHT IT MAY HAVE TO A TRIAL BY JURY WITH RESPECT TO ANY LITIGATION DIRECTLY OR INDIRECTLY ARISING OUT OF, UNDER OR IN CONNECTION WITH THIS AGREEMENT OR ANY OF THE TRANSACTIONS CONTEMPLATED HEREBY. EACH OF THE PARTIES HEREBY (A) CERTIFIES THAT NO REPRESENTATIVE, AGENT OR ATTORNEY OF THE OTHER PARTY HAS REPRESENTED, EXPRESSLY OR OTHERWISE, THAT SUCH OTHER PARTY WOULD NOT, IN THE EVENT OF LITIGATION, SEEK TO ENFORCE THE FOREGOING WAIVER AND (B) ACKNOWLEDGES THAT IT HAS BEEN INDUCED TO ENTER INTO THIS AGREEMENT AND THE TRANSACTIONS CONTEMPLATED BY THIS AGREEMENT, AS APPLICABLE, BY, AMONG OTHER THINGS, THE MUTUAL WAIVERS AND CERTIFICATIONS IN THIS SECTION 5.7.

Section 5.8 Interpretation. The table of contents and headings herein are for convenience of reference only, do not constitute part of this Agreement and shall not be deemed to limit or otherwise affect any of the provisions hereof. The parties hereto have participated jointly in the negotiation and drafting of this Agreement and, in the event that an ambiguity or question of intent or interpretation arises, this Agreement shall be construed as jointly drafted by the parties hereto and no presumption or burden of proof shall arise favoring or disfavoring any party by virtue of the authorship of any provision of this Agreement.

Section 5.9 Scope of Agreement. Except for the Fourth LLC Agreement and the Amended Contribution Agreement, this Agreement constitutes the entire agreement, and supersedes all prior agreements, understandings representations and warranties both written and oral, between the parties with respect to the subject matter hereof. Notwithstanding the foregoing, nothing in this Agreement is intended to modify or supersede the terms of the Investment Manager Agreement or the Investment Management Agreement between AT&T and the Investment Manager and, in the event of any conflict between the terms of this Agreement and the terms of the Investment Manager Agreement or the Investment Management Agreement, the latter shall prevail.

Section 5.10 No Third Party Beneficiaries. Except as explicitly provided for in Section 4.6 and Section 4.7, this Agreement is not intended to confer upon any Person other than the parties hereto any rights or remedies hereunder.

Section 5.11 Severability. The provisions of this Agreement shall be deemed severable and the invalidity or unenforceability of any provision shall not affect the validity or enforceability of the other provisions hereof. If any provision of this Agreement, or the application thereof to any Person or any circumstance, is invalid or unenforceable, (a) a suitable and equitable provision shall be substituted therefor in order to carry out, so far as may be valid and enforceable, the intent and purpose of such invalid or unenforceable provision; and (b) the remainder of this Agreement and the application of such provision to other Persons or circumstances shall not be affected by such invalidity or unenforceability, nor shall such invalidity or unenforceability affect the validity or enforceability of such provision, or the application thereof, in any other jurisdiction.

Section 5.12 Counterparts. This Agreement may be executed in any number of counterparts, each such counterpart being deemed to be an original instrument, and all such counterparts shall together constitute the same agreement.

Section 5.13 Effectiveness. This Agreement shall become effective as of October 15, 2018.

IN WITNESS WHEREOF, the parties have caused this Agreement to be duly executed by their respective authorized officers as of the date first written above.

AT&T INC.

By: _____
Name: George B. Goeke
Title: Senior Vice President and Treasurer

SBC MASTER PENSION TRUST

By: JP MORGAN CHASE BANK, N.A.,
Solely in its Capacity As Directed
Trustee of the SBC Master Pension Trust

By: _____
Name:
Title:

BROCK FIDUCIARY SERVICES, LLC, for
itself and as Fiduciary and Investment Manager

By: Brock Capital Group LLC, as Managing
Member

By: Charles Brock LLC, as Managing
Member

By: _____
Name:
Title:

Signature Page to Amended and Restated Registration Rights Agreement

IN WITNESS WHEREOF, the parties have caused this Agreement to be duly executed by their respective authorized officers as of the date first written above.

AT&T INC.

By: _____
Name: George B. Goeke
Title: Senior Vice President and Treasurer

SBC MASTER PENSION TRUST

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By: Brock Capital Group LLC, as Managing
Member

By: Charles Brock LLC, as Managing
Member

By: _____

Name:

Title:

Signature Page to Amended and Restated Registration Rights Agreement

AT&T INC.
COMPUTATION OF RATIOS OF EARNINGS TO FIXED CHARGES
Dollars in Millions

	Year Ended December 31,				
	2018	2017	2016	2015	2014
Earnings:					
Income from continuing operations before income taxes	\$ 24,873	\$ 15,139	\$ 19,812	\$ 20,692	\$ 10,355
Equity in net (income) loss of affiliates included above	48	128	(98)	(79)	(175)
Fixed charges	10,197	8,854	7,296	6,592	5,295
Distributed income of equity affiliates	243	46	61	30	148
Interest capitalized	(493)	(903)	(892)	(797)	(234)
Earnings, as adjusted	<u>\$ 34,868</u>	<u>\$ 23,264</u>	<u>\$ 26,179</u>	<u>\$ 26,438</u>	<u>\$ 15,389</u>
Fixed Charges:					
Interest expense	\$ 7,957	\$ 6,300	\$ 4,910	\$ 4,120	\$ 3,613
Interest capitalized	493	903	892	797	234
Portion of rental expense representative of interest factor	1,747	1,651	1,494	1,675	1,448
Fixed Charges	<u>\$ 10,197</u>	<u>\$ 8,854</u>	<u>\$ 7,296</u>	<u>\$ 6,592</u>	<u>\$ 5,295</u>
Ratio of Earnings to Fixed Charges	3.42	2.63	3.59	4.01	2.91

Selected Financial and Operating Data

Dollars in millions except per share amounts

At December 31 and for the year ended:	2018	2017	2016	2015	2014
Financial Data					
Operating revenues	\$ 170,756	\$ 160,546	\$ 163,786	\$ 146,801	\$ 132,447
Operating expenses	\$ 144,660	\$ 140,576	\$ 140,243	\$ 126,439	\$ 113,860
Operating income	\$ 26,096	\$ 19,970	\$ 23,543	\$ 20,362	\$ 18,587
Interest expense	\$ 7,957	\$ 6,300	\$ 4,910	\$ 4,120	\$ 3,613
Equity in net income (loss) of affiliates	\$ (48)	\$ (128)	\$ 98	\$ 79	\$ 175
Other income (expense) - net	\$ 6,782	\$ 1,597	\$ 1,081	\$ 4,371	\$ (4,794)
Income tax (benefit) expense	\$ 4,920	\$ (14,708)	\$ 6,479	\$ 7,005	\$ 3,619
Net Income	\$ 19,953	\$ 29,847	\$ 13,333	\$ 13,687	\$ 6,736
Less: Net Income Attributable to Noncontrolling Interest	\$ (583)	\$ (397)	\$ (357)	\$ (342)	\$ (294)
Net Income Attributable to AT&T	\$ 19,370	\$ 29,450	\$ 12,976	\$ 13,345	\$ 6,442
Earnings Per Common Share:					
Net Income Attributable to AT&T	\$ 2.85	\$ 4.77	\$ 2.10	\$ 2.37	\$ 1.24
Earnings Per Common Share - Assuming Dilution:					
Net Income Attributable to AT&T	\$ 2.85	\$ 4.76	\$ 2.10	\$ 2.37	\$ 1.24
Cash and cash equivalents	\$ 5,204	\$ 50,498	\$ 5,788	\$ 5,121	\$ 8,603
Total assets	\$ 531,864	\$ 444,097	\$ 403,821	\$ 402,672	\$ 296,834
Long-term debt	\$ 166,250	\$ 125,972	\$ 113,681	\$ 118,515	\$ 75,778
Total debt	\$ 176,505	\$ 164,346	\$ 123,513	\$ 126,151	\$ 81,834
Capital expenditures ¹	\$ 21,251	\$ 21,550	\$ 22,408	\$ 20,015	\$ 21,433
Dividends declared per common share	\$ 2.01	\$ 1.97	\$ 1.93	\$ 1.89	\$ 1.85
Book value per common share	\$ 26.63	\$ 23.13	\$ 20.22	\$ 20.12	\$ 17.40
Ratio of earnings to fixed charges	3.42	2.63	3.59	4.01	2.91
Debt ratio	47.7%	53.6%	49.9%	50.5%	47.5%
Net debt ratio	46.2%	37.2%	47.5%	48.5%	42.6%
Weighted-average common shares outstanding (000,000)	6,778	6,164	6,168	5,628	5,205
Weighted-average common shares outstanding with dilution (000,000)	6,806	6,183	6,189	5,646	5,221
End of period common shares outstanding (000,000)	7,282	6,139	6,139	6,145	5,187
Number of employees	268,220	254,000	268,540	281,450	243,620

¹ Includes FirstNet reimbursements of \$1,429 in 2018, \$279 in 2017 and \$0 in 2016-2014 (see Note 19).

Management's Discussion and Analysis of Financial Condition and Results of Operations

Dollars in millions except per share amounts

OVERVIEW

AT&T Inc. is referred to as “we,” “AT&T” or the “Company” throughout this document, and the names of the particular subsidiaries and affiliates providing the services generally have been omitted. AT&T is a holding company whose subsidiaries and affiliates operate worldwide in the telecommunications, media and technology industries. You should read this discussion in conjunction with the consolidated financial statements and accompanying notes (Notes). We completed the acquisition of Time Warner Inc. (Time Warner) on June 14, 2018, and have included its results after that date. In accordance with U.S. generally accepted accounting principles (GAAP), operating results from Time Warner prior to the acquisition are excluded.

We have four reportable segments: (1) Communications, (2) WarnerMedia, (3) Latin America and (4) Xandr. Our segment results presented in Note 4 and discussed below follow our internal management reporting. We analyze our segments based on segment operating contribution, which consists of operating income, excluding acquisition-related costs and other significant items and equity in net income (loss) of affiliates for investments managed within each segment. Each segment's percentage calculation of total segment operating revenue and contribution is derived from our segment results table in Note 4 and may total more than 100 percent due to losses in one or more segments. Percentage increases and decreases that are not considered meaningful are denoted with a dash.

	2018	2017	2016	Percent Change	
				2018 vs. 2017	2017 vs. 2016
Operating Revenues					
Communications	\$ 144,631	\$ 150,378	\$ 154,232	(3.8)%	(2.5)%
WarnerMedia	18,941	430	418	-	2.9
Latin America	7,652	8,269	7,283	(7.5)	13.5
Xandr	1,740	1,373	1,333	26.7	3.0
Corporate and other	1,191	1,279	1,731	(6.9)	(26.1)
Eliminations and consolidation	(3,399)	(1,183)	(1,211)	-	2.3
AT&T Operating Revenues	170,756	160,546	163,786	6.4	(2.0)
Operating Contribution					
Communications	32,262	31,685	32,437	1.8	(2.3)
WarnerMedia	5,695	62	96	-	(35.4)
Latin America	(710)	(266)	(661)	-	59.8
Xandr	1,333	1,202	1,233	10.9	(2.5)
Segment Operating Contribution	\$ 38,580	\$ 32,683	\$ 33,105	18.0%	(1.3)%

The *Communications segment* accounted for approximately 84% of our 2018 total segment operating revenues compared to 94% in 2017 and 84% of our 2018 total segment operating contribution as compared to 97% in 2017. This segment provides services to businesses and consumers located in the U.S. or in U.S. territories and businesses globally. Our business strategies reflect bundled product offerings that cut across product lines and utilize shared assets. This segment contains the following business units:

- **Mobility** provides nationwide wireless service and equipment.
- **Entertainment Group** provides video, internet and voice communications services to residential customers.
- **Business Wireline** provides advanced IP-based services (referred to as “strategic services”), as well as traditional voice and data services to business customers.

The *WarnerMedia segment* accounted for approximately 11% of our 2018 total segment operating revenues and 15% of our 2018 total segment operating contribution. This segment develops, produces and distributes feature films, television, gaming and other content over various physical and digital formats. This segment contains the following business units:

- **Turner** primarily operates multichannel basic television networks and digital properties.
- **Home Box Office** primarily operates multichannel premium pay television services.
- **Warner Bros.** principally produces and distributes television shows, feature films and games.

The *Latin America segment* accounted for approximately 4% of our 2018 total segment operating revenues compared to 5% in 2017. This segment provides entertainment and wireless services outside of the U.S. This segment contains the following business units:

Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operations - Continued

Dollars in millions except per share amounts

- **Vrio** provides video services primarily to residential customers using satellite technology.
- **Mexico** provides wireless service and equipment to customers in Mexico.

The **Xandr segment** accounted for approximately 1% of our total segment operating revenues in 2018 and 2017 and 3% of our 2018 total segment operating contribution as compared to 4% in 2017. This segment provides advertising services. These services utilize data insights to develop higher-value targeted advertising.

RESULTS OF OPERATIONS

Consolidated Results Our financial results are summarized in the following table. We then discuss factors affecting our overall results for the past three years. Additional analysis is discussed in our "Segment Results" section. We also discuss our expected revenue and expense trends for 2019 in the "Operating Environment and Trends of the Business" section. Percentage increases and decreases that are not considered meaningful are denoted with a dash. Certain prior period amounts have been reclassified to conform to the current period's presentation.

	2018	2017	2016	Percent Change	
				2018 vs. 2017	2017 vs. 2016
Operating revenues					
Service	\$ 152,345	\$ 145,597	\$ 148,884	4.6%	(2.2)%
Equipment	18,411	14,949	14,902	23.2	0.3
Total Operating Revenues	170,756	160,546	163,786	6.4	(2.0)
Operating expenses					
Operations and support	116,230	116,189	114,396	-	1.6
Depreciation and amortization	28,430	24,387	25,847	16.6	(5.6)
Total Operating Expenses	144,660	140,576	140,243	2.9	0.2
Operating Income	26,096	19,970	23,543	30.7	(15.2)
Interest expense	7,957	6,300	4,910	26.3	28.3
Equity in net income (loss) of affiliates	(48)	(128)	98	62.5	-
Other income (expense) – net	6,782	1,597	1,081	-	47.7
Income Before Income Taxes	24,873	15,139	19,812	64.3	(23.6)
Net Income	19,953	29,847	13,333	(33.1)	-
Net Income Attributable to AT&T	\$ 19,370	\$ 29,450	\$ 12,976	(34.2)%	- %

OVERVIEW

Operating revenues increased in 2018 and decreased in 2017. The increase in 2018 was primarily due to our acquisition of Time Warner and growth in our Xandr segment. Partially offsetting the increases was our adoption of a new revenue accounting standard, which included our policy election to record Universal Service Fund (USF) fees on a net basis. Also offsetting revenues were declines in our Communications segment, which continues to experience pressure from developing technology and shifts in customer behavior, partially offset by increased equipment revenues. The decrease in 2017 was attributable to the Communications segment, primarily driven by continued declines in legacy wireline voice and data products, lower wireless service and equipment revenues and waived revenues due to natural disasters. The 2017 declines were partially offset by increased revenue from video and strategic business services and increased sales volume in Mexico.

Operations and support expenses increased in 2018 and 2017. The increase in 2018 was primarily due to business acquisitions in 2018, higher content costs and higher equipment costs related to wireless device sales and upgrades in our Communications segment. The increase was partially offset by our adoption of new accounting rules, which included our policy election to record USF fees on a net basis, and a prior year noncash charge resulting from the abandonment of certain copper assets that will not be necessary to support future network activity due to fiber deployment plans in particular markets (see Note 8). The increase in 2017 was due to annual content cost increases and additional programming costs in our video business and the copper abandonment charge. The increase was partially offset by lower expenses due to our continued focus

Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operations - Continued

Dollars in millions except per share amounts

on cost management, lower equipment expenses, lower selling and commission costs from reduced volumes and lower marketing costs.

Depreciation and amortization expense increased in 2018 and decreased in 2017. Depreciation expense increased \$311, or 1.6%, in 2018. The increase was primarily due to the Time Warner acquisition as well as ongoing capital spending for network upgrades and expansion offset by lower expense resulting from our fourth-quarter 2017 abandonment of certain copper network assets. Depreciation expense decreased \$895, or 4.3%, in 2017. The decrease was primarily due to our fourth-quarter 2016 change in estimated useful lives and salvage values of certain assets associated with our transition to an IP-based network, which accounted for \$845 of the decrease. Also contributing to lower depreciation expenses were network assets becoming fully depreciated. These decreases were partially offset by increases resulting from ongoing capital spending for upgrades and expansion.

Amortization expense increased \$3,732 in 2018 primarily due to the amortization of intangibles associated with WarnerMedia. Amortization expense decreased \$565 in 2017 due to lower amortization of intangibles for customer lists associated with acquisitions.

Operating income increased in 2018 and decreased in 2017. Our operating margin was 15.3% in 2018, compared to 12.4% in 2017 and 14.4% in 2016.

Interest expense increased in 2018 and 2017, primarily due to our acquisition of Time Warner. The increase in 2018 was primarily due to higher debt balances related to the acquisition, including interest expense on Time Warner notes, and lower capitalized interest associated with our network plans putting spectrum in service. The increase in 2017 was primarily due to higher debt balances in anticipation of closing our acquisition of Time Warner and an increase in average interest rates when compared to the prior year. Financing fees related to pending acquisitions and debt exchange costs also contributed to higher interest expense in 2017.

Equity in net income (loss) of affiliates increased in 2018 and decreased in 2017. The increase in 2018 was primarily due to 2017 losses from our legacy publishing business, which was sold in June 2017, partially offset by the net losses from investments acquired through the purchase of Time Warner. The decrease in 2017 was predominantly due to losses from the aforementioned publishing business. (See Note 9)

Other income (expense) – net increased in 2018 and 2017. The increase in 2018 was primarily due to actuarial gains of \$3,412 in 2018 compared to a loss of \$1,258 in 2017, and also included gains of \$826 on the disposition of our data colocation business and Otter Media Holdings (Otter Media) transaction, and higher interest income on investments held prior to the closing of our Time Warner acquisition. The increase in 2017 was primarily due to increased amortization of prior service credits and lower interest costs associated with benefit plans that were partially offset by higher actuarial remeasurement losses in 2017. The increase also included higher interest and dividend income, which was largely a result of interest on cash held in anticipation of closing our acquisition of Time Warner, and an increase in net gains from the sale of nonstrategic assets and investments.

Income tax expense increased in 2018 and decreased in 2017, primarily driven by the enactment of U.S. corporate tax reform in December 2017, resulting in the remeasurement of our deferred tax obligation using the 21% U.S. federal tax rate from the previous 35% rate. The increase in 2018 was also due in part to increases for tax positions related to prior years offset by income tax benefits related to our foreign investments. Our effective tax rate was 19.8% in 2018, (97.2)% in 2017 and 32.7% in 2016.

The Tax Cuts and Jobs Act (the Act) was enacted on December 22, 2017. The Act reduced the U.S. federal corporate tax rate from 35% to 21% and implemented a territorial tax system. Accounting Standards Codification (ASC) 740, "Income Taxes," requires that the effects of changes in tax rates and laws be recognized in the period in which the legislation is enacted. As a result, we decreased our 2017 tax expense by \$20,271 primarily related to the remeasurement of our net deferred tax liabilities at the new lower federal tax rate, \$816 of which represented the change in statutory rates on items deductible in the fourth quarter. The effects related to foreign earnings of the one-time transition tax and new territorial tax system did not create material impacts to the effective tax rate and total tax expense. Also, as a result of the Act, we decreased our 2018 tax expense by \$718 primarily related to the measurement period adjustments of our net deferred tax liabilities at the new lower

Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operations - Continued

Dollars in millions except per share amounts

federal tax rate in connection with completing our analysis of the impacts of the Act. (See Note 13)

We expect our effective tax rate in 2019 to be approximately 23% (excluding any one-time items).

Segment Results Our segments are strategic business units that offer different products and services over various technology platforms and/or in different geographies that are managed accordingly. Our segment results presented below follow our internal management reporting. In addition to segment operating contribution, we also evaluate segment performance based on EBITDA and/or EBITDA margin, which is defined as segment operating contribution, excluding equity in net income (loss) of affiliates and depreciation and amortization. We believe EBITDA to be a relevant and useful measurement to our investors as it is part of our internal management reporting and planning processes and it is an important metric that management uses to evaluate operating performance. EBITDA does not give effect to cash used for debt service requirements and thus does not reflect available funds for distributions, reinvestment or other discretionary uses. EBITDA margin is EBITDA divided by total revenues.

COMMUNICATIONS SEGMENT

	2018	2017	2016	Percent Change	
				2018 vs. 2017	2017 vs. 2016
Segment Operating Revenues					
Mobility	\$ 71,344	\$ 71,090	\$ 72,587	0.4%	(2.1)%
Entertainment Group	46,460	49,995	50,660	(7.1)	(1.3)
Business Wireline	26,827	29,293	30,985	(8.4)	(5.5)
Total Segment Operating Revenues	144,631	150,378	154,232	(3.8)	(2.5)
Segment Operating Contribution					
Mobility	21,722	20,204	20,743	7.5	(2.6)
Entertainment Group	4,713	5,471	5,898	(13.9)	(7.2)
Business Wireline	5,827	6,010	5,796	(3.0)	3.7
Total Segment Operating Contribution	\$ 32,262	\$ 31,685	\$ 32,437	1.8%	(2.3)%

Operating revenues decreased in 2018 and 2017, driven by declines in our Entertainment Group and Business Wireline business units, partially offset by increases in our Mobility business unit in 2018. The decrease in 2018 was primarily due to our policy election to no longer include USF fees in revenues, shifts to over-the-top (OTT) video offerings and continued declines in legacy voice and data products and linear video, partially offset by higher wireless service and equipment revenues from increased postpaid smartphone sales. The decrease in 2017 was driven by declines in legacy voice and data products, shifts to unlimited wireless plans and lower wireless handset sales and upgrades, partially offset by growth in advanced IP services.

In the first half of 2018, we continued to see pressure from legacy services revenues and from wireless service revenues as we lapped the first year of offering unlimited data plans. Since our unlimited plans have now been in effect for over a year, service revenues on a comparable basis have shown improvements, which we expect to continue in 2019.

Operating contribution increased in 2018 and decreased in 2017. The 2018 contribution was positively impacted by new revenue accounting rules and improvement in our Mobility business unit, partially offset by declines in our Entertainment Group and Business Wireline business units. Our 2017 contribution decreased due to declines in our Mobility and Entertainment Groups. Our Communications segment operating income margin was 22.3% in 2018, 21.1% in 2017 and 21.0% in 2016.

Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operations - Continued

Dollars in millions except per share amounts

Communications Business Unit Discussion

Mobility Results

	2018	2017	2016	Percent Change	
				2018 vs. 2017	2017 vs. 2016
Operating revenues					
Service	\$ 54,933	\$ 57,696	\$ 59,152	(4.8)%	(2.5)%
Equipment	16,411	13,394	13,435	22.5	(0.3)
Total Operating Revenues	71,344	71,090	72,587	0.4	(2.1)
Operating expenses					
Operations and support	41,266	42,871	43,567	(3.7)	(1.6)
Depreciation and amortization	8,355	8,015	8,277	4.2	(3.2)
Total Operating Expenses	49,621	50,886	51,844	(2.5)	(1.8)
Operating Income	21,723	20,204	20,743	7.5	(2.6)
Equity in Net Income (Loss) of Affiliates	(1)	-	-	-	-
Operating Contribution	\$ 21,722	\$ 20,204	\$ 20,743	7.5%	(2.6)%

The following tables highlight other key measures of performance for Mobility:

(in 000s)	2018	2017	2016	Percent Change	
				2018 vs. 2017	2017 vs. 2016
Wireless Subscribers					
Postpaid smartphones	60,712	59,874	59,096	1.4%	1.3%
Postpaid feature phones and data-centric devices	16,177	17,636	18,276	(8.3)	(3.5)
Postpaid	76,889	77,510	77,372	(0.8)	0.2
Prepaid	17,000	15,335	13,536	10.9	13.3
Branded	93,889	92,845	90,908	1.1	2.1
Reseller	7,782	9,366	11,949	(16.9)	(21.6)
Connected devices ¹	51,335	38,991	31,591	31.7	23.4
Total Wireless Subscribers	153,006	141,202	134,448	8.4	5.0
Branded Smartphones	75,384	72,924	70,817	3.4	3.0
Smartphones under our installment programs at end of period	31,418	32,438	30,688	(3.1)%	5.7%

¹ Includes data-centric devices such as session-based tablets, monitoring devices and primarily wholesale automobile systems. Excludes postpaid tablets.

Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operations - Continued

Dollars in millions except per share amounts

(in 000s)	2018	2017	2016	Percent Change	
				2018 vs. 2017	2017 vs. 2016
Wireless Net Additions ¹					
Postpaid ⁴	(97)	641	986	- %	(35.0)%
Prepaid	1,290	1,013	1,575	27.3	(35.7)
Branded Net Additions	1,193	1,654	2,561	(27.9)	(35.4)
Reseller	(1,704)	(1,871)	(1,846)	8.9	(1.4)
Connected devices ²	12,321	9,691	5,349	27.1	81.2
Wireless Net Subscriber Additions	11,810	9,474	6,064	24.7	56.2
Smartphones sold under our installment programs during period	16,344	16,667	17,871	(1.9)%	(6.7)%
Branded Churn ³	1.67 %	1.68 %	1.61 %	(1)BP	7 BP
Postpaid Churn ³	1.12 %	1.07 %	1.07 %	5 BP	- BP
Postpaid Phone-Only Churn ^{3, 4}	0.90 %	0.85 %	0.92 %	5 BP	(7)BP

¹ Excludes acquisition-related additions during the period.

² Includes data-centric devices such as session-based tablets, monitoring devices and primarily wholesale automobile systems. Excludes postpaid tablets.

³ Calculated by dividing the aggregate number of wireless subscribers who canceled service during a month divided by the total number of wireless subscribers at the beginning of that month. The churn rate for the period is equal to the average of the churn rate for each month of that period.

⁴ Postpaid phone net adds were 194, (318) and (874) for the years 2018, 2017 and 2016, respectively.

Service revenue decreased during 2018 largely due to our adoption of a new accounting standard that included our policy election to no longer include USF fees in revenues, resulting in less revenue being allocated to the service component of bundled contracts. Partially offsetting this decrease was higher prepaid service revenues from growth in Cricket and AT&T PREPAID SM subscribers and the diminishing impact of customers shifting to discounted monthly service charges under our unlimited plans. Service revenue declines in 2017 were primarily due to customer migration to unlimited plans, partially offset by growth in prepaid services. Since our unlimited plans have now been in effect for over a year, service revenues on a comparable basis have shown improvements, which we expect to continue in 2019.

ARPU

ARPU decreased in 2018 and was affected by the new revenue accounting standard, which reduces the service revenue recognized, and by customers shifting to unlimited plans, which decreases overage revenues; however, price increases are partially offsetting that decline.

Churn

The effective management of subscriber churn is critical to our ability to maximize revenue growth and to maintain and improve margins. Competitive pricing in the industry contributed to higher churn rates in 2018, and our move to unlimited plans combined with an improved customer experience in 2017 contributed to lower churn rates in 2017.

Equipment revenue increased in 2018 and decreased in 2017. The 2018 increase resulted from the adoption of a new accounting standard that contributed to higher revenue allocations from bundled contracts and the sale of higher-priced devices. The 2017 decrease was driven by lower handset sales and upgrades. Equipment revenue is unpredictable as customers are choosing to upgrade devices less frequently or bring their own devices.

Operations and support expenses decreased in 2018 and 2017. The 2018 decrease was primarily due to our adoption of new accounting rules, resulting in commission deferrals and netting of USF fees, as well as increased operational efficiencies. Lower expenses in 2017 were primarily due to lower equipment costs driven by fewer sales and upgrades and increased operational efficiencies.

Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operations - Continued

Dollars in millions except per share amounts

Depreciation expense increased in 2018 and decreased in 2017. The 2018 increase was primarily due to ongoing capital spending for network upgrades and expansion partially offset by fully depreciated assets. Depreciation expense decreased in 2017 due to fully depreciated assets, partially offset by ongoing capital spending for network upgrades and expansion.

Operating income increased in 2018 and decreased in 2017. Our Mobility operating income margin was 30.4% in 2018, 28.4% in 2017 and 28.6% in 2016. Our Mobility EBITDA margin was 42.2% in 2018, 39.7% in 2017 and 40.0% in 2016. EBITDA is defined as operating contribution excluding equity in net income (loss) of affiliates and depreciation and amortization.

Subscriber Relationships

As the wireless industry has matured, future wireless growth will increasingly depend on our ability to offer innovative services, plans and devices and to provide these services in bundled product offerings with our broadband services. Subscribers that purchase two or more services from us have significantly lower churn than subscribers that purchase only one service. To support higher mobile data usage, our priority is to best utilize a wireless network that has sufficient spectrum and capacity to support these innovations on as broad a geographic basis as possible. To attract and retain subscribers in a mature and highly competitive market, we offer a wide variety of plans, including unlimited and bundled services, as well as equipment installment programs.

Branded Subscribers

At December 31, 2018, approximately 96% of our postpaid phone subscriber base used smartphones, compared to 93% at December 31, 2017 and 91% at December 31, 2016, with the vast majority of phone sales during these years attributable to smartphones.

Virtually all of our postpaid smartphone subscribers are on plans that provide for service on multiple devices at reduced rates, and such subscribers tend to have higher retention and lower churn rates. Such offerings are intended to encourage existing subscribers to upgrade their current services and/or add connected devices, attract subscribers from other providers and/or minimize subscriber churn.

Our equipment installment purchase program allows for postpaid subscribers to purchase certain devices in installments over a specified period of time, with the option to trade in the original device for a new device and have the remaining unpaid balance paid or settled once conditions are met. A significant percentage of our customers choosing equipment installment programs pay a lower monthly service charge, which results in lower service revenue recorded for these subscribers. Over half of the postpaid smartphone base is on an equipment installment program and the majority of postpaid smartphone gross adds and upgrades for all periods presented were either equipment installment program or Bring Your Own Device (BYOD). While BYOD customers do not generate equipment revenue or expense, the service revenue helps improve our margins.

Connected Devices

Connected devices include data-centric devices such as session-based tablets, monitoring devices and primarily wholesale automobile systems. Connected device subscribers increased in 2018 and 2017, and we added approximately 7.9 million and 6.4 million wholesale connected cars through agreements with various carmakers, and experienced strong growth in other Internet of Things (IoT) connections as well. We believe that these connected car agreements give us the opportunity to create future retail relationships with the car owners.

Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operations - Continued

Dollars in millions except per share amounts

Entertainment Group Results

	2018	2017	2016	Percent Change	
				2018 vs. 2017	2017 vs. 2016
Operating revenues					
Video entertainment	\$ 33,357	\$ 36,167	\$ 36,001	(7.8)%	0.5 %
High-speed internet	7,956	7,674	7,472	3.7	2.7
Legacy voice and data services	3,041	3,767	4,643	(19.3)	(18.9)
Other service and equipment	2,106	2,387	2,544	(11.8)	(6.2)
Total Operating Revenues	46,460	49,995	50,660	(7.1)	(1.3)
Operating expenses					
Operations and support	36,430	38,903	38,909	(6.4)	-
Depreciation and amortization	5,315	5,621	5,861	(5.4)	(4.1)
Total Operating Expenses	41,745	44,524	44,770	(6.2)	(0.5)
Operating Income	4,715	5,471	5,890	(13.8)	(7.1)
Equity in Net Income (Loss) of Affiliates	(2)	-	8	-	-
Operating Contribution	\$ 4,713	\$ 5,471	\$ 5,898	(13.9)%	(7.2)%

The following tables highlight other key measures of performance for Entertainment Group:

(in 000s)	2018	2017	2016	Percent Change	
				2018 vs. 2017	2017 vs. 2016
Video Connections					
Satellite	19,222	20,458	21,012	(6.0)%	(2.6)%
U-verse	3,681	3,631	4,253	1.4	(14.6)
DIRECTV NOW ¹	1,591	1,155	267	37.7	-
Total Video Connections	24,494	25,244	25,532	(3.0)	(1.1)
Broadband Connections					
IP	13,729	13,462	12,888	2.0	4.5
DSL	680	888	1,291	(23.4)	(31.2)
Total Broadband Connections	14,409	14,350	14,179	0.4	1.2
Retail Consumer Switched Access Lines	3,967	4,774	5,853	(16.9)	(18.4)
U-verse Consumer VoIP Connections	4,582	5,222	5,425	(12.3)	(3.7)
Total Retail Consumer Voice Connections	8,549	9,996	11,278	(14.5)%	(11.4)%

¹ Consistent with industry practice, DIRECTV NOW includes connections that are on a free-trial.

Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operations - Continued

Dollars in millions except per share amounts

(in 000s)	2018	2017	2016	Percent Change	
				2018 vs. 2017	2017 vs. 2016
Video Net Additions					
Satellite ¹	(1,236)	(554)	1,228	- %	- %
U-verse ¹	50	(622)	(1,361)	-	54.3
DIRECTV NOW ²	436	888	267	(50.9)	-
Net Video Additions	(750)	(288)	134	-	-
Broadband Net Additions					
IP	267	574	532	(53.5)	7.9
DSL	(208)	(403)	(639)	48.4	36.9
Net Broadband Additions	59	171	(107)	(65.5)%	- %

¹ Includes disconnections for customers that migrated to DIRECTV NOW.

² Consistent with industry practice, DIRECTV NOW includes connections that are on a free-trial.

Video entertainment revenues are comprised of subscription and advertising revenues. Revenues decreased in 2018 and increased in 2017. The 2018 decrease was largely driven by a 4.9% decline in linear video subscribers, partially offset by OTT video subscriber net additions and higher advertising sales. This shift by our customers from a premium linear service to our more economically priced OTT video service or to competitors, consistent with the rest of the industry, has pressured our video revenues. We expect linear subscriber losses to continue in 2019. Also contributing to the decrease was the impact of newly adopted accounting rules, which resulted in less revenue allocated to video services when these services are bundled with other offerings. The increase in 2017 was driven by higher revenue per subscriber. For both periods, churn rose for subscribers with linear video only service, partially reflecting price increases.

High-speed internet revenues increased in 2018 and 2017. In addition to the shift of subscribers to our higher-speed fiber services, our bundling strategy is helping to lower churn with subscribers who bundle broadband with another AT&T service, having about half the churn of broadband-only subscribers.

Legacy voice and data service revenues decreased in 2018 and 2017, reflecting the continued migration of customers to our more advanced IP-based offerings or to competitors.

Operations and support expenses decreased in 2018 and 2017. The 2018 decrease was primarily due to our adoption of new accounting rules, resulting in commission deferrals and netting of USF fees, our ongoing focus on cost efficiencies, lower employee-related expenses resulting from workforce reductions and lower amortization of fulfillment cost deferrals due to a longer estimated economic life for our customers (see Note 1). The 2017 decrease was primarily due to cost efficiencies and merger synergies, workforce reductions and lower advertising expenses, partially offset by content cost increases, deferred customer fulfillment cost amortization and video platform development costs.

Depreciation expenses decreased in 2018 and 2017, primarily due to our fourth-quarter 2017 abandonment of certain copper network assets for 2018 and a fourth-quarter 2016 change in estimated useful lives and salvage value of certain assets in 2017. These decreases were partially offset by ongoing capital spending for network upgrades and expansion.

Operating income decreased in 2018 and 2017. Our Entertainment Group operating income margin was 10.1% in 2018, 10.9% in 2017 and 11.6% in 2016. Our Entertainment Group EBITDA margin was 21.6% in 2018, 22.2% in 2017 and 23.2% in 2016.

Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operations - Continued

Dollars in millions except per share amounts

Business Wireline Results

	2018	2017	2016	Percent Change	
				2018 vs. 2017	2017 vs. 2016
Operating revenues					
Strategic services	\$ 12,310	\$ 11,950	\$ 11,139	3.0%	7.3 %
Legacy voice and data services	10,697	13,565	15,904	(21.1)	(14.7)
Other service and equipment	3,820	3,778	3,942	1.1	(4.2)
Total Operating Revenues	26,827	29,293	30,985	(8.4)	(5.5)
Operating expenses					
Operations and support	16,245	18,492	19,954	(12.2)	(7.3)
Depreciation and amortization	4,754	4,789	5,235	(0.7)	(8.5)
Total Operating Expenses	20,999	23,281	25,189	(9.8)	(7.6)
Operating Income	5,828	6,012	5,796	(3.1)	3.7
Equity in Net Income (Loss) of Affiliates	(1)	(2)	-	50.0	-
Operating Contribution	\$ 5,827	\$ 6,010	\$ 5,796	(3.0)%	3.7 %

Strategic services revenues increased in 2018 and 2017. Our strategic services are made up of (1) data services, including our VPN, dedicated internet ethernet and broadband, (2) voice service, including VoIP and cloud-based voice solutions, and (3) security and cloud solutions. Revenue increases for both periods were attributable to our data services, followed by security and cloud solutions and then voice.

Legacy voice and data service revenues decreased in 2018 and 2017, primarily due to lower demand as customers continue to shift to our more advanced IP-based offerings or our competitors.

Other service and equipment revenues increased in 2018 and decreased in 2017. Other service revenues include project-based revenue, which is nonrecurring in nature, as well as revenues from other managed services, outsourcing, government professional services and customer premises equipment. The results for both periods were driven by the timing of nonrecurring customer premises equipment contracts.

Operations and support expenses decreased in 2018 and 2017. The 2018 decrease was primarily due to our adoption of new accounting rules, resulting in netting of USF fees. Also contributing to declines in both years were our ongoing efforts to shift to a software-based network and automate and digitize our customer support activities.

Depreciation expense decreased in 2018 and 2017. The decreases were primarily due to updates to the asset lives of certain network assets and our fourth-quarter 2017 abandonment of certain copper network assets.

Operating income decreased in 2018 and increased in 2017. Our Business Wireline operating income margin was 21.7% in 2018, 20.5% in 2017 and 18.7% in 2016. Our Business Wireline EBITDA margin was 39.4% in 2018, 36.9% in 2017 and 35.6% in 2016.

Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operations - Continued

Dollars in millions except per share amounts

WARNERMEDIA SEGMENT

	2018	2017	2016	Percent Change	
				2018 vs. 2017	2017 vs. 2016
Segment Operating Revenues					
Turner	\$ 6,979	\$ 430	\$ 418	- %	- %
Home Box Office	3,598	-	-	-	-
Warner Bros.	8,703	-	-	-	-
Eliminations & Other	(339)	-	-	-	-
Total Segment Operating Revenues	18,941	430	418	-	-
Segment Operating Contribution					
Turner	3,108	140	147	-	-
Home Box Office	1,384	-	-	-	-
Warner Bros.	1,449	-	-	-	-
Eliminations & Other	(246)	(78)	(51)	-	-
Total Segment Operating Contribution	\$ 5,695	\$ 62	\$ 96	- %	- %

Our WarnerMedia segment consists of our Turner, Home Box Office and Warner Bros. business units. The order of presentation reflects the consistency of revenue streams, rather than overall magnitude as that is subject to timing and frequency of studio releases. WarnerMedia also includes our financial results for Regional Sports Networks (RSNs), which comprise the 2017 and 2016 results reported in this segment.

The WarnerMedia segment does not include results from Time Warner operations for the periods prior to our June 14, 2018 acquisition. Otter Media is included as an equity method investment for periods prior to our August 7, 2018 acquisition of the remaining interest and is in the segment operating results following the acquisition. Consistent with our past practice, many of the fair value adjustments from the application of purchase accounting required under GAAP have not been allocated to the segment, instead they are reported as acquisition-related items in the reconciliation to consolidated results.

Operating revenues were \$18,941 in 2018.

Operating contribution was \$5,695 for 2018. Our WarnerMedia segment operating income margin was 29.9% for 2018. The prior-year results are not meaningful due to the acquisition of Time Warner.

Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operations - Continued

Dollars in millions except per share amounts

WarnerMedia Business Unit Discussion

Turner Results

	2018	2017	2016	Percent Change	
				2018 vs. 2017	2017 vs. 2016
Operating revenues					
Subscription	\$ 4,207	\$ 365	\$ 364	- %	- %
Advertising	2,330	65	54	-	-
Content and other	442	-	-	-	-
Total Operating Revenues	6,979	430	418	-	-
Operating expenses					
Operations and support	3,794	331	318	-	-
Depreciation and amortization	131	4	5	-	-
Total Operating Expenses	3,925	335	323	-	-
Operating Income	3,054	95	95	-	-
Equity in Net Income of Affiliates	54	45	52	-	-
Operating Contribution	\$ 3,108	\$ 140	\$ 147	- %	- %

Turner includes the WarnerMedia businesses managed by Turner as well as our financial results for RSNs, which comprise the 2017 and 2016 results reported in this business unit.

Operating revenues for Turner are generated primarily from licensing programming to distribution affiliates and from selling advertising on its networks and digital properties. Revenues for 2018 included \$4,207 of subscription, \$2,330 of advertising and \$442 of content and other revenue.

Operations and support expenses totaled \$3,794 for 2018.

Operating income was \$3,054 for 2018. Our Turner operating income margin was 43.8% for 2018. Our Turner EBITDA margin was 45.6% for 2018.

Home Box Office Results

	2018	2017	2016	Percent Change	
				2018 vs. 2017	2017 vs. 2016
Operating revenues					
Subscription	\$ 3,201	\$ -	\$ -	- %	- %
Content and other	397	-	-	-	-
Total Operating Revenues	3,598	-	-	-	-
Operating expenses					
Operations and support	2,187	-	-	-	-
Depreciation and amortization	56	-	-	-	-
Total Operating Expenses	2,243	-	-	-	-
Operating Income	1,355	-	-	-	-
Equity in Net Income of Affiliates	29	-	-	-	-
Operating Contribution	\$ 1,384	\$ -	\$ -	- %	- %

Operating revenues for Home Box Office are generated from the exploitation of original and licensed programming through distribution outlets. Revenues for 2018 included \$3,201 of subscription and \$397 of content and other revenue.

Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operations - Continued

Dollars in millions except per share amounts

Operations and support expenses totaled \$2,187 for 2018.

Operating income was \$1,355 for 2018. Our Home Box Office operating income margin was 37.7% for 2018. Our Home Box Office EBITDA margin was 39.2% for 2018.

Warner Bros. Results

	2018	2017	2016	Percent Change	
				2018 vs. 2017	2017 vs. 2016
Operating revenues					
Theatrical product	\$ 4,002	\$ -	\$ -	- %	- %
Television product	3,621	-	-	-	-
Games and other	1,080	-	-	-	-
Total Operating Revenues	8,703	-	-	-	-
Operating expenses					
Operations and support	7,130	-	-	-	-
Depreciation and amortization	96	-	-	-	-
Total Operating Expenses	7,226	-	-	-	-
Operating Income	1,477	-	-	-	-
Equity in Net Income (Loss) of Affiliates	(28)	-	-	-	-
Operating Contribution	\$ 1,449	\$ -	\$ -	- %	- %

Operating revenues for Warner Bros. primarily relate to theatrical product (which is content made available for initial exhibition in theaters) and television product (which is content made available for initial airing on television or OTT services). For 2018, total operating revenues were \$8,703 and included \$4,002 from theatrical product, \$3,621 from television product and \$1,080 from games and other.

Operations and support expenses totaled \$7,130 for 2018.

Operating income was \$1,477 for 2018. Our Warner Bros. operating income margin was 17.0% for 2018. Our Warner Bros. EBITDA margin was 18.1% for 2018.

LATIN AMERICA SEGMENT

	2018	2017	2016	Percent Change	
				2018 vs. 2017	2017 vs. 2016
Segment Operating Revenues					
Vrio	\$ 4,784	\$ 5,456	\$ 4,910	(12.3)%	11.1 %
Mexico	2,868	2,813	2,373	2.0	18.5
Total Segment Operating Revenues	7,652	8,269	7,283	(7.5)	13.5
Segment Operating Contribution					
Vrio	347	522	281	(33.5)	85.8
Mexico	(1,057)	(788)	(942)	(34.1)	16.3
Total Segment Operating Contribution	\$ (710)	\$ (266)	\$ (661)	- %	59.8 %

Operating Results

Our Latin America operations conduct business in their local currency and operating results are converted to U.S. dollars using official exchange rates, subjecting results to foreign currency fluctuations.

Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operations - Continued

Dollars in millions except per share amounts

Operating revenues decreased in 2018 and increased in 2017. The 2018 decrease was driven by lower revenues for Vrio, primarily resulting from foreign exchange pressure partially offset by pricing increases driven by macroeconomic conditions. Our 2017 revenues included growth in both business units.

Operating contribution decreased in 2018 and increased in 2017. Our Latin America segment operating income margin was (9.7)% in 2018, (4.3)% in 2017 and (9.8)% in 2016.

Latin America Business Unit Discussion

Vrio Results

	2018	2017	2016	Percent Change	
				2018 vs. 2017	2017 vs. 2016
Operating revenues	\$ 4,784	\$ 5,456	\$ 4,910	(12.3)%	11.1 %
Operating expenses					
Operations and support	3,743	4,172	3,847	(10.3)	8.4
Depreciation and amortization	728	849	834	(14.3)	1.8
Total Operating Expenses	4,471	5,021	4,681	(11.0)	7.3
Operating Income	313	435	229	(28.0)	90.0
Equity in Net Income of Affiliates	34	87	52	(60.9)	67.3
Operating Contribution	\$ 347	\$ 522	\$ 281	(33.5)%	85.8 %

The following tables highlight other key measures of performance for Vrio:

(in 000s)	2018	2017	2016	Percent Change	
				2018 vs. 2017	2017 vs. 2016
Vrio Satellite Subscribers ¹	13,838	13,629	12,455	1.5 %	9.4 %

¹ Excludes subscribers of our equity investment in SKY Mexico, in which we own a 41.3% stake. SKY Mexico had 7.8 million subscribers at September 30, 2018 and 8.0 million at both December 31, 2017 and 2016.

(in 000s)	2018	2017	2016	Percent Change	
				2018 vs. 2017	2017 vs. 2016
Vrio Satellite Net Subscriber Additions ¹	250	42	(55)	- %	- %

¹ Excludes SKY Mexico net subscriber losses of 167 in the nine months ended September 30, 2018 and losses of 23 and additions of 742 for years ended December 31, 2017 and 2016, respectively.

Operating revenues decreased in 2018 and increased in 2017, primarily due to foreign exchange pressures offset by related pricing actions.

Operations and support expenses decreased in 2018 and increased in 2017. The decrease in 2018 was due to changes in foreign currency exchange rates partially offset by higher programming and other operating costs. The increase in 2017 was primarily due to changes in foreign currency exchange rates as well as higher programming and other operating costs. Approximately 16% of Vrio expenses are U.S. dollar-based, with the remainder in the local currency.

Depreciation expense decreased in 2018 and increased in 2017. The fluctuations in depreciation in 2018 and 2017 were primarily due to changes in foreign currency exchange rates.

Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operations - Continued

Dollars in millions except per share amounts

Operating income decreased in 2018 and increased in 2017. Our Vrio operating income margin was 6.5% in 2018, 8.0% in 2017 and 4.7% in 2016. Our Vrio EBITDA margin was 21.8% in 2018, 23.5% in 2017 and 21.6% in 2016.

Mexico Results

	2018	2017	2016	Percent Change	
				2018 vs. 2017	2017 vs. 2016
Operating revenues					
Service	\$ 1,701	\$ 2,047	\$ 1,905	(16.9)%	7.5 %
Equipment	1,167	766	468	52.3	63.7
Total Operating Revenues	2,868	2,813	2,373	2.0	18.5
Operating expenses					
Operations and support	3,415	3,232	2,983	5.7	8.3
Depreciation and amortization	510	369	332	38.2	11.1
Total Operating Expenses	3,925	3,601	3,315	9.0	8.6
Operating Income (Loss)	(1,057)	(788)	(942)	(34.1)	16.3
Equity in Net Income of Affiliates	-	-	-	-	-
Operating Contribution	\$ (1,057)	\$ (788)	\$ (942)	(34.1)%	16.3 %

The following tables highlight other key measures of performance for Mexico:

(in 000s)	2018	2017	2016	Percent Change	
				2018 vs. 2017	2017 vs. 2016
Mexico Wireless Subscribers					
Postpaid	5,805	5,498	4,965	5.6 %	10.7 %
Prepaid	12,264	9,397	6,727	30.5	39.7
Branded	18,069	14,895	11,692	21.3	27.4
Reseller	252	204	281	23.5	(27.4)
Total Mexico Wireless Subscribers	18,321	15,099	11,973	21.3 %	26.1 %

(in 000s)	2018	2017	2016	Percent Change	
				2018 vs. 2017	2017 vs. 2016
Mexico Wireless Net Additions					
Postpaid	307	533	677	(42.4)%	(21.3)%
Prepaid	2,867	2,670	2,732	7.4	(2.3)
Branded	3,174	3,203	3,409	(0.9)	(6.0)
Reseller	48	(77)	(120)	-	35.8
Mexico Wireless Net Subscriber Additions	3,222	3,126	3,289	3.1%	(5.0)%

Service revenues decreased in 2018 and increased in 2017. The decrease in 2018 was primarily due to our shutdown of a legacy wholesale business, competitive pricing for services and our adoption of the new revenue accounting standard. The increase in 2017 was primarily due to growth in our subscriber base, partially offset by competitive pricing for services.

Equipment revenues increased in 2018 and 2017, primarily due to the offering of equipment installment programs and growth in our subscriber base.

Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operations - Continued

Dollars in millions except per share amounts

Operations and support expenses increased in 2018 and 2017. The increases in 2018 were primarily driven by higher operational costs partly associated with higher equipment sales and expenses associated with our network expansion, partially offset by lower wholesale costs and changes in foreign currency exchange rates. The increases in 2017 were primarily driven by higher operational and network expansion expenses, and foreign currency exchange rates. Approximately 12% of Mexico expenses are U.S. dollar-based, with the remainder in the local currency.

Depreciation expense increased in 2018 and 2017 due to higher capital spending in Mexico.

Operating income decreased in 2018 and increased in 2017. Our Mexico operating income margin was (36.9)% in 2018, (28.0)% in 2017 and (39.7)% in 2016. Our Mexico EBITDA margin was (19.1)% in 2018, (14.9)% in 2017 and (25.7)% in 2016.

XANDR SEGMENT

	2018	2017	2016	Percent Change	
				2018 vs. 2017	2017 vs. 2016
Segment Operating Revenues	\$ 1,740	\$ 1,373	\$ 1,333	26.7 %	3.0 %
Segment Operating Expenses					
Operations and support	398	169	99	-	70.7
Depreciation and amortization	9	2	1	-	-
Total Segment Operating Expenses	407	171	100	-	71.0
Segment Operating Income	1,333	1,202	1,233	10.9	(2.5)
Equity in Net Income of Affiliates	-	-	-	-	-
Segment Operating Contribution	\$ 1,333	\$ 1,202	\$ 1,233	10.9 %	(2.5)%

Operating revenues increased in 2018 and 2017. The 2018 increase was primarily due to higher political advertising revenues and our acquisition of AppNexus in August 2018 (see Note 6). Revenues in 2017 were consistent with the prior year.

Operations and support expenses increased in 2018 and 2017. The 2018 increase was primarily due to our acquisition of AppNexus and our ongoing development of the platform supporting Xandr's business. The 2017 results include platform development and other costs to expand the business.

Operating income increased in 2018 and decreased in 2017. Our Xandr segment operating income margin was 76.6% in 2018, 87.5% in 2017 and 92.5% in 2016.

Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operations - Continued

Dollars in millions except per share amounts

SUPPLEMENTAL TOTAL ADVERTISING REVENUE INFORMATION

As a supplemental presentation to our Xandr segment operating results, we are providing a view of total advertising revenues generated by AT&T. This combined view presents the entire portfolio of advertising revenues reported across all operating segments and represents a significant strategic initiative and growth opportunity for AT&T. See the revenue categories table in Note 5 for a reconciliation.

Total Advertising Revenues

	2018	2017	2016	Percent Change	
				2018 vs. 2017	2017 vs. 2016
Operating Revenues					
WarnerMedia	\$ 2,461	\$ 65	\$ 54	- %	20.4 %
Communications	1,827	1,513	1,456	20.8	3.9
Xandr	1,740	1,373	1,333	26.7	3.0
Eliminations	(1,595)	(1,357)	(1,333)	(17.5)	(1.8)
Total Advertising Revenues	\$ 4,433	\$ 1,594	\$ 1,510	- %	5.6 %

SUPPLEMENTAL COMMUNICATIONS OPERATING INFORMATION

As a supplemental presentation to our Communications segment operating results, we are providing a view of our AT&T Business Solutions results which includes both wireless and wireline operations. This combined view presents a complete profile of the entire business customer relationship, including mobile solutions for our business customers. See "Discussion and Reconciliation of Non-GAAP Measure" for a reconciliation of these supplemental measures to the most directly comparable financial measures calculated and presented in accordance with GAAP.

Business Solutions Results

	2018	2017	2016	Percent Change	
				2018 vs. 2017	2017 vs. 2016
Operating revenues					
Wireless service	\$ 7,397	\$ 8,009	\$ 8,284	(7.6)%	(3.3)%
Strategic services	12,310	11,950	11,139	3.0	7.3
Legacy voice and data services	10,697	13,565	15,904	(21.1)	(14.7)
Other service and equipment	3,820	3,778	3,942	1.1	(4.2)
Wireless equipment	2,532	1,552	1,527	63.1	1.6
Total Operating Revenues	36,756	38,854	40,796	(5.4)	(4.8)
Operating expenses					
Operations and support	22,719	24,496	25,877	(7.3)	(5.3)
Depreciation and amortization	5,951	5,901	6,308	0.8	(6.5)
Total Operating Expenses	28,670	30,397	32,185	(5.7)	(5.6)
Operating Income	8,086	8,457	8,611	(4.4)	(1.8)
Equity in Net Income (Loss) of Affiliates	(1)	(1)	-	-	-
Operating Contribution	\$ 8,085	\$ 8,456	\$ 8,611	(4.4)%	(1.8)%

Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operations - Continued

Dollars in millions except per share amounts

SUPPLEMENTAL RESULTS UNDER HISTORICAL ACCOUNTING METHOD

As a supplemental discussion of our operating results, we are providing results under the comparative historical accounting method prior to our adoption of ASC 606 for the year ended December 31, 2018.

	Reported	Promotions & Other	USF	Commission Deferrals	Historical Accounting
Service Revenues					
Communications					
<i>Mobility</i>	\$ 54,933	\$ (1,545)	\$ (1,743)	\$ -	\$ 58,221
<i>Entertainment Group</i>	46,451	(188)	(655)	-	47,294
<i>Business Wireline</i>	26,003	1	(1,322)	-	27,324
WarnerMedia	18,941	-	-	-	18,941
Latin America	6,485	(148)	-	-	6,633
Xandr	1,740	-	-	-	1,740
Corporate and Other	1,191	(19)	(15)	-	1,225
Eliminations	(3,399)	-	-	-	(3,399)
AT&T Service Revenues	152,345	(1,899)	(3,735)	-	157,979
<i>Business Solutions</i>	34,224	(559)	(1,589)	-	36,372
Equipment Revenues					
Communications					
<i>Mobility</i>	16,411	2,032	-	-	14,379
<i>Entertainment Group</i>	9	-	-	-	9
<i>Business Wireline</i>	824	-	-	-	824
WarnerMedia	-	-	-	-	-
Latin America	1,167	53	-	-	1,114
Corporate and Other	-	2	-	-	(2)
AT&T Equipment Revenues	18,411	2,087	-	-	16,324
<i>Business Solutions</i>	2,532	727	-	-	1,805
Total Operating Revenues					
Communications					
<i>Mobility</i>	71,344	487	(1,743)	-	72,600
<i>Entertainment Group</i>	46,460	(188)	(655)	-	47,303
<i>Business Wireline</i>	26,827	1	(1,322)	-	28,148
WarnerMedia	18,941	-	-	-	18,941
Latin America	7,652	(95)	-	-	7,747
Xandr	1,740	-	-	-	1,740
Corporate and Other	1,191	(17)	(15)	-	1,223
Eliminations	(3,399)	-	-	-	(3,399)
AT&T Operating Revenues	170,756	188	(3,735)	-	174,303
<i>Business Solutions</i>	36,756	168	(1,589)	-	38,177

Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operations - Continued

Dollars in millions except per share amounts

	Reported	Promotions & Other	USF	Commission Deferrals	Historical Accounting
Total Operating Expenses					
Communications					
<i>Mobility</i>	49,621	270	(1,743)	(1,222)	52,316
<i>Entertainment Group</i>	41,745	(6)	(655)	(989)	43,395
<i>Business Wireline</i>	20,999	21	(1,322)	(111)	22,411
WarnerMedia	13,271	-	-	-	13,271
Latin America	8,396	11	-	(155)	8,540
Xandr	407	-	-	-	407
Corporate and Other	12,169	(10)	(15)	-	12,194
Eliminations	(1,948)	-	-	-	(1,948)
AT&T Operating Expenses	144,660	286	(3,735)	(2,477)	150,586
<i>Business Solutions</i>	28,670	32	(1,589)	(183)	30,410
Total Operating Income					
Communications					
<i>Mobility</i>	21,723	217	-	1,222	20,284
<i>Entertainment Group</i>	4,715	(182)	-	989	3,908
<i>Business Wireline</i>	5,828	(20)	-	111	5,737
WarnerMedia	5,670	-	-	-	5,670
Latin America	(744)	(106)	-	155	(793)
Xandr	1,333	-	-	-	1,333
Corporate and Other	(10,978)	(7)	-	-	(10,971)
Eliminations	(1,451)	-	-	-	(1,451)
AT&T Operating Income	26,096	(98)	-	2,477	23,717
<i>Business Solutions</i>	8,086	136	-	183	7,767

Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operations - Continued

Dollars in millions except per share amounts

**Mobility
Supplemental Results**

	Reported 2018	Accounting Impact	Historical Method 2018	2017	Percent Change
Operating revenues					
Service	\$ 54,933	\$ (3,288)	\$ 58,221	\$ 57,696	0.9 %
Equipment	16,411	2,032	14,379	13,394	7.4
Total Operating Revenues	71,344	(1,256)	72,600	71,090	2.1
Operating expenses					
Operations and support	41,266	(2,695)	43,961	42,871	2.5
EBITDA	30,078	1,439	28,639	28,219	1.5
Depreciation and amortization	8,355	-	8,355	8,015	4.2
Total Operating Expenses	49,621	(2,695)	52,316	50,886	2.8
Operating Income	21,723	1,439	20,284	20,204	0.4
Equity in Net Income (Loss) of Affiliates	(1)	-	(1)	-	-
Operating Contribution	\$ 21,722	\$ 1,439	\$ 20,283	\$ 20,204	0.4 %
Operating Income Margin	30.4 %		27.9 %	28.4 %	(50)BP
EBITDA Margin	42.2 %		39.4 %	39.7 %	(30)BP
EBITDA Service Margin	54.8 %		49.2 %	48.9 %	30 BP

**Entertainment Group
Supplemental Results**

	Reported 2018	Accounting Impact	Historical Method 2018	2017	Percent Change
Operating revenues					
Video entertainment	\$ 33,357	\$ (444)	\$ 33,801	\$ 36,167	(6.5)%
High-speed internet	7,956	-	7,956	7,674	3.7
Legacy voice and data services	3,041	(132)	3,173	3,767	(15.8)
Other service and equipment	2,106	(267)	2,373	2,387	(0.6)
Total Operating Revenues	46,460	(843)	47,303	49,995	(5.4)
Operating expenses					
Operations and support	36,430	(1,650)	38,080	38,903	(2.1)
EBITDA	10,030	807	9,223	11,092	(16.8)
Depreciation and amortization	5,315	-	5,315	5,621	(5.4)
Total Operating Expenses	41,745	(1,650)	43,395	44,524	(2.5)
Operating Income	4,715	807	3,908	5,471	(28.6)
Equity in Net Income (Loss) of Affiliates	(2)	-	(2)	-	-
Operating Contribution	\$ 4,713	\$ 807	\$ 3,906	\$ 5,471	(28.6)%
Operating Income Margin	10.1 %		8.3 %	10.9 %	(260)BP
EBITDA Margin	21.6 %		19.5 %	22.2 %	(270)BP

Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operations - Continued

Dollars in millions except per share amounts

**Business Wireline
Supplemental Results**

	Reported 2018	Accounting Impact	Historical Method 2018	2017	Percent Change
Operating revenues					
Strategic services	\$ 12,310	\$ (10)	\$ 12,320	\$ 11,950	3.1 %
Legacy voice and data services	10,697	(1,027)	11,724	13,565	(13.6)
Other service and equipment	3,820	(284)	4,104	3,778	8.6
Total Operating Revenues	26,827	(1,321)	28,148	29,293	(3.9)
Operating expenses					
Operations and support	16,245	(1,412)	17,657	18,492	(4.5)
EBITDA	10,582	91	10,491	10,801	(2.9)
Depreciation and amortization	4,754	-	4,754	4,789	(0.7)
Total Operating Expenses	20,999	(1,412)	22,411	23,281	(3.7)
Operating Income	5,828	91	5,737	6,012	(4.6)
Equity in Net Income (Loss) of Affiliates	(1)	-	(1)	(2)	50.0
Operating Contribution	\$ 5,827	\$ 91	\$ 5,736	\$ 6,010	(4.6)%
Operating Income Margin	21.7 %		20.4 %	20.5 %	(10)BP
EBITDA Margin	39.4 %		37.3 %	36.9 %	40 BP

**Latin America
Supplemental Segment Results**

	Reported 2018	Accounting Impact	Historical Method 2018	2017	Percent Change
Segment operating revenues					
Vrio	\$ 4,784	\$ -	\$ 4,784	\$ 5,456	(12.3)%
Mexico	2,868	(95)	2,963	2,813	5.3
Total Segment Operating Revenues	7,652	(95)	7,747	8,269	(6.3)
Segment operating expenses					
Operations and support	7,158	(144)	7,302	7,404	(1.4)
EBITDA	494	49	445	865	(48.6)
Depreciation and amortization	1,238	-	1,238	1,218	1.6
Total Segment Operating Expenses	8,396	(144)	8,540	8,622	(1.0)
Segment Operating Income (Loss)	(744)	49	(793)	(353)	-
Equity in Net Income (Loss) of Affiliates	34	-	34	87	(60.9)
Segment Contribution	\$ (710)	\$ 49	\$ (759)	\$ (266)	- %
Operating Income Margin	(9.7)%		(10.2)%	(4.3)%	(590)BP
EBITDA Margin	6.5 %		5.7 %	10.5 %	(480)BP

Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operations - Continued

Dollars in millions except per share amounts

OPERATING ENVIRONMENT AND TRENDS OF THE BUSINESS

In 2019, we expect the following trends:

2019 Revenue Trends We expect revenue growth in our wireless and broadband businesses as more customers demand instant connectivity and higher speeds made possible by our fiber and wireless network expansion. Applications like video streaming will drive demand for broadband, as well. We expect WarnerMedia's premium content to drive revenue growth from its current wholesale distribution through traditional pay-TV providers and new video streaming services. Across AT&T, we expect to provide consumers with a broad variety of video entertainment services from mobile-centric and over-the-top live TV streaming packages to traditional full-size linear video and a new direct-to-consumer subscription video-on-demand service from WarnerMedia that is set to launch late this year. Data insights from our over 170 million direct-to-consumer relationships combined with our premium video and digital advertising inventory should provide additional growth in our advertising businesses. Revenue from business customers will continue to grow for mobile and IP-based services, but decline for legacy wireline services. Our ability to reduce costs should result in continued stable margins in the Business Wireline segment. Overall, we believe growth in wireless, broadband and WarnerMedia's premium content should offset pressure from our linear video and legacy voice and data services.

2019 Expense Trends We intend to continue to transition our hardware-based network technology to more efficient and less expensive software-based technology. This transition will prepare us to meet increased customer demand for enhanced wireless and broadband services, including video streaming, augmented reality and "smart" technologies. The software benefits of our 5G wireless technology and new video delivery platforms should result in a more efficient use of capital and lower network-related expenses in the coming years. We also expect cost savings from other corporate initiatives, digital transformation of customer service and ordering functions, vendor discounts and WarnerMedia merger synergies. Cost savings and asset monetization should help to further reduce our net debt level.

Market Conditions The U.S. stock market experienced a volatile year with early gains being offset by a softening at year-end. General business investment remained slow, affecting our business services. Most of our products and services are not directly affected by the imposition of tariffs on Chinese goods. While unemployment remains historically low, our residential customers continue to be price sensitive in selecting offerings, especially in the video area, and continue to focus on products that give them efficient access to video and broadcast services. We expect ongoing pressure on pricing during 2019 as we respond to the competitive marketplace, especially in wireless and video services.

Included on our consolidated balance sheets are assets held by benefit plans for the payment of future benefits. Our pension plans are subject to funding requirements of the Employee Retirement Income Security Act of 1974, as amended (ERISA). We expect only minimal ERISA contribution requirements to our pension plans for 2019. Investment returns on these assets depend largely on trends in the U.S. securities markets and the U.S. economy, and a weakness in the equity, fixed income and real asset markets could require us in future years to make contributions to the pension plans in order to maintain minimum funding requirements as established by ERISA. In addition, our policy of recognizing actuarial gains and losses related to our pension and other postretirement plans in the period in which they arise subjects us to earnings volatility caused by changes in market conditions. Changes in our discount rate, which are tied to changes in the bond market, and changes in the performance of equity markets, may have significant impacts on the valuation of our pension and other postretirement obligations at the end of 2019 (see "Accounting Policies and Estimates").

OPERATING ENVIRONMENT OVERVIEW

AT&T subsidiaries operating within the United States are subject to federal and state regulatory authorities. AT&T subsidiaries operating outside the United States are subject to the jurisdiction of national and supranational regulatory authorities in the markets where service is provided.

In the Telecommunications Act of 1996 (Telecom Act), Congress established a national policy framework intended to bring the benefits of competition and investment in advanced telecommunications facilities and services to all Americans by opening all telecommunications markets to competition and reducing or eliminating regulatory burdens that harm consumer welfare. Since the Telecom Act was passed, the Federal Communications Commission (FCC) and some state regulatory commissions have maintained or expanded certain regulatory requirements that were imposed decades ago on our traditional wireline subsidiaries when they operated as legal monopolies. The new leadership at the FCC is charting a more predictable

Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operations - Continued

Dollars in millions except per share amounts

and balanced regulatory course that will encourage long-term investment and benefit consumers. Based on its public statements, we expect the FCC to continue to eliminate antiquated, unnecessary regulations and streamline processes. In addition, we are pursuing, at both the state and federal levels, additional legislative and regulatory measures to reduce regulatory burdens that are no longer appropriate in a competitive telecommunications market and that inhibit our ability to compete more effectively and offer services wanted and needed by our customers, including initiatives to transition services from traditional networks to all IP-based networks. At the same time, we also seek to ensure that legacy regulations are not further extended to broadband or wireless services, which are subject to vigorous competition.

We have organized the following discussion by reportable segment.

Communications Segment

Internet In February 2015, the FCC released an order classifying both fixed and mobile consumer broadband internet access services as telecommunications services, subject to Title II of the Communications Act. The Order, which represented a departure from longstanding bipartisan precedent, significantly expanded the FCC's authority to regulate broadband internet access services, as well as internet interconnection arrangements. In December 2017, the FCC reversed its 2015 decision by reclassifying fixed and mobile consumer broadband services as information services and repealing most of the rules that were adopted in 2015. In lieu of broad conduct prohibitions, the order requires internet service providers to disclose information about their network practices and terms of service, including whether they block or throttle internet traffic or offer paid prioritization. Several parties appealed the FCC's December 2017 decision and the D.C. Circuit heard oral argument on the appeals on February 1, 2019. Although the FCC order expressly preempted inconsistent state or local measures, a number of states are considering or have adopted legislation that would reimpose the very rules the FCC repealed, and in some cases, establish additional requirements that go beyond the FCC's February 2015 order. Additionally, some state governors have issued executive orders that effectively reimpose the repealed requirements. Suits have recently been filed concerning laws in California and Vermont, and other lawsuits are possible. We will continue to support congressional action to codify a set of standard consumer rules for the internet.

In October 2016, a sharply divided FCC adopted new rules governing the use of customer information by providers of broadband internet access service. Those rules were more restrictive in certain respects than those governing other participants in the internet economy, including so-called "edge" providers such as Google and Facebook. In April 2017, the president signed a resolution passed by Congress repealing the new rules under the Congressional Review Act.

Privacy-related legislation has been considered in a number of states. Legislative and regulatory action could result in increased costs of compliance, claims against broadband internet access service providers and others, and increased uncertainty in the value and availability of data. On June 28, 2018, the state of California enacted comprehensive privacy legislation that gives California consumers the right to know what personal information is being collected about them, whether and to whom it is sold or disclosed, and to access and request deletion of this information. Subject to certain exceptions, it also gives consumers the right to opt-out of the sale of personal information. The law applies the same rules to all companies that collect consumer information.

Wireless We provide domestic wireless services in robustly competitive markets, but are subject to substantial governmental regulation. Wireless communications providers must obtain licenses from the FCC to provide communications services at specified spectrum frequencies within specified geographic areas and must comply with the FCC rules and policies governing the use of the spectrum. While wireless communications providers' prices and offerings are generally not subject to state or local regulation, states sometimes attempt to regulate or legislate various aspects of wireless services, particularly in the areas of consumer protection and the deployment of cell sites and equipment. The anticipated industry-wide deployment of 5G technology, which is needed to satisfy extensive demand for video and internet access, will involve significant deployment of "small cell" equipment and therefore increase the need for local permitting processes that allow for the placement of small cell equipment on reasonable timelines and terms. Federal regulations also can delay and impede broadband services, including small cell equipment. In March 2018, the FCC adopted an order to streamline the wireless infrastructure review process in order to facilitate deployment of next-generation wireless facilities. In addition, to date, 21 states have adopted legislation to facilitate small cell deployment.

As the U.S. wireless industry has matured, future wireless growth will increasingly depend on our ability to offer innovative services, plans and devices and to provide these services in bundled product offerings to best utilize a wireless network that has sufficient spectrum and capacity to support these innovations on as broad a geographic basis as possible. We continue to

Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operations - Continued

Dollars in millions except per share amounts

invest significant capital in expanding our network capacity, as well as to secure and utilize spectrum that meets our long-term needs. We recently secured the First Responder Network Authority (FirstNet) contract, which provides us with access to 20 MHz of nationwide low band spectrum, and invested in 5G and millimeter-wave technologies with our acquisition of Fiber-Tower Corporation, which holds significant amounts of spectrum in the millimeter wave bands (39 GHz) that the FCC reallocated for mobile broadband services. These bands will help to accelerate our entry into 5G services.

Video We provide domestic satellite video service through our subsidiary DIRECTV, whose satellites are licensed by the FCC. The Communications Act of 1934 and other related acts give the FCC broad authority to regulate the U.S. operations of DIRECTV, and some of WarnerMedia's businesses are also subject to obligations under the Communications Act and related FCC regulations.

WarnerMedia

We create, own and distribute intellectual property, including copyrights, trademarks and licenses of intellectual property. To protect our intellectual property, we rely on a combination of laws and license agreements. Outside of the U.S., laws and regulations relating to intellectual property protection and the effective enforcement of these laws and regulations vary greatly from country to country. The European Union Commission is pursuing legislative and regulatory initiatives that could impair Warner Bros.' current country-by-country licensing approach in the European Union. Piracy, particularly of digital content, continues to threaten WarnerMedia's revenues from products and services, and we work to limit that threat through a combination of approaches, including technological and legislative solutions. Outside the U.S., various laws and regulations, as well as trade agreements with the U.S., also apply to the distribution or licensing of feature films for exhibition in movie theaters and on broadcast and cable networks. For example, in certain countries, including China, laws and regulations limit the number of foreign films exhibited in such countries in a calendar year.

EXPECTED GROWTH AREAS

Over the next few years, we expect our growth to come from wireless, IP-based broadband services and advertising and data insights (especially with WarnerMedia). We now provide integrated services to diverse groups of customers in the U.S. on different technological platforms, including wireless, satellite and wireline. In 2019, our key initiatives include:

- Building a premier gigabit network. FirstNet, combined with our fiber and 5G deployment, provides a powerful platform to accelerate our move to a ubiquitous gigabit world.
- Creating a new platform for targeted advertising, using data, content and talent to build an automated advertising platform that can transform premium video and TV advertising.
- Continuing to develop a competitive advantage through our industry-leading network cost structure.
- Growing profitability in our Entertainment Group and Mexico business units.
- Launching more personalized entertainment services offered directly to consumers.

Integration of Data/Broadband and Entertainment Services As the communications industry continues to move toward internet-based technologies that are capable of blending wireline, satellite and wireless services, we plan to offer services that take advantage of these new and more sophisticated technologies. In particular, we intend to continue to focus on expanding our high-speed internet and video offerings and on developing IP-based services that allow customers to integrate their home or business fixed services with their mobile service. During 2019, we will continue to develop and provide unique integrated video, mobile and broadband solutions. We plan to continue expanding our OTT video service offerings. We believe this expansion will facilitate our customers' desire to view video anywhere on demand and encourage customer retention.

Wireless We expect to continue to deliver revenue growth in the coming years. We are in a period of rapid growth in wireless video usage and believe that there are substantial opportunities available for next-generation converged services that combine technologies and services.

As of December 31, 2018, we served 171 million wireless subscribers in North America, with more than 153 million in the United States. Our LTE technology covers over 400 million people in North America. In the United States, we cover all major metropolitan areas and about 325 million people. We also provide 4G coverage using another technology (HSPA+), and when combined with our upgraded backhaul network, we are able to enhance our network capabilities and provide superior mobile broadband speeds for data and video services. Our wireless network also relies on other GSM digital transmission technologies for 3G data communications. In late 2018, we were the first U.S. company to introduce mobile 5G service in parts of 12 cities, and we plan to expand that deployment nationwide in 2020.

Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operations - Continued

Dollars in millions except per share amounts

Our acquisition of two Mexican wireless providers in 2015 brought a network covering both the U.S. and Mexico and enabled our customers to use wireless services without roaming on other companies' networks. We believe this seamless access will prove attractive to customers and provide a significant growth opportunity. In 2018, we largely completed our plan to upgrade our wireless network in Mexico, and as of the end of 2018, provided LTE coverage to approximately 100 million people and businesses.

REGULATORY DEVELOPMENTS

Set forth below is a summary of the most significant regulatory proceedings that directly affected our operations during 2018. Industry-wide regulatory developments are discussed above in Operating Environment Overview. While these issues may apply only to certain subsidiaries, the words "we," "AT&T" and "our" are used to simplify the discussion. The following discussions are intended as a condensed summary of the issues rather than as a comprehensive legal analysis and description of all of these specific issues.

International Regulation Our subsidiaries operating outside the United States are subject to the jurisdiction of regulatory authorities in the territories in which the subsidiaries operate. Our licensing, compliance and advocacy initiatives in foreign countries primarily enable the provision of enterprise (i.e., large business), wireless and satellite television services. AT&T is engaged in multiple efforts with foreign regulators to open markets to competition, foster conditions favorable to investment and increase our scope of services and products.

The General Data Protection Regulation went into effect in Europe in May of 2018. AT&T processes and handles personal data of its customers and subscribers, employees of its enterprise customers and its employees. This regulation created a range of new compliance obligations and significantly increases financial penalties for noncompliance.

Federal Regulation We have organized our following discussion by service impacted.

Internet In 2015, the FCC departed from longstanding precedent by reclassifying fixed and mobile consumer broadband internet access services as telecommunications services subject to extensive public utility-style regulation under the Telecom Act. On December 14, 2017, the FCC reversed this 2015 decision by reclassifying fixed and mobile consumer broadband services as information services and replacing broad conduct prohibitions with a regime based on transparency. The order requires internet service providers to disclose information about their network practices and terms of service, including whether they block or throttle internet traffic or offer paid prioritization. The order also preempts states from reimposing the conduct rules that the FCC repealed. Several entities have appealed various aspects of the order. Briefing on the appeal has been completed and a panel of the D.C. Circuit heard oral argument on the appeals on February 1, 2019.

Notwithstanding the FCC's preemption of inconsistent state regulation, a number of states adopted their own net neutrality regimes in 2018, reimposing most or all of the rules repealed by the FCC, in some cases without exceptions to those rules that the FCC had recognized. Legal challenges have been filed in federal district court against two of these state regimes, a law passed in California and a law and executive order adopted in Vermont. In the California case, the state and those challenging the law have entered into a "standstill" agreement under which enforcement of the law and the appeal of it would be stayed while courts considered outstanding appeals of the FCC's 2017 decision, including its preemption of inconsistent state action. In Vermont, on December 24, 2018, the state filed a motion to dismiss challenges to the law and executive order, claiming that the challengers lacked standing. Vermont also asked the court to stay consideration of the challenges until after the D.C. Circuit rules on the appeals of the 2017 FCC order, although Vermont did not offer to stay enforcement of the Vermont law or executive order during the time of the proposed stay. On January 23, 2019, challengers to the Vermont law and executive order responded to the Motion to Dismiss and filed a Motion for Summary Judgment. Argument on these motions is expected in April 2019.

Business Data Services On April 20, 2017, the FCC adopted an order in a decade-long proceeding regarding pricing of high capacity data services by incumbent local telephone companies, like AT&T. The order declines to require advanced approval of rates for packet-based services like Ethernet, opting instead to continue the existing regime under which such rates are presumed lawful but may be challenged in a complaint. In addition, the order extends this "light touch" approach to high-speed TDM transport services and to most of our TDM channel termination services, based on the application of a competitive market test for such services. For those services that do not qualify for light touch regulation, the order continues to subject the services to price cap regulation but allows companies to offer volume and term discounts, as well as contract

Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operations - Continued

Dollars in millions except per share amounts

tariffs. Several parties appealed the FCC's decision. On August 28, 2018, the U.S. Court of Appeals for the 8th Circuit substantially upheld the order, while remanding to the FCC its decision to deregulate transport services on the ground that the FCC had not given adequate prior notice of its intent to do so. The FCC has initiated a new proceeding to cure this procedural defect, which remains outstanding.

Wireless and Broadband Since November 2017, the FCC has adopted three significant rulings designed to accelerate broadband infrastructure deployment. In November 2017, the FCC updated and streamlined certain rules governing pole attachments, copper retirement, and service discontinuances and clarified that the Communications Act precludes local governments from imposing moratoria on the deployment of communications facilities. These changes should facilitate our ability to place small cell facilities on utility poles and to replace legacy facilities and services with advanced broadband infrastructure and services. In March 2018, the FCC eliminated lengthy environmental, historical and tribal reviews for most small cell deployments and streamlined processes that must be followed when those reviews are required. And, in September 2018, the FCC restricted the ability of state and local governments to impede small cell deployments in rights-of-way and on government-owned structures, through exorbitant fees, unreasonable aesthetic requirements and other actions. These decisions will remove regulatory barriers and reduce the costs of the infrastructure needed for 5G deployment. Appeals of most of these decisions have been filed and consolidated in the Ninth Circuit Court of Appeals.

In 2018, the FCC took several actions to make spectrum available for 5G services. In late 2018, the FCC adopted auction rules for the 39 GHz band that will allow the FCC to auction remaining unlicensed 39 GHz spectrum and realign the band to allow large, contiguous blocks of spectrum that will support 5G. The FCC has granted AT&T special temporary authority to launch its 5G service in 400 MHz of currently unlicensed 39 GHz spectrum in a total of 16 markets. In addition, the FCC adopted technical and auction rules for 24 and 28 GHz spectrum, two other bands that will support 5G. The 28 GHz auction is in progress, and the 24 GHz auction will commence shortly after the 28 GHz auction is completed.

COMPETITION

Competition continues to increase for communications and digital entertainment services and media and entertainment companies. Technological advances have expanded the types and uses of services and products available. In addition, lack of or a reduced level of regulation of comparable legacy services has lowered costs for alternative communications service providers. As a result, we face heightened competition as well as some new opportunities in significant portions of our business.

Wireless We face substantial and increasing competition in our wireless businesses. Under current FCC rules, multiple licensees, who provide wireless services on the cellular, PCS, Advanced Wireless Services, 700 MHz and other spectrum bands, may operate in each of our U.S. service areas, which results in the potential presence of multiple competitors. Our competitors include three national wireless providers; a larger number of regional providers of cellular, PCS and other wireless communications services and resellers of those services; and certain cable companies that are launching wireless service to their subscribers. In addition, we face competition from providers who offer voice, text messaging and other services as applications on data networks. Substantially all of the U.S. population lives in areas with at least three mobile telephone operators, with most of the population living in areas with at least four competing carriers. We are one of three providers in Mexico, with the most significant market share controlled by América Móvil. We may experience significant competition from companies that provide similar services using other communications technologies and services. While some of these technologies and services are now operational, others are being developed or may be developed. We compete for customers based principally on service/device offerings, price, network quality, coverage area and customer service.

Video/Broadband Our subsidiaries providing communications and digital entertainment services will face continued competitive pressure in 2019 from multiple providers, including wireless, satellite, cable and other VoIP providers, online video providers, and interexchange carriers and resellers. In addition, the desire for high-speed data on demand, including video, is continuing to lead customers to terminate their traditional wired or linear services and use our or competitors' wireless, satellite and internet-based services. In most U.S. markets, we compete for customers, often on pricing of bundled services, with large cable companies for high-speed internet, video and voice services and other smaller telecommunications companies for both long-distance and local services. In addition, in Latin American countries served by our DIRECTV subsidiary, we also face competition from other video providers, including América Móvil and Telefónica.

Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operations - Continued

Dollars in millions except per share amounts

Legacy Voice and Data We continue to lose legacy voice and data subscribers due to competitors (e.g., wireless, cable and VoIP providers) who can provide comparable services at lower prices because they are not subject to traditional telephone industry regulation (or the extent of regulation is in dispute), utilize different technologies, or promote a different business model (such as advertising based). In response to these competitive pressures, for a number of years we have used a bundling strategy that rewards customers who consolidate their services with us. We continue to focus on bundling services, including combined packages of wireless and video service through our satellite and IP-based services. We will continue to develop innovative and integrated services that capitalize on our wireless and IP-based network and satellites.

Additionally, we provide local and interstate telephone and switched services to other service providers, primarily large internet service providers using the largest class of nationwide internet networks (internet backbone), wireless carriers, other telephone companies, cable companies and systems integrators. These services are subject to additional competitive pressures from the development of new technologies, the introduction of innovative offerings and increasing satellite, wireless, fiber-optic and cable transmission capacity for services. We face a number of international competitors, including Orange Business Services, BT, Singapore Telecommunications Limited and Verizon Communications Inc., as well as competition from a number of large systems integrators.

Media Our WarnerMedia businesses, like our Entertainment Group business unit, face similar shifts in consumer viewing patterns, increased competition from OTT services and the expansion by other companies, in particular, technology companies.

WarnerMedia competes with other studios and television production groups and independent producers to produce and sell programming. Many television networks have affiliated production companies from which they are increasingly obtaining their programming, which has reduced their demand for programming from non-affiliated production companies. WarnerMedia also faces competition from other television networks and premium pay television services for distribution and marketing of its television networks and premium pay and basic tier television services by affiliates.

Our WarnerMedia businesses compete with other production companies and studios for the services of producers, directors, writers, actors and others and for the acquisition of literary properties. In recent years, technology companies also have begun to produce programming and compete with WarnerMedia for talent and property rights.

Advertising The increased amount of consumer time spent online and on mobile activities has resulted in advertisers shifting more of their advertising budgets away from traditional television advertising to digital advertising. WarnerMedia's advertising-supported television networks and digital properties compete for advertisers' spending with advertising-supported OTT services, other networks and digital properties, print, radio and other media.

ACCOUNTING POLICIES AND STANDARDS

Critical Accounting Policies and Estimates Because of the size of the financial statement line items they relate to or the extent of judgment required by our management, some of our accounting policies and estimates have a more significant impact on our consolidated financial statements than others. The following policies are presented in the order in which the topics appear in our consolidated statements of income.

Pension and Postretirement Benefits Our actuarial estimates of retiree benefit expense and the associated significant weighted-average assumptions are discussed in Note 14. Our assumed weighted-average discount rate for pension and postretirement benefits of 4.50% and 4.40%, respectively, at December 31, 2018, reflects the hypothetical rate at which the projected benefit obligations could be effectively settled or paid out to participants. We determined our discount rate based on a range of factors, including a yield curve composed of the rates of return on several hundred high-quality, fixed income corporate bonds available at the measurement date and corresponding to the related expected durations of future cash outflows for the obligations. These bonds were all rated at least Aa3 or AA- by one of the nationally recognized statistical rating organizations, denominated in U.S. dollars, and neither callable, convertible nor index linked. For the year ended December 31, 2018, when compared to the year ended December 31, 2017, we increased our pension discount rate by 0.70%, resulting in a decrease in our pension plan benefit obligation of \$4,394 and increased our postretirement discount rate by 0.70%, resulting in a decrease in our postretirement benefit obligation of \$1,509. For the year ended December 31, 2017, we decreased our pension discount rate by 0.60%, resulting in an increase of our pension plan benefit obligation of \$4,609 and

Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operations - Continued

Dollars in millions except per share amounts

decreased our postretirement discount rate by 0.60%, resulting in an increase in our postretirement benefit obligation of \$1,605.

Our expected long-term rate of return on pension plan assets is 7.00% for 2019 and 2018. Our expected long-term rate of return on postretirement plan assets is 5.75% for 2019 and 2018. Our expected return on plan assets is calculated using the actual fair value of plan assets. If all other factors were to remain unchanged, we expect that a 0.50% decrease in the expected long-term rate of return would cause 2019 combined pension and postretirement cost to increase \$265, which under our accounting policy would be adjusted to actual returns in the current year as part of our fourth-quarter remeasurement of our retiree benefit plans. In 2018, we had a negative rate of return on our combined pension and postretirement plan assets of approximately 2.3%, resulting in an actuarial loss of \$4,757.

We recognize gains and losses on pension and postretirement plan assets and obligations immediately in "Other income (expense) – net" in our consolidated statements of income. These gains and losses are generally measured annually as of December 31, and accordingly, will normally be recorded during the fourth quarter, unless an earlier remeasurement is required. Should actual experience differ from actuarial assumptions, the projected pension benefit obligation and net pension cost and accumulated postretirement benefit obligation and postretirement benefit cost would be affected in future years. See Note 14 for additional discussions regarding our assumptions.

Depreciation Our depreciation of assets, including use of composite group depreciation and estimates of useful lives, is described in Notes 1 and 7.

If all other factors were to remain unchanged, we expect that a one-year increase in the useful lives of our plant in service would have resulted in a decrease of approximately \$3,012 in our 2018 depreciation expense and that a one-year decrease would have resulted in an increase of approximately \$4,313 in our 2018 depreciation expense.

Asset Valuations and Impairments Goodwill and other indefinite-lived intangible assets are not amortized but tested at least annually for impairment. For impairment testing, we estimate fair values using models that predominantly rely on the expected cash flows to be derived from the use of the asset.

We test goodwill on a reporting unit basis by comparing the estimated fair value of each reporting unit to its book value. If the fair value exceeds the book value, then no impairment is measured. We estimate fair values using an income approach (also known as a discounted cash flow) and a market multiple approach. The income approach utilizes our 10-year cash flow projections with a perpetuity value discounted at an appropriate weighted average cost of capital. The market multiple approach uses the multiples of publicly traded companies whose services are comparable to those offered by the reporting units. In 2018, the calculated fair values of the reporting units exceeded their book values in all circumstances, and no additional testing was necessary. If either the projected rate of long-term growth of cash flows or revenues declined by 0.5%, or if the discount rate increased by 0.5%, the fair values would still be higher than the book value of the goodwill. In the event of a 10% drop in the fair values of the reporting units, the fair values would have still exceeded the book values of the reporting units.

We assess fair value for wireless licenses using a discounted cash flow model (the Greenfield Approach) and a corroborative market approach based on auction prices, depending upon auction activity. The Greenfield Approach assumes a company initially owns only the wireless licenses and makes investments required to build an operation comparable to current use. Inputs to the model include subscriber growth, churn, revenue per user, capital investment and acquisition costs per subscriber, ongoing operating costs and resulting EBITDA margins. We based our assumptions on a combination of average marketplace participant data and our historical results, trends and business plans. These licenses are tested annually for impairment on an aggregated basis, consistent with their use on a national scope for the United States and Mexico. For impairment testing, we assume subscriber and revenue growth will trend up to projected levels, with a long-term growth rate reflecting expected long-term inflation trends. We assume churn rates will initially exceed our current experience, but decline to rates that are in line with industry-leading churn. For the U.S. licenses, EBITDA margins are assumed to trend toward 47% annually. For the Mexico licenses, EBITDA margins are assumed to trend toward 27% annually. We used a discount rate of 10% for United States and Mexico, based on the optimal long-term capital structure of a market participant and its associated cost of debt and equity, to calculate the present value of the projected cash flows. If either the projected rate of long-term growth of cash flows or revenues declined by 0.5%, or if the discount rate increased by 0.5%, the fair values of the wireless

Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operations - Continued

Dollars in millions except per share amounts

licenses would still be higher than the book value of the licenses. The fair values of the wireless licenses in the United States and Mexico each exceeded their book values by more than 10%.

Orbital slots are also valued using the Greenfield Approach. The projected cash flows are based on various factors, including satellite cost, other capital investment per subscriber, acquisition costs per subscriber and usage per subscriber, as well as revenue growth, subscriber growth and churn rates. For impairment testing purposes, we assumed sustainable long-term growth assumptions consistent with the business plan and industry counterparts in the United States. We used a discount rate of 8.5% to calculate the present value of the projected cash flows. In 2018, the fair value of orbital slots exceeded the book value by approximately 10%, compared to more than 10% in the prior year. The decrease in fair value was driven by the transition of the video business to streaming technology.

We review customer relationships and other finite-lived intangible assets for impairment whenever events or circumstances indicate that the book value may not be recoverable over their remaining life. For this analysis, we compare the expected undiscounted future cash flows attributable to the asset to its book value.

We periodically assess our network assets for impairment (see Note 1).

Income Taxes Our estimates of income taxes and the significant items giving rise to the deferred assets and liabilities are shown in Note 13 and reflect our assessment of actual future taxes to be paid on items reflected in the financial statements, giving consideration to both timing and probability of these estimates. Actual income taxes could vary from these estimates due to future changes in income tax law or the final review of our tax returns by federal, state or foreign tax authorities.

We use our judgment to determine whether it is more likely than not that we will sustain positions that we have taken on tax returns and, if so, the amount of benefit to initially recognize within our financial statements. We regularly review our uncertain tax positions and adjust our unrecognized tax benefits (UTBs) in light of changes in facts and circumstances, such as changes in tax law, interactions with taxing authorities and developments in case law. These adjustments to our UTBs may affect our income tax expense. Settlement of uncertain tax positions may require use of our cash.

The Tax Cuts and Jobs Act (Act) was enacted on December 22, 2017. The Act reduced the U.S. federal corporate tax rate from 35% to 21%, required companies to pay a one-time transition tax on earnings of certain foreign subsidiaries that were previously tax deferred and created new taxes on certain foreign-sourced earnings. At December 31, 2017, we had not completed our accounting for the tax effects of enactment of the Act; however, we remeasured substantially all of our deferred tax assets and liabilities based on the rates at which they are expected to reverse in the future as a result of the reduction in federal tax rate and recorded a provisional amount for our one-time transition tax liability for our foreign subsidiaries. In Staff Accounting Bulletin 118, the Securities and Exchange Commission issued guidance that provided a "measurement period" whereby registrants could provide a reasonable estimate of the tax reform impact in their financial statements and adjust that amount during the measurement period. In 2018, we completed our analysis of the Act and recorded the effects in our financial statements. (See Note 13)

New Accounting Standards

Beginning with 2019 interim and annual reporting periods, we will adopt the FASB's new accounting guidance related to leasing. The most significant impact of the new guidance will be to our balance sheet, as we will record a right-of-use asset and corresponding liability for our operating leases existing at January 1, 2019. We plan to adopt the new leasing standard using a modified retrospective transition method as of the beginning of the period of adoption. This elected method of adoption will not require us to adjust the balance sheet for prior periods, therefore affecting the comparability of our financial statements. See Note 1 for discussion of the expected impact of the standard.

Beginning with 2018 interim and annual reporting periods, we adopted the FASB's new accounting guidance related to revenue recognition and the deferral of customer contract acquisition and fulfillment costs. As a result of modified retrospective application, the guidance only impacts our financial statements for periods beginning after December 31, 2017, affecting the comparability of our financial statements. See Notes 1 and 5 for discussion of the impacts of the standard.

Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operations - Continued

Dollars in millions except per share amounts

OTHER BUSINESS MATTERS

Time Warner On June 14, 2018, we completed our acquisition of Time Warner, a leader in media and entertainment whose major businesses encompass an array of some of the most respected media brands. The deal combines Time Warner's vast library of content and ability to create new premium content for audiences around the world with our extensive customer relationships and distribution, one of the world's largest pay-TV subscriber bases and scale in TV, mobile and broadband distribution. We expect that the transaction will advance our direct-to-consumer efforts and provide us with the ability to develop innovative new content offerings. Total consideration equaled \$79,358, excluding Time Warner's net debt at acquisition. On July 12, 2018, the U.S. Department of Justice (DOJ) appealed the U.S. District Court's decision permitting the merger. We believe the DOJ's appeal is without merit and we will continue to vigorously defend our legal position in the appellate court, which completed oral arguments on December 6, 2018.

A putative stockholder class action lawsuit has been filed in connection with statements made in the registration statement and prospectus on Form S-4 (S-4), filed by AT&T with the SEC in connection with our acquisition of Time Warner Inc. The action, *Hoffman v. Stephenson et al.* (the "Hoffman Complaint"), filed on February 7, 2019 in the Supreme Court of the State of New York, County of New York, alleges violations of Sections 11, 12(a)(2) and 15 of the Securities Act of 1933, as amended, by AT&T and certain of AT&T's current officers and directors based on alleged misrepresentations and omissions in the S-4 relating to trends in its then Entertainment Group segment and in particular with respect to the number of subscribers to our DIRECTV NOW service. The plaintiff in the Hoffman Complaint seeks damages, attorneys' fees and costs, rescission, disgorgement and other and further relief. We believe the claims in the Hoffman Complaint are without merit and will vigorously defend our legal position in court.

Litigation Challenging DIRECTV's NFL SUNDAY TICKET More than two dozen putative class actions were filed in the U.S. District Courts for the Central District of California and the Southern District of New York against DIRECTV and the National Football League (NFL). These cases were brought by residential and commercial DIRECTV subscribers that have purchased NFL SUNDAY TICKET. The plaintiffs allege that (i) the 32 NFL teams have unlawfully agreed not to compete with each other in the market for nationally televised NFL football games and instead have "pooled" their broadcasts and assigned to the NFL the exclusive right to market them; and (ii) the NFL and DIRECTV have entered into an unlawful exclusive distribution agreement that allows DIRECTV to charge "supra-competitive" prices for the NFL SUNDAY TICKET package. The complaints seek unspecified treble damages and attorneys' fees along with injunctive relief. The first complaint, *Abrahamian v. National Football League, Inc., et al.*, was served in June 2015. In December 2015, the Judicial Panel on Multidistrict Litigation transferred the cases outside the Central District of California to that court for consolidation and management of pre-trial proceedings. We vigorously dispute the allegations. In August 2016, DIRECTV filed a motion to compel arbitration and the NFL defendants filed a motion to dismiss the complaint. In June 2017, the court granted the NFL defendants' motion to dismiss the complaint without leave to amend, finding that: (1) the plaintiffs did not plead a viable market; (2) the plaintiffs did not plead facts supporting the contention that the exclusive agreement between the NFL and DIRECTV harms competition; (3) the claims failed to overcome the fact that the NFL and its teams must cooperate to sell broadcasts; and (4) the plaintiffs do not have standing to challenge the horizontal agreement among the NFL and the teams. In light of the order granting the motion to dismiss, the court denied DIRECTV's motion to compel arbitration as moot. In July 2017, plaintiffs filed an appeal in the U.S. Court of Appeals for the Ninth Circuit. The appeal has been fully briefed and oral arguments were completed on December 7, 2018. We await a decision.

Federal Trade Commission Litigation Involving DIRECTV In March 2015, the Federal Trade Commission (FTC) filed a civil suit in the U.S. District Court for the Northern District of California against DIRECTV seeking injunctive relief and money damages under Section 5 of the Federal Trade Commission Act and Section 4 of the Restore Online Shoppers' Confidence Act. The FTC's allegations concern DIRECTV's advertising, marketing and sale of programming packages. The FTC alleges that DIRECTV did not adequately disclose all relevant terms. We vigorously dispute these allegations. A bench trial began in August 2017 and was suspended after the FTC rested its case so that the court could consider DIRECTV's motion for judgment. The hearing on the motion occurred in October 2017, and the judge took it under advisement. On August 16, 2018, the court granted DIRECTV's motion in large part, substantially limiting DIRECTV's possible liability and damages. Following this decision, the FTC agreed to dismissal of its claims with prejudice. The court entered an order of dismissal in October 2018, ending the litigation.

Unlimited Data Plan Claims In October 2014, the FTC filed a civil suit in the U.S. District Court for the Northern District of California against AT&T Mobility, LLC seeking injunctive relief and unspecified money damages under Section 5 of the

Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operations - Continued

Dollars in millions except per share amounts

Federal Trade Commission Act. The FTC's allegations concern the application of AT&T's Maximum Bit Rate (MBR) program to customers who enrolled in our Unlimited Data Plan from 2007-2010. MBR temporarily reduces in certain instances the download speeds of a small portion of our legacy Unlimited Data Plan customers each month after the customer exceeds a designated amount of data during the customer's billing cycle. MBR is an industry-standard practice that is designed to affect only the most data-intensive applications (such as video streaming). Texts, emails, tweets, social media posts, internet browsing and many other applications are typically unaffected. Contrary to the FTC's allegations, our MBR program is permitted by our customer contracts, was fully disclosed in advance to our Unlimited Data Plan customers, and was implemented to protect the network for the benefit of all customers. We are engaged in pre-trial discovery. In addition to the FTC case, several class actions were filed challenging our MBR program. We secured dismissals in each of these cases except Roberts v. AT&T Mobility LLC, which is ongoing.

Labor Contracts As of January 31, 2019, we employed approximately 268,000 persons. Approximately 40% of our employees are represented by the Communications Workers of America (CWA), the International Brotherhood of Electrical Workers (IBEW) or other unions. After expiration of the agreements, work stoppages or labor disruptions may occur in the absence of new contracts or other agreements being reached. A contract now covering approximately 8,300 traditional wireline employees in our Midwest region expired in April 2018 and employees are working under the terms of the prior contract, including benefits, while negotiations continue. In addition, a contract now covering approximately 3,300 traditional wireline employees in our legacy AT&T Corp. business also expired in April 2018. Those employees are working under the terms of their prior contract, including benefits, while negotiations continue. Other contracts covering approximately 26,000 employees are scheduled to expire during 2019.

Environmental We are subject from time to time to judicial and administrative proceedings brought by various governmental authorities under federal, state or local environmental laws. We reference in our Forms 10-Q and 10-K certain environmental proceedings that could result in monetary sanctions (exclusive of interest and costs) of one hundred thousand dollars or more. However, we do not believe that any of those currently pending will have a material adverse effect on our results of operations.

LIQUIDITY AND CAPITAL RESOURCES

With the completion of the Time Warner transaction, we had \$5,204 in cash and cash equivalents available at December 31, 2018. Cash and cash equivalents included cash of \$3,130 and money market funds and other cash equivalents of \$2,074. Approximately \$1,930 of our cash and cash equivalents were held by our foreign entities in accounts predominantly outside of the U.S. and may be subject to restrictions on repatriation.

Cash and cash equivalents decreased \$45,294 since December 31, 2017, due to our acquisition of Time Warner. In 2018, cash inflows were primarily provided by the cash receipts from operations, issuance of commercial paper and long-term debt and dispositions. These inflows were offset by cash used to meet the needs of the business, including, but not limited to, the acquisitions of Time Warner and AppNexus, payment of operating expenses, funding capital expenditures, debt repayments, collateral deposits to banks and other participants in our derivative arrangements and dividends to stockholders.

We actively manage the timing of our vendor payments to optimize the use of our cash. Among other things, we seek to have vendor payments made on 90-day or greater terms, while providing vendors with access to bank facilities that permit earlier payments at the vendors' cost. In addition, for payments to a key supplier, we have arrangements that allow us to extend payment terms up to 90 days at an additional cost to us. (See Note 21)

Cash Provided by or Used in Operating Activities

During 2018, cash provided by operating activities was \$43,602 compared to \$38,010 in 2017. Higher operating cash flows in 2018 were primarily due to contributions from acquired businesses, lower cash tax payments in 2018 of \$2,360 and lower voluntary employee-related payments of \$640; as well as continued working capital focus, including extension of vendor payment terms with suppliers, resulting in \$1,602 of accounts payable increase offset by \$1,244 of receivable timing pressure.

During 2017, cash provided by operating activities was \$38,010 compared to \$38,442 in 2016. Lower operating cash flows in 2017 were primarily due to more than \$1,000 of voluntary employee-related payments resulting from tax reform.

Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operations - Continued

Dollars in millions except per share amounts

Cash Used in or Provided by Investing Activities

During 2018, cash used in investing activities totaled \$63,145, and consisted primarily of \$43,309 for acquisition costs related to Time Warner, AppNexus and other transactions as well as \$20,758 for capital expenditures, excluding interest during construction.

The vast majority of our capital expenditures are spent on our networks, including product development and related support systems. Capital expenditures, excluding interest during construction, increased \$111 in 2018. Capital expenditures gross of FirstNet capital reimbursements increased \$1,261 in 2018. During the year, approximately \$1,500 of assets related to the FirstNet build have been placed into service. Total reimbursements from the government for FirstNet during 2018 were \$1,670, predominately capital reimbursements.

In connection with capital improvements, we negotiate favorable payment terms (referred to as vendor financing), which are excluded from our investing activities and reported as financing activities. We enter into these supplier arrangements when the terms provide benefits to us relative to alternative financing arrangements. In 2018, vendor financing payments related to capital investments were approximately \$560. During the year, we entered into \$2,162 of new vendor financing commitments, with \$2,495 of vendor financing payables included in our December 31, 2018 consolidated balance sheet, of which \$1,984 are due within one year and the remainder are due between two and five years.

The amount of capital expenditures is influenced by demand for services and products, capacity needs and network enhancements. We are also focused on ensuring DIRECTV merger commitments are met. As of December 31, 2018, we market our fiber-to-the-premises network to 11 million customer locations and are on track to meet our FCC commitment of 12.5 million locations by mid-2019.

In 2019, we expect that our total capital investment, which consists of capital expenditures plus potential vendor financing payments, will be in the \$23,000 range, excluding expected FirstNet reimbursement in the \$1,000 range.

Cash Used in or Provided by Financing Activities

For the full year, cash used in financing activities totaled \$25,989 and included net proceeds of \$41,875 primarily resulting from drawing \$20,925 on our term loan credit agreements in connection with our acquisition of Time Warner. Additionally, in November 2018, we entered into and drew on an additional \$3,550 term loan agreement to repay a portion of the term loans drawn on for the Time Warner acquisition. The remaining amount consisted primarily of the following issuances:

- April issuance of approximately \$2,000 of notes and other borrowings issued by our subsidiary Vrio Corp. (Vrio). See discussion below.
- June issuance of \$1,500 of floating rate global notes due 2021.
- August issuance of \$825 of 5.625% global notes due 2067.
- August issuance of €2,250 (\$2,637 U.S. dollar equivalent) floating rate global notes due 2020.
- August issuance of \$3,750 of floating rate global notes due 2024.
- August issuance of CAD\$1,250 of 4.000% global notes due 2025 and CAD\$750 of 5.100% global notes due 2048 (together, equivalent to \$1,536 when issued).
- September issuance of £750 global notes due 2026 (equivalent to \$972 when issued).
- September issuance of A\$475 of floating rate notes due 2023, A\$150 of 3.450% notes due 2023, A\$300 of 4.100% notes due 2026 and A\$400 of 4.600% notes due 2028 (together, equivalent to \$955 when issued).

Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operations - Continued

Dollars in millions except per share amounts

During 2018, we redeemed or repaid \$52,643 of debt. Approximately \$21,236 of notes were subject to mandatory redemption if we did not complete our acquisition of Time Warner by April 22, 2018. The remaining amount primarily consisted of the following redemptions:

- \$2,500 of 5.500% notes due 2018.
- \$750 of 1.750% notes due 2018.
- \$300 of 6.450% notes due 2018.
- \$1,000 of 5.600% notes due 2018.
- \$2,000 repayment of amounts outstanding under Warner Media, LLC's Term Credit Agreement.
- \$600 of 6.875% historic TW Inc. notes due 2018.
- \$1,000 of notes issued by Vrio.
- \$16,050 repayment of amounts outstanding under our term loan agreements.
- \$1,400 of 4.875% Warner Media, LLC notes due 2020.
- \$1,600 of 2.375% notes due 2018.
- \$400 of floating rate notes due 2018.
- \$2,250 of 5.800% notes due 2019.
- \$942 of 5.875% notes due 2019.

On February 19, 2019, we issued \$3,000 of 4.350% global notes due 2029 and \$2,000 of 4.850% global notes due 2039. The proceeds will be used to redeem approximately \$4,100 of senior notes issued by AT&T or one of our subsidiaries, such notes were issued redemption notices on February 15, 2019 and will be redeemed on March 27, 2019. Excess proceeds, together with cash on hand, were used to pay down amounts outstanding under term loans drawn on for the Time Warner acquisition.

Our weighted average interest rate of our entire long-term debt portfolio, including the impact of derivatives, was approximately 4.4% as of December 31, 2018 and December 31, 2017. We had \$171,529 of total notes and debentures outstanding at December 31, 2018, which included Euro, British pound sterling, Swiss franc, Brazilian real, Mexican peso, Canadian dollar and Australian dollar denominated debt that totaled approximately \$41,356.

As a result of the Time Warner acquisition, we acquired debt with a fair value of \$22,865 at the time of acquisition, of which \$16,981 at face value remained on our balance sheet as of December 31, 2018. The face value of the remaining debt acquired is summarized primarily as follows:

- \$650 maturing in 2019 with an interest rate of 2.100%.
- \$5,471 maturing between 2020 and 2024 with an interest rate ranging from 1.950% to 9.150%.
- \$5,898 maturing between 2025 and 2034 with an interest rate ranging from 2.950% to 7.700%.
- \$4,962 maturing between 2035 and 2045 with an interest rate ranging from 4.650% to 8.300%.

At December 31, 2018, we had \$10,255 of debt maturing within one year, primarily consisting of \$7,062 of long-term debt issuances and \$3,048 of commercial paper borrowing. Debt maturing within one year includes the following notes that may be put back to us by the holders:

- \$1,000 of annual put reset securities issued by BellSouth that may be put back to us each April until maturity in 2021.
- An accreting zero-coupon note that may be redeemed each May until maturity in 2022. If the remainder of the zero-coupon note (issued for principal of \$500 in 2007 and partially exchanged in the 2017 debt exchange offers) is held to maturity, the redemption amount will be \$592.

Vrio entered into an April 2018 borrowing of approximately \$1,000 of debt denominated in Brazilian reais that matures in 2021. The current floating rate for the facility is based upon the Brazil interbank deposit rate annualized (DI Rate), plus 100 basis points. This borrowing is unhedged and remained outstanding at December 31, 2018.

At December 31, 2018, we had approximately 376 million shares remaining from share repurchase authorizations approved by the Board of Directors in 2013 and 2014 (see Note 16). For the year ended December 31, 2018, we repurchased approximately 13 million shares under these authorizations.

We paid dividends of \$13,410 in 2018, \$12,038 in 2017 and \$11,797 in 2016, primarily reflecting the increase in the number of shares outstanding related to our acquisition of Time Warner as well as an increase in our quarterly dividend approved by our Board of Directors in December 2017. Dividends declared by our Board of Directors totaled \$2.01 per share in 2018 and \$1.97 per share in 2017. Our dividend policy considers the expectations and requirements of stockholders, capital funding requirements of AT&T and long-term growth opportunities. It is our intent to provide the financial flexibility to allow our Board of Directors to consider dividend growth and to recommend an increase in dividends to be paid in future periods. All dividends remain subject to declaration by our Board of Directors.

Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operations - Continued

Dollars in millions except per share amounts

Excluding the impact of acquisitions, our 2019 financing activities will focus on the refinancing and/or repayment of debt and the payment of dividends, subject to approval by our Board of Directors. We plan to fund our financing uses of cash through a combination of cash from operations, debt issuances and asset sales. The timing and mix of any debt issuance will be guided by credit market conditions and interest rate trends.

Credit Facilities

The following summary of our various credit and loan agreements does not purport to be complete and is qualified in its entirety by reference to each agreement filed as exhibits to our Annual Report on Form 10-K.

We use credit facilities as a tool in managing our liquidity status. In December 2018, we amended our five-year revolving credit agreement (the "Amended and Restated Credit Agreement") and concurrently entered into a new five-year agreement (the "Five Year Credit Agreement") such that we now have two \$7,500 revolving credit agreements totaling \$15,000. The Amended and Restated Credit Agreement terminates on December 11, 2021 and the Five Year Credit Agreement terminates on December 11, 2023. No amounts were outstanding under either agreement as of December 31, 2018.

On September 29, 2017, we entered into a \$2,250 syndicated term loan credit agreement (the "Nova Scotia Credit Agreement") containing (i) a three-year \$750 term loan facility, (ii) a four-year \$750 term loan facility and (iii) a five-year \$750 term loan facility, with certain investment and commercial banks and The Bank of Nova Scotia, as administrative agent. We drew on all three facilities during the first quarter of 2018, with \$2,250 in advances outstanding as of December 31, 2018.

In anticipation of the Time Warner acquisition, we entered into a \$16,175 term loan agreement ("Acquisition Term Loan") containing (i) a 2.5 year \$8,087.5 facility (the "Tranche A Facility") and (ii) a 4.5 year \$8,087.5 facility (the "Tranche B Facility") with a commitment termination date of December 31, 2018. We drew on the entire Acquisition Term Loan during the second quarter of 2018 and subsequently repaid all amounts outstanding under the Tranche B Facility and \$5,463 of amounts outstanding under the Tranche A Facility. As of December 31, 2018, \$2,625 is outstanding of Tranche A advances and \$0 is outstanding of Tranche B advances. We paid \$2,625 of the Tranche A advances on February 20, 2019, and terminated the facility.

On November 20, 2018, we entered into and drew on a 4.5 year \$3,550 term loan credit agreement (the "November 2018 Term Loan") with Bank of America, N.A., as agent. We used the proceeds to finance the repayment, in part, of loans outstanding under the Acquisition Term Loan.

On January 31, 2019, we entered into and drew on an 11-month \$2,850 syndicated term loan credit agreement (the "Citibank Term Loan"), with certain investment and commercial banks and Citibank, N.A., as administrative agent.

We also utilize other external financing sources, which include various credit arrangements supported by government agencies to support network equipment purchases, as well as a commercial paper program.

Each of our credit and loan agreements contains covenants that are customary for an issuer with an investment grade senior debt credit rating as well as a net debt-to-EBITDA financial ratio covenant requiring AT&T to maintain, as of the last day of each fiscal quarter, a ratio of not more than 3.5-to-1. As of December 31, 2018, we were in compliance with the covenants for our credit facilities.

Collateral Arrangements

During 2018, we deposited \$2,045 of additional cash collateral, on a net basis, to banks and other participants in our derivative arrangements, compared to receiving \$3,714 in the prior year. Cash postings under these arrangements vary with changes in credit ratings and netting agreements. (See Note 12)

Other

Our total capital consists of debt (long-term debt and debt maturing within one year) and stockholders' equity. Our capital structure does not include debt issued by our equity method investments. At December 31, 2018, our debt ratio was 47.7%, compared to 53.6% at December 31, 2017 and 49.9% at December 31, 2016. Our net debt ratio was 46.2% at December 31, 2018, compared to 37.2% at December 31, 2017 and 47.5% at December 31, 2016. The debt ratio is affected by the same factors that affect total capital, and reflects our recent debt issuances, repayments and debt acquired in business combinations.

Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operations - Continued

Dollars in millions except per share amounts

A significant amount of our cash outflows is related to tax items and benefits paid for current and former employees. Total taxes incurred, collected and remitted by AT&T during 2018, 2017 and 2016 were \$22,172, \$23,393 and \$25,099. These taxes include income, franchise, property, sales, excise, payroll, gross receipts and various other taxes and fees. Total health and welfare benefits provided to certain active and retired employees and their dependents totaled \$4,368 in 2018, with \$1,503 paid from plan assets. Of those benefits, \$4,020 related to medical and prescription drug benefits. In addition, in 2018 we prefunded \$480 for future benefit payments. During 2018, we paid \$4,632 of pension benefits out of plan assets.

During 2018, we also received approximately \$9,879 from monetization of various assets, compared to \$5,727 in 2017, primarily from our sales of certain equipment installment receivables and the sale of our colocation business. We plan to continue to explore similar opportunities in 2019.

During 2018, to simplify transferability and enhance marketability, we modified our agreement covering the contribution of the preferred equity interest in AT&T Mobility II LLC (Mobility II) with our pension trust and began accounting for this instrument as a noncontrolling interest. The trust is entitled to receive cumulative cash distributions of \$560 per annum, which are distributed quarterly in equal amounts. So long as those distributions are declared and paid, the terms of the preferred equity interest will not impose any limitations on our ability to declare a dividend on or repurchase AT&T shares. Mobility II distributed \$560 to the trust during 2018 and 2017. See Notes 14 and 16 for additional information.

CONTRACTUAL OBLIGATIONS, COMMITMENTS AND CONTINGENCIES

Our contractual obligations as of December 31, 2018 are in the following table:

Contractual Obligations	Payments Due By Period				
	Total	Less than 1 Year	1-3 Years	3-5 Years	More than 5 Years
Long-term debt obligations ¹	\$ 174,553	\$ 7,090	\$ 26,133	\$ 26,721	\$ 114,609
Interest payments on long-term debt	114,297	7,612	14,328	12,459	79,898
Purchase obligations ²	63,661	16,172	18,687	10,310	18,492
Operating lease obligations ³	27,594	4,361	7,604	6,089	9,540
FirstNet sustainability payments ⁴	17,760	120	240	390	17,010
Unrecognized tax benefits ⁵	9,917	355	-	-	9,562
Other finance obligations ⁶	7,567	2,566	1,297	872	2,832
Total Contractual Obligations	\$ 415,349	\$ 38,276	\$ 68,289	\$ 56,841	\$ 251,943

¹ Represents principal or payoff amounts of notes and debentures at maturity or, for putable debt, the next put opportunity (see Note 11).

² The purchase obligations will be funded with cash provided by operations or through incremental borrowings. The minimum commitment for certain obligations is based on termination penalties that could be paid to exit the contracts. If we elect to exit these contracts, termination fees for all such contracts in the year of termination could be approximately \$225 in 2019, \$174 in the aggregate for 2020 and 2021, \$112 in the aggregate for 2022 and 2023, and \$49 in the aggregate thereafter. Certain termination fees are excluded from the above table, as the fees would not be paid every year and the timing of such payments, if any, is uncertain.

³ Represents operating lease payments (see Note 7).

⁴ Represents contractual commitment to make sustainability payments over the 25-year contract. These sustainability payments represent our commitment to fund FirstNet's operating expenses and future reinvestment in the network, which we will own and operate. FirstNet has a statutory requirement to reinvest funds that exceed the agency's operating expenses, which we anticipate to be \$15,000. (See Note 19)

⁵ The noncurrent portion of the UTBs is included in the "More than 5 Years" column, as we cannot reasonably estimate the timing or amounts of additional cash payments, if any, at this time (see Note 13).

⁶ Represents future minimum payments under the Crown Castle and other arrangements (see Note 18), payables subject to extended payment terms (Note 21) and capital lease payments (see Note 7).

Certain items were excluded from this table, as the year of payment is unknown and could not be reliably estimated since past trends were not deemed to be an indicator of future payment, the obligations are immaterial or because the settlement of the obligation will not require the use of cash. These items include: deferred income tax liability of \$57,859 (see Note 13); net postemployment benefit obligations of \$19,218; expected pension and postretirement payments (see Note 14); other noncurrent liabilities of \$15,521; third-party debt guarantees; and fair value of our interest rate swaps.

Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operations - Continued

Dollars in millions except per share amounts

MARKET RISK

We are exposed to market risks primarily from changes in interest rates and foreign currency exchange rates. These risks, along with other business risks, impact our cost of capital. It is our policy to manage our debt structure and foreign exchange exposure in order to manage capital costs, control financial risks and maintain financial flexibility over the long term. In managing market risks, we employ derivatives according to documented policies and procedures, including interest rate swaps, interest rate locks, foreign currency exchange contracts and combined interest rate foreign currency contracts (cross-currency swaps). We do not use derivatives for trading or speculative purposes. We do not foresee significant changes in the strategies we use to manage market risk in the near future.

One of the most significant assumptions used in estimating our postretirement benefit obligations is the assumed weighted-average discount rate, which is the hypothetical rate at which the projected benefit obligations could be effectively settled or paid out to participants. We determined our discount rate based on a range of factors, including a yield curve composed of the rates of return on several hundred high-quality, fixed income corporate bonds available at the measurement date and corresponding to the related expected durations of future cash outflows for the obligations. In recent years, the discount rates have been increasingly volatile, and on average have been lower than in historical periods. Lower discount rates used to measure our pension and postretirement plans result in higher obligations. Future increases in these rates could result in lower obligations, improved funded status and actuarial gains.

Interest Rate Risk

The majority of our financial instruments are medium- and long-term fixed-rate notes and debentures. Changes in interest rates can lead to significant fluctuations in the fair value of these instruments. The principal amounts by expected maturity, average interest rate and fair value of our liabilities that are exposed to interest rate risk are described in Notes 11 and 12. In managing interest expense, we control our mix of fixed and floating rate debt, principally through the use of interest rate swaps. We have established interest rate risk limits that we closely monitor by measuring interest rate sensitivities in our debt and interest rate derivatives portfolios.

Most of our foreign-denominated long-term debt has been swapped from fixed-rate or floating-rate foreign currencies to fixed-rate U.S. dollars at issuance through cross-currency swaps, removing interest rate risk and foreign currency exchange risk associated with the underlying interest and principal payments. Likewise, periodically we enter into interest rate locks to partially hedge the risk of increases in the benchmark interest rate during the period leading up to the probable issuance of fixed-rate debt. We expect gains or losses in our cross-currency swaps and interest rate locks to offset the losses and gains in the financial instruments they hedge.

Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operations - Continued

Dollars in millions except per share amounts

Following are our interest rate derivatives subject to material interest rate risk as of December 31, 2018. The interest rates illustrated below refer to the average rates we expect to pay based on current and implied forward rates and the average rates we expect to receive based on derivative contracts. The notional amount is the principal amount of the debt subject to the interest rate swap contracts. The fair value asset (liability) represents the amount we would receive (pay) if we had exited the contracts as of December 31, 2018.

	Maturity							Fair Value 12/31/18
	2019	2020	2021	2022	2023	Thereafter	Total	
Interest Rate Derivatives								
Interest Rate Swaps:								
Receive Fixed/Pay								
Variable Notional								
Amount Maturing	\$ 1,850	\$ -	\$ 853	\$ 100	\$ -	\$ 680	\$ 3,483	\$ (39)
Weighted-Average								
Variable Rate Payable ¹	5.9%	5.9%	6.6%	6.8%	6.9%	7.0%		
Weighted-Average								
Fixed Rate Receivable	5.3%	5.6%	6.5%	6.8%	6.8%	6.6%		

¹ Interest payable based on current and implied forward rates for One, Three, or Six Month LIBOR plus a spread ranging between approximately 49 and 564 basis points.

Foreign Exchange Risk

We principally use foreign exchange contracts to hedge the risk related to unremitted or forecasted royalties and license fees owed to our domestic companies for the sale or anticipated sale of U.S. copyrighted products abroad because such amounts may be adversely affected by changes in foreign currency exchange rates. Similarly, we enter into foreign exchange contracts to hedge certain film production costs denominated in foreign currencies as well as other transactions, assets and liabilities denominated in foreign currencies. As part of our overall strategy to manage the level of exposure to the risk of foreign currency exchange rate fluctuations, we generally hedge a portion of our foreign currency exposures anticipated over a rolling twelve-month period. The hedging period for royalties and license fees generally covers revenues expected to be recognized during the calendar year; however, there is often a lag between the time that revenue is recognized and the transfer of foreign-denominated cash to U.S. dollars. To hedge this exposure, we use foreign exchange contracts that generally have maturities of three months to eighteen months and provide continuing coverage throughout the hedging period.

We are also exposed to foreign currency exchange risk through our foreign affiliates and equity investments in foreign companies. We have designated €700 million aggregate principal amount of debt as a hedge of the variability of certain Euro-denominated net investments of WarnerMedia. The gain or loss on the debt that is designated as, and is effective as, an economic hedge of the net investment in a foreign operation is recorded as a currency translation adjustment within accumulated other comprehensive income, net on the consolidated balance sheet.

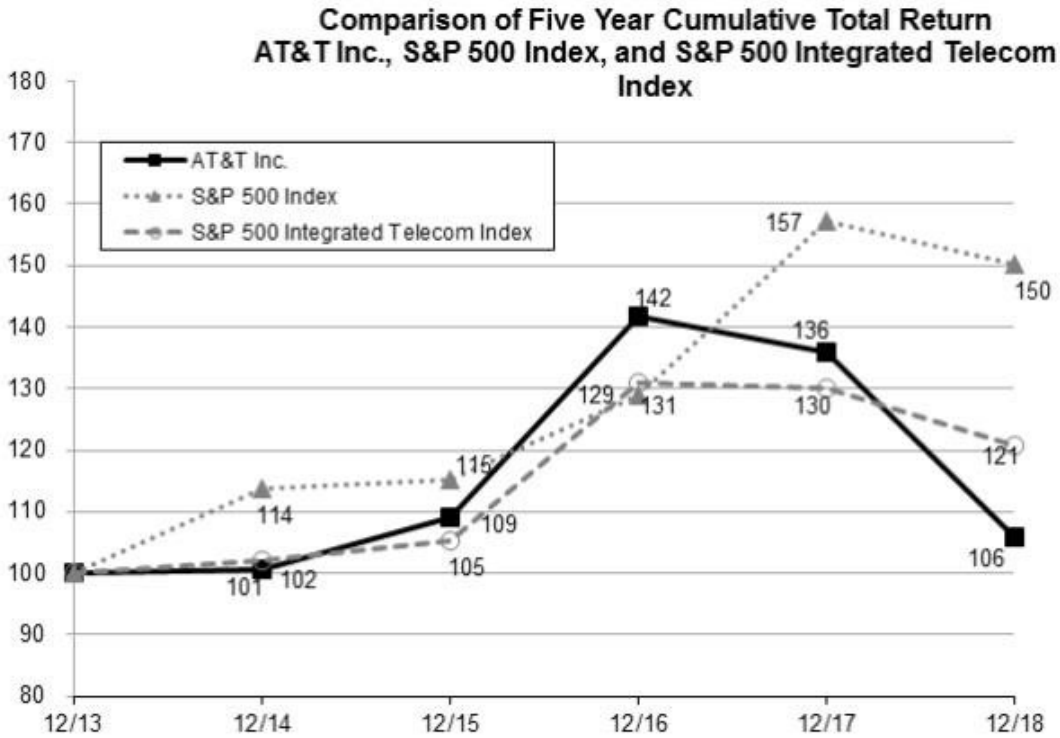
Through cross-currency swaps, most of our foreign-denominated debt has been swapped from fixed-rate or floating-rate foreign currencies to fixed-rate U.S. dollars at issuance, removing interest rate and foreign currency exchange risk associated with the underlying interest and principal payments. We expect gains or losses in our cross-currency swaps to offset the gains and losses in the financial instruments they hedge.

For the purpose of assessing specific risks, we use a sensitivity analysis to determine the effects that market risk exposures may have on the fair value of our financial instruments and results of operations. We had foreign exchange forward contracts with a notional value of \$2,094 and a fair value of \$85 outstanding at December 31, 2018.

Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operations - Continued

Dollars in millions except per share amounts

STOCK PERFORMANCE GRAPH



The comparison above assumes \$100 invested on December 31, 2013, in AT&T common stock, Standard & Poor's 500 Index (S&P 500), and Standard & Poor's 500 Integrated Telecom Index (S&P 500 Integrated Telecom). Total return equals stock price appreciation plus reinvestment of dividends.

Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operations - Continued

Dollars in millions except per share amounts

DISCUSSION AND RECONCILIATION OF NON-GAAP MEASURE

We believe the following measure is relevant and useful information to investors as it is used by management as a method of comparing performance with that of many of our competitors. This supplemental measure should be considered in addition to, but not as a substitute of, our consolidated and segment financial information.

Business Solutions Reconciliation

We provide a supplemental discussion of our Business Solutions operations that is calculated by combining our Mobility and Business Wireline business units, and then adjusting to remove non-business operations. The following table presents a reconciliation of our supplemental Business Solutions results.

	Year Ended December 31, 2018			Business Solutions
	Mobility	Business Wireline	Adjustments ¹	
Operating Revenues				
Wireless service	\$ 54,933	\$ -	\$ (47,536)	\$ 7,397
Strategic services	-	12,310	-	12,310
Legacy voice and data services	-	10,697	-	10,697
Other service and equipment	-	3,820	-	3,820
Wireless equipment	16,411	-	(13,879)	2,532
Total Operating Revenues	71,344	26,827	(61,415)	36,756
Operating Expenses				
Operations and support	41,266	16,245	(34,792)	22,719
EBITDA	30,078	10,582	(26,623)	14,037
Depreciation and amortization	8,355	4,754	(7,158)	5,951
Total Operating Expense	49,621	20,999	(41,950)	28,670
Operating Income	21,723	5,828	(19,465)	8,086
Equity in Net Income of Affiliates	(1)	(1)	1	(1)
Operating Contribution	\$ 21,722	\$ 5,827	\$ (19,464)	\$ 8,085

¹ Non-business wireless reported in the Communications segment under the Mobility business unit.

Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operations - Continued

Dollars in millions except per share amounts

	Year Ended December 31, 2017			
	Mobility	Business Wireline	Adjustments ¹	Business Solutions
Operating Revenues				
Wireless service	\$ 57,696	\$ -	\$ (49,687)	\$ 8,009
Strategic services	-	11,950	-	11,950
Legacy voice and data services	-	13,565	-	13,565
Other service and equipment	-	3,778	-	3,778
Wireless equipment	13,394	-	(11,842)	1,552
Total Operating Revenues	71,090	29,293	(61,529)	38,854
Operating Expenses				
Operations and support	42,871	18,492	(36,867)	24,496
EBITDA	28,219	10,801	(24,662)	14,358
Depreciation and amortization	8,015	4,789	(6,903)	5,901
Total Operating Expense	50,886	23,281	(43,770)	30,397
Operating Income	20,204	6,012	(17,759)	8,457
Equity in Net Income of Affiliates	-	(2)	1	(1)
Operating Contribution	\$ 20,204	\$ 6,010	\$ (17,758)	\$ 8,456

¹ Non-business wireless reported in the Communications segment under the Mobility business unit.

	Year Ended December 31, 2016			
	Mobility	Business Wireline	Adjustments ¹	Business Solutions
Operating Revenues				
Wireless service	\$ 59,152	\$ -	\$ (50,868)	\$ 8,284
Strategic services	-	11,139	-	11,139
Legacy voice and data services	-	15,904	-	15,904
Other service and equipment	-	3,942	-	3,942
Wireless equipment	13,435	-	(11,908)	1,527
Total Operating Revenues	72,587	30,985	(62,776)	40,796
Operating Expenses				
Operations and support	43,567	19,954	(37,644)	25,877
EBITDA	29,020	11,031	(25,132)	14,919
Depreciation and amortization	8,277	5,235	(7,204)	6,308
Total Operating Expense	51,844	25,189	(44,848)	32,185
Operating Income	20,743	5,796	(17,928)	8,611
Equity in Net Income of Affiliates	-	-	-	-
Operating Contribution	\$ 20,743	\$ 5,796	\$ (17,928)	\$ 8,611

¹ Non-business wireless reported in the Communications segment under the Mobility business unit.

Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operations - Continued

Dollars in millions except per share amounts

RISK FACTORS

In addition to the other information set forth in this document, including the matters contained under the caption "Cautionary Language Concerning Forward-Looking Statements," you should carefully read the matters described below. We believe that each of these matters could materially affect our business. We recognize that most of these factors are beyond our ability to control and therefore we cannot predict an outcome. Accordingly, we have organized them by first addressing general factors, then industry factors and, finally, items specifically applicable to us.

Adverse changes in medical costs, the U.S. securities markets and interest rates could materially increase our benefit plan costs.

Our costs to provide current benefits and funding for future benefits are subject to increases, primarily due to continuing increases in medical and prescription drug costs, and can be affected by lower returns on funds held by our pension and other benefit plans, which are reflected in our financial statements for that year. Depressed market returns in 2018 have led to lower than assumed investment returns on our plan assets, with a higher end-of-period yield curve contributing to lower benefit obligations resulting in an insignificant change to our overall funding obligations. Should unfavorable market returns continue, we may need to adjust our assumed rate of return on plan assets. In calculating the costs included on our financial statements of providing benefits under our plans, we have made certain assumptions regarding future investment returns, medical costs and interest rates. While we have made some changes to the benefit plans to limit our risk from increasing medical costs, if actual investment returns, medical costs and interest rates are worse than those previously assumed, our expenses will increase.

The Financial Accounting Standards Board requires companies to recognize the funded status of defined benefit pension and postretirement plans as an asset or liability in our statement of financial position and to recognize changes in that funded status in the year in which the changes occur. We have elected to reflect the annual adjustments to the funded status in our consolidated statement of income. Therefore, an increase in our costs or adverse market conditions will have a negative effect on our operating results.

Adverse changes in global financial markets could limit our ability and our larger customers' ability to access capital or increase the cost of capital needed to fund business operations.

While the global financial markets were generally stable during 2018, a continuing uncertainty surrounding global growth rates has resulted in continuing volatility in the credit, currency, equity and fixed income markets. Uncertainty regarding the impositions of U.S. tariffs on Chinese goods, the impending withdrawal of the United Kingdom from the European Union, the potential failure of the United Kingdom and the European Union to reach agreement on the terms of the exit and other political developments in Europe and Asia could significantly affect global financial markets in 2019. Volatility in other areas, such as in emerging markets, may affect companies' access to the credit markets, leading to higher borrowing costs for companies or, in some cases, the inability of these companies to fund their ongoing operations. In addition, we contract with large financial institutions to support our own treasury operations, including contracts to hedge our exposure on interest rates and foreign exchange and the funding of credit lines and other short-term debt obligations, including commercial paper. These financial institutions also face stricter capital-related and other regulations in the United States and Europe, as well as ongoing legal and financial issues concerning their loan portfolios, which may hamper their ability to provide credit or raise the cost of providing such credit. A company's cost of borrowing is also affected by evaluations given by various credit rating agencies and these agencies have been applying tighter credit standards when evaluating a company's debt levels and future growth prospects. While we have been successful in continuing to access the credit and fixed income markets when needed, adverse changes in the financial markets could render us either unable to access these markets or able to access these markets only at higher interest costs and with restrictive financial or other conditions, severely affecting our business operations.

Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operations - Continued

Dollars in millions except per share amounts

Changes to federal, state and foreign government regulations and decisions in regulatory proceedings could further increase our operating costs and/or alter customer perceptions of our operations, which could materially adversely affect us.

Our subsidiaries providing wired services are subject to significant federal and state regulation while many of our competitors are not. In addition, our subsidiaries and affiliates operating outside the United States are also subject to the jurisdiction of national and supranational regulatory authorities in the market where service is provided. Our wireless and various video subsidiaries are regulated to varying degrees by the FCC and in some instances, by state and local agencies. Adverse regulations and rulings by the FCC relating to broadband and especially satellite video issues could impede our ability to manage our networks and recover costs and lessen incentives to invest in our networks. The development of new technologies, such as IP-based services, also has created or potentially could create conflicting regulation between the FCC and various state and local authorities, which may involve lengthy litigation to resolve and may result in outcomes unfavorable to us. In addition, increased public focus on a variety of issues related to our operations, such as privacy issues, government requests or orders for customer data, and potential global climate changes, have led to proposals or new legislation at state, federal and foreign government levels to change or increase regulation on our operations. Enactment of new privacy laws and regulations could, among other things, adversely affect our ability to collect and offer targeted advertisements, an expected growth area for the company, or result in additional costs of compliance or litigation. Should customers decide that our competitors operate in a more customer-friendly environment, we could be materially adversely affected.

Adoption of new software-based technologies may involve quality and supply chain issues and could increase capital costs.

The communications and digital entertainment industry has experienced rapid changes in the past several years. An increasing number of our customers are using mobile devices as the primary means of viewing video and an increasing number of nontraditional video providers are developing content and technologies to satisfy the desire for video entertainment demand. In addition, businesses and government bodies are broadly shifting to wireless-based services for homes and infrastructure to improve services to their respective customers and constituencies. In order to remain competitive, we now offer a mobile TV service and continue to upgrade our sophisticated wired and wireless networks, including satellites, as well as research other technologies. We are spending significant capital to shift our wired network to software-based technology and are launching a new wireless technology (5G) to address these consumer demands. We are entering into a significant number of software licensing agreements and working with software developers to provide network functions in lieu of installing switches or other physical network equipment in order to respond to rapid developments in video and wireless demand. While software-based functionality can be changed much more quickly than, for example, physical switches, the rapid pace of development means that we may increasingly need to rely on single-source and software solutions that have not previously been deployed in production environments. Should this software not function as intended or our license agreements provide inadequate protection from intellectual property infringement claims, we could be forced to either substitute (if available), or else spend time to develop alternative technologies at a much higher cost and incur harm to our reputation for reliability, and, as a result, our ability to remain competitive could be materially adversely affected.

Continuing growth in and the converging nature of wireless, video and broadband services will require us to deploy increasing amounts of capital and require ongoing access to spectrum in order to provide attractive services to customers.

Wireless, video and broadband services are undergoing rapid and significant technological changes and a dramatic increase in usage, in particular, the demand for faster and seamless usage of video and data across mobile and fixed devices. We must continually invest in our networks in order to improve our wireless, video and broadband services to meet this increasing demand and remain competitive. Improvements in these services depend on many factors, including continued access to and deployment of adequate spectrum and the capital needed to expand our wireline network to support transport of these services. In order to stem broadband subscriber losses to cable competitors in our non-fiber wireline areas, we have been expanding our all-fiber wireline network. We must maintain and expand our network capacity and coverage for transport of video, data and voice between cell and fixed landline sites. To this end, we have participated in spectrum auctions, at increasing financial cost, and continue to deploy software and other technology advancements in order to efficiently invest in our network.

Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operations - Continued

Dollars in millions except per share amounts

Network service enhancements and product launches may not occur as scheduled or at the cost expected due to many factors, including delays in determining equipment and wireless handset operating standards, supplier delays, software issues, increases in network and handset component costs, regulatory permitting delays for tower sites or enhancements, or labor-related delays. Deployment of new technology also may adversely affect the performance of the network for existing services. If we cannot acquire needed spectrum or deploy the services customers desire on a timely basis with acceptable quality and at adequate cost, then our ability to attract and retain customers, and, therefore, maintain and improve our operating margins, could be materially adversely affected.

Increasing competition for wireless customers could materially adversely affect our operating results.

We have multiple wireless competitors in each of our service areas and compete for customers based principally on service/device offerings, price, network quality, coverage area and customer service. In addition, we are facing growing competition from providers offering services using advanced wireless technologies and IP-based networks as well as traditional wireline networks. We expect market saturation to continue to cause the wireless industry's customer growth rate to moderate in comparison with historical growth rates, leading to increased competition for customers. We also expect that our customers' growing demand for high-speed video and data services will place constraints on our network capacity. This competition and our capacity issues will continue to put pressure on pricing and margins as companies compete for potential customers. Our ability to respond will depend, among other things, on continued improvement in network quality and customer service as well as effective marketing of attractive products and services. These efforts will involve significant expenses and require strategic management decisions on, and timely implementation of, equipment choices, network deployment, and service offerings.

Ongoing changes in the U.S. television industry and consumer viewing patterns could materially adversely affect our operating results.

Our video subsidiaries derive substantial revenues and profits from cable networks and premium pay television services and the production and licensing of television programming to broadcast and cable networks and premium pay television services. The U.S. television industry is continuing to evolve rapidly, with developments in technology leading to new methods for the distribution of video content and changes in when, where and how audiences consume video content. These changes have led to (1) the disruption of the traditional television content distribution model by OTT services, which are increasing in number and some of which have significant and growing subscriber/user bases, and (2) the disruption of the advertising-supported television model resulting from increased video consumption through OTT services, time-shifted viewing of television programming and the use of DVRs to skip advertisements. The number of subscribers to traditional linear programming in the U.S. has been declining in recent years and the U.S. television industry has experienced declines in ratings for programming, which have negatively affected subscription and advertising revenues, and these trends are expected to continue. The popularity of content, whether on television or through movies, is difficult to predict and can change rapidly, and low public acceptance of our television and movie content, including WarnerMedia's content, could adversely affect our results of operations. We are taking steps to mitigate the risks from these changes, such as direct-to-consumer streaming services and new, enhanced advertising opportunities, but there can be no assurance that these and other efforts will be successful in responding to these changes.

Increasing costs to provide video and other services could adversely affect operating margins.

Our operating costs, including customer acquisition and retention costs, could continue to put pressure on margins and customer retention levels. In addition, most of our video programming is provided by other companies and historically the rates they charge us for programming have often increased more than the rate of inflation. In addition, as customer viewing habits shift to mobile and on-demand from linear programming, negotiating licensing rights is increasingly complicated. We are attempting to use our increased scale and access to wireless customers to change this trend but such negotiations are difficult and also may result in programming disruption. If we are unable to restrain these costs or provide programming desired by our customers, it could impact margins and our ability to attract and retain customers. Our WarnerMedia operations, which create and license content to other providers, also may experience increasing difficulties to secure favorable terms, including those related to pricing, positioning and packaging, during affiliate agreement negotiations, which may lead to blackouts of WarnerMedia programming, and WarnerMedia may face greater difficulty in achieving placement of its networks and premium pay television services in smaller bundles or mobile offerings by third parties.

Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operations - Continued

Dollars in millions except per share amounts

A number of our competitors offering comparable legacy services that rely on alternative technologies and business models are typically subject to less (or no) regulation, and therefore are able to operate with lower costs. These competitors generally can focus on discrete customer segments since they do not have regulatory obligations to provide universal service. Also, these competitors have cost advantages compared to us, due in part to operating on newer, more technically advanced and lower-cost networks and a nonunionized workforce, lower employee benefits and fewer retirees. We have begun initiatives at both the state and federal levels to obtain regulatory approvals, where needed, to transition services from our older copper-based network to an advanced IP-based network. If we do not obtain regulatory approvals for our network transition or obtain approvals with onerous conditions, we could experience significant cost and competitive disadvantages.

Unfavorable litigation or governmental investigation results could require us to pay significant amounts or lead to onerous operating procedures.

We are subject to a number of lawsuits both in the United States and in foreign countries, including, at any particular time, claims relating to antitrust; patent infringement; wage and hour; personal injury; customer privacy violations; regulatory proceedings; and selling and collection practices. We also spend substantial resources complying with various government standards, which may entail related investigations and litigation. In the wireless area, we also face current and potential litigation relating to alleged adverse health effects on customers or employees who use such technologies including, for example, wireless devices. We may incur significant expenses defending such suits or government charges and may be required to pay amounts or otherwise change our operations in ways that could materially adversely affect our operations or financial results.

Cyberattacks, equipment failures, natural disasters and terrorist acts may materially adversely affect our operations.

Cyberattacks, major equipment failures or natural disasters, such as flooding, hurricanes, forest fires and earthquakes whether caused by discrete severe weather events and/or precipitated by long-term climate change, software problems, terrorist acts or other breaches of network or IT security that affect our networks, including software and switches, microwave links, third-party-owned local and long-distance networks on which we rely, our cell sites or other equipment, our satellites, our customer account support and information systems, or employee and business records could have a material adverse effect on our operations. Our wired network in particular is becoming increasingly reliant on software as it evolves to handle increasing demands for video transmission. While we have been subject to security incidents or cyberattacks, these did not result in a material adverse effect on our operations. However, as such attacks continue to increase in scope and frequency, we may be unable to prevent a significant attack in the future. Our ability to maintain and upgrade our video programming also depends on our ability to successfully deploy and operate video satellites. Our inability to deploy or operate our networks or customer support systems could result in significant expenses, potential legal liability, a loss of current or future customers and reputation damage, any of which could have a material adverse effect on our operations and financial condition.

Intellectual property rights may be adversely affected by piracy or be inadequate to take advantage of business opportunities, such as new distribution platforms, which may materially adversely affect our operations.

Increased piracy of video content, products and other intellectual property, particularly in our foreign WarnerMedia and Latin American operations, will decrease revenues. Mobile and broadband technological developments have made it easier to reproduce and distribute high-quality unauthorized copies of content. Piracy is particularly prevalent in countries that lack effective copyright and other legal protections or enforcement measures and thieves can attract users throughout the world. Effective intellectual property protection may not be available in every country in which our businesses operate. We may need to spend significant amounts of money to protect our rights. We are also increasingly negotiating broader licensing agreements to expand our ability to use new methods to distribute content to customers. Any impairment of our intellectual property rights, including due to changes in U.S. or foreign intellectual property laws or the absence of effective legal protections or enforcement measures, or our inability to negotiate broader distribution rights could materially adversely impact our operations.

Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operations - Continued

Dollars in millions except per share amounts

Our ability to successfully integrate our June 2018 acquisition of Time Warner, including the risk that the cost savings and revenue synergies from the acquisition may not be fully realized or may take longer to realize than expected; higher debt levels we incurred to finance the acquisition and the issuance of additional shares; the addition of Time Warner's existing debt to our balance sheet; disruption from the acquisition making it more difficult to maintain relationships with customers, employees or suppliers; and competition and its effect on pricing, spending, third-party relationships and revenues.

We completed our acquisition of Time Warner in June 2018. We believe that the acquisition will give us the scale, resources and ability to deploy video content more efficiently to more customers than otherwise possible and to provide very attractive integrated offerings of video, broadband and wireless services; compete more effectively against other video providers as well as other technology, media and communications companies; create premium advertising opportunities; and produce cost and revenue synergies. We must integrate a large number of operational and administrative systems, which may involve significant management time and create uncertainty for employees, customers and suppliers. The integration process may also result in significant expenses and charges against earnings, both cash and noncash. This acquisition also has increased the amount of debt on our balance sheet leading to additional interest expense and, due to the additional shares issued, will result in additional cash being required for any dividends declared. Both of these factors could put pressure on our financial flexibility to continue capital investments, develop new services and declare future dividends. In addition, events outside our control, including changes in regulation and laws as well as economic trends, could adversely affect our ability to realize the expected benefits from this acquisition. Following the closing, the U.S. Department of Justice filed an appeal of the court decision allowing us to complete the acquisition; we believe the lower court decision will be upheld.

Our international operations have increased our exposure to both changes in the international economy and to the level of regulation on our business and these risks could offset our expected growth opportunities.

We have international operations, particularly in Mexico and the rest of Latin America, and worldwide through WarnerMedia's content distribution as well as services to our large U.S.-based businesses. We need to comply with a wide variety of, and complex local laws, regulations and treaties and government involvement in private business activity. We are exposed to restrictions on cash repatriation, foreign exchange controls, fluctuations in currency values, changes in relationships between U.S. and foreign governments, trade restrictions including potential border taxes, differences in intellectual property protection laws, and other regulations that may affect materially our earnings. Our Mexico operations in particular rely on a continuation of a regulatory regime that fosters competition. While the countries involved represent significant opportunities to sell our advanced services, a number of these same countries have experienced unstable growth patterns and at times have experienced high inflation, currency devaluation, foreign exchange controls, instability in the banking sector and high unemployment. Should these conditions persist, customers in these countries may be unable to purchase the services we offer or pay for services already provided.

In addition, operating in foreign countries also typically involves participating with local businesses, either to comply with local laws or, for example, to enhance product marketing, deploy networks or execute on other capital projects. Involvement with foreign firms exposes us to the risk of being unable to control the actions of those firms and therefore exposes us to risks associated with our obligation to comply with the Foreign Corrupt Practices Act (FCPA). Violations of the FCPA could have a material adverse effect on our operating results.

Increases in our debt levels to fund acquisitions, additional spectrum purchases, or other strategic decisions could adversely affect our ability to finance future debt at attractive rates and reduce our ability to respond to competition and adverse economic trends.

We have increased the amount of our debt over the last three years to fund significant acquisitions, as well as spectrum purchases needed to compete in our industry. While we believe such decisions were prudent and necessary to take advantage of both growth opportunities and respond to industry developments, we did experience credit-rating downgrades from historical levels. Banks and potential purchasers of our publicly-traded debt may decide that these strategic decisions and similar actions we may take in the future, as well as expected trends in the industry, will continue to increase the risk of investing in our debt and may demand a higher rate of interest, impose restrictive covenants or otherwise limit the amount of potential borrowing.

Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operations - Continued

Dollars in millions except per share amounts

European Union regulation and reform of “benchmarks,” including LIBOR, is ongoing and could have a material adverse effect on the value and return on our variable rate indebtedness.

LIBOR and other interest rate and other types of indices which are deemed to be “benchmarks” are the subject of ongoing international regulatory reform in the European Union. Regulatory changes and the uncertainty as to the nature of such potential changes, alternative reference rates or other reforms may adversely affect the trading market for LIBOR-based securities. Any changes announced by regulators or any other governance or oversight body, or future changes adopted by such body, in the method pursuant to which the LIBOR rates are determined may result in a sudden or prolonged increase or decrease in the reported LIBOR rates, as applicable. If that were to occur, the level of interest payments and the value of our variable rate indebtedness may be affected. In addition, on July 27, 2017, the UK Financial Conduct Authority announced that it will no longer persuade or compel banks to submit rates for the calculation of the LIBOR benchmark after 2021. Although our variable rate indebtedness may provide for alternative methods of calculating the interest rate payable on such indebtedness if LIBOR is not reported, uncertainty as to the extent and manner of future changes may adversely affect the current trading market for LIBOR-based securities and the value of our variable rate indebtedness.

CAUTIONARY LANGUAGE CONCERNING FORWARD-LOOKING STATEMENTS

Information set forth in this report contains forward-looking statements that are subject to risks and uncertainties, and actual results could differ materially. Many of these factors are discussed in more detail in the “Risk Factors” section. We claim the protection of the safe harbor for forward-looking statements provided by the Private Securities Litigation Reform Act of 1995.

The following factors could cause our future results to differ materially from those expressed in the forward-looking statements:

- Adverse economic and/or capital access changes in the markets served by us or in countries in which we have significant investments, including the impact on customer demand and our ability and our suppliers’ ability to access financial markets at favorable rates and terms.
- Changes in available technology and the effects of such changes, including product substitutions and deployment costs.
- Increases in our benefit plans’ costs, including increases due to adverse changes in the United States and foreign securities markets, resulting in worse-than-assumed investment returns and discount rates; adverse changes in mortality assumptions; adverse medical cost trends; and unfavorable or delayed implementation or repeal of healthcare legislation, regulations or related court decisions.
- The final outcome of FCC and other federal, state or foreign government agency proceedings (including judicial review, if any, of such proceedings) involving issues that are important to our business, including, without limitation, special access and business data services; pending Notices of Apparent Liability; the transition from legacy technologies to IP-based infrastructure, including the withdrawal of legacy TDM-based services; universal service; broadband deployment; wireless equipment siting regulations; E911 services; competition policy; privacy; net neutrality; multichannel video programming distributor services and equipment; content licensing and copyright protection; availability of new spectrum, on fair and balanced terms; IP licensing, and wireless and satellite license awards and renewals.
- The final outcome of state and federal legislative efforts involving topics that are important to our business, including deregulation of IP-based services, relief from Carrier of Last Resort obligations and elimination of state commission review of the withdrawal of services, internet regulation and privacy issues.
- Enactment of additional state, local, federal and/or foreign regulatory and tax laws and regulations, or changes to existing standards and actions by tax agencies and judicial authorities including the resolution of disputes with any taxing jurisdictions, pertaining to our subsidiaries and foreign investments, including laws and regulations that reduce our incentive to invest in our networks, resulting in lower revenue growth and/or higher operating costs.
- Potential changes to the electromagnetic spectrum currently used for broadcast television and satellite distribution being considered by the FCC could negatively impact WarnerMedia’s ability to deliver linear network feeds of its domestic cable networks to its affiliates, and in some cases, WarnerMedia’s ability to produce high-value news and entertainment programming on location.
- U.S. and foreign laws and regulations regarding intellectual property rights protection and privacy, personal data protection and user consent are complex and rapidly evolving and could result in impact to our business plans, increased costs, or claims against us that may harm our reputation.
- Our ability to absorb revenue losses caused by increasing competition, including offerings that use alternative technologies or delivery methods (e.g., cable, wireless, VoIP and over-the-top video service), subscriber reluctance to purchase new wireless handsets, and our ability to maintain capital expenditures.
- The extent of competition including from governmental networks and other providers and the resulting pressure on customer totals and segment operating margins.
- Our ability to develop attractive and profitable product/service offerings to offset increasing competition and increasing fragmentation of customer viewing habits.
- The ability of our competitors to offer product/service offerings at lower prices due to lower cost structures and regulatory and legislative actions adverse to us, including non-regulation of comparable alternative technologies (e.g., VoIP and data usage).
- The continued development and delivery of attractive and profitable video and broadband offerings; the extent to which regulatory and build-out requirements apply to our offerings; our ability to match speeds offered by our competitors and the availability, cost and/or reliability of the various technologies and/or content required to provide such offerings.
- Our continued ability to maintain margins, attract and offer a diverse portfolio of video, wireless service and devices and device financing plans.
- Our ability to generate advertising revenue from attractive video content, especially from WarnerMedia, in the face of unpredictable and rapidly evolving public viewing habits.
- The availability, cost and our ability to adequately fund additional wireless spectrum and network upgrades; and regulations and conditions relating to spectrum use, licensing, obtaining additional spectrum, technical standards and deployment and usage, including network management rules.

CAUTIONARY LANGUAGE CONCERNING FORWARD-LOOKING STATEMENTS

- Our ability to manage growth in wireless data services, including network quality and acquisition of adequate spectrum at reasonable costs and terms.
- The outcome of pending, threatened or potential litigation (which includes arbitrations), including, without limitation, patent and product safety claims by or against third parties.
- The impact from major equipment failures on our networks, including satellites operated by DIRECTV; the effect of security breaches related to the network or customer information; our inability to obtain handsets, equipment/software or have handsets, equipment/software serviced in a timely and cost-effective manner from suppliers; and in the case of satellites launched, timely provisioning of services from vendors; or severe weather conditions including flooding and hurricanes, natural disasters including earthquakes and forest fires, pandemics, energy shortages, wars or terrorist attacks.
- The issuance by the Financial Accounting Standards Board or other accounting oversight bodies of new accounting standards or changes to existing standards.
- The U.S. Department of Justice prevailing on its appeal of the court decision permitting our acquisition of Time Warner Inc.
- Our ability to successfully integrate our WarnerMedia operations, including the ability to manage various businesses in widely dispersed business locations and with decentralized management.
- Our ability to take advantage of the desire of advertisers to change traditional video advertising models.
- Our increased exposure to foreign economies, including foreign exchange fluctuations as well as regulatory and political uncertainty.
- Changes in our corporate strategies, such as changing network-related requirements or acquisitions and dispositions, which may require significant amounts of cash or stock, to respond to competition and regulatory, legislative and technological developments.
- The uncertainty surrounding further congressional action to address spending reductions, which may result in a significant decrease in government spending and reluctance of businesses and consumers to spend in general.

Readers are cautioned that other factors discussed in this report, although not enumerated here, also could materially affect our future earnings.

AT&T Inc.
Consolidated Statements of Income
Dollars in millions except per share amounts

	2018	2017	2016
Operating Revenues			
Service	\$ 152,345	\$ 145,597	\$ 148,884
Equipment	18,411	14,949	14,902
Total operating revenues	170,756	160,546	163,786
Operating Expenses			
Cost of revenues			
Equipment	19,786	18,709	18,757
Broadcast, programming and operations	26,727	21,159	19,851
Other cost of revenues (exclusive of depreciation and amortization shown separately below)	32,906	37,942	38,582
Selling, general and administrative	36,765	35,465	36,845
Asset abandonments and impairments	46	2,914	361
Depreciation and amortization	28,430	24,387	25,847
Total operating expenses	144,660	140,576	140,243
Operating Income	26,096	19,970	23,543
Other Income (Expense)			
Interest expense	(7,957)	(6,300)	(4,910)
Equity in net income (loss) of affiliates	(48)	(128)	98
Other income (expense) – net	6,782	1,597	1,081
Total other income (expense)	(1,223)	(4,831)	(3,731)
Income Before Income Taxes	24,873	15,139	19,812
Income tax (benefit) expense	4,920	(14,708)	6,479
Net Income	19,953	29,847	13,333
Less: Net Income Attributable to Noncontrolling Interest	(583)	(397)	(357)
Net Income Attributable to AT&T	\$ 19,370	\$ 29,450	\$ 12,976
Basic Earnings Per Share Attributable to AT&T	\$ 2.85	\$ 4.77	\$ 2.10
Diluted Earnings Per Share Attributable to AT&T	\$ 2.85	\$ 4.76	\$ 2.10

The accompanying notes are an integral part of the consolidated financial statements.

AT&T Inc.
Consolidated Statements of Comprehensive Income
Dollars in millions

	2018	2017	2016
Net income	\$ 19,953	\$ 29,847	\$ 13,333
Other comprehensive income, net of tax:			
Foreign Currency:			
Foreign currency translation adjustment (includes \$(32), \$(5) and \$20 attributable to noncontrolling interest), net of taxes of \$(45), \$123 and \$357	(1,062)	15	(777)
Securities:			
Net unrealized gains (losses), net of taxes of \$(1), \$109 and \$36	(4)	187	58
Reclassification adjustment included in net income, net of taxes of \$0, \$(117) and \$(1)	-	(185)	(1)
Derivative Instruments:			
Net unrealized gains (losses), net of taxes of \$(156), \$200 and \$371	(597)	371	690
Reclassification adjustment included in net income, net of taxes of \$6, \$21 and \$21	13	39	38
Defined benefit postretirement plans:			
Net prior service credit arising during period, net of taxes of \$271, \$675 and \$305	830	1,083	497
Amortization of net prior service credit included in net income, net of taxes of \$(431), \$(604) and \$(525)	(1,322)	(988)	(858)
Other comprehensive income (loss)	(2,142)	522	(353)
Total comprehensive income	17,811	30,369	12,980
Less: Total comprehensive income attributable to noncontrolling interest	(551)	(392)	(377)
Total Comprehensive Income Attributable to AT&T	\$ 17,260	\$ 29,977	\$ 12,603

The accompanying notes are an integral part of the consolidated financial statements.

AT&T INC.
CONSOLIDATED BALANCE SHEETS

Dollars in millions except per share amounts

	December 31,	
	2018	2017
Assets		
Current Assets		
Cash and cash equivalents	\$ 5,204	\$ 50,498
Accounts receivable - net of allowances for doubtful accounts of \$907 and \$663	26,472	16,522
Prepaid expenses	2,047	1,369
Other current assets	17,704	10,757
Total current assets	51,427	79,146
Noncurrent inventories and theatrical film and television production costs	7,713	-
Property, Plant and Equipment – Net	131,473	125,222
Goodwill	146,370	105,449
Licenses	96,144	96,136
Trademarks and Trade Names – Net	24,345	7,021
Distribution Networks – Net	17,069	-
Other Intangible Assets – Net	26,269	11,119
Investments in and Advances to Equity Affiliates	6,245	1,560
Other Assets	24,809	18,444
Total Assets	\$ 531,864	\$ 444,097
Liabilities and Stockholders' Equity		
Current Liabilities		
Debt maturing within one year	\$ 10,255	\$ 38,374
Accounts payable and accrued liabilities	43,184	34,470
Advanced billings and customer deposits	5,948	4,213
Accrued taxes	1,179	1,262
Dividends payable	3,854	3,070
Total current liabilities	64,420	81,389
Long-Term Debt	166,250	125,972
Deferred Credits and Other Noncurrent Liabilities		
Deferred income taxes	57,859	43,207
Postemployment benefit obligation	19,218	31,775
Other noncurrent liabilities	30,233	19,747
Total deferred credits and other noncurrent liabilities	107,310	94,729
Stockholders' Equity		
Common stock (\$1 par value, 14,000,000,000 authorized at December 31, 2018 and December 31, 2017; issued 7,620,748,598 at December 31, 2018 and 6,495,231,088 at December 31, 2017)	7,621	6,495
Additional paid-in capital	125,525	89,563
Retained earnings	58,753	50,500
Treasury stock (339,120,073 at December 31, 2018 and 355,806,544 at December 31, 2017, at cost)	(12,059)	(12,714)
Accumulated other comprehensive income	4,249	7,017
Noncontrolling interest	9,795	1,146
Total stockholders' equity	193,884	142,007
Total Liabilities and Stockholders' Equity	\$ 531,864	\$ 444,097

The accompanying notes are an integral part of the consolidated financial statements.

AT&T Inc.
Consolidated Statements of Cash Flows
Dollars in millions

	2018	2017	2016
Operating Activities			
Net income	\$ 19,953	\$ 29,847	\$ 13,333
Adjustments to reconcile net income to net cash provided by operating activities:			
Depreciation and amortization	28,430	24,387	25,847
Amortization of film and television costs	3,772	-	-
Undistributed earnings from investments in equity affiliates	292	174	(37)
Provision for uncollectible accounts	1,791	1,642	1,474
Deferred income tax expense (benefit)	610	(15,940)	2,947
Net (gain) loss from sale of investments, net of impairments	(739)	(282)	(169)
Actuarial (gain) loss on pension and postretirement benefits	(3,412)	1,258	1,024
Asset abandonments and impairments	46	2,914	361
Changes in operating assets and liabilities:			
Accounts receivable	(1,244)	(986)	(1,003)
Other current assets and theatrical film and television production costs	(6,442)	(778)	1,709
Accounts payable and other accrued liabilities	1,602	816	118
Equipment installment receivables and related sales	(490)	(1,239)	(1,307)
Deferred customer contract acquisition and fulfillment costs	(3,458)	(1,422)	(2,359)
Retirement benefit funding	(500)	(1,066)	(910)
Other - net	3,391	(1,315)	(2,586)
Total adjustments	23,649	8,163	25,109
Net Cash Provided by Operating Activities	43,602	38,010	38,442
Investing Activities			
Capital expenditures:			
Purchase of property and equipment	(20,758)	(20,647)	(21,516)
Interest during construction	(493)	(903)	(892)
Acquisitions, net of cash acquired	(43,309)	1,123	(2,959)
Dispositions	2,148	59	646
(Purchases) sales of securities, net	(185)	449	672
Advances to and investments in equity affiliates	(1,050)	-	1
Cash collections of deferred purchase price	500	976	731
Other	2	-	(1)
Net Cash Used in Investing Activities	(63,145)	(18,943)	(23,318)
Financing Activities			
Net change in short-term borrowings with original maturities of three months or less			
	(821)	(2)	-
Issuance of other short-term borrowings	4,898	-	-
Repayment of other short-term borrowings	(2,098)	-	-
Issuance of long-term debt	41,875	48,793	10,140
Repayment of long-term debt	(52,643)	(12,339)	(10,823)
Purchase of treasury stock	(609)	(463)	(512)
Issuance of treasury stock	745	33	146
Dividends paid	(13,410)	(12,038)	(11,797)
Other	(3,926)	1,946	(1,616)
Net Cash (Used in) Provided by Financing Activities	(25,989)	25,930	(14,462)
Net (decrease) increase in cash and cash equivalents and restricted cash	(45,532)	44,997	662
Cash and cash equivalents and restricted cash beginning of year	50,932	5,935	5,273
Cash and Cash Equivalents and Restricted Cash End of Year	\$ 5,400	\$ 50,932	\$ 5,935

The accompanying notes are an integral part of the consolidated financial statements.

AT&T Inc.
Consolidated Statements of Changes in Stockholders' Equity

Dollars and shares in millions except per share amounts

	2018		2017		2016	
	Shares	Amount	Shares	Amount	Shares	Amount
Common Stock						
Balance at beginning of year	6,495	\$ 6,495	6,495	\$ 6,495	6,495	\$ 6,495
Issuance of stock	1,126	1,126	-	-	-	-
Balance at end of year	7,621	\$ 7,621	6,495	\$ 6,495	6,495	\$ 6,495
Additional Paid-In Capital						
Balance at beginning of year		\$ 89,563		\$ 89,604		\$ 89,763
Issuance of common stock		35,473		-		-
Issuance of treasury stock		(115)		2		(43)
Share-based payments		604		(43)		(140)
Changes related to acquisition of interests held by noncontrolling owners		-		-		24
Balance at end of year		\$ 125,525		\$ 89,563		\$ 89,604
Retained Earnings						
Balance at beginning of year		\$ 50,500		\$ 34,734		\$ 33,671
Net income attributable to AT&T (\$2.85, \$4.76 and \$2.10 per diluted share)		19,370		29,450		12,976
Dividends to stockholders (\$2.01, \$1.97 and \$1.93 per share)		(14,117)		(12,157)		(11,913)
Cumulative effect of accounting changes and other adjustments		3,000		(1,527)		-
Balance at end of year		\$ 58,753		\$ 50,500		\$ 34,734
Treasury Stock						
Balance at beginning of year	(356)	\$ (12,714)	(356)	\$ (12,659)	(350)	\$ (12,592)
Repurchase of common stock	(20)	(692)	(14)	(551)	(17)	(655)
Issuance of treasury stock	37	1,347	14	496	11	588
Balance at end of year	(339)	\$ (12,059)	(356)	\$ (12,714)	(356)	\$ (12,659)
Accumulated Other Comprehensive Income						
<i>Attributable to AT&T, net of tax:</i>						
Balance at beginning of year		\$ 7,017		\$ 4,961		\$ 5,334
Other comprehensive income (loss) attributable to AT&T		(2,110)		527		(373)
Amounts reclassified to retained earnings		(658)		1,529		-
Balance at end of year		\$ 4,249		\$ 7,017		\$ 4,961
Noncontrolling Interest:						
Balance at beginning of year		\$ 1,146		\$ 975		\$ 969
Net income attributable to noncontrolling interest		583		397		357
Interest acquired by noncontrolling owners		8,803		-		-
Acquisitions of noncontrolling interests		1		140		-
Distributions		(732)		(361)		(346)
Acquisition of interests held by noncontrolling owners		(9)		-		(25)
Translation adjustments attributable to noncontrolling interest, net of taxes		(32)		(5)		20
Cumulative effect of accounting changes and other adjustments		35		-		-
Balance at end of year		\$ 9,795		\$ 1,146		\$ 975
Total Stockholders' Equity at beginning of year		\$ 142,007		\$ 124,110		\$ 123,640
Total Stockholders' Equity at end of year		\$ 193,884		\$ 142,007		\$ 124,110

The accompanying notes are an integral part of the consolidated financial statements.

Notes to Consolidated Financial Statements

Dollars in millions except per share amounts

NOTE 1. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Basis of Presentation Throughout this document, AT&T Inc. is referred to as “AT&T,” “we” or the “Company.” The consolidated financial statements include the accounts of the Company and our majority-owned subsidiaries and affiliates, including the results of Time Warner Inc. (referred to as “Time Warner” or “WarnerMedia”), which was acquired on June 14, 2018 (see Note 6). AT&T is a holding company whose subsidiaries and affiliates operate worldwide in the telecommunications, media and technology industries.

All significant intercompany transactions are eliminated in the consolidation process. Investments in less than majority-owned subsidiaries and partnerships where we have significant influence are accounted for under the equity method. Earnings from certain investments accounted for using the equity method are included for periods ended within up to one quarter of our period end. We also record our proportionate share of our equity method investees’ other comprehensive income (OCI) items, including translation adjustments. We treat distributions received from equity method investees as returns on investment and classify them as cash flows from operating activities until those distributions exceed our cumulative equity in the earnings of that investment. We treat the excess amount as a return of investment and classify it as cash flows from investing activities.

The preparation of financial statements in conformity with U.S. generally accepted accounting principles (GAAP) requires management to make estimates and assumptions that affect the amounts reported in the financial statements and accompanying notes, including estimates of probable losses and expenses. Actual results could differ from those estimates. Certain prior period amounts have been conformed to the current period’s presentation, including changes in our reportable segments (see Note 4).

Adopted Accounting Standards and Other Accounting Changes

Revenue Recognition As of January 1, 2018, we adopted Financial Accounting Standards Board (FASB) Accounting Standards Update (ASU) No. 2014-09, “Revenue from Contracts with Customers (Topic 606),” as modified (ASC 606), using the modified retrospective method, which does not allow us to adjust prior periods. We applied the rules to all open contracts existing as of January 1, 2018, recording an increase of \$2,342 to retained earnings for the cumulative effect of the change, with an offsetting contract asset of \$1,737, deferred contract acquisition costs of \$1,454, other asset reductions of \$239, other liability reductions of \$212, deferred income tax liability of \$787 and increase to noncontrolling interest of \$35. (See Note 5)

Notes to Consolidated Financial Statements (continued)

Dollars in millions except per share amounts

Pension and Other Postretirement Benefits As of January 1, 2018, we adopted, with retrospective application, ASU No. 2017-07, “Compensation – Retirement Benefits (Topic 715): Improving the Presentation of Net Periodic Pension Cost and Net Periodic Postretirement Benefit Cost” (ASU 2017-07). We are no longer allowed to present the interest, estimated return on assets and amortization of prior service credits components of our net periodic benefit cost in our consolidated operating expenses, but rather are required to include those amounts in “other income (expense) – net” in our consolidated statements of income. We continue to present service costs with the associated compensation costs within our operating expenses. As a practical expedient, we used the amounts disclosed as the estimated basis for applying the retrospective presentation requirement. See Note 14 for our components of net periodic benefit cost.

The following table presents our results under our historical method and as adjusted to reflect ASU 2017-07 (**presentation of benefit cost**) :

	Pension and Postretirement Benefits		
	Historical Accounting Method	Effect of Adoption of ASU 2017-07	As Adjusted
<i>For the year ended December 31, 2018</i>			
<i>Consolidated Statements of Income</i>			
Other cost of revenues	\$ 31,533	\$ 1,373	\$ 32,906
Selling, general and administrative expenses	32,416	4,349	36,765
Operating Income	31,818	(5,722)	26,096
Other Income (Expense) – net	1,060	5,722	6,782
Net Income	19,953	-	19,953
<i>For the year ended December 31, 2017</i>			
<i>Consolidated Statements of Income</i>			
Other cost of revenues	\$ 37,511	\$ 431	\$ 37,942
Selling, general and administrative expenses	34,917	548	35,465
Operating Income	20,949	(979)	19,970
Other Income (Expense) – net	618	979	1,597
Net Income	29,847	-	29,847
<i>For the year ended December 31, 2016</i>			
<i>Consolidated Statements of Income</i>			
Other cost of revenues	\$ 38,276	\$ 306	\$ 38,582
Selling, general and administrative expenses	36,347	498	36,845
Operating Income	24,347	(804)	23,543
Other Income (Expense) – net	277	804	1,081
Net Income	13,333	-	13,333

Notes to Consolidated Financial Statements (continued)

Dollars in millions except per share amounts

Cash Flows As of January 1, 2018, we adopted, with retrospective application, ASU No. 2016-15, “Statement of Cash Flows (Topic 230): Classification of Certain Cash Receipts and Cash Payments” (ASU 2016-15). Under ASU 2016-15, we continue to recognize cash receipts on owned equipment installment receivables as cash flows from operations. However, cash receipts on the deferred purchase price described in Note 17 are now required to be classified as cash flows from investing activities instead of cash flows from operating activities.

As of January 1, 2018, we adopted, with retrospective application, ASU No. 2016-18, “Statement of Cash Flows (Topic 230) – Restricted Cash,” (ASU 2016-18). The primary impact of ASU 2016-18 was to require us to include restricted cash in our reconciliation of beginning and ending cash and cash equivalents (restricted and unrestricted) on the face of our consolidated statements of cash flows. (See Note 21)

The following table presents our results under our historical method and as adjusted to reflect ASU 2016-15 (**cash receipts on deferred purchase price**) and ASU 2016-18 (**restricted cash**) :

	Cash Flows			
	Historical Accounting Method	Effect of Adoption of ASU 2016-15	Effect of Adoption of ASU 2016-18	As Adjusted
<i>For the year ended December 31, 2018</i>				
<i>Consolidated Statements of Cash Flows</i>				
Changes in other current assets	\$ (6,446)	\$ -	\$ 4	\$ (6,442)
Equipment installment receivables and related sales	10	(500)	-	(490)
Other – net	3,520	-	(129)	3,391
Cash Provided by (Used in) Operating Activities	44,227	(500)	(125)	43,602
(Purchases) sales of securities – net	7	-	(192)	(185)
Cash collections of deferred purchase price	-	500	-	500
Cash (Used in) Provided by Investing Activities	(63,453)	500	(192)	(63,145)
Change in cash and cash equivalents and restricted cash	(45,215)	-	(317)	(45,532)
<i>For the year ended December 31, 2017</i>				
<i>Consolidated Statements of Cash Flows</i>				
Changes in other current assets	\$ (777)	\$ -	\$ (1)	\$ (778)
Equipment installment receivables and related sales	(263)	(976)	-	(1,239)
Other – net	(1,151)	-	(164)	(1,315)
Cash Provided by (Used in) Operating Activities	39,151	(976)	(165)	38,010
(Purchases) sales of securities – net	(4)	-	453	449
Cash collections of deferred purchase price	-	976	-	976
Cash (Used in) Provided by Investing Activities	(20,372)	976	453	(18,943)
Change in cash and cash equivalents and restricted cash	44,710	-	287	44,997
<i>For the year ended December 31, 2016</i>				
<i>Consolidated Statements of Cash Flows</i>				
Changes in other current assets	\$ 1,708	\$ -	\$ 1	\$ 1,709
Equipment installment receivables and related sales	(576)	(731)	-	(1,307)
Other – net	(2,414)	-	(172)	(2,586)
Cash Provided by (Used in) Operating Activities	39,344	(731)	(171)	38,442
(Purchases) sales of securities – net	506	-	166	672
Cash collections of deferred purchase price	-	731	-	731
Cash (Used in) Provided by Investing Activities	(24,215)	731	166	(23,318)
Change in cash and cash equivalents and restricted cash	667	-	(5)	662

Notes to Consolidated Financial Statements (continued)

Dollars in millions except per share amounts

Financial Instruments As of January 1, 2018, we adopted ASU No. 2016-01, “Financial Instruments – Overall (Subtopic 825-10): Recognition and Measurement of Financial Assets and Financial Liabilities” (ASU 2016-01), which requires us to prospectively record changes in the fair value of our equity investments, except for those accounted for under the equity method, in net income instead of in accumulated other comprehensive income. As of January 1, 2018, we recorded an increase of \$658 in retained earnings for the cumulative effect of the adoption of ASU 2016-01, with an offset to accumulated other comprehensive income (accumulated OCI).

Customer Fulfillment Costs During the second quarter of 2018, we updated our analysis of economic lives of customer relationships. As of April 1, 2018, we extended the amortization period to 58 months to better reflect the estimated economic lives of our Entertainment Group customers. This change in accounting estimate decreased other cost of revenues, which had an impact on net income of \$338, or \$0.05 per diluted share, in 2018.

Income Taxes We record deferred income taxes for temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes and the computed tax basis of those assets and liabilities. We record valuation allowances against the deferred tax assets (included, together with our deferred income tax assets, as part of our reportable net deferred income tax liabilities on our consolidated balance sheets), for which the realization is uncertain. We review these items regularly in light of changes in federal and state tax laws and changes in our business.

The Tax Cuts and Jobs Act (the Act) was enacted on December 22, 2017. The Act reduced the U.S. federal corporate income tax rate from 35% to 21% and required companies to pay a one-time transition tax on earnings of certain foreign subsidiaries that were previously tax deferred. Recognizing the late enactment of the Act and complexity of accurately accounting for its impact, the Securities and Exchange Commission (SEC) in Staff Accounting Bulletin (SAB) 118 provided guidance that allowed registrants to provide a reasonable estimate of the impact to their financial statements and adjust the reported impact in a measurement period not to exceed one year. We included the estimated impact of the Act in our financial results at or for the period ended December 31, 2017, with additional adjustments recorded in 2018. (See Note 13)

In February 2018, the FASB issued ASU No. 2018-02, “Income Statement– Reporting Comprehensive Income (Topic 220): Reclassification of Certain Tax Effects from Accumulated Other Comprehensive Income” (ASU 2018-02), which allows entities the option to reclassify from accumulated other comprehensive income (accumulated OCI) to retained earnings the stranded tax effects resulting from the application of the Act. We elected to adopt ASU 2018-02 in the period in which the estimated income tax effects of the Act were recognized, reflecting a \$1,529 adjustment for 2017 in the consolidated statements of changes in stockholders’ equity. (See Note 3)

Cash and Cash Equivalents Cash and cash equivalents include all highly liquid investments with original maturities of three months or less. The carrying amounts approximate fair value. At December 31, 2018, we held \$3,130 in cash and \$2,074 in money market funds and other cash equivalents. Of our total cash and cash equivalents, \$1,930 resided in foreign jurisdictions, some of which is subject to restrictions on repatriation.

Allowance for Doubtful Accounts We record expense to maintain an allowance for doubtful accounts for estimated losses that result from the failure or inability of our customers to make required payments deemed collectible from the customer when the service was provided or product was delivered. When determining the allowance, we consider the probability of recoverability of accounts receivable based on past experience, taking into account current collection trends as well as general economic factors, including bankruptcy rates. Credit risks are assessed based on historical write-offs, net of recoveries, as well as an analysis of the aged accounts receivable balances with allowances generally increasing as the receivable ages. Accounts receivable may be fully reserved for when specific collection issues are known to exist, such as catastrophes or pending bankruptcies.

Equipment Inventory Equipment inventories, which primarily consist of wireless devices and accessories, are included in “Other current assets” on our consolidated balance sheets. Equipment inventories are valued at the lower of cost or net realizable value and were \$2,771 at December 31, 2018 and \$2,225 at December 31, 2017.

Licensed Programming Inventory Cost Recognition and Impairment We enter into agreements to license programming exhibition rights from licensors. A programming inventory asset related to these rights and a corresponding liability payable to the licensor are recorded (on a discounted basis if the license agreements are long-term) when (i) the cost of the programming is reasonably determined, (ii) the programming material has been accepted in accordance with the terms of the agreement, (iii) the programming is available for its first showing or telecast, and (iv) the license period has commenced. There are variations in the amortization methods of these rights, depending on whether the network is advertising-supported (e.g., TNT and TBS) or not advertising-supported (e.g., HBO and Turner Classic Movies).

Notes to Consolidated Financial Statements (continued)

Dollars in millions except per share amounts

For the advertising-supported networks, our general policy is to amortize each program's costs on a straight-line basis (or per-play basis, if greater) over its license period. In circumstances where the initial airing of the program has more value than subsequent airings, an accelerated method of amortization is used. The accelerated amortization upon the first airing versus subsequent airings is determined based on a study of historical and estimated future advertising sales for similar programming. For rights fees paid for sports programming arrangements, such rights fees are amortized using a revenue-forecast model, in which the rights fees are amortized using the ratio of current period advertising revenue to total estimated remaining advertising revenue over the term of the arrangement.

For premium pay television and over-the-top (OTT) services that are not advertising-supported, each licensed program's costs are amortized on a straight-line basis over its license period or estimated period of use, beginning with the month of initial exhibition. When we have the right to exhibit feature theatrical programming in multiple windows over a number of years, historical audience viewership is used as the basis for determining the amount of programming amortization attributable to each window.

Licensed programming inventory, which is included in "Other current assets" and "Noncurrent inventories and theatrical film and television production costs" on our consolidated balance sheet, is carried at the lower of unamortized cost or estimated net realizable value. For networks that generate both advertising and subscription revenues, the net realizable value of unamortized programming costs is generally evaluated based on the network's programming taken as a whole. In assessing whether the programming inventory for a particular advertising-supported network is impaired, the net realizable value for all of the network's programming inventory is determined based on a projection of the network's profitability. This assessment would occur upon the occurrence of certain triggering events. Similarly, for premium pay television and OTT services that are not advertising-supported, an evaluation of the net realizable value of unamortized programming costs is performed based on the premium pay television and OTT services' licensed programming taken as a whole. Specifically, the net realizable value for all premium pay television and OTT service licensed programming is determined based on projections of estimated subscription revenues less certain costs of delivering and distributing the licensed programming. Changes in management's intended usage of a specific program, such as a decision to no longer exhibit that program and forgo the use of the rights associated with the program license, results in a reassessment of that program's net realizable value, which could result in an impairment. (See Note 10)

Film and Television Production Cost Recognition, Participations and Residuals and Impairments Film and television production costs, which are part of "Other current assets" and "Noncurrent inventories and theatrical film and television production costs" on our consolidated balance sheet, include the unamortized cost of completed theatrical films and television episodes, theatrical films and television series in production and undeveloped film and television rights. Film and television production costs are stated at the lower of cost, less accumulated amortization, or fair value. The amount of capitalized film and television production costs and the amount of participations and residuals to be recognized as broadcast, programming and operations expenses for a given film or television series in a particular period is determined using the film forecast computation method. Under this method, the amortization of capitalized costs and the accrual of participations and residuals is based on the proportion of the film's revenues recognized for such period to the film's estimated remaining ultimate revenues (i.e., the total revenue to be received throughout a film's life cycle). Under current GAAP, the amount of capitalized television production costs cannot exceed contracted revenues for a given television series.

The process of estimating a film's ultimate revenues requires us to make a series of judgments related to future revenue-generating activities associated with a particular film. We estimate the ultimate revenues, less additional costs to be incurred (including exploitation and participation costs), in order to determine whether the value of a film or television series is impaired and requires an immediate write-off of unrecoverable film and television production costs. To the extent that the ultimate revenues are adjusted, the resulting gross margin reported on the exploitation of that film or television series in a period is also adjusted.

Prior to the theatrical release of a film, our estimates are based on factors such as the historical performance of similar films, the star power of the lead actors, the rating and genre of the film, pre-release market research (including test market screenings), international distribution plans and the expected number of theaters in which the film will be released. In the absence of revenues directly related to the exhibition of owned film or television programs on our television networks, premium pay television or OTT services, we estimate a portion of the unamortized costs that are representative of the utilization of that film or television program in that exhibition and expense such costs as the film or television program is exhibited. The period over which ultimate revenues are estimated is generally not to exceed ten years from the initial release of a motion picture or from the date of delivery of the first episode of an episodic television series. Estimates are updated based on information available during the film's production and, upon release, the actual results of each film.

Notes to Consolidated Financial Statements (continued)

Dollars in millions except per share amounts

Property, Plant and Equipment Property, plant and equipment is stated at cost, except for assets acquired using acquisition accounting, which are initially recorded at fair value (see Note 7). The cost of additions and substantial improvements to property, plant and equipment is capitalized, and includes internal compensation costs for these projects. The cost of maintenance and repairs of property, plant and equipment is charged to operating expenses. Property, plant and equipment costs are depreciated using straight-line methods over their estimated economic lives. Certain subsidiaries follow composite group depreciation methodology. Accordingly, when a portion of their depreciable property, plant and equipment is retired in the ordinary course of business, the gross book value is reclassified to accumulated depreciation, and no gain or loss is recognized on the disposition of these assets.

Property, plant and equipment is reviewed for recoverability whenever events or changes in circumstances indicate that the carrying amount of an asset group may not be recoverable. We recognize an impairment loss when the carrying amount of a long-lived asset is not recoverable. The carrying amount of a long-lived asset is not recoverable if it exceeds the sum of the undiscounted cash flows expected to result from the use and eventual disposition of the asset. See Note 7 for a discussion of asset abandonments and impairments.

The liability for the fair value of an asset retirement obligation is recorded in the period in which it is incurred if a reasonable estimate of fair value can be made. In periods subsequent to initial measurement, we recognize period-to-period changes in the liability resulting from the passage of time and revisions to either the timing or the amount of the original estimate. The increase in the carrying value of the associated long-lived asset is depreciated over the corresponding estimated economic life.

Software Costs We capitalize certain costs incurred in connection with developing or obtaining internal-use software. Capitalized software costs are included in "Property, Plant and Equipment" on our consolidated balance sheets. In addition, there is certain network software that allows the equipment to provide the features and functions unique to the AT&T network, which we include in the cost of the equipment categories for financial reporting purposes.

We amortize our capitalized software costs over a three-year to seven-year period, reflecting the estimated period during which these assets will remain in service.

Goodwill and Other Intangible Assets We have the following major classes of intangible assets: goodwill; licenses, which include Federal Communications Commission (FCC) and other wireless licenses and orbital slots; distribution networks; film and television libraries; intellectual properties and franchises; trademarks and trade names; customer lists; and various other finite-lived intangible assets (see Note 8).

Goodwill represents the excess of consideration paid over the fair value of identifiable net assets acquired in business combinations. Wireless licenses (including FCC licenses) provide us with the exclusive right to utilize certain radio frequency spectrum to provide wireless communications services. While wireless licenses are issued for a fixed period of time (generally ten years), renewals of wireless licenses have occurred routinely and at nominal cost. Moreover, we have determined that there are currently no legal, regulatory, contractual, competitive, economic or other factors that limit the useful lives of our wireless licenses. Orbital slots represent the space in which we operate the broadcast satellites that support our digital video entertainment service offerings. Similar to our wireless licenses, there are limited factors that limit the useful lives of our orbital slots. We acquired the rights to the AT&T and other trade names in previous acquisitions, classifying certain of those trade names as indefinite lived. We have the effective ability to retain these exclusive rights permanently at a nominal cost.

Goodwill, licenses and other indefinite-lived intangible assets are not amortized but are tested at least annually for impairment. The testing is performed on the value as of October 1 each year, and compares the book values of the assets to their fair values. Goodwill is tested by comparing the book value of each reporting unit, deemed to be our principal operating segments or one level below them, to the fair value using both discounted cash flow as well as market multiple approaches. Wireless licenses are tested on an aggregate basis, consistent with our use of the licenses on a national scope, using a discounted cash flow approach. Orbital slots are similarly aggregated for purposes of impairment testing. Trade names are tested by comparing their book values to their fair values calculated using a discounted cash flow approach on a presumed royalty rate derived from the revenues related to each brand name.

Intangible assets that have finite useful lives are amortized over their useful lives (see Note 8). Customer lists and relationships are amortized using primarily the sum-of-the-months-digits method of amortization over the period in which those relationships are expected to contribute to our future cash flows. Finite-lived trademarks and trade names and distribution networks are amortized using the straight-line method over the estimated useful life of the assets. Film library is

Notes to Consolidated Financial Statements (continued)

Dollars in millions except per share amounts

amortized using the film forecast computation method, as previously disclosed. The remaining finite-lived intangible assets are generally amortized using the straight-line method.

Advertising Costs We expense advertising costs for products and services or for promoting our corporate image as we incur them (see Note 21).

Foreign Currency Translation Our foreign subsidiaries and foreign investments generally report their earnings in their local currencies. We translate their foreign assets and liabilities at exchange rates in effect at the balance sheet dates. We translate their revenues and expenses using average rates during the year. The resulting foreign currency translation adjustments are recorded as a separate component of accumulated OCI in our consolidated balance sheets (see Note 3). Operations in countries with highly inflationary economies consider the U.S. dollar as the functional currency.

We hedge a portion of the foreign currency exchange risk involved in certain foreign currency-denominated transactions, which we explain further in our discussion of our methods of managing our foreign currency risk (see Note 12).

Pension and Other Postretirement Benefits See Note 14 for a comprehensive discussion of our pension and postretirement benefit expense, including a discussion of the actuarial assumptions, our policy for recognizing the associated gains and losses and our method used to estimate service and interest cost components.

New Accounting Standards

Leases Beginning with 2019 interim reporting, we will adopt ASU No. 2016-02, “Leases (Topic 842),” as modified (ASC 842), which replaces existing leasing rules with a comprehensive lease measurement and recognition standard and expanded disclosure requirements. ASC 842 requires lessees to recognize most leases on their balance sheets as liabilities, with corresponding “right-of-use” assets. For income statement recognition purposes, leases will be classified as either a finance or an operating lease without relying upon the bright-line tests under current GAAP.

The key change upon adoption of the standard will be balance sheet recognition, as the recognition of lease expense on our income statement will be similar to our current accounting. We will adopt the new leasing standard using a modified retrospective transition method as of the beginning of the period of adoption; therefore, we will not adjust the balance sheet for comparative periods but will record a cumulative effect adjustment to retained earnings on January 1, 2019. We will elect the package of practical expedients permitted under the transition guidance within the new standard, which, among other things, allows us to carry forward our historical lease classification. We will also elect the practical expedient related to land easements, allowing us to carry forward our current accounting treatment for land easements on existing agreements that were not accounted for as leases. We will exclude all the leases with original maturities of one year or less. Additionally, we have elected to not separate lease and non-lease components for certain classes of assets in arrangements where we are the lessee and for certain classes of assets where we are the lessor. We do not expect our accounting for finance leases to change from our current accounting for capital leases.

We have estimated the adoption will result in a right-of-use asset and corresponding lease liability on our consolidated balance sheet in the range of \$20,000 to \$25,000. We do not believe the standard will materially impact the income statement or have a notable impact on our liquidity. The standard will have no impact on our debt-covenant compliance under our current agreements.

Notes to Consolidated Financial Statements (continued)

Dollars in millions except per share amounts

NOTE 2. EARNINGS PER SHARE

A reconciliation of the numerators and denominators of basic and diluted earnings per share is shown in the table below:

Year Ended December 31,	2018	2017	2016
Numerators			
Numerator for basic earnings per share:			
Net income	\$ 19,953	\$ 29,847	\$ 13,333
Less: Net income attributable to noncontrolling interest	(583)	(397)	(357)
Net income attributable to AT&T	19,370	29,450	12,976
Dilutive potential common shares:			
Share-based payment	19	13	13
Numerator for diluted earnings per share	\$ 19,389	\$ 29,463	\$ 12,989
Denominators (000,000)			
Denominator for basic earnings per share:			
Weighted-average number of common shares outstanding	6,778	6,164	6,168
Dilutive potential common shares:			
Share-based payment (in shares)	28	19	21
Denominator for diluted earnings per share	6,806	6,183	6,189
Basic earnings per share attributable to AT&T	\$ 2.85	\$ 4.77	\$ 2.10
Diluted earnings per share attributable to AT&T	\$ 2.85	\$ 4.76	\$ 2.10

Notes to Consolidated Financial Statements (continued)

Dollars in millions except per share amounts

NOTE 3. OTHER COMPREHENSIVE INCOME

Changes in the balances of each component included in accumulated OCI are presented below. All amounts are net of tax and exclude noncontrolling interest.

	Foreign Currency Translation Adjustment	Net Unrealized Gains (Losses) on Available- for-Sale Securities	Net Unrealized Gains (Losses) on Cash Flow Hedges	Defined Benefit Postretirement Plans	Accumulated Other Comprehensive Income
Balance as of December 31, 2015	\$ (1,198)	\$ 484	\$ 16	\$ 6,032	\$ 5,334
Other comprehensive income (loss) before reclassifications	(797)	58	690	497	448
Amounts reclassified from accumulated OCI	- 1	(1) ¹	38 ²	(858) ³	(821)
Net other comprehensive income (loss)	(797)	57	728	(361)	(373)
Balance as of December 31, 2016	(1,995)	541	744	5,671	4,961
Other comprehensive income (loss) before reclassifications	20	187	371	1,083	1,661
Amounts reclassified from accumulated OCI	- 1	(185) ¹	39 ²	(988) ³	(1,134)
Net other comprehensive income (loss)	20	2	410	95	527
Amounts reclassified to retained earnings ⁴	(79)	117	248	1,243	1,529
Balance as of December 31, 2017	(2,054)	660	1,402	7,009	7,017
Other comprehensive income (loss) before reclassifications	(1,030)	(4)	(597)	830	(801)
Amounts reclassified from accumulated OCI	- 1	- 1	13 ²	(1,322) ³	(1,309)
Net other comprehensive income (loss)	(1,030)	(4)	(584)	(492)	(2,110)
Amounts reclassified to retained earnings ⁵	-	(658)	-	-	(658)
Balance as of December 31, 2018	\$ (3,084)	\$ (2)	\$ 818	\$ 6,517	\$ 4,249

¹ (Gains) losses are included in Other income (expense) - net in the consolidated statements of income.² (Gains) losses are included in Interest expense in the consolidated statements of income (see Note 12).³ The amortization of prior service credits associated with postretirement benefits are included in Other income (expense) in the consolidated statements of income (see Note 14).⁴ With the adoption of ASU 2018-02, the stranded tax effects resulting from the application of the Tax Cuts and Jobs Act are reclassified to retained earnings (see Note 1).⁵ With the adoption of ASU 2016-01, the unrealized (gains) losses on our equity investments are reclassified to retained earnings (see Note 1).**NOTE 4. SEGMENT INFORMATION**

Our segments are strategic business units that offer products and services to different customer segments over various technology platforms and/or in different geographies that are managed accordingly. We analyze our segments based on segment operating contribution, which consists of operating income, excluding acquisition-related costs and other significant items (as discussed below), and equity in net income (loss) of affiliates for investments managed within each segment. We have four reportable segments: (1) Communications, (2) WarnerMedia, (3) Latin America, and (4) Xandr.

We also evaluate segment and business unit performance based on EBITDA and/or EBITDA margin, which is defined as operating contribution excluding equity in net income (loss) of affiliates and depreciation and amortization. We believe

Notes to Consolidated Financial Statements (continued)

Dollars in millions except per share amounts

EBITDA to be a relevant and useful measurement to our investors as it is part of our internal management reporting and planning processes and it is an important metric that management uses to evaluate operating performance. EBITDA does not give effect to cash used for debt service requirements and thus does not reflect available funds for distributions, reinvestment or other discretionary uses. EBITDA margin is EBITDA divided by total revenues.

Due to organizational changes in 2018, including our June 14, 2018 acquisition of Time Warner, we revised our operating segments to align with the new management structure and organizational responsibilities, and have accordingly recast our segment disclosures for all periods presented.

With our acquisition of Time Warner, programming released on or before the June 14, 2018 acquisition date was recorded at fair value as an intangible asset (see Note 6). For consolidated reporting, all amortization of pre-acquisition released programming is reported as amortization expense on our consolidated income statement. To best present comparable results, we report the historical content production cost amortization as operations and support expense within the WarnerMedia segment. For the 200-day period ended December 31, 2018, historical content production cost amortization reported in the segment results was \$3,314, of which \$1,416 was for pre-acquisition released programming.

The **Communications segment** provides wireless and wireline telecom, video and broadband services to consumers located in the U.S. or in U.S. territories and businesses globally. This segment contains the following business units:

- **Mobility** provides nationwide wireless service and equipment.
- **Entertainment Group** provides video, including OTT services, broadband and voice communications services primarily to residential customers. This segment also sells advertising on DIRECTV and U-verse distribution platforms.
- **Business Wireline** provides advanced IP-based services, as well as traditional voice and data services to business customers.

The **WarnerMedia segment** develops, produces and distributes feature films, television, gaming and other content in various physical and digital formats globally. Historical financial results from AT&T's Regional Sports Networks (RSN) and equity investments (predominantly Game Show Network and Otter Media), previously included in Entertainment Group, have been reclassified into the WarnerMedia segment and are combined with the Time Warner operations for the period subsequent to our acquisition on June 14, 2018. This segment contains the following business units:

- **Turner** is comprised of the historic Turner division as well as the financial results of our RSN. This business unit primarily operates multichannel basic television networks and digital properties. Turner also sells advertising on its networks and digital properties.
- **Home Box Office** consists of premium pay television and OTT services domestically and premium pay, basic tier television and OTT services internationally, as well as content licensing and home entertainment.
- **Warner Bros.** consists of the production, distribution and licensing of television programming and feature films, the distribution of home entertainment products and the production and distribution of games.

The **Latin America segment** provides entertainment and wireless services outside of the U.S. This segment contains the following business units:

- **Vrio** provides video services primarily to residential customers using satellite technology.
- **Mexico** provides wireless service and equipment to customers in Mexico.

The **Xandr segment** provides advertising services and includes our recently acquired AppNexus. These services utilize data insights to develop higher-value targeted advertising. Certain revenues in this segment are also reported by the Communications segment and are eliminated upon consolidation.

Notes to Consolidated Financial Statements (continued)

Dollars in millions except per share amounts

Corporate and Other reconcile our segment results to consolidated operating income and income before income taxes, and include:

- *Corporate*, which consists of: (1) businesses no longer integral to our operations or which we no longer actively market, (2) corporate support functions, (3) impacts of corporate-wide decisions for which the individual operating segments are not being evaluated, (4) the reclassification of the amortization of prior service credits, which we continue to report with segment operating expenses, to consolidated other income (expense) and (5) the recharacterization of programming intangible asset amortization, for released programming acquired in the Time Warner acquisition, which we continue to report within WarnerMedia segment operating expense, to consolidated amortization expense.
- *Acquisition-related items* which consists of items associated with the merger and integration of acquired businesses, including amortization of intangible assets.
- *Certain significant items* includes (1) employee separation charges associated with voluntary and/or strategic offers, (2) losses resulting from abandonment or impairment of assets and (3) other items for which the segments are not being evaluated.
- *Eliminations and consolidations*, which (1) removes transactions involving dealings between our segments, including content licensing between WarnerMedia and Communications, and (2) includes adjustments for our reporting of the advertising business.

Interest expense and other income (expense) – net, are managed only on a total company basis and are, accordingly, reflected only in consolidated results.

Notes to Consolidated Financial Statements (continued)

Dollars in millions except per share amounts

For the year ended December 31, 2018

	Revenues	Operations and Support Expenses	EBITDA	Depreciation and Amortization	Operating Income (Loss)	Equity in Net Income (Loss) of Affiliates	Segment Contribution
Communications							
Mobility	\$ 71,344	\$ 41,266	\$ 30,078	\$ 8,355	\$ 21,723	\$ (1)	\$ 21,722
Entertainment Group	46,460	36,430	10,030	5,315	4,715	(2)	4,713
Business Wireline	26,827	16,245	10,582	4,754	5,828	(1)	5,827
Total Communications	144,631	93,941	50,690	18,424	32,266	(4)	32,262
WarnerMedia							
Turner	6,979	3,794	3,185	131	3,054	54	3,108
Home Box Office	3,598	2,187	1,411	56	1,355	29	1,384
Warner Bros.	8,703	7,130	1,573	96	1,477	(28)	1,449
Other	(339)	(145)	(194)	22	(216)	(30)	(246)
Total WarnerMedia	18,941	12,966	5,975	305	5,670	25	5,695
Latin America							
Vrio	4,784	3,743	1,041	728	313	34	347
Mexico	2,868	3,415	(547)	510	(1,057)	-	(1,057)
Total Latin America	7,652	7,158	494	1,238	(744)	34	(710)
Xandr	1,740	398	1,342	9	1,333	-	1,333
Segment Total	172,964	114,463	58,501	19,976	38,525	\$ 55	\$ 38,580
Corporate and Other							
Corporate	1,240	1,630	(390)	1,498	(1,888)		
Acquisition-related items	(49)	1,185	(1,234)	6,931	(8,165)		
Certain significant items	-	899	(899)	26	(925)		
Eliminations and consolidations	(3,399)	(1,947)	(1,452)	(1)	(1,451)		
AT&T Inc.	\$ 170,756	\$ 116,230	\$ 54,526	\$ 28,430	\$ 26,096		

Notes to Consolidated Financial Statements (continued)

Dollars in millions except per share amounts

For the year ended December 31, 2017

	Revenues	Operations and Support Expenses	EBITDA	Depreciation and Amortization	Operating Income (Loss)	Equity in Net Income (Loss) of Affiliates	Segment Contribution
Communications							
Mobility	\$ 71,090	\$ 42,871	\$ 28,219	\$ 8,015	\$ 20,204	\$ -	\$ 20,204
Entertainment Group	49,995	38,903	11,092	5,621	5,471	-	5,471
Business Wireline	29,293	18,492	10,801	4,789	6,012	(2)	6,010
Total Communications	150,378	100,266	50,112	18,425	31,687	(2)	31,685
WarnerMedia							
Turner	430	331	99	4	95	45	140
Home Box Office	-	-	-	-	-	-	-
Warner Bros.	-	-	-	-	-	-	-
Other	-	4	(4)	-	(4)	(74)	(78)
Total WarnerMedia	430	335	95	4	91	(29)	62
Latin America							
Vrio	5,456	4,172	1,284	849	435	87	522
Mexico	2,813	3,232	(419)	369	(788)	-	(788)
Total Latin America	8,269	7,404	865	1,218	(353)	87	(266)
Xandr	1,373	169	1,204	2	1,202	-	1,202
Segment Total	160,450	108,174	52,276	19,649	32,627	\$ 56	\$ 32,683
Corporate and Other							
Corporate	1,522	3,306	(1,784)	97	(1,881)		
Acquisition-related items	-	798	(798)	4,608	(5,406)		
Certain significant items	(243)	3,880	(4,123)	33	(4,156)		
Eliminations and consolidations	(1,183)	31	(1,214)	-	(1,214)		
AT&T Inc.	\$ 160,546	\$ 116,189	\$ 44,357	\$ 24,387	\$ 19,970		

Notes to Consolidated Financial Statements (continued)

Dollars in millions except per share amounts

For the year ended December 31, 2016

	Revenues	Operations and Support Expenses	EBITDA	Depreciation and Amortization	Operating Income (Loss)	Equity in Net Income (Loss) of Affiliates	Segment Contribution
Communications							
Mobility	\$ 72,587	\$ 43,567	\$ 29,020	\$ 8,277	\$ 20,743	\$ -	\$ 20,743
Entertainment Group	50,660	38,909	11,751	5,861	5,890	8	5,898
Business Wireline	30,985	19,954	11,031	5,235	5,796	-	5,796
Total Communications	154,232	102,430	51,802	19,373	32,429	8	32,437
WarnerMedia							
Turner	418	318	100	5	95	52	147
Home Box Office	-	-	-	-	-	-	-
Warner Bros.	-	-	-	-	-	-	-
Other	-	-	-	-	-	(51)	(51)
Total WarnerMedia	418	318	100	5	95	1	96
Latin America							
Vrio	4,910	3,847	1,063	834	229	52	281
Mexico	2,373	2,983	(610)	332	(942)	-	(942)
Total Latin America	7,283	6,830	453	1,166	(713)	52	(661)
Xandr	1,333	99	1,234	1	1,233	-	1,233
Segment Total	163,266	109,677	53,589	20,545	33,044	\$ 61	\$ 33,105
Corporate and Other							
Corporate	1,754	3,458	(1,704)	97	(1,801)		
Acquisition-related items	-	1,203	(1,203)	5,177	(6,380)		
Certain significant items	(23)	35	(58)	29	(87)		
Eliminations and consolidations	(1,211)	23	(1,234)	(1)	(1,233)		
AT&T Inc.	\$ 163,786	\$ 114,396	\$ 49,390	\$ 25,847	\$ 23,543		

Notes to Consolidated Financial Statements (continued)

Dollars in millions except per share amounts

The following table is a reconciliation of operating income (loss) to Income Before Income Taxes reported in our consolidated statements of income:

	2018	2017	2016
Communications	\$ 32,262	\$ 31,685	\$ 32,437
WarnerMedia	5,695	62	96
Latin America	(710)	(266)	(661)
Xandr	1,333	1,202	1,233
Segment Contribution	38,580	32,683	33,105
Reconciling Items:			
Corporate and Other	(1,888)	(1,881)	(1,801)
Merger and integration items	(1,234)	(798)	(1,203)
Amortization of intangibles acquired	(6,931)	(4,608)	(5,177)
Employee separation charges	(587)	(445)	(344)
Gain on wireless spectrum transactions	-	181	714
Natural disaster items	(181)	(626)	(67)
Impairments and other charges	(157)	(3,046)	(390)
Tax reform special bonus	-	(220)	-
Segment equity in net income of affiliates	(55)	(56)	(61)
Eliminations and consolidations	(1,451)	(1,214)	(1,233)
AT&T Operating Income	26,096	19,970	23,543
Interest Expense	7,957	6,300	4,910
Equity in net income (loss) of affiliates	(48)	(128)	98
Other income (expense) - Net	6,782	1,597	1,081
Income Before Income Taxes	\$ 24,873	\$ 15,139	\$ 19,812

Notes to Consolidated Financial Statements (continued)

Dollars in millions except per share amounts

The following table sets forth revenues earned from customers, and property, plant and equipment located in different geographic areas.

	2018		2017		2016	
	Revenues	Net Property, Plant & Equipment	Revenues	Net Property, Plant & Equipment	Revenues	Net Property, Plant & Equipment
United States	\$ 154,795	\$ 123,457	\$ 149,841	\$ 118,200	\$ 154,039	\$ 118,664
Europe	4,073	1,634	1,064	392	1,122	374
Mexico	3,100	3,467	2,913	3,619	2,472	2,520
Brazil	2,724	1,213	2,948	1,447	2,797	1,265
Asia/Pacific Rim	2,214	408	829	194	817	189
All other Latin America	3,055	1,217	2,743	1,294	2,348	1,828
Other	795	77	208	76	191	59
Total	\$ 170,756	\$ 131,473	\$ 160,546	\$ 125,222	\$ 163,786	\$ 124,899

Notes to Consolidated Financial Statements (continued)

Dollars in millions except per share amounts

The following tables present intersegment revenues, assets, investments in equity affiliates and capital expenditures by segment.

Intersegment Reconciliation

	2018	2017	2016
Intersegment revenues			
Communications	\$ 13	\$ -	\$ -
WarnerMedia	1,875	134	134
Latin America	-	-	-
Xandr	-	-	-
Total Intersegment Revenues	1,888	134	134
Consolidations	1,511	1,049	1,077
Eliminations and consolidations	\$ 3,399	\$ 1,183	\$ 1,211

At or for the year ended December 31, 2018	Assets	Investments in Equity Method Investees	Capital Expenditures
Communications	\$ 485,360	\$ 3	\$ 19,509
WarnerMedia	132,453	5,547	581
Latin America	18,148	677	745
Xandr	2,718	-	106
Corporate and eliminations	(106,815)	18	310
Total	\$ 531,864	\$ 6,245	\$ 21,251

NOTE 5. REVENUE RECOGNITION

As of January 1, 2018, we adopted ASC 606. With our adoption of ASC 606, we made a policy election to record certain regulatory fees, primarily Universal Service Fund (USF) fees, on a net basis. We report our revenues net of sales taxes.

When implementing ASC 606, we utilized the practical expedient allowing us to reflect the aggregate effect of all contract modifications occurring before the beginning of the earliest period presented when allocating the transaction price to performance obligations.

Wireless, Advanced Data, Legacy Voice & Data Services and Equipment Revenue

We offer service-only contracts and contracts that bundle equipment used to access the services and/or with other service offerings. Some contracts have fixed terms and others are cancellable on a short-term basis (i.e., month-to-month arrangements).

Examples of service revenues include wireless, video entertainment (e.g., AT&T U-verse and DIRECTV), strategic services (e.g., virtual private network service), and legacy voice and data (e.g., traditional local and long-distance). These services represent a series of distinct services that is considered a separate performance obligation. Service revenue is recognized when services are provided, based upon either usage (e.g., minutes of traffic/bytes of data processed) or period of time (e.g., monthly service fees).

Some of our services require customer premises equipment that, when combined and integrated with AT&T's specific network infrastructure, facilitate the delivery of service to the customer. In evaluating whether the equipment is a separate performance obligation, we consider the customer's ability to benefit from the equipment on its own or together with other readily available resources and if so, whether the service and equipment are separately identifiable (i.e., is the service highly dependent on, or highly interrelated with the equipment). When the equipment does not meet the criteria to be a distinct performance obligation (e.g., equipment associated with certain video services), we allocate the total transaction price to the related service. When equipment is a distinct performance obligation, we record the sale of equipment when title has passed and the products are accepted by the customer. For devices sold through indirect channels (e.g., national dealers), revenue is recognized when the dealer accepts the device, not upon activation.

Notes to Consolidated Financial Statements (continued)

Dollars in millions except per share amounts

Our equipment and service revenues are predominantly recognized on a gross basis, as most of our services do not involve a third party and we typically control the equipment that is sold to our customers.

Revenue recognized from fixed term contracts that bundle services and/or equipment is allocated based on the standalone selling price of all required performance obligations of the contract (i.e., each item included in the bundle). Promotional discounts are attributed to each required component of the arrangement, resulting in recognition over the contract term. Standalone selling prices are determined by assessing prices paid for service-only contracts (e.g., arrangements where customers bring their own devices) and standalone device pricing.

We offer the majority of our customers the option to purchase certain wireless devices in installments over a specified period of time, and, in many cases, they may be eligible to trade in the original equipment for a new device and have the remaining unpaid balance paid or settled. For customers that elect these equipment installment payment programs, at the point of sale, we recognize revenue for the entire amount of revenue allocated to the customer receivable net of fair value of the trade-in right guarantee. The difference between the revenue recognized and the consideration received is recorded as a note receivable when the devices are not discounted and our right to consideration is unconditional. When installment sales include promotional discounts (e.g., “buy one get one free”), the difference between revenue recognized and consideration received is recorded as a contract asset to be amortized over the contract term.

Less commonly, we offer certain customers highly discounted devices when they enter into a minimum service agreement term. For these contracts, we recognize equipment revenue at the point of sale based on a standalone selling price allocation. The difference between the revenue recognized and the cash received is recorded as a contract asset that will amortize over the contract term.

Our contracts allow for customers to frequently modify their arrangement, without incurring penalties in many cases. When a contract is modified, we evaluate the change in scope or price of the contract to determine if the modification should be treated as a new contract or if it should be considered a change of the existing contract. We generally do not have significant impacts from contract modifications.

Revenues from transactions between us and our customers are recorded net of revenue-based regulatory fees and taxes. Cash incentives given to customers are recorded as a reduction of revenue. Nonrefundable, upfront service activation and setup fees associated with service arrangements are deferred and recognized over the associated service contract period or customer life.

Subscription Revenue

Subscription revenues from cable networks and premium pay and basic-tier television services are recognized over the license period as programming is provided to affiliates or digital distributors based on negotiated contractual programming rates. When a distribution contract with an affiliate has expired and a new distribution contract has not been executed, revenues are based on estimated rates, giving consideration to factors including the previous contractual rates, inflation, current payments by the affiliate and the status of the negotiations on a new contract. When the new distribution contract terms are finalized, an adjustment to revenue is recorded, if necessary, to reflect the new terms.

Subscription revenues from end-user subscribers are recognized when services are provided, based upon either usage or period of time. Subscription revenues from OTT services are recognized as programming services are provided to customers.

Content Revenue

Feature films typically are produced or acquired for initial exhibition in theaters, followed by distribution, generally commencing within three years of such initial exhibition. Revenues from film rentals by theaters are recognized as the films are exhibited.

Television programs and series are initially produced for broadcast and may be subsequently licensed or sold in physical format and/or electronic delivery. Revenues from the distribution of television programming through broadcast networks, cable networks, first-run syndication and OTT services are recognized when the programs or series are available to the licensee. In certain circumstances, pursuant to the terms of the applicable contractual arrangements, the availability dates granted to customers may precede the date in which the customer can be billed for these sales.

Revenues from sales of feature films and television programming in physical format are recognized at the later of the delivery date or the date when made widely available for sale or rental by retailers based on gross sales less a provision for estimated returns, rebates and pricing allowances. Revenues from the licensing of television programs and series for electronic sell-

Notes to Consolidated Financial Statements (continued)

Dollars in millions except per share amounts

through or video-on-demand are recognized when the product has been purchased by and made available to the consumer to either download or stream.

Upfront or guaranteed payments for the licensing of intellectual property are recognized as revenue at either the inception of the license term if the intellectual property has significant standalone functionality or over the corresponding license term if the licensee's ability to derive utility is dependent on our continued support of the intellectual property throughout the license term.

Revenues from the sales of console games are recognized at the later of the delivery date or the date that the product is made widely available for sale or rental by retailers based on gross sales less a provision for estimated returns, rebates and pricing allowances.

Advertising Revenue

Advertising revenues are recognized, net of agency commissions, in the period that the advertisements are aired. If there is a targeted audience guarantee, revenues are recognized for the actual audience delivery and revenues are deferred for any shortfall until the guaranteed audience delivery is met, typically by providing additional advertisements. Advertising revenues from digital properties are recognized as impressions are delivered or the services are performed.

Notes to Consolidated Financial Statements (continued)

Dollars in millions except per share amounts

Revenue Categories

The following table sets forth reported revenue by category:

For the year ended December 31, 2018

	Service Revenues								Total
	Wireless	Advanced Data	Legacy Voice & Data	Subscription	Content	Advertising	Other	Equipment	
Communications									
Mobility	\$ 54,701	\$ -	\$ -	\$ -	\$ -	\$ 232	\$ -	\$ 16,411	\$ 71,344
Entertainment Group	-	7,956	3,041	31,762	-	1,595	2,097	9	46,460
Business Wireline	-	12,310	10,697	-	-	-	2,996	824	26,827
WarnerMedia									
Turner	-	-	-	4,207	295	2,330	147	-	6,979
Home Box Office	-	-	-	3,201	391	-	6	-	3,598
Warner Bros.	-	-	-	47	8,216	53	387	-	8,703
Eliminations and Other	-	-	-	74	(518)	78	27	-	(339)
Latin America									
Vrio	-	-	-	4,784	-	-	-	-	4,784
Mexico	1,701	-	-	-	-	-	-	1,167	2,868
Xandr									
Corporate and Other	-	-	-	-	-	1,740	-	-	1,740
Eliminations and consolidations	-	-	-	-	(1,843)	(1,595)	39	-	(3,399)
Total Operating Revenues	\$ 56,402	\$ 20,266	\$ 13,738	\$ 44,075	\$ 6,541	\$ 4,433	\$ 6,890	\$ 18,411	\$ 170,756

Notes to Consolidated Financial Statements (continued)

Dollars in millions except per share amounts

No customer accounted for more than 10% of consolidated revenues in 2018, 2017 or 2016.

Deferred Customer Contract Acquisition and Fulfillment Costs

Costs to acquire customer contracts, including commissions on service activations, for our wireless, business wireline and video entertainment services, are deferred and amortized over the contract period or expected customer relationship life, which typically ranges from two to five years. Costs to fulfill customer contracts are deferred and amortized over periods ranging generally from four to five years, reflecting the estimated economic lives of the respective customer relationships, subject to an assessment of the recoverability of such costs. For contracts with an estimated amortization period of less than one year, we expense incremental costs immediately.

Our deferred customer contract acquisition costs and deferred customer contract fulfillment costs balances were \$3,974 and \$11,540 as of December 31, 2018, respectively, of which \$1,901 and \$4,090 were included in "Other current assets" on our consolidated balance sheets. For the year ended December 31, 2018, we amortized \$1,433 and \$4,039 of these costs, respectively.

Contract Assets and Liabilities

A contract asset is recorded when revenue is recognized in advance of our right to bill and receive consideration (i.e., we must perform additional services or satisfy another performance obligation in order to bill and receive consideration). The contract asset will decrease as services are provided and billed. When consideration is received in advance of the delivery of goods or services, a contract liability is recorded. Reductions in the contract liability will be recorded as we satisfy the performance obligations.

The following table presents contract assets and liabilities and revenue recorded at or for the year ended December 31, 2018:

Contract asset	\$	1,896
Contract liability		6,856

Our beginning of period contract liability recorded as customer contract revenue during 2018 was \$5,677.

Our consolidated balance sheet at December 31, 2018 included approximately \$1,244 for the current portion of our contract asset in "Other current assets" and \$5,752 for the current portion of our contract liability in "Advanced billings and customer deposits."

Remaining Performance Obligations

Remaining performance obligations represent services we are required to provide to customers under bundled or discounted arrangements, which are satisfied as services are provided over the contract term. In determining the transaction price allocated, we do not include nonrecurring charges and estimates for usage, nor do we consider arrangements with an original expected duration of less than one year, which are primarily prepaid wireless, video and residential internet agreements in our Communications segment and advertising and fixed-fee subscription arrangements in our WarnerMedia segment.

Remaining performance obligations are associated with 1) business contracts that reflect recurring charges billed, adjusted for our estimates of sales incentives and other revenue adjustments, 2) wireless contracts, which are estimated using a portfolio approach where we review all relevant promotional activities, calculating the remaining performance obligation using the average service component for the portfolio and the average device price, 3) the licensing of theatrical and television content that will be made available to customers at some point in the future, and 4) upfront or guaranteed payments for licenses of intellectual property that will be recognized over the corresponding license term.

As of December 31, 2018, the aggregate amount of the transaction price allocated to remaining performance obligations was \$39,871 of which we expect to recognize approximately 55% next year and 80% over the next two years, with the balance recognized thereafter.

Comparative Results

Prior to 2018, revenue recognized from contracts that bundle services and equipment was limited to the lesser of the amount allocated based on the relative selling price of the equipment and service already delivered or the consideration received from the customer for the equipment and service already delivered. Our prior accounting also separately recognized regulatory fees as operating revenue when received and as an expense when incurred. Sales commissions were previously expensed as incurred.

Notes to Consolidated Financial Statements (continued)

Dollars in millions except per share amounts

The following table presents our reported results under ASC 606 and our pro forma results using the historical accounting method:

At or for the year ended December 31, 2018	As Reported	Historical Accounting Method
<i>Consolidated Statement of Income:</i>		
Service Revenues	\$ 152,345	\$ 157,979
Equipment Revenues	18,411	16,324
Total Operating Revenues	170,756	174,303
Other cost of revenues	32,906	36,636
Selling, general and administrative expenses	36,765	38,961
Total Operating Expenses	144,660	150,586
Operating income	26,096	23,717
Income before income taxes	24,873	22,494
Income tax expense	4,920	4,337
Net income	19,953	18,157
Net income attributable to AT&T	\$ 19,370	\$ 17,597
Basic Earnings per Share Attributable to AT&T	\$ 2.85	\$ 2.59
Diluted Earnings per Share Attributable to AT&T	\$ 2.85	\$ 2.59
<i>Consolidated Balance Sheet:</i>		
Other current assets	\$ 17,704	\$ 14,756
Other Assets	24,809	22,144
Accounts payable and accrued liabilities	43,184	43,363
Advanced billings and customer deposits	5,948	6,012
Deferred income taxes	57,859	56,485
Other noncurrent liabilities	30,233	29,937
Retained earnings	58,753	54,616
Accumulated other comprehensive income	4,249	4,258
Noncontrolling interest	\$ 9,795	\$ 9,737

NOTE 6. ACQUISITIONS, DISPOSITIONS AND OTHER ADJUSTMENTS*Acquisitions*

Time Warner On June 14, 2018, we completed our acquisition of Time Warner, a leader in media and entertainment whose major businesses encompass an array of some of the most respected media brands. The deal combines Time Warner's vast library of content and ability to create new premium content for audiences around the world with our extensive customer relationships and distribution, one of the world's largest pay-TV subscriber bases and scale in TV, mobile and broadband distribution. We expect that the transaction will advance our direct-to-consumer efforts and provide us with the ability to develop innovative new offerings.

Under the merger agreement, each share of Time Warner stock was exchanged for \$53.75 cash plus 1.437 shares of our common stock. After adjustment for shares issued to trusts consolidated by AT&T, share-based payment arrangements and fractional shares, which were settled in cash, AT&T issued 1,125,517,510 shares to Time Warner shareholders, giving them an approximate 16% stake in the combined company. Based on our \$32.52 per share closing stock price on June 14, 2018, we paid Time Warner shareholders \$36,599 in AT&T stock and \$42,100 in cash. Total consideration, including share-based payment arrangements and other adjustments totaled \$79,358, excluding Time Warner's net debt at acquisition. On July 12, 2018, the U.S. Department of Justice (DOJ) appealed the U.S. District Court's decision permitting the merger. We believe the DOJ's appeal is without merit and we will continue to vigorously defend our legal position in the appellate court, which completed oral arguments on December 6, 2018.

Our 2018 operating results include the results from Time Warner following the acquisition date. The fair values of the assets acquired and liabilities assumed were preliminarily determined using the income, cost and market approaches. The fair value measurements were primarily based on significant inputs that are not observable in the market and thus represent a Level 3

Notes to Consolidated Financial Statements (continued)

Dollars in millions except per share amounts

measurement as defined in ASC 820, "Fair Value Measurement," other than cash and long-term debt acquired in the acquisition. The income approach was primarily used to value the intangible assets, consisting primarily of distribution network, released TV and film content, in-place advertising network, trade names, and franchises. The income approach estimates fair value for an asset based on the present value of cash flow projected to be generated by the asset. Projected cash flow is discounted at a required rate of return that reflects the relative risk of achieving the cash flow and the time value of money. The cost approach, which estimates value by determining the current cost of replacing an asset with another of equivalent economic utility, was used, as appropriate, for plant, property and equipment. The cost to replace a given asset reflects the estimated reproduction or replacement cost for the property, less an allowance for loss in value due to depreciation.

The following table summarizes the preliminary estimated fair values of the Time Warner assets acquired and liabilities assumed and related deferred income taxes as of the acquisition date:

Assets acquired	
Cash	\$ 1,889
Accounts receivable	9,052
All other current assets	2,913
Noncurrent inventory and theatrical film and television production costs	5,593
Property, plant and equipment	4,769
Intangible assets subject to amortization	
Distribution network	18,040
Released television and film content	10,806
Trademarks and trade names	18,081
Other	10,300
Investments and other assets	9,449
Goodwill	38,566
Total assets acquired	129,458
Liabilities assumed	
Current liabilities, excluding current portion of long-term debt	8,303
Debt maturing within one year	4,471
Long-term debt	18,394
Other noncurrent liabilities	18,931
Total liabilities assumed	50,099
Net assets acquired	79,359
Noncontrolling interest	(1)
Aggregate value of consideration paid	\$ 79,358

These estimates are preliminary in nature and subject to adjustments, which could be material. Any necessary adjustments will be finalized within one year from the date of acquisition. Substantially all the receivables acquired are expected to be collectible. We have not identified any material unrecorded pre-acquisition contingencies where the related asset or liability, or an impairment is probable and the amount can be reasonably estimated. Goodwill is calculated as the difference between the acquisition date fair value of the consideration transferred and the fair value of the net assets acquired, and represents the future economic benefits that we expect to achieve as a result of the acquisition. Prior to the finalization of the purchase price allocation, if information becomes available that would indicate it is probable that unknown events had occurred and the amounts can be reasonably estimated, such items will be included in the final purchase price allocation and may change goodwill. Purchased goodwill is not expected to be deductible for tax purposes. As we finalize the valuation of assets acquired and liabilities assumed, we will determine to which reporting units within the WarnerMedia segment any changes in goodwill should be recorded.

Notes to Consolidated Financial Statements (continued)

Dollars in millions except per share amounts

For the 200-day period ended December 31, 2018, our consolidated statement of income included \$18,209 of revenues and \$1,400 of operating income, which included \$3,296 of intangible amortization, from Time Warner and its affiliates. The following unaudited pro forma consolidated results of operations assume that the acquisition of Time Warner was completed as of January 1, 2017.

	(Unaudited) Year Ended December 31,	
	2018	2017
Total operating revenues	\$ 183,651	\$ 188,769
Net Income Attributable to AT&T	20,814	31,380
Basic Earnings Per Share Attributable to AT&T	\$ 2.86	\$ 4.30
Diluted Earnings Per Share Attributable to AT&T	\$ 2.85	\$ 4.26

These unaudited pro forma consolidated results reflect the adoption of ASC 606 for 2018, which is not on a comparable basis with 2017 (see Note 5). Pro forma data may not be indicative of the results that would have been obtained had these events occurred at the beginning of the periods presented, nor is it intended to be a projection of future results.

Otter Media On August 7, 2018, we acquired the remaining interest in Otter Media Holdings (Otter Media) for \$157 in cash and the conversion to equity of the \$1,480 advance made in the first quarter. At acquisition, we remeasured the fair value of the total business, which exceeded the book value of our equity method investment and resulted in a pre-tax gain of \$395. We consolidated that business upon close and recorded those assets at fair value, including \$1,239 of goodwill that is reported in the WarnerMedia segment.

AppNexus On August 15, 2018, we purchased AppNexus for \$1,432 and recorded \$1,220 of goodwill that is reported in the Xandr segment. Our investment will allow us to create a marketplace for TV and digital video advertising.

Auction 1000 On April 13, 2017, the FCC announced that we were the successful bidder for \$910 of spectrum in 18 markets. We provided the FCC an initial deposit of \$2,348 in July 2016 and received a refund of \$1,438 in April 2017, which was recorded as cash from investing activities in our consolidated statement of cash flows. In 2018, we sold these wireless licenses at the auction price.

Spectrum Acquisitions and Swaps On occasion, we swap spectrum with other wireless providers to ensure we have efficient and contiguous coverage across our markets and service areas. During 2018, we acquired \$521 of wireless spectrum. During 2017, we swapped FCC licenses with a fair value of approximately \$2,003 with other carriers and recorded a net gain of \$181. During 2016, we swapped FCC licenses with a fair value of approximately \$2,122 with other carriers and recorded a net gain of \$714.

Dispositions

Data Colocation Operations On December 31, 2018, we sold certain data centers to Brookfield Infrastructure Partners for \$1,100 and recorded a pre-tax gain of \$432. The sale included assets; primarily consisting of property, plant and equipment, of \$298; and goodwill of \$215.

YP Holdings LLC In June 2017, YP Holdings LLC was acquired by Dex Media, resulting in a gain of \$36 for our portion of the proceeds.

Notes to Consolidated Financial Statements (continued)

Dollars in millions except per share amounts

NOTE 7. PROPERTY, PLANT AND EQUIPMENT

Property, plant and equipment is summarized as follows at December 31:

	Lives (years)	2018	2017
Land	-	\$ 2,714	\$ 1,630
Buildings and improvements	2-44	38,013	36,319
Central office equipment ¹	3-10	95,173	94,076
Cable, wiring and conduit	15-50	73,397	67,695
Satellites	14-17	2,961	2,967
Other equipment	3-20	93,782	90,017
Software	3-7	19,124	16,750
Under construction	-	5,526	4,045
		330,690	313,499
Accumulated depreciation and amortization		199,217	188,277
Property, plant and equipment - net		\$ 131,473	\$ 125,222

¹ Includes certain network software.

Our depreciation expense was \$20,102 in 2018, \$19,761 in 2017 and \$20,661 in 2016. Depreciation expense included amortization of software totaling \$3,092 in 2018, \$2,810 in 2017 and \$2,362 in 2016.

During the fourth quarter of 2017, we determined that certain copper assets will not be necessary to support future network activity due to fiber deployment plans in particular markets. We recorded a noncash pre-tax charge of \$2,883 to abandon these assets.

Certain facilities and equipment used in operations are leased under operating or capital leases. Rental expenses under operating leases were \$5,296 for 2018, \$4,953 for 2017 and \$4,482 for 2016. At December 31, 2018, the future minimum rental payments under noncancelable operating leases for the years 2019 through 2023 were \$4,361, \$4,046, \$3,558, \$3,253 and \$2,836, with \$9,540 due thereafter. Certain real estate operating leases contain renewal options that may be exercised. At December 31, 2018, the future minimum rental payments under capital leases for the years 2019 through 2023 were \$154, \$130, \$118, \$124 and \$124, with \$1,261 due thereafter.

Notes to Consolidated Financial Statements (continued)

Dollars in millions except per share amounts

NOTE 8. GOODWILL AND OTHER INTANGIBLE ASSETS

The following table sets forth the changes in the carrying amounts of goodwill by reporting unit, which is deemed to be our principal operating segments or one level below. Our Communications segment has three reporting units: Mobility, Entertainment Group and Business Wireline. Due to the timing of the Time Warner acquisition, we have not finalized the valuation or allocation of goodwill to the underlying business units and have recorded the goodwill in our WarnerMedia segment. Our Latin America segment has two reporting units: Mexico and Vrio.

	2018					2017				
	Balance at Jan. 1	Reallocation	Acquisitions	Dispositions, currency exchange and other	Balance at Dec. 31	Balance at Jan. 1	Acquisitions	Dispositions, currency exchange and other	Balance at Dec. 31	
Mobility	\$ -	\$ 44,108	\$ -	\$ -	\$ 44,108	\$ -	\$ -	\$ -	\$ -	
Entertainment Group	39,280	(860)	-	(11)	38,409	39,053	210	17	39,280	
Business Wireline	-	17,827	422	(215)	18,034	-	-	-	-	
Communications	39,280	61,075	422	(226)	100,551	39,053	210	17	39,280	
WarnerMedia	-	681	40,036	(19)	40,698	-	-	-	-	
Latin America	4,234	(32)	-	(484)	3,718	4,264	-	(30)	4,234	
Xandr	-	211	1,220	(28)	1,403	-	-	-	-	
Business Solutions	45,395	(45,395)	-	-	-	45,364	-	31	45,395	
Consumer Mobility	16,540	(16,540)	-	-	-	16,526	-	14	16,540	
Total	\$ 105,449	\$ -	\$ 41,678	\$ (757)	\$ 146,370	\$ 105,207	\$ 210	\$ 32	\$ 105,449	

The majority of our goodwill acquired in 2018 is from our acquisitions of Time Warner, AppNexus and Otter Media (see Note 6). Other changes to our goodwill in 2018 include the sale of our data colocation operations, as well as changes from foreign currency translation. With our segment realignment, we reallocated goodwill within our reporting units.

The majority of our goodwill acquired during 2017 related to our acquisition of INVIDI Technologies, a leading provider in addressable advertising platforms, the final valuation of Quickplay Media and other adjustments. Other changes to our goodwill in 2017 include foreign currency translation.

Notes to Consolidated Financial Statements (continued)

Dollars in millions except per share amounts

Our other intangible assets at December 31 are summarized as follows:

Other Intangible Assets	2018			2017			
	Weighted-Average Life	Gross Carrying Amount	Accumulated Amortization	Currency Translation Adjustment	Gross Carrying Amount	Accumulated Amortization	Currency Translation Adjustment
Amortized intangible assets:							
Customer lists and relationships:							
Wireless acquisitions		\$ 244	\$ 212	\$ -	\$ 764	\$ 683	\$ -
BellSouth Corporation		-	-	-	2,370	2,370	-
WarnerMedia		73	15	-	-	-	-
AppNexus		75	20	-	-	-	-
DIRECTV		19,551	11,852	(216)	19,551	8,950	(141)
AT&T Corp.		67	36	-	33	29	-
Mexican wireless		506	316	(98)	506	278	(97)
Subtotal	9.1 years	20,516	12,451	(314)	23,224	12,310	(238)
Trademarks and trade names	38.6 years	18,371	293	(7)	2,942	2,366	(6)
Distribution network	10.0 years	18,040	971	-	-	-	-
Released television and film content	10.8 years	10,814	2,988	-	-	-	-
Other	18.8 years	11,624	907	(25)	781	335	(3)
Total	17.8 years	\$ 79,365	\$ 17,610	\$ (346)	\$ 26,947	\$ 15,011	\$ (247)

Indefinite-lived intangible assets not subject to amortization, net of currency translation adjustment:

Licenses:		
Wireless licenses	\$ 84,442	\$ 84,434
Orbital slots	11,702	11,702
Trade names	6,274	6,451
Total	\$ 102,418	\$ 102,587

Amortized intangible assets are definite-life assets, and, as such, we record amortization expense based on a method that most appropriately reflects our expected cash flows from these assets. Amortization expense for definite-life intangible assets was \$8,327 for the year ended December 31, 2018, \$4,626 for the year ended December 31, 2017 and \$5,186 for the year ended December 31, 2016. Amortization expense is estimated to be \$7,982 in 2019, \$6,886 in 2020, \$5,787 in 2021, \$5,015 in 2022 and \$4,337 in 2023.

In 2018, we wrote off approximately \$2,892 of fully amortized trade names and \$2,890 of fully amortized customer lists. In 2017, we wrote off approximately \$2,273 of fully amortized intangible assets (primarily customer lists). We review amortized intangible assets for impairment whenever events or circumstances indicate that the carrying amount may not be recoverable over the remaining life of the asset or asset group.

Notes to Consolidated Financial Statements (continued)

Dollars in millions except per share amounts

NOTE 9. EQUITY METHOD INVESTMENTS

Investments in partnerships, joint ventures and less than majority-owned subsidiaries in which we have significant influence are accounted for under the equity method.

In the second quarter of 2018, we acquired Time Warner (see Note 6), which included various equity method investments. The differences between the fair value and the proportional book value of these investments' net assets were \$2,871. We attributed \$1,642 to amortizing intangibles, which will be amortized into earnings in our "Equity net income (loss) of affiliates" over a weighted-average life of 18.2 years. The earnings from these investments, subsequent to the acquisition date, are included in the 2018 activity in the table below, as well as our consolidated statement of income for 2018.

In the third quarter of 2018, we acquired the remaining interest in Otter Media, which had previously been one of our equity method investments (see Note 6). Upon the closing of this acquisition, we began consolidating that business and recorded those assets at fair value.

Our investments in equity affiliates at December 31, 2018 primarily include our interests in Hudson Yards, HBO Latin America Group, Hulu, Central European Media Enterprises Ltd. and SKY Mexico.

Hudson Yards North Tower Holdings LLC (Hudson Yards) We hold a 50.0% interest in Hudson Yards, a limited liability company involved in the construction and development of real estate in New York City, which includes future office and studio space to be used by our WarnerMedia business.

HBO Latin America Group (HBO LAG) We hold an 88.2% interest in HBO LAG, which owns and operates various television channels in Latin America. We do not have the power to direct the activities that most significantly impact this entity's economic performance, and therefore, account for this investment under the equity method of accounting.

Hulu We hold a 10.0% interest in Hulu, a provider of over-the-top services including instant streaming of television and movies.

Central European Media Enterprises Ltd. (CME) We hold a 66.6% interest in CME, a broadcasting company that operates leading television networks in Bulgaria, the Czech Republic, Romania and the Slovak Republic, as well as develops and produces content for its television networks. We do not have the power to direct the activities that most significantly impact this entity's economic performance, and therefore, account for this investment under the equity method of accounting.

SKY Mexico We hold a 41.3% interest in SKY Mexico, which is a leading pay-TV provider in Mexico.

The following table is a reconciliation of our investments in equity affiliates as presented on our consolidated balance sheets:

	2018	2017
Beginning of year	\$ 1,560	\$ 1,674
Additional investments	237	51
Time Warner investments acquired	4,912	-
Acquisition of remaining interest in Otter Media	(166)	-
Equity in net income (loss) of affiliates	(48)	(128)
Dividends and distributions received	(243)	(46)
Currency translation adjustments	(14)	22
Other adjustments	7	(13)
End of year	\$ 6,245	\$ 1,560

Notes to Consolidated Financial Statements (continued)

Dollars in millions except per share amounts

NOTE 10. INVENTORIES AND THEATRICAL FILM AND TELEVISION PRODUCTION COSTS

Film and television production costs are stated at the lower of cost, less accumulated amortization, or fair value and include the unamortized cost of completed theatrical films and television episodes, theatrical films and television series in production and undeveloped film and television rights. The amount of capitalized film and television production costs recognized as broadcast, programming and operations expenses for a given period is determined using the film forecast computation method.

The following table summarizes inventories and theatrical film and television production costs as of December 31:

	2018
Inventories:	
Programming costs, less amortization ¹	\$ 4,097
Other inventory, primarily DVD and Blu-ray Discs	146
Total inventories	4,243
Less: current portion of inventory	(2,420)
Total noncurrent inventories	1,823
Theatrical film production costs: ²	
Released, less amortization	451
Completed and not released	435
In production	866
Development and pre-production	159
Television production costs: ²	
Released, less amortization	965
Completed and not released	1,087
In production	1,898
Development and pre-production	29
Total theatrical film and television production costs	5,890
Total noncurrent inventories and theatrical film and television production costs	\$ 7,713

¹ Includes the costs of certain programming rights, primarily sports, for which payments have been made prior to the related rights being received.

² Does not include \$7,826 of acquired film and television library intangible assets as of December 31, 2018, which are included in "Other Intangible Assets - Net" on our consolidated balance sheet.

Approximately 90% of unamortized film costs for released theatrical and television content are expected to be amortized within three years from December 31, 2018. In addition, approximately \$2,298 of the film costs of released and completed and not released theatrical and television product are expected to be amortized during 2019.

Notes to Consolidated Financial Statements (continued)

Dollars in millions except per share amounts

NOTE 11. DEBT

Long-term debt of AT&T and its subsidiaries, including interest rates and maturities, is summarized as follows at December 31:

	2018	2017
Notes and debentures		
Interest Rates		
0.49% –		
2.99%	\$ 14,404	\$ 19,514
3.00% –		
4.99%	104,291	93,915
5.00% –		
6.99%	37,175	46,343
7.00% –		
9.50%	5,976	4,579
Credit agreement borrowings	12,618	1,700
Other	89	-
Fair value of interest rate swaps recorded in debt	(32)	(20)
	174,521	166,031
Unamortized (discount) premium - net	(2,526)	(2,968)
Unamortized issuance costs	(466)	(537)
Total notes and debentures	171,529	162,526
Capital lease obligations	1,911	1,818
Total long-term debt, including current maturities	173,440	164,344
Current maturities of long-term debt	(7,190)	(38,372)
Total long-term debt	\$ 166,250	\$ 125,972

† Maturities assume puttable debt is redeemed by the holders at the next opportunity.

On June 14, 2018, we added \$22,865 in total debt, including capital leases, related to our acquisition of Time Warner. Time Warner's debt included both fixed and floating-rate coupons with a weighted average rate of approximately 4.63% (ranging from 1.25% to 9.15%) and had maturities ranging from 2018 to 2045. Included in our "Total note and debentures" balance in the table above was the face value of the acquired debt from Time Warner of \$16,981, which had a carrying amount of \$17,107 at December 31, 2018.

Included in the table above at December 31, 2018, was approximately \$546, representing the remaining excess of the fair value over the recorded value of debt in connection with the acquisition of Time Warner, all of which was included in our "Unamortized (discount) premium – net." The excess is amortized over the remaining lives of the underlying debt obligations.

We had outstanding Euro, British pound sterling, Canadian dollar, Swiss franc, Australian dollar, Brazilian real and Mexican peso denominated debt of approximately \$41,356 and \$37,621 at December 31, 2018 and 2017.

The weighted-average interest rate of our entire long-term debt portfolio, including the impact of derivatives, remained unchanged at 4.4% at December 31, 2018 and 2017.

Current maturities of long-term debt include debt that may be put back to us by the holders in 2019. We have \$1,000 of annual put reset securities that may be put each April until maturity in 2021. If the holders do not require us to repurchase the securities, the interest rate will be reset based on current market conditions. Likewise, we have an accreting zero-coupon note that may be redeemed each May, until maturity in 2022. If the zero-coupon note (issued for principal of \$500 in 2007 and partially exchanged in the 2017 debt exchange offers) is held to maturity, the redemption amount will be \$592.

Notes to Consolidated Financial Statements (continued)

Dollars in millions except per share amounts

Debt maturing within one year consisted of the following at December 31:

	2018	2017
Current maturities of long-term debt	\$ 7,190	\$ 38,372
Commercial paper	3,048	-
Bank borrowings ¹	4	2
Other	13	-
Total	\$ 10,255	\$ 38,374

¹ Outstanding balance of short-term credit facility of a foreign subsidiary.

Financing Activities

During 2018, we received net proceeds of \$41,875 on the issuance of \$41,977 in long-term debt in various markets, with an average weighted maturity of approximately five years and a weighted average coupon of 3.4%. We redeemed \$52,643 in borrowings of various notes with stated rates of 1.25% to 6.45%. Approximately \$21,236 of the notes redeemed were subject to mandatory redemption due to the delay in closing our acquisition of Time Warner.

On February 19, 2019, we issued \$3,000 of 4.350% global notes due 2029 and \$2,000 of 4.850% global notes due 2039. The proceeds will be used to redeem approximately \$4,100 of senior notes issued by AT&T or one of our subsidiaries, such notes were issued redemption notices on February 15, 2019 and will be redeemed on March 27, 2019. Excess proceeds, together with cash on hand, were used to pay down amounts outstanding under term loans drawn on for the Time Warner acquisition.

As of December 31, 2018 and 2017, we were in compliance with all covenants and conditions of instruments governing our debt. Substantially all of our outstanding long-term debt is unsecured. Maturities of outstanding long-term notes and debentures, as of December 31, 2018, and the corresponding weighted-average interest rate scheduled for repayment are as follows:

	2019	2020	2021	2022	2023	Thereafter
Debt repayments ¹	\$ 7,090	\$ 12,665	\$ 13,468	\$ 12,640	\$ 14,081	\$ 114,609
Weighted-average interest rate	3.0 %	3.3 %	3.7 %	3.0 %	3.5 %	4.8 %

¹ Debt repayments assume putable debt is redeemed by the holders at the next opportunity.

Credit Facilities

General

In December 2018, we amended our five-year revolving credit agreement (the "Amended and Restated Credit Agreement") and concurrently entered into a new five-year agreement (the "Five Year Credit Agreement") such that we now have two \$7,500 revolving credit agreements totaling \$15,000. The Amended and Restated Credit Agreement terminates on December 11, 2021 and the Five Year Credit Agreement terminates on December 11, 2023. No amounts were outstanding under either agreement as of December 31, 2018.

On November 20, 2018, we entered into and drew on a 4.5 year \$3,550 term loan credit agreement (the "November 2018 Term Loan") with Bank of America, N.A., as agent. We used the proceeds to finance the repayment in part of loans outstanding under the Acquisition Term Loan (described below).

On September 29, 2017, we entered into a \$2,250 syndicated term loan credit agreement (the "Nova Scotia Credit Agreement") containing (i) a three-year \$750 term loan facility, (ii) a four-year \$750 term loan facility and (iii) a five-year \$750 term loan facility, with certain investment and commercial banks and The Bank of Nova Scotia, as administrative agent. During 2018, to provide financing for our Time Warner acquisition, we drew \$2,250 on the Nova Scotia Credit Agreement.

On November 15, 2016, we entered into a \$10,000 term loan credit agreement (the "Acquisition Term Loan") with a syndicate of 20 lenders. On February 2, 2018, we amended the Acquisition Term Loan to extend the commitment termination date to December 31, 2018 and increase the commitments to \$16,175. During 2018, to provide financing for our Time Warner acquisition, we drew \$16,175 on the Acquisition Term Loan and as of December 31, 2018 have \$2,625 outstanding.

On January 31, 2019, we entered into and drew on an 11-month \$2,850 syndicated term loan credit agreement (the "Citibank Term Loan"), with certain investment and commercial banks and Citibank, N.A., as administrative agent.

Each of our credit and loan agreements contains covenants that are customary for an issuer with an investment grade senior debt credit rating, as well as a net debt-to-EBITDA (earnings before interest, taxes, depreciation and amortization, and other modifications described in each agreement) financial ratio covenant requiring AT&T to maintain, as of the last day of each fiscal quarter, a ratio of not more than 3.5-to-1. The events of default are customary for agreements of this type and such

Notes to Consolidated Financial Statements (continued)

Dollars in millions except per share amounts

events would result in the acceleration of, or would permit the lenders to accelerate, as applicable, required payments and would increase each agreement's relevant Applicable Margin by 2.00% per annum.

Credit Agreements

The obligations of the lenders under the Amended and Restated Credit Agreement to provide advances will terminate on December 11, 2021, and under the Five Year Credit Agreement to provide advances will terminate on December 11, 2023, unless the commitments are terminated in whole prior to that date. All advances must be repaid no later than the date on which lenders are no longer obligated to make any advances under the applicable Credit Agreement.

Each of the Credit Agreements provides that we and lenders representing more than 50% of the facility amount may agree to extend their commitments under such Credit Agreement for two one-year periods beyond the initial termination date. We have the right to terminate, in whole or in part, amounts committed by the lenders under each of the Credit Agreements in excess of any outstanding advances; however, any such terminated commitments may not be reinstated.

Advances under these agreements would bear interest, at AT&T's option, either:

- at a variable annual rate equal to: (1) the highest of (but not less than zero) (a) the rate of interest announced publicly by Citibank in New York, New York, from time to time, as Citibank's base rate, (b) 0.5% per annum above the federal funds rate, and (c) the London interbank offered rate (or the successor thereto) ("LIBOR") applicable to dollars for a period of one month plus 1.00%, plus (2) an applicable margin, as set forth in the applicable Credit Agreement (the "Applicable Margin for Base Advances"); or
- at a rate equal to: (i) LIBOR (adjusted upwards to reflect any bank reserve costs) for a period of one, two, three or six months, as applicable, plus (ii) an applicable margin, as set forth in the applicable Credit Agreement (the "Applicable Margin for Eurodollar Rate Advances").

We will pay a facility fee of 0.070%, 0.080%, 0.100% or 0.125% per annum of the amount of the lender commitments, depending on AT&T's credit rating.

November 2018 Term Loan

On November 20, 2018, we drew on the November 2018 Term Loan to finance the repayment in part of loans outstanding under the Acquisition Term Loan.

Advances would bear interest, at AT&T's option, either:

- at a variable annual rate equal to: (1) the highest of (but not less than zero) (a) the prime rate quoted by The Wall Street Journal, (b) 0.5% per annum above the federal funds rate, and (c) the London interbank offered rate ("LIBOR") applicable to dollars for a period of one month plus 1.00%, plus (2) an applicable margin, as set forth in the November 2018 Term Loan (the "Applicable Margin for Base Advances"); or
- at a rate equal to: (i) LIBOR (adjusted upwards to reflect any bank reserve costs) for a period of one, two, three or six months, as applicable, plus (ii) an applicable margin, as set forth in the November 2018 Term Loan (the "Applicable Margin for Eurodollar Rate Advances").

The Applicable Margin for Eurodollar Rate Advances will be equal to 0.875%, 1.000% or 1.125% per annum, depending on AT&T's unsecured long-term debt ratings. The Applicable Margin for Base Advances is equal to the greater of (x) 0.00% and (y) the relevant Applicable Margin for Eurodollar Rate Advances minus 1.00% per annum, depending on AT&T's unsecured long-term debt ratings.

Repayment of all advances with respect to the November 2018 Term Loan will be subject to amortization commencing two years and nine months after the date on which such advances are made, with 25% of the aggregate principal amount thereof being payable prior to the date that is four years and six months after the date on which such advances are made, and all remaining principal amount due and payable on the date that is four years and six months after the date on which such advances are made.

Notes to Consolidated Financial Statements (continued)

Dollars in millions except per share amounts

Nova Scotia Credit Agreement

On January 26, 2018, to provide financing for our Time Warner acquisition, we drew \$2,250 on the Nova Scotia Credit Agreement. Advances under this agreement would bear interest, at AT&T's option, either:

- at a variable annual rate equal to (1) the highest of: (a) the base rate of Scotiabank, (b) 0.50% per annum above the Federal funds rate, and (c) the ICE Benchmark Administration Limited Settlement Rate applicable to U.S. dollars for a period of one month plus 1.00% per annum, plus (2) an applicable margin (as set forth in the Nova Scotia Credit Agreement); or
- at a rate equal to: (i) LIBOR for a period of three or six months, as applicable, plus (ii) an applicable margin (as set forth in the Nova Scotia Credit Agreement).

Acquisition Term Loan

Under the Acquisition Term Loan, there are two tranches of commitments, each in a total amount of \$8,087.

On June 14, 2018, to provide financing for our Time Warner acquisition, we drew \$16,175 on the Acquisition Term Loan.

Advances bear interest, at AT&T's option, either:

- at a variable annual rate equal to: (1) the highest of (a) the prime rate of JPMorgan Chase Bank, N.A., (b) 0.5% per annum above the federal funds rate, and (c) the LIBOR rate applicable to dollars for a period of one month plus 1.00%, plus (2) an applicable margin, as set forth in the Acquisition Term Loan (the "Applicable Margin for Base Advances (Term Loan)"); or
- at a rate equal to: (i) LIBOR (adjusted upwards to reflect any bank reserve costs) for a period of one, two, three or six months, as applicable, plus (ii) an applicable margin, as set forth in the Acquisition Term Loan (the "Applicable Margin for Eurodollar Rate Advances (Term Loan)").

The Applicable Margin for Eurodollar Rate Advances (Term Loan) under Tranche A is equal to 1.000%, 1.125% or 1.250% per annum, depending on AT&T's credit ratings. The Applicable Margin for Eurodollar Rate Advances (Term Loan) under Tranche B is equal to 1.125%, 1.250% or 1.375% per annum, depending on AT&T's credit ratings. The Applicable Margin for Base Advances (Term Loan) is equal to the greater of (x) 0.00% and (y) the relevant Applicable Margin for Eurodollar Rate Advances (Term Loan) minus 1.00% per annum, depending on AT&T's credit ratings.

As of December 31, 2018, \$2,625 is outstanding of Tranche A advances and \$0 is outstanding of Tranche B advances. Repayment of all advances with respect to Tranche A must be made no later than two years and six months after the date on which such advances are made. We paid \$2,625 of the Tranche A advances on February 20, 2019, and terminated the facility.

Citibank Term Loan

On January 31, 2019, we entered into and drew on an 11-month \$2,850 syndicated term loan credit agreement (the "Citibank Term Loan"), with certain investment and commercial banks and Citibank, N.A., as administrative agent.

Advances would bear interest, at AT&T's option, either:

- at a variable annual rate equal to: (1) the highest of (but not less than zero) (a) the rate of interest announced publicly by Citibank in New York, New York, from time to time, as Citibank's base rate, (b) 0.5% per annum above the federal funds rate, and (c) the London interbank offered rate ("LIBOR") applicable to dollars for a period of one month plus 1.00%, plus (2) an applicable margin, as set forth in the Citibank Term Loan (the "Applicable Margin for Base Advances (Citibank Term Loan)"); or
- at a rate equal to: (i) LIBOR (adjusted upwards to reflect any bank reserve costs) for a period of one, two, three or six months, as applicable, plus (ii) an applicable margin, as set forth in the Citibank Term Loan (the "Applicable Margin for Eurodollar Rate Advances (Citibank Term Loan)").

The Applicable Margin for Eurodollar Rate Advances (Citibank Term Loan) will be equal to 0.750%, 0.800% or 1.000% per annum, depending on AT&T's unsecured long-term debt ratings. The Applicable Margin for Base Advances (Citibank Term Loan) is equal to the greater of (x) 0.00% and (y) the relevant Applicable Margin for Eurodollar Rate Advances (Citibank Term Loan) minus 1.00% per annum, depending on AT&T's unsecured long-term debt ratings.

Repayment of all advances with respect to the Citibank Term Loan must be made no later than December 31, 2019.

Notes to Consolidated Financial Statements (continued)

Dollars in millions except per share amounts

NOTE 12. FAIR VALUE MEASUREMENTS AND DISCLOSURE

The Fair Value Measurement and Disclosure framework provides a three-tiered fair value hierarchy that gives highest priority to unadjusted quoted prices in active markets for identical assets or liabilities (Level 1 measurements) and the lowest priority to unobservable inputs (Level 3 measurements). The three levels of the fair value hierarchy are described below:

- Level 1 Inputs to the valuation methodology are unadjusted quoted prices for identical assets or liabilities in active markets that we have the ability to access.
- Level 2 Inputs to the valuation methodology include:
- Quoted prices for similar assets and liabilities in active markets.
 - Quoted prices for identical or similar assets or liabilities in inactive markets.
 - Inputs other than quoted market prices that are observable for the asset or liability.
 - Inputs that are derived principally from or corroborated by observable market data by correlation or other means.
- Level 3 Inputs to the valuation methodology are unobservable and significant to the fair value measurement.
- Fair value is often based on developed models in which there are few, if any, external observations.

The fair value measurements level of an asset or liability within the fair value hierarchy is based on the lowest level of any input that is significant to the fair value measurement. Our valuation techniques maximize the use of observable inputs and minimize the use of unobservable inputs.

The valuation methodologies described above may produce a fair value calculation that may not be indicative of future net realizable value or reflective of future fair values. We believe our valuation methods are appropriate and consistent with other market participants. The use of different methodologies or assumptions to determine the fair value of certain financial instruments could result in a different fair value measurement at the reporting date. There have been no changes in the methodologies used since December 31, 2017.

Long-Term Debt and Other Financial Instruments

The carrying amounts and estimated fair values of our long-term debt, including current maturities, and other financial instruments, are summarized as follows:

	December 31, 2018		December 31, 2017	
	Carrying Amount	Fair Value	Carrying Amount	Fair Value
Notes and debentures ¹	\$ 171,529	\$ 172,287	\$ 162,526	\$ 171,938
Commercial paper	3,048	3,048	-	-
Bank borrowings	4	4	2	2
Capitalized leases	1,911	1,911	1,818	1,818
Investment securities	3,409	3,409	2,447	2,447

¹ Includes credit agreement borrowings.

The carrying amount of debt with an original maturity of less than one year approximates fair value. The fair value measurements used for notes and debentures are considered Level 2 and are determined using various methods, including quoted prices for identical or similar securities in both active and inactive markets.

Notes to Consolidated Financial Statements (continued)

Dollars in millions except per share amounts

Following is the fair value leveling for investment securities that are measured at fair value and derivatives as of December 31, 2018, and December 31, 2017. Derivatives designated as hedging instruments are reflected as “Other assets” and “Other noncurrent liabilities” on our consolidated balance sheets.

	December 31, 2018			
	Level 1	Level 2	Level 3	Total
Equity Securities				
Domestic equities	\$ 1,061	\$ -	\$ -	\$ 1,061
International equities	256	-	-	256
Fixed income equities	172	-	-	172
Available-for-Sale Debt Securities	-	870	-	870
Asset Derivatives				
Cross-currency swaps	-	472	-	472
Foreign exchange contracts	-	87	-	87
Liability Derivatives				
Interest rate swaps	-	(39)	-	(39)
Cross-currency swaps	-	(2,563)	-	(2,563)
Foreign exchange contracts	-	(2)	-	(2)

	December 31, 2017			
	Level 1	Level 2	Level 3	Total
Equity Securities				
Domestic equities	\$ 1,142	\$ -	\$ -	\$ 1,142
International equities	321	-	-	321
Fixed income equities	-	152	-	152
Available-for-Sale Debt Securities	-	581	-	581
Asset Derivatives				
Interest rate swaps	-	17	-	17
Cross-currency swaps	-	1,753	-	1,753
Liability Derivatives				
Interest rate swaps	-	(31)	-	(31)
Cross-currency swaps	-	(1,290)	-	(1,290)

Investment Securities

Our investment securities include both equity and debt securities that are measured at fair value, as well as equity securities without readily determinable fair values. A substantial portion of the fair values of our investment securities is estimated based on quoted market prices. Investments in equity securities not traded on a national securities exchange are valued at cost, less any impairment, and adjusted for changes resulting from observable, orderly transactions for identical or similar securities. Investments in debt securities not traded on a national securities exchange are valued using pricing models, quoted prices of securities with similar characteristics or discounted cash flows.

The components comprising total gains and losses on equity securities are as follows:

For the year ended December 31,	2018	2017	2016
Total gains (losses) recognized on equity securities	\$ (130)	\$ 326	\$ 96
Gains (losses) recognized on equity securities sold	50	303	4
Unrealized gains (losses) recognized on equity securities held at end of period	\$ (180)	\$ 23	\$ 92

At December 31, 2018, available-for-sale debt securities totaling \$870 have maturities as follows - less than one year: \$8; one to three years: \$135; three to five years: \$123; for five or more years: \$604.

Our cash equivalents (money market securities), short-term investments (certificate and time deposits) and nonrefundable customer deposits are recorded at amortized cost, and the respective carrying amounts approximate fair values. Short-term

Notes to Consolidated Financial Statements (continued)

Dollars in millions except per share amounts

investments and nonrefundable customer deposits are recorded in “Other current assets” and our investment securities are recorded in “Other Assets” on the consolidated balance sheets.

Derivative Financial Instruments

We enter into derivative transactions to manage certain market risks, primarily interest rate risk and foreign currency exchange risk. This includes the use of interest rate swaps, interest rate locks, foreign exchange forward contracts and combined interest rate foreign exchange contracts (cross-currency swaps). We do not use derivatives for trading or speculative purposes. We record derivatives on our consolidated balance sheets at fair value that is derived from observable market data, including yield curves and foreign exchange rates (all of our derivatives are Level 2). Cash flows associated with derivative instruments are presented in the same category on the consolidated statements of cash flows as the item being hedged.

Fair Value Hedging We designate our fixed-to-floating interest rate swaps as fair value hedges. The purpose of these swaps is to manage interest rate risk by managing our mix of fixed-rate and floating-rate debt. These swaps involve the receipt of fixed-rate amounts for floating interest rate payments over the life of the swaps without exchange of the underlying principal amount.

We also designate some of our foreign exchange contracts as fair value hedges. The purpose of these contracts is to hedge currency risk associated with foreign-currency-denominated operating assets and liabilities.

Accrued and realized gains or losses from fair value hedges impact the same category on the consolidated statements of income as the item being hedged. Unrealized gains on fair value hedges are recorded at fair market value as assets, and unrealized losses are recorded at fair market value as liabilities. Changes in the fair value of derivative instruments designated as fair value hedges are offset against the change in fair value of the hedged assets or liabilities through earnings. In the year ended December 31, 2018 and 2017, no ineffectiveness was measured on fair value hedges.

Cash Flow Hedging We designate our cross-currency swaps as cash flow hedges. We have entered into multiple cross-currency swaps to hedge our exposure to variability in expected future cash flows that are attributable to foreign currency risk generated from the issuance of our foreign-denominated debt. These agreements include initial and final exchanges of principal from fixed foreign currency denominated amounts to fixed U.S. dollar denominated amounts, to be exchanged at a specified rate that is usually determined by the market spot rate upon issuance. They also include an interest rate swap of a fixed or floating foreign currency-denominated interest rate to a fixed U.S. dollar denominated interest rate.

We also designate some of our foreign exchange contracts as cash flow hedges. The purpose of these contracts is to hedge currency risk associated with variability in anticipated foreign-currency-denominated cash flows, such as unremitted or forecasted royalty and license fees owed to WarnerMedia’s domestic companies for the sale or anticipated sale of U.S. copyrighted products abroad or cash flows for certain film production costs denominated in a foreign currency.

Unrealized gains on derivatives designated as cash flow hedges are recorded at fair value as assets, and unrealized losses are recorded at fair value as liabilities. For derivative instruments designated as cash flow hedges, the effective portion is reported as a component of accumulated OCI until reclassified into the consolidated statements of income in the same period the hedged transaction affects earnings. The gain or loss on the ineffective portion is recognized as “Other income (expense) – net” in the consolidated statements of income in each period. We evaluate the effectiveness of our cash flow hedges each quarter. In the year ended December 31, 2018 and 2017, no ineffectiveness was measured on cash flow hedges.

Periodically, we enter into and designate interest rate locks to partially hedge the risk of changes in interest payments attributable to increases in the benchmark interest rate during the period leading up to the probable issuance of fixed-rate debt. We designate our interest rate locks as cash flow hedges. Gains and losses when we settle our interest rate locks are amortized into income over the life of the related debt, except where a material amount is deemed to be ineffective, which would be immediately reclassified to “Other income (expense) – net” in the consolidated statements of income. Over the next 12 months, we expect to reclassify \$63 from accumulated OCI to interest expense due to the amortization of net losses on historical interest rate locks.

Net Investment Hedging We have designated €700 million aggregate principal amount of debt as a hedge of the variability of some of the Euro-denominated net investments of WarnerMedia. The gain or loss on the debt that is designated as, and is effective as, an economic hedge of the net investment in a foreign operation is recorded as a currency translation adjustment within accumulated other comprehensive income on the consolidated balance sheet.

Notes to Consolidated Financial Statements (continued)

Dollars in millions except per share amounts

Collateral and Credit-Risk Contingency We have entered into agreements with our derivative counterparties establishing collateral thresholds based on respective credit ratings and netting agreements. At December 31, 2018, we had posted collateral of \$1,675 (a deposit asset) and held collateral of \$103 (a receipt liability). Under the agreements, if AT&T's credit rating had been downgraded one rating level by Fitch Ratings, before the final collateral exchange in December, we would have been required to post additional collateral of \$154. If DIRECTV Holdings LLC's credit rating had been downgraded below BBB- (S&P), we would have been required to post additional collateral of \$256. At December 31, 2017, we had posted collateral of \$495 (a deposit asset) and held collateral of \$968 (a receipt liability). We do not offset the fair value of collateral, whether the right to reclaim cash collateral (a receivable) or the obligation to return cash collateral (a payable) exists, against the fair value of the derivative instruments.

Following are the notional amounts of our outstanding derivative positions:

	2018	2017
Interest rate swaps	\$ 3,483	\$ 9,833
Cross-currency swaps	42,192	38,694
Foreign exchange contracts	2,094	-
Total	\$ 47,769	\$ 48,527

Following are the related hedged items affecting our financial position and performance:

Effect of Derivatives on the Consolidated Statements of Income

Fair Value Hedging Relationships For the years ended December 31,	2018	2017	2016
Interest rate swaps (Interest expense):			
Gain (Loss) on interest rate swaps	\$ (12)	\$ (68)	\$ (61)
Gain (Loss) on long-term debt	12	68	61

The net swap settlements that accrued and settled in the periods above were included in interest expense.

Cash Flow Hedging Relationships For the years ended December 31,	2018	2017	2016
Cross-currency swaps:			
Gain (Loss) recognized in accumulated OCI	\$ (825)	\$ 571	\$ 1,061
Foreign exchange contracts:			
Gain (Loss) recognized in accumulated OCI	51	-	-
Other income (expense) - net reclassified from accumulated OCI into income	39	-	-
Interest rate locks:			
Interest income (expense) reclassified from accumulated OCI into income	(58)	(60)	(59)

NOTE 13. INCOME TAXES

The Tax Cuts and Jobs Acts (the Act) was enacted on December 22, 2017. The Act reduces the U.S. federal corporate income tax rate from 35% to 21% and required companies to pay a one-time transition tax on earnings of certain foreign subsidiaries that were previously tax deferred. ASC 740, "Income Taxes," requires effects of changes in tax rates to be recognized in the period enacted. Recognizing the late enactment of the Act and complexity of accurately accounting for its impact, the Securities and Exchange Commission in SAB 118 provided guidance that allowed registrants to provide a reasonable estimate of the Act in their financial statements at December 31, 2017 and adjust the reported impact in a measurement period not to exceed one year.

In 2018, we completed our accounting for the tax effects of the enactment of the Act and the measurement of our deferred tax assets and liabilities based on the rates at which they were expected to reverse in the future; the total benefit was \$22,211, of which \$20,271 was recorded in 2017 as a provisional amount. The total net benefit for the year ended December 31, 2018

Notes to Consolidated Financial Statements (continued)

Dollars in millions except per share amounts

was \$718 for all enactment date and measurement period adjustments from the Act. The impact of the enactment of the Act is reflected in the tables below.

Significant components of our deferred tax liabilities (assets) are as follows at December 31:

	2018	2017
Depreciation and amortization	\$ 43,105	\$ 30,982
Licenses and nonamortizable intangibles	17,561	16,129
Employee benefits	(5,366)	(6,202)
Deferred fulfillment costs	2,679	2,472
Net operating loss and other carryforwards	(6,470)	(6,067)
Other – net	1,651	1,222
Subtotal	53,160	38,536
Deferred tax assets valuation allowance	4,588	4,640
Net deferred tax liabilities	\$ 57,748	\$ 43,176
Noncurrent deferred tax liabilities	\$ 57,859	\$ 43,207
Less: Noncurrent deferred tax assets	(111)	(31)
Net deferred tax liabilities	\$ 57,748	\$ 43,176

At December 31, 2018, we had combined net operating and capital loss carryforwards (tax effected) for federal income tax purposes of \$179, state of \$950 and foreign of \$3,022, expiring through 2038. Additionally, we had federal credit carryforwards of \$340 and state credit carryforwards of \$1,979, expiring primarily through 2038.

We recognize a valuation allowance if, based on the weight of available evidence, it is more likely than not that some portion, or all, of a deferred tax asset will not be realized. Our valuation allowances at December 31, 2018 and 2017 related primarily to state and foreign net operating losses and state credit carryforwards.

The Company considers post-1986 unremitted foreign earnings subjected to the one-time transition tax not to be indefinitely reinvested as such earnings can be repatriated without any significant incremental tax costs. U.S. income and foreign withholding taxes have not been recorded on temporary differences related to investments in certain foreign subsidiaries as such differences are considered indefinitely reinvested. Determination of the amount of unrecognized deferred tax liability is not practicable.

Notes to Consolidated Financial Statements (continued)

Dollars in millions except per share amounts

We recognize the financial statement effects of a tax return position when it is more likely than not, based on the technical merits, that the position will ultimately be sustained. For tax positions that meet this recognition threshold, we apply our judgment, taking into account applicable tax laws, our experience in managing tax audits and relevant GAAP, to determine the amount of tax benefits to recognize in our financial statements. For each position, the difference between the benefit realized on our tax return and the benefit reflected in our financial statements is recorded on our consolidated balance sheets as an unrecognized tax benefit (UTB). We update our UTBs at each financial statement date to reflect the impacts of audit settlements and other resolutions of audit issues, the expiration of statutes of limitation, developments in tax law and ongoing discussions with taxing authorities. A reconciliation of the change in our UTB balance from January 1 to December 31 for 2018 and 2017 is as follows:

Federal, State and Foreign Tax	2018	2017
Balance at beginning of year	\$ 7,648	\$ 6,516
Increases for tax positions related to the current year	336	1,438
Increases for tax positions related to prior years	2,615	200
Decreases for tax positions related to prior years	(394)	(461)
Lapse of statute of limitations	(52)	(28)
Settlements	(664)	(23)
Current year acquisitions	872	-
Foreign currency effects	(3)	6
Balance at end of year	10,358	7,648
Accrued interest and penalties	2,588	1,333
Gross unrecognized income tax benefits	12,946	8,981
Less: Deferred federal and state income tax benefits	(811)	(388)
Less: Tax attributable to timing items included above	(3,430)	(2,368)
Less: UTBs included above that relate to acquired entities that would impact goodwill if recognized	(918)	-
Total UTB that, if recognized, would impact the effective income tax rate as of the end of the year	\$ 7,787	\$ 6,225

Periodically we make deposits to taxing jurisdictions which reduce our UTB balance but are not included in the reconciliation above. The amount of deposits that reduced our UTB balance was \$2,115 at December 31, 2018 and \$3,058 at December 31, 2017.

Accrued interest and penalties included in UTBs were \$2,588 as of December 31, 2018, and \$1,333 as of December 31, 2017. We record interest and penalties related to federal, state and foreign UTBs in income tax expense. The net interest and penalty expense included in income tax expense was \$1,290 for 2018, \$107 for 2017 and \$24 for 2016.

We file income tax returns in the U.S. federal jurisdiction and various state, local and foreign jurisdictions. As a large taxpayer, our income tax returns are regularly audited by the Internal Revenue Service (IRS) and other taxing authorities. The IRS has completed field examinations of our tax returns through 2010. All audit periods prior to 2003 are closed for federal examination purposes. Contested issues from our 2003 through 2010 returns are at various stages of resolution with the IRS Appeals Division. While we do not expect material changes, we are generally unable to estimate the range of impacts on the balance of uncertain tax positions or the impact on the effective tax rate from the resolution of these issues until the close of the examination process; and it is possible that the amount of unrecognized benefit with respect to our uncertain tax positions could increase or decrease within the next 12 months.

Notes to Consolidated Financial Statements (continued)

Dollars in millions except per share amounts

The components of income tax (benefit) expense are as follows:

	2018	2017	2016
Federal:			
Current	\$ 3,258	\$ 682	\$ 2,915
Deferred	277	(17,970)	3,127
	3,535	(17,288)	6,042
State and local:			
Current	513	79	282
Deferred	473	1,041	339
	986	1,120	621
Foreign:			
Current	539	471	335
Deferred	(140)	989	(519)
	399	1,460	(184)
Total	\$ 4,920	\$ (14,708)	\$ 6,479

“Income Before Income Taxes” in the Consolidated Statements of Income included the following components for the years ended December 31:

	2018	2017	2016
U.S. income before income taxes	\$ 25,379	\$ 16,438	\$ 20,911
Foreign income (loss) before income taxes	(506)	(1,299)	(1,099)
Total	\$ 24,873	\$ 15,139	\$ 19,812

A reconciliation of income tax expense (benefit) and the amount computed by applying the statutory federal income tax rate (21% for 2018 and 35% for 2017 and 2016) to income from continuing operations before income taxes is as follows:

	2018	2017	2016
Taxes computed at federal statutory rate	\$ 5,223	\$ 5,299	\$ 6,934
Increases (decreases) in income taxes resulting from:			
State and local income taxes – net of federal income tax benefit	738	509	416
Enactment date and measurement period adjustments from the Act	(718)	(20,271)	-
Tax on foreign investments	(466)	73	168
Mexico restructuring	-	-	(471)
Other – net	143	(318)	(568)
Total	\$ 4,920	\$ (14,708)	\$ 6,479
Effective Tax Rate	19.8 %	(97.2)%	32.7 %

NOTE 14. PENSION AND POSTRETIREMENT BENEFITS

We offer noncontributory pension programs covering the majority of domestic nonmanagement employees in our Communications business. Nonmanagement employees’ pension benefits are generally calculated using one of two formulas: a flat dollar amount applied to years of service according to job classification or a cash balance plan with negotiated annual pension band credits as well as interest credits. Most employees can elect to receive their pension benefits in either a lump sum payment or an annuity.

Pension programs covering U.S. management employees are closed to new entrants. These programs continue to provide benefits to participants that were generally hired before January 1, 2015, who receive benefits under either cash balance pension programs that include annual or monthly credits based on salary as well as interest credits, or a traditional pension formula (i.e., a stated percentage of employees’ adjusted career income).

We also provide a variety of medical, dental and life insurance benefits to certain retired employees under various plans and accrue actuarially determined postretirement benefit costs as active employees earn these benefits.

Notes to Consolidated Financial Statements (continued)

Dollars in millions except per share amounts

We acquired Time Warner on June 14, 2018. WarnerMedia and certain of its subsidiaries have both funded and unfunded defined benefit pension plans, the substantial majority of which are noncontributory plans covering domestic employees. WarnerMedia also sponsors unfunded domestic postretirement benefit plans covering certain retirees and their dependents. The plans were closed to new entrants and frozen for new accruals. We have recorded the fair value of the WarnerMedia plans using assumptions and accounting policies consistent with those disclosed by AT&T. Upon acquisition, the excess of projected benefit obligation over the plan assets was recognized as a liability and previously existing deferred actuarial gains and losses and unrecognized service costs or benefits were eliminated.

During 2018, we communicated and reflected in results the following plan changes to participants: (1) substantive plan changes involving the frequency of future health reimbursement account credit increases, and (2) a May 2018 written plan change involving the ability of certain participants of the pension plan to receive their benefit in a lump-sum amount upon retirement.

Obligations and Funded Status

For defined benefit pension plans, the benefit obligation is the projected benefit obligation, the actuarial present value, as of our December 31 measurement date, of all benefits attributed by the pension benefit formula to employee service rendered to that date. The amount of benefit to be paid depends on a number of future events incorporated into the pension benefit formula, including estimates of the average life of employees and their beneficiaries and average years of service rendered. It is measured based on assumptions concerning future interest rates and future employee compensation levels as applicable.

For postretirement benefit plans, the benefit obligation is the accumulated postretirement benefit obligation, the actuarial present value as of the measurement date of all future benefits attributed under the terms of the postretirement benefit plan to employee service.

The following table presents the change in the projected benefit obligation for the years ended December 31:

	Pension Benefits		Postretirement Benefits	
	2018	2017	2018	2017
Benefit obligation at beginning of year	\$ 59,294	\$ 56,183	\$ 24,059	\$ 26,027
Service cost - benefits earned during the period	1,116	1,128	109	138
Interest cost on projected benefit obligation	2,092	1,936	778	809
Amendments	50	48	(1,145)	(1,807)
Actuarial (gain) loss	(5,046)	3,696	(2,815)	630
Special termination benefits	1	3	1	1
Benefits paid	(4,632)	(3,705)	(1,680)	(1,739)
Acquisitions	2,559	-	71	-
Plan transfers	5	5	-	-
Benefit obligation at end of year	\$ 55,439	\$ 59,294	\$ 19,378	\$ 24,059

Notes to Consolidated Financial Statements (continued)

Dollars in millions except per share amounts

The following table presents the change in the fair value of plan assets for the years ended December 31 and the plans' funded status at December 31:

	Pension Benefits		Postretirement Benefits	
	2018	2017	2018	2017
Fair value of plan assets at beginning of year	\$ 45,463	\$ 42,610	\$ 5,973	\$ 5,921
Actual return on plan assets	(1,044)	5,987	(218)	607
Benefits paid ¹	(4,632)	(3,705)	(1,503)	(1,055)
Contributions	9,307	566	25	500
Acquisitions	2,582	-	-	-
Plan transfers	5	5	-	-
Fair value of plan assets at end of year	51,681	45,463	4,277	5,973
Unfunded status at end of year ²	\$ (3,758)	\$ (13,831)	\$ (15,101)	\$ (18,086)

¹ At our discretion, certain postretirement benefits may be paid from AT&T cash accounts, which does not reduce Voluntary Employee Benefit Association (VEBA) assets. Future benefit payments may be made from VEBA trusts and thus reduce those asset balances.

² Funded status is not indicative of our ability to pay ongoing pension benefits or of our obligation to fund retirement trusts. Required pension funding is determined in accordance with the Employee Retirement Income Security Act of 1974, as amended (ERISA) and applicable regulations.

In 2013, we made a voluntary contribution of preferred equity interest in AT&T Mobility II LLC (Mobility II), the primary holding company for our wireless business, to the trust used to pay pension benefits under certain of our qualified pension plans. In 2018, we simplified transferability and enhanced marketability of the preferred equity interest, which resulted in it being recognized as a plan asset in our consolidated financial statements and reflected a noncash contribution of \$8,803 included as "Contributions" in the above table. Since 2013, the preferred equity interest was a plan asset under ERISA and has been recognized as such in the plan's separate financial statements. (See Note 16).

Amounts recognized on our consolidated balance sheets at December 31 are listed below:

	Pension Benefits		Postretirement Benefits	
	2018	2017	2018	2017
Current portion of employee benefit obligation ¹	\$ -	\$ -	\$ (1,464)	\$ (1,585)
Employee benefit obligation ²	(3,758)	(13,831)	(13,637)	(16,501)
Net amount recognized	\$ (3,758)	\$ (13,831)	\$ (15,101)	\$ (18,086)

¹ Included in "Accounts payable and accrued liabilities."

² Included in "Postemployment benefit obligation."

The accumulated benefit obligation for our pension plans represents the actuarial present value of benefits based on employee service and compensation as of a certain date and does not include an assumption about future compensation levels. The accumulated benefit obligation for our pension plans was \$53,963 at December 31, 2018, and \$57,488 at December 31, 2017.

Notes to Consolidated Financial Statements (continued)

Dollars in millions except per share amounts

Net Periodic Benefit Cost and Other Amounts Recognized in Other Comprehensive Income*Periodic Benefit Costs*

Our combined net pension and postretirement cost (credit) recognized in our consolidated statements of income was \$(4,251), \$155 and \$303 for the years ended December 31, 2018, 2017 and 2016. The following table presents the components of net periodic benefit cost:

	Pension Benefits			Postretirement Benefits		
	2018	2017	2016	2018	2017	2016
Service cost – benefits earned during the period	\$ 1,116	\$ 1,128	\$ 1,112	\$ 109	\$ 138	\$ 192
Interest cost on projected benefit obligation	2,092	1,936	1,980	778	809	972
Expected return on assets	(3,190)	(3,134)	(3,115)	(304)	(319)	(355)
Amortization of prior service credit	(115)	(123)	(103)	(1,635)	(1,466)	(1,277)
Actuarial (gain) loss	(812)	844	1,478	(2,290)	342	(581)
Net pension and postretirement cost (credit)	\$ (909)	\$ 651	\$ 1,352	\$ (3,342)	\$ (496)	\$ (1,049)

Other Changes in Benefit Obligations Recognized in Other Comprehensive Income

The following table presents the after-tax changes in benefit obligations recognized in OCI and the after-tax prior service credits that were amortized from OCI into net periodic benefit costs:

	Pension Benefits			Postretirement Benefits		
	2018	2017	2016	2018	2017	2016
Balance at beginning of year	\$ 571	\$ 575	\$ 512	\$ 6,456	\$ 5,089	\$ 5,510
Prior service (cost) credit	(37)	(30)	128	864	1,120	372
Amortization of prior service credit	(87)	(76)	(65)	(1,234)	(907)	(793)
Total recognized in other comprehensive (income) loss	(124)	(106)	63	(370)	213	(421)
Adoption of ASU 2018-02	-	102	-	-	1,154	-
Balance at end of year	\$ 447	\$ 571	\$ 575	\$ 6,086	\$ 6,456	\$ 5,089

Notes to Consolidated Financial Statements (continued)

Dollars in millions except per share amounts

Assumptions

In determining the projected benefit obligation and the net pension and postretirement benefit cost, we used the following significant weighted-average assumptions:

	Pension Benefits			Postretirement Benefits		
	2018	2017	2016	2018	2017	2016
Weighted-average discount rate for determining benefit obligation at December 31	4.50 %	3.80 %	4.40 %	4.40 %	3.70 %	4.30 %
Discount rate in effect for determining service cost ^{1,2}	4.20 %	4.60 %	4.90 %	4.30 %	4.60 %	5.00 %
Discount rate in effect for determining interest cost ^{1,2}	3.80 %	3.60 %	3.70 %	3.60 %	3.40 %	3.60 %
Weighted-average interest crediting rate for cash balance pension programs ³	3.70 %	3.50 %	3.50 %	- %	- %	- %
Long-term rate of return on plan assets	7.00 %	7.75 %	7.75 %	5.75 %	5.75 %	5.75 %
Composite rate of compensation increase for determining benefit obligation	3.00 %	3.00 %	3.00 %	3.00 %	3.00 %	3.00 %
Composite rate of compensation increase for determining net cost (benefit)	3.00 %	3.00 %	3.10 %	3.00 %	3.00 %	3.10 %

¹ Weighted-average discount rate for pension benefits in effect from January 1, 2018 through May 31, 2018 was 4.00% for service cost and 3.40% for interest costs, and, from June 1, 2018 through December 31, 2018 was 4.40% for service cost and 4.00% for interest cost.

² Weighted-average discount rate for postretirement benefits in effect from January 1, 2018 through February 28, 2018 was 4.00% for service costs and 3.30% for interest costs, and, from March 1, 2018 through December 31, 2018 was 4.30% for service cost and 3.70% for interest cost.

³ Weighted-average interest crediting rates for cash balance pension programs relate only to the cash balance portion of total pension benefits. A 0.50% increase in the weighted-average interest crediting rate would increase the pension benefit obligation by \$130.

We recognize gains and losses on pension and postretirement plan assets and obligations immediately in our operating results. These gains and losses are measured annually as of December 31 and accordingly will be recorded during the fourth quarter, unless earlier remeasurements are required.

Discount Rate Our assumed weighted-average discount rate for pension and postretirement benefits of 4.50% and 4.40% respectively, at December 31, 2018, reflects the hypothetical rate at which the projected benefit obligation could be effectively settled or paid out to participants. We determined our discount rate based on a range of factors, including a yield curve composed of the rates of return on several hundred high-quality, fixed income corporate bonds available at the measurement date and corresponding to the related expected durations of future cash outflows. These bonds were all rated at least Aa3 or AA- by one of the nationally recognized statistical rating organizations, denominated in U.S. dollars, and neither callable, convertible nor index linked. For the year ended December 31, 2018, when compared to the year ended December 31, 2017, we increased our pension discount rate by 0.70%, resulting in a decrease in our pension plan benefit obligation of \$4,394 and increased our postretirement discount rate by 0.70%, resulting in a decrease in our postretirement benefit obligation of \$1,509. For the year ended December 31, 2017, we decreased our pension discount rate by 0.60%, resulting in an increase in our pension plan benefit obligation of \$4,609 and decreased our postretirement discount rates by 0.60%, resulting in an increase in our postretirement benefit obligation of \$1,605.

We utilize a full yield curve approach in the estimation of the service and interest components of net periodic benefit costs for pension and other postretirement benefits. Under this approach, we apply discounting using individual spot rates from a yield curve composed of the rates of return on several hundred high-quality, fixed income corporate bonds available at the measurement date. These spot rates align to each of the projected benefit obligations and service cost cash flows. The service cost component relates to the active participants in the plan, so the relevant cash flows on which to apply the yield curve are considerably longer in duration on average than the total projected benefit obligation cash flows, which also include benefit payments to retirees. Interest cost is computed by multiplying each spot rate by the corresponding discounted projected benefit obligation cash flows. The full yield curve approach reduces any actuarial gains and losses based upon interest rate expectations (e.g., built-in gains in interest cost in an upward sloping yield curve scenario), or gains and losses merely resulting from the timing and magnitude of cash outflows associated with our benefit obligations. Neither the annual measurement of our total benefit obligations nor annual net benefit cost is affected by the full yield curve approach.

Notes to Consolidated Financial Statements (continued)

Dollars in millions except per share amounts

Expected Long-Term Rate of Return In 2019, our expected long-term rate of return is 7.00% on pension plan assets and 5.75% on postretirement plan assets. Our long-term rates of return reflect the average rate of earnings expected on the funds invested, or to be invested, to provide for the benefits included in the projected benefit obligations. In setting the long-term assumed rate of return, management considers capital markets future expectations, the asset mix of the plans' investment and average historical asset return. Actual long-term returns can, in relatively stable markets, also serve as a factor in determining future expectations. We consider many factors that include, but are not limited to, historical returns on plan assets, current market information on long-term returns (e.g., long-term bond rates) and current and target asset allocations between asset categories. The target asset allocation is determined based on consultations with external investment advisers. If all other factors were to remain unchanged, we expect that a 0.50% decrease in the expected long-term rate of return would cause 2019 combined pension and postretirement cost to increase \$265. However, any differences in the rate and actual returns will be included with the actuarial gain or loss recorded in the fourth quarter when our plans are remeasured.

Composite Rate of Compensation Increase Our expected composite rate of compensation increase cost of 3.00% in 2018 and 2017 reflects the long-term average rate of salary increases.

Mortality Tables At December 31, 2018, we updated our assumed mortality rates to reflect our best estimate of future mortality, which decreased our pension obligation by \$488 and our postretirement obligations by \$61. At December 31, 2017, we updated our assumed mortality rates, which decreased our pension obligation by \$355 and our postretirement obligations by \$95.

Healthcare Cost Trend Our healthcare cost trend assumptions are developed based on historical cost data, the near-term outlook and an assessment of likely long-term trends. Based on historical experience, updated expectations of healthcare industry inflation and recent prescription drug cost experience, our 2019 assumed annual healthcare prescription drug cost trend and medical cost trend for eligible participants will remain at an assumed annual and ultimate trend rate of 4.50%. In addition to the healthcare cost trend in 2018, we assumed an annual 2.50% growth in administrative expenses and an annual 3.00% growth in dental claims.

Plan Assets

Plan assets consist primarily of private and public equity, government and corporate bonds, and real assets (real estate and natural resources). The asset allocations of the pension plans are maintained to meet ERISA requirements. Any plan contributions, as determined by ERISA regulations, are made to a pension trust for the benefit of plan participants. We do not have significant ERISA required contributions to our pension plans for 2019. We made a discretionary contribution of \$80 to our pension trust in October 2018.

We maintain VEBA trusts to partially fund postretirement benefits; however, there are no ERISA or regulatory requirements that these postretirement benefit plans be funded annually.

The principal investment objectives are to ensure the availability of funds to pay pension and postretirement benefits as they become due under a broad range of future economic scenarios, maximize long-term investment return with an acceptable level of risk based on our pension and postretirement obligations, and diversify broadly across and within the capital markets to insulate asset values against adverse experience in any one market. Each asset class has broadly diversified characteristics. Substantial biases toward any particular investing style or type of security are sought to be avoided by managing the aggregation of all accounts with portfolio benchmarks. Asset and benefit obligation forecasting studies are conducted periodically, generally every two to three years, or when significant changes have occurred in market conditions, benefits, participant demographics or funded status. Decisions regarding investment policy are made with an understanding of the effect of asset allocation on funded status, future contributions and projected expenses.

Notes to Consolidated Financial Statements (continued)

Dollars in millions except per share amounts

The plans' weighted-average asset targets and actual allocations as a percentage of plan assets, including the notional exposure of future contracts by asset categories at December 31, are as follows:

	Pension Assets			Postretirement (VEBA) Assets		
	Target	2018	2017	Target	2018	2017
Equity securities:						
Domestic	15 % - 25 %	16 %	23 %	20 % - 30 %	25 %	21 %
International	7 % - 17 %	12	16	13 % - 23 %	18	15
Fixed income securities	29 % - 39 %	37	41	34 % - 44 %	39	40
Real assets	4 % - 14 %	9	10	- % - 6 %	1	1
Private equity	2 % - 12 %	8	10	- % - 7 %	2	2
Preferred interest	13 % - 23 %	18	-	- % - - %	-	-
Other	- % - 5 %	-	-	10 % - 20 %	15	21
Total		100 %	100 %		100 %	100 %

At December 31, 2018, AT&T securities represented less than 18% of assets held by our pension trust, including preferred interest in Mobility II, and 4% of assets (primarily common stock) held by our VEBA trusts included in these financial statements.

Investment Valuation

Investments are stated at fair value. Fair value is the price that would be received to sell an asset or paid to transfer a liability at the measurement date.

Investments in securities traded on a national securities exchange are valued at the last reported sales price on the final business day of the year. If no sale was reported on that date, they are valued at the last reported bid price. Investments in securities not traded on a national securities exchange are valued using pricing models, quoted prices of securities with similar characteristics or discounted cash flows. Shares of registered investment companies are valued based on quoted market prices, which represent the net asset value of shares held at year-end.

Other commingled investment entities are valued at quoted redemption values that represent the net asset values of units held at year-end which management has determined approximates fair value.

Real estate and natural resource direct investments are valued at amounts based upon appraisal reports. Fixed income securities valuation is based upon observable prices for comparable assets, broker/dealer quotes (spreads or prices), or a pricing matrix that derives spreads for each bond based on external market data, including the current credit rating for the bonds, credit spreads to Treasuries for each credit rating, sector add-ons or credits, issue-specific add-ons or credits as well as call or other options.

The preferred interest is valued using an income approach.

Purchases and sales of securities are recorded as of the trade date. Realized gains and losses on sales of securities are determined on the basis of average cost. Interest income is recognized on the accrual basis. Dividend income is recognized on the ex-dividend date.

Non-interest bearing cash and overdrafts are valued at cost, which approximates fair value.

Notes to Consolidated Financial Statements (continued)

Dollars in millions except per share amounts

Fair Value Measurements

See Note 12 for a discussion of fair value hierarchy that prioritizes the inputs to valuation techniques used to measure fair value.

The following tables set forth by level, within the fair value hierarchy, the pension and postretirement assets and liabilities at fair value as of December 31, 2018:

Pension Assets and Liabilities at Fair Value as of December 31, 2018				
	Level 1	Level 2	Level 3	Total
Non-interest bearing cash	\$ 52	\$ -	\$ -	\$ 52
Interest bearing cash	167	41	-	208
Foreign currency contracts	-	5	-	5
Equity securities:				
Domestic equities	6,912	-	1	6,913
International equities	3,594	8	-	3,602
Preferred interest	-	-	8,749	8,749
Fixed income securities:				
Corporate bonds and other investments	-	10,719	4	10,723
Government and municipal bonds	51	6,170	-	6,221
Mortgage-backed securities	-	382	-	382
Real estate and real assets	-	-	2,579	2,579
Securities lending collateral	12	1,466	-	1,478
Purchased options, futures, and swaps	-	3	-	3
Receivable for variation margin	19	-	-	19
Assets at fair value	10,807	18,794	11,333	40,934
Investments sold short and other liabilities at fair value	(657)	(6)	-	(663)
Total plan net assets at fair value	\$ 10,150	\$ 18,788	\$ 11,333	\$ 40,271
Assets held at net asset value practical expedient				
Private equity funds				4,384
Real estate funds				2,162
Commingled funds				5,740
Total assets held at net asset value practical expedient				12,286
Other assets (liabilities) ¹				(876)
Total Plan Net Assets				\$ 51,681

¹ Other assets (liabilities) include amounts receivable, accounts payable and net adjustment for securities lending payable.

Notes to Consolidated Financial Statements (continued)

Dollars in millions except per share amounts

Postretirement Assets and Liabilities at Fair Value as of December 31, 2018

	Level 1	Level 2	Level 3	Total
Interest bearing cash	\$ 45	\$ 624	\$ -	\$ 669
Equity securities:				
Domestic equities	745	8	-	753
International equities	541	-	1	542
Fixed income securities:				
Corporate bonds and other investments	7	602	11	620
Government and municipal bonds	2	377	1	380
Mortgage-backed securities	-	283	-	283
Securities lending collateral	-	63	-	63
Assets at fair value	1,340	1,957	13	3,310
Securities lending payable and other liabilities	-	(74)	-	(74)
Total plan net assets at fair value	\$ 1,340	\$ 1,883	\$ 13	\$ 3,236
Assets held at net asset value practical expedient				
Private equity funds				79
Real estate funds				36
Commingled funds				973
Total assets held at net asset value practical expedient				1,088
Other assets (liabilities) ¹				(47)
Total Plan Net Assets				\$ 4,277

¹ Other assets (liabilities) include amounts receivable and accounts payable.

The tables below set forth a summary of changes in the fair value of the Level 3 pension and postretirement assets for the year ended December 31, 2018:

Pension Assets	Equities	Fixed Income Funds	Real Estate and Real		Total
			Assets		
Balance at beginning of year	\$ 4	\$ 2	\$ 2,287	\$	2,293
Realized gains (losses)	-	-	120		120
Unrealized gains (losses)	(408)	(1)	170		(239)
Transfers in	9,158	1	266		9,425
Transfers out	(4)	(1)	-		(5)
Purchases	-	8	85		93
Sales	-	(5)	(349)		(354)
Balance at end of year	\$ 8,750	\$ 4	\$ 2,579	\$	11,333

Postretirement Assets	Equities	Fixed Income Funds	Real Estate and Real		Total
			Assets		
Balance at beginning of year	\$ -	\$ 5	\$ -	\$	5
Transfers in	1	8	-		9
Transfers out	-	(1)	-		(1)
Purchases	-	1	-		1
Sales	-	(1)	-		(1)
Balance at end of year	\$ 1	\$ 12	\$ -	\$	13

Notes to Consolidated Financial Statements (continued)

Dollars in millions except per share amounts

The following tables set forth by level, within the fair value hierarchy, the pension and postretirement assets and liabilities at fair value as of December 31, 2017:

Pension Assets and Liabilities at Fair Value as of December 31, 2017				
	Level 1	Level 2	Level 3	Total
Non-interest bearing cash	\$ 96	\$ -	\$ -	\$ 96
Interest bearing cash	7	20	-	27
Foreign currency contracts	-	2	-	2
Equity securities:				
Domestic equities	9,441	-	4	9,445
International equities	4,967	1	-	4,968
Fixed income securities:				
Corporate bonds and other investments	48	10,520	2	10,570
Government and municipal bonds	-	5,751	-	5,751
Mortgage-backed securities	-	765	-	765
Real estate and real assets	-	-	2,287	2,287
Securities lending collateral	8	2,240	-	2,248
Receivable for variation margin	6	-	-	6
Assets at fair value	14,573	19,299	2,293	36,165
Investments sold short and other liabilities at fair value	(497)	(4)	-	(501)
Total plan net assets at fair value	\$ 14,076	\$ 19,295	\$ 2,293	\$ 35,664
Assets held at net asset value practical expedient				
Private equity funds				4,493
Real estate funds				2,340
Commingled funds				5,142
Total assets held at net asset value practical expedient				11,975
Other assets (liabilities) ¹				(2,176)
Total Plan Net Assets				\$ 45,463

¹ Other assets (liabilities) include amounts receivable, accounts payable and net adjustment for securities lending payable.

Notes to Consolidated Financial Statements (continued)

Dollars in millions except per share amounts

Postretirement Assets and Liabilities at Fair Value as of December 31, 2017

	Level 1	Level 2	Level 3	Total
Interest bearing cash	\$ 603	\$ 714	\$ -	\$ 1,317
Equity securities:				
Domestic equities	857	9	-	866
International equities	600	-	-	600
Fixed income securities:				
Corporate bonds and other investments	8	607	4	619
Government and municipal bonds	-	445	-	445
Mortgage-backed securities	-	308	1	309
Securities lending collateral	-	120	-	120
Assets at fair value	2,068	2,203	5	4,276
Securities lending payable and other liabilities	-	(121)	-	(121)
Total plan net assets at fair value	\$ 2,068	\$ 2,082	\$ 5	\$ 4,155
Assets held at net asset value practical expedient				
Private equity funds				102
Real estate funds				41
Commingled funds				1,750
Total assets held at net asset value practical expedient				1,893
Other assets (liabilities) ¹				(75)
Total Plan Net Assets				\$ 5,973

¹ Other assets (liabilities) include amounts receivable and accounts payable.

The tables below set forth a summary of changes in the fair value of the Level 3 pension and postretirement assets for the year ended December 31, 2017:

Pension Assets	Equities	Fixed Income Funds	Real Estate and Real Assets	Total
Balance at beginning of year	\$ 1	\$ 40	\$ 2,273	\$ 2,314
Realized gains (losses)	1	-	(73)	(72)
Unrealized gains (losses)	(2)	1	216	215
Transfers in	-	-	25	25
Transfers out	-	(32)	-	(32)
Purchases	5	-	157	162
Sales	(1)	(7)	(311)	(319)
Balance at end of year	\$ 4	\$ 2	\$ 2,287	\$ 2,293

Postretirement Assets	Fixed Income Funds	Total
Balance at beginning of year	\$ 26	\$ 26
Transfers out	(15)	(15)
Purchases	2	2
Sales	(8)	(8)
Balance at end of year	\$ 5	\$ 5

Notes to Consolidated Financial Statements (continued)

Dollars in millions except per share amounts

Estimated Future Benefit Payments

Expected benefit payments are estimated using the same assumptions used in determining our benefit obligation at December 31, 2018. Because benefit payments will depend on future employment and compensation levels; average years employed; average life spans; and payment elections, among other factors, changes in any of these assumptions could significantly affect these expected amounts. The following table provides expected benefit payments under our pension and postretirement plans:

	Pension Benefits	Postretirement Benefits
2019	\$ 5,399	\$ 1,637
2020	4,835	1,633
2021	4,750	1,582
2022	4,642	1,515
2023	4,508	1,463
Years 2024 - 2028	21,320	6,358

Supplemental Retirement Plans

We also provide certain senior- and middle-management employees with nonqualified, unfunded supplemental retirement and savings plans. While these plans are unfunded, we have assets in a designated non-bankruptcy remote trust that are independently managed and used to provide for certain of these benefits. These plans include supplemental pension benefits as well as compensation-deferral plans, some of which include a corresponding match by us based on a percentage of the compensation deferral. For our supplemental retirement plans, the projected benefit obligation was \$2,397 and the net supplemental retirement pension credit was \$53 at and for the year ended December 31, 2018. The projected benefit obligation was \$2,344 and the net supplemental retirement pension cost was \$215 at and for the year ended December 31, 2017.

We use the same significant assumptions for the composite rate of compensation increase in determining our projected benefit obligation and the net pension and postemployment benefit cost. Our discount rates of 4.40% at December 31, 2018 and 3.70% at December 31, 2017 were calculated using the same methodologies used in calculating the discount rate for our qualified pension and postretirement benefit plans.

Deferred compensation expense was \$128 in 2018, \$138 in 2017 and \$148 in 2016.

Contributory Savings Plans

We maintain contributory savings plans that cover substantially all employees. Under the savings plans, we match in cash or company stock a stated percentage of eligible employee contributions, subject to a specified ceiling. There are no debt-financed shares held by the Employee Stock Ownership Plans, allocated or unallocated.

Our match of employee contributions to the savings plans is fulfilled with purchases of our stock on the open market or company cash. Benefit cost, which is based on the cost of shares or units allocated to participating employees' accounts or the cash contributed to participant accounts was \$724, \$703 and \$631 for the years ended December 31, 2018, 2017 and 2016. The increases in 2018 are attributable to our acquisition of Time Warner.

NOTE 15. SHARE-BASED PAYMENTS

Under our various plans, senior and other management employees and nonemployee directors have received nonvested stock and stock units. In conjunction with the acquisition of Time Warner, restricted stock units issued under Time Warner plans were converted to AT&T share units that will be distributed in the form of AT&T common stock and cash. The shares will vest over a period of one to four years in accordance with the terms of those plans. In addition, outstanding Time Warner stock options were converted to AT&T stock options that will vest within one year. We do not intend to issue any additional grants under the Time Warner Inc. plans. Future grants to eligible employees will be issued under AT&T plans.

We grant performance stock units, which are nonvested stock units, based upon our stock price at the date of grant and award them in the form of AT&T common stock and cash at the end of a three-year period, subject to the achievement of certain performance goals. We treat the cash settled portion of these awards as a liability. We grant forfeitable restricted stock and

Notes to Consolidated Financial Statements (continued)

Dollars in millions except per share amounts

stock units, which are valued at the market price of our common stock at the date of grant and predominantly vest over a four- or five-year period. We also grant other nonvested stock units and award them in cash at the end of a three-year period, subject to the achievement of certain market based conditions. As of December 31, 2018, we were authorized to issue up to approximately 313 million shares of common stock (in addition to shares that may be issued upon exercise of outstanding options or upon vesting of performance stock units or other nonvested stock units) to officers, employees and directors pursuant to these various plans.

We account for our share-based payment arrangements based on the fair value of the awards on their respective grant date, which may affect our ability to fully realize the value shown on our consolidated balance sheets of deferred tax assets associated with compensation expense. We record a valuation allowance when our future taxable income is not expected to be sufficient to recover the asset. Accordingly, there can be no assurance that the current stock price of our common shares will rise to levels sufficient to realize the entire tax benefit currently reflected on our consolidated balance sheets. However, to the extent we generate excess tax benefits (i.e., that additional tax benefits in excess of the deferred taxes associated with compensation expense previously recognized) the potential future impact on income would be reduced.

Our consolidated statements of income include the compensation cost recognized for those plans as operating expenses, as well as the associated tax benefits, which are reflected in the table below:

	2018	2017	2016
Performance stock units	\$ 301	\$ 395	\$ 480
Restricted stock and stock units	153	90	152
Other nonvested stock units	4	(5)	21
Stock options	5	-	-
Total	\$ 463	\$ 480	\$ 653
Income tax benefit	\$ 114	\$ 184	\$ 250

A summary of the status of our nonvested stock units as of December 31, 2018, and changes during the year then ended is presented as follows (shares in millions):

Nonvested Stock Units	Shares	Weighted-Average Grant-Date Fair Value
Nonvested at January 1, 2018	29	\$ 38.35
Granted	15	35.53
Issued in Time Warner acquisition	17	41.23
Vested	(20)	38.50
Forfeited	(2)	38.11
Nonvested at December 31, 2018	39	\$ 38.44

As of December 31, 2018, there was \$638 of total unrecognized compensation cost related to nonvested share-based payment arrangements granted. That cost is expected to be recognized over a weighted-average period of 2.08 years. The total fair value of shares vested during the year was \$766 for 2018, compared to \$473 for 2017 and \$614 for 2016.

It is our intent to satisfy share option exercises using our treasury stock. Cash received from stock option exercises was \$361 for 2018, \$33 for 2017 and \$179 for 2016.

NOTE 16. STOCKHOLDERS' EQUITY

Stock Repurchase Program From time to time, we repurchase shares of common stock for distribution through our employee benefit plans or in connection with certain acquisitions. Our Board of Directors approved authorizations in both March 2013 and 2014 that allow us to repurchase 300 million shares of our common stock under each program. For the year ended December 31, 2018, we had repurchased approximately 13 million shares for distribution through our employee benefit plans totaling \$419 under the authorizations. At December 31, 2018, we had approximately 376 million shares remaining from these authorizations. For the year ended December 31, 2017, we had repurchased approximately 7 million shares totaling \$279 under the authorizations.

Notes to Consolidated Financial Statements (continued)

Dollars in millions except per share amounts

To implement these authorizations, we used open market repurchase programs, relying on Rule 10b5-1 of the Securities Exchange Act of 1934 where feasible.

Dividend Declarations In December 2018, the Company declared an increase in its quarterly dividend to \$0.51 per share of common stock. In December 2017, the Company declared an increase in its quarterly dividend to \$0.50 per share of common stock.

Preferred Equity Interest We have issued 320 million Series A Cumulative Perpetual Preferred Membership Interests in Mobility II, representing all currently outstanding preferred equity interest, which pay cash distributions of \$560 per annum, subject to declaration. The terms of the preferred equity interest and related documents were modified in 2018 to simplify transferability and enhance marketability.

A holder of the preferred equity interest may put the preferred equity interest to Mobility II on or after the earliest of certain events or September 9, 2020. Mobility II may redeem the preferred equity interest upon a change in control of Mobility II or on or after September 9, 2022. When either options arise due to a passage of time, that option may be exercised only during certain periods.

The price at which a put option or a redemption option can be exercised is the greater of (1) the market value of the interest as of the last date of the quarter preceding the date of the exercise of a put or redemption option and (2) the sum of (a) twenty-five dollars (\$8,000 in the aggregate) plus (b) any accrued and unpaid distributions. The redemption price may be paid with cash, AT&T Inc. common stock, or a combination of cash and AT&T Inc. common stock, at Mobility II's sole election. In no event shall Mobility II be required to deliver more than 250 million shares of AT&T common stock to settle put and redemption options. We have the intent and ability to settle the preferred equity interest with cash. So long as the distributions are declared and paid, the terms of the preferred equity interest will not impose any limitations on cash movements between affiliates, or our ability to declare a dividend on or repurchase AT&T shares.

NOTE 17. SALES OF EQUIPMENT INSTALLMENT RECEIVABLES

We offer our customers the option to purchase certain wireless devices in installments over a specified period of time and, in many cases, once certain conditions are met, they may be eligible to trade in the original equipment for a new device and have the remaining unpaid balance paid or settled. As of December 31, 2018 and December 31, 2017, gross equipment installment receivables of \$5,994 and \$6,079 were included on our consolidated balance sheets, of which \$3,457 and \$3,340 are notes receivable that are included in "Accounts receivable - net."

In 2014, we entered into an uncommitted agreement pertaining to the sale of equipment installment receivables and related security with Citibank and various other relationship banks as purchasers (collectively, the Purchasers). Under this agreement, we transfer certain receivables to the Purchasers for cash and additional consideration upon settlement of the receivables, referred to as the deferred purchase price. Since 2014, we have made beneficial modifications to the agreement. During 2017, we modified the agreement and entered into a second uncommitted agreement with the Purchasers such that we receive more upfront cash consideration at the time the receivables are transferred to the Purchasers. Additionally, in the event a customer trades in a device prior to the end of the installment contract period, we agree to make a payment to the Purchasers equal to any outstanding remaining installment receivable balance. Accordingly, we record a guarantee obligation to the Purchasers for this estimated amount at the time the receivables are transferred. Under the terms of the agreement, we continue to bill and collect the payments from our customers on behalf of the Purchasers. As of December 31, 2018, total cash proceeds received, net of remittances (excluding amounts returned as deferred purchase price), were \$6,508.

Notes to Consolidated Financial Statements (continued)

Dollars in millions except per share amounts

The following table sets forth a summary of equipment installment receivables sold:

	2018	2017	2016
Gross receivables sold	\$ 9,391	\$ 8,058	\$ 7,629
Net receivables sold ¹	8,871	7,388	6,913
Cash proceeds received	7,488	5,623	4,574
Deferred purchase price recorded	1,578	2,077	2,368
Guarantee obligation recorded	361	215	-

¹ Receivables net of allowance, imputed interest and trade-in right guarantees.

The deferred purchase price and guarantee obligation are initially recorded at estimated fair value and subsequently carried at the lower of cost or net realizable value. The estimation of their fair values is based on remaining installment payments expected to be collected and the expected timing and value of device trade-ins. The estimated value of the device trade-ins considers prices offered to us by independent third parties that contemplate changes in value after the launch of a device model. The fair value measurements used for the deferred purchase price and the guarantee obligation are considered Level 3 under the Fair Value Measurement and Disclosure framework (see Note 12).

The following table shows the equipment installment receivables, previously sold to the Purchasers, which we repurchased in exchange for the associated deferred purchase price and cash:

	2018	2017	2016
Fair value of repurchased receivables	\$ 1,480	\$ 1,699	\$ 1,675
Carrying value of deferred purchase price	1,393	1,524	1,638
Gain (loss) on repurchases ¹	\$ 87	\$ 175	\$ 37

¹ These gains (losses) are included in "Selling, general and administrative" in the consolidated statements of income.

At December 31, 2018 and December 31, 2017, our deferred purchase price receivable was \$2,370 and \$2,749, respectively, of which \$1,448 and \$1,781 are included in "Other current assets" on our consolidated balance sheets, with the remainder in "Other Assets." The guarantee obligation at December 31, 2018 and December 31, 2017 was \$439 and \$203, respectively, of which \$196 and \$55 are included in "Accounts payable and accrued liabilities" on our consolidated balance sheets, with the remainder in "Other noncurrent liabilities." Our maximum exposure to loss as a result of selling these equipment installment receivables is limited to the total amount of our deferred purchase price and guarantee obligation.

The sales of equipment installment receivables did not have a material impact on our consolidated statements of income or to "Total Assets" reported on our consolidated balance sheets. We reflect cash receipts on owned equipment installment receivables as cash flows from operations in our consolidated statements of cash flows. With the retrospective adoption of ASU 2016-15 in 2018 (see Note 1), cash receipts on the deferred purchase price are now classified as cash flows from investing activities instead of cash flows from operating activities for all periods presented.

The outstanding portfolio of installment receivables derecognized from our consolidated balance sheets, but which we continue to service, was \$9,065 and \$7,446 at December 31, 2018 and December 31, 2017.

NOTE 18. TOWER TRANSACTION

In December 2013, we closed our transaction with Crown Castle International Corp. (Crown Castle) in which Crown Castle gained the exclusive rights to lease and operate 9,048 wireless towers and purchased 627 of our wireless towers for \$4,827 in cash. The leases have various terms with an average length of approximately 28 years. As the leases expire, Crown Castle will have fixed price purchase options for these towers totaling approximately \$4,200, based on their estimated fair market values at the end of the lease terms. We sublease space on the towers from Crown Castle for an initial term of ten years at current market rates, subject to optional renewals in the future.

We determined our continuing involvement with the tower assets prevented us from achieving sale-leaseback accounting for the transaction, and we accounted for the cash proceeds from Crown Castle as a financing obligation on our consolidated balance sheets. We record interest on the financing obligation using the effective interest method at a rate of approximately 3.9%. The financing obligation is increased by interest expense and estimated future net cash flows generated and retained by Crown Castle from operation of the tower sites, and reduced by our contractual payments. We continue to include the tower assets in "Property, plant and equipment" on our consolidated balance sheets and depreciate them accordingly. At December

Notes to Consolidated Financial Statements (continued)

Dollars in millions except per share amounts

31, 2018 and 2017, the tower assets had a balance of \$843 and \$882, respectively. Our depreciation expense for these assets was \$39 for each of 2018, 2017 and 2016.

Payments made to Crown Castle under this arrangement were \$239 for 2018. At December 31, 2018, the future minimum payments under the sublease arrangement are \$244 for 2019, \$248 for 2020, \$253 for 2021, \$258 for 2022, \$264 for 2023 and \$1,530 thereafter.

NOTE 19. FIRSTNET

In March 2017, the First Responder Network Authority (FirstNet) announced its selection of AT&T to build and manage the first nationwide broadband network dedicated to America's first responders. All 56 jurisdictions, including 50 states, the District of Columbia and five U.S. territories, elected to participate in the network. Under the awarded 25-year agreement, FirstNet provided 20 MHz of valuable telecommunications spectrum and will provide success-based payments of \$6,500 over the first five years to support network buildout. The spectrum provides priority use to first responders, which are included as wireless subscribers and contribute to our wireless revenues. As allowed under the agreement, excess capacity on the spectrum is used for any of AT&T's subscriber base.

Under the agreement, we are required to construct a network that achieves coverage and nationwide interoperability requirements. We have a contractual commitment to make sustainability payments of \$18,000 over the 25-year contract. These sustainability payments represent our commitment to fund FirstNet's operating expenses and future reinvestments in the network which we will own and operate. FirstNet has a statutory requirement to reinvest funds that exceed the agency's operating expenses, which are anticipated to be in the \$75-\$100 range annually, and when including increases for inflation, we expect to be in the \$3,000 or less range over the life of the 25-year contract. Being subject to federal acquisition rules, FirstNet is prohibited from contractually committing to a specific vendor for future network reinvestment. However, it is highly probable that AT&T will receive substantially all of the funds reinvested into the network since AT&T will own and operate the infrastructure and have exclusive rights to use the spectrum as all states have opted in. After FirstNet's operating expenses are paid, we anticipate that the remaining amount, expected to be in the \$15,000 range, will be reinvested into the network.

As of December 31, 2018, we have submitted \$240 in sustainability payments, with future payments under the agreement of \$120 for 2019, 2020, and 2021; \$195 for 2022 and 2023; and \$17,010 thereafter. Amounts paid to FirstNet which are not expected to be returned to AT&T to be reinvested into our network will be expensed in the period paid. In the event FirstNet does not reinvest any funds to construct, operate, improve and maintain this network, our maximum exposure to loss is the total amount of the sustainability payments, which would be reflected in higher expense.

The \$6,500 of initial funding from FirstNet is contingent on the achievement of six operating capability milestones and certain first responder subscriber adoption targets. These milestones are based on coverage objectives of the first responder network during the construction period, which is expected to be over five years, and subscriber adoption targets. Funding payments to be received from FirstNet are reflected as a reduction from the costs capitalized in the construction of the network and, as appropriate, a reduction of associated operating expenses.

As of December 31, 2018, we have completed certain task orders related to the construction of the network and have collected \$1,998 to date from FirstNet. We have reflected these amounts as a reduction to the costs incurred to complete the task orders. We anticipate collecting the remainder of the \$6,500 from FirstNet as we achieve milestones set out by FirstNet over the next four years.

NOTE 20. CONTINGENT LIABILITIES

We are party to numerous lawsuits, regulatory proceedings and other matters arising in the ordinary course of business. In evaluating these matters on an ongoing basis, we take into account amounts already accrued on the balance sheet. In our opinion, although the outcomes of these proceedings are uncertain, they should not have a material adverse effect on our financial position, results of operations or cash flows.

We have contractual obligations to purchase certain goods or services from various other parties. Our purchase obligations are expected to be approximately \$16,172 in 2019, \$18,687 in total for 2020 and 2021, \$10,310 in total for 2022 and 2023 and \$18,492 in total for years thereafter.

See Note 12 for a discussion of collateral and credit-risk contingencies.

Notes to Consolidated Financial Statements (continued)

Dollars in millions except per share amounts

NOTE 21. ADDITIONAL FINANCIAL INFORMATION

Consolidated Balance Sheets	December 31,	
	2018	2017
Current customer fulfillment costs (included in Other current assets)	\$ 4,090	\$ 3,877
Accounts payable and accrued liabilities:		
Accounts payable ¹	\$ 27,018	\$ 24,439
Accrued payroll and commissions	3,379	2,284
Current portion of employee benefit obligation	1,464	1,585
Accrued interest	2,557	2,661
Other	8,766	3,501
Total accounts payable and accrued liabilities	\$ 43,184	\$ 34,470

¹ December 31, 2018 and 2017 balances include payables of \$1,984 and \$927 under our vendor financing program and \$1,855 and \$39 of other supplier financing, respectively.

Consolidated Statements of Income	2018	2017	2016
Advertising expense	\$ 5,100	\$ 3,772	\$ 3,768
Interest expense incurred	\$ 8,450	\$ 7,203	\$ 5,802
Capitalized interest	(493)	(903)	(892)
Total interest expense	\$ 7,957	\$ 6,300	\$ 4,910

Cash and Cash Flows We typically maintain our restricted cash balances for purchases and sales of certain investment securities and funding of certain deferred compensation benefit payments. The following tables summarize cash and cash equivalents and restricted cash balances contained on our consolidated balance sheets, as well as cash paid during the periods for interest and income taxes:

Cash and Cash Equivalents and Restricted Cash	December 31,			
	2018	2017	2016	2015
Cash and cash equivalents	\$ 5,204	\$ 50,498	\$ 5,788	\$ 5,121
Restricted cash in Other current assets	61	6	7	5
Restricted cash in Other Assets	135	428	140	147
Cash and cash equivalents and restricted cash	\$ 5,400	\$ 50,932	\$ 5,935	\$ 5,273

Consolidated Statements of Cash Flows	2018	2017	2016
Cash paid during the year for:			
Interest	\$ 8,818	\$ 6,622	\$ 5,696
Income taxes, net of refunds	(354)	2,006	3,721

Noncash Investing and Financing Activities In 2018, we recorded approximately \$2,162 of new vendor financing commitments related to capital investments. In connection with capital improvements, we negotiate favorable payment terms (referred to as vendor financing), which are excluded from our investing activities and reported as financing activities.

Labor Contracts As of January 31, 2019, we employed approximately 268,000 persons. Approximately 40% of our employees are represented by the Communications Workers of America (CWA), the International Brotherhood of Electrical Workers (IBEW) or other unions. After expiration of the agreements, work stoppages or labor disruptions may occur in the absence of new contracts or other agreements being reached. A contract now covering approximately 8,300 traditional wireline employees in our Midwest region expired in April 2018 and employees are working under the terms of the prior contract, including benefits, while negotiations continue. In addition, a contract now covering approximately 3,300 traditional wireline employees in our legacy AT&T Corp. business also expired in April 2018. Those employees are working under the terms of their prior contract, including benefits, while negotiations continue. Other contracts covering approximately 26,000 employees are scheduled to expire during 2019.

Notes to Consolidated Financial Statements (continued)

Dollars in millions except per share amounts

NOTE 22. QUARTERLY FINANCIAL INFORMATION (UNAUDITED)

The following tables represent our quarterly financial results:

	2018 Calendar Quarter				
	First ¹	Second ¹	Third	Fourth ¹	Annual
Total Operating Revenues	\$ 38,038	\$ 38,986	\$ 45,739	\$ 47,993	\$ 170,756
Operating Income	6,201	6,466	7,269	6,160	26,096
Net Income	4,759	5,248	4,816	5,130	19,953
Net Income Attributable to AT&T	4,662	5,132	4,718	4,858	19,370
Basic Earnings Per Share					
Attributable to AT&T ²	\$ 0.75	\$ 0.81	\$ 0.65	\$ 0.66	\$ 2.85
Diluted Earnings Per Share					
Attributable to AT&T ²	\$ 0.75	\$ 0.81	\$ 0.65	\$ 0.66	\$ 2.85
Stock Price					
High	\$ 39.29	\$ 36.39	\$ 34.28	\$ 34.30	
Low	34.44	31.17	30.13	26.80	
Close	35.65	32.11	33.58	28.54	

¹ Includes actuarial gains and losses on pension and postretirement benefit plans (Note 14).² Quarterly earnings per share impacts may not add to full-year earnings per share impacts due to the difference in weighted-average common shares for the quarters versus the weighted-average common shares for the year.

	2017 Calendar Quarter				
	First	Second ¹	Third	Fourth ^{1, 2}	Annual
Total Operating Revenues	\$ 39,365	\$ 39,837	\$ 39,668	\$ 41,676	\$ 160,546
Operating Income	6,356	6,526	5,807	1,281	19,970
Net Income	3,574	4,014	3,123	19,136	29,847
Net Income Attributable to AT&T	3,469	3,915	3,029	19,037	29,450
Basic Earnings Per Share					
Attributable to AT&T ³	\$ 0.56	\$ 0.63	\$ 0.49	\$ 3.08	\$ 4.77
Diluted Earnings Per Share					
Attributable to AT&T ³	\$ 0.56	\$ 0.63	\$ 0.49	\$ 3.08	\$ 4.76
Stock Price					
High	\$ 43.02	\$ 41.69	\$ 39.41	\$ 39.51	
Low	40.61	37.46	35.59	32.86	
Close	41.55	37.73	39.17	38.88	

¹ Includes actuarial gains and losses on pension and postretirement benefit plans (Note 14).² Includes an asset abandonment charge (Note 7) and the impact of federal corporate income tax reform (Note 13).³ Quarterly earnings per share impacts may not add to full-year earnings per share impacts due to the difference in weighted-average common shares for the quarters versus the weighted-average common shares for the year.

Report of Management

The consolidated financial statements have been prepared in conformity with U.S. generally accepted accounting principles. The integrity and objectivity of the data in these financial statements, including estimates and judgments relating to matters not concluded by year end, are the responsibility of management, as is all other information included in the Annual Report, unless otherwise indicated.

The financial statements of AT&T Inc. (AT&T) have been audited by Ernst & Young LLP, Independent Registered Public Accounting Firm. Management has made available to Ernst & Young LLP all of AT&T's financial records and related data, as well as the minutes of stockholders' and directors' meetings. Furthermore, management believes that all representations made to Ernst & Young LLP during its audit were valid and appropriate.

Management maintains disclosure controls and procedures that are designed to ensure that information required to be disclosed by AT&T is recorded, processed, summarized, accumulated and communicated to its management, including its principal executive and principal financial officers, to allow timely decisions regarding required disclosure, and reported within the time periods specified by the Securities and Exchange Commission's rules and forms.

Management also seeks to ensure the objectivity and integrity of its financial data by the careful selection of its managers, by organizational arrangements that provide an appropriate division of responsibility and by communication programs aimed at ensuring that its policies, standards and managerial authorities are understood throughout the organization.

The Audit Committee of the Board of Directors meets periodically with management, the internal auditors and the independent auditors to review the manner in which they are performing their respective responsibilities and to discuss auditing, internal accounting controls and financial reporting matters. Both the internal auditors and the independent auditors periodically meet alone with the Audit Committee and have access to the Audit Committee at any time.

Assessment of Internal Control

The management of AT&T is responsible for establishing and maintaining adequate internal control over financial reporting, as defined in Rule 13a-15(f) or 15d-15(f) under the Securities Exchange Act of 1934. AT&T's internal control system was designed to provide reasonable assurance to the company's management and Board of Directors regarding the preparation and fair presentation of published financial statements.

AT&T management assessed the effectiveness of the company's internal control over financial reporting as of December 31, 2018. In making this assessment, it used the criteria set forth by the Committee of Sponsoring Organizations of the Treadway Commission (COSO) in *Internal Control – Integrated Framework* (2013 framework). We have excluded from the scope of our assessment of internal control over financial reporting the operations and related assets of Warner Media, LLC (formerly Time Warner Inc. and referred to as "Warner Media") which we acquired in 2018. At December 31, 2018 and for the period from acquisition through December 31, 2018, total assets and operating revenues subject to Warner Media's internal control over financial reporting represented 24.1% and 9.7% of AT&T's consolidated total assets and total revenues as of and for the year ended December 31, 2018. Based on its assessment, AT&T management believes that, as of December 31, 2018, the company's internal control over financial reporting is effective based on those criteria.

Ernst & Young LLP, the independent registered public accounting firm that audited the financial statements included in this Annual Report, has issued an attestation report on the company's internal control over financial reporting.

/s/ Randall Stephenson

Randall Stephenson
Chairman of the Board,
Chief Executive Officer and President

/s/ John J. Stephens

John J. Stephens
Senior Executive Vice President and
Chief Financial Officer

Report of Independent Registered Public Accounting Firm

To the Stockholders and the Board of Directors of AT&T Inc.

Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheets of AT&T Inc. (the Company) as of December 31, 2018 and 2017, the related consolidated statements of income, comprehensive income, cash flows and changes in stockholders' equity for each of the three years in the period ended December 31, 2018, and the related notes (collectively referred to as the "consolidated financial statements"). In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of the Company at December 31, 2018 and 2017, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2018, in conformity with U.S. generally accepted accounting principles.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the Company's internal control over financial reporting as of December 31, 2018, based on criteria established in Internal Control—Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework) and our report dated February 20, 2019 expressed an unqualified opinion thereon.

Adoption of Accounting Standards Updates

As discussed in Note 1 to the consolidated financial statements, effective January 1, 2018, the Company changed its method for recognizing revenue as a result of the modified retrospective adoption of Accounting Standards Update (ASU) No. 2014-09, *Revenue from Contracts with Customers (Topic 606)*, as amended. Additionally, effective January 1, 2018, the Company adopted certain other ASUs requiring retrospective application. Specifically, the Company (i) changed the presentation of certain components of its net periodic benefit costs in the consolidated statements of income as a result of the adoption of ASU No. 2017-07, *Compensation – Retirement Benefits (Topic 715): Improving the Presentation of Net Periodic Pension Cost and Net Periodic Postretirement Benefit Cost*, (ii) changed the classification of certain cash receipts in the statements of cash flows as a result of the adoption of ASU No. 2016-15, *Statement of Cash Flows (Topic 230): Classification of Certain Cash Receipts and Cash Payments*, and (iii) included restricted cash in the reconciliation of beginning and ending cash and cash equivalents in the statements of cash flows as a result of the adoption of ASU No. 2016-18, *Statement of Cash Flows (Topic 230): Restricted Cash*.

Basis for Opinion

These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on the Company's financial statements based on our audits. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud. Our audits included performing procedures to assess the risks of material misstatement of the financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the financial statements. We believe that our audits provide a reasonable basis for our opinion.

/s/ Ernst & Young LLP

We have served as the Company's auditor since 1999.

Dallas, Texas
February 20, 2019

Report of Independent Registered Public Accounting Firm

To the Stockholders and the Board of Directors of AT&T Inc.

Opinion on Internal Control over Financial Reporting

We have audited AT&T Inc.'s internal control over financial reporting as of December 31, 2018, based on criteria established in Internal Control—Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework) (the COSO criteria). In our opinion, AT&T Inc. (the Company) maintained, in all material respects, effective internal control over financial reporting as of December 31, 2018, based on the COSO criteria.

As indicated in the accompanying Report of Management, management's assessment of and conclusion on the effectiveness of internal control over financial reporting did not include the internal controls of Warner Media, LLC (formerly Time Warner Inc. and referred to as "Warner Media"), which is included in the 2018 consolidated financial statements of the Company and constituted 24.1% of total assets as of December 31, 2018 and 9.7% of operating revenues for the year then ended. Our audit of internal control over financial reporting of the Company also did not include an evaluation of the internal control over financial reporting of Warner Media.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the 2018 consolidated financial statements of the Company and our report dated February 20, 2019 expressed an unqualified opinion thereon.

Basis for Opinion

The Company's management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting included in the accompanying Report of Management. Our responsibility is to express an opinion on the Company's internal control over financial reporting based on our audit. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audit in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects.

Our audit included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, testing and evaluating the design and operating effectiveness of internal control based on the assessed risk, and performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

Definition and Limitations of Internal Control Over Financial Reporting

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

/s/ Ernst & Young LLP

Dallas, Texas
February 20, 2019

PRINCIPAL SUBSIDIARIES OF
AT&T INC., AS OF DECEMBER 31, 2018
2018 AT&T INC. REPORT TO STOCKHOLDERS
SECURITIES AND EXCHANGE COMMISSION (“SEC”)
FORM 10-K filed February 20, 2019

<u>Legal Name</u>	<u>State of Incorporation/Formation</u>	<u>Conducts Business Under</u>
Illinois Bell Telephone Company, LLC	Illinois	AT&T Illinois; AT&T Wholesale
Indiana Bell Telephone Company, Incorporated	Indiana	AT&T Indiana; AT&T Wholesale
Michigan Bell Telephone Company	Michigan	AT&T Michigan; AT&T Wholesale
Nevada Bell Telephone Company	Nevada	AT&T Nevada; AT&T Wholesale
Pacific Bell Telephone Company	California	AT&T California; AT&T Wholesale; AT&T DataComm
SBC Long Distance, LLC	Delaware	AT&T Long Distance
AT&T Teleholdings, Inc.	Delaware	AT&T Midwest; AT&T West; AT&T East
Southwestern Bell Telephone Company	Delaware	AT&T Arkansas; AT&T Kansas; AT&T Missouri; AT&T Oklahoma; AT&T Texas; AT&T Southwest; AT&T DataComm; AT&T Wholesale
The Ohio Bell Telephone Company	Ohio	AT&T Ohio; AT&T Wholesale
Wisconsin Bell, Inc.	Wisconsin	AT&T Wisconsin; AT&T Wholesale
AT&T Corp.	New York	AT&T Corp.; ACC Business; AT&T Wholesale; AT&T Business Solutions; AT&T Advanced Solutions; AT&T Diversified Group; AT&T Mobile and Business Solutions
Teleport Communications America, LLC	Delaware	same

BellSouth, LLC	Georgia	AT&T South
BellSouth Telecommunications, LLC	Georgia	AT&T Alabama AT&T Florida AT&T Georgia AT&T Kentucky AT&T Louisiana AT&T Mississippi AT&T North Carolina AT&T South Carolina AT&T Tennessee AT&T Southeast
AT&T Mobility LLC	Delaware	same
AT&T Mobility II LLC	Delaware	same
New Cingular Wireless PCS, LLC	Delaware	AT&T Mobility
Cricket Wireless LLC	Delaware	same
AT&T Communications, LLC	Delaware	same
AT&T Latin America, LLC	Delaware	same
AppNexus Inc.	Delaware	same
Vrio Corp.	Delaware	same
AT&T Comunicaciones Digitales, S. de R.L. de C.V.	Mexico City	same
DIRECTV, LLC	California	same
DIRECTV Enterprises, LLC	Delaware	same
DIRECTV Latin America, LLC	Delaware	same
Sky Serviços de Banda Larga Ltda.	Brazil	Sky Brasil
DIRECTV Colombia Ltda.	Colombia	same
DIRECTV Argentina S.A.	Argentina	same
Otter Media Holdings, LLC	Delaware	same
Warner Media, LLC	Delaware	same
Home Box Office, Inc.	Delaware	HBO Global Licensing
Turner Broadcasting System, Inc.	Georgia	Turner
Warner Bros. Entertainment Inc.	Delaware	Warner-Grandview Music Warner Bros.

Warner Bros. International Film Acquisitions
Warner Bros. International Cinemas
Warner Bros. Entertainment Group

Historic TW Inc.	Delaware	same
Warner Communications LLC	Delaware	same

Consent of Independent Registered Public Accounting Firm and Report on Schedule

We consent to the incorporation by reference in the following Registration Statements:

- (1) Registration Statement (Form S-8 No. 333-34062) pertaining to the Stock Savings Plan,
- (2) Registration Statement (Form S-3 No. 333-209718) of AT&T and the related Prospectuses, Registration Statement (Form S-8 No. 333-135517) pertaining to the AT&T 2006 Incentive Plan,
- (3) Registration Statement (Form S-8 No. 333-141864) pertaining to the AT&T Savings Plan and certain other plans,
- (4) Registration Statement (Form S-8 No. 333-139749) pertaining to the BellSouth Retirement Savings Plan and certain other BellSouth plans,
- (5) Registration Statement (Form S-8 No. 333-152822) pertaining to the AT&T Non-Employee Director Stock Purchase Plan,
- (6) Registration Statement (Form S-8 No. 333-173079) pertaining to the AT&T 2011 Incentive Plan,
- (7) Registration Statement (Form S-8 No. 333-227285) pertaining to the AT&T Stock Purchase and Deferral Plan and Cash Deferral Plan,
- (8) Registration Statement (Form S-8 No. 333-189789) pertaining to the AT&T Savings and Security Plan, the AT&T Puerto Rico Retirement Savings Plan, the AT&T Retirement Savings Plan, and the BellSouth Savings and Security Plan,
- (9) Registration Statement (Form S-8 No. 333-205868) pertaining to the DIRECTV 2010 Stock Plan, the DIRECTV 401(k) Savings Plan, and the Liberty Entertainment, Inc. Transitional Stock Adjustment Plan,
- (10) Registration Statement (Form S-8 No. 333-211303) pertaining to the 2016 Incentive Plan,
- (11) Registration Statement (Form S-8 No. 333-224980) pertaining to the 2018 Incentive Plan, and
- (12) Registration Statement (Form S-8 No. 333-225671) pertaining to the Time Warner Inc. 1999 Stock Plan, the Time Warner Inc. 2003 Stock Incentive Plan, the Time Warner Inc. 2006 Stock Incentive Plan, the Time Warner Inc. 2010 Stock Incentive Plan, the Time Warner Inc. 2013 Stock Incentive Plan, and the Time Warner Savings Plan;

of our reports dated February 20, 2019, with respect to the consolidated financial statements of AT&T Inc. and the effectiveness of internal control over financial reporting of AT&T incorporated by reference in this Annual Report (Form 10-K) of AT&T Inc. for the year ended December 31, 2018.

Report on Schedule

To the Stockholders and the Board of Directors of AT&T Inc.

We have audited the consolidated financial statements of AT&T Inc. (the Company) as of December 31, 2018 and 2017, and for each of the three years in the period ended December 31, 2018, and have issued our report thereon dated February 20, 2019 incorporated by reference in this Annual Report (Form 10-K) of AT&T Inc. from the 2018 Annual Report to Stockholders of AT&T Inc. Our audits of the consolidated financial statements included the financial statement schedule listed in Item 15(a) of this Annual Report (Form 10-K) (the “schedule”). This schedule is the responsibility of the Company’s management. Our responsibility is to express an opinion on the Company’s schedule based on our audits.

In our opinion, the schedule presents fairly, in all material respects, the information set forth therein when considered in conjunction with the consolidated financial statements.

/s/ Ernst & Young LLP

Dallas, Texas
February 20, 2019

POWER OF ATTORNEY

KNOW ALL MEN BY THESE PRESENTS:

THAT, AT&T INC., a Delaware corporation, hereinafter referred to as the "Corporation," proposes to file with the Securities and Exchange Commission at Washington, D.C., under the provisions of the Securities Exchange Act of 1934, as amended, an annual report on Form 10-K; and

NOW, THEREFORE, each of the undersigned hereby constitutes and appoints George B. Goeke, David R. McAtee II, John J. Stephens, Debra L. Dial, or any one of them, all of the City of Dallas and State of Texas, the attorneys for the undersigned and in the undersigned's name, place and stead, and in the undersigned's office and capacity in the Corporation, to execute and file such annual report, and thereafter to execute and file any amendment or amendments thereto, hereby giving and granting to said attorneys full power and authority to do and perform each and every act and thing whatsoever requisite and necessary to be done in and concerning the premises, as fully to all intents and purposes as the undersigned might or could do if personally present at the doing thereof, hereby ratifying and confirming all that said attorneys may or shall lawfully do, or cause to be done, by virtue hereof.

IN WITNESS WHEREOF, each of the undersigned has hereunto set his or her hand the date set forth opposite their name.

February 1, 2019

Date

/s/ Randall L. Stephenson

Randall L. Stephenson
Chairman of the Board, Chief Executive Officer
and President

POWER OF ATTORNEY

KNOW ALL MEN BY THESE PRESENTS:

THAT, AT&T INC., a Delaware corporation, hereinafter referred to as the "Corporation," proposes to file with the Securities and Exchange Commission at Washington, D.C., under the provisions of the Securities Exchange Act of 1934, as amended, an annual report on Form 10-K; and

NOW, THEREFORE, each of the undersigned hereby constitutes and appoints Randall L. Stephenson, George B. Goeke, David R. McAtee II, John J. Stephens, Debra L. Dial, or any one of them, all of the City of Dallas and State of Texas, the attorneys for the undersigned and in the undersigned's name, place and stead, and in the undersigned's office and capacity in the Corporation, to execute and file such annual report, and thereafter to execute and file any amendment or amendments thereto, hereby giving and granting to said attorneys full power and authority to do and perform each and every act and thing whatsoever requisite and necessary to be done in and concerning the premises, as fully to all intents and purposes as the undersigned might or could do if personally present at the doing thereof, hereby ratifying and confirming all that said attorneys may or shall lawfully do, or cause to be done, by virtue hereof.

IN WITNESS WHEREOF, each of the undersigned has hereunto set his or her hand the date set forth opposite their name.

February 1, 2019

Date

/s/ Samuel A. Di Piazza, Jr.

Samuel A. Di Piazza, Jr.
Director

POWER OF ATTORNEY

KNOW ALL MEN BY THESE PRESENTS:

THAT, AT&T INC., a Delaware corporation, hereinafter referred to as the "Corporation," proposes to file with the Securities and Exchange Commission at Washington, D.C., under the provisions of the Securities Exchange Act of 1934, as amended, an annual report on Form 10-K; and

NOW, THEREFORE, each of the undersigned hereby constitutes and appoints Randall L. Stephenson, George B. Goeke, David R. McAtee II, John J. Stephens, Debra L. Dial, or any one of them, all of the City of Dallas and State of Texas, the attorneys for the undersigned and in the undersigned's name, place and stead, and in the undersigned's office and capacity in the Corporation, to execute and file such annual report, and thereafter to execute and file any amendment or amendments thereto, hereby giving and granting to said attorneys full power and authority to do and perform each and every act and thing whatsoever requisite and necessary to be done in and concerning the premises, as fully to all intents and purposes as the undersigned might or could do if personally present at the doing thereof, hereby ratifying and confirming all that said attorneys may or shall lawfully do, or cause to be done, by virtue hereof.

IN WITNESS WHEREOF, each of the undersigned has hereunto set his or her hand the date set forth opposite their name.

February 1, 2019

Date

/s/ Richard W. Fisher

Richard W. Fisher
Director

POWER OF ATTORNEY

KNOW ALL MEN BY THESE PRESENTS:

THAT, AT&T INC., a Delaware corporation, hereinafter referred to as the "Corporation," proposes to file with the Securities and Exchange Commission at Washington, D.C., under the provisions of the Securities Exchange Act of 1934, as amended, an annual report on Form 10-K; and

NOW, THEREFORE, each of the undersigned hereby constitutes and appoints Randall L. Stephenson, George B. Goeke, David R. McAtee II, John J. Stephens, Debra L. Dial, or any one of them, all of the City of Dallas and State of Texas, the attorneys for the undersigned and in the undersigned's name, place and stead, and in the undersigned's office and capacity in the Corporation, to execute and file such annual report, and thereafter to execute and file any amendment or amendments thereto, hereby giving and granting to said attorneys full power and authority to do and perform each and every act and thing whatsoever requisite and necessary to be done in and concerning the premises, as fully to all intents and purposes as the undersigned might or could do if personally present at the doing thereof, hereby ratifying and confirming all that said attorneys may or shall lawfully do, or cause to be done, by virtue hereof.

IN WITNESS WHEREOF, each of the undersigned has hereunto set his or her hand the date set forth opposite their name.

February 1, 2019

Date

/s/ Scott T. Ford

Scott T. Ford
Director

POWER OF ATTORNEY

KNOW ALL MEN BY THESE PRESENTS:

THAT, AT&T INC., a Delaware corporation, hereinafter referred to as the "Corporation," proposes to file with the Securities and Exchange Commission at Washington, D.C., under the provisions of the Securities Exchange Act of 1934, as amended, an annual report on Form 10-K; and

NOW, THEREFORE, each of the undersigned hereby constitutes and appoints Randall L. Stephenson, George B. Goeke, David R. McAtee II, John J. Stephens, Debra L. Dial, or any one of them, all of the City of Dallas and State of Texas, the attorneys for the undersigned and in the undersigned's name, place and stead, and in the undersigned's office and capacity in the Corporation, to execute and file such annual report, and thereafter to execute and file any amendment or amendments thereto, hereby giving and granting to said attorneys full power and authority to do and perform each and every act and thing whatsoever requisite and necessary to be done in and concerning the premises, as fully to all intents and purposes as the undersigned might or could do if personally present at the doing thereof, hereby ratifying and confirming all that said attorneys may or shall lawfully do, or cause to be done, by virtue hereof.

IN WITNESS WHEREOF, each of the undersigned has hereunto set his or her hand the date set forth opposite their name.

February 1, 2019

Date

/s/ Glenn H. Hutchins

Glenn H. Hutchins
Director

POWER OF ATTORNEY

KNOW ALL MEN BY THESE PRESENTS:

THAT, AT&T INC., a Delaware corporation, hereinafter referred to as the "Corporation," proposes to file with the Securities and Exchange Commission at Washington, D.C., under the provisions of the Securities Exchange Act of 1934, as amended, an annual report on Form 10-K; and

NOW, THEREFORE, each of the undersigned hereby constitutes and appoints Randall L. Stephenson, George B. Goeke, David R. McAtee II, John J. Stephens, Debra L. Dial, or any one of them, all of the City of Dallas and State of Texas, the attorneys for the undersigned and in the undersigned's name, place and stead, and in the undersigned's office and capacity in the Corporation, to execute and file such annual report, and thereafter to execute and file any amendment or amendments thereto, hereby giving and granting to said attorneys full power and authority to do and perform each and every act and thing whatsoever requisite and necessary to be done in and concerning the premises, as fully to all intents and purposes as the undersigned might or could do if personally present at the doing thereof, hereby ratifying and confirming all that said attorneys may or shall lawfully do, or cause to be done, by virtue hereof.

IN WITNESS WHEREOF, each of the undersigned has hereunto set his or her hand the date set forth opposite their name.

February 1, 2019

Date

/s/ William E. Kennard

William E. Kennard
Director

POWER OF ATTORNEY

KNOW ALL MEN BY THESE PRESENTS:

THAT, AT&T INC., a Delaware corporation, hereinafter referred to as the "Corporation," proposes to file with the Securities and Exchange Commission at Washington, D.C., under the provisions of the Securities Exchange Act of 1934, as amended, an annual report on Form 10-K; and

NOW, THEREFORE, each of the undersigned hereby constitutes and appoints Randall L. Stephenson, George B. Goeke, David R. McAtee II, John J. Stephens, Debra L. Dial, or any one of them, all of the City of Dallas and State of Texas, the attorneys for the undersigned and in the undersigned's name, place and stead, and in the undersigned's office and capacity in the Corporation, to execute and file such annual report, and thereafter to execute and file any amendment or amendments thereto, hereby giving and granting to said attorneys full power and authority to do and perform each and every act and thing whatsoever requisite and necessary to be done in and concerning the premises, as fully to all intents and purposes as the undersigned might or could do if personally present at the doing thereof, hereby ratifying and confirming all that said attorneys may or shall lawfully do, or cause to be done, by virtue hereof.

IN WITNESS WHEREOF, each of the undersigned has hereunto set his or her hand the date set forth opposite their name.

February 1, 2019

Date

/s/ Michael B. McCallister

Michael B. McCallister
Director

POWER OF ATTORNEY

KNOW ALL MEN BY THESE PRESENTS:

THAT, AT&T INC., a Delaware corporation, hereinafter referred to as the "Corporation," proposes to file with the Securities and Exchange Commission at Washington, D.C., under the provisions of the Securities Exchange Act of 1934, as amended, an annual report on Form 10-K; and

NOW, THEREFORE, each of the undersigned hereby constitutes and appoints Randall L. Stephenson, George B. Goeke, David R. McAtee II, John J. Stephens, Debra L. Dial, or any one of them, all of the City of Dallas and State of Texas, the attorneys for the undersigned and in the undersigned's name, place and stead, and in the undersigned's office and capacity in the Corporation, to execute and file such annual report, and thereafter to execute and file any amendment or amendments thereto, hereby giving and granting to said attorneys full power and authority to do and perform each and every act and thing whatsoever requisite and necessary to be done in and concerning the premises, as fully to all intents and purposes as the undersigned might or could do if personally present at the doing thereof, hereby ratifying and confirming all that said attorneys may or shall lawfully do, or cause to be done, by virtue hereof.

IN WITNESS WHEREOF, each of the undersigned has hereunto set his or her hand the date set forth opposite their name.

February 1, 2019

Date

/s/ Beth E. Mooney

Beth E. Mooney
Director

POWER OF ATTORNEY

KNOW ALL MEN BY THESE PRESENTS:

THAT, AT&T INC., a Delaware corporation, hereinafter referred to as the "Corporation," proposes to file with the Securities and Exchange Commission at Washington, D.C., under the provisions of the Securities Exchange Act of 1934, as amended, an annual report on Form 10-K; and

NOW, THEREFORE, each of the undersigned hereby constitutes and appoints Randall L. Stephenson, George B. Goeke, David R. McAtee II, John J. Stephens, Debra L. Dial, or any one of them, all of the City of Dallas and State of Texas, the attorneys for the undersigned and in the undersigned's name, place and stead, and in the undersigned's office and capacity in the Corporation, to execute and file such annual report, and thereafter to execute and file any amendment or amendments thereto, hereby giving and granting to said attorneys full power and authority to do and perform each and every act and thing whatsoever requisite and necessary to be done in and concerning the premises, as fully to all intents and purposes as the undersigned might or could do if personally present at the doing thereof, hereby ratifying and confirming all that said attorneys may or shall lawfully do, or cause to be done, by virtue hereof.

IN WITNESS WHEREOF, each of the undersigned has hereunto set his or her hand the date set forth opposite their name.

February 1, 2019

Date

/s/ Joyce M. Roché

Joyce M. Roché
Director

POWER OF ATTORNEY

KNOW ALL MEN BY THESE PRESENTS:

THAT, AT&T INC., a Delaware corporation, hereinafter referred to as the "Corporation," proposes to file with the Securities and Exchange Commission at Washington, D.C., under the provisions of the Securities Exchange Act of 1934, as amended, an annual report on Form 10-K; and

NOW, THEREFORE, each of the undersigned hereby constitutes and appoints Randall L. Stephenson, George B. Goeke, David R. McAtee II, John J. Stephens, Debra L. Dial, or any one of them, all of the City of Dallas and State of Texas, the attorneys for the undersigned and in the undersigned's name, place and stead, and in the undersigned's office and capacity in the Corporation, to execute and file such annual report, and thereafter to execute and file any amendment or amendments thereto, hereby giving and granting to said attorneys full power and authority to do and perform each and every act and thing whatsoever requisite and necessary to be done in and concerning the premises, as fully to all intents and purposes as the undersigned might or could do if personally present at the doing thereof, hereby ratifying and confirming all that said attorneys may or shall lawfully do, or cause to be done, by virtue hereof.

IN WITNESS WHEREOF, each of the undersigned has hereunto set his or her hand the date set forth opposite their name.

February 1, 2019

Date

/s/ Matthew K. Rose

Matthew K. Rose
Director

POWER OF ATTORNEY

KNOW ALL MEN BY THESE PRESENTS:

THAT, AT&T INC., a Delaware corporation, hereinafter referred to as the "Corporation," proposes to file with the Securities and Exchange Commission at Washington, D.C., under the provisions of the Securities Exchange Act of 1934, as amended, an annual report on Form 10-K; and

NOW, THEREFORE, each of the undersigned hereby constitutes and appoints Randall L. Stephenson, George B. Goeke, David R. McAtee II, John J. Stephens, Debra L. Dial, or any one of them, all of the City of Dallas and State of Texas, the attorneys for the undersigned and in the undersigned's name, place and stead, and in the undersigned's office and capacity in the Corporation, to execute and file such annual report, and thereafter to execute and file any amendment or amendments thereto, hereby giving and granting to said attorneys full power and authority to do and perform each and every act and thing whatsoever requisite and necessary to be done in and concerning the premises, as fully to all intents and purposes as the undersigned might or could do if personally present at the doing thereof, hereby ratifying and confirming all that said attorneys may or shall lawfully do, or cause to be done, by virtue hereof.

IN WITNESS WHEREOF, each of the undersigned has hereunto set his or her hand the date set forth opposite their name.

February 1, 2019

Date

/s/ Cynthia B. Taylor

Cynthia B. Taylor
Director

POWER OF ATTORNEY

KNOW ALL MEN BY THESE PRESENTS:

THAT, AT&T INC., a Delaware corporation, hereinafter referred to as the "Corporation," proposes to file with the Securities and Exchange Commission at Washington, D.C., under the provisions of the Securities Exchange Act of 1934, as amended, an annual report on Form 10-K; and

NOW, THEREFORE, each of the undersigned hereby constitutes and appoints Randall L. Stephenson, George B. Goeke, David R. McAtee II, John J. Stephens, Debra L. Dial, or any one of them, all of the City of Dallas and State of Texas, the attorneys for the undersigned and in the undersigned's name, place and stead, and in the undersigned's office and capacity in the Corporation, to execute and file such annual report, and thereafter to execute and file any amendment or amendments thereto, hereby giving and granting to said attorneys full power and authority to do and perform each and every act and thing whatsoever requisite and necessary to be done in and concerning the premises, as fully to all intents and purposes as the undersigned might or could do if personally present at the doing thereof, hereby ratifying and confirming all that said attorneys may or shall lawfully do, or cause to be done, by virtue hereof.

IN WITNESS WHEREOF, each of the undersigned has hereunto set his or her hand the date set forth opposite their name.

February 1, 2019

Date

/s/ Laura D'Andrea Tyson

Laura D'Andrea Tyson
Director

POWER OF ATTORNEY

KNOW ALL MEN BY THESE PRESENTS:

THAT, AT&T INC., a Delaware corporation, hereinafter referred to as the "Corporation," proposes to file with the Securities and Exchange Commission at Washington, D.C., under the provisions of the Securities Exchange Act of 1934, as amended, an annual report on Form 10-K; and

NOW, THEREFORE, each of the undersigned hereby constitutes and appoints Randall L. Stephenson, George B. Goeke, David R. McAtee II, John J. Stephens, Debra L. Dial, or any one of them, all of the City of Dallas and State of Texas, the attorneys for the undersigned and in the undersigned's name, place and stead, and in the undersigned's office and capacity in the Corporation, to execute and file such annual report, and thereafter to execute and file any amendment or amendments thereto, hereby giving and granting to said attorneys full power and authority to do and perform each and every act and thing whatsoever requisite and necessary to be done in and concerning the premises, as fully to all intents and purposes as the undersigned might or could do if personally present at the doing thereof, hereby ratifying and confirming all that said attorneys may or shall lawfully do, or cause to be done, by virtue hereof.

IN WITNESS WHEREOF, each of the undersigned has hereunto set his or her hand the date set forth opposite their name.

February 1, 2019

Date

/s/ Geoffrey Y. Yang

Geoffrey Y. Yang
Director

CERTIFICATION

I, Randall Stephenson, certify that:

1. I have reviewed this report on Form 10-K of AT&T Inc.;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: February 20, 2019

/s/ Randall Stephenson

Randall Stephenson

Chairman of the Board,

Chief Executive Officer and President

CERTIFICATION

I, John J. Stephens, certify that:

1. I have reviewed this report on Form 10-K of AT&T Inc.;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: February 20, 2019

/s/ John J. Stephens

John J. Stephens

Senior Executive Vice President
and Chief Financial Officer

Certification of Periodic Financial Reports

Pursuant to 18 U.S.C. Section 1350, each of the undersigned officers of AT&T Inc. (the “Company”) hereby certifies that the Company’s Annual Report on Form 10-K for the year ended December 31, 2018 (the “Report”) fully complies with the requirements of Section 13(a) or 15(d), as applicable, of the Securities Exchange Act of 1934 and that information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

February 20, 2019

February 20, 2019

By: /s/ Randall Stephenson

Randall Stephenson
Chairman of the Board, Chief Executive Officer
and President

By: /s/ John J. Stephens

John J. Stephens
Senior Executive Vice President
and Chief Financial Officer

The foregoing certification is being furnished solely pursuant to 18 U.S.C. Section 1350 and is not being filed as part of the Report or as a separate disclosure document. This certification shall not be deemed “filed” for purposes of Section 18 of the Securities Exchange Act of 1934 (“Exchange Act”) or otherwise subject to liability under that section. This certification shall not be deemed to be incorporated by reference into any filing under the Securities Act of 1933 or the Exchange Act except to the extent this Exhibit 32 is expressly and specifically incorporated by reference in any such filing.

A signed original of this written statement required by Section 906, or other document authenticating, acknowledging, or otherwise adopting the signature that appears in typed form within the electronic version of this written statement required by Section 906, has been provided to AT&T Inc. and will be retained by AT&T Inc. and furnished to the Securities and Exchange Commission or its staff upon request.